Agenda
City of Cocoa
Planning & Zoning Board / Local Planning Agency Regular Meeting

May 6, 2026
6:00 PM
65 Stone Street, Cocoa, FL 32922

I. Opening Matters:

1. Call to Order
2. Pledge of Allegiance
3. Roll Call

II. Approval of Agenda and Minutes:

1. Agenda: Regular Meeting of May 6, 2026.
2. Minutes: Regular Meeting of April 1, 2026.

III. Old Business:

IV. New Business:

1. 3600 Grissom Pkway Comp Plan Amendment (POSTPONED)
2. Sky Powersports Large Scale Site Plan (POSTPONED)
3. Review of new business directory and way finding signs in the Cocoa Village Business District.
4. Consideration of a plan to develop a low-impact development surface parking area on approximately 0.9 acres of City-owned property located at 216 and 218 Oleander Street in Cocoa to support public parking needs in Cocoa Village and the surrounding area. Planned improvements include approximately 80 parking spaces, of which 4 spaces are accessible, designated vehicle charging stations, decorative street lighting, street trees, sidewalks, decorative fencing, interior landscape areas, minimum 5-feet perimeter landscape buffers, minimum two-way aisle widths of 20-feet, pervious pavement, and related site enhancements. The project includes tax account numbers: 2425841, 2425949, 2461829, 2425950, 2425951, and 2425843.
5. Sanctuary at Cocoa Townhomes Site Plan, Plat, and DA
6. 603 Brevard Ave Hotel Development Agreement and Concept Plan

7. Cirrus PUD Amendment, Plat, DA and Site Plan Approval

V. Tree Board:

VI. Other Business:

VII. Next Meeting Date: Wednesday, June 3, 2026, at 6:00 pm at 65 Stone Street in Cocoa, FL

VIII. Adjournment:

General Notice Information:
This is a public meeting. Interested parties are hereby advised that they may appear at said meeting and be heard. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk of the City of Cocoa, listed below, at least 48 hours prior to the meeting: Monica Arsenault, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8488 or via email at marsenault@cocoafl.gov.

Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that if a person decides to appeal any decision made by the BOA, P&Z Board/LPA or City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made, and such record shall include the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.
The BOA or PZ Board/LPA meeting may include the attendance of one (1) or more members of the Cocoa City Council who may or may not participate in the Board discussions held at this public hearing. The BOA, PZ Board/LPA and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.

Public Participation Information:
Members of the public may view the meeting agenda, ordinances, project applications, supporting documents, and staff reports on the City's website at the following link prior to attending or commenting:

- City of Cocoa meeting calendar at https://cocoa.legistar.com/Calendar.aspx Documents pertaining to the above may also be inspected at the Planning & Zoning Department, between 8:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8535.

Interested persons may submit their written comments or questions prior to the meeting through Email at meetings@cocoafl.org, or via E-comments through the online agenda at the link above. Any electronic comments submitted will be made part of the meeting record.

PLANNING & ZONING AGENDA ITEM

Memo Date:	04/13/2026
Agenda Date:	5/6/2026
Prepared By:	Breanna Earley, Assistant City Clerk
Through:	Stockton Whitten, City Manager
Requested Action:	Request Board approval of the Agenda for the Planning and Zoning May 6, 2026, Regular Meeting, either as written or with amendments.

BACKGROUND:
Request Board approval of the Agenda for the Planning and Zoning May 6, 2026, Regular Meeting, either as written or with amendments.

PRIORITY AREA CONNECTION:

BUDGETARY IMPACT:
N/A

PREVIOUS ACTION:

RECOMMENDED MOTION:
Request Board approval of the Agenda for the Planning and Zoning May 6, 2026, Regular Meeting, either as written or with amendments.

Agenda
City of Cocoa
Planning & Zoning Board / Local Planning Agency Regular Meeting

May 6, 2026
6:00 PM
65 Stone Street, Cocoa, FL 32922

I. Opening Matters:

1. Call to Order
2. Pledge of Allegiance
3. Roll Call

II. Approval of Agenda and Minutes:

1. Agenda: Regular Meeting of May 6, 2026.
2. Minutes: Regular Meeting of April 1, 2026.

III. Old Business:

IV. New Business:

1. PZ 25-00500006 Ord No. 05-2026 3600 Grissom Parkway Small-Scale Comprehensive Plan Amendment (POSTPONED)

An ordinance of the city council of the City of Cocoa, Brevard county, Florida, relating to comprehensive planning; amending the future land use map for one parcel of real property within the City of Cocoa, consisting of approximately forty (40) acres, generally located west of Grissom Parkway, south of Angelica Street, and north of State Road 528, being legally described on exhibit “A” attached hereto; changing the future land use map designation of the real property from “very low density residential” to “industrial”; providing for the repeal of prior inconsistent ordinances and resolutions, incorporation in the comprehensive plan, severability, and an effective date and legal status of the plan amendment. Parcel id: 24-35-11-00-750.

2. PZ 25-00200020 Sky Powersports Large-Scale Site Plan (POSTPONED)

Consider a large-scale site plan for Sky Powersports, consisting of a powersports vehicle display, sales, and maintenance facility, consisting of approximately 52,550 square feet. Generally located on State Road 524, west of Interstate-95 in Cocoa, Florida, and is identified by Parcel ID: 24-35-27-00-16 and 24-35-27-00-11.

3. **Cocoa Village Street Signs**

   Review of new business directory and way finding signs in the Cocoa Village Business District.

4. **Oleander Parking Lot**

   Consideration of a plan to develop a low-impact development surface parking area on approximately 0.9 acres of City-owned property located at 216 and 218 Oleander Street in Cocoa to support public parking needs in Cocoa Village and the surrounding area. Planned improvements include approximately 80 parking spaces, of which 4 spaces are accessible, designated vehicle charging stations, decorative street lighting, street trees, sidewalks, decorative fencing, interior landscape areas, minimum 5-feet perimeter landscape buffers, minimum two-way aisle widths of 20-feet, pervious pavement, and related site enhancements. The project includes tax account numbers: 2425841, 2425949, 2461829, 2425950, 2425951, and 2425843.

5. **PZ 25-00200014 Sanctuary at Cocoa Townhomes Preliminary Plat, Development Agreement**

   Consider the preliminary plat, large scale site plan, and Development Agreement for the Sanctuary at Cocoa Townhomes subdivision, pursuant to Chapter 18, Subdivisions of the City of Cocoa Code of Ordinances, to subdivide 3 parcels into 183 new townhome lots in total consisting of approximately 89.54 acres. Generally located east of Cox Road and north of State Road 520 in Cocoa, Florida, and is identified by Parcel IDs: 24-35-24-00-508, 24-35-24-00-509, 24-35-24-00-510.

6. **PZ 25-02800005 603 Brevard Ave Concept Plan and Development Agreement**

   Consideration of a conceptual plan and Development Agreement for the 603 Brevard Avenue Hotel, affecting approximately .87 acres of property owned by the Cocoa Redevelopment Agency. The agreement calls for the development of an approximately seven (7) story, 68,310 square foot, 104-room hotel with associated amenities and parking and establishes building elevations, floor plan, and related development regulation waivers for the future hotel. Generally located on Brevard Avenue and John Garren Lane, south of Factory Street, and is identified by Parcel IDs: 24-36-33-75-*-2 and 24-36-33-75-*-3.

7. **PZ 25-00300003 Cirrus Commercial Outparcel Final PUD Amendment (Phase 2), Plat, Development Agreement Amendment, and Large-Scale Site**

Plan

Consider a final PUD amendment for the commercial portion of the Cirrus Mixed-Use PUD, a subdivision plat of the Cirrus Commercial Outparcels to subdivide Lot 1B of the Cirrus plat consisting of approximately 1.52 acres into two commercial lots pursuant to Chapter 18, Subdivisions of the City of Cocoa Code of Ordinances, a First Addendum to Development Agreement between the City of Cocoa and WMG Acquisitions, LLC, and large-scale site plan of the Cirrus Phase Two Commercial Outparcel, consisting of a Quick-Service Restaurant and Dental Office. Generally located on State Road 524, directly south of State Road 528 and west of East Industry Road in Cocoa, Florida, and is identified by Parcel ID: 24-36-18-28-*-1B.01.

V. Tree Board:

VI. Open Discussion:

VII. Other Business:

VIII. Next Meeting Date: Wednesday, June 3, 2026, at 6:00 pm at 65 Stone Street in Cocoa, FL.

IX. Adjournment:

General Notice Information:
This is a public meeting. Interested parties are hereby advised that they may appear at said meeting and be heard. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk of the City of Cocoa, listed below, at least 48 hours prior to the meeting: Monica Arsenault, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8488 or via email at marsenault@cocoafl.gov.

Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that if a person decides to appeal any decision made by the BOA, P&Z Board/LPA or City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made, and such record shall include the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.

The BOA or PZ Board/LPA meeting may include the attendance of one (1) or more

members of the Cocoa City Council who may or may not participate in the Board discussions held at this public hearing. The BOA, PZ Board/LPA and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.

Public Participation Information:
Members of the public may view the meeting agenda, ordinances, project applications, supporting documents, and staff reports on the City's website at the following link prior to attending or commenting:

- City of Cocoa meeting calendar at https://www.cocoafl.gov/291/20338/City-Meetings Documents pertaining to the above may also be inspected at the Planning & Zoning Department, between 8:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8535.

Interested persons may submit their written comments or questions prior to the meeting through Email at cityclerk@cocoafl.gov, or via E-comments through the online agenda at the link above. Any electronic comments submitted will be made part of the meeting record.

Viewing In Real Time. Interested persons may view and listen to the hearings live at the following internet address: https://www.cocoafl.gov/291/20338/City-Meetings The City is not responsible for technical difficulties that may occur while viewing or listening online.

PLANNING & ZONING AGENDA ITEM

Memo Date:	04/13/2026
Agenda Date:	5/6/2026
Prepared By:	Breanna Earley, Assistant City Clerk
Through:	Stockton Whitten, City Manager
Requested Action:	Request Board approval of the Minutes for the Planning and Zoning April 1, 2026, Regular Meeting, either as written or with amendments.

BACKGROUND:

PRIORITY AREA CONNECTION:

BUDGETARY IMPACT:
N/A

PREVIOUS ACTION:

RECOMMENDED MOTION:
Request Board approval of the Minutes for the Planning and Zoning April 1, 2026, Regular Meeting, either as written or with amendments.

MINUTES
CITY OF COCOA
PLANNING & ZONING BOARD/ LOCAL PLANNING AGENCY
REGULAR MEETING
April 1, 2026

A Regular meeting of the Planning & Zoning Board Local Planning Agency was held on April 1, 2026, at City Hall, 65 Stone Street, Cocoa, FL, as publicly noted.

I. CALL TO ORDER:

Chairperson Park called the meeting to order at 6:00 PM.

ROLL CALL:

Wesley Park	Chairperson
Todd Anderson	Vice Chairperson
Ron Chabot	Board Member
Tamisha Findlay	Board Member
Susan Milhoan	Board Member
Victoria Jones	Board Member
Katherine Stewart	Board Member
Marcus Wheeler	Board Member
Russell Sengel	Board Member
Aleck Greenwood	Alternate Board Member
Kristin Eick	City Attorney

PRESENT:

Wesley Park	Chairperson
Todd Anderson	Vice Chairperson
Ron Chabot	Board Member
Tamisha Findlay	Board Member
Victoria Jones	Board Member
Marcus Wheeler	Board Member
Russell Sengel	Board Member
Aleck Greenwood	Alternate Board Member
Kristin Eick	City Attorney

ABSENT:

Katherine Stewart	Board Member
Susan Milhoan	Board Member

STAFF PRESENT:

Breanna Earley, Recording Secretary; Stockton Whitten, City Manger; Abby Morgan, Public Works Director; Jennifer Webster, City Planner; Luci Ribeiro, City Planner; and Leonardo Priore, Planning Technician.

Chairperson Park led the assembly in the Pledge of Allegiance.

II. Approval of Agenda and Minutes:

1. Agenda: Regular Meeting of April 1, 2026.

* **MOTION BY BOARD MEMBER WHEELER; SECONDED BY BOARD MEMBER CHABOT TO APPROVE THE REGULAR MEETING AGENDA OF APRIL 1, 2026, AS WRITTEN.**

AYES: PARK, ANDERSON, CHABOT, FINDLAY, JONES, SENGEL, WHEELER

MOTION PASSED UNANIMOUSLY (7-0)

2. Minutes: Regular Meeting of December 3, 2025.

* **MOTION BY BOARD MEMBER ANDERSON; SECONDED BY BOARD MEMBER FINDLAY TO APPROVE THE MINUTES OF DECEMBER 3, 2025 AS WRITTEN.**

AYES: PARK, ANDERSON, CHABOT, JONES, SENGEL, WHEELER, FINDLAY

MOTION PASSED UNANIMOUSLY (7-0)

III. Old Business:

IV. New Business:

1. Annual Election of Chairperson and Vice Chairperson

* **MOTION BY VICECHAIR ANDERSON; SECONDED BY BOARD MEMBER WHEELER TO ACCEPT THE CHAIRPERSON NOMINATION OF WESLEY PARK.**

AYES: PARK, ANDERSON, CHABOT, FINDLAY, JONES, SENGEL, WHEELER

MOTION PASSED UNANIMOUSLY (7-0)

* **MOTION BY BOARD MEMBER JONES; SECONDED BY BOARD MEMBER SENGEL TO ACCEPT THE NOMINATION OF MARCUS WHEELER AS VICECHAIR.**

AYES: PARK, ANDERSON, SENGEL, JONES, WHEELER, FINDLAY, CHABOT

MOTION PASSED UNANIMOUSLY (7-0)

2. PZ 25-00300003 Cirrus Commercial Outparcel Final PUD Amendment (Phase 2), Plat, Development Agreement Amendment, and Large-Scale Site Plan (POSTPONED)

3. PZ 25-00200014 Sanctuary at Cocoa Townhomes Preliminary Plat, Development Agreement (POSTPONED)

* **MOTION BY CHAIR PARK; SECONDED BY BOARD MEMBER JONES TO APPROVE POSTPONEMENT OF BOTH ITEMS.**

AYES: PARK, ANDERSON, CHABOT, FINDLAY, JONES, SENGEL, WHEELER

MOTION PASSED UNANIMOUSLY (7-0)

4. Ordinance 2-2026 Grissom Parkway 46 Acres Future Land Use Map Amendment

Ms. Webster presented a PowerPoint for Ordinance 02-2026[1].

Alternate Member Greenwood asked about the considerations of the tree mitigation and buffer.

Ms. Webster spoke about the applicant's intentions to mitigate the trees being removed to code requirements.

Chairperson Park inquired about tree requirements for the City of Cocoa and Brevard County.

In response, Ms. Webster stated she would investigate it.

Board member Chabot asked about endangered species.

Ms. Webster responded that the environmental impact has not yet been received but will be provided.

Vice Chair Wheeler asked about responses from surrounding residents and property owners.

[1] Exhibit A: PowerPoint for Ordinance 02-2026

Ms. Webster shared that no questions or comments were received.

* **MOTION BY BOARD MEMBER ANDERSON; SECONDED BY ALTERNATE MEMBER GREENWOOD TO RECOMMEND APPROVAL OF ORDINANCE 02-2026.**

AYES: PARK, ANDERSON, CHABOT, FINDLAY, JONES, SENGEL, WHEELER

MOTION PASSED UNANIMOUSLY (7-0)

5. **Ordinance 3-2026 Grissom Parkway 46 Acres Zoning Map Amendment**

Ms. Webster presented a PowerPoint for Ordinance 03-2026[2].

Board Member Anderson asked if the area is paved.

Board Member Anderson also asked who would incur the cost of putting the road in.

In response, Attorney Eick explained that it is a County road, and the County would need to have a conversation with the developer.

* **MOTION BY ALTERNATE MEMBER GREENWOOD; SECONDED BY BOARD MEMBER FINDLAY TO APPROVE ORDINANCE 03-2026.**

AYES: PARK, ANDERSON, CHABOT, FINDLAY, JONES, SENGEL, WHEELER

MOTION PASSED UNANIMOUSLY (7-0)

6. PZ 26-02000001 3095 Grissom Parkway Zoning Text Amendment

Ms. Ribeiro presented a PowerPoint for M-2 ZTA Large-Scale Commercial Recreation Centers and Gym and Fitness - 3095 Grissom Pkwy.[3]

Board Member Chabot asked if there would be alcohol served at areas reserved for food and beverages.

City Attorney Eick stated if it was, they would need to be following city code and ordinance.

* **MOTION BY BOARD MEMBER ANDERSON; SECONDED BOARD MEMBER SENGEL BY TO APPROVE.**

AYES: PARK, ANDERSON, CHABOT, FINDLAY, JONES, SENGEL, WHEELER

[2] Exhibit B: PowerPoint for Ordinance 03-2026

[3] Exhibit C: PowerPoint for M-2 ZTA Large-Scale Commercial Recreation Centers and Gym and Fitness - 3095 Grissom Pkwy

MOTION PASSED UNANIMOUSLY (7-0)

7. **PZ 23-00200009 Cocoa Village Bay Estates Small-Scale Site Plan and Preliminary Plat**

Alex Crespo, RVi, presented a PowerPoint for Cocoa Village Bay Estates Large-Scale Site Plan, Preliminary Plat[4].

Ms. Morgan spoke about the stormwater management facilities.

Tom Amsted, GS Consultants, spoke about floodplain management and zones.

Ms. Crespo went over this project and the city's comprehensive plan.

Board member Greenwood, recused himself[5].

City Attorney Eick, disclosed the conflict of interest.

Board Member Chabot, asked about endangered species.

In response, Ms. Crespo provided clarification.

Board Member Anderson asked if Indian River Drive is a County or State Road.

Ms. Morgan explained that it's a City road.

City Manager Whitten added that there is a strip of County road.

Board Member Sengel asked how flood waters can be mitigated.

Mr. Amsted stated the proposed home elevation is 6.5 feet and reviewed offsite flows. He detailed onsite overflow as well.

The applicant presented a PowerPoint for Cocoa Village Bay Estates.[6]

Vice Chair Wheeler asked about the option to build docks on the property.

The applicant stated that has not been determined at this time.

Ms. Ribeiro clarified the City does not regulate docks.

[4] Exhibit D: PowerPoint for Cocoa Village Bay Estates Large-Scale Site Plan, Preliminary Plat
[5] Exhibit E: Voting Conflict Form 8B
[6] Exhibit F: Applicant PowerPoint

Attorney Eick provided further detail.

Board Member Anderson asked if this is considered an HOA.

Bill Chatterton, Indian River Drive resident, spoke about the project and his issues with it.

Janice Smith, Cocoa resident, asked if the lake on the property would be filled in and shared her concerns about flooding.

James Smith, Cocoa resident, expressed concerns about flooding as well.

The applicant addressed the flooding concerns and the evidence provided.

Richard Campenelli, MEI Engineering, detailed his findings.

Ms. Morgan spoke about the North Fiske pond.

* **MOTION BY BOARD MEMBER ANDERSON; SECONDED BY VICE CHAIR WHEELER TO APPROVE THE PRELIMINARY PLAT.**

AYES: PARK, ANDERSON, CHABOT, FINDLAY, JONES, SENGEL, WHEELER

MOTION PASSED UNANIMOUSLY (7-0)

V. Tree Board:

VI. Open Discussion:

VII. Other Business:

VIII. Next Meeting Date: Wednesday, May 6, 2026, at 6:00pm, at 65 Stone Street in Cocoa, FL.

IX. Adjournment:

* **MOTION BY CHAIRPERSON PARK; SECONDED BY VICE CHAIR WHEELER TO ADJOURN THE MEETING.**

AYES: PARK, ANDERSON, CHABOT, FINDLAY, JONES, SENGEL, WHEELER

MOTION PASSED UNANIMOUSLY (7-0)

THE MEETING ADJOURNED AT 7:56 PM.

_____

Wesley Park, Chairperson

Respectfully Submitted By:

_____

Breanna Earley, Recording Secretary

PLANNING & ZONING AGENDA ITEM

Memo Date:	04/20/2026
Agenda Date:	5/6/2026
Prepared By:	
Through:	
Requested Action:	Request to postpone to a date certain of June 3, 2026 consideration for approval of a small-scale comprehensive plan amendment for the property located at 3600 Grissom Parkway.

BACKGROUND:

Staff respectfully requests that this agenda item be postponed to June 3, 2026, the next regular Planning and Zoning Board meeting, to allow for the applicant to submit an accompanying Zoning Map Amendment application.

PRIORITY AREA CONNECTION:

BUDGETARY IMPACT:

PREVIOUS ACTION:

RECOMMENDED MOTION:

Staff recommends that the Board postpone consideration of this item to the June 3 Planning and Zoning hearing to be held at Cocoa City Hall at 6:00 p.m.

USA TODAY CO.

LocaliQ

PO Box 631244 Cincinnati, OH 45263-1244

AFFIDAVIT OF PUBLICATION

Leonardo Priore
Attn: Accounting Division
City Of Cocoa (Te)
65 Stone St
Cocoa FL 32922-7982

STATE OF WISCONSIN, COUNTY OF BROWN

Before the undersigned authority personally appeared, who on oath says that he or she is the Legal Advertising Representative of the Florida Today, a daily newspaper published in Brevard County, Florida; that the attached copy of advertisement, being a Legal Ad in the matter of Govt Public Notices, was published on the publicly accessible website of Brevard County, Florida, or in a newspaper by print in the issues of, on:

BRE Brevard Florida Today 04/24/2026
BRE floridatoday.com 04/24/2026

Affiant further says that the website or newspaper complies with all legal requirements for publication in chapter 50, Florida Statutes.
Subscribed and sworn to before me, by the legal clerk, who is personally known to me, on 04/24/2026

Legal Clerk

Notary, State of WI, County of Brown

5.15.27

My commission expires

Publication Cost:	$409.79	
Tax Amount:	$0.00	
Payment Cost:	$409.79	
Order No:	12269796	# of Copies:
Customer No:	1127247	1
PO #:		

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

NANCY HEYRMAN
Notary Public
State of Wisconsin

Ad #12269796, 4/24/2026

CITY OF COCOA
NOTICE OF PUBLIC HEARING
NOTICE IS HEREBY GIVEN THAT THE PLANNING & ZONING BOARD/LOCAL PLANNING AGENCY
AND CITY OF COCOA COUNCIL PROPOSE TO CONSIDER THE FOLLOWING:

A. PZ 25-02800005 603 Brevard Ave Concept Plan and Development Agreement

Consider a conceptual plan and Development Agreement for the 603 Brevard Avenue Hotel, affecting approximately .87 acres of property owned by the Cocoa Redevelopment Agency. The agreement calls for the development of an approximately seven (7) story, 68,310 square foot, 104-room hotel with associated amenities and parking and establishes building elevations, floor plan, and related development regulation waivers for the future hotel. Generally located on Brevard Avenue and John Garren Lane, south of Factory Street, and is identified by Parcel IDs: 24-36-33-75-*-2 and 24-36-33-75-*-3.

B. PZ 25-00500006 Ord No. 05-2026 3600 Grissom Parkway Small-Scale Comprehensive Plan Amendment

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA, RELATING TO COMPREHENSIVE PLANNING; AMENDING THE FUTURE LAND USE MAP FOR ONE PARCEL OF REAL PROPERTY WITHIN THE CITY OF COCOA, CONSISTING OF APPROXIMATELY FORTY (40) ACRES, GENERALLY LOCATED WEST OF GRISSOM PARKWAY, SOUTH OF ANGELICA STREET, AND NORTH OF STATE ROAD 528, BEING LEGALLY DESCRIBED ON EXHIBIT "A" ATTACHED HERETO; CHANGING THE FUTURE LAND USE MAP DESIGNATION OF THE REAL PROPERTY FROM "VERY LOW DENSITY RESIDENTIAL" TO "INDUSTRIAL"; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, INCORPORATION IN THE COMPREHENSIVE PLAN, SEVERABILITY, AND AN EFFECTIVE DATE AND LEGAL STATUS OF THE PLAN AMENDMENT. Parcel ID: 24-35-11-00-750.

C. PZ 25-00200020 Sky Powersports Large-Scale Site Plan

Consider a large-scale site plan for Sky Powersports, consisting of a powersports vehicle display, sales, and maintenance facility, consisting of approximately 52,550 square feet. Generally located on State Road 524, west of Interstate-95 in Cocoa, Florida, and is identified by Parcel ID: 24-35-27-00-16 and 24-35-27-00-11.

Planning and Zoning Board PUBLIC HEARING WILL BE HELD ON

May 6, 2026

City of Cocoa Council PUBLIC HEARING FOR ITEMS A. and B. WILL BE HELD ON

May 12, 2026

ALL HEARINGS WILL TAKE PLACE AT 6:00 P.M. OR SOON THEREAFTER IN THE COCOA CITY HALL COUNCIL CHAMBERS LOCATED AT 65 STONE STREET, COCOA, FLORIDA 32922

General Notice Information:

This is a public meeting. Interested parties are hereby advised that they may appear at said meeting and be heard. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk of the City of Cocoa, listed below, at least 48 hours prior to the meeting: Monica Arsenault, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8488 or via email at marsenault@cocoafl.gov.

Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that if a person decides to appeal any decision made by the BOA, P&Z Board/LPA or City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made,

testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.

The BOA or PZ Board/LPA meeting may include the attendance of one (1) or more members of the Cocoa City Council who may or may not participate in the Board discussions held at this public hearing. The BOA, PZ Board/LPA and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.

Public Participation Information:

Members of the public may view the meeting agenda, ordinances, project applications, supporting documents, and staff reports on the City's website at the following link prior to attending or commenting:
• City of Cocoa meeting calendar at https://www.cocoafl.gov/291/20338/City-Meetings
Documents pertaining to the above may also be inspected at the Community Services Department between 8:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8400.
Interested persons may submit their written comments or questions prior to the meeting through Email at cityclerk@cocoafl.gov or via E-comments through the online agenda at the link above. Any electronic comments submitted will be made part of the meeting record.
Viewing In Real Time. Interested persons are encouraged to view and listen to the hearings live by accessing the meetings at the following internet address:
• City of Cocoa meeting calendar at https://www.cocoafl.gov/291/20338/City-Meetings
However, the City is not responsible for technical difficulties that may occur while attempting to view or listen to the meeting on the internet.

PLANNING & ZONING AGENDA ITEM

Memo Date:	04/20/2026
Agenda Date:	5/6/2026
Prepared By:	
Through:	
Requested Action:	Request to postpone to a date certain of June 3, 2026 consideration for approval of a large-scale site plan.

BACKGROUND:

Staff respectfully requests that this agenda item be postponed to June 3, 2026, the next regular Planning and Zoning Board meeting.

PRIORITY AREA CONNECTION:

BUDGETARY IMPACT:

PREVIOUS ACTION:

RECOMMENDED MOTION:

Staff recommends that the Board postpone consideration of this item to the June 3 Planning and Zoning hearing to be held at Cocoa City Hall at 6:00 p.m.

USA TODAY CO.

LocaliQ

PO Box 631244 Cincinnati, OH 45263-1244

AFFIDAVIT OF PUBLICATION

Leonardo Priore
Attn: Accounting Division
City Of Cocoa (Te)
65 Stone St
Cocoa FL 32922-7982

STATE OF WISCONSIN, COUNTY OF BROWN

Before the undersigned authority personally appeared, who on oath says that he or she is the Legal Advertising Representative of the Florida Today, a daily newspaper published in Brevard County, Florida; that the attached copy of advertisement, being a Legal Ad in the matter of Govt Public Notices, was published on the publicly accessible website of Brevard County, Florida, or in a newspaper by print in the issues of, on:

BRE Brevard Florida Today 04/24/2026
BRE floridatoday.com 04/24/2026

Affiant further says that the website or newspaper complies with all legal requirements for publication in chapter 50, Florida Statutes.
Subscribed and sworn to before me, by the legal clerk, who is personally known to me, on 04/24/2026

Legal Clerk

Notary, State of WI, County of Brown

5.15.27

My commission expires

Publication Cost:	$409.79	
Tax Amount:	$0.00	
Payment Cost:	$409.79	
Order No:	12269796	# of Copies:
Customer No:	1127247	1
PO #:		

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

NANCY HEYRMAN
Notary Public
State of Wisconsin

Ad #12269796, 4/24/2026

CITY OF COCOA
NOTICE OF PUBLIC HEARING
NOTICE IS HEREBY GIVEN THAT THE PLANNING & ZONING BOARD/LOCAL PLANNING AGENCY
AND CITY OF COCOA COUNCIL PROPOSE TO CONSIDER THE FOLLOWING:

A. PZ 25-02800005 603 Brevard Ave Concept Plan and Development Agreement

Consider a conceptual plan and Development Agreement for the 603 Brevard Avenue Hotel, affecting approximately .87 acres of property owned by the Cocoa Redevelopment Agency. The agreement calls for the development of an approximately seven (7) story, 68,310 square foot, 104-room hotel with associated amenities and parking and establishes building elevations, floor plan, and related development regulation waivers for the future hotel. Generally located on Brevard Avenue and John Garren Lane, south of Factory Street, and is identified by Parcel IDs: 24-36-33-75-*-2 and 24-36-33-75-*-3.

B. PZ 25-00500006 Ord No. 05-2026 3600 Grissom Parkway Small-Scale Comprehensive Plan Amendment

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA, RELATING TO COMPREHENSIVE PLANNING; AMENDING THE FUTURE LAND USE MAP FOR ONE PARCEL OF REAL PROPERTY WITHIN THE CITY OF COCOA, CONSISTING OF APPROXIMATELY FORTY (40) ACRES, GENERALLY LOCATED WEST OF GRISSOM PARKWAY, SOUTH OF ANGELICA STREET, AND NORTH OF STATE ROAD 528, BEING LEGALLY DESCRIBED ON EXHIBIT "A" ATTACHED HERETO; CHANGING THE FUTURE LAND USE MAP DESIGNATION OF THE REAL PROPERTY FROM "VERY LOW DENSITY RESIDENTIAL" TO "INDUSTRIAL"; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, INCORPORATION IN THE COMPREHENSIVE PLAN, SEVERABILITY, AND AN EFFECTIVE DATE AND LEGAL STATUS OF THE PLAN AMENDMENT. Parcel ID: 24-35-11-00-750.

C. PZ 25-00200020 Sky Powersports Large-Scale Site Plan

Consider a large-scale site plan for Sky Powersports, consisting of a powersports vehicle display, sales, and maintenance facility, consisting of approximately 52,550 square feet. Generally located on State Road 524, west of Interstate-95 in Cocoa, Florida, and is identified by Parcel ID: 24-35-27-00-16 and 24-35-27-00-11.

Planning and Zoning Board PUBLIC HEARING WILL BE HELD ON

May 6, 2026

City of Cocoa Council PUBLIC HEARING FOR ITEMS A. and B. WILL BE HELD ON

May 12, 2026

ALL HEARINGS WILL TAKE PLACE AT 6:00 P.M. OR SOON THEREAFTER IN THE COCOA CITY HALL COUNCIL CHAMBERS LOCATED AT 65 STONE STREET, COCOA, FLORIDA 32922

General Notice Information:

This is a public meeting. Interested parties are hereby advised that they may appear at said meeting and be heard. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk of the City of Cocoa, listed below, at least 48 hours prior to the meeting: Monica Arsenault, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8488 or via email at marsenault@cocoafl.gov.

Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that if a person decides to appeal any decision made by the BOA, P&Z Board/LPA or City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made,

testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.

The BOA or PZ Board/LPA meeting may include the attendance of one (1) or more members of the Cocoa City Council who may or may not participate in the Board discussions held at this public hearing. The BOA, PZ Board/LPA and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.

Public Participation Information:

Members of the public may view the meeting agenda, ordinances, project applications, supporting documents, and staff reports on the City's website at the following link prior to attending or commenting:
• City of Cocoa meeting calendar at https://www.cocoafl.gov/291/20338/City-Meetings
Documents pertaining to the above may also be inspected at the Community Services Department between 8:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8400.
Interested persons may submit their written comments or questions prior to the meeting through Email at cityclerk@cocoafl.gov or via E-comments through the online agenda at the link above. Any electronic comments submitted will be made part of the meeting record.
Viewing In Real Time. Interested persons are encouraged to view and listen to the hearings live by accessing the meetings at the following internet address:
• City of Cocoa meeting calendar at https://www.cocoafl.gov/291/20338/City-Meetings
However, the City is not responsible for technical difficulties that may occur while attempting to view or listen to the meeting on the internet.

PLANNING & ZONING AGENDA ITEM

Memo Date:	04/16/2026
Agenda Date:	5/6/2026
Prepared By:	Samantha Senger, Communications & Economic Development Director
Through:	Stockton Whitten, City Manager
Requested Action:	Review of new business directory and way finding signs for the Cocoa Village Business District pursuant to Appendix A, Zoning, Article IV, Sec. 2.

BACKGROUND:

The Cocoa Village business district has a wide array of signage that is currently located in the City right-of-way and that does not conform to the City's sign code. Many of the signs are leaning and are unsafe. Historic Cocoa Village Main Street (HCVMS) in conjunction with the City of Cocoa has been working on a project over the past year to find a solution to ensure consistency, compliance, visual integrity and safety throughout the Village. Currently, Section 3-23(i)(10) of the City Code requires the following regarding signs in the Central Business District:

(10) Signs in the Central Business District. The following requirements shall apply to all signs within the Central Business District.

a.Wall and ground signs are permitted.

b.Signs may be allowed in the city right-of-way, if approved by the community development director or designee and meet the following requirements:

1.Maximum surface area—Six (6) square feet.

2.Maximum height—Four (4) feet.

3.Shall not impair the safety of motorized vehicles or pose any other safety hazard.

HCVMS formed a committee that was open to all members to participate. This committee did research, surveyed members, and found ideas to bring back to the general membership for input and ideas. This process was over a six month time period where they held several meetings and presented ideas at a general meeting (where anyone is welcome to attend regardless of membership).

HCVMS then took input and presented an idea to city staff that would help provide consistency and safety throughout the Village. The design idea is attached to the agenda. HCVMS has allocated funding to cover the cost of building and installation of the signs and will work through their annual membership dues to fund the individual business name plates. The signs will be City of Cocoa signs and do not meet the max height and surface area outlined in the sign code thus why it is coming before the Planning and Zoning Board and City Council for review and approval. Appendix A, Zoning, Article IV, Sec. 2 provides: "The planning and zoning board/LPA shall be required to make a recommendation to the city council regarding all proposed uses of land and development projects on lands owned, leased, or controlled by the city of

Cocoa within the boundaries of the city." Further, "[n]othing in Appendix A—Zoning or the city code shall prevent any use of land or any development project on land owned, leased, or controlled by the city of Cocoa, provided said use of land or development project has been approved by the city council. The city council may over-ride any provision of Appendix A—Zoning or the city code which may be applicable to any said use of land or development project upon a finding that the public interest favoring the proposed over-ride outweighs the strict application of Appendix A—Zoning or the city code."

HCVMS will also be responsible for maintaining and tracking the businesses utilizing the new signs through their annual Municipal Services Agreement with the City. All businesses within the Cocoa Village district will have the ability to be on the signs at a set fee to cover the cost of the business name plate printing as long as they adhere to the policies set forth in the attached Maintenance and Management Policies. For the first round of printing, all HCVMS members will receive at least one business name plate on the signs. Any business that is not a member will have a fee that will also include the cost of membership in the association.

The Proposed Maintenance and Management Policy is attached for reference and will go before City Council for approval along with the updated Municipal Services Agreement between HCVMS and the City of Cocoa.

The updated and consistent signage in the Village is addressed in the City Council Planning and Priorities focus area of Investment in Public Infrastructure to support a safe, accessible, well-maintained network of parks, facilities and green space. This project is also consistent with the City's Comprehensive Plan objectives to maintain and update its vision for the City's urban form as needed, where the City shall examine the feasibility of establishing form-based design guidelines for City-wide as well as for specific areas in the City including CRAs, major corridors and waterfront.

PRIORITY AREA CONNECTION:

Investment in Public Infrastructure
Community Outreach and Engagement

BUDGETARY IMPACT:

No budgetary impact.

PREVIOUS ACTION:

In the past, signs in the Cocoa Village district have been a free for all without adherence to sign codes. This will help regulate and ensure consistency throughout the Village.

RECOMMENDED MOTION:

Recommend for approval to City Council the new business directory and way finding signs for the Cocoa Village Business District.

TENANT SIGN : V-SHAPE

JOB SPECIFICATIONS:

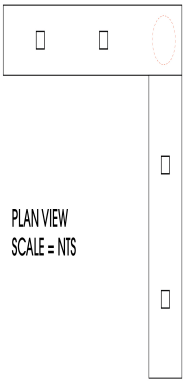
Manufacture & install ___ (_) non-illuminated double sided tenant sign

support with direct burial determined by engineering with concrete.

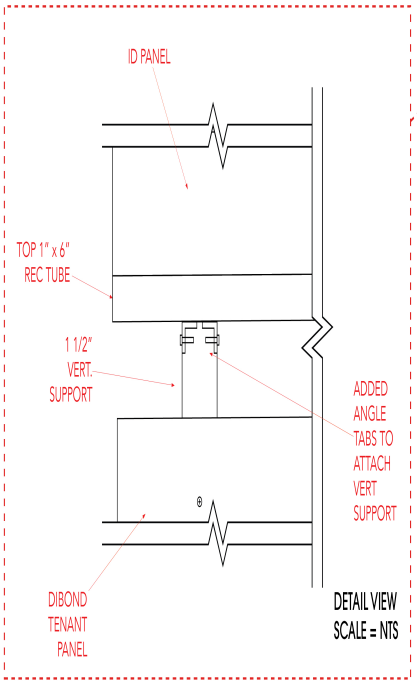
horizontal 1" x 6" rec tube top accent & bottom secured to support

verticle supports 1 1/2" sq tube

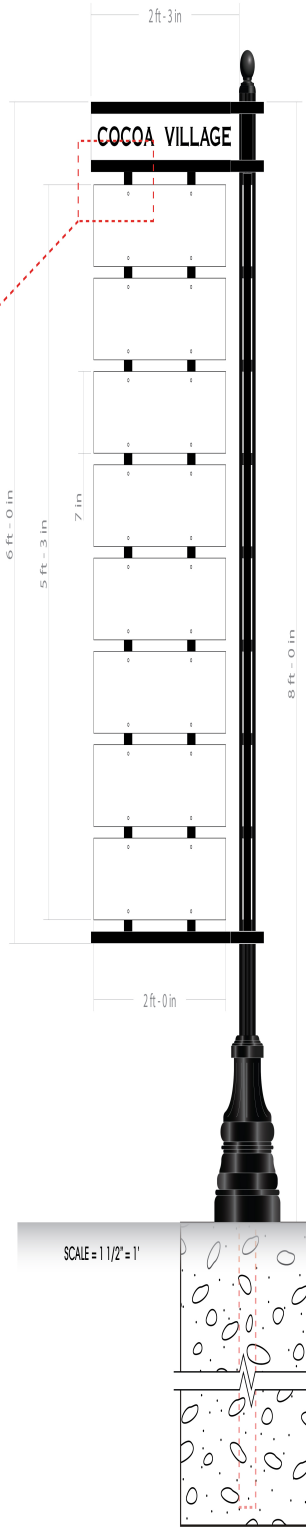
dibond tenant panels
secure tenant panels to vert supports with thru sex bolts



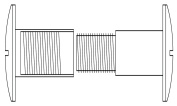
PLAN VIEW
SCALE = NTS



DETAIL VIEW
SCALE = NTS







* Sex-bolt fasteners
to hold panel on both
sides through tenant panels



580 GUS HIPP BLVD. ROCKLEDGE, FL 32955 TEL: 321-636-5116 FAX: 321-636-0402

kendalSIGNS
DESIGN • FABRICATION • INSTALLATION

Customer: Cocoa Village_2025
Address: various locations
Sales: Denise Date: 5-28-25

THIS DOCUMENT IS THE EXCLUSIVE PROPERTY OF KENDAL SIGNS, INC., ROCKLEDGE, FLORIDA.
IT MAY NOT BE COPIED, REPRODUCED, MARKETED, SOLD OR MANUFACTURED,
IN OR IN PART WITHOUT THE WRITTEN CONSENT OF KENDAL SIGNS, INC.

CUSTOMER NOTICE
Kendal Signs will endeavor to match colors specified, We cannot guarantee exact matches due to varying Compatibility of materials used. Final dimensions may vary from within this drawing. An exact scaled drawing Will be provided upon your request.

Prepared by:
Kristin Eick, Esq.
Garganese, Weiss, D'Agresta & Salzman, P.A.
111 N. Orange Ave., Suite 2000
Orlando, FL 32801

Return to:
Monica Arsenault, City Clerk
City of Cocoa
65 Stone Street
Cocoa, Florida 32922

MUNICIPAL SERVICES AGREEMENT AND LEASE

THIS MUNICIPAL SERVICES AGREEMENT AND LEASE ("Agreement") is made and entered into this ____ day of _____, 2026, by and between the **CITY OF COCOA, FLORIDA,** a Florida municipal corporation (the "City"), and the **GREATER COCOA COMMUNITY PARTNERSHIP, INC.,** a Florida Not For Profit Corporation (d/b/a "**Historic Cocoa Village Main Street**") (the "Service Provider") located at 434 Delannoy Ave, Suite #204, Cocoa, FL 32922 (collectively the "Parties").

RECITALS:

WHEREAS, the Greater Cocoa Community Partnership, Inc., is a bona-fide nonprofit 501(c)(3) corporation, the purpose of which is to enhance the community identity and heritage, foster a center of activity, and ensure economic stability for the heart of Cocoa through concentrated efforts of design, promotion, organization and economic revitalization; and

WHEREAS, the City is the sole owner of the Porcher House, a historic home located in the City's Historic District, and leases portions of Porcher House to various tenants for different business purposes; and

WHEREAS, the Greater Cocoa Community Partnership, Inc., d/b/a/ "Historic Cocoa Village Main Street," has been a tenant of the Porcher House for the past several years and desires to continue to lease space at the Porcher House for the purpose of conducting its nonprofit association for community and special events; and

WHEREAS, the Service Provider has requested that the City provide office space as identified herein for lease at the Porcher House a lease rate of $1.00 per year in exchange for the Municipal Services to be provided as detailed herein; and

WHEREAS, the City Council has determined that the Municipal Services to be provided by Service Provider serve a municipal purpose and benefit the public health, safety, and welfare of the citizens of the City of Cocoa, and, in furtherance of this benefit, authorize said annual lease rate from the Service Provider, though monthly Common Area and Maintenance charges shall continue to be charged throughout the Agreement term, in exchange for the Municipal Services identified hereunder; and

WHEREAS, the Parties desire to enter this Agreement defining their obligations relating to such Municipal Services, as well as their rights, duties, and liabilities relating to the rental of space at the Porcher House.

NOW THEREFORE, in consideration of the mutual promises and covenants herein, and other good and valuable consideration which the Parties agree has been exchanged and received the Parties agree as follows:

Article 1 – Recitals. The foregoing recitals are deemed to be true and accurate and are fully incorporated herein by this reference.

Article 2 – Definitions. For purposes of this Agreement, the following terms and words shall have the meaning ascribed to them, unless the context clearly indicates otherwise:

"Agreement" or "Contract" shall be used interchangeably and shall refer to this Agreement, as may be amended from time to time by mutual written agreement by the Parties, which shall constitute authorization for the Service Provider to provide the Municipal Services stated herein.

"City" is the City of Cocoa, Florida, a Florida municipal corporation.

"Effective Date" shall be August 1, 2025. The Agreement shall not be effective against any party until said date.

"Greater Cocoa Community Partnership, Inc." or "Service Provider" is the Greater Cocoa Community Partnership, Inc., a Florida nonprofit corporation and bona fide 501(c)(3) corporation, d/b/a/ "Historic Cocoa Village Main Street."

"Municipal Services" or "Work" shall be used interchangeably and shall refer to the performance of the services outlined in Article 5 of this Agreement.

"Premises" shall mean any office rental space within the Porcher House provided by the City and occupied by the Service Provider in accordance with this Agreement. The Porcher House is located at 434 Delannoy Avenue, Cocoa, Florida 32922.

"Public Record" is as described in Section 119.011(12), *Florida Statutes.*

"Rent" or "Rental Amount" or "Nominal Rental Amount" shall mean the monies paid to the City by the Service Provider in accordance with Article 8 of this Agreement.

Article 3 – Term of Agreement. The Term of this Agreement shall commence on the Effective Date and shall continue in force and effect through July 31, 2027. The City shall have the option to renew this Agreement for up to three (3) additional one (1)-year terms upon mutual agreement by the Parties, which shall be in writing and executed by both Parties. The City Manager is herein authorized to execute renewals of this Agreement on behalf of the City.

Article 4 – Lease of Premises. In exchange for the Municipal Services provided to the City by the Service Provider, as further described in Article 5, the City agrees to lease the Premises to Service Provider in accordance with the lease provisions found elsewhere herein.

Article 5 – Engagement; Municipal Services. The City hereby engages the Service Provider and the Service Provider agrees to perform the Municipal Services more particularly described on the Scope of Work attached as **Exhibit "A"** and incorporated herein. Specifically, the Service Provider shall supply any and all personnel necessary to provide the Municipal Services identified in the Scope of Work unless otherwise directed by the City.

Unless otherwise specifically agreed to in writing by the City, there shall be no additional consideration for the performance of the Municipal Services by the Service Provider aside from the nominal Rental Amount charged to the Service Provider, which nominal amount is authorized by the City in exchange for the Municipal Services provided in accordance with this Agreement.

Section 5.1 – Municipal Services a Material Term and Condition of Agreement. The Municipal Services constitute a material term and condition of the Agreement and the failure of the Service Provider to perform the Municipal Services, as determined by the City, constitutes a material breach of this Agreement and a cause for termination of the Agreement and surrender of the leased Premises as further provided for herein.

Section 5.2 – Submittal of Progress Reports. At the request of the City, Service Provider shall submit to the City a written progress report as to the status of all Municipal Services set forth in this Agreement. If the detail is not sufficient in the City Manager's reasonable discretion to permit the City to determine the Municipal Services performed or the manner in which it is being performed, the City may seek more detail from the Service Provider.

Article 6 – Leased Premises; Relocation of the Service Provider. The City does hereby lease, demise and let unto the Service Provider, and the Service Provider does hereby rent, lease, hire and take from the City, to have and to hold during the Term, subject to the terms and conditions of this Agreement, certain Premises within the Porcher House.

Such leased Premises shall consist of that portion of the property located at 434 Delannoy Avenue, Cocoa, Florida 32922, Offices #203 and #204. Office #203 is calculated at approximately 228 square feet, and Office #204 is calculated at approximately 276 square feet. The square footage of the office spaces is used to determine the common area maintenance charge.

The Parties agree that Offices #203 and 204 are considered to be premium office space within the Porcher House. The Parties agree that, should another suitable office space (as determined by the City) within the Porcher House become available and should the City have the availability to lease Offices #203 and 204 at the full lease rate, that City hereby reserves the right to, with proper notice, relocate the Service Provider to other office space within the Porcher House.

Article 7 – Use of Leased Premises.

Section 7.1 – Use. The Premises shall be used and occupied by Service Provider in the operation of its lawful trade or business as presently carried on by Service Provider, limited to general office activities, more particularly described as non-profit association(s), in a safe, careful and proper manner, so as not to contravene any present or future governmental laws, rules, regulations, policies, procedures or orders. If improvements are necessary to comply with any of the foregoing or with the requirements of insurance carriers, due solely to Service Provider's use of the Premises, Service Provider shall be required to seek written approval from City prior to making the improvements and if approved, Service Provider shall pay the entire cost thereof.

Section 7.2 – Historic Preservation. Service Provider shall not use the Premises in any manner that disrupts the historic nature of the Porcher House through its use or alterations. This Agreement shall be subject to any historic preservation regulations and other requirements that are applicable to the Porcher House.

Section 7.3 – Nuisance. Service Provider shall not cause or maintain any nuisance in or about the Premises and the property thereon, and shall keep the Premises free of debris, rodents, vermin and anything of a dangerous, noxious, or offensive nature or which could create a fire hazard (through undue load on electrical circuits or otherwise) or undue vibration, heat, or noise.

Section 7.4 – Unlawful or Dangerous Activity. Service Provider shall neither use nor occupy the Premises or any part of the Premises for any unlawful, disreputable, or ultrahazardous business purpose nor operate or conduct Service Provider's business in a manner constituting a nuisance of any kind. Service Provider shall immediately, on discovery of any unlawful, disreputable, or ultrahazardous use, take action to halt such activity.

Section 7.5 – Common Areas. Service Provider shall have use of common areas including parking areas, ways, exits, entrances, roadways, and rest rooms for the general use, in common, of Service Providers, their officers, agents, employees, and customers. Service Provider's use of the common area use must not interfere with any of the City of Cocoa's operations and does not include any area on the first floor of the building.

Article 8 – Rent and Common Area and Maintenance Charges.

Section 8.1 – Annual Rental Amount. The City agrees to accept **One Dollar and 00/100 ($1.00)** per year from the Service Provider, due on or before October 1, 2025, and August 1st for any renewal term, respectively, as a nominal annual Rental Amount for the rental of the Premises.

Section 8.2 – Monthly Common Area and Maintenance (CAM) charges. Common Area and Maintenance (CAM) charges, shall be paid on a monthly basis, on or before the 1st of each month. Payments made after the 5th day of the month shall be subject to a ten percent (10%) late fee. Monthly CAM charges due shall be in equal installments of Forty-One Dollars and 57/100 ($41.57) for each month of this Agreement. Such monthly CAM charges due represent the collective amount due for both offices each month, which, separately are Nineteen Dollars and 07/100 ($19.07) for Office #203 and Twenty-Two Dollars and 49/100 ($22.49) for Office #204.

Common area costs shall mean all sums expended by the City for the maintenance and operation of the common areas and property management fees incurred by the City and all increases in any such costs and expenses. Costs for maintenance, management, and operation of the common areas shall include, but not be limited to, the following: cleaning, sweeping, resurfacing and restriping; cleaning and/or treating exterior brick surfaces; cleaning exterior window surfaces; repainting; repairs to buildings and improvements; relandscaping; supplying directional signs and other markers; car stops; lighting, water, and other utilities; and other costs necessary in the City's judgment for the maintenance and operation of the common areas, and any other charges, costs, and expenses that arise during the Term of this Agreement. This amount described above is subject to change based on circumstances unforeseen at the City's discretion.

Section 8.3 – Sales tax. The amounts due as provided for above do not include sales tax, inasmuch as the Service Provider, at the time of executing this Agreement, is a non-profit, tax-exempt corporation and thus provides that such sales tax is inapplicable. Should the Service Provider lose its status as a non-profit, tax-exempt corporation, at any time during the Term of this Agreement, applicable sales tax shall be calculated and imposed as of the date which the Service Provider no longer enjoys such status. The Service Provider shall give notice to the City of any change in its non-profit, tax-exempt status within five (5) days thereof, for the purpose of calculation, imposition and payment of applicable sales tax.

Section 8.4 – Payments to the City – General. All amounts payable by the Service Provider to the City under this Agreement, whether Rent or CAM charges, or any other payment, shall be payable when due, without deduction or set-off, in U.S. Dollars made payable to The City of Cocoa, Attention: Finance, at the address of, 65 Stone Street, Cocoa, Florida 32922, or to such other person or at such other address as City may from time to time designate in writing.

Section 8. 5 – Late Fee and Costs. The Service Provider shall pay the City a late charge equal to ten percent (10%) of any payment amount if payment is not tendered and received within five (5) days of its due date. Such payment shall be submitted as described in Section 8.4 above. The Service Provider shall indemnify the City against all costs and charges (including legal fees) lawfully and reasonably incurred in enforcing payment thereof, and in obtaining possession of the Premises after default of the Service Provider or upon expiration or earlier termination of the Term of this Agreement, or in enforcing any covenant, proviso or agreement of Service Provider herein contained.

Article 9 – Use of City's Office Equipment. The Service Provider shall have no right to share in the use of City's office equipment.

Article 10 – Property Management. The Service Provider acknowledges that the City may retain a management company ("Management Company") to manage and operate the property described in this Agreement. The Service Provider hereby agrees not to interfere with the City or the Management Company's duties and responsibilities under the Management Agreement. This Agreement shall be subject to any applicable provision in any future Management Agreement and any provision of this Agreement that conflicts with the Management Agreement shall be null and void and the applicable provision of the Management Agreement shall be substituted for the conflicting Agreement provision as if that provision was originally made a part of this Agreement.

Article 11 – Maintenance, Repair, Alterations and Renovations by the City.

Section 11.1 – Maintenance, Repair and Replacement. The City shall be responsible for and shall expeditiously maintain and repair the foundations, structures and roofs of the Premises in their condition as they exist at the execution of this Agreement, less reasonable wear and tear over the Term, provided that:

A. If all or part of the Premises is damaged or impaired, subject to Article 20 below, the City shall have a reasonable time in which to complete the necessary repair or replacement;

B. The City shall use reasonable diligence in carrying out its obligations under this Article 11, but shall not be liable under any circumstances for any consequential damage to any person or property for any failure to do so; and

C. Nothing contained herein shall be in derogation of the provisions of Article 20 of this Agreement regarding Destruction of the Premises.

D. Under no circumstances shall the City be liable to the Service Provider for any damage suffered by the Service Provider, its employees, agents, customers or invitees as a result of moisture or water inside the Premises whether caused by natural disasters and other acts of God, leaks in the structure or in the plumbing.

Section 11.2 – Alterations by the City. City may from time to time make repairs, replacements, changes or additions to the structure, systems, facilities and equipment in the Premises where necessary to serve the Premises; provided, however, that in so doing the City shall not disturb or interfere with the Service Provider's use of the Premises and operation of its business any more than is reasonably necessary under the circumstances and shall repair any damage to the Premises caused thereby.

Section 11.3 – Renovation by the City. In the event the City determines it is necessary to renovate the Premises of the Service Provider, and said renovation may significantly impact the Service Provider's use of the Premises, the City may do so upon not less than sixty (60) calendar days notice. If deemed necessary by the City, the Service Provider shall relocate promptly upon the request of City, at the Service Provider's expense. During any period of City renovation where the Service Provider was required to relocate, there will be a rent abatement. Upon completion of renovation, the Service Provider will be required to return to the Premises and adhere to all terms of this Agreement.

Section 11.4 – Access by City. The Service Provider shall permit the City or the City's agents to enter the Premises at all reasonable hours, including outside normal business hours, and, during normal business hours where such will not unreasonably disturb or interfere with the Service Provider's use of the Premises and operation of its business, to examine or inspect the Premises, to provide services, to make repairs, replacements, changes or alterations as set out in this Agreement and/or that the Service Provider may neglect or refuse to make in accordance with the provisions

of this Agreement, and to take such steps as the City may deem necessary for the safety, improvement or preservation of the Premises or the building. The City shall, whenever possible, consult with or give reasonable notice to the Service Provider prior to such entry, but no such entry shall constitute an eviction or entitle the Service Provider to any abatement of Rent.

Article 12 – Maintenance, Repair, Alterations and Improvements by the Service Provider.

Section 12.1 – Condition of Premises. Except to the extent that the City is specifically responsible under Article 11 of this Agreement, the Service Provider shall maintain the Premises and all improvements therein in their condition, as they exist at the execution of this Agreement, less reasonable wear and tear, at the Service Provider's sole cost and expense.

Section 12.2 – Alterations by Service Provider. The Service Provider may from time to time at the Service Provider's own expense make changes, additions and improvements in the Premises to better adapt the same to its business, provided that any such change, addition or improvement shall:

A. Be performed in a satisfactory manner and shall not weaken or impair the structural strength, or lessen the value, of the building or Premises, or change the purposes for which the building, or any part of the building, may be used; and

B. Not compromise the historic nature of the Porcher House, as determined by the City; and

C. Comply with the requirements of any governmental authority having jurisdiction; and

D. Equal or exceed the then current standard for the building; and

E. Require the prior written consent of City; and

F. Require the Service Provider to obtain appropriate builder's risk or other additional insurance coverages or bonds during the construction, if applicable, and upon the City's request.

Should the Service Provider make changes, additions and improvements without complying with the provisions of this Section, the Service Provider shall be fully liable to the City to restore the Premises to the same or better condition that existed prior to the unauthorized changes, additions and improvements. If the Service Provider fails to make the restorations within the time prescribed by the City, the City may, at its discretion, immediately terminate this Agreement, without penalty, and restore the Premises at the Service Provider's sole expense.

Section 12.3 – Trade Fixtures and Personal Property. The Service Provider may install in the Premises its usual trade fixtures and personal property in a proper manner, provided that no such installation shall interfere with or damage the mechanical or electrical systems or the structure of

the building. If the Service Provider is not then in default hereunder, trade fixtures and personal property installed in the Premises by the Service Provider may be removed from the Premises:

A. From time to time in the ordinary course of the Service Provider's business or in the course of reconstruction, renovation, or alteration of the Premises by the Service Provider; and

B. During a reasonable period prior to the expiration of the Term;

provided that the Service Provider promptly repairs at its own expense any damage to the Premises or building resulting from such installation and removal.

Article 13 – Taxes.

Section 13.1 – Service Provider's Taxes. The Service Provider shall pay on or before the last day on which payment may be made without penalty or interest, all applicable taxes, assessments, or other governmental charges that shall or may during the Agreement Term be imposed on, or arise in connection with the use of, the Premises or any part of the Premises including, but not limited to:

A. Florida state sales tax, if applicable, and all other applicable taxes, including governmental leasehold intangible personal property taxes, other than income taxes and taxes of a similar nature, due on rentals, including city, state, county and federal taxes that may be in effect from time to time; and

B. Taxes associated with operations at, occupancy of, or conduct of business in or from the Premises by or with the permission of the Service Provider; and

C. Taxes on fixtures or personal property in the Premises which do not belong to the City; and

D. It is the intention of the Parties that the rent specified in this Agreement is net rental, and the City shall receive such rent free from all taxes that are made payable by the Service Provider.

Section 13.2 – Notice of Payment of Taxes. The Service Provider shall, within seven (7) calendar days after the time provided for the payment of any applicable tax or other governmental charge by the Service Provider, produce and exhibit to the City satisfactory evidence of the payment.

Article 14 – Utilities. The City will be responsible for all electrical, garbage, water and sewer charges, however, will not be responsible or liable to the Service Provider for disruptions in service due to no fault of the City. All applications and connections for other necessary utility services on the Premises, such as telephone and internet service, shall be made in the name of the Service Provider only, with prior written consent of the City. The Service Provider shall be solely liable for utility charges, excluding electric, garbage, water and sewer, as they become due.

Article 15 – Insurance.

Section 15.1 – Insurance Requirements of the Service Provider relating to the Leased Premises. During the Term, the Service Provider shall maintain at its own expense:

A. Fire insurance with extended coverage and water damage insurance in amounts sufficient to fully cover Service Provider alterations and all property in the Premises which is not owned by City; and

B. Commercial General Liability or Businessowners' Liability insurance against claims for death, personal injury and property damage in or about the Premises, in amounts which are from time to time acceptable to a prudent tenant in the community in which the Premises is located, but not less than One Million Dollars ($1,000,000.00) combined single limit, in respect of each occurrence. Coverage shall include:

1. Premises and Operation.
2. Broad Form Property Damage.
3. Contractual liability coverage applicable to this specific Lease as an "insured contract," including any hold harmless and/or indemnification agreement.
4. Personal Injury Coverage with Employee and Contractual Exclusions removed, with minimum limits of coverage equal to those required for Bodily Injury Liability and Property Damage Liability.
5. Fire damage legal liability.

C. Business property coverage for loss of alterations to the Premises and Service Provider's equipment and facilities for no less than One Hundred Percent (100%) of the full replacement cost of the covered property; and

D. Workers' Compensation Insurance adequate in at least such amounts as are required by law, except where exempt by Florida Law, and Employer's Liability Insurance in an amount of $1,000,000 each accident and disease; and

E. As applicable, if Service Provider owns vehicles for transport to and from the facility, automobile liability coverage with coverage limit of not less than $500,000 combined single limit bodily injury and minimum $500,000 property damage as the combined single limit for each occurrence to protect the Service Provider from claims for damages for bodily injury, including wrongful death, as well as from claims from property damage, which may arise from the ownership, use, or maintenance of owned and non-owned automobiles, including rented automobiles whether such operations be by the Service Provider or by anyone directly or indirectly employed by the Service Provider; and

All insurance required to be maintained by Service Provider must be issued by carriers having a Best's Rating of A or better, and a Best's Financial Size Category of VIII, or better, and/or Standard & Poor Insurance Solvency Review A-, or better, and authorized to engage in the business of insurance in the State of Florida. All policies for insurance required pursuant to this Article 15 shall name the City and the Service Provider as the insureds as their respective interests may appear, excluding worker's compensation policies, shall contain standard mortgagee clauses in favor of the holders of any mortgages on the City's property, shall be in a form and with an insurer reasonably acceptable to the City, shall require at least thirty (30) days written notice to the City of termination or material alteration during the Term, and shall waive, to the extent available, any right of subrogation against the City. Service Provider shall promptly deliver to City certified copies or other evidence of such policies prior to commencement of this Agreement and thereafter at least 30 days prior to the expiration of current policies or on replacement of each certified coverage and within 10 days of City's request for an updated certificate. The insurance requirements set forth herein shall not relieve or limit the liability of the Service Provider. The City does not in any way represent that these types or amounts of insurance are sufficient or adequate to protect the Service Provider's interest or liabilities, but are merely minimums.

Section 15.2 – Insurance Requirements of the Service Provider Relating to the Municipal Services. During the Term of this Agreement, Service Provider shall also maintain, at its own expense, the following insurance coverage:

A. *Worker's compensation insurance* in accordance with the applicable provisions of Florida law, except where exempt under Florida.

B. *Directors and Officers Liability Coverage* for all corporate officers and directors of Service Provider with a combined single limit of $1,000,000 for each occurrence and $1,000,000 in the aggregate.

C. *Commercial general liability insurance* with a combined single limit of $1,000,000 for each occurrence and $1,000,000 in the aggregate.

All policies for insurance required herein shall name the City and the Service Provider as the insureds as their respective interests may appear, shall be in a form and with an insurer reasonably acceptable to the City, shall require at least thirty (30) days written notice to the City of termination or material alteration during the Term, and shall waive, to the extent available, any right of subrogation against the City. The Service Provider shall provide a copy of all insurance certificates to the City. Should the Service Provider fail to provide the insurance certificates or fails to obtain coverage in the aforementioned amounts, the City shall have the right to terminate this Agreement if the Service Provider unreasonably delays compliance. If requested by the City, the Service Provider shall from time to time promptly deliver to the City certified copies or other evidence of such policies, and evidence satisfactory to the City that all premiums thereon have been paid and the policies are in full force and effect. The insurance requirements set forth herein shall not relieve or limit the liability of the Service Provider. The City does not in any way represent that these types or amounts of insurance are sufficient or adequate to protect the Service Provider's interest or liabilities, but are merely minimums.

Section 15.3 – Personal Property. All personal property housed or placed at the Premises shall be at the risk of Service Provider, and the City shall have no liability for any damage or loss to any personal property located thereon for any cause whatsoever. The Service Provider agrees and understands that the City does not and shall not carry liability, fire, or theft insurance on the operation of the Premises to cover the Service Provider's interest or personal or business property kept therein. The City and Service Provider specifically acknowledge that the Service Provider has declined to obtain flood insurance sufficient to fully cover Service Provider alterations and all property in the Premises which is not owned by the City. Accordingly, the Service Provider agrees to waive all claims for personal injury or death and property damage or loss from whatever causes arising from flooding of the Premises and further agrees to indemnify and save harmless the City, its elected officials, officers, employees, agents and servants from any liability and expense, including reasonable attorney's fees, in connection with any and all claims, demands, damages, actions, causes of action, and suits in equity of whatever kind or nature, including claims for personal injury, property damage, equitable relief, or loss of use, arising directly or indirectly out of or in connection with flooding of the Premises.

Section 15.4 – Contractors. Service Provider shall require all contractors performing work within the Premises to procure and maintain workers' compensation, commercial general liability, and business auto liability. Both Service Provider and City shall be listed as additional insureds on all general liability policies of all such contractors.

Article 16 – Indemnification and Hold Harmless.

Section 16.1 – Indemnification and Hold Harmless Relating to Leased Premises. The Service Provider shall hold harmless and indemnify the City against any and all expenses, liabilities, and claims of every kind, including reasonable attorneys' fees of attorneys selected by the City, and related expenses through all appellate proceedings, by or on behalf of any person or entity arising out of either: (1) the use, occupation, management, maintenance, repair, construction, or control of the Premises by Service Provider or its agents, servants, employees, customers, patrons, or invitees; (2) any act or omission of the Service Provider or its agents, servants, employees, customers, patrons, or invitees arising out of this Agreement, including, but not limited to, those claims arising in conjunction with use of the facility, improper, or defective maintenance, or installation; (3) a failure by the Service Provider to perform any of the terms or conditions of this Agreement; (4) any injury or damage happening on or about the Premises; (3) failure to comply with any law of any governmental authority; or (5) any mechanic's lien or security interest filed against the Premises or equipment, materials, or alterations of buildings or improvements on the Premises, unless such claims are a result of the City's sole negligence or willful misconduct.

The Service Provider specifically assumes potential liability for actions brought by the Service Provider's own employees against the City and, solely for the purpose of this indemnification and defense, the Service Provider specifically waives its entitlement, if any, to immunity under Section 440.11, Florida Statutes. This waiver has been specifically and mutually negotiated by the parties.

The Service Provider recognizes the broad nature of this indemnification and hold harmless clause, as well as the provision of a legal defense to the City when necessary, and voluntarily makes this covenant and expressly acknowledges the receipt of such good and valuable consideration

provided by the City in support of these indemnification, legal defense and hold harmless contractual obligations in accordance with the laws of the State of Florida. This Section shall survive the termination of this Agreement. Compliance with any insurance requirements required elsewhere within this Agreement shall not relieve the Service Provider of its liability and obligation to defend, hold harmless and indemnify the City as set forth in this Section of the Agreement. Nothing herein shall be construed to extend the City's liability beyond that provided in Section 768.28, Florida Statutes.

Section 16.2 – Indemnification and Hold Harmless Relating to the Municipal Services. For all Municipal Services and Work performed pursuant to this Agreement, the Service Provider shall indemnify and hold harmless the City, its employees, attorneys and officers, from and against all claims, losses, damages, personal injuries (including but not limited to death), or liability (including reasonable attorney's fees), directly or indirectly arising from, or out of the following: (a) the acts, errors, omissions, intentional or otherwise, arising out of or resulting from Service Provider's and its employees, partners, contractors, volunteers, and agents performance of the Municipal Services and Work being performed under this Agreement; (b) Service Provider's, and its employees, partners, contractors, volunteers, and agents failure to comply with the provisions of any federal, state, or local laws, ordinance, or regulations applicable to Service Provider and its employees, partners, contractors, volunteers, and agents performance under this Agreement; and (c) any fraud and misrepresentation conducted by Service Provider and its employees, partners, contractors, volunteers, and agents. Service Provider shall not indemnify City against the sole negligence, gross negligence or willful misconduct of City or its employees or agents.

The Service Provider specifically assumes potential liability for actions brought by the Service Provider's own employees against the City and, solely for the purpose of this indemnification and defense, the Service Provider specifically waives its entitlement, if any, to immunity under Section 440.11, Florida Statutes. This waiver has been specifically and mutually negotiated by the parties.

Nothing in this Agreement is intended to serve as a waiver of sovereign immunity by the City. Nothing in this Agreement shall be construed as consent by the City to be sued by third parties in any matter arising out of this Agreement or any other contract. The indemnification provided above shall obligate the Service Provider to defend at its own expense or to provide for such defense, at the option of the City, of any and all claims of liability and all suits and actions of every name and description that may be brought against the City or its employees and officers which may result from the Municipal Services and Work performed under this Agreement whether the Municipal Services and Work are performed by the Service Provider, its employees, contractors, partners, volunteers, and agents or anyone directly or indirectly employed by the Service Provider. In all events the City shall be permitted to choose legal counsel of its sole choice, the fees for which shall be reasonable and subject to and included with the indemnification provided herein. This Section shall survive the termination of this Agreement.

Article 17 – Transfers by the City. Nothing in this Agreement shall restrict the right of the City to sell, convey, assign, mortgage or otherwise deal with the City's property or the right of the City to assign its interest in this Agreement subject only to the rights of the Service Provider under this Agreement.

Article 18 – Default or Breach. Each of the following events shall constitute a default or breach of this

Agreement by the Service Provider:

A. If the Service Provider fails, as determined by the City, to perform the Municipal Services as described in Article 5.

B. If the Service Provider, or any successor or assignee of the Service Provider while in possession, shall file a petition in bankruptcy or insolvency or for reorganization under any bankruptcy act, or shall voluntarily take advantage of any such act by answer or otherwise, or shall make an assignment for the benefit of creditors.

C. If the Service Provider shall fail to pay City any rent (inclusive of CAM charges) or additional rent when the rent shall become due and shall not make the payment within five (5) calendar days of its due date.

D. If the Service Provider shall fail to perform or comply with any of the conditions of this Agreement and if the nonperformance shall continue for a period of seven (7) calendar days after notice of nonperformance given by the City to the Service Provider or, if the performance cannot be reasonably had within the seven (7) calendar day period, Service Provider shall not in good faith have commenced performance within the seven (7) calendar day period and shall not diligently proceed to completion of performance.

E. If the Service Provider shall vacate or abandon the Premises.

F. If this Agreement or the estate of Service Provider under this Agreement shall be transferred to or shall pass to or devolve on any other person or party, except in the manner permitted in this Agreement.

G. If the Service Provider fails to take possession of the Premises on the term commencement date, or within seven (7) calendar days after notice that the Premises are available for occupancy, if the term commencement date is not fixed in this Agreement or shall be deferred as provided in Agreement.

Notwithstanding anything else to the contrary herein, Service Provider and City expressly waive the statutory notice requirements of Section 83.20, Florida Statutes, and agree that all notices of default shall be required to be given solely as provided for in this Agreement.

Article 19 – Effect of Service Provider Default or Breach. In the event of any default or breach under this Agreement, including but not limited to the events as set forth in Article 18, the rights of the City shall be as follows:

A. The City shall have the right to cancel and terminate this Agreement, as well as all of the right, title, and interest of Service Provider under this Agreement, provided, however, that the City shall first deliver to Service Provider written notice of the default and provide not less than seven (7) calendar days' opportunity to cure the default. On expiration of the time fixed in the notice, this Agreement and the right, title, and interest of the Service Provider under this Agreement, shall terminate in the same manner and with the same force

and effect, except as to the Service Provider's liability, as if the date fixed in the notice of cancellation and termination were the end of the term originally set forth in this Agreement.

B. The City may elect, but shall not be obligated, to make any payment required of Service Provider in this Agreement or comply with any agreement, term, or condition required by this Agreement to be performed by Service Provider. The cost of such payment or action to comply shall be reimbursed to City by the Service Provider. The City shall have the right to enter the Premises for the purpose of correcting or remedying any such default and to remain until the default has been corrected or remedied, but any expenditure for the correction by the City shall not be deemed to waive or release the default of the Service Provider or the right of City to take any action as may be otherwise permissible under this Agreement in the case of any default, including holding the Service Provider responsible for any City expenditure.

C. The City may reenter the Premises immediately and remove the property and personnel of Service Provider, and store the property in a public warehouse or at a place selected by City, at the expense of Service Provider, except to the extent that a court order pursuant to an action or proceeding at law is required pursuant to section 83.05, Florida Statutes. The City shall not be entitled to "lock Service Provider out" or utilize any other self-help measures to dispossess Service Provider absent a court order, except as permitted by section 83.05, Florida Statutes. After reentry City may terminate the Agreement on giving seven (7) calendar days' written notice of termination to Service Provider. Without the notice, reentry will not terminate this Agreement. On termination, City may recover from Service Provider all damages proximately resulting from the breach, including the cost of recovering the Premises and the value of the balance of this Agreement over the reasonable rental value of the Premises for the remainder of the Agreement term, which sum shall be immediately due City from Service Provider.

D. After reentry, City may relet the Premises or any part of the Premises for any term without terminating this Agreement, at the rent and on the terms as City may choose. City may make alterations and repairs to the Premises. The duties and liabilities of the Parties if the Premises are relet as provided in this section shall be as follows:

i. In addition to the Service Provider's liability to the City for breach of the Agreement, the Service Provider shall be liable for all expenses of the reletting, for the alterations and repairs made, and for the difference between the rent received by City under the new Agreement and the rent installments that are due for the same period under this Agreement.

ii. The City shall have the right, but shall not be required, to apply the rent received from reletting the Premises to: (1) reduce the indebtedness of the Service Provider to the City under this Agreement, not including indebtedness for rent; (2) expenses of the reletting and alterations and repairs made; (3) rent due under this Agreement; or (4) to payment of future rent under this Agreement as it becomes due.

iii. If the new tenant does not pay a rent installment promptly to City, and the rent installment has been credited in advance of payment to the indebtedness of the Service Provider other than rent, or if rentals from the new tenant have been otherwise applied by City as provided for in this section and during any rent installment period are less than the rent payable for the corresponding installment period under this Agreement, the Service Provider shall pay City the deficiency, separately for each rent installment deficiency period, and before the end of that period. The City may at any time after a reletting terminate this Agreement for the breach on which the City had based the reentry and subsequently relet the Premises.

iv. After reentry, the City may procure the appointment of a receiver to take possession and collect rents and profits of the business of the Service Provider. The receiver may carry on the business of the Service Provider and take possession of the personal property used in the business of the Service Provider, including inventory, trade fixtures, and furnishings, and use them in the business without compensating the Service Provider. Proceedings for the appointment of a receiver by the City, or the appointment of a receiver and the conduct of the business of the Service Provider by the receiver, shall not terminate and forfeit this Agreement unless the City has given written notice of termination to the Service Provider as provided in this Agreement.

Article 20 – Destruction of Premises. In the event of a partial or total destruction of the Premises by no fault of the Service Provider during the term of this Agreement as a result of fire, earthquake, accident or other casualty, City may, but shall not be obligated to, promptly repair such damage, provided the repairs can be made within a reasonable number of days under the laws and regulations of applicable governmental authorities and the cost of repairs are budgeted and appropriated by the City of Cocoa City Council. Upon such partial or total destruction and election of the City Council to repair such destruction, the Agreement shall neither annul nor be void, except that Service Provider shall be entitled to a proportionate reduction of rent while the repairs are being made, any proportionate reduction being based on the extent to which the making of repairs shall interfere with the business carried on by Service Provider on the Premises. In the event that City does not elect to make repairs or is unable to restore the Premises within a reasonable number of days, this Agreement may be terminated at the option of either party and rent abated as of the date of the total or partial destruction. If total or partial destruction occurs as a result of an act of Service Provider or Service Provider's employees, agents, customers or invitees, only City shall have the right of termination, and no reduction in rent shall be made.

Article 21 – Condemnation. Rights and duties in the event of condemnation subsequent to the effective date of this Agreement are as follows:

A. If the whole of the Premises shall be taken or condemned by any competent authority for any public or quasi-public use or purpose or in the event of a partial taking in which the balance of the Premises remaining cannot suitably be used by Tenant for its purposes herein stated, this Agreement shall cease and terminate as of the date on which title shall vest in that authority, and the rent reserved under this Agreement shall be apportioned and paid up to that date.

B. If only a portion of the Premises shall be taken or condemned and the balance of the Premises can be suitably used by the Service Provider for its purposes herein stated, this Agreement shall not cease or terminate, but the rent payable after the date on which the Service Provider shall be required to surrender possession of such portion shall be reduced in proportion to the decreased use suffered by the Service Provider as the Parties may agree.

C. In the event of any taking or condemnation in whole or in part, the entire resulting award of compensation or proceeds shall belong to the City without any deduction from such award for the value of the unexpired term of this Agreement or for any other estate or interest in the Premises now or later vested in the Service Provider. The Service Provider assigns to City all Service Provider's right, title, and interest in any and all such awards and waives any claims therefor.

Article 22 – Subordination. This Agreement and all rights of the Service Provider under this Agreement shall be subject and subordinate to the lien of any and all mortgages or requirements of any historic preservation grant that may now or in the future affect the Premises, or any part of the Premises, and to any and all renewals, modifications, or extensions of any such mortgages or grants. The Service Provider shall on demand execute, acknowledge, and deliver to the City, without expense to the City, any and all instruments that may be necessary or proper to subordinate this Agreement and all rights in this Agreement to the lien of any such mortgage(s) and grant(s). If the Service Provider shall fail at any time to execute, acknowledge, and deliver any such subordination instrument, the City, in addition to any other remedies available in consequence of such failure, may execute, acknowledge, and deliver the subordination instrument as the Service Provider's attorney-in-fact and in the Service Provider's name. The Service Provider irrevocably makes, constitutes, and appoints the City, its successors and assigns, the Service Provider's attorney-in-fact for that purpose.

Article 23 – Access to Premises; Sign Posted by the City. The Service Provider shall permit the City or its agents to enter the Premises at all reasonable hours to inspect the Premises, make repairs that Service Provider may neglect or refuse to make in accordance with the provisions of this Agreement, and also to show the Premises to prospective buyers, renters, or government officials in the course of the City of Cocoa's municipal functions. At any time, within three (3) months prior to expiration of the term of this Agreement, the City may show the Premises to persons wishing to rent them. The Service Provider shall, within three (3) months prior to expiration of the term of this Agreement, permit the usual notices of "For Rent" and "For Sale" to be placed on the Premises and to remain on the Premises without hindrance and molestation.

Article 24 – Easements, Agreements, or Encumbrances. The Parties shall be bound by all existing easements, agreements, and encumbrances, which may or may not be of record relating to the Premises, and the City shall not be liable to the Service Provider for any damages resulting from any action taken by a holder of an interest pursuant to the rights of that holder.

Article 25 – Quiet Enjoyment. Subject to the terms and conditions of this Agreement, the City warrants that the Service Provider shall be granted peaceable and quiet enjoyment of the Premises free from any eviction or interference by the City if the Service Provider pays the rent and other charges provided in this Agreement, and otherwise fully and punctually performs the terms and conditions, in relation to the

Municipal Services or otherwise, imposed on the Service Provider by this Agreement.

Article 26 – Liability of the City. The Service Provider shall be in exclusive control and possession of the Premises, and the City shall not be liable for any injury or damages to any property or to any person on or about the Premises or for any injury or damage to any property of the Service Provider. The provisions of this Agreement permitting the City to enter and inspect the Premises are made to insure that Service Provider is in compliance with the terms and conditions of this Agreement and to insure that the Service Provider makes repairs that the Service Provider has failed to make. The City shall not be liable to the Service Provider for any entry on the Premises for inspection purposes.

Article 27 – Rent abatement. No abatement, diminution, or reduction of rent shall be claimed or allowed to the Service Provider or any person claiming under the Service Provider under any circumstances, whether for inconvenience, discomfort, interruption of business, or otherwise, arising from the making of alterations, improvements, or repairs to the Premises, because of any governmental laws, or arising from and during the restoration of the Premises after their destruction or damage by fire or other cause, or the taking or condemnation of a portion only of the Premises, except as provided in Articles 11, 20 and 21.

Article 28 – Representations by City. At the commencement of the term, the Service Provider shall accept the Premises and improvements and any equipment in their existing condition and state of repair, and the Service Provider agrees that no representations, statements, or warranties, express or implied, have been made by or on behalf of the City in respect to the buildings, improvements and equipment, except as contained in the provisions of this Agreement.

Article 29 – Assignment, Sublease or Sale.

Section 29.1 – Assignment or Sublease by Service Provider. Except as explicitly authorized by this subsection, neither the Service Provider nor the Service Provider's successors or assigns shall assign, mortgage, pledge, or encumber this Agreement or sublet the Premises in whole or in part, or permit the Premises to be used or occupied by others, nor shall this Agreement be assigned or transferred by operation of law, without the prior, express, and written consent in writing of the City in each instance.

If this Agreement is assigned or transferred, or if all or any part of the Premises is sublet or occupied by anybody other than Service Provider, the City may, after default by the Service Provider, collect rent from the assignee, transferee, subtenant, or occupant, and apply the net amount collected to the rent reserved in this Agreement. However, any such assignment, subletting, occupancy, or collection shall not be deemed a waiver of any agreement or condition of this Agreement, or the acceptance of the assignee, transferee, subtenant, or occupant as the Service Provider. The Service Provider shall continue to be liable under this Agreement in accordance with its terms and conditions and shall not be released from the performance of the terms and conditions of this Agreement.

Section 29.2 – Assignment by City. City shall have the right to transfer, assign and convey, in whole or in part, any and all of its rights under this Agreement provided that the assignee and any assignee of the fee simple title of the Premises assume the obligations and duties of City arising under this Agreement.

Section 29.3 – Sale, Conveyance and Assignment. Nothing in this Agreement shall restrict the right of the City to sell, convey, assign, mortgage or otherwise deal with the Premises or the right of the City to assign its interest in this Agreement subject only to the rights of the Service Provider under this Agreement.

Article 30 – Surrender of Possession. The Service Provider shall, on the last day of the term, or on earlier termination and forfeiture of this Agreement, peaceably and quietly surrender and deliver the Premises to the City free of subtenancies, including all buildings, additions, and improvements constructed or placed on the Premises by the Service Provider, except moveable trade fixtures, all in good condition and repair. If the City so elects, any trade fixtures or personal property belonging to the Service Provider, if not removed at the termination or forfeiture of this Agreement, shall be deemed abandoned and become the property of the City without any payment or offset for such fixtures or property. At the City's election, the City may remove such fixtures or property from the Premises and store them at the risk and expense of the Service Provider. The Service Provider shall repair and restore all damage to the Premises caused by the removal of equipment, trade fixtures, and personal property. If, without City's express written consent, Service Provider or any other person claiming for, through, by or under Service Provider, shall hold the Premises or any part thereof for any period of time after the same should have been surrendered under the provisions of this Agreement, then Service Provider and such other person shall be subject to eviction or removal, forcible or otherwise, as allowed by law, it being understood that City shall at all times have available all remedies, rights and proceedings available to City with respect to the collection of rents or the repossession of the Premises under the laws of the State of Florida.

Article 31 – Notices. Communication and details concerning this Agreement shall be directed to the following contact representatives:

Attn: City Manager City of Cocoa 65 Stone Street Cocoa, Florida 32922 321-433-8660 with copy to Anthony A. Garganese, City Attorney Garganese, Weiss, D'Agresta & Salzman, P.A. P.O. Box 2873 Orlando, Florida 32802-2873 407-425-9566	Attn: Historic Cocoa Village Main Street 434 Delannoy Avenue Suite 204 Cocoa, FL 32922 (321) 631-9075

Any notice from one party to the other hereunder shall be in writing and shall be deemed duly served if delivered to the party being served or if mailed by First Class and registered or certified mail. Any Notice given as provided herein shall be deemed received as follows: if delivered by personal service, on the date so delivered; if delivered to an overnight courier service, on the business day immediately following

delivery to such service; and if mailed by First Class and Certified or Registered mail, on the third business day after mailing. Either party shall have the right to designate by notice, in the manner above set forth, a different address to which notices are to be mailed.

Article 32 – Miscellaneous.

Section 32.1 – Right to Refuse Admission and to Eject. The City reserves the right to refuse admission to the Premises, outside of ordinary business hours, to any person not known by the City or properly identified; to eject any person from the Premises whose conduct may tend to be harmful to the safety and interests of the Premises, the tenants and the property thereon; to close any part of the Premises during any riot or other commotion where person or property may be impaired or prior to, during, or after a Hurricane or other natural disaster.

Section 32.2 – Service Provider Not to Allow Lien or Encumbrances. The Service Provider shall not permit to be created nor to remain undischarged any lien, encumbrance, or charge arising out of any work of any contractor, mechanic, laborer, or materialman which might be or become a lien or encumbrance or charge upon the Premises of which the Premises is a part. If any lien or notice of lien on the account of any debt of the Service Provider shall be filed against the Premises or the property of which the Premises is a part, and the Service Provider fails to discharge the lien or notice of lien within twenty (20) days of filing, the City, in addition to any other legal rights or remedies, may, but shall not be obligated to, discharge the same by either paying the amounts claimed to be due, or shall be entitled to defend any prosecution of an action for foreclosure of such lien. Any amount paid by the City and all costs and expenses (including reasonable attorneys' fees and interest) incurred by City in connection therewith shall be paid by the Service Provider.

Section 32.3 – Condition Precedent. All rights, obligations and liabilities of the City and the Service Provider shall be subject to satisfaction of the condition precedent of the complete execution of this Agreement by the Service Provider and the City Manager of the City of Cocoa.

Section 32.4 – Binding Effect. This Agreement shall bind and inure to the benefit of the respective heirs, personal representatives, successors, and assigns of the Parties.

Section 32.5 – Professionalism and Standard of Care. The Service Provider shall do, perform and carry out in a professional manner all Municipal Services required to be performed by this Agreement. Service Provider shall also use the degree of care and skill in performing the Municipal Services that are ordinarily exercised under similar circumstances by reputable members of Service Provider's profession working in the same or similar locality as Service Provider.

Section 32.6 – Warranty of Professional Services & Compliance with Law. The Service Provider (for itself and any of its employees, contractors, volunteers, partners, and agents used to perform the Municipal Services) hereby warrants unto the City that all of its employees (and those of any of its contractors, partners, and agents used to perform the Municipal Services) have sufficient experience to properly complete the Municipal Services specified herein or as may be performed pursuant to this Agreement. In pursuit of any Municipal Services, the Service Provider shall supervise and direct the Municipal Services, using its best skill and attention. The Service

Provider shall comply with all applicable laws, ordinances, rules, regulations, and lawful orders of any public authority during the performance of the Municipal Services.

Section 32.7 – Work is a Private Undertaking. With regard to any and all Work performed hereunder, it is specifically understood and agreed to by and between the Parties hereto that the contractual relationship between the City and Service Provider is such that the Service Provider is an independent contractor and not an agent of the City. The Service Provider, its contractors, volunteers, partners, agents, and their employees are independent contractors and not employees of the City. No provision contained herein shall be construed as creating a joint venture between the Parties. Nothing in this Agreement shall be interpreted to establish any relationship other than that of an independent contractor, between the City, on one hand, and the Service Provider, its contractors, volunteers, partners, employees, or agents, during or after the performance of the Work under this Agreement.

Section 32.8 – Public Records. Pursuant to Section 119.0701, Florida Statutes and other applicable public records laws, Service Provider agrees that any records, documents, transactions, writings, papers, letters, computerized information and programs, maps, books, audio or video tapes, films, photographs, data processing software, writings or other material(s), regardless of the physical form, characteristics, or means of transmission, of Service Provider related, directly or indirectly, to the services provided to the City under this Agreement and made or received pursuant to law or ordinance or in connection with the transaction of official business by the City, may be deemed to be a public record, whether in the possession or control of the City or the Service Provider. Said records, documents, transactions, writings, papers, letters, computerized information and programs, maps, books, audio or video tapes, films, photographs, data processing software, writings or other material(s), regardless of the physical form, characteristics, or means of transmission of Service Provider are subject to the provisions of Chapter 119, Florida Statutes, and may not be destroyed without the specific written approval of the City's designated custodian of public records.

IF SERVICE PROVIDER HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE SERVICE PROVIDER'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS, THE CITY CLERK, AT (321) 433-8484, cshealy@cocoafl.org, 65 STONE ST., COCOA, FLORIDA 32922.

Service Provider is required to and agrees to comply with public records laws. Service Provider shall keep and maintain all public records required by the City to perform the services as agreed to herein. Service Provider shall provide the City, upon request from the City Clerk, copies of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided by law. Service Provider shall ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term. Upon completion of the Agreement, Service Provider shall transfer to the City, at no cost, all public records in possession of the Service Provider, provided the transfer is requested in writing by the City Clerk. Upon such transfer, Service Provider shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. However, if the City Clerk

does not request that the public records be transferred, the Service Provider shall continue to keep and maintain the public records upon completion of the Agreement and shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City Clerk, in a format that is compatible with the information technology systems of the City. Should the City not possess public records relating to this Agreement which are requested to be inspected or copied by the City or any other person, the City shall immediately notify Service Provider of the request and the Service Provider shall then provide such records to the City or allow the records to be inspected or copied within a reasonable time. If the Service Provider does not comply with a public records request, the City may enforce this Section to the extent permitted by law. Service Provider acknowledges that if Service Provider does not provide the public records to the City within a reasonable time, Service Provider may be subject to penalties under Section 119.10, Florida Statutes. Service Provider acknowledges that if a civil action is filed against Service Provider to compel production of public records relating to this Agreement, the court may assess and award against Service Provider the reasonable costs of enforcement, including reasonable attorney fees. All public records in connection with this Agreement shall, at any and all reasonable times during the normal business hours of the Service Provider, be open and freely exhibited to the City for the purpose of examination, audit, or otherwise. Failure by Service Provider to grant such public access and comply with public records laws and/or requests shall be grounds for immediate unilateral cancellation of this Agreement by the City upon delivery of a written notice of cancellation. If Service Provider fails to comply with this Section, and the City must enforce this Section, or the City suffers a third party award of attorney's fees and/or damages for violating Chapter 119, Florida Statutes, due to Service Provider's failure to comply with this Section, the City shall collect from Service Provider prevailing party attorney's fees and costs, and any damages incurred by the City, for enforcing this Section against Service Provider. And, if applicable, the City shall also be entitled to reimbursement of all attorneys' fees and damages which the City had to pay a third party because of Service Provider's failure to comply with this Section. The terms and conditions set forth in this Section shall survive the termination of this Agreement.

Section 32.9 – Audit and Inspections. All Service Provider's records with respect to the providing of Municipal Services under this Agreement shall be made available to the City, at any time during normal business hours, as often as the City deems necessary, to audit, examine, and make excerpts or transcripts of all relevant data. Failure of the Service Provider to comply with the above audit requirements will constitute a material breach of this Agreement.

Section 32.10 – Civil Rights. The Service Provider agrees to comply with any and all federal, state and local civil rights laws, including, but not limited to Title VI of the Civil Rights Act of 1964 as amended; Title VII of Civil Rights Act of 1968 as amended; Section 109 of Title I of the Housing and Community Development Act of 1974; Section 504 of the Rehabilitation Act of 1973; the Americans with Disabilities Act of 1990; the Age and Discrimination Act of 1975; Executive Order 11063; and with Executive Order 11246 as amended by Executive Orders 11375 and 12086.

Section 32.11 – Severability. Should any paragraph or any part of any paragraph of this Agreement be rendered void, invalid, or unenforceable by any court of law, for any reason, such a determination shall not render void, invalid, or unenforceable any other paragraph or any part of any paragraph in this Agreement.

Section 32.12 – Choice of Law; Venue. This Agreement has been made and entered into in the State of Florida, County of Brevard, and the laws of such state shall govern the validity and interpretation of this Agreement and the performance due hereunder. The Parties agree that venue shall be exclusively in Brevard County, Florida, for all state court actions or disputes which arise out of or based upon this Agreement, and in Orlando, Florida for all federal court actions or disputes which arise out of or are based upon this Agreement.

Section 32.13 – Integration; Modification. The drafting, execution, and delivery of this Agreement by the Parties has been induced by no representations, statements, warranties, or agreements other than those expressed herein. This Agreement embodies the entire understanding of the Parties, and there are no further or other agreements or understandings, written or oral, in effect between the Parties relating to the subject matter hereof unless expressly referred to herein. Modifications of this Agreement shall only be made in writing signed by both Parties.

Section 32.14 – Attorney's Fees. Should any litigation arise concerning this Agreement between the Parties, the Parties agree to bear their own costs and attorney's fees, whether at settlement, trial or on appeal.

Section 32.15 – Headings. All headings in this Agreement are for convenience only and shall not be used to interpret or construe its provisions.

Section 32.16 – Waiver. Any waiver by City of any breach or violation of Service Provider's obligations under this Agreement shall not be construed as a continuing waiver or consent to any subsequent breach or violation.

Section 32.17 – Corporate Representations. Service Provider makes the following representations to City:

A. Service Provider is duly organized and in good standing under the laws of the State of Florida, and is duly qualified and authorized to carry on the functions, responsibilities, and obligations in this Agreement.

B. The undersigned signatory for Service Provider has the power, authority, and the legal right to enter into and perform the obligations set forth in this Agreement and all applicable exhibits thereto, and the execution, delivery, and performance hereof by Service Provider has been duly authorized by the board of directors and/or president of Service Provider. In support of said representation, Service Provider agrees to provide, if requested by the City, a copy to the City of a corporate certificate of good standing provided by the State of Florida prior to, or any time after, the execution of this Agreement.

Section 32.18 – City's Right of Inspection. In addition to any rights of inspection of the City in relation to the occupancy of the Premises by the Service Provider as a tenant, the City is hereby granted the right of entry onto Service Provider's property used to perform the Municipal Services for purposes of determining Service Provider's compliance with this Agreement. The Service

Provider hereby agrees to fully cooperate with the City in permitting the City to conduct said inspections.

Section 32.19 – Time of Performance/Term. Time is of the essence under this Agreement. Municipal Services provided by the Service Provider shall begin immediately upon execution of this Agreement.

Sections 32.8, 32.9, 16.1, 16.2 and 32.22 shall survive the termination of this agreement.

Section 32.20 – Assignment. Except as explicitly provided in Section 29.1, this Agreement shall not be assigned by the Service Provider unless agreed to in writing by the City.

Section 32.21 – No City Obligation for Future Obligations to the Service Provider. No provision in this Agreement shall be construed as requiring the City to provide a lessened or nominal rental amount or otherwise in exchange for Municipal Services, or shall otherwise obligate the City in any respect relating to the Service provider, in the future.

Section 32.22 – Sovereign Immunity. The City intends to avail itself of the benefits of Section 768.28, Florida Statutes and any other statutes and common law governing sovereign immunity to the fullest extent possible. Neither this provision nor any other provision of this Agreement shall be construed as a waiver of the City's right to sovereign immunity under Section 768.28, Florida Statutes, or other limitations imposed on the City's potential liability under state or federal law. Contractor agrees that City shall not be liable under this Agreement for punitive damages or interest for the period before judgment. Further, City shall not be liable for any claim or judgment, or portion thereof, to any one person for over two hundred thousand dollars ($200,000.00), or any claim or judgment, or portion thereof, which, when totaled with all other claims or judgments paid by the State or its agencies and subdivisions arising out of the same incident or occurrence, exceeds three hundred thousand dollars ($300,000.00). Nothing in this Agreement is intended to inure to the benefit of any third party for the purpose of allowing any claim which would otherwise be barred under the doctrine of sovereign immunity or by operation of law. This paragraph shall survive termination of this Agreement.

Section 32.23 – Radon Gas. Radon is a naturally occurring radioactive gas that, when it has accumulated in a building in sufficient quantities, may present health risks to persons who are exposed to it over time. Levels of radon that exceed federal and state guidelines have been found in buildings in Florida. Additional information regarding radon and radon testing may be obtained from your county health department. The City has not undertaken any independent study of the radon levels in the Premises. The above notice should not be construed or interpreted as a notice that the Premises are exposed to quantities of radon which pose a health risk. The notice is included in this Agreement simply because radon disclosures are now required in all leases pursuant to Florida law.

Section 32.33 – Trafficking. As a condition of this contract, Service Provider shall attest under penalty of perjury, that Service Provider does not use coercion for labor or services as defined in Section 787.06(2), Florida Statutes. Attestations shall be documented using a Human Trafficking Affidavit as provided by the City.

Article 33 – Recordation. This Agreement shall be recorded in the public records of Brevard County, Florida.

IN WITNESS WHEREOF, this Agreement is entered into as of the day and year the last party signs this Agreement as stated below.

WITNESS:

GREATER COCOA COMMUNITY PARTNERSHIP, INC. d/b/a "HISTORIC COCOA VILLAGE MAIN STREET"

_____
Print Name: _____
Address: _____

By: _____

_____
Print Name: _____
Address: _____

Print name: _____

Title: _____

Date: _____

STATE OF FLORIDA
COUNTY OF BREVARD

The foregoing instrument was acknowledged before me by means of (___) physical presence or (___) online notarization, this _____ day of _____, 2026, by _____, the _____of the Greater Cocoa Community Partnership, Inc., a Florida not-for-profit corporation. He/she is personally known to me or produced _____ _____ as identification.

(NOTARY SEAL)

_____
(Notary Public Signature)

_____
(Print Name)
Notary Public, State of _____
Commission No.: _____
My Commission Expires: _____

ATTEST:

Monica Arsenault, City Clerk

CITY OF COCOA:

Michael C. Blake, Mayor

Date:_____

STATE OF FLORIDA
COUNTY OF BREVARD

The foregoing instrument was acknowledged before me by means of (___) physical presence or (___) online notarization, this _____ day of _____, 2026, by Michael C. Blake, the Mayor of the City of Cocoa. Florida**,** a Florida municipal corporation. He is personally known to me or produced _____ _____ as identification.

(NOTARY SEAL)

_____
(Notary Public Signature)

_____
(Print Name)
Notary Public, State of _____
Commission No.: _____
My Commission Expires: _____

EXHIBIT A

SCOPE OF WORK

A. GENERAL OBLIGATIONS

1. The Service Provider shall partner with and support the City to fulfill, at a minimum, the community-based projects provided for hereunder in Section B.
2. The Municipal Services shall largely focus on the coordination and implementation of physical improvements to the City, as directed by the City.
3. In addition to the specific projects identified in Section B. hereunder, the Service Provider shall support other community beautification projects, provide volunteers in support of City-sponsored (leisure Services and otherwise) events and/or economic development initiatives.
4. The Service Provider shall supply all personnel necessary to provide the Municipal Services detailed herein.

B. SPECIFIC PROJECTS

A. The Service Provider will provide to the City a promotional table at each of the Service Provider's upcoming events for the City to display any promotional events or materials.

B. The Service provider will include the City logo on all promotional materials for upcoming events. The City shall review the Service Provider's promotional materials in advance of their release and the City may reject inclusion of the City logo thereon in its sole discretion.

C. The Service Provider will help promote and collect items for the City's food, toy, and school supply drives.

D. The Service provider will help plan and promote the "Hot Cocoa Holidays" events which will occur annually, which include but are not limited to, the Holiday Craft Fair, Cocoa/Rockledge Holiday Parade, and Cocoa Holiday Festival.

E. The Service Provider will be the organizing body of an art/design committee that will facilitate art projects in the historic downtown.

F. Service Provider will also coordinate the directory signs throughout the Village to include an updated map of the historic downtown, list of events and an updated list of merchants in the downtown.

G. The Service Provider will coordinate the installation of new wayfinding and business directory signs in the Cocoa Village area. HCVMS will be responsible for monitoring the signs, coordinating, purchasing, and replacement of the business panels, maintaining a database of participating businesses, reporting any structural issues or safety concerns, and managing any ongoing costs for the business directory signs. All businesses in the Cocoa Village area will be required to coordinate through HCVMS to be placed on the signs when space is available. HCVMS may charge businesses for a panel on the signs to cover the costs associated with printing and maintaining the signs.

H. Service Provider will work with the City's Economic Development Department on enhancing the welcome packet given to all new businesses in the community.

I. Service Provider will coordinate with the City on marketing materials for the historic downtown, including but not limited to, tourism marketing and advertising, and Historic Cocoa Village brochure.

J. Service Provider will host community events in the historic downtown to include but not limited to: Arts & Crafts Fairs, Sip & Stroll events, Car Shows, etc.

K. Service Provider will assist the City's Public Works Department on various landscaping enhancement projects for the historic downtown and will seek grants where possible to enhance the landscaping and ambiance of the downtown.

L. Service Provider will coordinate with the City's Public Works Department to help with the annual sidewalk/curb cleaning project.

M. Service Provider will work with property owners in the downtown to put up temporary signage in the vacant storefronts to enhance the look and cohesiveness of the downtown.

N. The Service Provider will work with the City to help restructure and strategically plan waste collection efforts in the Cocoa Village area. This may include coordinating with businesses to determine the best collection point for waste and assisting with grouping businesses for a more strategic approach to waste collection.

2nd DRAFT - Historic Cocoa Village Main Street

Business Directory Sign Maintenance & Management Policy

For Review by the City Council of the City of Cocoa

1. Purpose

The purpose of this policy is to establish clear procedures for the maintenance, upkeep, and management of business directory and wayfinding signage located throughout Cocoa Village. These signs provide visitors with wayfinding information and promote local businesses while maintaining a cohesive and professional appearance for the district. As part of this effort, existing directory signage that does not conform to the City of Cocoa Sign Code will be removed and replaced in accordance with current standards to ensure consistency, compliance, and visual integrity throughout the Village.

This policy assigns responsibility for routine monitoring, maintenance coordination, and directory updates to Historic Cocoa Village Main Street (HCVMS) while installation and structural oversight will be coordinated by both HCVMS and the City of Cocoa.

2. Roles and Responsibilities

City of Cocoa

The City shall be responsible for:

- Structural integrity of signposts and foundations in coordination with HCVMS and selected vendor
- Compliance with applicable city codes and right-of-way regulations
- The City of Cocoa will be removing all pole signs located in the right-of-way that have been historically maintained by the City and will attempt to return any panels to individual businesses that have attached them to the pole.

Historic Cocoa Village Main Street

HCVMS shall be responsible for:

- Coordination of the installation of the signs in conjunction with the City of Cocoa and selected vendor
- Monitoring the condition and accuracy of directory signs
- Coordinating replacement of business panels when businesses open, close, or relocate
- Maintaining a current database of participating businesses listed on the signs
- Minor maintenance such as panel cleaning or replacement

- Reporting structural issues or safety concerns to the City of Cocoa and coordinating repair and/or replacement
- Managing associated costs for directory updates when applicable

3. Directory Listing Eligibility

Businesses may be listed on directory signs if they meet the following criteria:

- Operate within the designated Cocoa Village district boundaries
- Maintain a valid business license with the City of Cocoa
- Active HCVMS member
- Be current on all property taxes, assessments, and utility charges
- Have no unpaid Code Enforcement liens or other unpaid financial obligations with the City of Cocoa
- Have no open Code Enforcement violations at the time of request for inclusion on the sign
- Have removed all permanent ground signs for the business located in the City right-of-way that do not comply with Section 3-23(i)(10) of the City Code.

HCVMS reserves the right to verify eligibility prior to listing.

4. Directory Panel Updates

Directory panels may be updated under the following circumstances:

- A new business is opening within the district
- A listed business relocates within the district
- A listed business permanently closes
- A listed business rebrands with a new name and/or logo

Update Procedure

1. HCVMS verifies business status change.
2. Business pays HCVMS for updated panel.
3. HCVMS orders updated panel from the approved manufacturer.
4. Panel is installed or replaced by HCVMS staff.

Update Schedule

To manage costs efficiently, updates may be batched and completed:

- Quarterly, bi-annually, or

- As needed when sufficient updates justify production.

5. Maintenance and Inspection

HCVMS will conduct periodic inspections of all directory signs.

Inspection Frequency

- At minimum twice per year
- Additional inspections following major events or storms

Inspection Items

- Panel readability
- Panel damage or fading
- Missing business listings
- Graffiti or vandalism
- Structural issues

Structural issues will be reported to the City of Cocoa Public Works Department and/or City Manager's Office as soon as possible but no less than two (2) days after identified.

6. Cleaning and Appearance Standards

To maintain a welcoming appearance for visitors and businesses:

- Panels will be cleaned as needed to remove dirt, debris, or graffiti
- Graffiti removal will occur as soon as practical
- Damaged panels will be replaced when necessary

HCVMS may contract maintenance services when appropriate.

7. Cost Responsibility

Costs associated with the following will be covered by HCVMS:

- Initial Installation & Replacement of business panels
- Routine cleaning and minor maintenance
- Administrative costs for managing listings

Funding sources may include:

- Program operating funds
- Membership fees (if implemented in the future)

Structural repairs remain the responsibility of the City of Cocoa with coordination of HCVMS.

8. Design Standards

All directory panels must comply with the established Cocoa Village wayfinding design standards listed below to ensure visual consistency.

These standards include:

- Standardized business name/logo formatting that matches the business name and logo
- Uniform panel dimensions
- Approved directional arrows or map placement based on business location

No individual advertising or branding beyond the approved format will be permitted.

9. Record Keeping

HCVMS will maintain records including:

- Directory sign locations
- Businesses listed on each sign
- Update history
- Maintenance logs

Records will be made available to the City upon request.

10. Policy Review

This policy will be reviewed periodically by HCVMS and City Manager and may be amended with approval from the Cocoa City Council to ensure the directory system continues to meet the needs of the Cocoa Village district.

PLANNING & ZONING AGENDA ITEM

Memo Date:	04/20/2026
Agenda Date:	5/6/2026
Prepared By:	Charlene Neuterman, Community Services Director
Through:	Stockton Whitten, City Manager
Requested Action:	Consideration of a plan to develop a low-impact development surface parking area on approximately 0.9 acres of City-owned property located at 216 and 218 Oleander Street in Cocoa to support public parking needs in Cocoa Village and the surrounding area. Planned improvements include approximately 80 parking spaces, of which 4 spaces are accessible, designated vehicle charging stations, decorative street lighting, street trees, sidewalks, decorative fencing, interior landscape areas, minimum 5-feet perimeter landscape buffers, minimum two-way aisle widths of 20-feet, pervious pavement, and related site enhancements. The project includes tax account numbers: 2425841, 2425949, 2461829, 2425950, 2425951, and 2425843.

BACKGROUND:

In 2021, the City purchased the five (5) lots on Oleander Street, west of Hughlett Avenue in the Cocoa Community Redevelopment Area, Heart of Cocoa Subdistrict. The intent of these lots was to increase parking opportunities in and around Cocoa Village. The City enlisted the expertise of a Traffic Engineering consultant to assist with the design and engineering of the site. Through the work with the consultant, a thoughtful design using Low-Impact Development (LID) techniques is presented before the Board.

The planned improvements include approximately 80 new parking spaces, 4 of which are handicap accessible. Additionally, the design includes vehicle charging stations, decorative street lighting, street trees, sidewalks, decorative fencing, interior landscape areas, minimum 5-feet perimeter landscape buffers, minimum two-way aisle widths of 20-feet, pervious pavement, and related site enhancements.

Zoning Confirmation

Based on the City's Zoning Map, three parcels with frontage on Oleander Street are currently zoned RU-2-10 (Residential), while the three larger parcels with frontage on King Street are zoned C-C (Commercial). In Ordinance 11-2024, the City amended the Waterfront Overlay District Regulating Plan to allow public parking as a use on municipally-owned lots as designated in the Regulating Plan. The Regulating Plan identifies public parking as a permitted use on the three RU-2-10 zoned properties owned by the City. The parking design standards applicable to RU-2-10 are more restrictive than those for C-C zoning. Given that the proposed parking facility is intended to support commercial activity, it is recommended that the project be evaluated under the C-C zoning standards.

Parking Space Sizing and Curb Consideration
The current concept utilizes 18 foot parking stalls adjacent to 5 foot (minimum) landscape areas along the interior property lines. With the use of standard Type D curb functioning as the wheel stop, the effective landscape width is reduced to approximately 4.5 feet from the interior property line. It is recommended that approval be granted to allow 18 foot by 10 foot parking stalls utilizing the curb as a wheel stop, with a 4.5 foot landscape buffer along the interior property line.

Interior Landscape Areas
The Land Development Code requires 8 foot wide landscape between rows when an off-site parking lot has six or more rows of parking. The proposed Oleander parking lot includes fewer than six rows of parking; therefore, this requirement does not apply. The current concept incorporates islands at the end of parking rows of 4 feet, incorporates tree protection areas, and plant material intended to function as bioswales. It is recommended that the landscape islands of 4 feet, as proposed, are acceptable.

Paved Parking Material
The City intends to use permeable pavers, commonly referred to as Grasscrete for the parking surface. The Land Development allows stabilized surfaces with approval from the City Engineer and Community Services Director. The consultant intends to submit the product information and subbase specifications to the City Engineer for review and approval.

Appendix A, Zoning, Article IV, Sec. 2 provides: "The planning and zoning board/LPA shall be required to make a recommendation to the city council regarding all proposed uses of land and development projects on lands owned, leased, or controlled by the city of Cocoa within the boundaries of the city." Further, "[n]othing in Appendix A—Zoning or the city code shall prevent any use of land or any development project on land owned, leased, or controlled by the city of Cocoa, provided said use of land or development project has been approved by the city council. The city council may over-ride any provision of Appendix A—Zoning or the city code which may be applicable to any said use of land or development project upon a finding that the public interest favoring the proposed over-ride outweighs the strict application of Appendix A—Zoning or the city code."

Staff requests approval of a plan to develop a low-impact development surface parking area on approximately 0.9 acres of City-owned property located at 216 and 218 Oleander Street in Cocoa to support public parking needs in Cocoa Village and the surrounding area. Planned improvements include approximately 80 parking spaces, of which 4 spaces are accessible, designated vehicle charging stations, decorative street lighting, street trees, sidewalks, decorative fencing, interior landscape areas, minimum 5-feet perimeter landscape buffers, minimum two-way aisle widths of 20-feet, pervious pavement, and related site enhancements. The project includes tax account numbers: 2425841, 2425949, 2461829, 2425950, 2425951, and 2425843.

PRIORITY AREA CONNECTION:
Investment in Public Infrastructure

BUDGETARY IMPACT:
N/A

PREVIOUS ACTION:
N/A

RECOMMENDED MOTION:
Consideration of a plan to develop a low-impact development surface parking area on approximately 0.9 acres of City-owned property located at 216 and 218 Oleander Street in Cocoa to support public parking needs in Cocoa Village and the surrounding area. Planned improvements include approximately 80 parking spaces, of which 4 spaces are accessible, designated vehicle charging stations, decorative street lighting, street trees, sidewalks, decorative fencing, interior landscape areas, minimum 5-feet perimeter landscape buffers, minimum two-way aisle widths of 20-feet, pervious pavement, and related site enhancements. The project includes tax account numbers: 2425841, 2425949, 2461829, 2425950, 2425951, and 2425843.

Appendix

Land Development Code Compliance Summary

Oleander Street Parking Lot – City of Cocoa, Florida

ID	Design Element	Code Requirement	Source	Provided on Plan	Notes
ZONING					
1	Zoning	RU-2-10 and C-C	City of Cocoa Zoning Map		Three parcels are currently zoned residential (RU-2-1-10). Request confirmation that C-C standards may be applied.
2	Minimum Yards, C-C	Front yard = 20-ft Side yard = 5-ft	Appendix A, Article XI, Section 18(F)(5) Article V - Definitions, Yard	Sidewalk, landscape, lighting, and parking is provided 0 to 15-ft min from ROW.	These setbacks apply to structures, parking areas are regulated separately under Article XII.
OFF-STREET PARKING AND LOADING REQUIREMENTS					
3	Off-street Parking	All parking is to be kept back of the building setback line unless otherwise specifically authorized by the City Council.	Appendix A, Article XII, Section 6(5)	Parking is provided 10 to 15-ft from ROW.	Applicable to residential districts. Does not apply to parking lots.
4	RU-2-10	Front yard setback = 25-ft	Appendix A, Article XI, Section 4A(G)		Application of the 25-ft setback would create offset (zig-zag) aisles and reduce parking efficiency.
5	Right-of-way Setback for Parking Spaces	5-ft (min) Property Line Setback 10-ft (min) ROW Setback	Appendix A, Article XII, Section 3(b)	With curb as wheel stop, effective landscape and setback from interior property line is 4.5-ft. Parking is provided 10 to 15-ft from ROW.	Public Works concurs that curb as wheel stop and 4.5-ft landscape is sufficient. Administrative adjustments (up to 20%) may be authorized by Community Development Director.

Appendix
Land Development Code Compliance Summary
Oleander Street Parking Lot – City of Cocoa, Florida

ID	Design Element	Code Requirement	Source	Provided on Plan	Notes
LANDSCAPE					
6	Landscaping Adjacent to Commercial Properties	5-ft (min) Abutting ROW	Appendix A, Article XIII, Section 22 (C)(5)	Given the irregular ROW alignment on the residential parcel, the sidewalk is adjacent to the ROW, with the landscape behind.	Project is adjacent to a residential zoned parcel currently used for commercial purposes. Sidewalk and landscape areas exceed 5-ft requirement.
7	Interior Landscaped Areas	8-ft width (min)	Appendix A, Article XIII, Section 3(l)	Not applicable.	Not applicable, as the parking lot contains fewer than six rows.
8	Paved Parking Required	A stabilized surface acceptable to the city engineer or community development director	Appendix A, Article XIII, Section 3(g)(c)		Proposed surface and subbase material will be submitted to Public Works director for administrative approval.

Notes: Land Development Code references are from the *City of Cocoa Land Development Regulations, Appendix A – Zoning.*



CITY OF COCOA

OLEANDER STREET PARKING LOT

Brevard, Florida

Myra PLANNING & DESIGN

COMMUNITY PLANNING + TRANSPORTATION + PUBLIC OUTREACH
P.O. BOX 533913, ORLANDO, FLORIDA 32853 PHONE: 407-636-PLAN
FAX: 407-359-4607 WWW.MYRAPLANNING.COM
CERTIFICATE OF AUTHORIZATION 28902

Seal/Signature

NAME:
REGISTRATION NUMBER:

ISSUED TO	BY	DATE

REV.	DATE	DESCRIPTION

PLAN SHEET

Sheet Title

JOB NO.	00.00
SCALE:	SEE SHEET
DATE:	7/27/2025
DESIGN	XX
DRAWN:	XX
CHECKED:	XX

Sheet No.

2:30:47 PM C:\PROJECTS\OLEANDER_PARKING\plan-[illegible].dwg

Planning & Zoning
65 Stone Street • Cocoa, FL 32922
PHONE: (321) 433-8685
FAX: (321) 433-8685
www.CocoaFL.gov

COURTESY NOTICE OF PUBLIC HEARING
TO PROPERTY OWNERS WITHIN 500 FEET OF THE SUBJECT SITE

The City of Cocoa is petitioning the Planning & Zoning Board and City Council for the following item:

PROJECT NAME: Oleander Parking Lot

REQUEST: Consideration of a plan to develop a low-impact development surface parking area on approximately 0.9 acres of City-owned property located at 216 and 218 Oleander Street in Cocoa to support public parking needs in Cocoa Village and the surrounding area. Planned improvements include approximately 80 parking spaces, of which 4 spaces are accessible, designated vehicle charging stations, decorative street lighting, street trees, sidewalks, decorative fencing, interior landscape areas, minimum 5-feet perimeter landscape buffers, minimum two-way aisle widths of 20-feet, pervious pavement, and related site enhancements. The project includes tax account numbers: 2425841, 2425949, 2461829, 2425950, 2425951, and 2425843.

The Board will hold a public hearing on this request at 6:00 p.m. on **Wednesday, May 06, 2026**; the Council will hold a public hearing on this request at 6:00 p.m. on **Tuesday, May 12, 2026**. Both hearings will take place in the City of Cocoa Council Chambers located at 65 Stone Street, Cocoa, Florida. All interested parties are invited to attend and will be heard if desired.

General Notice Information:

This is a public meeting. Interested parties are hereby advised that they may appear at said meeting and be heard. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk of the City of Cocoa, listed below, at least 48 hours prior to the meeting Monica Arsenault, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8488 or via email at marsenault@cocoafl.gov.

Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that if a person decides to appeal any decision made by the BOA, P&Z Board/LPA or City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made, and such record shall include the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.

The BOA or PZ Board/LPA meeting may include the attendance of one (1) or more members of the Cocoa City Council who may or may not participate in the Board discussions held at this public hearing. The BOA, PZ Board/LPA and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising

Public Participation Information:

Members of the public may view the meeting agenda, ordinances, project applications, supporting documents, and staff reports on the City's website at the following link prior to attending or commenting:

- City of Cocoa meeting calendar at https://www.cocoafl.gov/291/20338/City-Meetings

Documents pertaining to the above may also be inspected at the Community Services Department between 8:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8400.

Interested persons may submit their written comments or questions prior to the meeting through Email at cityclerk@cocoafl.gov, or via E-comments through the online agenda at the link above. Any electronic comments submitted will be made part of the meeting record.

Viewing In Real Time. Interested persons are encouraged to view and listen to the hearings live by accessing the meetings at the following internet address:

- City of Cocoa meeting calendar at https://www.cocoafl.gov/291/20338/City-Meetings

However, the City is not responsible for technical difficulties that may occur while attempting to view or listen to the meeting on the internet.

Special Information for Quasi-Judicial Hearings:

Any person that (1) can demonstrate that they may suffer special damages different in kind and degree from that of the general public at large; and (2) wishes to present factual or expert witnesses and/or evidence at the quasi-judicial hearing is highly encouraged to immediately contact Jennifer Webster, City Planner, at (321) 433-8510 or JWebster@cocoafl.gov, to make proper arrangements for presentation of witnesses and/or evidence. All witnesses should be identified and all evidentiary documents and exhibits that are intended to be distributed to the BOA, P&Z/LPA and City Council should be submitted to Mrs. Ribeiro via email or mail at least three (3) days prior to the hearing.

PLANNING & ZONING AGENDA ITEM

Memo Date:	04/20/2026
Agenda Date:	5/6/2026
Prepared By:	
Through:	
Requested Action:	Consideration of a Large-Scale Site Plan, Preliminary Plat, and Development Agreement pursuant to Appendix A, Zoning, Article XIII, Sec. 1(D) of the Cocoa City Code, for the development of a two-phase residential development consisting of a total of 249 townhome lots. The proposed development encompasses three (3) parcels totaling 89.54± acres. The property is located on the east side of Cox Road approximately 2,200 feet south of Highway 524. Tax Parcel ID numbers: 24-35-24-00-508 and 24-35-24-00-509 and 24-35-24-00-510.

BACKGROUND:

The subject property is generally located on the east side of Cox Road, north of Pine Cone Place and approximately 2,200 feet south of Highway 524 in Cocoa, Florida. The property is further described by the Property Appraiser under Tax Parcel ID Numbers: 24-35-24-00-508 and 24-35-24-00-509 and 24-35-24-00-510.

This site has a zoning designation of RU-2-15 (Multiple-Family Dwelling District) and falls in the future land use category of Medium Density Residential.

Meritage Homes, the Applicant, has submitted both a Site Plan Application and a Preliminary Plat Application. The Plans feature a two-phase residential development consisting of a total of 249 townhome lots generally located in the western portion of the subject property.

Project Information

The Applicant formally submitted the Sanctuary at Cocoa Large Scale Site Plan Application and Preliminary Plat Application in June 2025. The Applicant intends to subdivide Parcels 24-35-24-00-508 and 24-35-24-00-509 located in the west into 249 townhome lots and supporting infrastructure. Parcel 24-35-24-00-510, the remaining land in the east, is designated as preserved wetlands.

Development standards for the proposed townhome lots include a minimum lot width of 20-feet with 24-foot end units. Primary access is shown on Cox Road, and a 50-foot private right-of-way provides internal circulation.

Future Land Use Designation	Medium Density Residential (MDR)

Zoning District	Multiple-Family Dwelling District (RU-2-15)
Existing Land Use	Vacant
Council District	District 3 – Councilmember Patricia Weeks
Legal Ad Date	February 20, 2026

Overview of Surrounding Area

	Future Land Use	Zoning	Land Use
North	MDR & Cons	RU-2-15 & RU-1-7	Residential & Vacant
South	VLDR	RA	Residential
East	LDR	RR-1	Residential
West	IND	M-1	Industrial

Large-Scale Site Plan And Preliminary Plat Analysis

"Consistent with Appendix A, Article XIII, Section 1(D), "All site plans shall be required to meet all current applicable code requirements."

Consistency With Code Of The City Of Cocoa

The Development Review Committee, consisting of the Building Official, the Code Enforcement Manager, the Environmental Control Coordinators, the Fire Department Chief and/or Inspector, the Planning & Zoning Manager and/or staff, the Public Works Director, and the Utilities Director, have reviewed the Site Plan and Preliminary Plat and determined that it generally meets the minimum requirements of all applicable City Code requirements, and in addition, the site plan meets the requirements of a Large Scale Site Plan review.

Site Plan And Preliminary Plat Data

The Site Plan proposes a two-phased subdivision consisting of 249 residential townhome lots. Phase 1 includes 182 lots and Phase 2 includes 67 lots. The site is allowed a maximum density of 15 units per acre for a total of a maximum of 691 units per acre. The proposed project is requesting fewer units than the maximum allowed under the Comprehensive Plan for this site. The construction of the townhomes and necessary infrastructure will occur primarily on Parcels 24-35-24-00-508 and 24-35-24-00-509 located in the west. Tract E, as depicted on the preliminary site plan, will be conveyed to

the City of Cocoa for future preservation.

The plan also identifies twenty-two (22) designated tracts (Tracts A–Z4), each serving a specific function, such as an amenity center, lift station and stormwater treatment. The Tract Data Table below summarizes the area allocation and intended use for each tract.

Tract Data Table

Site Tract Designation Areas

Tract	Use	Area
A	Stormwater Facilities, Landscaping, Irrigation, and Related Facilities	2.86
B	Stormwater Facilities, Landscaping, Irrigation, and Related Facilities	6.06
C	Stormwater Facilities, Landscaping, Irrigation, and Related Facilities	0.84
D	Amenity Center, Installation and Maintenance of Utilities, Recreation, Open Space and Stormwater Management	1.59
E	Wetland Preservation, Upland Buffer, Open Space	46.12
F	Wetland Preservation, Upland Buffer, Open Space	
G	Landscape Improvements, Public Sidewalk, Stormwater Management and Related Improvements	0.93
H	Landscape Buffer and Stormwater Management	0.93
I	Lift Station	0.06

J	Landscape Buffer and Open Space	0.44
K	Landscape Buffer and Open Space	1.95
L	Parking Area, Open Space, and Ingress/Egress to Tract C. Specific for the Maintenance and Operation of Tract C	0.27
M	Open Space	0.31
N	Open Space, Trail, and Stormwater Facilities	2.26
O	Parking, Landscaping, & Related Improvement, Including the Ingress/Egress to Tract A Specific to the Maintenance and Operation of Tract A	0.09
P	Parking, Landscaping, & Related Improvement, Including the Ingress/Egress to Tract A Specific to the Maintenance and Operation of Tract A.	0.09
Q	Future ROW Expansion	1.09
S	Future Development	5.95
ZZ1	ROW (Phase 1) Ingress/Egress, Public and Private Facilities	4.45
Z1	Road ROW- To Be Dedicated to the City of Cocoa	0.06
Z2	Road ROW- To Be Dedicated to the City of Cocoa	0.33
Z3	Road ROW- To Be Dedicated to the City of Cocoa	0.07
Z4	Road ROW- To Be Dedicated to the City of Cocoa	0.21

Environmental Considerations

Environmental permitting with the St John's River Water Management District (SJRWMD) has been processed and approved on June 16, 2025. No suitable habitat for listed wildlife species as described in City of Cocoa Comprehensive Plan Policy 12.1.6.12 is present on the project site. Per the Environmental Assessment prepared by Aquatic Research FL "No gopher tortoise burrows were observed. No additional listed species dens, nests, burrows, or roosting areas were observed on the subject property." A comprehensive (100 percent) gopher tortoise survey will be conducted within 90 days prior to the anticipated commencement of construction, notwithstanding the absence of suitable onsite habitats.

Wetland Impacts

The City's Comprehensive Plan Policy 12.1.6.15 requires the protection and conservation of wetlands by avoiding or minimizing impacts and providing mitigation where impacts are unavoidable. Environmental site assessments conducted by Aquatic Research FL in October 2024 and June 2025 determined the property contains native uplands and one state and federally jurisdictional wetland slough that is hydrologically connected to Mud Lake and other surface waters, including two ditches and a pond. The site also contains moderate- to high-quality upland habitats consisting of live oak–cabbage palm forest, pine flatwoods, and oak/pine successional forest. A formal wetland delineation and jurisdictional determinations were completed and approved by the State and the U.S. Army Corps of Engineers.

The proposed development was designed to cluster development primarily within the western portion of the site in order to preserve the majority of wetlands located in the eastern portion of the property. As identified in the Environmental Assessment, the project proposes approximately 1.4 acres of direct wetland impacts and 0.57 acres of secondary impacts associated with necessary site access, infrastructure, and stormwater improvements. Mitigation will be provided through 1.25 acres of onsite wetland enhancement and off-site mitigation. Using the Uniform Mitigation Assessment Method (UMAM), the St. Johns River Water Management District determined that the proposed mitigation will generate 1.81 units of lift, exceeding the 0.98 units required to offset project impacts and ensuring compliance with applicable environmental regulations.

Mitigation for wetland impacts will be provided through a combination of onsite wetland preservation and enhancement, offsite mitigation, and the purchase of wetland mitigation bank credits within Brevard County, consistent with the City's mitigation hierarchy.

Mitigation will be subject to the Sanctuary at Cocoa Development Agreement and will follow the conditions set forth in the agreement.

Landscaping

The Landscape Plans submitted with this Site Plan application indicate removal of 5,925 trees to allow for construction of the proposed improvements with on-site mitigation/tree replanting of canopy and palm trees in accordance with Article XIII Section 22 of the Zoning Ordinance. The total inches of mitigation required for the site are 30,534 inches. The Landscape plans propose to provide 23,298 inches of replanting and the remaining balance of 7,236 inches will be mitigated through payment to the arbor mitigation contribution for a total, reduced contributed amount of $550,000.00. Per the Development Agreement, the Developer and the City agree that the Developer shall pay to the City, prior to the commencement of any tree removal on the Property, a reduced Arbor Mitigation Fund Contribution for the tree removals on the Property that will not be replaced, which is equal to $550,000.00, given the 46.12-acre conveyance of Tract E to the City of Cocoa for future preservation.

Concurrency Management/Adequate Public Facilities

Traffic

Both the City's Comprehensive Plan and Space Coast Transportation Planning Organization (TPO) identifies the minimum level of service (LOS) for Cox Road as LOS E and is maintained by the City. The Traffic Impact Analysis (TIA) prepared by Kimley Horn reviewed existing traffic conditions, projected background growth, and added trips generated by the development. The study area report reviewed Cox Road from SR 520 to SR 524 as the analyzed roadway segment. The report indicates that Cox Road is currently operating at a Level of Service (LOS) C.

The analysis found that all study area intersections currently operate at acceptable Levels of Service with volume to capacity ratios below critical thresholds, and the surrounding roadway segments have adequate capacity to accommodate projected traffic growth. Future background traffic and project generated trips were modeled for the AM and PM peak hours, and the resulting conditions generally remain within acceptable operational standards.
Overall, the report indicates no major traffic impacts from the development. The analysis also determined that additional turn lanes or major roadway improvements, such as right turn or left turn bays at the project driveways, are not warranted based on projected traffic volumes. As a result, the TIA concludes that the development can be accommodated by the existing roadway network without significant mitigation or major transportation infrastructure changes

Recreation

Policy 10.1.1.3 of the City's Comprehensive Plan establishes an adopted level of service (LOS) for recreation facilities at 1.25 acres per 1,000 residents. According to data from the Shimberg Center for Housing Studies, the average household size is 2.43 persons per unit. Applying this ratio to the proposed 249 residential units results in an estimated population increase of approximately 605 residents. Based on this projected increase, the recreational demand generated by the development is 0.75 acres.

As listed in Appendix A, Article XI, Section 5.M.1, the zoning designation for the subject property requires that twenty percent (20%) of the gross site acreage be set aside and specifically delineated on the site plan as common usable open space. However, the City has calculated the required open space pursuant to the PUD standards given the large percentage of the project area that will be conveyed to the City. As shown on the applicant's updated plans, the project provides a total of 8.83 acres of common usable open space, including 8.19 acres in Phase 1 and 0.64 acres in Phase 2. These areas include functional recreational improvements such as an amenity center, internal trail system, and a fishing dock in the Tract B stormwater pond, which is intended to be stocked for recreational use.

Based on the development area of approximately 43.42 acres, the required common usable open space is 8.68 acres. The proposed development provides 8.83 acres of qualifying common usable open space, thereby meeting the minimum requirement.

Finally, the proposed 8.83 acres of recreational and usable open space significantly exceeds the projected recreation demand of 0.76 acres, thereby satisfying the City's adopted recreation level of service standard.

Wastewater, Potable Water & Reclaim Water

The site is required to connect to City of Cocoa utility services. As shown on the utility plan, there is an existing 20-inch DIP water main located within the Cox Road right-of-way. Per the Potable Water Report prepared by B.S.E. Consultants, Inc., the proposed water mains will make two connections to the existing 20-inch water main along Cox Road. Water system modeling was performed using WaterCAD in accordance with City of Cocoa standards.

All sanitary sewer, potable water and reclaimed water mains, along with their appurtenances, must be installed in accordance with the Technical Provisions for the Construction of Water Distribution Systems provided by the City of Cocoa Utilities Department. The utility design has been reviewed and approved by the City's Utilities Department.

Wastewater and potable water demands for future development, along with available capacity at City facilities, will be evaluated through future site plans requesting vertical development.

Sanctuary at Cocoa	**Number of Units**	**Average Daily Flow per Unit (gpd)**	**Average Daily Flow (gpd)**	**Average Daily Flow (gpm)**	**Maximum Daily Flow (gpm)**	**Fire Hydrant Residual Pressure (psi)**
Phase 1	182 units 1 Amenity	265 500	48,230 + 500	33.84	50.24	52

Phase 2	67 units	265	17,755	12.33	18.49	47
Total	249 units		66,485	46.17	68.73	

STORMWATER MANAGEMENT

The Level of Service (LOS) for Stormwater Management is as follows:

Design Storm Event"	25-year frequency/24-hour duration event
On-site Stormwater Management:	Retention of the first one inch of rainfall for areas of more than one acre.
Stormwater Quantity:	Post development Stormwater runoff flow rates, quantities, peaks, and velocities shall be equal to or less than levels that existed prior to development.
Stormwater Quality:	No significant degradation of water quality in receiving water bodies.

The project as designed does meet the LOS requirements of the Comprehensive Plan.

SOLID WASTE

The proposed residential subdivision development will comply with the Level of Service (LOS) requirements specified in the City's Comprehensive Plan.

CONSISTENCY WITH COMPREHENSIVE PLAN POLICIES AND OBJECTIVES

Policy 12.1.6.15.A: *The City shall avoid, or when unavoidable, minimize development impacts on wetlands; direct incompatible land uses away from wetlands; require wetland buffers; allow wetland losses only where all reasonable measures have been applied to avoid such losses; and allow for effective mitigation*.

The proposed site plan clusters development along the northwest and southwest areas of the site, preserving the onsite wetlands in the east. Impacts to wetland areas have been minimized to the greatest extent possible.

Policy 12.1.6.10: *The City shall promote the use of native vegetation as specified in its ordinance for all development.*

The proposed landscape plans provide compensatory tree plantings in accordance with Article XIII Section 22 of the City of Cocoa Zoning Code.

Policy 1.1.2.4: *Medium Density Residential (MDR) density residential areas shall be regarded as areas of moderate density detached and attached housing. The following criteria shall be used for determining appropriate locations for medium density residential areas.*

A. *Medium density residential areas shall have access to a minor collector street, and preferably to a major collector street or one of higher functional classification.*

B. *These areas should have convenient access to community services.*

C. *New developments approved in accordance with the comprehensive plan shall provide amenities to include open space and buffering as required in the City's Land Development Regulations.*

The proposed development will access the site via Cox Road and will provide amenities including a swimming pool, cabana and an on-site walking trail network, along with all required buffering in accordance with the Zoning Code.

PROPOSED CONDITIONS:

Staff recommends approval subject to the conditions outlined in the Sanctuary at Cocoa Development Agreement prepared by the City Attorney. This agreement allows for relief of certain City land development regulations when such exceptions serve the public interest and remain consistent with the Comprehensive Plan:

1. The Developer shall receive building permits and substantially commence vertical construction of buildings, which shall at minimum include building foundations, for Phase I of the Project within two (2) years of the Effective Date of the Development Agreement.
2. The portion of the approved Final Engineering/Site Plan for Phase II shall be valid only for a period of five (5) years from the Effective Date of the Development Agreement. The Developer shall be required to obtain building permits and substantially commence vertical construction of buildings within Phase II, which shall at minimum include building foundations, prior to the termination of the five-year period following the Effective Date of the Development Agreement.
3. Prior to the issuance of the fiftieth (50th) certificate of occupancy for Phase I of the Project, the developer shall complete or cause to completed the off-site 5' sidewalk extending from the northern boundary of the Property to the entrance of the Cocoa Conservation Area, located at the City of Cocoa's property with Tax Parcel ID No. 24-35-24-00-3.
4. The Developer shall dedicate to the City, via approval of the Phase I final plat, a 25-foot right-of-way easement along the southern boundary of the Property for purposes of future right-of-way expansion. Until the City of Cocoa opens and improves such right-of-way, the dedicated easement area shall be maintained by the Developer or successor Homeowner's Association.
5. All required tree replacements in Phase I common area tracts shall be planted

prior to the issuance of the 100th certificate of occupancy for any building or structure in Phase I.

6. The Developer and the City agree that the Developer shall pay to the City, prior to the commencement of any tree removal on the Property, $550,000.00 as the Arbor Mitigation Fund Contribution for the tree removals on the Property that will not be replaced.
7. Site plan must be revised as requested by Public Works, who had the following comment: Sheet 20 - Please remove Asphalt Roadway Open Cut – Pavement Removal and Replacement Exhibit 25B. Make the following note: Utility adjustment to be per FDOT Standard Index 125-001.

PRIORITY AREA CONNECTION:

Economic and Community Development

BUDGETARY IMPACT:

N/A

PREVIOUS ACTION:

N/A

RECOMMENDED MOTION:

Staff recommends that the Planning & Zoning Board recommend **APPROVAL WITH CONDITIONS** as listed to City Council of the Large-Scale Site Plan and the Preliminary Plat for Sanctuary at Cocoa. The proposed Site Plan and Preliminary Plat review has determined that the application generally meets the minimum requirements of all applicable City Code requirements and is Consistent with Appendix A, Article XIII, Section 1(D).

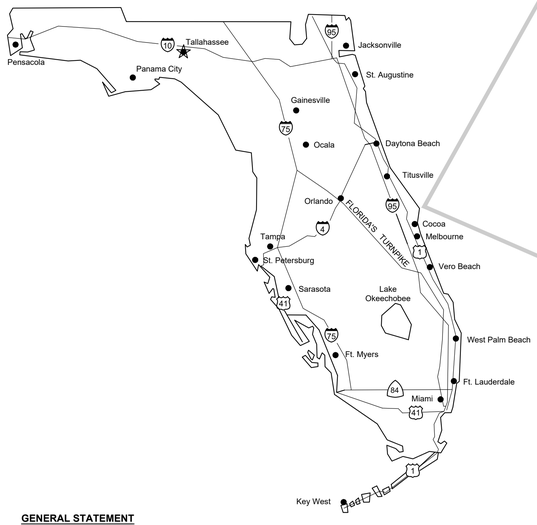
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

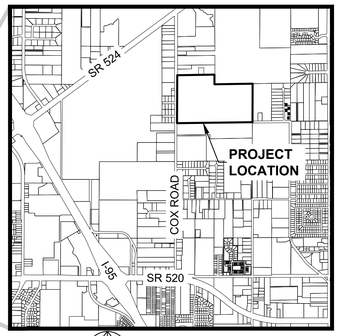
LARGE SCALE SITE PLAN

SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST
COCOA, BREVARD, FLORIDA

Sheet List Table		
Sheet	**Drawing Number**	**Sheet Title**
1	11748_400_001	COVER
2	11748_400_002	SYMBOLS AND ABBREVIATIONS
3	11748_400_003	GENERAL NOTES
4	11748_400_004	EXISTING CONDITIONS PLAN
5	11748_400_005	EXISTING CONDITIONS PLAN
6	11748_400_006	EXISTING CONDITIONS PLAN
7	11748_400_007	EXISTING CONDITIONS PLAN
8	11748_400_008	OFFSITE EXISTING CONDITION PLANS
9	11748_400_009	OVERALL SITE PLAN
10	11748_400_010	SITE PLAN
11	11748_400_011	SITE PLAN
DRAINAGE		
12	11748_400_012	OVERALL PAVING, GRADING AND DRAINAGE PLAN
13	11748_400_013	MASTER PAVING, GRADING AND DRAINAGE PLAN
14	11748_400_014	MASTER PAVING, GRADING AND DRAINAGE PLAN
UTILITIES		
15	11748_400_015	MASTER SANITARY SEWER PLAN
16	11748_400_016	MASTER SANITARY SEWER PLAN
17	11748_400_017	MASTER POTABLE WATER PLAN
18	11748_400_018	MASTER POTABLE WATER PLAN
19	11748_400_019	OFFSITE FORCE MAIN PLAN AND PROFILE
20	11748_400_020	OFFSITE FORCE MAIN PLAN AND PROFILE
PAVEMENT MARKING & SIGNAGE PLAN		
21	11748_400_021	PAVEMENT MARKING & SIGNAGE PLAN
22	11748_400_022	PAVEMENT MARKING & SIGNAGE PLAN
PLAN AND PROFILE		
23	11748_400_023	PLAN & PROFILE WHISPERWOOD PLACE STA: 10+00 - 17+00
24	11748_400_024	PLAN & PROFILE WHISPERWOOD PLACE STA: 17+00 - 22+89.57
25	11748_400_025	PLAN & PROFILE TWILIGHT WAY STA: 10+00 - 11+92.89
26	11748_400_026	PLAN & PROFILE ARIA LANE STA: 10+00 - 15+50
27	11748_400_027	PLAN & PROFILE ARIA LANE STA: 15+50 - 21+68.64
28	11748_400_028	PLAN & PROFILE BELLFLOWER DRIVE STA: 10+00 - 21+00
29	11748_400_029	PLAN & PROFILE BELLFLOWER DRIVE STA: 21+00 - 25+00
30	11748_400_030	PLAN & PROFILE BELLFLOWER DRIVE STA: 25+00 - 34+31.63
INTERSECTION DETAILS		
31	11748_400_031	INTERSECTION DETAIL
LOT GRADING		
32	11748_400_032	LOT GRADING PLAN
33	11748_400_033	LOT GRADING PLAN
34	11748_400_034	LOT GRADING PLAN
35	11748_400_035	LOT GRADING DETAILS
DETAILS		
36	11748_400_036	PAVING, GRADING, AND DRAINAGE DETAILS
37	11748_400_037	PAVING, GRADING AND DRAINAGE DETAILS
38	11748_400_038	FDOT DETAILS
39	11748_400_039	FDOT DETAILS
40	11748_400_040	FDOT DETAILS
41	11748_400_041	FDOT DETAILS
42	11748_400_042	CITY OF COCOA WATER DETAILS
43	11748_400_043	CITY OF COCOA WATER DETAILS
44	11748_400_044	CITY OF COCOA WATER TECHNICAL PROVISIONS
45	11748_400_045	CITY OF COCOA WATER TECHNICAL PROVISIONS
46	11748_400_046	CITY OF COCOA WATER TECHNICAL PROVISIONS
47	11748_400_047	CITY OF COCOA SEWER DETAILS
48	11748_400_048	LIFT STATION DETAILS
AMENITY AREA SITE PLAN		
49	11748_400_049	AMENITY AREA SITE PLAN
50	11748_400_050	AMENITY AREA PAVING, GRADING & DRAINAGE, & UTILITIES
SURFACE WATER POLLUTION PREVENTION (SWPPP)		
51	11748_400_051	SURFACE WATER POLLUTION PREVENTION PLAN (SWPPP)
52	11748_400_052	SURFACE WATER POLLUTION PREVENTION PLAN (SWPPP)

PHOTOMETRIC PLANS		
53	11748_400_053	PHOTOMETRIC PLAN
54	11748_400_054	PHOTOMETRIC PLAN
55	11748_400_055	PHOTOMETRIC DETAILS
AUTOTURN ANALYSIS		
56	11748_400_056	VEHICLE TRACKING PLAN
57	11748_400_057	VEHICLE TRACKING PLAN
OFFSITE IMPROVEMENTS		
58	11748_400_058	PROPOSED COX ROAD SIDEWALK EXTENSION
BOUNDARY & TOPOGRAPHIC SURVEY		
1	11748_100_003_01	BOUNDARY & TOPOGRAPHIC SURVEY
2	11748_100_003_02	BOUNDARY & TOPOGRAPHIC SURVEY
3	11748_100_003_03	BOUNDARY & TOPOGRAPHIC SURVEY
4	11748_100_003_04	BOUNDARY & TOPOGRAPHIC SURVEY
5	11748_100_003_05	BOUNDARY & TOPOGRAPHIC SURVEY
6	11748_100_003_06	BOUNDARY & TOPOGRAPHIC SURVEY
7	11748_100_003_07	BOUNDARY & TOPOGRAPHIC SURVEY
8	11748_100_003_08	BOUNDARY & TOPOGRAPHIC SURVEY
9	11748_100_003_09	BOUNDARY & TOPOGRAPHIC SURVEY
10	11748_100_003_10	BOUNDARY & TOPOGRAPHIC SURVEY
11	11748_100_003_11	BOUNDARY & TOPOGRAPHIC SURVEY
TREE SURVEY		
1	11748_100_004_001	TREE SURVEY
2	11748_100_004_002	TREE SURVEY
3	11748_100_004_003	TREE SURVEY
4	11748_100_004_004	TREE SURVEY
5	11748_100_004_005	TREE SURVEY
6	11748_100_004_006	TREE SURVEY
7	11748_100_004_007	TREE SURVEY
8	11748_100_004_008	TREE SURVEY
9	11748_100_004_009	TREE SURVEY
10	11748_100_004_010	TREE SURVEY
11	11748_100_004_011	TREE SURVEY
PRELIMINARY PLAT		
1	11748_300_001	PRELIMINATY PLAT
2	11748_300_001	PRELIMINARY PLAT
3	11748_300_001	PRELIMINARY PLAT
4	11748_300_001	PRELIMINARY PLAT
5	11748_300_001	PRELIMINARY PLAT
6	11748_300_001	PRELIMINARY PLAT
7	11748_300_001	PRELIMINARY PLAT
8	11748_300_001	PRELIMINARY PLAT
9	11748_300_001	PRELIMINARY PLAT
10	11748_300_001	PRELIMINARY PLAT
11	11748_300_001	PRELIMINARY PLAT
12	11748_300_001	PRELIMINARY PLAT





LOCATION MAP
NTS

GENERAL STATEMENT

THE PROPOSED PROJECT CONSISTS OF AN 89.54 ACRE PARCEL OF LAND LOCATED ON THE EAST SIDE OF COX ROAD, NORTH OF SR520 WITHIN THE CITY OF COCOA, BREVARD COUNTY, FLORIDA. THE PROPERTY IS CURRENTLY UNDEVELOPED AND CONSISTS OF A MIX OF DENSELY VEGETATED UPLANDS (±46.09 ACRES) AND FORESTED WETLANDS (±46.73 ACRES).

THE PROJECT IS PROPOSED TO BE DEVELOPED IN TWO (2) PHASES WITH A TOTAL OF 249-UNIT TOWNHOME INDIVIDUALLY PLATTED UNITS, INCLUDING PRIVATE ROAD RIGHTS-OF-WAY, A PRIVATE AMENITY FACILITY, EXTENSIVE NATURE TRAILS, STORMWATER PONDS, AND NATURAL PRESERVE AREAS (UPLAND AND WETLANDS).

THE PROJECT IS PROPOSED TO BE DEVELOPED AND PLATTED IN TWO (2) PHASES. PHASE 1 WILL INCLUDE 189 TOWNHOME UNITS, THE AMENITY FACILITY, NATURE TRAIL AND ASSOCIATED INFRASTRUCTURE AND UTILITY IMPROVEMENTS.

PHASE 2 WILL INITIALLY BE PLATTED AS A FUTURE DEVELOPMENT TRACT AND WILL BE DEVELOPED TO INCLUDE 66 TOWNHOME UNITS AND SUPPORTING INFRASTRUCTURE AND UTILITY IMPROVEMENTS.

PHASING OF THE INFRASTRUCTURE, DRAINAGE UTILITIES AND ASSOCIATED IMPROVEMENTS IS DETAILED ON SHEETS 12, 15 AND 17 OF THE PLANS.

LEGAL DESCRIPTION:

PARCEL 1:

THE SOUTH QUARTER (S ¼) OF THE NORTHWEST QUARTER (NW¼) OF THE SOUTHWEST QUARTER (SW¼) OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA, EXCEPT ROAD RIGHT-OF-WAY.

PARCEL 2:

THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, LESS THE WEST 33 FEET FOR COX ROAD RIGHT-OF-WAY.

ALSO DESCRIBED AS:

A PARCEL OF LAND BEING THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA, LESS AND EXCEPT THE RIGHT OF WAY OF COX ROAD, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A BRASS DISK (NO IDENTIFICATION) WHICH MONUMENTS THE SOUTHWEST CORNER OF SAID SECTION 24, AND RUN NORTH 89° 14' 1 57" EAST ALONG THE SOUTH LINE OF SAID SECTION, A DISTANCE OF 33.00 FEET TO A POINT ON THE EAST RIGHT WAY LINE OF COX ROAD, THE POINT OF BEGINNING; THENCE CONTINUE NORTH 89°14' 57" EAST, ALONG SAID SOUTH LINE, A DISTANCE OF 2610.50 FEET TO A 4" X 4" CONCRETE MONUMENT(NO IDENTIFICATION), WHICH MARKS THE SOUTH 1/4 CORNER OF SAID SECTION; THENCE NORTH 00°20' 16" EAST, ALONG THE EAST LINE OF THE SOUTHWEST 1/4, A DISTANCE OF 1332.14 FEET TO THE NORTH-EAST CORNER OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4; THENCE SOUTH 89°07' 58" WEST, ALONG THE NORTH LINE OF SAID SOUTH 1/2 OF THE SOUTHWEST 1/4, A DISTANCE OF 2614.10 FEET TO A POINT ON THE EAST RIGHT OF WAY LINE OF COX ROAD (A 66 FOOT WIDE RIGHT OF WAY); THENCE SOUTH 00°11'14" WEST, ALONG SAID EAST RIGHT OF WAY LINE A DISTANCE OF 1326.77 FEET TO THE POINT OF BEGINNING, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.

CONTAINING 3,900,519 SQUARE FEET OR 89.54 ACRES, MORE OR LESS.

SITE INFORMATION TABLE

SITE NAME	SANCTUARY AT COCOA TOWNHOMES	
ADDRESS	COX ROAD COCOA, FLORIDA	
JURISDICTION	CITY OF COCOA	
PARCEL ID	21-35-21-00508, 509, 510	
ZONING DESIGNATION	RU-2-15: MULTIPLE FAMILY DWELLING	
PROPOSED LAND USE	ATTACHED TOWNHOME - RESIDENTIAL	
OVERLAY DISTRICT	NONE	
PARCEL AREA	3,900,519 SF	89.54 ACRES
EXISTING UPLAND AREA	2,007,569 SF	46.09 ACRES
EXISTING WETLANDS	2,035,721 SF	46.73 ACRES
PROPOSED WETLAND IMPACTS	60,444 SF	1.39 ACRES
REMAINING USABLE UPLANDS	2,068,229 SF	47.48 ACRES
PROPOSED OPEN SPACE		
*WET STORMWATER	189,050 SF	4.34 ACRES
RECREATIONAL AREA (TRACT D)	69,168 SF	1.59 ACRES
OPEN SPACE (ACTIVE) (TRACT N)	98,446 SF	2.26 ACRES
OPEN SPACE (PASSIVE) (TRACT L&M)	27,878 SF	0.64 ACRES
TOTAL OPEN SPACE PROVIDED*	384,542 SF	8.83 ACRES

OPEN SPACE REQUIREMENTS
TOTAL DEVELOPMENT AREA = 43.42 ACRES
OPEN SPACE REQUIRED AT 20% = 8.68 ACRES
MAXIMUM OF 50% OF THE REQUIRED OPEN SPACE CAN BE STORM WATER POND. (8.68 x 0.50 = 4.34 AC)

REQUIRED BUFFERS	REQUIRED/PROVIDED
SOUTH (RA ZONING)	20' / 55'
NORTH (RU-2-15)	10' / 25'
WEST (M1/ROAD R/W)	0' / 60'
EAST (RU 1-7)	20' / 22'

SEE SHEET 9 FOR TRACT SUMMARY AND OPEN SPACE TABULATION.

DENSITY-ALLOWED 10 UNITS PER ACRE
46.09 x 10 = 461 UNITS

DENSITY PROPOSED
MULTIPLE FAMILY TOWNHOMES (6 UNIT BUILDINGS)
END UNITS (24', 2 CAR GARAGE) 72 UNITS
STANDARD UNITS (20', 1 CAR GARAGE) 144 UNITS
MULTIPLE FAMILY TOWNHOMES (5 UNIT BUILDINGS)
END UNITS (24', 2 CAR GARAGE) 10 UNITS
STANDARD UNITS (20', 1 CAR GARAGE) 15 UNITS
MULTIPLE FAMILY TOWNHOMES (4 UNIT BUILDINGS)
END UNITS (24', 2 CAR GARAGE) 4 UNITS
STANDARD UNITS (20', 1 CAR GARAGE) 4 UNITS

PHASE 1 UNITS 182
PHASE 2 UNITS 67
TOTAL UNITS 249 UNITS
PROPOSED DENSITY 249/ 47.48 = 5.24 UNITS/ACRE (NET)
249/ 89.54 = 2.78 UNITS/ACRE (GROSS)

BUILDING HEIGHT ALLOWED 35 FEET MAX
BUILDING HEIGHT PROPOSED 30 FEET MAX
BUILDING STORIES 2 STORIES

TOWNHOME SETBACKS	REQUIRED
FRONT YARD	26'
REAR YARD	25'
SIDE CORNER	15'
SIDE INTERIOR	10'

MINIMUM LOT DIMENSIONS
LOT DEPTH 100'
LOT WIDTH 20' - SINGLE CAR GARAGE
35' - TWO (2) CAR GARAGE

MINIMUM LOT AREA
WITH TWO CAR GARAGE 2400 SF
WITH ONE LOT PARKING 2400 SF
WITH OFF LOT PARKING 2400 SF

MAX. BUILDING LENGTH 200'

DEVELOPMENT SCHEDULE
12-18 MONTHS FOR INFRASTRUCTURE
30-36 MONTHS FOR RESIDENTIAL DEVELOPMENT

(SEE SHEETS 12, 15, AND 18 FOR LIMITS OF PHASE 1 INFRASTRUCTURE)

*OPEN SPACE CREDIT FOR STORMWATER POND CANNOT EXCEED 50% OF THE REQUIRED OPEN SPACE AND WILL BE STOCKED FOR FISHING AND INCLUDE A FISHING DOCK/PLATFORM FOR THE USE OF THE RESIDENTS.

Meritage Homes
1395 University Blvd., Suite 300
Jupiter, FL 33458
561-983-0675

- PREPARED BY -

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 / FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN KAMAL No. 41951 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Hassan Kamal
Date: 2026.04.22 15:50:33 -04'00'

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
7	
CITY COMMENTS	02/25/26
SJRWMD COMMENTS	12/16/25
CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
COVER

PROJECT NO.
11748

DRAWING NO.
11748_400_001

SHEET
1 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_001-C03.dwg April 13, 2026 4:43:52 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

LANDSCAPE SYMBOL LEGEND

- CABBAGE PALM TREE
- PALM TREE
- PINE TREE
- OAK TREE
- TREE LINE
- SHURB 1
- SHRUB 2

IRRIGATION SYMBOL LEGEND

- SPRINKLER
- RAINBIRD 1/4
- RAINBIRD 1/2
- RAINBIRD 3/4
- RAINBIRD FULL

LINE TYPES

- BEL — EXISTING BURIED ELECTRIC
- BTL — EXISTING BURIED TELEPHONE
- CATV — EXISTING CABLE TV
- X — FENCE (TYPE, HEIGHT AS NOTED)
- FM — EXISTING FORCE MAIN (SIZE, TYPE AS NOTED)
- FO — EXISTING FIBER OPTIC
- GAS — EXISTING GAS LINE
- IRR — EXISTING IRRIGATION (SIZE, TYPE AS NOTED)
- OHE — EXISTING OVERHEAD ELECTRIC
- OHU — EXISTING OVERHEAD UTILITY
- RM — EXISTING REUSE MAIN (SIZE, TYPE AS NOTED)
- SF — SILT FENCE
- SS — EXISTING SANITARY SEWER (SIZE, TYPE AS NOTED)
- WM — EXISTING WATER MAIN (SIZE, TYPE AS NOTED)
- CENTERLINE
- BASIN BOUNDARY
- COLUMN / WALL
- GUARD RAIL
- TREE LINE
- DRAINAGE PIPE (SIZE, TYPE AS NOTED)

SYMBOL LEGEND

- EXISTING SANITARY MANHOLE
- EXISTING MANHOLE (TYPE NOTED)
- PROPOSED MANHOLE
- TYPE 2 INLET
- TYPE 3 INLET
- TYPE 4 INLET
- TYPE 5 INLET
- CATCH BASIN
- YARD DRAIN
- FLARED END SECTION
- MITERED END SECTION
- EXISTING GATE VALVE
- PROPOSED GATE VALVE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING BLOW-OFF
- PROPOSED BLOW-OFF ASSEMBLY WITH GATE VALVE
- EXISTING FIRE DEPT. CONNECTION
- PROPOSED FIRE DEPT. CONNECTION
- EXISTING WATER METER
- PROPOSED WATER METER
- EXISTING WATER SERVICE
- PROPOSED WATER SERVICE
- EXISTING REUSE SERVICE
- PROPOSED REUSE SERVICE
- SANITARY SERVICE
- STUB OUT
- EXISTING AIR RELEASE VALVE
- AIR RELEASE VALVE
- EXISTING CLEAN OUT
- CLEAN OUT
- CROSS TEE
- TEE
- BACK FLOW PREVENTION DEVICE
- REDUCER
- POST INDICATOR VALVE
- UTILITY RISER
- CONCRETE POWER POLE
- WOOD UTILITY POLE
- GUY WIRE
- GUY POLE
- EXISTING LIGHT POLE
- PROPOSED LIGHT POLE
- EXISTING SIGN
- PROPOSED SIGN
- DIRT PAD ELEVATION
- FINISHED FLOOR ELEVATION
- TYPE A LOT DRAINAGE
- TYPE B LOT DRAINAGE
- (12) LOT NUMBER
- FLOW ARROW

ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
(C)	CALCULATED DIMENSION
(D)	DEED DIMENSION
(F)	FIELD MEASURED DIMENSION
(M)	METER(S)
(NR)	NOT RADIAL
(P)	PLAT DIMENSION
A/C	AIR CONDITIONER
AC	ACRES
ADS	ADVANCED DRAINAGE SYSTEMS (CPP)
AL	ARC LENGTH
ARV	AIR RELEASE VALVE
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BVC	BEGIN VERTICAL CURVE
BVP	BEGIN VERTICAL PROFILE
C/L	CENTERLINE
C/O	CLEAN OUT
CA	CENTRAL ANGLE
CATV	CABLE TELEVISION
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
CPP	CORRUGATED PLASTIC PIPE
DE	DRAINAGE EASEMENT
DEL	DELTA/CENTRAL ANGLE
DI	DITCH INLET/ CATCH BASIN
DIP	DUCTILE IRON PIPE
DS	DRAINAGE STRUCTURE
E	EAST
EG	EXISTING GROUND
ELEC	ELECTRIC
EL/ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
EVC	END VERTICAL CURVE
EVP	END VERTICAL PROFILE
EX	EXISTING
FD	FOUND
FDC	FIRE DEPARTMENT CONNECTION
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FES	FLARED END SECTION
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FL	FLOW LINE
FM	FORCE MAIN
FPL	FLORIDA POWER AND LIGHT
FT	FEET
GLO	GENERAL LAND OFFICE
GR	GROUND
GV	GATE VALVE(S)
H/C	HANDICAP
HP	HIGH POINT
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IP	IRON PIPE
IPC	IRON PIPE AND CAP
IR	IRON ROD
IRC	IRON ROD AND CAP
JCT	JUNCTION
LF	LINEAR FEET
L	LEFT
LP	LOW POINT

ABBREVIATIONS

LS	LANDSCAPE
LWP	LIGHTER WOOD POST
MAX	MAXIMUM
MES	MITERED END SECTION
MH	MANHOLE
MHW	MEAN HIGH WATER
MI	MILE(S)
MIN	MINIMUM
N	NORTH
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NG	NATURAL GROUND
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NWL	NORMAL WATER LEVEL
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
P/L	PROPERTY LINE
PAVT	PAVEMENT
PB	PLAT BOOK
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PD&UE	PUBLIC DRAINAGE AND UTILITY EASEMENT
PDE	PUBLIC DRAINAGE EASEMENT
PG(S)	PAGE(S)
PGL	PROPOSED GRADE LINE
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
POL	POINT ON LINE
PP	POWER/UTILITY POLE
PR	PRIVATE
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS/RIGHT
R/W	RIGHT-OF-WAY
RAD	RADIAL
RB	RADIAL BEARING
RCP	REINFORCED CONCRETE PIPE
REF	REFERENCE
RGE	RANGE
RM	REUSE MAIN
RND	ROUND
RPB	ROAD PLAT BOOK
RR	RAILROAD
S	SOUTH
SEC	SECTION
SF	SQUARE FOOT
SMH	SEWER MANHOLE
SPK	SPIKE
SS	SANITARY SEWER
ST	STREET
STA	STATION
SVC	SERVICE
SW	SIDEWALK
TEL	TELEPHONE
TOB	TOP OF BANK
TOE	TOE OF SLOPE
TWP	TOWNSHIP
TYP	TYPICAL
UE	UTILITY EASEMENT
UG	UNDERGROUND
UTIL	UTILITY
W	WEST
WM	WATER MAIN

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

1	
2	
3	
4	
5	
6	
1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

SYMBOLS AND ABBREVIATIONS

PROJECT NO. 11748

DRAWING NO. 11748_400_002

SHEET 2 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_001-003.dwg April 13, 2026 4:43:52 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

GENERAL

1. THE REQUIREMENTS OF THE CITY OF COCOA(WATER) SHALL GOVERN ALL UTILITIES WORK IN THEIR RESPECTIVE AREAS. WHERE A CONFLICT EXISTS IN THE REQUIREMENTS OF A REFERENCED MATERIAL OR INSTALLATION STANDARD, THE REQUIREMENTS OF COCOA UTILITIES SHALL PREVAIL. WHERE THE REQUIREMENTS OF A STATE OR LOCAL AGENCY HAVING JURISDICTION ARE MORE STRINGENT, THOSE REQUIREMENTS SHALL PREVAIL.
2. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE, AT ALL TIMES, ONE COPY OF CITY OF COCOA UTILITIES SPECIFICATIONS. ONE COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS,SPECIFICATIONS AND SPECIAL PROVISIONS, AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PUBLIC ROADWAYS, EASEMENTS, CURBS, SIDEWALKS, DRAINAGE SYSTEM, OR UTILITIES AS A DIRECT RESULT OF CONSTRUCTION.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND/OR REPLACEMENT OF ALL SURVEY MONUMENTATION WITHIN THE PROJECT. ANY SUCH WORK MUST BE DONE BY A SURVEYOR LICENSED IN THE STATE OF FLORIDA.
5. CONTRACTOR SHALL BE REQUIRED TO MAINTAIN RECORD DRAWINGS OF ALL CONSTRUCTION ACTIVITIES DOCUMENTING CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. RECORD DRAWINGS SHALL INCLUDE, BUT NOT BE LIMITED TO, DETAILED PHOTOGRAPHS AND MEASUREMENTS AT ALL UTILITY CROSSINGS OF SUFFICIENT CLARITY AND DETAIL TO CONFIRM CONSISTENCY WITH THE APPROVED. SUCH RECORD DATA SHALL BE SUBMITTED TO THE ENGINEER AND SHALL ACCOMPANY MONTHLY PAY APPLICATIONS. FAILURE TO SUBMIT SAID RECORD DATA WILL DELAY PROCESSING OF ANY PAY APPLICATION.
6. REGARDLESS OF PRIVATE OR PUBLIC DEDICATION, THERE WILL BE NO UTILITY CONNECTIONS, METER BOXES OR VALVE BOXES IN EXISTING OR PROPOSED SIDEWALK OR DRIVEWAY AREAS.

WATER DISTRIBUTION SYSTEM

1. PVC PIPE SHALL MEET REQUIREMENTS OF AWWA C900-91. THE APPROPRIATE CLASS SHALL BE AS FOLLOWS:
   CLASS 150 DR18 - (4" - 12") CLASS 200 SDR21 - (LESS THAN 4")
2. DUCTILE IRON PIPE SHALL BE CEMENT - MORTAR LINED, CLASS 50 MECHANICAL OR PUSH-ON JOINT AND SHALL MEET ALL THE REQUIREMENTS OF THE FOLLOWING ANSI/AWWA C 104/A 21.4; ANSI/AWWA C 111/A 21.11 (FOR RUBBER GASKET JOINTS); ANSI/AWWA C 150/21.50 (FOR THICKNESS DESIGN) AND ANSI//AWWA C 151/A 21.51 (FOR D.I.P. MOLDS).
3. FITTINGS FOR P.V.C. PRESSURE PIPE AND D.I.P. SHALL BE OF DUCTILE IRON, MECHANICAL JOINT, CEMENT MORTAR LINED IN ACCORDANCE WITH ANSI 21.4 RATED AT 350 PSI AND SHALL COMPLY WITH ANSI/AWWA C110/A21.10 AND C111/A21.11.
4. INSTALLATIONS OF WATER LINES SHALL BE IN ACCORDANCE WITH ANSI/AWWA C900 (MANUAL M23) FOR P.V.C. PRESSURE PIPE, AND C 600 FOR DUCTILE IRON PIPE.
5. ALL WATER MAINS TO HAVE MINIMUM COVER OF 36".
6. WATER SUPPLY FACILITIES INCLUDING MAINS SHALL BE INSTALLED, CLEANED, DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE, IN ACCORDANCE WITH THE LATEST APPLICABLE AWWA STANDARDS AND THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION RULES.
7. HYDROSTATIC TESTING (PRESSURE AND LEAKAGE TESTS) SHALL MEET THE REQUIREMENTS OF THE ANSI/AWWA C 600, OR M23.
8. DISINFECTIONS OF WATER MAINS SHALL COMPLY WITH ANSI/AWWA C 651.
9. DUCTILE IRON PIPE TO BE WRAPPED WITH POLYETHYLENE.

CONSTRUCTION IN STREETS AND ROAD RIGHT-OF-WAYS

1. OPEN ROAD CUTS REQUIRES PRIOR APPROVAL OF THE CITY, COUNTY, STATE OR ANY OTHER AGENCY WHICH MAY HAVE JURISDICTION.
2. ALL CONSTRUCTION, MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH CITY OF COCOA CODE OF ORDINANCES.
3. ALL AREAS IN EXISTING RIGHT-OF-WAYS DISTURBED BY CONSTRUCTION SHALL RECEIVE SOD TO MATCH EXISTING SOD TYPE UNLESS NOTED OTHERWISE ON THE PLANS.
4. STREET OR HIGHWAY RESTORATION TO BE DONE AS PER LOCAL OR STATE AGENCY HAVING JURISDICTION.
5. THE CONTRACTOR SHALL COMPLY WITH ALL RULES AND REGULATIONS OF THE STATE, COUNTY AND CITY AUTHORITIES REGARDING CLOSING OR RESTRICTING THE USE OF PUBLIC STREETS OR HIGHWAYS.
6. TRAFFIC CONTROL ON ALL COUNTY AND STATE HIGHWAY RIGHT-OF-WAYS SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND DOCUMENT THE ACTUAL LOCATION AND EXTENT OF ALL EXISTING UTILITIES WHICH MAY AFFECT CONSTRUCTION. EXISTING UTILITIES SHOWN ARE BASED UPON THE BEST AVAILABLE INFORMATION SUPPLIED TO THE OWNER/ENGINEER AND IS SHOWN FOR INFORMATIONAL PURPOSE ONLY.
8. CONTRACTOR IS RESPONSIBLE FOR CHECKING ACTUAL SITE CONDITIONS BEFORE STARTING CONSTRUCTION.
9. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK.
10. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS BEFORE COMMENCING WORK.
11. THE CONTRACTOR SHALL CONTACT ALL CONCERNED UTILITIES AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS.
12. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN TO BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER AND THE APPROPRIATE GOVERNMENTAL ENTITY.
13. ALL SLOPES STEEPER THAN 5:1 SHALL BE SODDED.
14. ALL MUCK OR OTHER SUCH UNSUITABLE MATERIAL ENCOUNTERED WITHIN ROAD RIGHT-OF-WAYS AND LOT AREAS SHALL BE FULLY EXCAVATED AND REPLACED WITH CLEAN, ON-SITE FILL MATERIAL COMPACTED TO 95% MAXIMUM DENSITY. ACTUAL EXTENT AND QUANTITY OF EXCAVATION SHALL BE DETERMINED AT THE TIME OF CONSTRUCTION BY APPROPRIATE FIELD MEASUREMENT. DISPOSAL OF UNSUITABLE MATERIAL SHALL BE AS DIRECTED BY OWNER OR OWNER'S ENGINEER.
15. ALL STORM SEWER CULVERTS ARE TO BE WRAPPED WITH FILTER FABRIC
16. ALL STORMWATER PIPING WITHIN THE ROAD RIGHT-OF-WAY, REGARDLESS OF PUBLIC OR PRIVATE, OR THAT CONVEYS STORMWATER UNDER THE ROADWAY BETWEEN STORMWATER TREATMENT PONDS, SHALL BE INSPECTED PER THE CURRENT EDITION OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTIONS 430.4.8, 430-4.8.1 AND 430-4.8.2. A COPY OF THE PIPE VIDEO SHALL BE PROVIDED TO THE CITY OF COCOA PRIOR TO THE SCHEDULING OF A FINAL INSPECTION FOR THE PROJECT.
17. WHERE NEW PAVEMENT IS CONSTRUCTED ADJACENT TO EXISTING PAVEMENT, THE ASPHALT SHALL BE SAW CUT AND REMOVED 12 INCHES FROM THE EDGE OF THE TRAVEL LANE TO OFFSET THE ASPHALT/BASE COURSE JOINT.

EROSION CONTROL NOTES

1. ALL EROSION CONTROL MEASURES SHALL BE IN FULL CONFORMANCE WITH ALL APPLICABLE SJRWMD PERMITS AND REGULATIONS.
2. ALL EROSION CONTROL DEVICES SHALL BE PER CURRENT FDOT / FDEP EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL, LATEST EDITION.
3. AS A MINIMUM, ALL EROSION CONTROL STRUCTURES SHALL REMAIN IN PLACE UNTIL VEGETATIVE COVER IS REESTABLISHED IN THE UPLAND CONTRIBUTING DRAINAGE AREA.
4. CONTRACTOR SHALL UTILIZE SYNTHETIC BALED HAY AND OR SILT BARRIERS AS APPROPRIATE AT ALL CONTROL STRUCTURE AND OUTFALL CULVERT INSTALLATIONS.
5. THROUGHOUT THE CONSTRUCTION OF THE SITE THE CONTRACTOR SHALL UTILIZE BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TRANSPORT OF SEDIMENTS INTO PRESERVED WETLANDS AND DOWNSTREAM RECEIVING WATERS.
6. ALL DISTURBED AREAS (ABOVE NORMAL WATER LEVELS) UNLESS OTHERWISE NOTED HEREIN, SHALL BE SEEDED AND MULCHED WITHIN 14 DAYS OF FINAL GRADING. UNLESS OTHERWISE NOTED, ALL SLOPES STEEPER THAN 4:1 SHALL BE SODDED

6.1 MINIMUM STANDARDS

1. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
2. ALL SEDIMENT CONTROL MEASURES ARE TO BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND BE CONSTRUCTED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON BALANCE OF SITE. PERIMETER SEDIMENT BARRIERS SHALL BE CONSTRUCTED TO PREVENT SEDIMENT OR TRASH FROM FLOWING OR FLOATING ONTO ADJACENT PROPERTIES.
3. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT UNDISTURBED FOR MORE THAN ONE YEAR.
4. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE. CITY OF COCOA CODE SHOULD BE CONSULTED FOR PROTECTION OF STOCKPILES FROM WIND.
5. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IN THE OPINION OF THE REVIEWER, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
6. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
7. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE SEDIMENT BASIN SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE THE ANTICIPATED SEDIMENT LOADING FROM THE LAND-DISTURBING ACTIVITY. THE OUTFALL DEVICE OR SYSTEM DESIGN SHALL TAKE INTO ACCOUNT THE TOTAL DRAINAGE AREA FLOWING THROUGH THE DISTURBED AREA TO BE SERVED BY THE BASIN.
8. AFTER ANY SIGNIFICANT RAINFALL, SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED FOR INTEGRITY. ANY DAMAGED DEVICES SHALL BE CORRECTED IMMEDIATELY.
9. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN, CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
10. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
11. SEDIMENT WILL BE PREVENTED FROM ENTERING ANY STORM DRAIN SYSTEM, DITCH OR CHANNEL. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
12. BEFORE TEMPORARY OR NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
13. PERIODIC INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES MUST BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED. THE DEVELOPER, OWNER, AND/OR CONTRACTOR SHALL BE CONTINUALLY RESPONSIBLE FOR ALL SEDIMENT LEAVING THE PROPERTY. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
14. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
    (A) NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
    (B) EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
    (C) EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOTE ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
    (D) RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
15. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE WITH CURBS AND GUTTERS, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL SUBDIVISION LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
16. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, IN THE OPINION OF THE REVIEWER. DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
17. PROPERTIES AND WATERWAYS DOWNSTREAM FROM CONSTRUCTION SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND EROSION.
18. PHASED PROJECTS SHOULD BE CLEARED IN CONJUNCTION WITH CONSTRUCTION OF EACH PHASE.

UTILITY COMPANIES

FLORIDA POWER & LIGHT COMPANY
7901 ELLIS ROAD
MELBOURNE, FLORIDA 32904
(321) 726-4831

CITY GAS COMPANY
4180 SOUTH HIGHWAY 1
ROCKLEDGE, FLORIDA 32955
(321) 636-4757

AT&T
712 FLORIDA AVENUE
COCOA, FLORIDA 32922
(321) 690-2088

CITY OF COCOA UTILITIES
WATER DEPARTMENT
351 SHEARER BLVD.
COCOA, FLORIDA 32922
(321) 433-8799

BRIGHT HOUSE CABLE NETWORK
P.O. BOX 361016
MELBOURNE, FLORIDA 32936
(321) 254-3300

ALL SEWER AND RECLAIM WATER LINE CONSTRUCTION SHALL CONFORM TO THE CRITERIA FOR WATER AND SANITARY SEWERAGE SYSTEMS WITHIN CITY OF COCOA CODE, LATEST EDITION.

(1) Horizontal Separation Between Underground Water Mains and Sanitary and Storm Sewers, Wastewater or Stormwater Force Mains, Reclaimed Water Pipelines, and On-site Sewage Treatment and Disposal Systems.

(a) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least three feet between the outside of the water main and the outside of any existing or proposed storm sewer, stormwater force main, or pipeline conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C.

(b) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least three feet, and preferably ten feet, between the outside of the water main and the outside of any existing or proposed vacuum-type sanitary sewer.

(c) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least six feet, and preferably ten feet, between the outside of the water main and the outside of any existing or proposed gravity- or pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C. The minimum horizontal separation distance between water mains and gravity-type sanitary sewers shall be reduced to three feet where the bottom of the water main is laid at least six inches above the top of the sewer.

(d) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least ten feet between the outside of the water main and all parts of any existing or proposed "on-site sewage treatment and disposal system" as defined in Section 381.0065(2), F.S., and Rule 64E-6.002, F.A.C.

(2) Vertical Separation Between Underground Water Mains and Sanitary or Storm Sewers, Wastewater or Stormwater Force Mains and Reclaimed Water Pipelines.

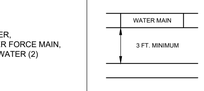
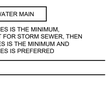
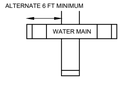
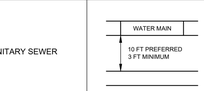
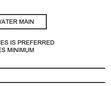
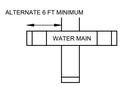
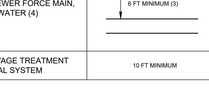
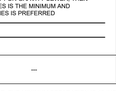
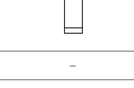
(a) New or relocated, underground water mains crossing any existing or proposed gravity- or vacuum-type sanitary sewer shall be laid so the outside of the water main is at least six inches, and preferably 12 inches, above or at least 12 inches below the outside of the other pipeline. However, it is preferable to lay the water main above the other pipeline.

(b) New or relocated, underground water mains crossing any existing or proposed pressure-type sanitary sewer, wastewater or stormwater force main, or pipeline conveying reclaimed water shall be laid so the outside of the water main is at least 12 inches above or below the outside of the other pipeline. However, it is preferable to lay the water main above the other pipeline.

(c) At the utility crossings described in paragraphs (a) and (b), one full length of water main pipe shall be centered above or below the other pipeline so the water main joints will be as far as possible from the other pipeline. Alternatively, at such crossings, the pipes shall be arranged so that all water main joints are at least three feet from all joints in vacuum-type sanitary sewers, or pipelines conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C., and at least six feet from all joints in gravity- or pressure-type sanitary sewers, wastewater force mains, or pipelines conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.

DISCLAIMER - This information is provided for your convenience only. Please refer to F.A.C. rule 62-555.314 for additional construction requirements.

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (1)	JOINT SPACING @ CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORMWATER FORCE MAIN, RECLAIMED WATER (2)			
VACUUM SANITARY SEWER			
GRAVITY OR PRESSURE SANITARY SEWER, SANITARY SEWER FORCE MAIN, RECLAIMED WATER (4)			
ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM	10 FT MINIMUM	---	---

(1) WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
(2) RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
(3) 3 FT FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SEWER.
(4) RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

DISCLAIMER - THIS INFORMATION IS PROVIDED FOR YOUR CONVENIENCE ONLY. PLEASE REFER TO F.A.C. RULE 62-555.314 FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

6	
5	
4	
3	
2	
1	CITY COMMENTS 02/25/26
0	SJRWMD COMMENTS 12/16/25
0	CITY COMMENTS 07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

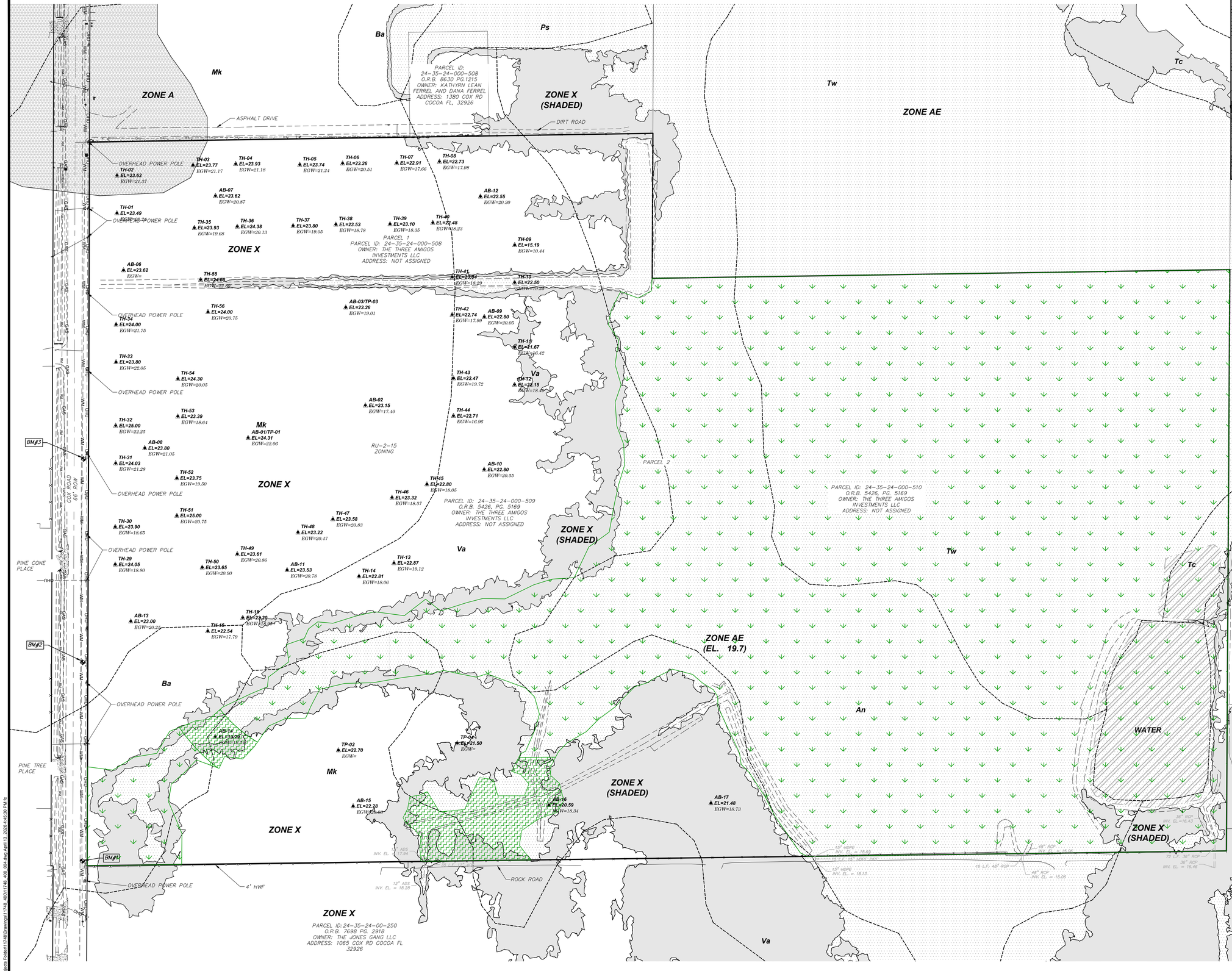
SHEET TITLE
GENERAL NOTES

PROJECT NO.
11748

DRAWING NO.
11748_400_003

SHEET
3 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_001-003.dwg April 17, 2026 4:01:25 PM fc



LOCATION MAP
NTS

GEOTECHNICAL DATA PRESENTED UPON THESE PLANS ARE PER ARDAMAN & ASSOCIATES, INC. REPORT #22-23-5228, DATED JUNE 23, 2022. ALL SITE DEVELOPMENT ACTIVITIES SHALL INCORPORATE THE REQUIREMENTS AND RECOMMENDATIONS OF THAT REPORT. INCLUSIVE OF THE DIRECTIONS OUTLINED IN THE NOTES ON SHEET 12 OF THESE PLANS.

BENCHMARK (BM) TABLE		
NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

SEE SHEETS 5 - 8 FOR DETAILED TOPOGRAPHIC DATA.

LEGEND

- BORING ID
- EL=25.00 MEASURED GROUNDWATER ELEVATION
- EGW=20.75 ESTIMATED NORMAL SEASONAL HIGH GROUNDWATER LEVEL
- EXISTING WETLAND (PRESERVED)
- EXISTING WETLAND (IMPACTED)
- WETLAND LIMITS PER AQUATIC RESEARCH FL AND APPROVED BY SJRWMD on April 15, 2025
- FLOOD ZONE
- Pw SOIL TYPE DESIGNATION
- SOIL TYPE BOUNDARY

SOIL TYPE LEGEND

Ba	Basinger sand
Mk	Myakka sand
Ps	Pomello sand
Tc	Terra Ceia muck
Tw	Tomoka Muck, undrained
Va	Valkaria sand
An	Anclote sand

FEMA FLOOD ZONE

- ZONE A - SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100 YEAR FLOOD - NO BASE FLOOD ELEVATIONS DETERMINED.
- ZONE AE - SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100 YEAR FLOOD - BASE FLOOD ELEVATIONS AS LABELED -
- ZONE X (SHADED) - 500 YEAR FLOODPLAIN
- ZONE X (UNSHADED) - OUTSIDE 500 YEAR FLOODPLAIN

NOTE: LIMITS OF EXISTING 100 YEAR FLOODPLAIN AREAS ARE BASED UPON DATA OBTAINED FROM THE FOLLOWING FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS:

BREVARD COUNTY MAP NUMBER 12009C0425 G
BREVARD COUNTY MAP NUMBER 12009C0320 H
MAPS REVISED MARCH 17, 2014 AND JAN. 29, 2021

B.S.E. CONSULTANTS, INC.
an LJA company
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

100 0 50 100
(IN FEET)
VERTICAL DATUM: NAVD88

6	
5	
4	
3	
2	
1	
2 CITY COMMENTS	02/25/26
1 SJRWMD COMMENTS	12/16/25
0 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
EXISTING CONDITIONS PLAN

PROJECT NO.
11748

DRAWING NO.
11748_400_004

SHEET
4 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_004.dwg April 10, 2026 4:45:39 PM E

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

PARCEL ID:
24-35-24-000-508
O.R.B. 8630 PG.1215
OWNER: KATHYRN LEAN FERREL AND DANA FERREL
ADDRESS: 1380 COX RD
COCOA FL, 32926

PARCEL 1
PARCEL ID: 24-35-24-000-508
OWNER: THE THREE AMIGOS INVESTMENTS LLC
ADDRESS: NOT ASSIGNED

PARCEL ID: 24-35-24-000-509
O.R.B. 5426, PG. 5169
OWNER: THE THREE AMIGOS INVESTMENTS LLC
ADDRESS: NOT ASSIGNED

PARCEL 2

PARCEL ID: 24-35-24-000-510
O.R.B. 5426, PG. 5169
OWNER: THE THREE AMIGOS INVESTMENTS LLC
ADDRESS: NOT ASSIGNED

RU-2-15 ZONING

SEE SHEET 8 FOR TOPOGRAPHIC INFORMATION ON COX RD

MATCHLINE: SHEET 6

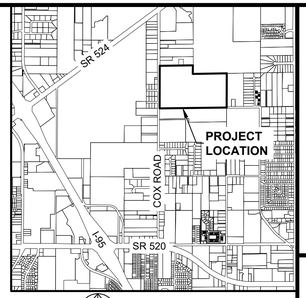
MATCHLINE: SHEET 7

COX RD (PUBLIC R/W)

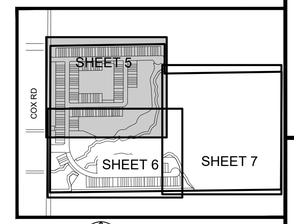
80' 83' IMPROVED PUBLIC R/W

ROW LINE

TH-01 EL=23.89 EGW=21.24
TH-02 EL=23.62 EGW=21.37
TH-03 EL=23.77 EGW=21.17
TH-04 EL=23.93 EGW=21.18
TH-05 EL=23.74 EGW=21.24
TH-06 EL=23.26 EGW=20.51
TH-07 EL=22.91 EGW=17.66
TH-08 EL=22.73 EGW=17.88
TH-09 EL=15.19 EGW=10.44
TH-10 EL=22.50 EGW=20.03
TH-11 EL=21.67 EGW=16.42
TH-12 EL=22.15 EGW=18.40
TH-13 EL=22.87 EGW=19.12
TH-14 EL=22.81 EGW=18.06
TH-15 EL=23.65 EGW=20.90
TH-16 EL=24.00 EGW=20.75
TH-17 EL=24.00 EGW=21.75
TH-18 EL=24.05 EGW=18.80
TH-19 EL=23.90 EGW=18.65
TH-20 EL=25.00 EGW=20.88
TH-21 EL=24.03 EGW=21.28
TH-22 EL=23.80 EGW=21.05
TH-23 EL=25.00 EGW=21.25
TH-24 EL=24.30 EGW=20.05
TH-25 EL=23.80 EGW=21.05
TH-26 EL=24.00 EGW=20.75
TH-27 EL=23.78 EGW=19.50
TH-28 EL=23.39 EGW=18.64
TH-29 EL=23.93 EGW=19.68
TH-30 EL=24.38 EGW=20.13
TH-31 EL=23.53 EGW=18.78
TH-32 EL=23.10 EGW=18.35
TH-33 EL=22.48 EGW=18.23
TH-34 EL=23.80 EGW=19.05
TH-35 EL=23.32 EGW=18.87
TH-36 EL=22.74 EGW=18.29
TH-37 EL=23.04 EGW=18.59
TH-38 EL=22.80 EGW=20.46
TH-39 EL=22.55 EGW=20.30
TH-40 EL=22.69 EGW=20.30
TH-41 EL=22.74 EGW=17.99
TH-42 EL=22.47 EGW=19.72
TH-43 EL=22.71 EGW=16.96
TH-44 EL=22.80 EGW=20.46
TH-45 EL=23.53 EGW=20.78
TH-46 EL=24.31 EGW=22.06
TH-47 EL=23.59 EGW=20.83
TH-48 EL=23.61 EGW=20.86
TH-49 EL=23.65 EGW=20.90
TH-50 EL=23.65 EGW=20.90
TH-51 EL=25.00 EGW=20.88
TH-52 EL=23.78 EGW=19.50
TH-53 EL=23.39 EGW=18.64
TH-54 EL=24.30 EGW=20.05
TH-55 EL=24.05 EGW=20.80
TH-56 EL=24.00 EGW=20.75
AB-01 EL=23.62 EGW=20.87
AB-02 EL=23.15 EGW=17.40
AB-03/TP-03 EL=23.26 EGW=19.01
AB-04/TP-01 EL=24.31 EGW=22.06
AB-06 EL=23.62 EGW=
AB-07 EL=23.62 EGW=20.87
AB-08 EL=23.80 EGW=21.05
AB-09 EL=22.80 EGW=20.46
AB-10 EL=22.80 EGW=20.46
AB-11 EL=23.53 EGW=20.78
AB-12 EL=22.55 EGW=20.30



LOCATION MAP
NTS



KEY MAP
NTS

60 0 30 60
(IN FEET)
VERTICAL DATUM: NAVD88

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

1	
2	
3	
4	
5	
6	
7	
1	CITY COMMENTS 02/25/26
2	SJRWMD COMMENTS 12/16/25
1	CITY COMMENTS 07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
EXISTING CONDITIONS PLAN

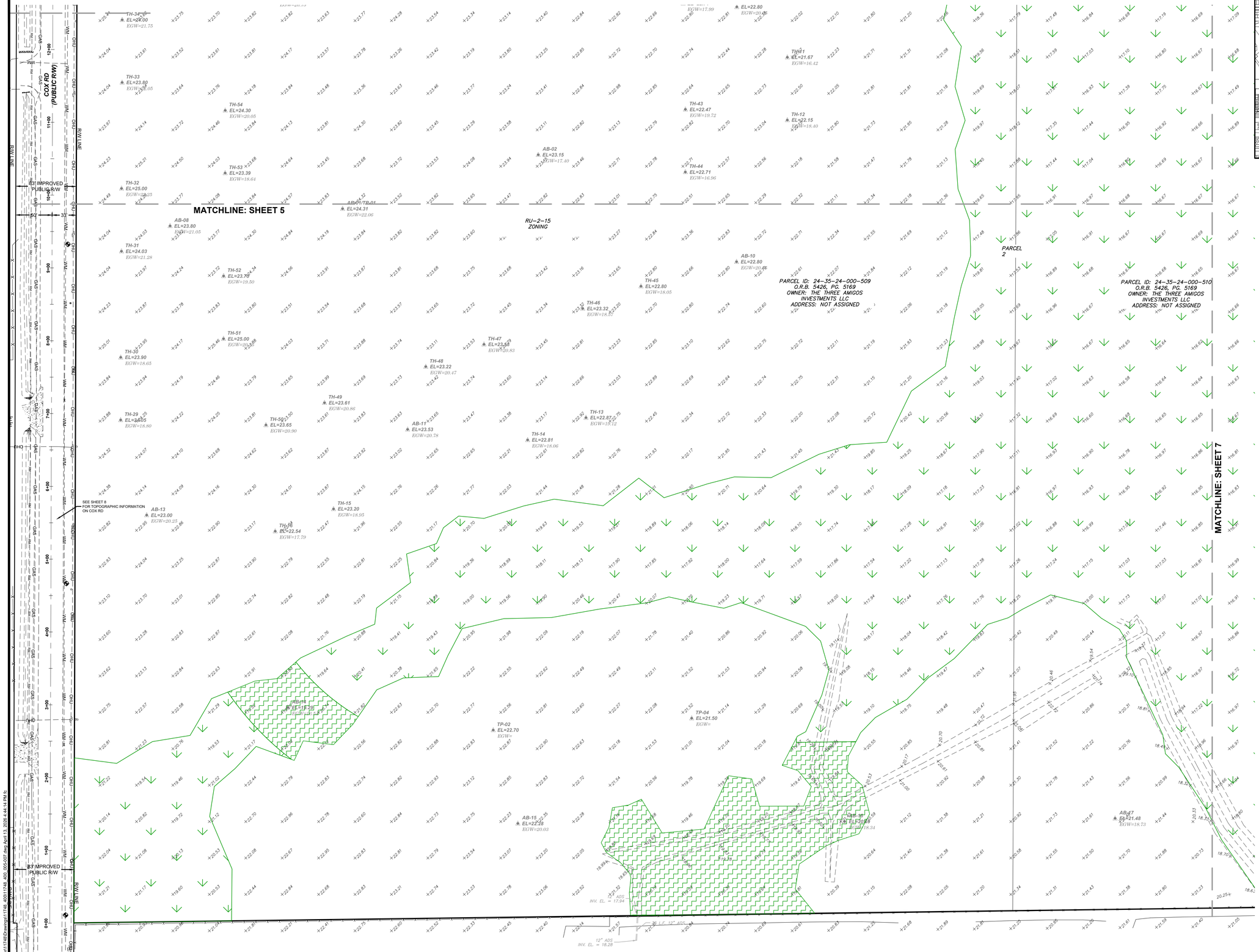
PROJECT NO.
11748

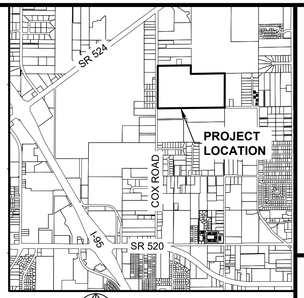
DRAWING NO.
11748_400_005

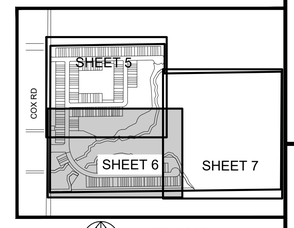
SHEET
5 of 58

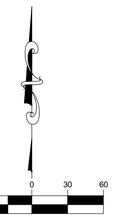
I:\Projects Folder\11748\Drawings\11748_400_005-007.dwg April 13, 2026 4:44:46 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.









VERTICAL DATUM: NAVD88

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

1	
2	
3	
4	
5	
6	
7	
8	CITY COMMENTS 02/25/26
9	SJRWMD COMMENTS 12/16/25
10	CITY COMMENTS 07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

EXISTING CONDITIONS PLAN

PROJECT NO. 11748

DRAWING NO. 11748_400_006

SHEET 6 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_005-007.dwg, April 13, 2026 4:44:14 PM, fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

TH-10
EL=22.50
EGW=21.23

TH-11
EL=21.67
EGW=16.42

TH-12
EL=22.15
EGW=18.40

MATCHLINE: SHEET 5

PARCEL 2

PARCEL ID: 24-35-24-000-509
O.R.B. 5426, PG. 5169
OWNER: THE THREE AMIGOS INVESTMENTS LLC
ADDRESS: NOT ASSIGNED

PARCEL ID: 24-35-24-000-510
O.R.B. 5426, PG. 5169
OWNER: THE THREE AMIGOS INVESTMENTS LLC
ADDRESS: NOT ASSIGNED

MATCHLINE: SHEET 6

AB-47
EL=21.48
INVW=18.73

15" HDPE
INV. EL. = 18.69

15 L.F. 15" HDPE PIPE

15" HDPE
INV. EL. = 16.51

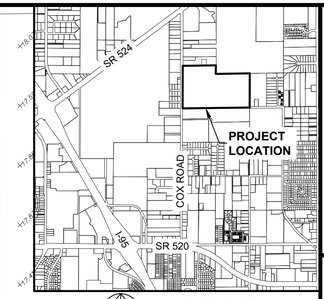
16 L.F. 48" RCP

48" RCP
INV. EL. = 15.06

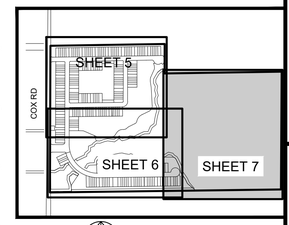
36" RCP
INV. EL.=16.43

72 L.F. 36" RCP

36" RCP
INV. EL. = 16.46



LOCATION MAP
NTS



KEY MAP
NTS

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

60 0 30 60
(IN FEET)
VERTICAL DATUM: NAVD88

8	
7	
6	
5	
4	
3	
2	CITY COMMENTS 02/25/26
1	SJRWMD COMMENTS 12/16/25
0	CITY COMMENTS 07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
EXISTING CONDITIONS PLAN

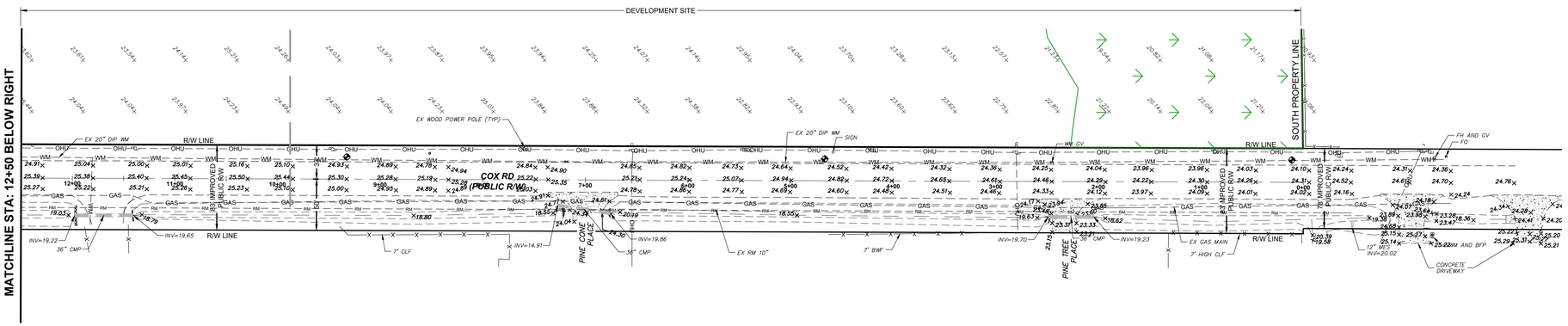
PROJECT NO. 11748

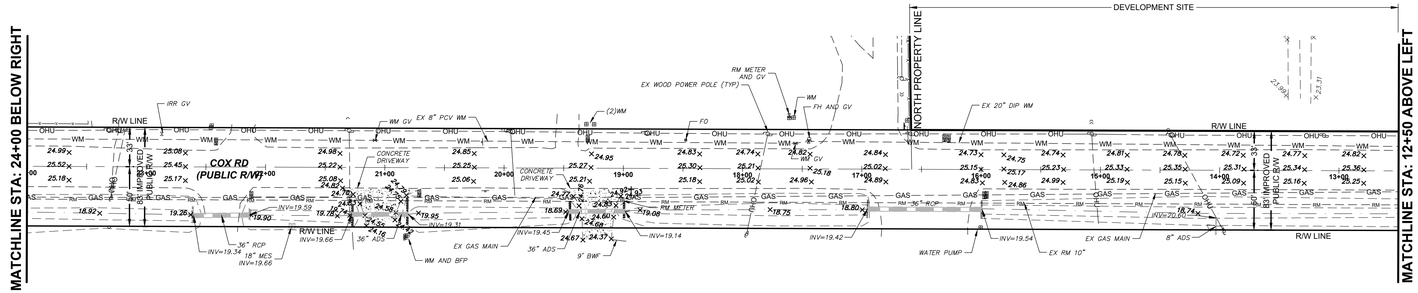
DRAWING NO. 11748_400_007

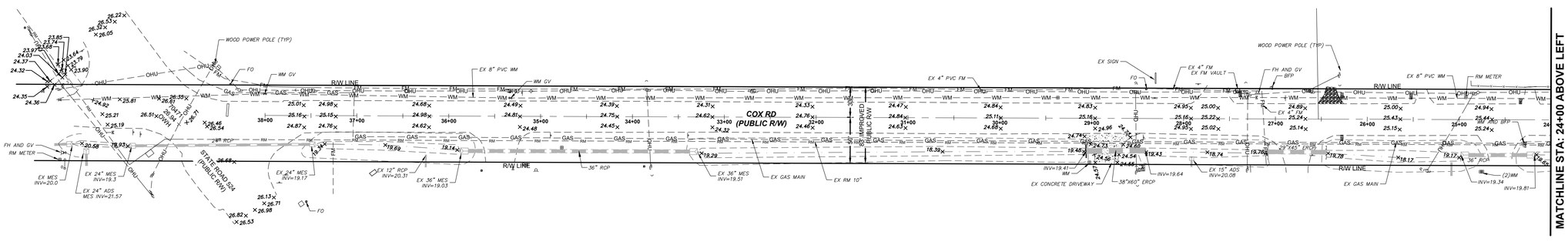
SHEET 7 of 58

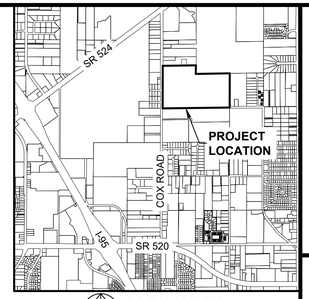
H:\Projects Folder\11748\Drawings\11748_400\11748_400_005-007.dwg April 13, 2026 4:56:57 PM flc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

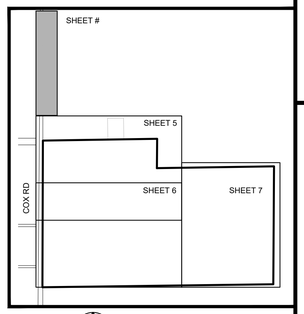








LOCATION MAP
NTS



KEY MAP
NTS

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

60 0 30 60
(IN FEET)
VERTICAL DATUM: NAVD88

1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
OFFSITE EXISTING CONDITION PLANS

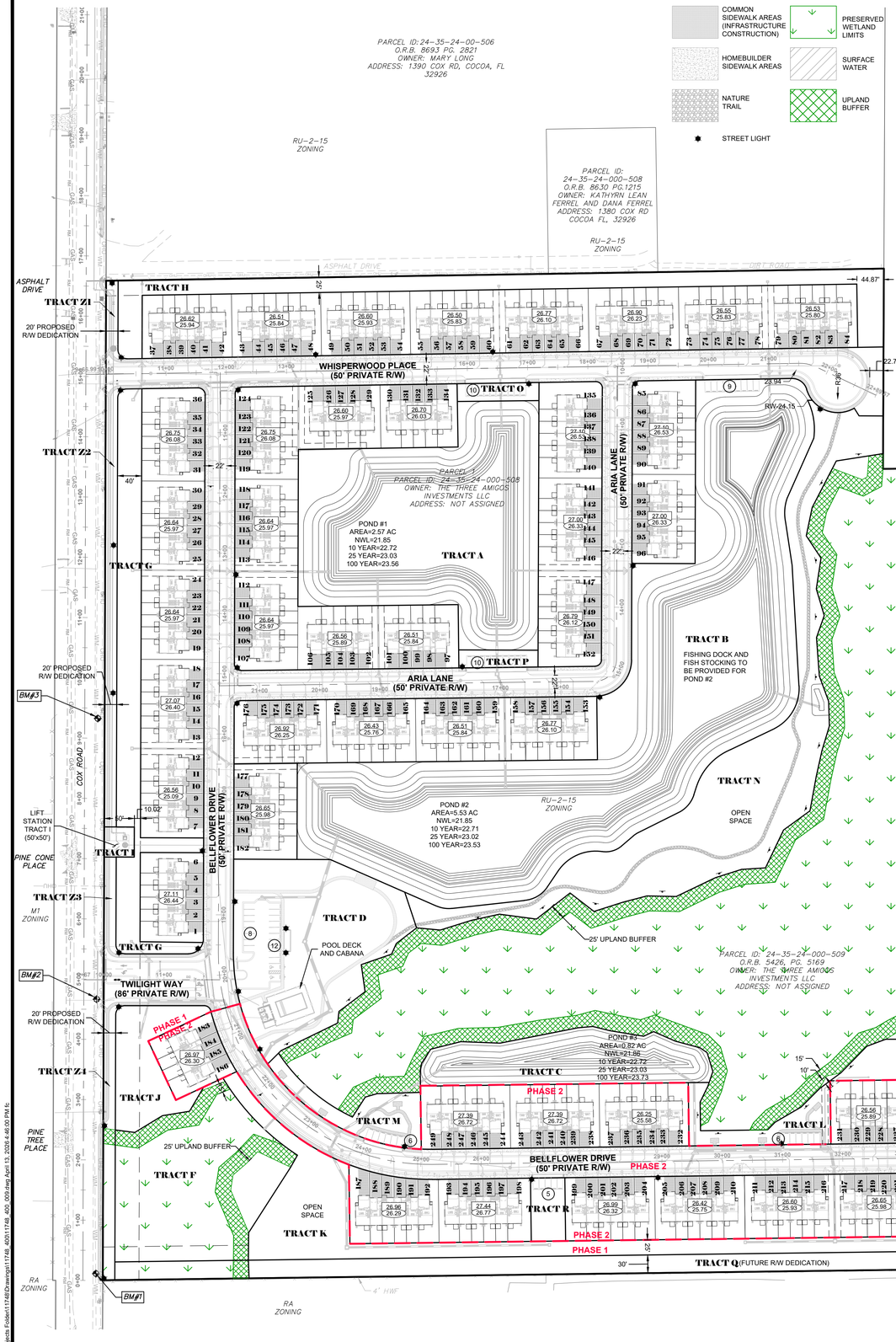
PROJECT NO. 11748

DRAWING NO. 11748_400_008

SHEET 8 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_008.dwg April 13, 2026 4:44:36 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



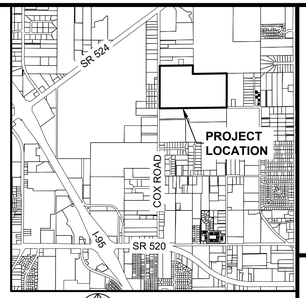
TRACT AREA SUMMARY TABLE - PHASE 1		
TRACT	AREA (ACRES)	TRACT USE
TRACT A	2.86	STORMWATER FACILITIES, LANDSCAPING, IRRIGATION, AND RELATED FACILITIES
TRACT B	6.06	STORMWATER FACILITIES, LANDSCAPING, IRRIGATION, OPEN SPACE, AND RELATED FACILITIES
TRACT C	0.84	STORMWATER FACILITIES, LANDSCAPING, IRRIGATION, AND RELATED FACILITIES
TRACT D	1.59	AMENITY CENTER, INSTALLATION AND MAINTENANCE OF UTILITIES, RECREATION, OPEN SPACE AND STORMWATER MANAGEMENT
TRACT E	46.12	WETLAND PRESERVATION, UPLAND BUFFER
TRACT F	1.46	WETLAND PRESERVATION, UPLAND BUFFER
TRACT G	0.93	LANDSCAPE IMPROVEMENTS, PUBLIC SIDEWALK, STORMWATER MANAGEMENT AND RELATED IMPROVEMENTS
TRACT H	0.93	LANDSCAPE BUFFER AND STORMWATER MANAGEMENT
TRACT I	0.06	LIFT STATION
TRACT J	0.44	LANDSCAPE BUFFER
TRACT K	1.95	LANDSCAPE BUFFER

TRACT AREA SUMMARY TABLE - PHASE 2		
TRACT	AREA (ACRES)	TRACT USE
TRACT S	5.95	FUTURE DEVELOPMENT

TRACT AREA SUMMARY TABLE - PHASE 1		
TRACT	AREA (ACRES)	TRACT USE
TRACT L	0.27	PARKING AREA, OPEN SPACE, AND INGRESS/EGRESS TO TRACT C, SPECIFIC FOR THE MAINTENANCE AND OPERATION OF TRACT C
TRACT M	0.31	OPEN SPACE
TRACT N	2.26	OPEN SPACE, TRAIL, AND STORMWATER FACILITIES
TRACT O	0.09	PARKING, LANDSCAPING, & RELATED IMPROVEMENT, INCLUDING THE INGRESS/EGRESS TO TRACT A SPECIFIC TO THE MAINTENANCE AND OPERATION OF TRACT A.
TRACT P	0.09	PARKING, LANDSCAPING, & RELATED IMPROVEMENT, INCLUDING THE INGRESS/EGRESS TO TRACT A SPECIFIC TO THE MAINTENANCE AND OPERATION OF TRACT A.
TRACT Q	1.09	FUTURE ROW EXPANSION
TRACT ZZ1	4.45	ROW (PHASE 1) INGRESS/EGRESS, PUBLIC AND PRIVATE UTILITIES
TRACT Z1	0.06	ROAD ROW - TO BE DEDICATED TO THE CITY OF COCOA
TRACT Z2	0.33	ROAD ROW - TO BE DEDICATED TO THE CITY OF COCOA
TRACT Z3	0.07	ROAD ROW - TO BE DEDICATED TO THE CITY OF COCOA
TRACT Z4	0.21	ROAD ROW - TO BE DEDICATED TO THE CITY OF COCOA

WETLAND INFORMATION TABLE

PARCEL AREA	3,900,519 SF	89.54 ACRES
TOTAL WETLANDS	2,035,721 SF	46.73 ACRES
PROPOSED WETLAND IMPACTS	60,444 SF	1.39 ACRES
PRESERVED WETLANDS	1,975,277 SF	45.34 ACRES
SURFACE WATER	130,128 SF	2.99 ACRES



LOCATION MAP
NTS

OPEN SPACE DEVELOPMENT TABLE - PHASE 1				
TYPE	TRACTS	AREA SF	AREA AC	DESCRIPTION OF IMPROVEMENTS
ACTIVE RERETION	N	98,446	2.26	NATURE TRAIL
PASSIVE OPEN SPACE*	B	189,050*	4.34*	PASSIVE OPEN SPACE
AMENITY AREA	D	69,168	1.59	POOL, POOL DECK, CABANA, RESTROOMS, MAIL KIOSK, WALKING TRAIL, LAKE OVERLOOK
TOTAL		356,664	8.19	

*OPEN SPACE CREDIT FOR STORMWATER POND CANNOT EXCEED 50% OF THE REQUIRED OPEN SPACE AND WILL BE STOCKED FOR FISHING AND INCLUDE A FISHING DOCK/PLATFORM FOR THE USE OF THE RESIDENTS.

OPEN SPACE DEVELOPMENT TABLE - PHASE 2				
TYPE	TRACTS	AREA SF	AREA AC	DESCRIPTION OF IMPROVEMENTS
PASSIVE OPEN SPACE	L	11,761	0.27	WALKING TRAIL, BENCHES
PASSIVE OPEN SPACE	M	16,117	0.37	WALKING TRAIL, BENCHES
TOTAL		27,878	0.64	

TOTAL OPEN SPACE PROVIDED:

PHASE 1 = 8.19 AC
PHASE 2 = 0.64 AC
TOTAL 8.83 AC

BENCHMARK (BM) TABLE		
NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

SURVEYOR OF RECORD:
MR. LES HOWARD PSM
LHOWARD@LJA.COM

LIGHTING SHALL BE DESIGNED, INSTALLED, MAINTAINED, AND DIRECTED TO AVOID GLARE ON ADJOINING PROPERTIES AND RIGHTS-OF-WAY THROUGH THE USE OF SEMI AND FULL CUT-OFF FEATURES.

ALL AREAS DISTURBED IN THE RIGHT-OF-WAY SHALL BE RETURNED TO ORIGINAL CONDITION OR BETTER.

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

100 0 50 100
(IN FEET)
VERTICAL DATUM: NAVD88

6	
5	
4	
3	
2	
1	
0	
0 CITY COMMENTS	02/25/26
0 SJRWMD COMMENTS	12/16/25
0 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
OVERALL SITE PLAN

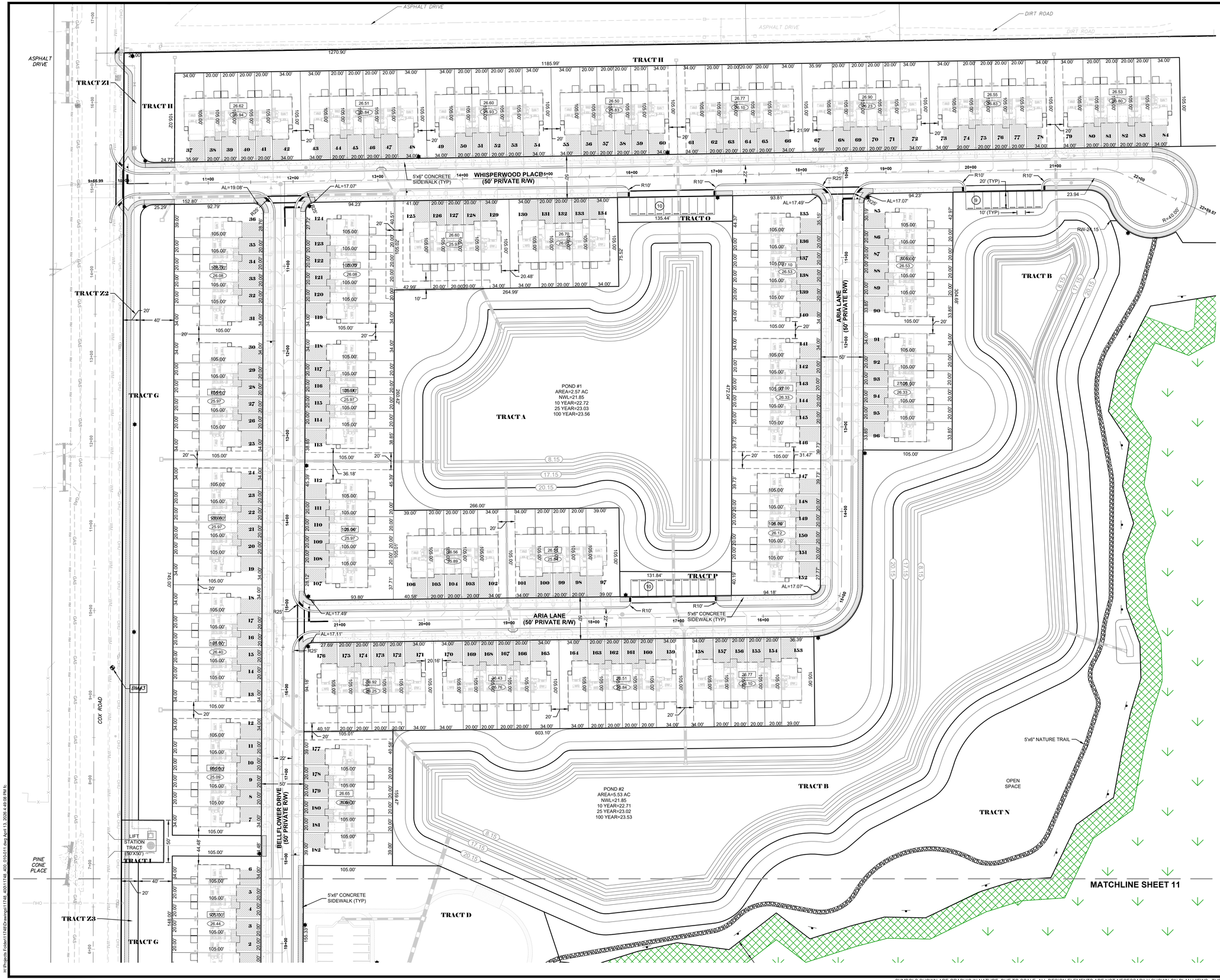
PROJECT NO.
11748

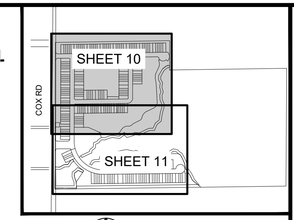
DRAWING NO.
11748_400_009

SHEET
9 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_009.dwg April 10, 2026 4:46:00 PM Ec

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.





KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOMEBUILDER SIDEWALK AREAS
- NATURE TRAIL
- PRESERVED WETLAND LIMITS
- SURFACE WATER
- UPLAND BUFFER
- STREET LIGHT

BENCHMARK (BM) TABLE		
NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

50 0 25 50
(IN FEET)

VERTICAL DATUM: NAVD88

1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
SITE PLAN

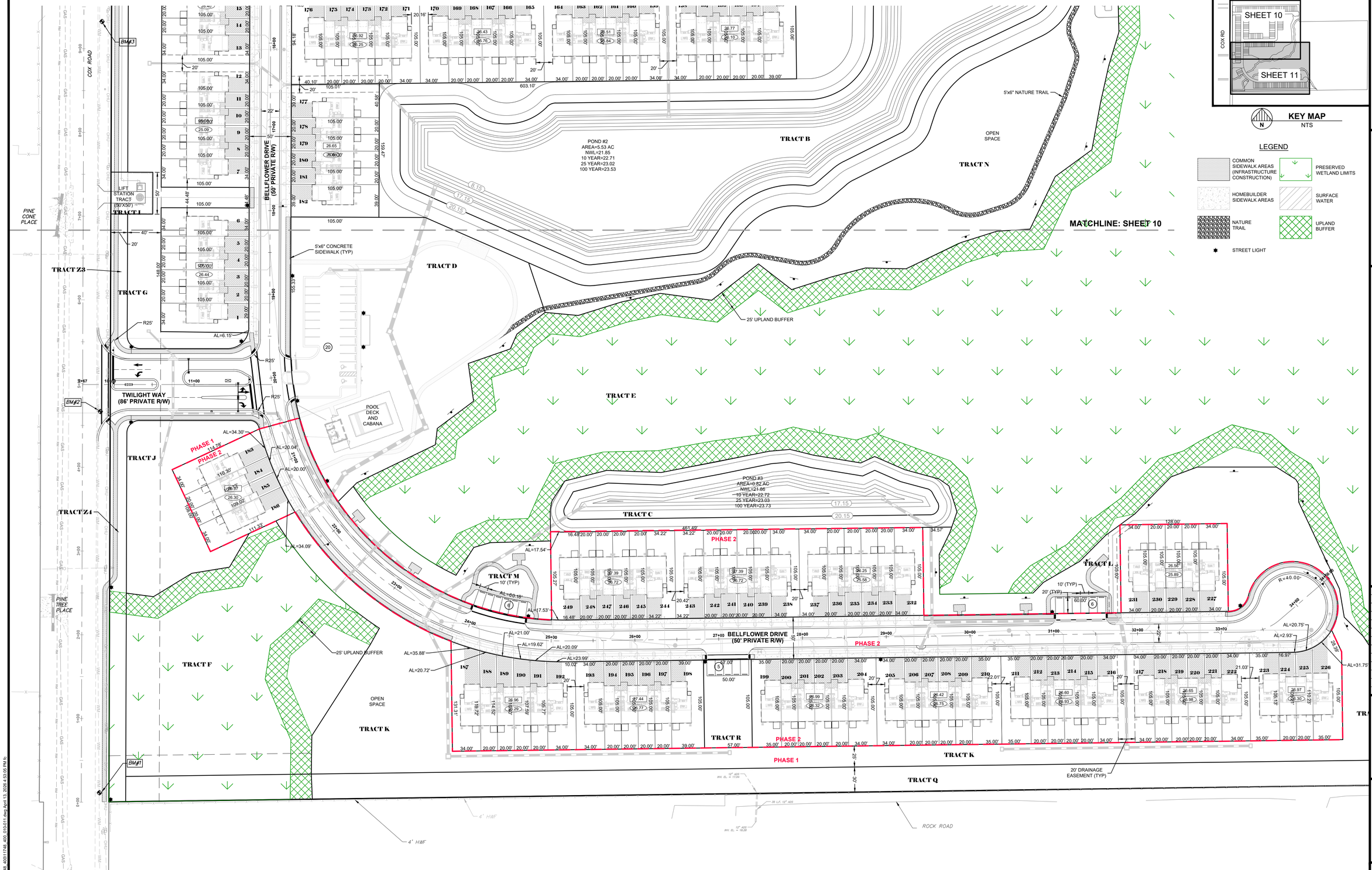
PROJECT NO.
11748

DRAWING NO.
11748_400_010

SHEET
10 of 58

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

H:\Projects Folder\11748\Drawings\11748_400\11748_400_010\011.dwg April 13, 2026 4:49:08 PM flc



KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOMEBUILDER SIDEWALK AREAS
- NATURE TRAIL
- STREET LIGHT
- PRESERVED WETLAND LIMITS
- SURFACE WATER
- UPLAND BUFFER

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

50 0 25 50
(IN FEET)
VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
7 CITY COMMENTS	02/25/26
8 SJRWMD COMMENTS	12/16/25
9 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
SITE PLAN

PROJECT NO.
11748

DRAWING NO.
11748_400_011

SHEET
11 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_010-011.dwg April 13, 2026 4:38:05 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

PHASE 1 IMPROVEMENTS SHALL CONSIST OF CLEARING AND GRADING OF THE APPROVED DEVELOPMENT AREAS FOR STORMWATER PONDS 1, 2, AND 3; CLEARING, FILLING AND GRADING OF PHASE 1 AND PHASE 2 DEVELOPMENT AREAS; INSTALLATION OF STORMWATER PIPES WITHIN PHASE 1 AS SHOWN ON THE DRAINAGE STRUCTURE TABLE; CONSTRUCTION OF PHASE 1 STREETS AND COMMON AREAS, SIDEWALKS, AND RAMPS, COX ROAD SIDEWALK IMPROVEMENTS, GUEST PARKING AREAS, AMENITY IMPROVEMENTS WITHIN TRACT D AND N AND ASSOCIATED STABILIZATION AND LANDSCAPING WITHIN THE LIMITS OF PHASE 1 AND THE STABILIZATION OF ALL DISTURBED AREAS WITHIN PHASE 2.

PHASE 2 IMPROVEMENTS SHALL INCLUDE THE INSTALLATION OF STORMWATER PIPES AND INLETS WITHIN PHASE 2 AS SHOWN ON THE DRAINAGE STRUCTURE TABLE, THE CONSTRUCTION OF PHASE 2 OF BELLFLOWER DRIVE AND THE CONSTRUCTION OF ALL COMMON SIDEWALKS AND PARKING AREAS WITHIN PHASE 2 AND TRACTS L AND M. PHASE 2 SHALL INCLUDE ANY REQUIRED FINAL GRADING OF LOTS AND COMMON AREAS, INCLUDING FINAL STABILIZATION AND LANDSCAPING.

BENCHMARK (BM) TABLE		
NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

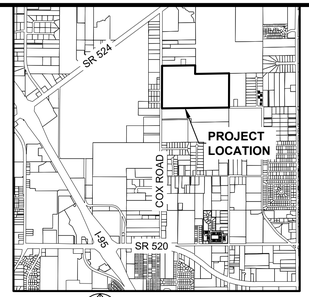
LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOME BUILDER SIDEWALK AREAS

NOTES:

1. SEE SHEET 36 FOR SECTION VIEW DETAILS.
2. SEE SHEET 50 FOR ENTRANCE DETAILS.
3. SHEETS 32 - 35 FOR LOT GRADING ELEVATIONS.

- PRESERVED WETLAND LIMITS
- PROPOSED WETLAND IMPACT
- PRESERVED SURFACE WATER
- UPLAND BUFFER
- IMPACTED SURFACE WATER
  SW#1= 1.30 AC SW#2: 0.19 AC
  TOTAL= 1.49 AC



LOCATION MAP
NTS

Wetland Buffer Restoration – Freshwater Marsh Transitional Buffer. Typical 25'WX50'L Section 30 Sections to be Provided						
Zone	Type	Common Name	Scientific Name	Quantity Per One Typical Section	Unit– (gal)	Spacing– off center (o.c.)
Canopy	Tree	Oak and Cabbage Palm Mixed	Quercus spp	3	10	20'
Midstory	Shrub	Gallberry	Ilex glabra	17	5	5'
Midstory	Shrub	Firebush	Hamelia patens	17	5	5'
Understory	Groundcover	Purple Love Grass	Eragrostis spectabilis	208	br/liner	2'
Understory	Groundcover	Muhly Grass	Muhlenbergia capillaris	208	br/liner	2'
Understory	Groundcover	Dwarf Fakahatchee Grass	Tripsacum floridanum	208	br/liner	2'

1. CLEAN AND BACKFILL EXISTING DITCH TO NATURAL GROUND, MATCH EXISTING GRADES AT WETLAND EDGE.
2. PLANTING PLAN ABOVE REPRESENTS A SAMPLE OF WHAT MAY BE USED. CONTRACTOR TO PROVIDE DETAILED LISTING OF ACTUAL PLANTS, SIZES, AND QUANTITIES PRIOR TO ORDERING MATERIAL

DRAINAGE STRUCTURE TABLE							
NAME	PHASE	DESCRIPTION	RIM ELEVATION	INVERTS	SIZE	PIPE LENGTH (FEET)	TO	COMMENT
CS-1	1	TYPE H 2 GRATE	24.15	W = 17.00 E = 20.00	24" RCP 24" RCP	39 38	DS50 DS51	
DS1	1	TYPE 4	24.16	S = 18.00 N = 18.00	18" RCP 15" PVC	33 132	DS2 DS1A	
DS1A	1	TYPE C	23.50	S = 21.75	15" PVC	132	DS1	
DS2	1	TYPE 4	24.16	N = 18.00 E = 16.50 SW = 18.50	18" RCP 30" RCP 15" RCP	33 260 30	DS1 DS5 DS3	
DS3	1	TYPE D	23.50	NE = 18.75	15" RCP	30	DS2	
DS4	1	TYPE V	23.78	SE = 18.75	15" RCP	33	DS5	
DS5	1	TYPE 4	24.16	NW = 18.75 W = 16.50 S = 16.50	15" RCP 30" RCP 24" RCP	33 260 114	DS4 DS2 DS6	
DS6	1	TYPE G	25.00	N = 15.50 E = 15.50	24" RCP 30" RCP	114 103	DS5 DS7	
DS7	1	JUNCTION BOX	24.20	W = 15.25 SE = 15.25	30" RCP 30" RCP	103 57	DS6 DS8	
DS8	1	FES		NW = 15.00	30" RCP	57	DS7	
DS9	1	TYPE 4	24.16	S = 19.00 N = 19.00	24" RCP 15" PVC	31 120	DS10 DS9A	
DS9A	1	TYPE C	23.28	S = 21.75	15" PVC	120	DS9	
DS10	1	TYPE G	23.78	N = 19.00 S = 15.00	24" RCP 24" RCP	31 85	DS9 DS11	
DS11	1	FES		N = 15.00	24" RCP	85	DS10	
DS12	1	TYPE 4	24.16	S = 16.25 N = 17.50	19"X30" ERCP 15" PVC	33 120	DS13 DS12A	
DS12A	1	TYPE C	23.28	S = 21.75	15" PVC	120	DS12	
DS13	1	TYPE 4	24.16	N = 16.25 S = 15.50	19"X30" ERCP 24" RCP	33 76	DS12 DS14	
DS14	1	FES		N = 15.15	24" RCP	76	DS13	
DS15	1	TYPE 4	24.00	E = 19.00 W = 15.00	18" RCP 18" RCP	33 158	DS16 DS15A	
DS15A	1	FES		E = 15.00	18" RCP	158	DS15	
DS16	1	TYPE 4	24.00	W = 19.00	18" RCP	33	DS15	
DS17	1	FES		N = 15.00	30" RCP	158	DS18	
DS18	1	TYPE 4	24.16	N = 17.00 S = 16.50	30" RCP 30" RCP	33 158	DS19 DS17	
DS19	1	TYPE G	23.78	S = 17.00 N = 16.00	30" RCP 30" RCP	33 83	DS18 DS20	
DS20	1	FES		S = 15.00	30" RCP	83	DS19	
DS21	1	TYPE V	23.78	N = 17.00	24" RCP	30	DS22	
DS22	1	TYPE 4	24.16	S = 17.00 N = 17.00	24" RCP 24" RCP	30 158	DS21 DS23	
DS23	1	FES		S = 15.00	24" RCP	158	DS22	
DS24	1	TYPE D	23.50	E = 19.00	18" RCP	128	DS25	
DS25	1	TYPE 4	24.38	W = 17.50 E = 17.50	18" RCP 24" RCP	128 33	DS24 DS26	
DS26	1	TYPE 4	24.38	W = 17.50 E = 17.50	24" RCP 30" RCP	33 167	DS25 DS27	
DS27	1	FES		W = 15.00	30" RCP	167	DS26	
DS28	1	TYPE D	23.50	E = 18.00	18" RCP	128	DS29	
DS29	1	TYPE 4	24.16	W = 17.00 SE = 17.00	18" RCP 24" RCP	128 41	DS28 DS30	
DS30	1	TYPE 4	24.16	NW = 16.75 E = 16.75	24" RCP 24" RCP	41 114	DS29 DS31	
DS31	1	JUNCTION BOX	24.50	W = 16.50 SE = 16.50	24" RCP 30" RCP	114 65	DS30 DS32	
DS32	1	FES		NW = 15.00	30" RCP	65	DS31	
DS33	1	TYPE 4	24.46	S = 18.00 NW = 18.00	24" RCP 15" RCP	69 41	DS34 DS33A	
DS33A	1	TYPE C	23.50	SE = 19.00	15" RCP	41	DS33	
DS34	1	TYPE 4	24.24	S = 17.75 E = 17.75 N = 17.75	24" RCP 24" RCP 24" RCP	63 124 69	DS34A DS35 DS33	
DS34A	1	TYPE C	23.50	N = 18.00	24" RCP	63	DS34	
DS35	1	JUNCTION BOX	24.98	W = 17.50 SE = 17.50	24" RCP 30" RCP	124 120	DS34 DS37	
DS36	1	TYPE 4	24.43	NE = 16.75	24" RCP	33	DS37	
DS37	1	TYPE 4	24.43	SW = 16.75 NE = 15.00 NW = 16.75 SE = 15.00	24" RCP 42" RCP 30" RCP 30" RCP	33 37 120 174	DS36 DS37A DS35 DS42	
DS37A	1	TYPE G	24.00	SW = 15.00 NE = 15.00	42" RCP 42" RCP	37 111	DS37 DS37B	
DS37B	1	TYPE G	24.00	SW = 16.00 N = 16.00	42" RCP 42" RCP	111 122	DS37A DS38	
DS38	1	TYPE G	23.50	S = 15.75 N = 15.75	42" RCP 42" RCP	122 77	DS37B DS39	
DS39	1	TYPE G	23.25	S = 15.50 N = 15.50 W = 15.50	42" RCP 42" RCP 24" RCP	77 109 94	DS38 DS40 DS52	
DS40	1	FES		S = 15.00	42" RCP	109	DS39	
DS41	1	FES		SW = 15.00	30" RCP	209	DS42	
DS42	1	TYPE 4	24.38	NE = 15.00 SW = 16.50 NW = 15.00	30" RCP 30" RCP 30" RCP	209 33 174	DS41 DS43 DS37	
DS43	1	TYPE 4	24.38	NE = 17.00 SE = 17.00	30" RCP 30" RCP	33 59	DS42 DS43A	
DS43A	1	JUNCTION BOX	24.10	S = 17.10 NW = 17.10	30" RCP 30" RCP	108 59	DS60 DS43	
DS44	2	TYPE 4	24.16	N = 18.50 S = 17.00	24"X38" ERCP 30" RCP	33 120	DS45 DS44A	
DS44A	2	TYPE G	20.29	W = 17.25 N = 17.25 E = 17.25	24" RCP 30" RCP 24" RCP	149 120 148	DS62 DS44 DS63	
DS45	2	TYPE 4	24.16	S = 18.50 W = 17.00 NW = 19.00	24"X38" ERCP 30" RCP 6" ADS	33 225 12	DS44 DS47 YD1C	
DS46	2	TYPE V	23.78	NE = 16.75	24" RCP	33	DS47	
DS47	2	TYPE 4	24.16	E = 16.75 N = 16.75 SW = 16.75	30" RCP 30" RCP 24" RCP	225 114 33	DS45 DS48 DS46	
DS48	1	JUNCTION BOX	24.00	S = 16.50 NW = 16.50	30" RCP 30" RCP	114 68	DS47 DS49	
DS49	1	FES		SE = 15.00	30" RCP	68	DS48	
DS50	1	FES		E = 17.50	24" RCP	39	CS-1	
DS51	1	FES	21.63	W = 19.30	24" RCP	38	CS-1	
DS52	1	TYPE 4	23.88	E = 17.00	24" RCP	94	DS39	
DS60	1	TYPE G	20.24	N = 17.20 E = 17.20	30" RCP 24" RCP	108 336	DS43A DS61	
DS61	2	TYPE D	20.00	W = 17.50	24" RCP	336	DS60	
DS62	2	TYPE D	20.50	E = 18.00	24" RCP	149	DS44A	
DS63	2	TYPE D	20.50	W = 18.00	24" RCP	148	DS44A	
DS64	1	TYPE C	22.92	SW = 20.77	14"X23" ERCP	97	DS65	
DS65	1	TYPE C	22.92	NE = 20.77	14"X23" ERCP	97	DS64	

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

100 0 50 100
(IN FEET)
VERTICAL DATUM: NAVD88

6	
5	
4	
3	
2	
1	
CITY COMMENTS	02/25/26
SJRWMD COMMENTS	12/16/25
CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
OVERALL PAVING, GRADING AND DRAINAGE PLAN

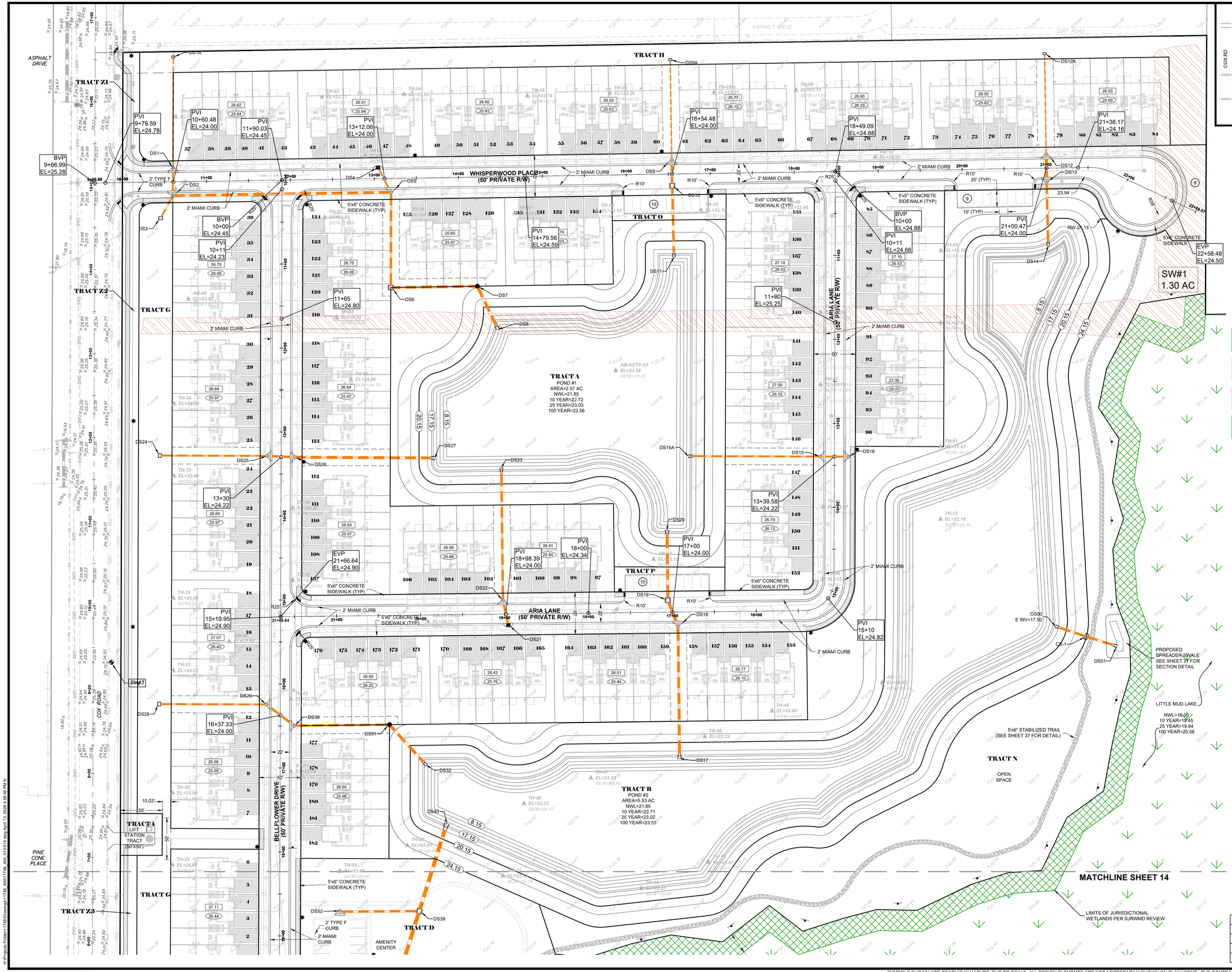
PROJECT NO. 11748

DRAWING NO. 11748_400_012

SHEET 12 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_012.dwg April 13, 2026 4:54:21 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOME BUILDER SIDEWALK AREAS

NOTES:

1. SEE SHEET 36 FOR SECTION VIEW DETAILS.
2. SEE SHEET 50 FOR ENTRANCE DETAILS.
3. SHEETS 32 - 35 FOR LOT GRADING ELEVATIONS.

- PRESERVED WETLAND LIMITS
- PROPOSED WETLAND IMPACT
- IMPACTED SURFACE WATER
- UPLAND BUFFER

50 0 25 50
(IN FEET)
VERTICAL DATUM: NAVD88

BENCHMARK (BM) TABLE		
NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

7	
6	
5	
4	
3	
2	
1	
1	CITY COMMENTS 02/25/26
2	SJRWMD COMMENTS 12/16/25
1	CITY COMMENTS 07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

MASTER PAVING, GRADING AND DRAINAGE PLAN

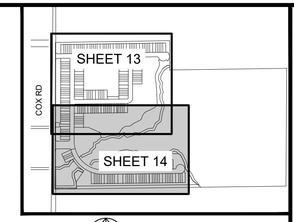
PROJECT NO. 11748

DRAWING NO. 11748_400_013

SHEET 13 of 58

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

H:\Projects Folder\11748\Drawings\11748_400\11748_400_013-014.dwg April 13, 2026 4:56:46 PM ls



N

KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOME BUILDER SIDEWALK AREAS

NOTES:

1. SEE SHEET 36 FOR SECTION VIEW DETAILS.
2. SEE SHEET 50 FOR ENTRANCE DETAILS.
3. SHEETS 32 - 35 FOR LOT GRADING ELEVATIONS.

- PRESERVED WETLAND LIMITS
- PROPOSED WETLAND IMPACT
- IMPACTED SURFACE WATER
- UPLAND BUFFER

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

50 0 25 50
(IN FEET)
VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
MASTER PAVING, GRADING AND DRAINAGE PLAN

PROJECT NO. 11748

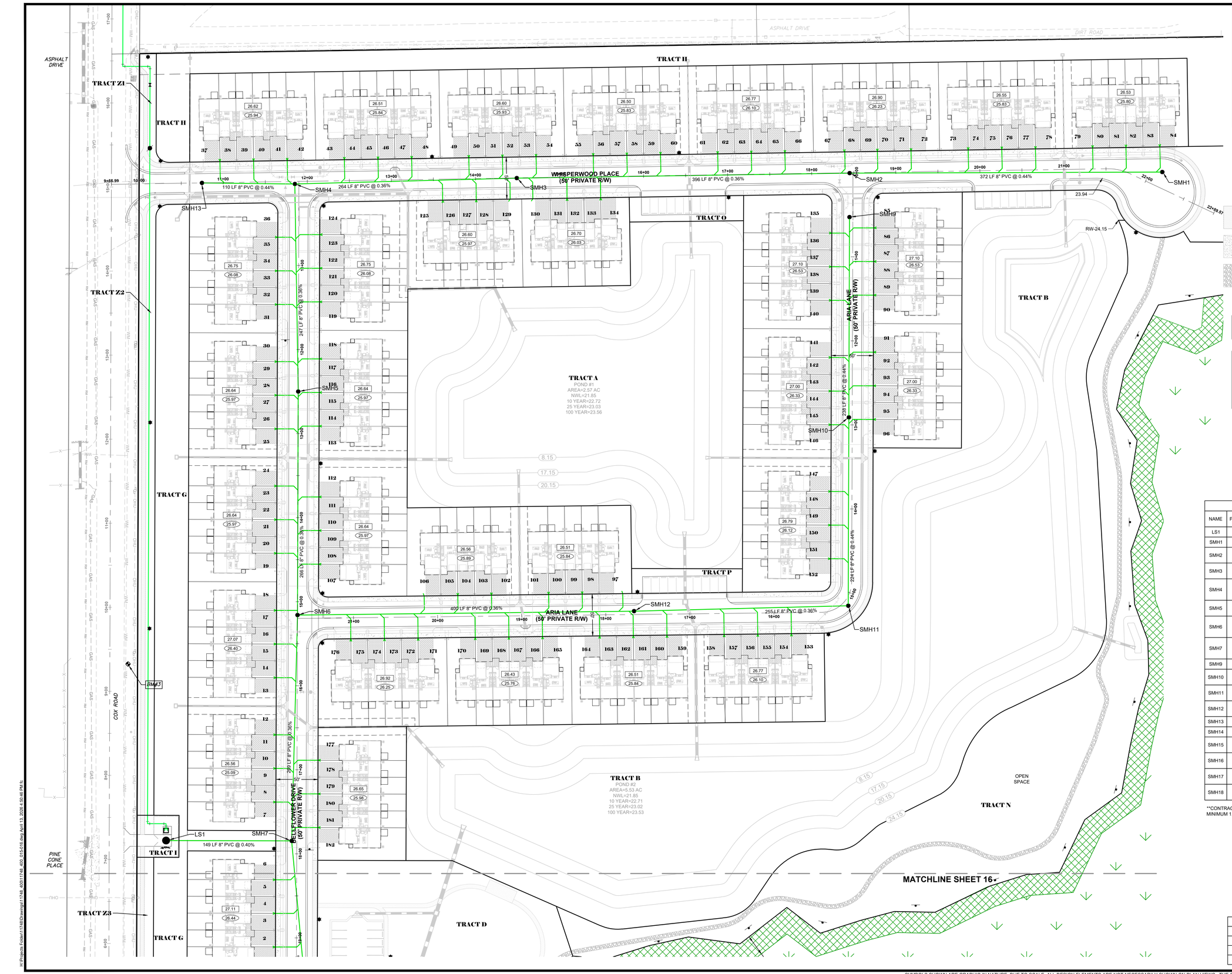
DRAWING NO. 11748_400_014

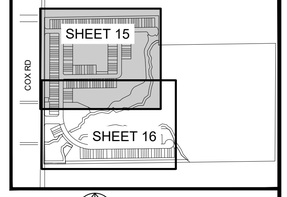
SHEET 14 of 58

SECTION 1-1 COX RD SOUTHERLY SIDEWALK SECTION
NTS

H:\Projects Folder\11748\Drawings\11748_400\11748_400_013-014.dwg April 13, 2026 4:53:57 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.





KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOMEBUILDER SIDEWALK AREAS
- NATURE TRAIL
- PRESERVED WETLAND LIMITS
- SURFACE WATER
- UPLAND BUFFER
- STREET LIGHT

PRIOR TO THE CITY'S ACCEPTANCE OF ANY PUBLIC WATER AND SEWER FACILITIES, THE APPLICANTS WILL COMPLETE AND EXECUTE THE PUBLIC UTILITY LINE AND INGRESS/EGRESS AGREEMENT.

PHASE 1 SANITARY SEWER IMPROVEMENTS WILL INCLUDE THE INSTALLATION OF ALL MANHOLES, GRAVITY LINES AND SERVICES SHOWN AS PHASE ONE, PLUS THE INSTALLATION OF THE PROPOSED LIFT STATION AND COX ROAD FORCE MAIN.

PHASE 2 SANITARY SEWER IMPROVEMENTS WILL INCLUDE CORE DRILLING INTO SMH 17 AND THE INSTALLATION OF MANHOLES 16, 15, AND 14, ASSOCIATED GRAVITY LINES AND SERVICES AS SHOWN.

SANITARY SEWER STRUCTURE TABLE

NAME	PHASE	TOP ELEVATION	INVERTS	COMMENT
LS1		25.50	E =8.90	
SMH1	1	24.51	W =19.83	
SMH2	1	24.85	W =17.55 E =18.20	
SMH3	1	24.48	E =16.12 W =15.92	
SMH4	1	24.38	E =14.97 S =14.42 W =16.62	
SMH5	1	24.50	N =13.53 S =13.33	
SMH6	1	24.88	E =12.37 S =12.17 N =12.37	5' DIAMETER
SMH7	1	24.35	S =9.70 W =9.50 N =11.20	5' DIAMETER POLYMER**
SMH9	1	24.73	S =16.46	
SMH10	1	24.45	S =15.51 N =15.41	
SMH11	1	24.67	N =14.52 W =14.62	
SMH12	1	24.15	E =13.71 W =13.81	
SMH13	1	24.05	E =17.11	
SMH14	2	24.71	W =16.64	
SMH15	2	24.23	E =15.05 W =14.85	
SMH16	2	25.12	E =13.41 W =13.21	
SMH17	1	24.13	E =12.20 NW =12.00	5' DIAMETER
SMH18	1	24.36	SE =11.10 N =10.90	5' DIAMETER

**CONTRACTOR/MANUFACTURER SHALL PROVIDE A MINIMUM 1.5 FACTOR OF SAFETY UPLIFT.

BENCHMARK (BM) TABLE

NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

50 0 25 50
(IN FEET)
VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
3 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

MASTER SANITARY SEWER PLAN

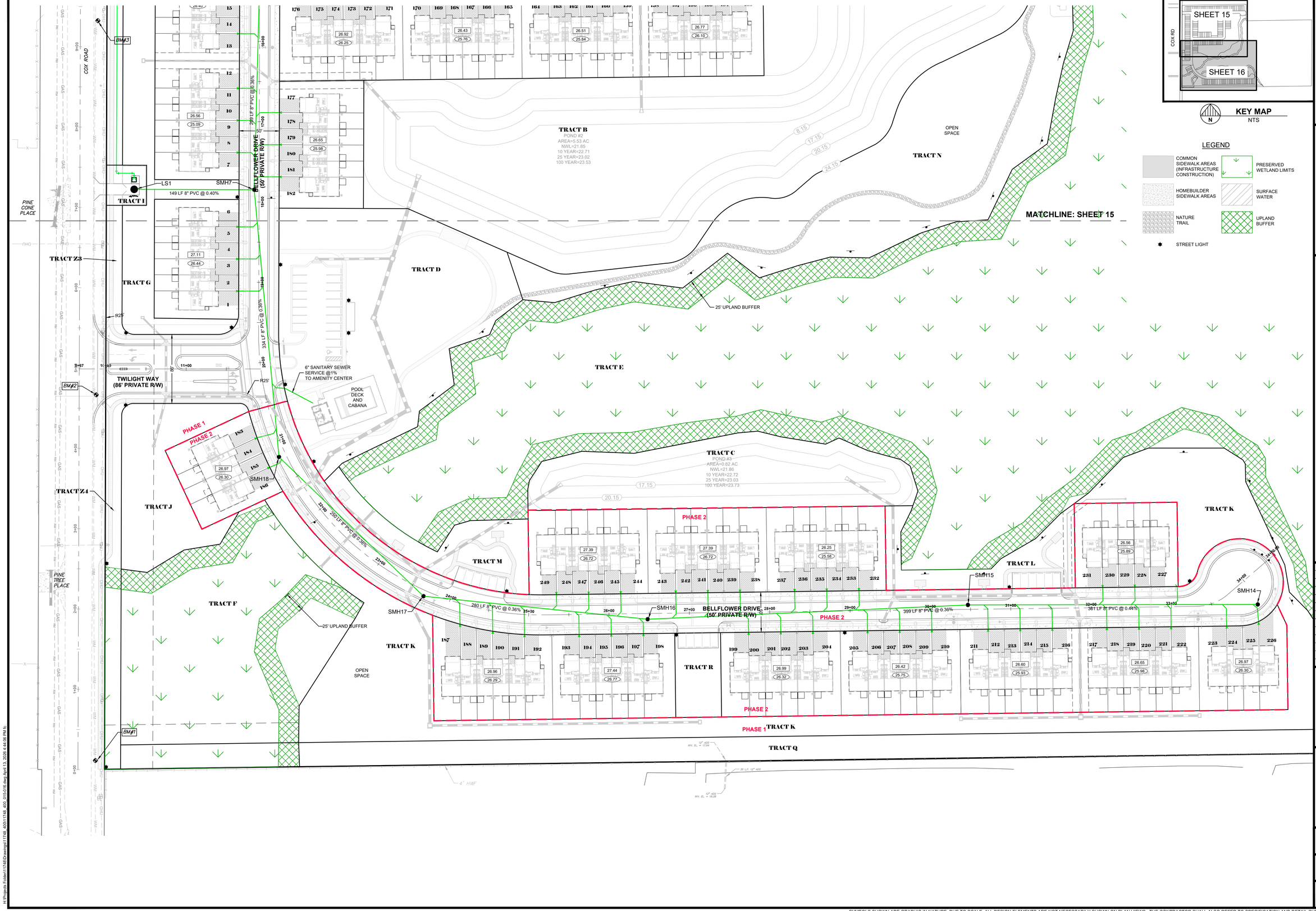
PROJECT NO. 11748

DRAWING NO. 11748_400_015

SHEET 15 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_015-016.dwg April 13, 2026 4:50:46 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

MASTER SANITARY SEWER PLAN

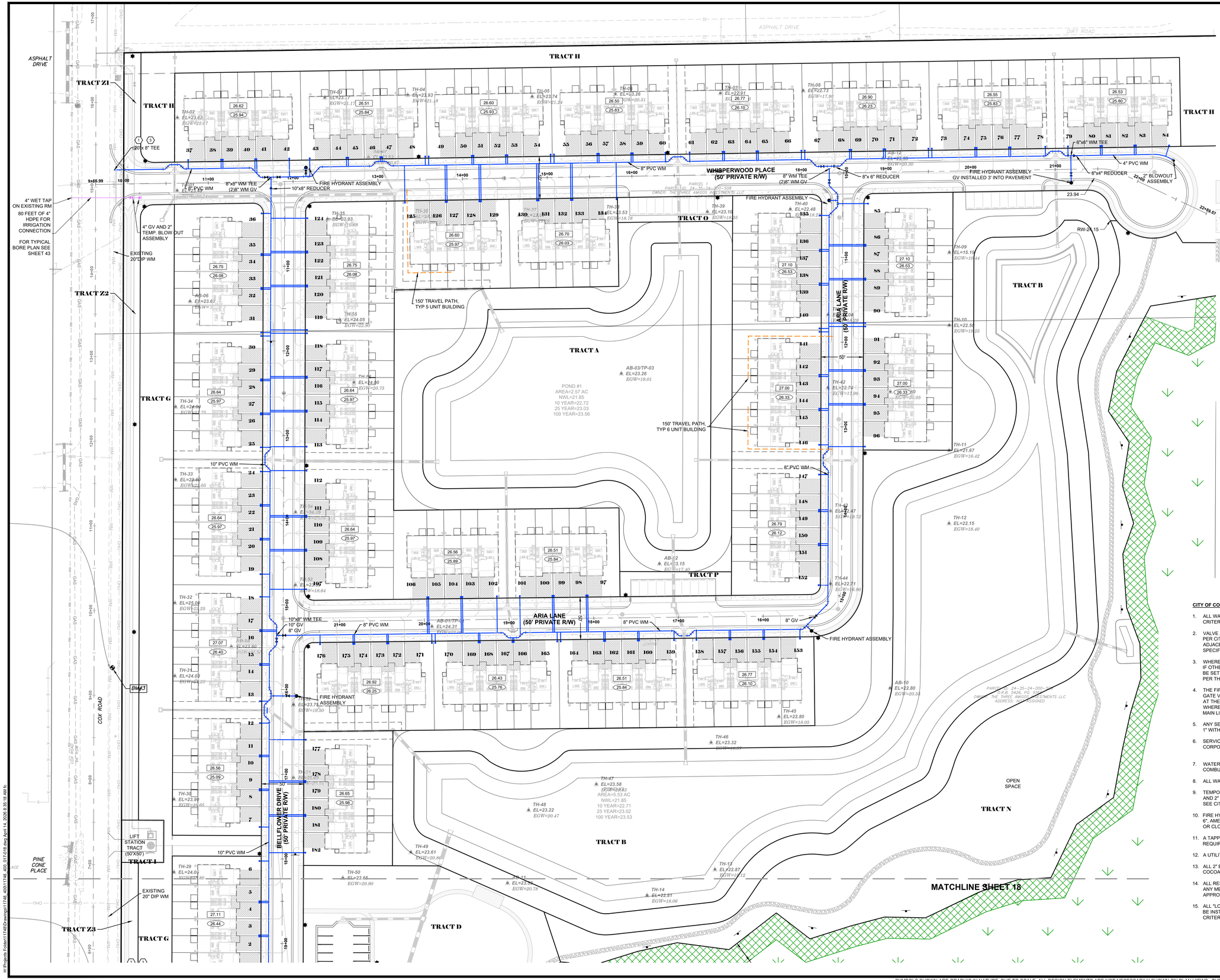
PROJECT NO. 11748

DRAWING NO. 11748_400_016

SHEET 16 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_015-016.dwg April 13, 2026 4:44:06 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



PRIOR TO THE CITY'S ACCEPTANCE OF ANY PUBLIC WATER AND SEWER FACILITIES, THE APPLICANTS WILL COMPLETE AND EXECUTE THE PUBLIC UTILITY LINE AND INGRESS/EGRESS AGREEMENT.

UTILITY CONNECTION NOTES

1. CONNECT TO EXISTING 20" DIP WATER MAIN WITH 20"x8" TAPPING SADDLE AND 8" VALVE ASSEMBLY
2. CONNECT TO EXISTING 20" DIP WATER MAIN WITH 20"x10" TAPPING SADDLE AND 10" VALVE ASSEMBLY
3. CONTRACTOR SHALL FULLY RESTORE R/W WITHIN 21 DAYS OF MAKING CONNECTION TO EXISTING WATER MAIN
4. ALL MOTORIZED GATES SHALL INCLUDE A CLICK TO ENTER SYSTEM OR A SIREN OPERATED SWITCH AND KNOX KEY SWITCH BACKUP. ALL MANUAL GATES SHALL HAVE A KNOX PADLOCK. ORDER KNOX PRODUCTS AT KNOXBOX.COM. INDICATE THE GATES SHALL HAVE A MINIMUM CLEAR WIDTH OF 14 FEET.

FIRE HYDRANT AND POTABLE WATER SERVICE SCHEDULE

	PHASE 1	PHASE 2	TOTAL
NUMBER OF HYDRANTS	6	3	9
NUMBER OF SERVICES	183*	67	250

*182 RESIDENTIAL SERVICES AND 1 FOR AMENITY CENTER

FIRE FLOW CALCULATIONS:
LARGEST UNIT AREA = 1,808 SF
(UNITS ARE SEPARATED BY A TWO-HOUR FIREWALL)
CONSTRUCTION TYPE: VB
FIRE FLOW REQUIRED: 1,500 GPM

NOTE:
ALL HYDRANTS ARE PUBLIC.

HYDRANTS THAT ARE PROPOSED TO MEET THE REQUIRED FIRE FLOW SHALL BE INSTALLED AND OPERATIONAL PRIOR TO THE DELIVERY OF COMBUSTIBLE MATERIALS TO THE SITE.

CITY OF COCOA GENERAL NOTES:

1. ALL WATER MAIN CONSTRUCTION SHALL BE PER CITY OF COCOA CRITERIA (APRIL 2020 - LATEST EDITION).
2. VALVE AND TEE LOCATIONS ARE SHOWN FOR GRAPHIC CLARITY ONLY. PER CITY OF COCOA CRITERIA, ALL VALVES SHALL BE LOCATED ADJACENT TO TEES (WITHIN 2') WHEREVER POSSIBLE, UNLESS SPECIFICALLY LOCATED OTHERWISE.
3. WHERE APPLICABLE ALL BLOWOFFS TO BE PLACED AT PROPERTY LINE. IF OTHER FACILITIES CONFLICT (I.E. STORM DRAINAGE) BLOWOFFS TO BE SET WITHIN 3' OF PROPERTY LINE. ALL BLOWOFFS SHALL BE BRASS PER THE CITY OF COCOA CRITERIA.
4. THE FIRE HYDRANT ASSEMBLIES SHALL CONSIST OF A HYDRANT TEE, GATE VALVE, AND FIRE HYDRANT. THE GATE VALVE IS TO BE PLACED AT THE HYDRANT TEE. THIS NOTE ALSO APPLIES TO THOSE LOCATIONS WHERE THE HYDRANT IS LOCATED ACROSS THE STREET FROM THE MAIN LINE.
5. ANY SERVICE LINE LONGER THAN 60 FEET IN LENGTH WILL NEED TO BE 1" WITHIN A CASING. ALL OTHER SERVICE LINES SHALL BE 3/4".
6. SERVICE LINE SHALL CONSIST OF A BRONZE SERVICE SADDLE, CORPORATION STOP, TYPE "K" COPPER, AND CURB STOP.
7. WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLE MATERIALS BEING BROUGHT ON SITE.
8. ALL WATER MAINS SHALL BE SWABBED PER CITY OF COCOA CRITERIA.
9. TEMPORARY BLOWOFF TO CONSIST OF GATE VALVE, 20 LF OF MJ DIP, AND 2" (PIPE SIZE 2"-10") OR 4" (PIPE SIZE 12" AND LARGER) BLOWOFF. SEE CITY OF COCOA DETAIL SHEET 42.
10. FIRE HYDRANTS SHALL BE AMERICAN FLOW CONTROL MODEL #B-84-B; 6", AMERICAN DARLING 5 1/4", MUELLER SUPER CENTURION 250 5 1/4" OR CLOW MEDALLION 5 1/4".
11. A TAPPING CONTRACTOR ACCEPTABLE TO THE CITY OF COCOA IS REQUIRED FOR TAPS.
12. A UTILITY CONTRACTOR IS REQUIRED FOR WATER MAIN INSTALLATION.
13. ALL 2" BLOWOFFS SHALL BE CONSTRUCTED OF BRASS PER CITY OF COCOA CRITERIA.
14. ALL RESIDENTIAL WATER METERS ARE PROPOSED AS 3/4" METERS. ANY METERS SIZED ABOVE 1" WILL REQUIRE THE SUBMITTAL AND APPROVAL OF METER SIZING CALCULATIONS.
15. ALL "LONG SIDE" WATER SERVICES, REGARDLESS OF THE SIZE, SHALL BE INSTALLED IN A CASING IN ACCORDANCE WITH CITY OF COCOA CRITERIA.

BENCHMARK (BM) TABLE

NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

50 0 25 50
(IN FEET)
VERTICAL DATUM: NAVD88

1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
3 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
MASTER POTABLE WATER PLAN

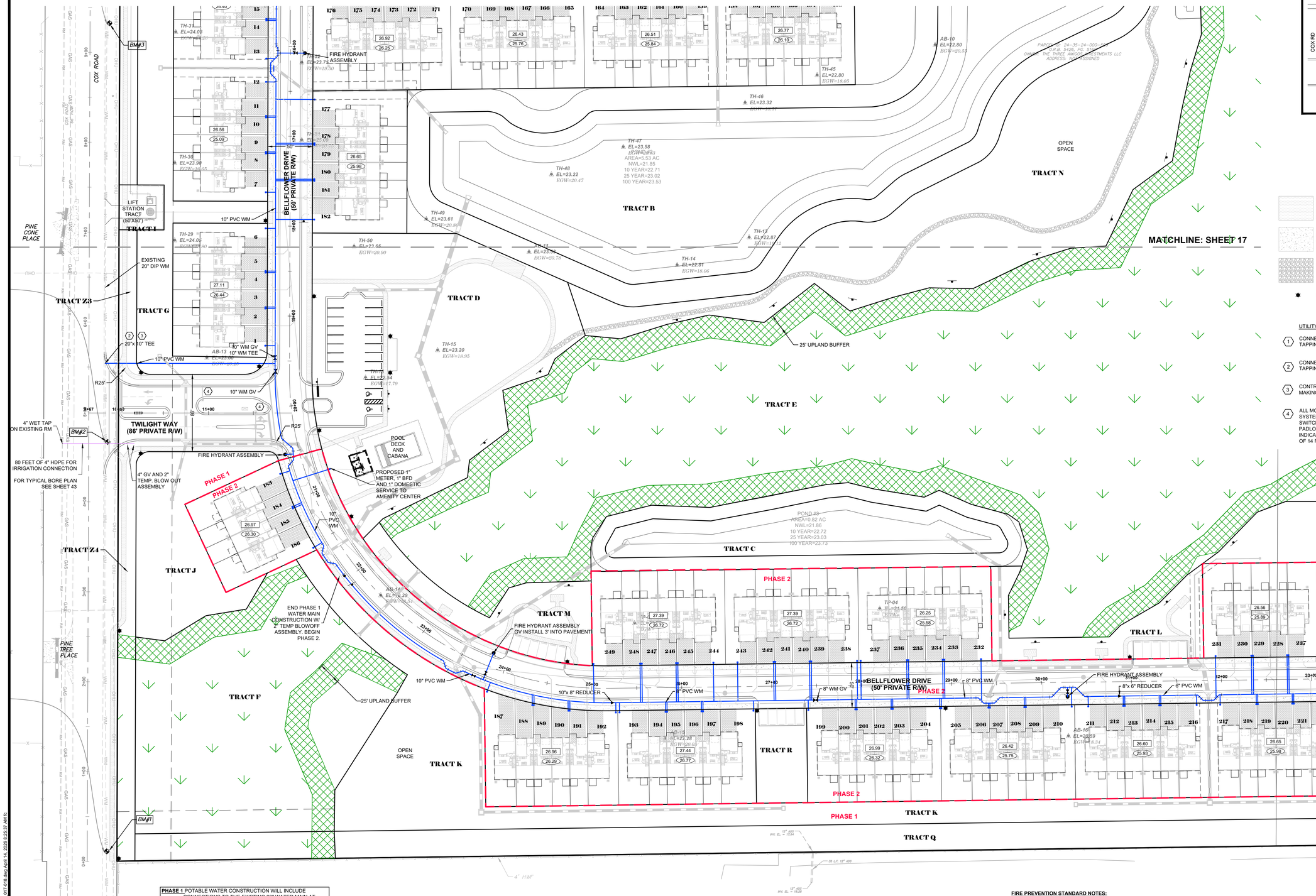
PROJECT NO. 11748

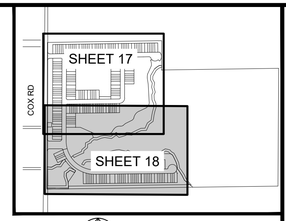
DRAWING NO. 11748_400_017

SHEET 17 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_017-018.dwg April 14, 2026 8:35:18 AM ©

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.





N

KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOMEBUILDER SIDEWALK AREAS
- NATURE TRAIL
- PRESERVED WETLAND LIMITS
- SURFACE WATER
- UPLAND BUFFER
- STREET LIGHT

UTILITY CONNECTION NOTES

1. CONNECT TO EXISTING 20" DIP WATER MAIN WITH 20"x8" TAPPING SADDLE AND 8" VALVE ASSEMBLY
2. CONNECT TO EXISTING 20" DIP WATER MAIN WITH 20"x10" TAPPING SADDLE AND 10" VALVE ASSEMBLY
3. CONTRACTOR SHALL FULLY RESTORE R/W WITHIN 21 DAYS OF MAKING CONNECTION TO EXISTING WATER MAIN
4. ALL MOTORIZED GATES SHALL INCLUDE A CLICK TO ENTER SYSTEM OR A SIREN OPERATED SWITCH AND KNOX KEY SWITCH BACKUP. ALL MANUAL GATES SHALL HAVE A KNOX PADLOCK. ORDER KNOX PRODUCTS AT KNOXBOX.COM. INDICATE THE GATES SHALL HAVE A MINIMUM CLEAR WIDTH OF 14 FEET.

PHASE 1 POTABLE WATER CONSTRUCTION WILL INCLUDE CONNECTIONS TO THE EXISTING 20" WATER MAIN AT COX ROAD AT TWILIGHT WAY AND WHISPERWOOD PLACE AND THE INSTALLATION OF ALL WATER MAINS, HYDRANTS, AND SERVICES WITHIN THE LIMITS OF PHASE 1, INCLUDING THE ±100 FT EXTENSION OF THE 10" WATER MAIN INTO PHASE 2 ALONG BELLFLOWER DRIVE.

PHASE 2 POTABLE WATER CONSTRUCTION SHALL INVOLVE REMOVAL OF THE TEMPORARY 2" BLOWOFF AT BELLFLOWER DRIVE AND THE EXTENSION AND INSTALLATION OF THE WATER MAINS, VALVES, HYDRANTS AND SERVICES ALONG BELLFLOWER DRIVE AS SHOWN.

FIRE PREVENTION STANDARD NOTES:

1. WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLE MATERIALS BEING BROUGHT ON SITE.
2. FIRE HYDRANTS SHALL BE INDICATED WITH A BLUE ROADWAY REFLECTOR, PLACED 1 FOOT OFF THE CENTERLINE OF THE ROAD FACING THE HYDRANT. THIS INCLUDES NEW AND EXISTING SOURCES.
3. LANDSCAPING SHALL NOT BE LOCATED WITHIN 7.5 FEET SIDE & FRONT AND 4.5' TO THE REAR OF ANY FIRE HYDRANT OR FIRE DEPARTMENT CONNECTION. LANDSCAPING SHALL NOT VISIBLY OR PHYSICALLY OBSTRUCT FIRE HYDRANT LOCATIONS.
4. ACCESS SHALL BE PROVIDED BY AN UNOBSTRUCTED ALL WEATHER DRIVING SURFACE CAPABLE OF SUPPORTING THE LOADS IMPOSED BY RESPONDING APPARATUS (32 TONS) AND BE NOT LESS THAN 20 FEET IN WIDTH, AND SHALL BE MAINTAINED DURING CONSTRUCTION.
5. ALL HYDRANTS SHALL BE READILY ACCESSIBLE WITHOUT THE NEED TO TRAVERSE SWALES, DITCHES, ETC.
6. NEW FIRE HYDRANTS SHALL BE POSITIONED NOT MORE THAN 8', NOR LESS THAN 6' OFF THE EDGE OF PAVEMENT. THE CENTERLINE OF THE STEAMER CONNECTION (4 1/2") SHALL BE POSITIONED BETWEEN 18" - 24" ABOVE THE FINISHED GRADE.

FIRE FLOW CALCULATIONS:
LARGEST UNIT AREA = 1,800 SF
(UNITS ARE SEPARATED BY A TWO-HOUR FIREWALL)
CONSTRUCTION TYPE: VB
FIRE FLOW REQUIRED: 1,500 GPM

NOTE:
ALL HYDRANTS ARE PUBLIC.
HYDRANTS OR ALTERNATIVE WATER SUPPLIES THAT ARE PROPOSED TO MEET THE REQUIRED FIRE FLOW SHALL BE INSTALLED AND OPERATIONAL PRIOR TO THE DELIVERY OF COMBUSTIBLE MATERIALS TO THE SITE.

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

50 0 25 50
(IN FEET)
VERTICAL DATUM: NAVD88

7	
6	
5	
4	
3	
2	
1 CITY COMMENTS	02/25/26
0 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
MASTER POTABLE WATER PLAN

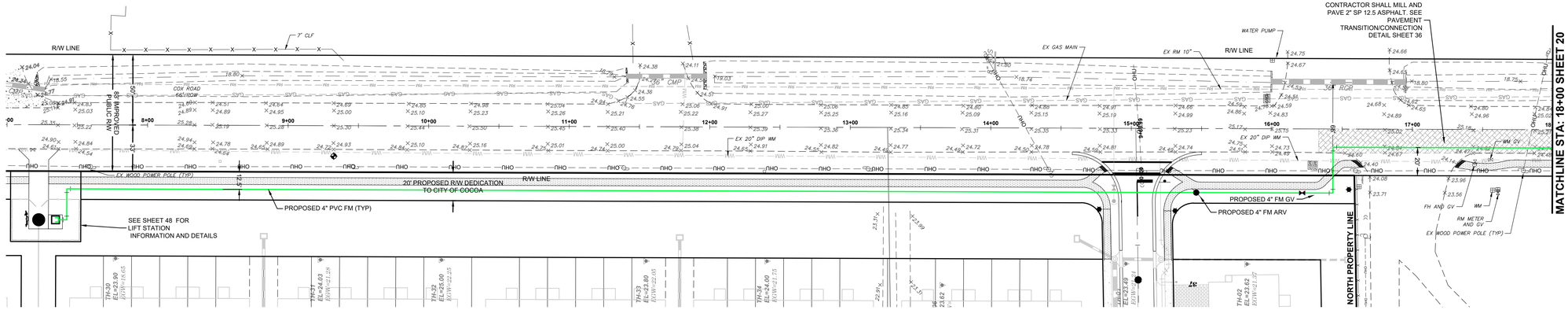
PROJECT NO. 11748

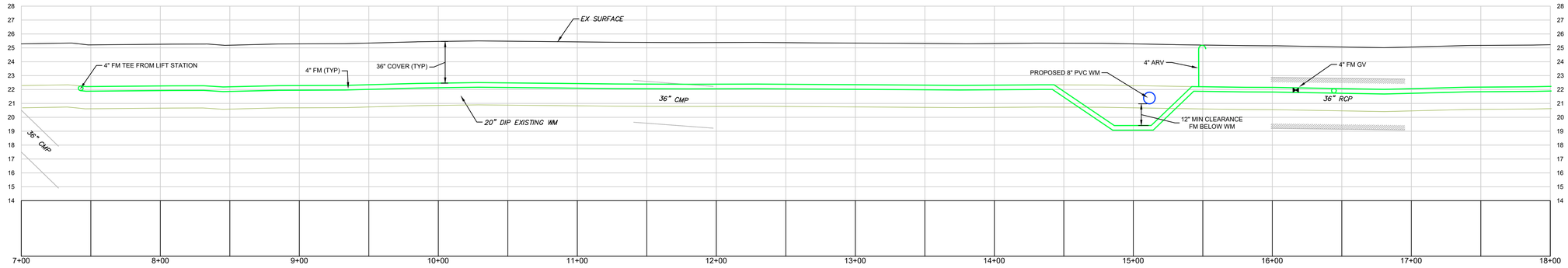
DRAWING NO. 11748_400_018

SHEET 18 of 58

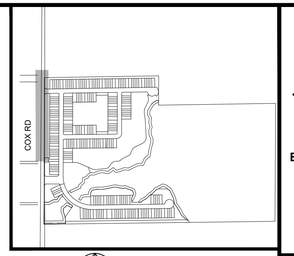
H:\Projects Folder\11748\Drawings\11748_400\11748_400_017-018.dwg April 14, 2026 8:25:37 AM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.





COX RD STA: 7+00 - 18+00



KEY MAP
NTS

NOTE:
REMOVE, SALVAGE, REINSTALL U.S. MAIL BOXES AS REQUIRED. CONTRACTOR SHALL COORDINATE WITH U.S. POSTAL SERVICE TO PROVIDE ALTERNATE MAIL SERVICE IF NECESSARY.

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOME BUILDER SIDEWALK AREAS

D.E. = DRAINAGE EASEMENT

BEND LEGEND (WM, RM AND FM)

- 90° BEND
- 45° BEND
- 22.5° BEND

NOTE:
1. CONTRACTOR TO PROVIDE A DETAILED MOT PLAN TO THE EOR FOR REVIEW AND APPROVAL AT LEAST 30 DAYS PRIOR TO START OF CONSTRUCTION THAT REQUIRES ANY LANE CLOSURES. MOT SHALL BE IN CONFERENCE WITH FDOT STANDARD INDEX.
2. SEE SHEET 37 FOR DETAILS ON PAVEMENT RESTORATION ALONG COX ROAD.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MARKING, AND PROTECTING ALL EXISTING UTILITIES THAT ARE AFFECTED BY CONSTRUCTION
4. ANY EXISTING UTILITIES AND OTHER IMPROVEMENTS IMPACTED BY CONSTRUCTION SHALL BE REPAIRED/REPLACED AND ALL DISTURBED R/W AREAS SHALL BE REGRADED AND SODDED

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

40 0 20 40
(IN FEET)
VERTICAL DATUM: NAVD88

CITY COMMENTS	02/25/26
SJRWMD COMMENTS	12/16/25
CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
OFFSITE FORCE MAIN PLAN AND PROFILE

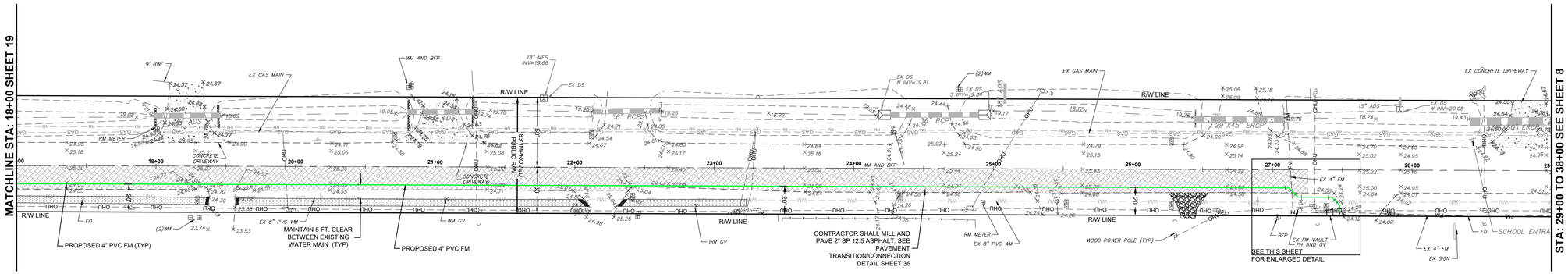
PROJECT NO. 11748

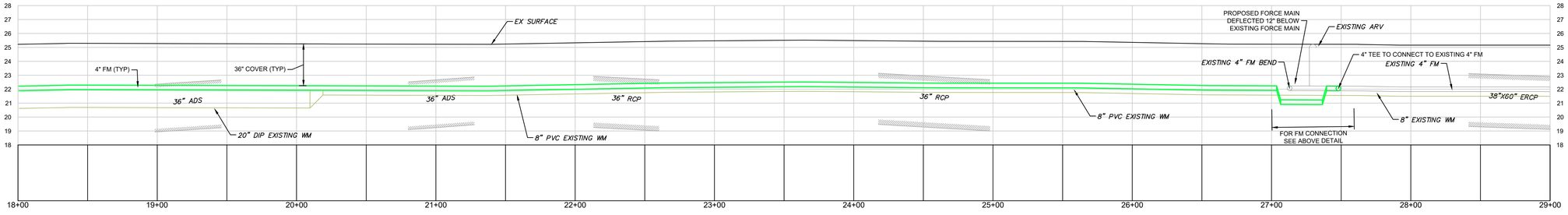
DRAWING NO. 11748_400_019

SHEET 19 of 58

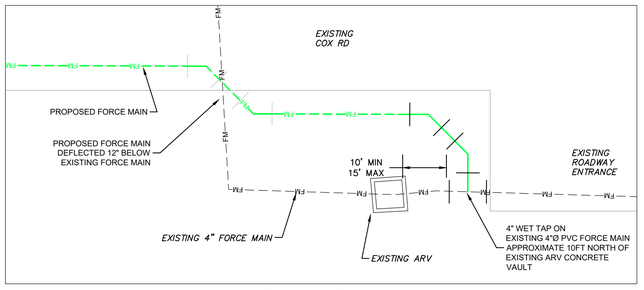
H:\Projects Folder\11748\Drawings\11748_400\11748_400_019-020.dwg April 22, 2026 2:29:56 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

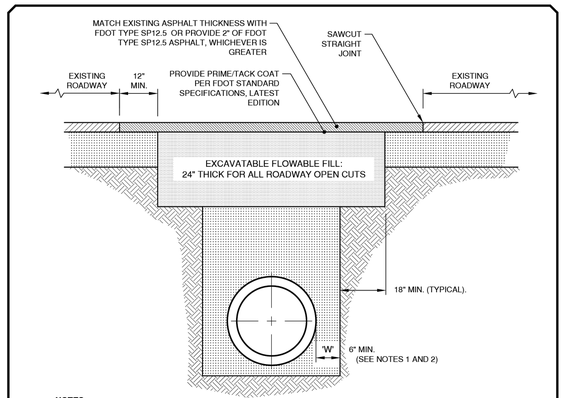




COX RD STA: 18+00 - 29+00



FORCE MAIN CONSTRUCTION
NTS

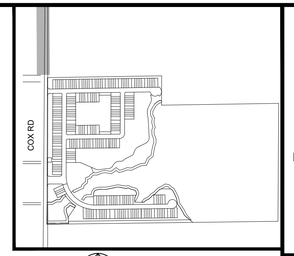


NOTES:

1. "W" SHALL BE A MINIMUM OF 6" WIDE AND OF SUFFICIENT WIDTH TO ACCOMMODATE NECESSARY COMPACTION EFFORTS. IN THE EVENT THE REQUIRED MINIMUM DENSITY IS NOT ACHIEVED, LOOSE MATERIAL SHALL BE REMOVED, REPLACED AND COMPACTED TO THE REQUIRED DENSITY, OR REPLACED WITH FULL DEPTH FLOWABLE FILL. DENSITY TESTS BELOW THE SPRING LINE OF THE PIPE ARE REQUIRED IN ADDITION TO OTHER TESTING REQUIREMENTS. (IN THE EVENT FULL DEPTH FLOWABLE FILL IS USED AS BACKFILL, DENSITY REQUIREMENTS ARE WAIVED.)
2. CONTRACTOR SHALL EXCAVATE BOTTOM OF TRENCH TO ALLOW FOR BELL SECTION OF PIPE.
3. MINIMUM ALLOWABLE BACKFILL DENSITY SHALL BE 98% OF THE MAXIMUM DENSITY AT OPTIMUM MOISTURE PER AASHTO T-180. REFER TO EXHIBIT-27 FOR STORMWATER PIPE BACKFILL REQUIREMENTS.
4. FLOWABLE FILL SHALL COMPLY WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 121, LATEST EDITION.
5. ALL OPEN CUTS SHALL HAVE FLOWABLE FILL AND TEMPORARY ASPHALT INSTALLED WITHIN 2 DAYS OF EXCAVATION. PERMANENT ASPHALT INCLUDING MILLING, IF NEEDED, SHALL BE COMPLETED WITHIN 30 DAYS OF EXCAVATION.
6. THESE ARE MINIMUM REQUIREMENTS. ADDITIONAL RESTRICTIONS MAY BE NECESSARY ON A CASE BY CASE BASIS.

ASPHALT ROADWAY OPEN CUT - PAVEMENT REMOVAL AND REPLACEMENT

		EXHIBIT - 25B	DATE: JUNE-2017



KEY MAP
NTS

NOTE:
REMOVE, SALVAGE, REINSTALL U.S. MAIL BOXES AS REQUIRED. CONTRACTOR SHALL COORDINATE WITH U.S. POSTAL SERVICE TO PROVIDE ALTERNATE MAIL SERVICE IF NECESSARY.

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOME BUILDER SIDEWALK AREAS

D.E. = DRAINAGE EASEMENT

BEND LEGEND (WM, RM AND FM)

- 90° BEND
- 45° BEND
- 22.5° BEND

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

40 0 20 40
(IN FEET)
VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
6	CITY COMMENTS 02/25/26
5	SJRWMD COMMENTS 12/16/25
4	CITY COMMENTS 07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
OFFSITE FORCE MAIN PLAN AND PROFILE

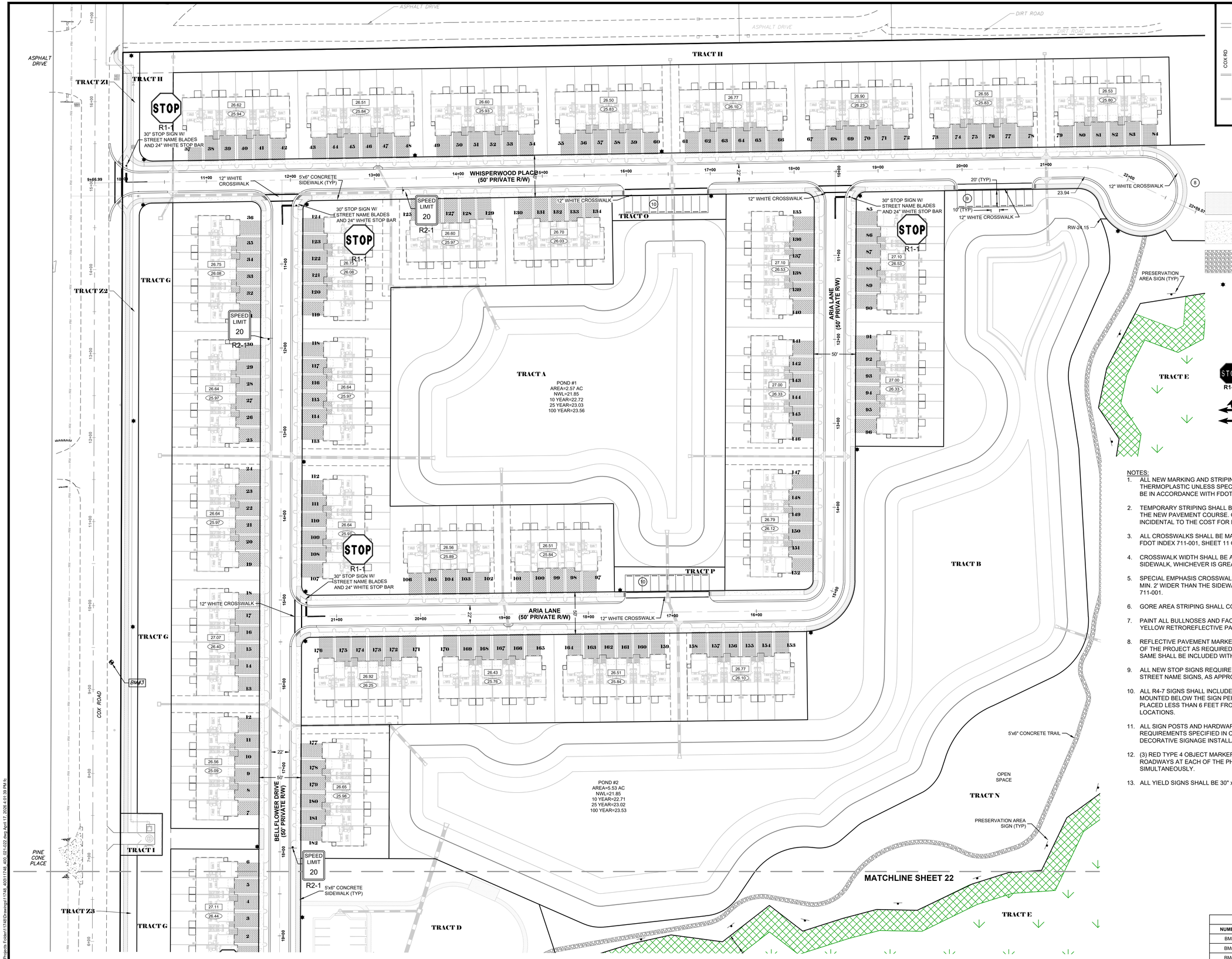
PROJECT NO. 11748

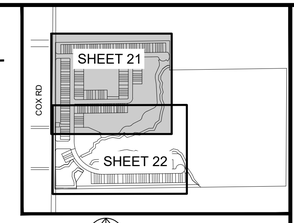
DRAWING NO. 11748_400_020

SHEET 20 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_019-020.dwg April 22, 2026, 2:30:02 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.





KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOMEBUILDER SIDEWALK AREAS
- NATURE TRAIL
- STREET LIGHT
- PRESERVED WETLAND LIMITS
- SURFACE WATER
- UPLAND BUFFER

TYPICAL WHERE SHOWN
STOP SIGN WITH STREET NAME BLADES UNLESS NOTED OTHERWISE;
24" STOP BAR;
12" WHITE CROSSWALK
(WITH 4' MIN. SEPARATION TO STOP BAR)

PAVEMENT MARKING AND STRIPING DIRECTIONAL ARROWS

NOTES:

1. ALL NEW MARKING AND STRIPING WITHIN THE R/W SHALL BE THERMOPLASTIC UNLESS SPECIFICALLY NOTED OTHERWISE AND SHALL BE IN ACCORDANCE WITH FDOT STANDARD INDEX 711-001.
2. TEMPORARY STRIPING SHALL BE REQUIRED DURING THE CURE TIME FOR THE NEW PAVEMENT COURSE. COST FOR TEMPORARY STRIPING SHALL BE INCIDENTAL TO THE COST FOR PERMANENT STRIPING.
3. ALL CROSSWALKS SHALL BE MARKED AND SIGNED IN ACCORDANCE WITH FDOT INDEX 711-001, SHEET 11 OF 13.
4. CROSSWALK WIDTH SHALL BE A MINIMUM OF 6' OR 2' WIDER THAN THE SIDEWALK, WHICHEVER IS GREATER.
5. SPECIAL EMPHASIS CROSSWALKS SHALL BE MIN. 10' WIDE AND SHALL BE MIN. 2' WIDER THAN THE SIDEWALK AND COMPLY WITH FDOT INDEX 711-001.
6. GORE AREA STRIPING SHALL CONFORM TO FDOT INDEX 711-001.
7. PAINT ALL BULLNOSES AND FACE OF CURBS AT MEDIAN OPENINGS WITH YELLOW RETROREFLECTIVE PAINT FROM PC TO PT.
8. REFLECTIVE PAVEMENT MARKERS SHALL BE PROVIDED WITHIN THE LIMITS OF THE PROJECT AS REQUIRED WITHIN FDOT INDEX 706-001. COST FOR SAME SHALL BE INCLUDED WITHIN STRIPING COSTS.
9. ALL NEW STOP SIGNS REQUIRED AS PART OF THIS PLAN SHALL INCLUDE STREET NAME SIGNS, AS APPROPRIATE.
10. ALL R4-7 SIGNS SHALL INCLUDE A TYPE 1 OM1-1 YELLOW OBJECT MARKER MOUNTED BELOW THE SIGN PER FDOT CRITERIA. SIGNS SHALL NOT BE PLACED LESS THAN 6 FEET FROM THE FACE OF CURB, TYPICAL, ALL LOCATIONS.
11. ALL SIGN POSTS AND HARDWARE SHALL CONFORM TO THE REQUIREMENTS SPECIFIED IN CITY OF COCOA CODE, INCLUDING DECORATIVE SIGNAGE INSTALLATIONS.
12. (3) RED TYPE 4 OBJECT MARKERS WILL BE PLACED AT THE END OF THE ROADWAYS AT EACH OF THE PHASE LINES, IF NOT CONSTRUCTED SIMULTANEOUSLY.
13. ALL YIELD SIGNS SHALL BE 30" x 30" x 30" UNLESS NOTED OTHERWISE.

BENCHMARK (BM) TABLE		
NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

50 0 25 50
(IN FEET)
VERTICAL DATUM: NAVD88

8	
7	
6	
5	
4	
3	
2	
1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
PAVEMENT MARKING & SIGNAGE PLAN

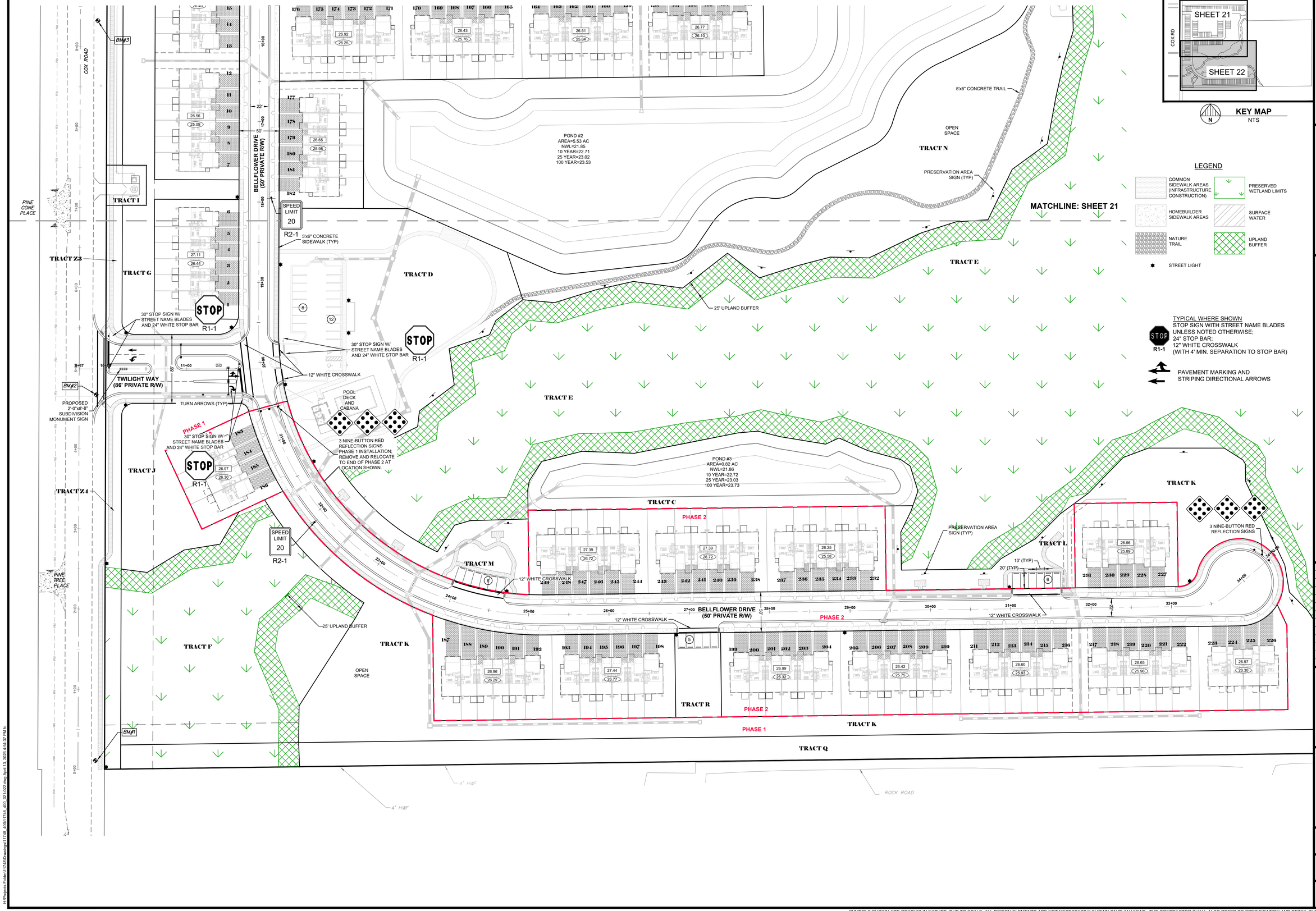
PROJECT NO.
11748

DRAWING NO.
11748_400_021

SHEET
21 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_021-022.dwg April 17, 2026 4:01:39 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOMEBUILDER SIDEWALK AREAS
- NATURE TRAIL
- STREET LIGHT
- PRESERVED WETLAND LIMITS
- SURFACE WATER
- UPLAND BUFFER

TYPICAL WHERE SHOWN
STOP SIGN WITH STREET NAME BLADES UNLESS NOTED OTHERWISE;
24" STOP BAR;
12" WHITE CROSSWALK
(WITH 4' MIN. SEPARATION TO STOP BAR)

PAVEMENT MARKING AND STRIPING DIRECTIONAL ARROWS

50 0 25 50
(IN FEET)
VERTICAL DATUM: NAVD88

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

1	
2	
3	
4	
5	
6	
6 CITY COMMENTS	02/25/26
5 SJRWMD COMMENTS	12/16/25
4 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

PAVEMENT MARKING & SIGNAGE PLAN

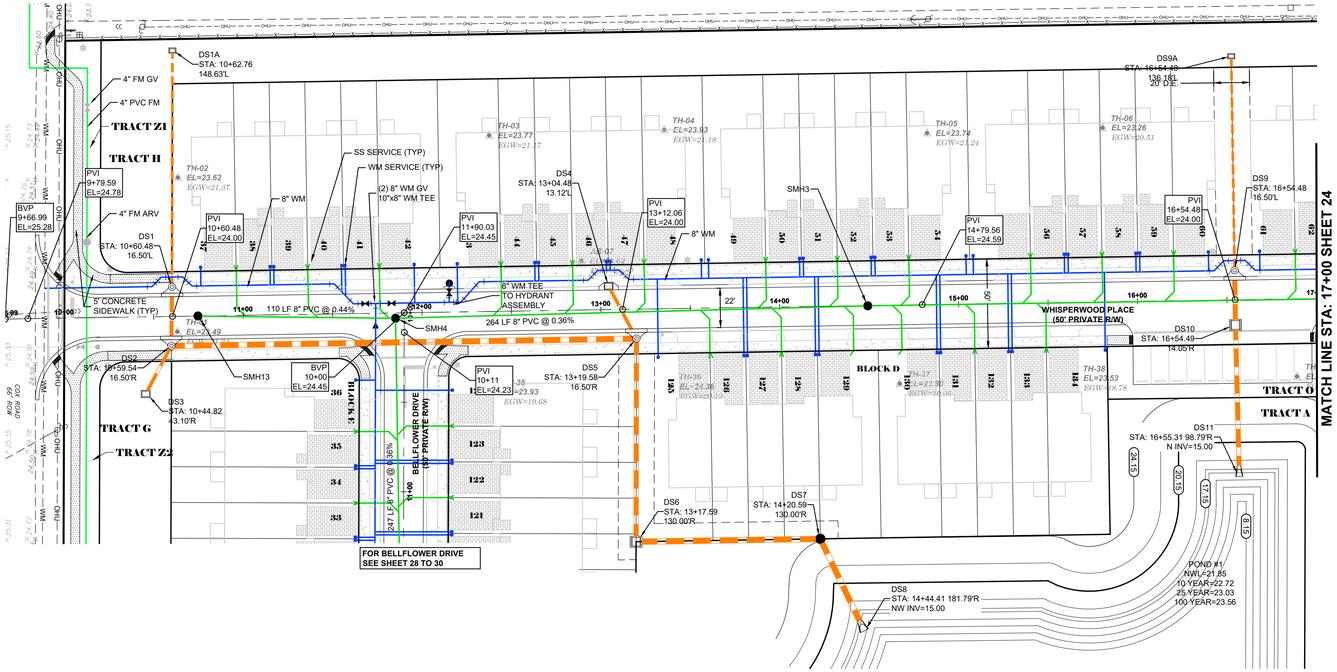
PROJECT NO. 11748

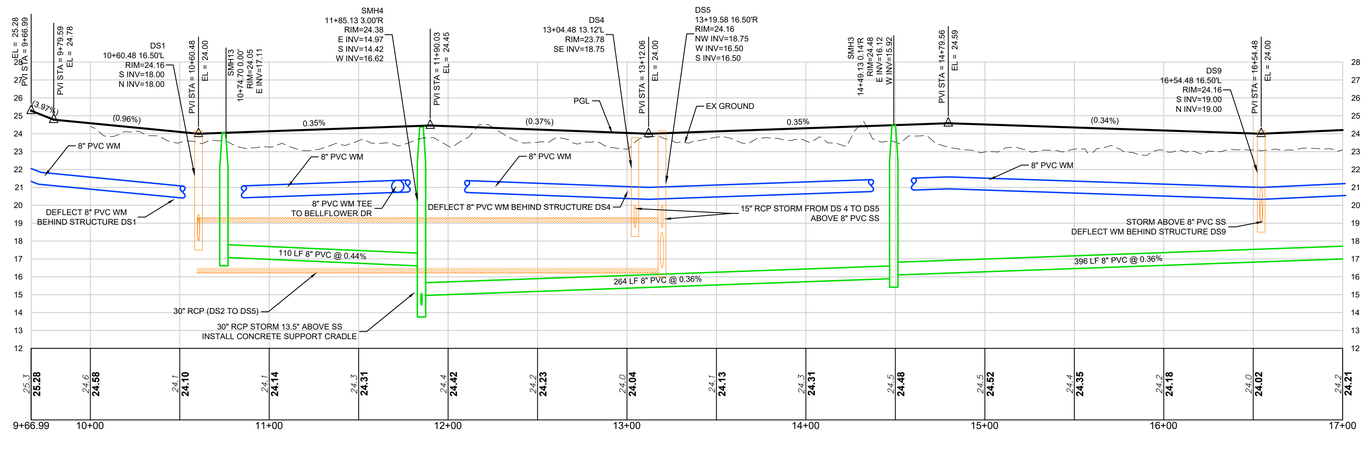
DRAWING NO. 11748_400_022

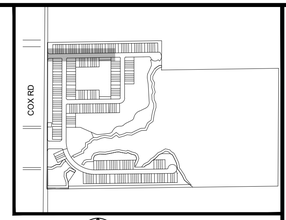
SHEET 22 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_021-022.dwg April 13, 2026 4:54:37 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.







N

KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOME BUILDER SIDEWALK AREAS

D.E. = DRAINAGE EASEMENT

BEND LEGEND (WM, RM AND FM)

- 90° BEND
- 45° BEND
- 22.5° BEND

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

40 0 20 40
(IN FEET)
VERTICAL DATUM: NAVD88

6	
5	
4	
3	
2	
1	
1	CITY COMMENTS 02/25/26
2	SJRWMD COMMENTS 12/16/25
1	CITY COMMENTS 07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

PLAN & PROFILE WHISPERWOOD PLACE STA: 10+00 - 17+00

PROJECT NO.
11748

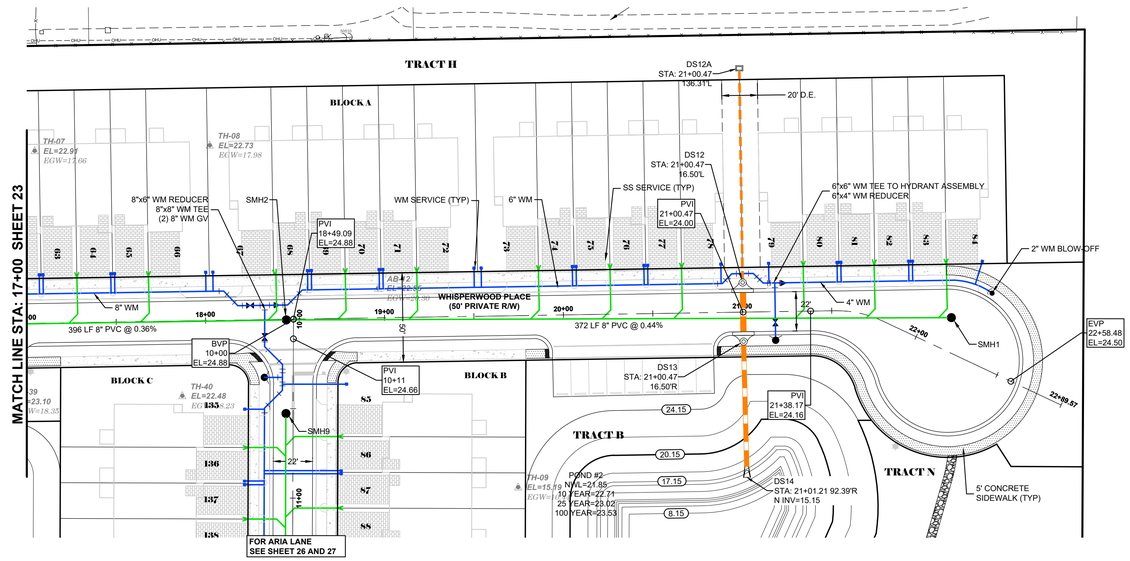
DRAWING NO.
11748_400_023

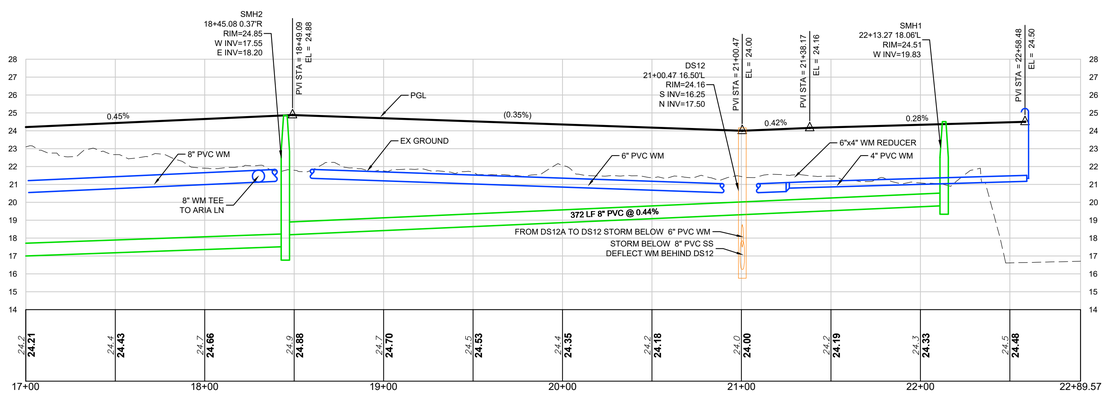
SHEET
23 of 58

4' 2' 0 4'

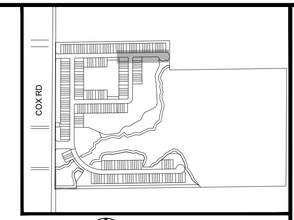
SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

H:\Projects Folder\11748\Drawings\11748_400\11748_400_023-030.dwg April 13, 2026 4:48:19 PM ls





WHISPERWOOD PLACE STA: 17+00 - 22+89.57



N

KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOME BUILDER SIDEWALK AREAS

D.E. = DRAINAGE EASEMENT

BEND LEGEND (WM, RM AND FM)

- 90° BEND
- 45° BEND
- 22.5° BEND

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

40 0 20 40
(IN FEET)
VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
PLAN & PROFILE WHISPERWOOD PLACE STA: 17+00 - 22+89.57

PROJECT NO.
11748

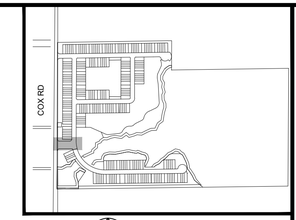
DRAWING NO.
11748_400_024

SHEET
24 of 58

4' 2' 0 4'

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

H:\Projects Folder\11748\Drawings\11748_400\11748_400_023-030.dwg April 13, 2026 4:50:58 PM fc



N

KEY MAP
NTS

LEGEND

COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)

HOME BUILDER SIDEWALK AREAS

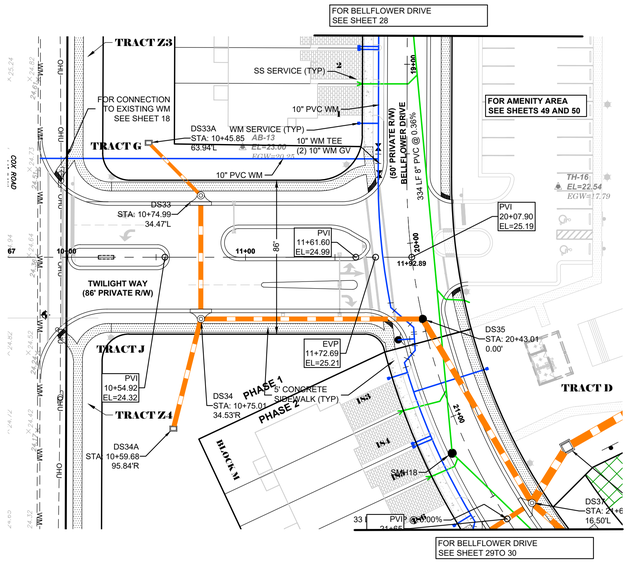
D.E. = DRAINAGE EASEMENT

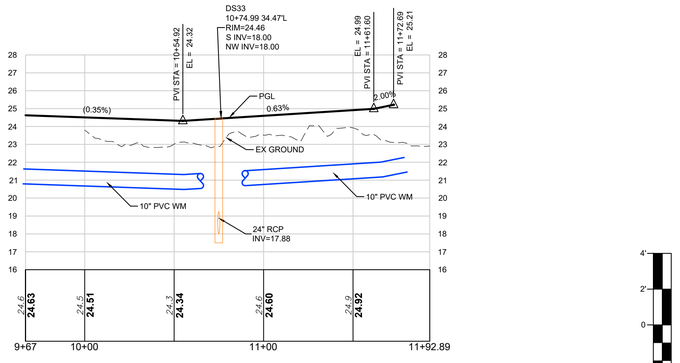
BEND LEGEND (WM, RM AND FM)

90° BEND

45° BEND

22.5° BEND



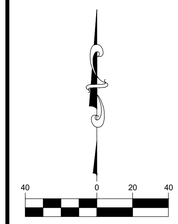


TWILIGHT WAY STA: 9+67 - 11+92.89

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951



VERTICAL DATUM: NAVD88

6	
5	
4	
3	
2	
1	
1	CITY COMMENTS	02/25/26
2	SJRWMD COMMENTS	12/16/25
1	CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

PLAN & PROFILE TWILIGHT WAY STA: 10+00 - 11+92.89

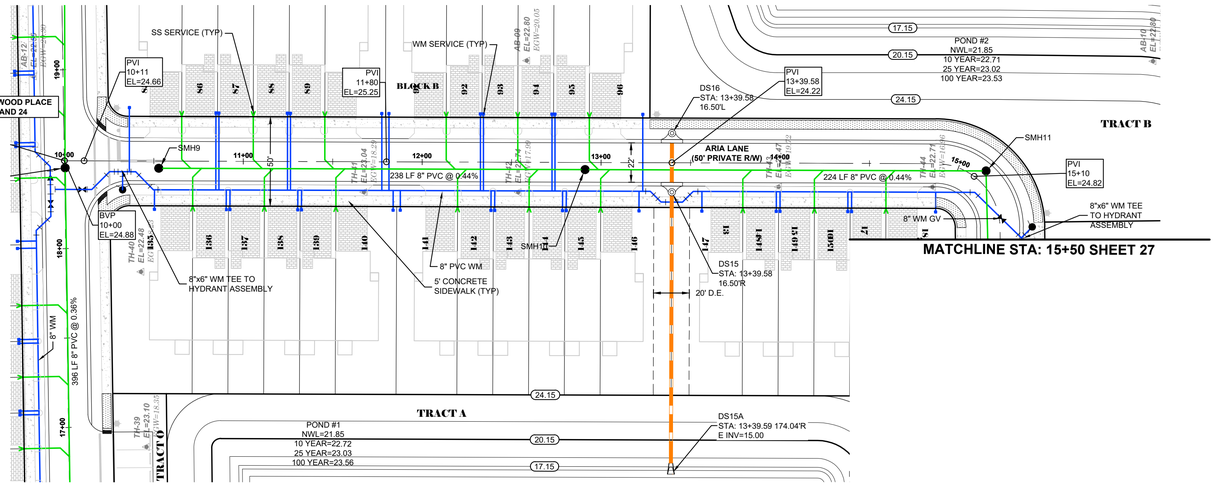
PROJECT NO.
11748

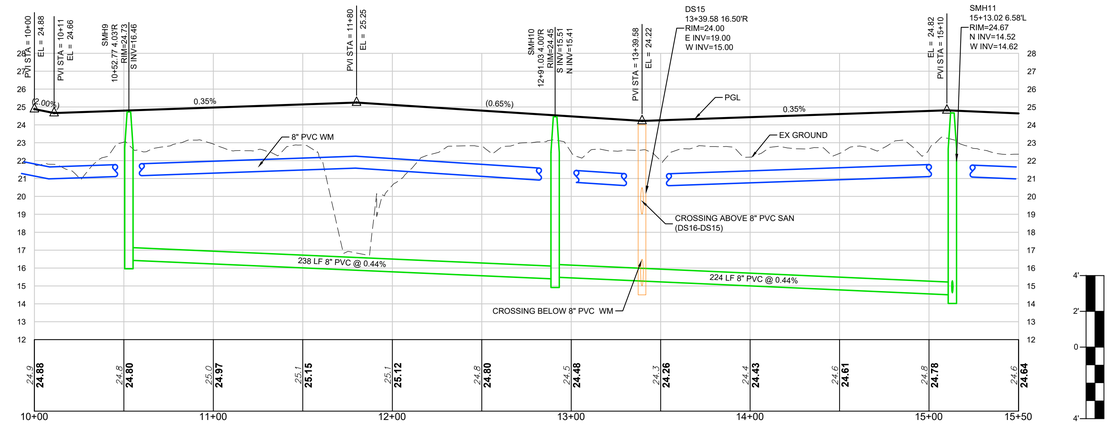
DRAWING NO.
11748_400_025

SHEET
25 of 58

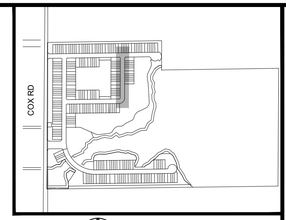
H:\Projects Folder\11748\Drawings\11748_400\11748_400_023-030.dwg April 13, 2026 4:53:33 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.





ARIA LANE STA: 10+00 - 15+50



KEY MAP
NTS

LEGEND

COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)

HOME BUILDER SIDEWALK AREAS

D.E. = DRAINAGE EASEMENT

BEND LEGEND (WM, RM AND FM)

90° BEND

45° BEND

22.5° BEND

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

40 0 20 40
(IN FEET)
VERTICAL DATUM: NAVD88

6	
5	
4	
3	
2	
1	
1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

PLAN & PROFILE ARIA LANE STA: 10+00 - 15+50

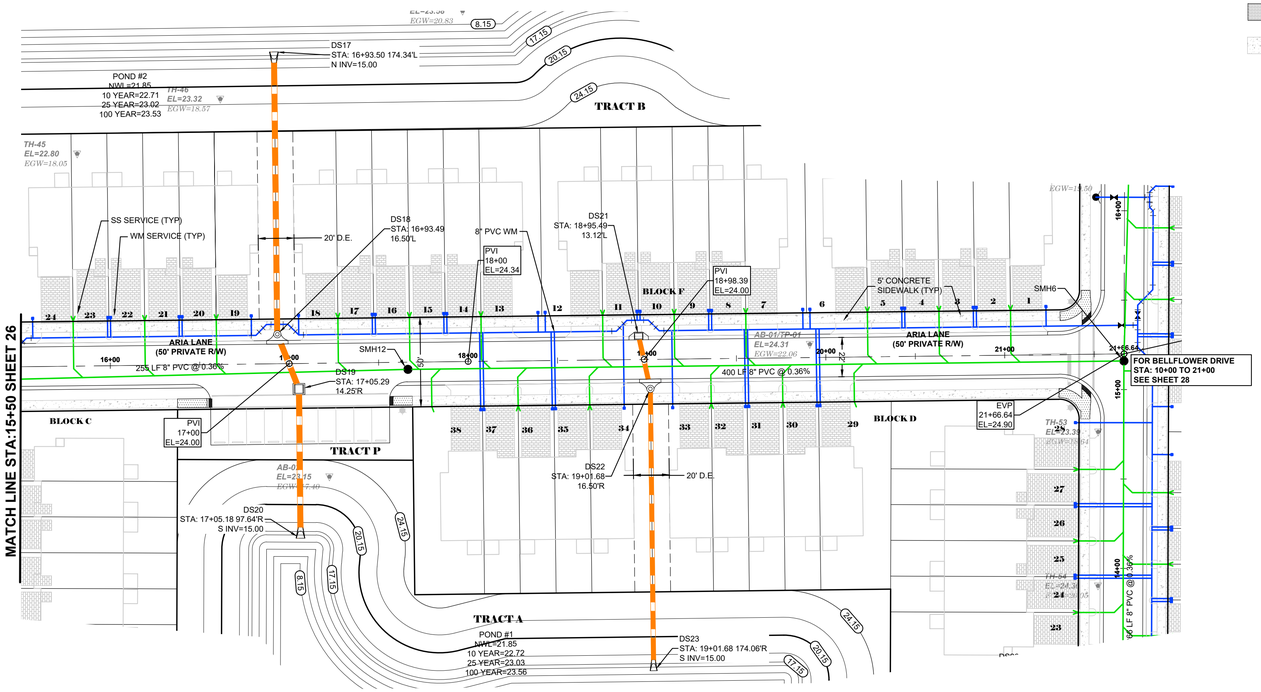
PROJECT NO. 11748

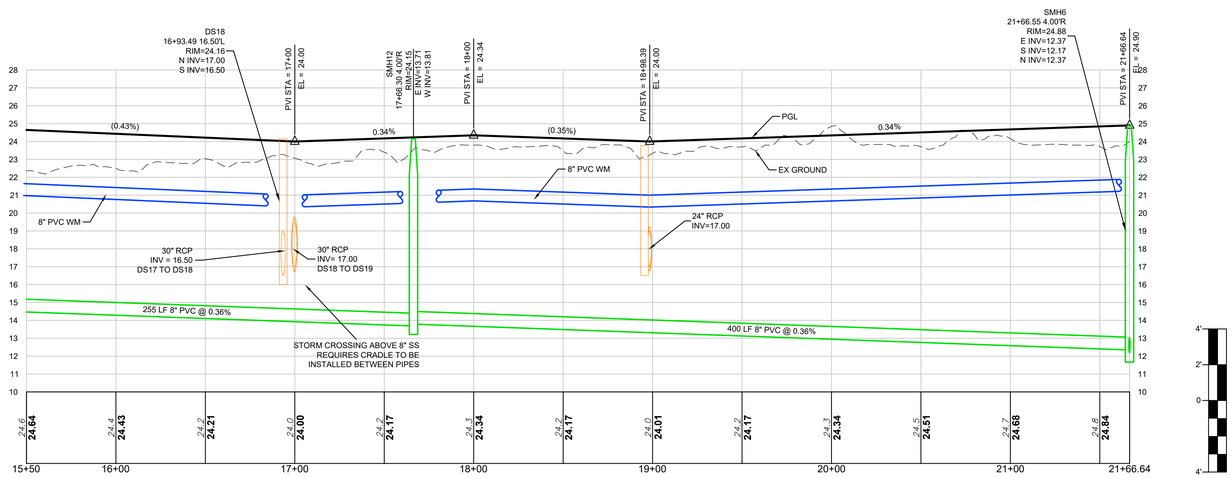
DRAWING NO. 11748_400_026

SHEET 26 of 58

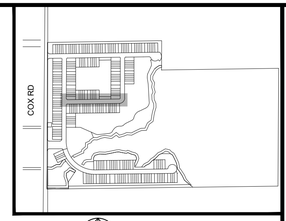
SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

H:\Projects Folder\11748\Drawings\11748_400\11748_400_023-030.dwg April 13, 2026 4:49:47 PM fc





ARIA LANE STA: 15+50 - 21+66.64



N

KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOME BUILDER SIDEWALK AREAS

D.E. = DRAINAGE EASEMENT

BEND LEGEND (WM, RM AND FM)

- 90° BEND
- 45° BEND
- 22.5° BEND

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

40 0 20 40

(IN FEET)

VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
6 CITY COMMENTS	02/25/26
5 SJRWMD COMMENTS	12/16/25
4 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

PLAN & PROFILE ARIA LANE STA: 15+50 - 21+66.64

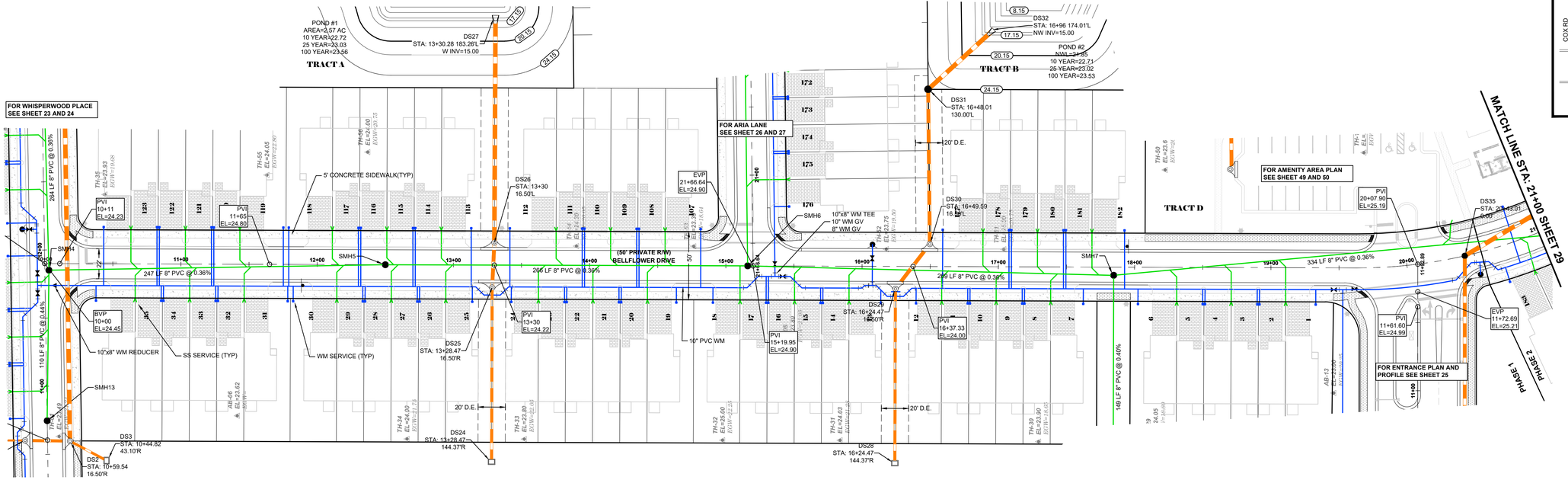
PROJECT NO.
11748

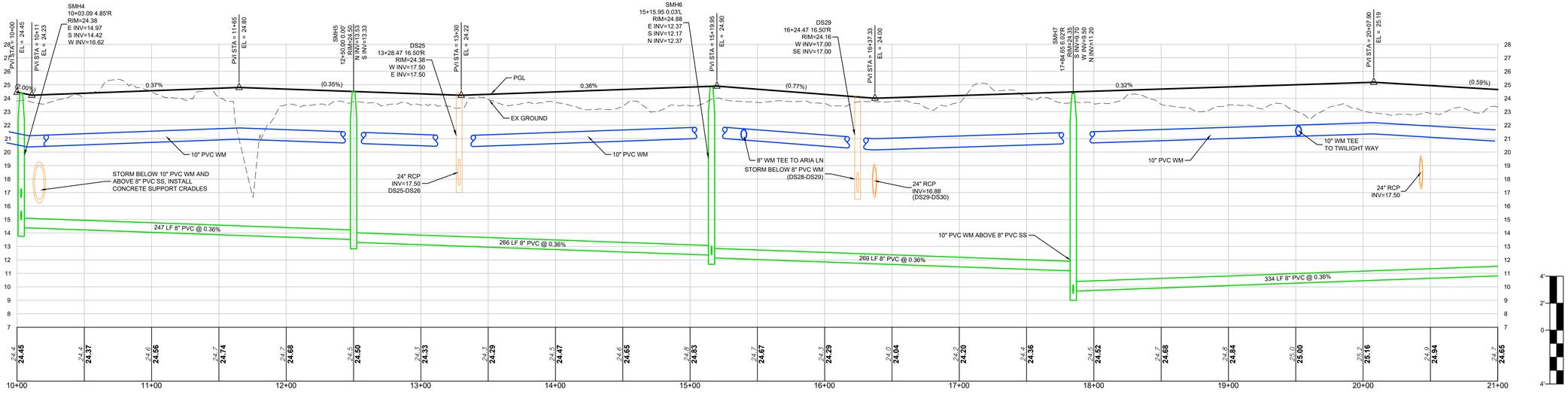
DRAWING NO.
11748_400_027

SHEET
27 of 58

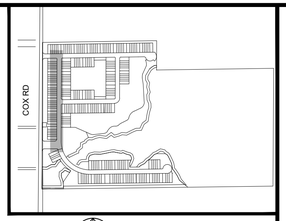
H:\Projects Folder\11748\Drawings\11748_400\11748_400_023-030.dwg April 13, 2026 4:45:35 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.





BELLFLOWER DRIVE STA: 10+00 - 21+00



N

KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOME BUILDER SIDEWALK AREAS

D.E. = DRAINAGE EASEMENT

BEND LEGEND
(WM, RM AND FM)

- 90° BEND
- 45° BEND
- 22.5° BEND

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

40 0 20 40
(IN FEET)
VERTICAL DATUM: NAVD88

1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

PLAN & PROFILE BELLFLOWER DRIVE STA: 10+00 - 21+00

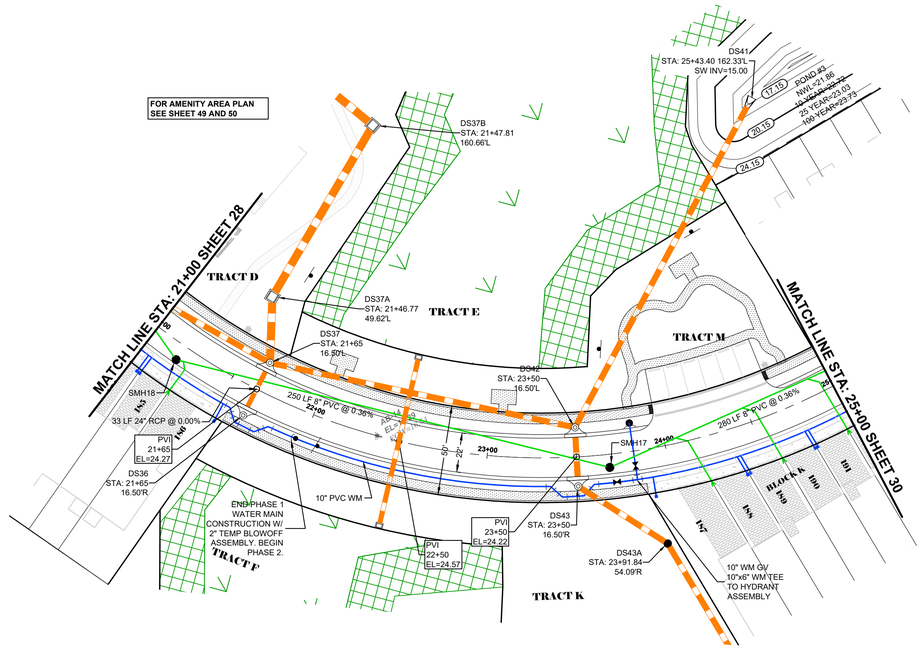
PROJECT NO.
11748

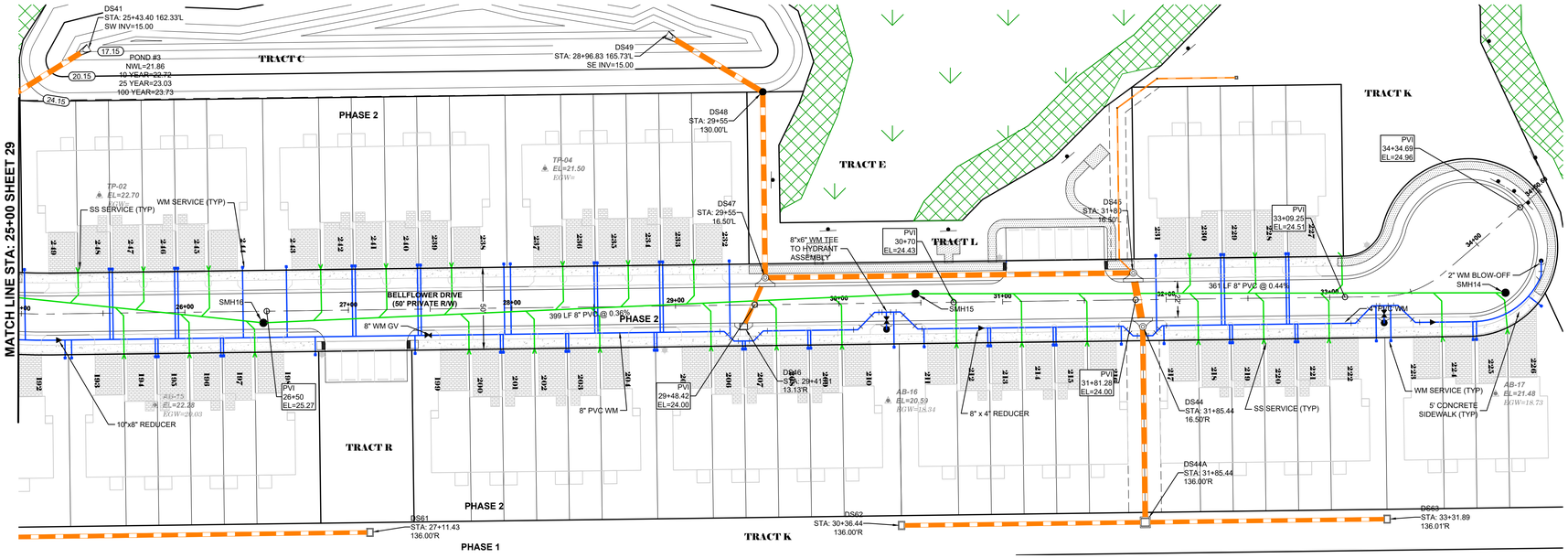
DRAWING NO.
11748_400_028

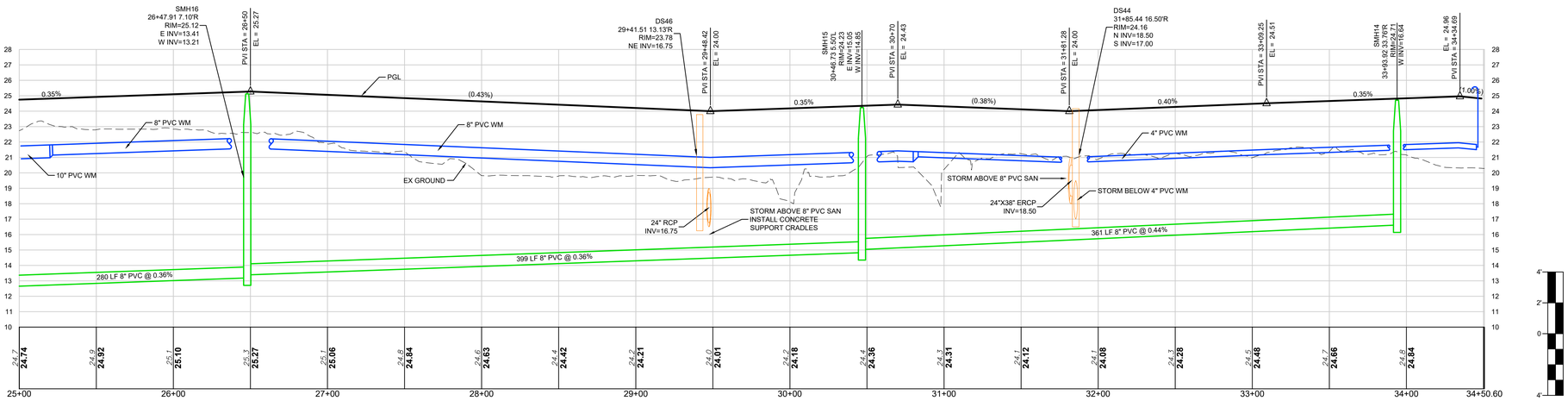
SHEET
28 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_023-030.dwg April 13, 2026 4:46:33 PM fc

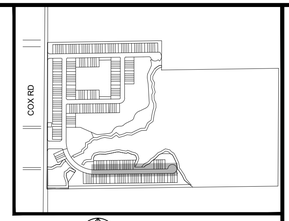
SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.


FOR AMENITY AREA PLAN
SEE SHEET 49 AND 50
MATCH LINE STA: 21+00 SHEET 28
MATCH LINE STA: 25+00 SHEET 30
TRACT D
TRACT E
TRACT M
TRACT F
TRACT K
DS37B
STA: 21+47.81
160.66'L
DS37A
STA: 21+46.77
49.62'L
DS37
STA: 21+65
16.50'L
DS36
STA: 21+65
16.50'R
DS42
STA: 23+50
16.50'L
DS43
STA: 23+50
16.50'R
DS43A
STA: 23+91.84
54.09'R
DS41
STA: 25+43.40 162.33'L
SW INV=15.00
SMH18
SMH17
PVI
21+65
EL=24.27
PVI
22+50
EL=24.57
PVI
23+50
EL=24.22
250 LF 8" PVC @ 0.36%
280 LF 8" PVC @ 0.36%
33 LF 24" RCP @ 0.00%
10" PVC WM
ENDPHASE 1
WATER MAIN
CONSTRUCTION W/
2" TEMP BLOWOFF
ASSEMBLY. BEGIN
PHASE 2.
10" WM GV
10"x6" WM TEE
TO HYDRANT
ASSEMBLY
BLOCK K
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140





BELLFLOWER DRIVE STA: 25+00 - 34+50.60



N

KEY MAP
NTS

LEGEND

COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)

HOME BUILDER SIDEWALK AREAS

D.E. = DRAINAGE EASEMENT

BEND LEGEND (WM, RM AND FM)

90° BEND

45° BEND

22.5° BEND

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

40 0 20 40

(IN FEET)

VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
7 CITY COMMENTS	02/25/26
8 SJRWMD COMMENTS	12/16/25
9 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

PLAN & PROFILE BELLFLOWER DRIVE STA: 25+00 - 34+31.63

PROJECT NO.
11748

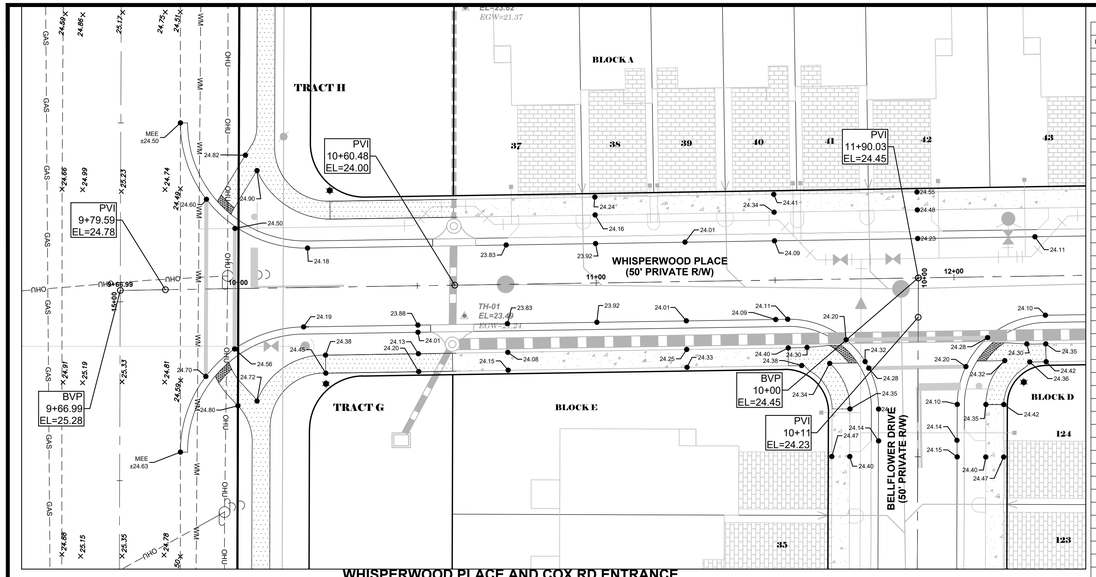
DRAWING NO.
11748_400_030

SHEET
30 of 58

4' 2' 0 4'

H:\Projects Folder\11748\Drawings\11748_400\11748_400_023-030.dwg April 13, 2026 4:56:25 PM fc

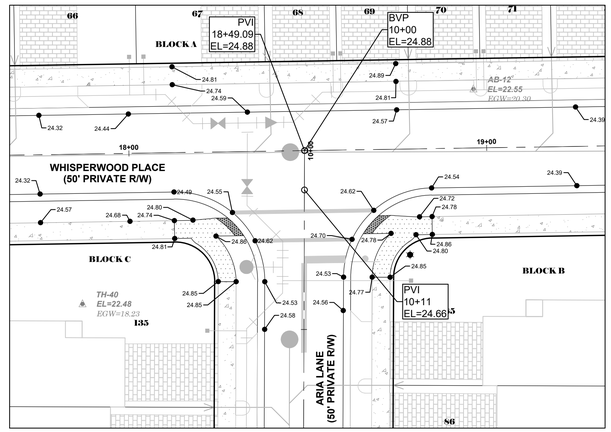
SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



WHISPERWOOD PLACE AND COX RD ENTRANCE
WHISPERWOOD PLACE AND BELLFLOWER DRIVE
INTERSECTION DETAIL "A"

POINT DATA TABLE			
POINT #	ELEVATION	NORTHING	EASTING
1142	24.43	1470491.63	724426.22
1143	24.18	1470478.53	724419.98
1144	24.50	1470513.53	724384.43
1150	24.19	1470456.51	724418.88
1153	24.35	1470433.58	724571.54
1154	24.32	1470446.43	724573.65
1156	24.38	1470445.69	724558.03
1157	24.40	1470450.63	724554.27
1158	24.72	1470435.78	724405.86
1159	24.80	1470434.47	724400.50
1162	24.23	1470456.63	724554.18
1167	24.32	1470447.06	724614.81
1168	24.30	1470451.74	724620.98
1169	24.36	1470446.70	724621.79
1170	24.35	1470434.81	724609.54
1171	24.42	1470434.80	724614.54
1172	24.35	1470451.76	724626.28
1173	24.42	1470446.76	724626.35
1305	24.28	1470453.50	724610.00
1306	24.20	1470445.41	724603.92
1307	24.28	1470444.98	724576.81
1308	24.20	1470452.88	724570.49
1309	24.34	1470446.30	724565.88
1310	24.30	1470450.78	724559.55
1311	24.50	1470484.04	724399.67
1312	24.60	1470492.17	724391.70
1313	24.70	1470442.66	724391.54
1314	24.56	1470450.33	724399.56
1315	24.90	1470500.18	724405.84
1316	24.82	1470504.50	724402.61
1330	23.83	1470479.40	724475.47
1331	24.09	1470480.57	724550.46
1332	24.11	1470481.71	724623.22
1333	24.10	1470459.76	724626.15
1334	24.11	1470458.63	724554.15
1335	24.11	1470433.55	724579.54
1336	24.14	1470424.63	724579.56
1337	24.10	1470434.84	724601.54
1349	24.15	1470420.17	724601.49
1350	24.14	1470424.81	724601.45
1408	23.88	1470479.01	724450.47
1409	24.13	1470449.01	724450.94

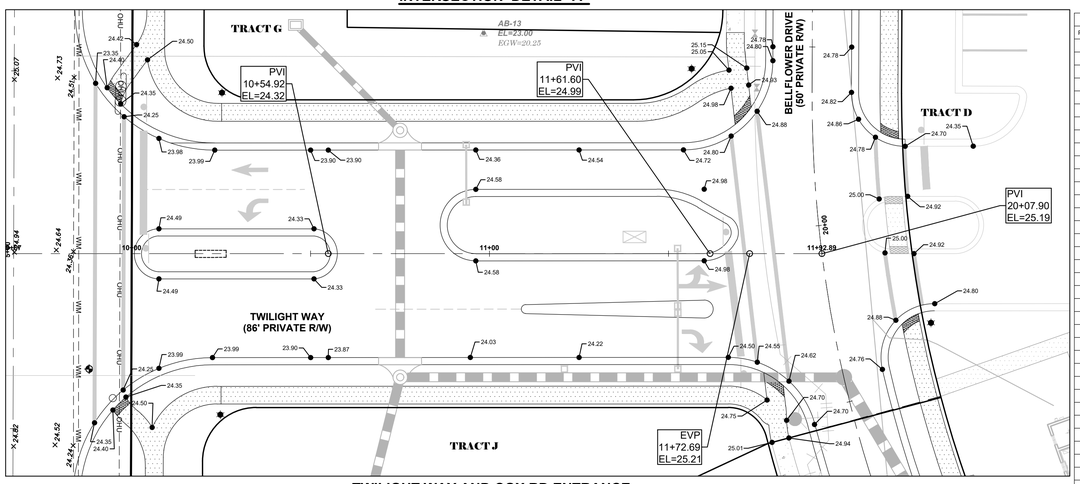
POINT DATA TABLE			
POINT #	ELEVATION	NORTHING	EASTING
1410	24.20	1470444.01	724451.02
1411	24.36	1470448.61	724425.00
1412	24.45	1470443.57	724425.08
1413	23.88	1470457.01	724450.81
1414	24.01	1470455.01	724450.85
1415	24.20	1470492.01	724450.27
1416	24.13	1470487.01	724450.35
1417	24.01	1470480.18	724525.46
1418	24.01	1470458.19	724525.81
1419	23.83	1470457.40	724475.81
1420	23.92	1470457.79	724500.81
1421	23.92	1470479.79	724500.46
1422	24.23	1470481.20	724590.48
1425	24.43	1470433.59	724566.54
1426	24.40	1470420.26	724571.49
1427	24.47	1470420.28	724566.49
1428	24.40	1470420.14	724609.49
1429	24.47	1470420.12	724614.49
1430	24.25	1470450.19	724525.93
1431	24.33	1470445.19	724526.01
1432	24.08	1470449.40	724475.94
1433	24.15	1470444.40	724476.01
1434	24.24	1470492.79	724500.26
1435	24.16	1470487.79	724500.34
1436	24.41	1470493.57	724550.25
1437	24.34	1470488.57	724550.33
1438	24.09	1470458.58	724550.80
1444	24.55	1470494.20	724590.28
1445	24.48	1470489.20	724590.36



WHISPERWOOD PLACE AND ARIA LANE
INTERSECTION DETAIL "B"

POINT DATA TABLE			
POINT #	ELEVATION	NORTHING	EASTING
1184	24.72	1470462.01	725281.75
1185	24.80	1470457.01	725280.76
1186	24.78	1470457.39	725273.80
1189	24.86	1470456.61	725224.88
1190	24.80	1470461.07	725218.44
1192	24.85	1470443.90	725225.51
1193	24.77	1470444.03	725230.51
1194	24.85	1470445.11	725273.52
1195	24.77	1470445.13	725268.52
1196	24.81	1470455.94	725213.33
1197	24.74	1470460.94	725213.25
1317	24.62	1470463.81	725268.97
1318	24.70	1470455.72	725262.90
1319	24.62	1470455.29	725235.79
1320	24.55	1470463.19	725229.46
1338	24.49	1470468.94	725213.12
1339	24.54	1470470.07	725285.13
1340	24.56	1470435.80	725260.43
1341	24.53	1470443.86	725238.51
1342	24.53	1470445.15	725260.52
1351	24.58	1470430.55	725238.47

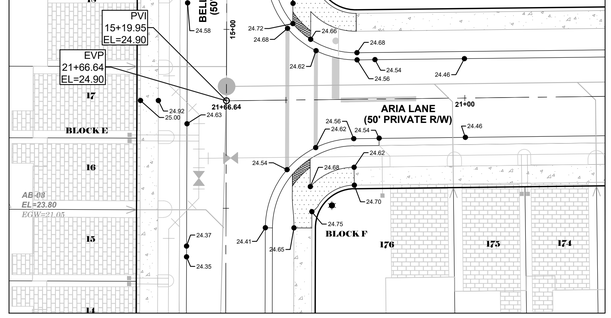
POINT DATA TABLE			
POINT #	ELEVATION	NORTHING	EASTING
1384	24.44	1470490.74	725200.38
1385	24.57	1470491.92	725275.37
1386	24.59	1470491.26	725233.64
1387	24.39	1470492.70	725325.36
1388	24.32	1470490.35	725175.38
1389	24.32	1470468.35	725175.73
1390	24.39	1470470.70	725325.71
1423	24.57	1470460.36	725175.85
1424	24.68	1470460.75	725200.85
1440	24.78	1470462.07	725285.25
1441	24.86	1470457.07	725285.33
1446	24.89	1470504.91	725275.17
1447	24.81	1470479.92	725275.24
1448	24.81	1470503.94	725212.58
1449	24.74	1470498.94	725212.65



TWILIGHT WAY AND COX RD ENTRANCE
TWILIGHT WAY AND BELLFLOWER DRIVE
INTERSECTION DETAIL "C"

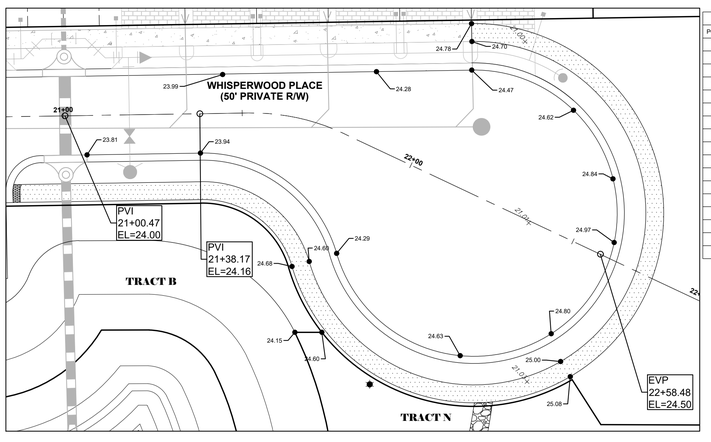
POINT DATA TABLE			
POINT #	ELEVATION	NORTHING	EASTING
15	24.70	1469492.44	724613.48
16	24.92	1469462.44	724615.92
17	24.80	1469448.44	724621.72
1071	24.50	1469525.66	724457.53
1229	24.50	1469433.42	724564.03
1231	24.72	1469491.42	724551.51
1235	25.05	1469513.72	724564.22
1236	24.98	1469508.68	724564.80
1237	24.93	1469509.54	724569.74
1240	24.75	1469421.52	724574.86
1241	24.94	1469410.91	724580.97
1242	25.01	1469409.66	724576.26
1243	24.70	1469415.84	724580.32
1244	23.99	1469433.36	724419.88
1246	24.40	1469418.72	724392.05
1247	24.35	1469422.33	724395.68
1248	24.50	1469413.86	724403.03
1251	24.35	1469504.31	724394.23
1252	24.40	1469508.79	724390.44
1253	24.50	1469516.61	724401.71
1254	24.42	1469520.84	724398.64
1255	23.99	1469491.36	724420.52
1257	24.33	1469469.36	724448.26
1258	24.33	1469455.37	724448.25
1259	24.58	1469460.41	724493.49
1260	24.58	1469480.40	724493.48
1261	24.98	1469477.08	724556.58
1262	24.98	1469460.43	724557.31
1263	24.49	1469455.36	724404.90
1264	24.49	1469469.36	724404.90
1265	24.36	1469491.40	724493.47
1266	24.03	1469433.39	724491.96
1277	24.55	1469432.08	724572.13
1278	24.62	1469426.78	724581.01
1279	24.80	1469495.28	724564.84
1280	24.88	1469502.24	724572.09
1281	24.88	1469443.79	724610.87
1287	25.00	1469462.63	724607.83
1288	25.00	1469477.69	724606.19
1289	24.92	1469478.44	724614.15

POINT DATA TABLE			
POINT #	ELEVATION	NORTHING	EASTING
1292	24.78	1469494.96	724605.16
1295	23.35	1469510.04	724387.22
1296	24.25	1469500.70	724395.19
1297	24.35	1469415.15	724386.90
1298	24.25	1469424.32	724394.93
1329	25.15	1469514.29	724569.19
1364	24.82	1469507.49	724598.47
1365	24.78	1469520.24	724576.51
1366	24.78	1469520.17	724598.51
1369	24.58	1469393.63	724594.45
1370	24.76	1469430.08	724607.11
1371	24.70	1469414.75	724588.23
1391	24.80	1469516.34	724576.50
1392	23.87	1469433.37	724452.25
1393	23.90	1469433.37	724447.32
1394	23.90	1469491.37	724447.32
1395	23.90	1469491.38	724452.25
1396	24.54	1469491.41	724522.32
1397	24.22	1469433.41	724522.32
1398	23.99	1469430.36	724404.90
1399	23.98	1469494.62	724404.90
1614	24.86	1469500.01	724600.44



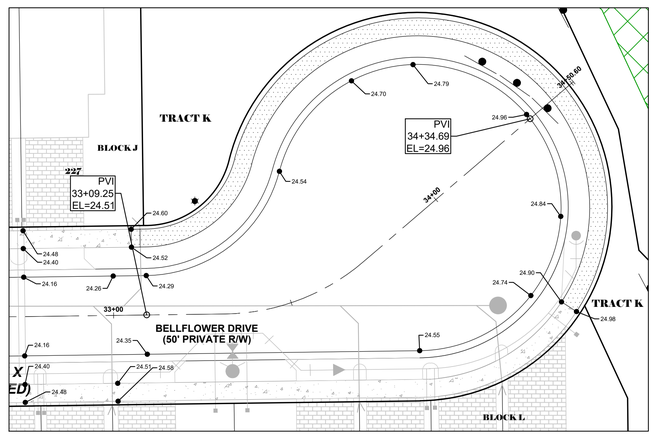
BELLFLOWER DRIVE AND ARIA LANE
INTERSECTION DETAIL "D"

POINT DATA TABLE			
POINT #	ELEVATION	NORTHING	EASTING
1208	24.68	1469963.68	724625.42
1211	24.72	1469971.81	724607.51
1212	24.66	1469967.42	724612.50
1214	24.79	1469986.74	724608.06
1217	24.65	1469914.73	724607.82
1218	24.62	1469931.67	724624.62
1219	24.70	1469926.67	724624.68
1220	24.75	1469919.28	724612.82
1221	24.68	1469926.25	724612.37
1299	24.54	1469930.98	724605.87
1300	24.62	1469937.16	724613.89
1301	24.62	1469964.27	724613.98
1302	24.68	1469970.50	724606.01
1303	24.90	1469977.49	724607.56
1304	24.90	1469982.15	724613.03
1362	24.54	1469967.74	724630.45
1353	24.56	1469961.68	724625.45
1354	24.55	1469986.76	724600.06
1355	24.58	1469977.63	724578.08
1356	24.63	1469943.84	724577.92
1357	24.54	1469939.81	724631.61
1358	24.46	1469940.04	724655.70
1359	24.46	1469962.03	724655.45
1360	24.56	1469939.67	724624.53
1361	24.41	1469914.76	724599.82
1362	24.35	1469906.65	724577.80
1363	24.37	1469909.65	724577.80
1439	24.85	1469983.95	724608.00
1442	24.92	1469950.32	724569.94
1443	25.00	1469950.33	724564.94



WHISPERWOOD PLACE CUL-DE-SAC
INTERSECTION DETAIL "E"

POINT DATA TABLE			
POINT #	ELEVATION	NORTHING	EASTING
1202	24.80	1470423.55	725636.86
1203	24.62	1470486.00	725643.07
1321	24.68	1470442.34	725564.42
1322	24.60	1470443.75	725569.22
1323	24.70	1470505.23	725614.70
1324	24.78	1470510.23	725614.60
1327	25.00	1470415.77	725639.47
1328	25.08	1470411.56	725642.17
1343	23.94	1470474.04	725538.85
1344	23.81	1470473.54	725507.15
1345	23.99	1470495.99	725545.04
1346	24.28	1470496.78	725588.03
1347	24.47	1470497.23	725614.66
1348	24.29	1470446.00	725576.89
1381	24.63	1470417.42	725611.42
1382	24.97	1470449.04	725654.44
1383	24.84	1470466.82	725654.12



BELLFLOWER DRIVE CUL-DE-SAC
INTERSECTION DETAIL "F"

POINT DATA TABLE			
POINT #	ELEVATION	NORTHING	EASTING
1138	25.00	1469168.97	725855.23
1269	24.55	1469156.47	725809.10
1271	24.52	1469185.42	725728.51
1272	24.60	1469190.42	725728.45
1273	24.51	1469147.37	725724.70
1274	24.58	1469142.37	725724.78
1275	24.90	1469170.13	725848.70
1276	24.98	1469167.41	725852.90
1372	24.55	1469156.47	725809.10
1373	24.74	1469171.89	725840.14
1374	24.29	1469177.47	725732.66
1375	24.35	1469155.48	725732.94
1376	24.54	1469206.59	725769.88
1377	24.79	1469236.44	725807.20
1378	24.70	1469231.90	725790.02
1379	24.96	1469222.50	725838.94
1380	24.84	1469194.02	725848.50
1400	24.16	1469177.03	725698.41
1401	24.16	1469155.03	725698.69
1402	24.26	1469155.35	725723.69
1403	24.26	1469177.35	725723.40
1404	24.40	1469185.03	725698.30
1405	24.48	1469190.03	725698.24
1406	24.40	1469147.03	725698.80
1407	24.48	1469142.03	725698.86



KEY MAP
NTS

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

20 0 10 20
(IN FEET)
VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
INTERSECTION DETAIL

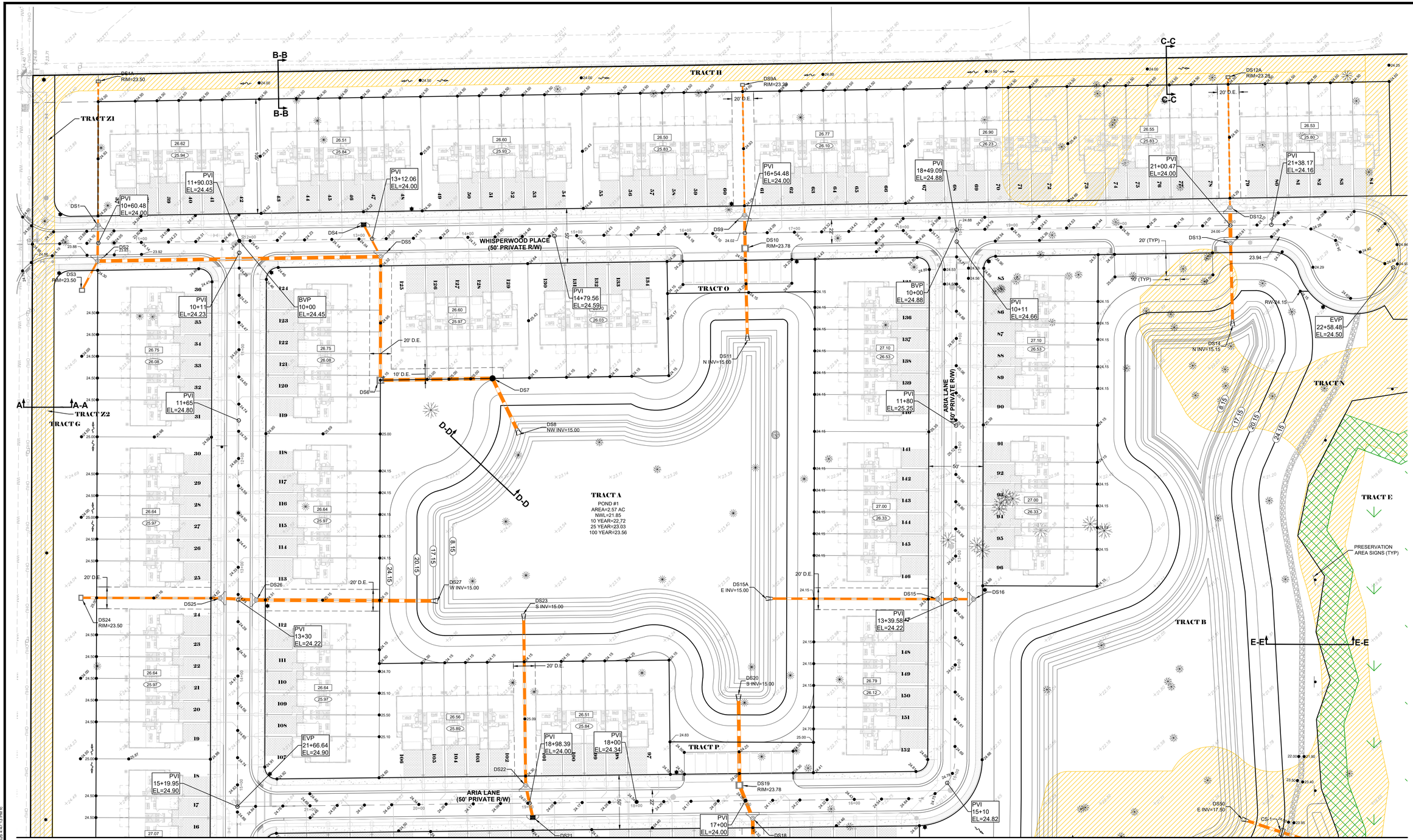
PROJECT NO.
11748

DRAWING NO.
11748_400_031

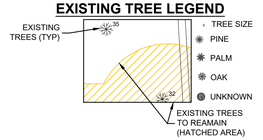
SHEET
31 of 58

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

H:\Projects Folder\11748\Drawings\11748_400\11748_400_031.dwg April 13, 2026 4:05:22 PM fc



EXISTING TREE LEGEND



LEGEND

COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)

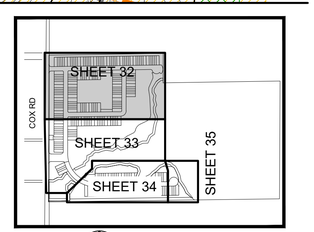
HOME BUILDER SIDEWALK AREAS

NOTES:

1. SEE SHEET 36 FOR SECTION VIEW DETAILS.
2. SEE SHEET 31 FOR ENTRANCE DETAILS.
3. SHEETS 32 - 35 FOR LOT GRADING ELEVATIONS.

BENCHMARK (BM) TABLE

NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83



KEY MAP
NTS

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

40 0 20 40
(IN FEET)
VERTICAL DATUM: NAVD88

CITY COMMENTS	02/25/26
SJRWMD COMMENTS	12/16/25
CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
LOT GRADING PLAN

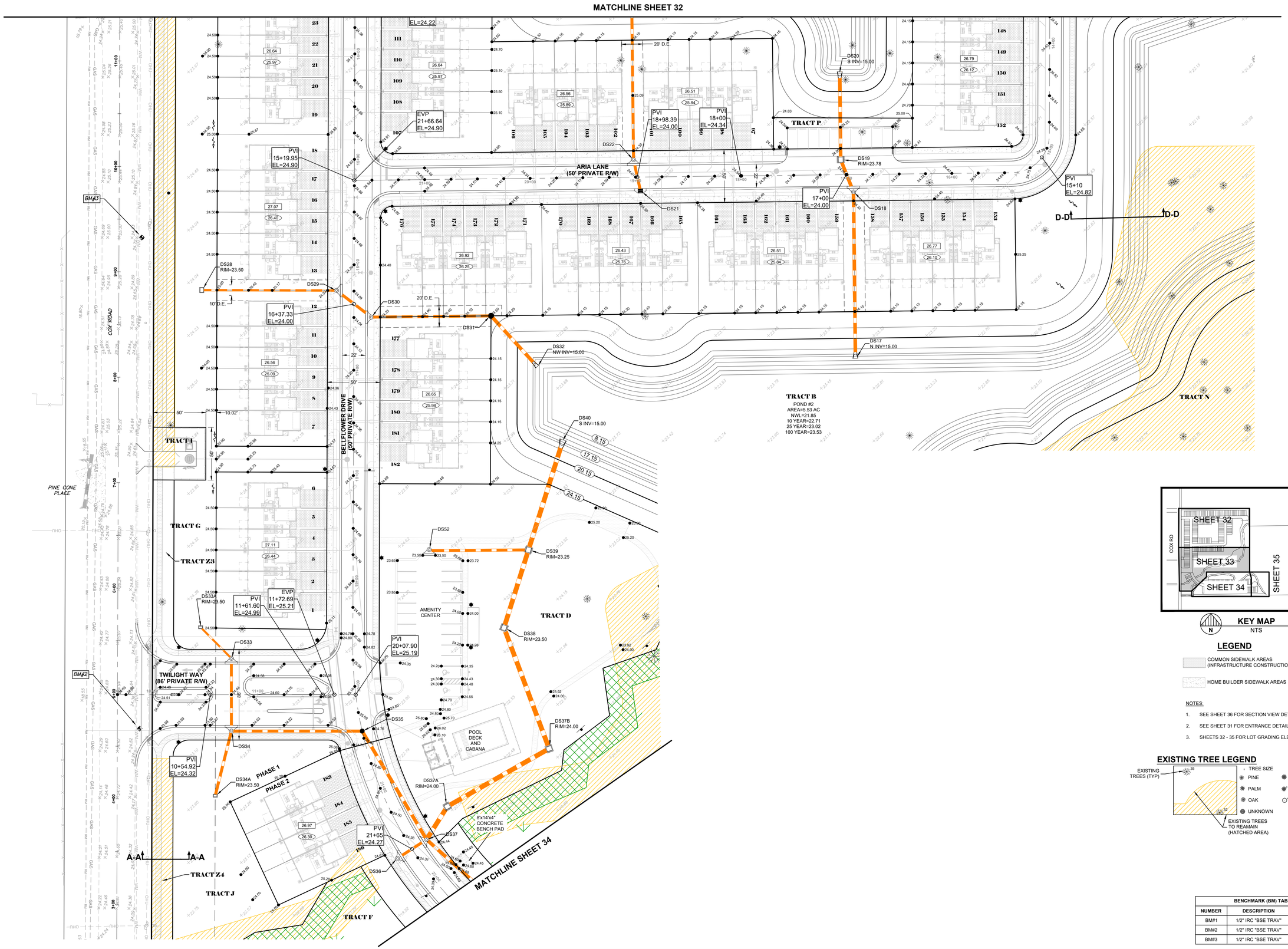
PROJECT NO. 11748

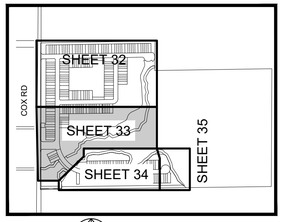
DRAWING NO. 11748_400_032

SHEET 32 of 58

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

H:\Projects Folder\11748\Drawings\11748_400\11748_400_032-C05.dwg April 13, 2026, 4:47:13 PM, fc





KEY MAP
NTS

LEGEND

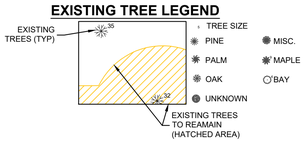
COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)

HOME BUILDER SIDEWALK AREAS

NOTES:

1. SEE SHEET 36 FOR SECTION VIEW DETAILS.
2. SEE SHEET 31 FOR ENTRANCE DETAILS.
3. SHEETS 32 - 35 FOR LOT GRADING ELEVATIONS.

EXISTING TREE LEGEND



BENCHMARK (BM) TABLE		
NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

40 0 20 40
(IN FEET)
VERTICAL DATUM: NAVD88

8	
7	
6	
5	
4	
3 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
LOT GRADING PLAN

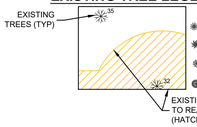
PROJECT NO.
11748

DRAWING NO.
11748_400_033

SHEET
33 of 58

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

EXISTING TREE LEGEND



LEGEND

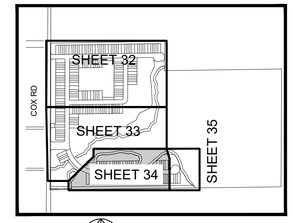
COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)

HOME BUILDER SIDEWALK AREAS

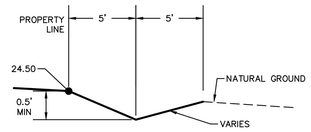
NOTES:

1. SEE SHEET 36 FOR SECTION VIEW DETAILS.
2. SEE SHEET 31 FOR ENTRANCE DETAILS.
3. SHEETS 32 - 35 FOR LOT GRADING ELEVATIONS.

BENCHMARK (BM) TABLE		
NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

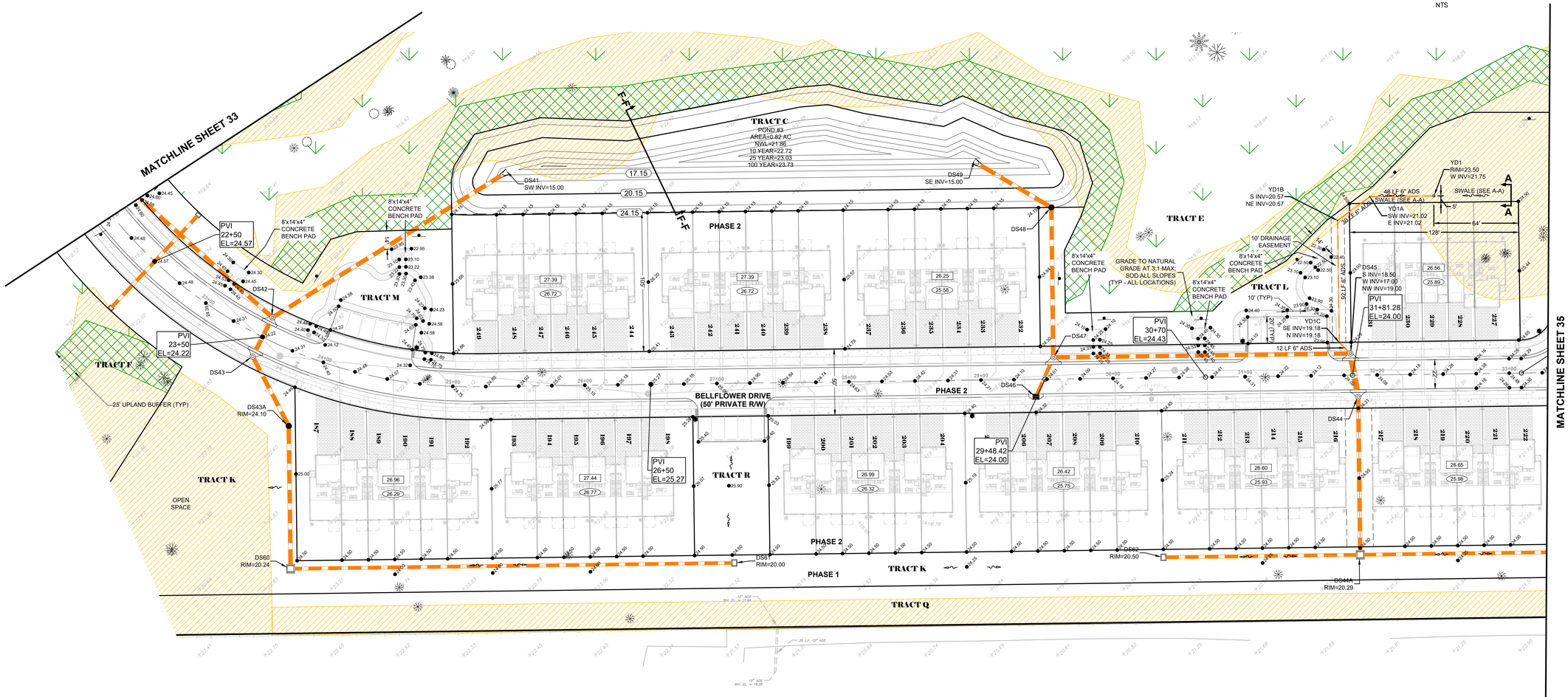


KEY MAP
NTS



SECTION A-A INTERCEPT SWALE

NTS



40 0 20 40

(IN FEET)

VERTICAL DATUM: NAVD88

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

1	
2	
3	
4	
5	
6	
7 CITY COMMENTS	02/25/26
8 SJRWMD COMMENTS	12/16/25
9 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

LOT GRADING PLAN

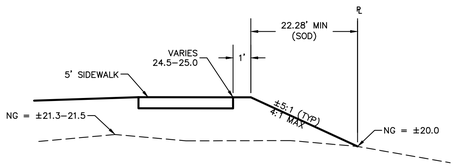
PROJECT NO. 11748

DRAWING NO. 11748_400_034

SHEET 34 of 58

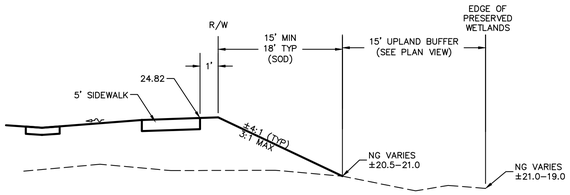
H:\Projects Folder\11748\Drawings\11748_400\11748_400_032-035.dwg April 14, 2026 8:42:12 AM ES

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



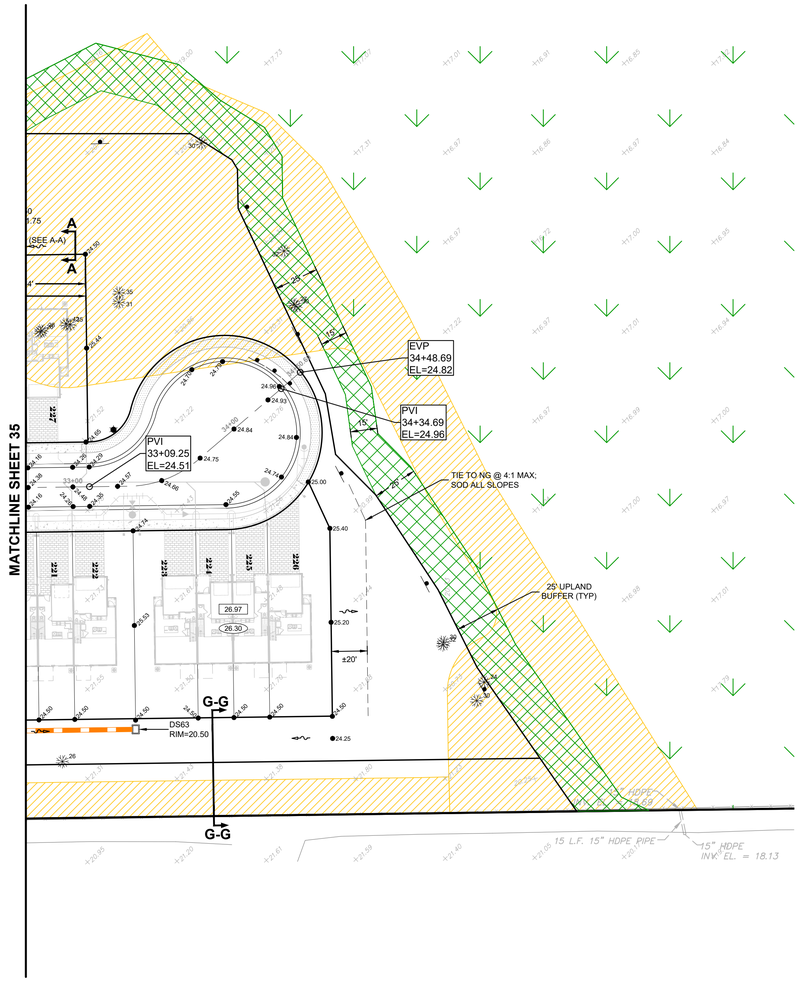
WHISPERWOODS PLACE CUL-DE-SAC GRADING DETAIL

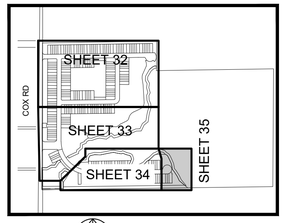
NTS



BELLFLOWER DRIVE CUL-DE-SAC GRADING DETAIL

NTS





KEY MAP

NTS

LEGEND

COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)

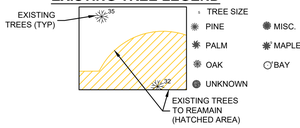
HOME BUILDER SIDEWALK AREAS

NOTES:

1. SEE SHEET 36 FOR SECTION VIEW DETAILS.
2. SEE SHEET 31 FOR ENTRANCE DETAILS.
3. SHEETS 32 - 35 FOR LOT GRADING ELEVATIONS.

BENCHMARK (BM) TABLE		
NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

EXISTING TREE LEGEND



B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

40 0 20 40

(IN FEET)

VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
7 CITY COMMENTS	02/25/26
8 SJRWMD COMMENTS	12/16/25
9 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

LOT GRADING DETAILS

PROJECT NO.

11748

DRAWING NO.

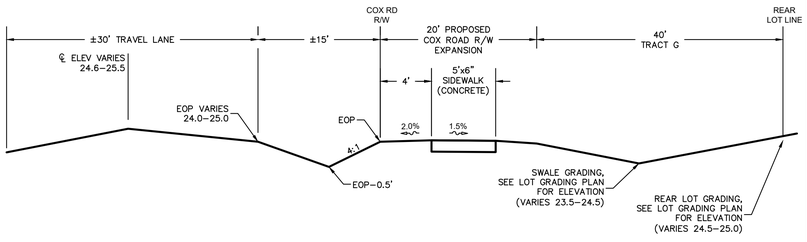
11748_400_035

SHEET

35 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_035-DSK.dwg April 13, 2026 4:54:21 PM fc

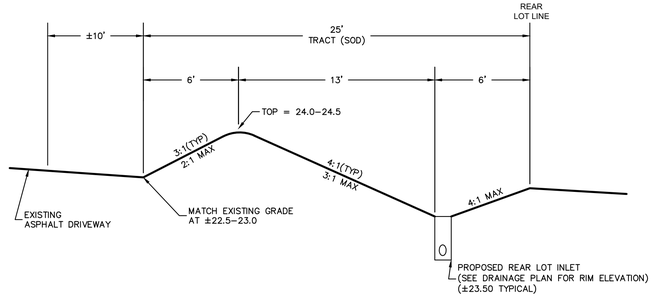
SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



SECTION A-A WEST PROPERTY LINE- COX RD

NTS

SEE LANDSCAPE PLANS FOR TREES TO BE SAVED WITHIN TRACT G

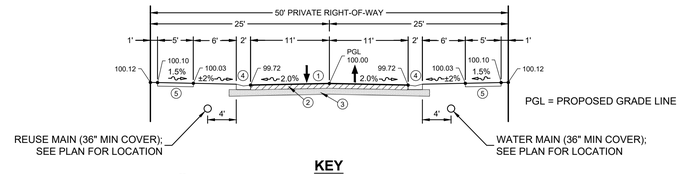


NOTE: ACTUAL SWALE CENTERLINE TO VARY 8'-10' OFF PROPERTY LINE

INLETS TO BE SET AT DIMENSION SHOWN

SECTION B-B - NORTHWEST PROPERTY LINE

NTS



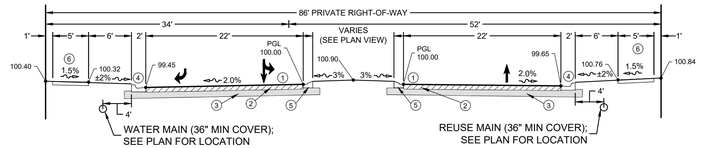
KEY

1. 1-1/2" TYPE SP-12.5 ASPHALTIC CONCRETE
2. 8" BASE WITH FDOT APPROVED PRIME/TACK COAT
   OPTIONS:
   - LIMEROCK, L.B.R. 100 MIN.
   - CEMENTED COQUINA SHELL, F.D.O.T. APPROVED, L.B.R. 100 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180
3. 8" STABILIZED SUB-GRADE, L.B.R. 40 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180 (EXTEND 12" BEYOND CURB)
4. 2' WIDE CONCRETE CURB - TYPE "F" CURB OR MIAMI CURB, SEE PLAN VIEW FOR DETAILS
5. CONCRETE SIDEWALK (CROSS SLOPE 1.5% DESIGN, 2% MAX.); COMMON AREA SIDEWALKS AS SHOWN ON THE PLANS WILL BE INSTALLED AS PART OF THE INFRASTRUCTURE IMPROVEMENTS AND MUST BE COMPLETE PRIOR TO THE ISSUE OF A CERTIFICATE OF COMPLETION FOR EACH PHASE OF THE PROJECT. SIDEWALKS ADJACENT TO THE TOWNHOME UNITS ARE TO BE COMPLETED IN CONJUNCTION WITH EACH TOWNHOME BUILDING AND MUST BE COMPLETED WITH THE CERTIFICATE OF OCCUPANCY FOR EACH TOWNHOME BUILDING.

NOTE: INSTALL SOD BEHIND ALL CURB, SIDEWALK, AND DISTURBED AREAS WITHIN THE RIGHT-OF-WAY

TYPICAL 50' PRIVATE RIGHT-OF-WAY AND ROAD SECTION DETAIL

N.T.S.



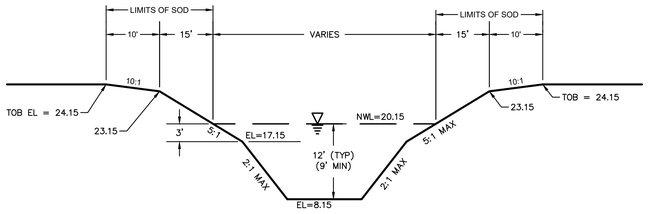
KEY

1. 1-1/2" TYPE SP-12.5 ASPHALTIC CONCRETE
2. 8" BASE WITH FDOT APPROVED PRIME/TACK COAT
   OPTIONS:
   - LIMEROCK, L.B.R. 100 MIN.
   - CEMENTED COQUINA SHELL, F.D.O.T. APPROVED, L.B.R. 100 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180
3. 8" STABILIZED SUB-GRADE, L.B.R. 40 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180 (EXTEND 12" BEYOND CURB)
4. 2' WIDE CONCRETE CURB - TYPE "F" CURB OR MIAMI CURB, SEE PLAN VIEW FOR DETAILS
5. TYPE "A" CONCRETE CURB - 16" WIDE
6. CONCRETE SIDEWALK (CROSS SLOPE 1.5% DESIGN, 2% MAX.); COMMON AREA SIDEWALKS AS SHOWN ON THE PLANS WILL BE INSTALLED AS PART OF THE INFRASTRUCTURE IMPROVEMENTS AND MUST BE COMPLETE PRIOR TO THE ISSUE OF A CERTIFICATE OF COMPLETION FOR EACH PHASE OF THE PROJECT. SIDEWALKS ADJACENT TO THE TOWNHOME UNITS ARE TO BE COMPLETED IN CONJUNCTION WITH EACH TOWNHOME BUILDING AND MUST BE COMPLETED WITH THE CERTIFICATE OF OCCUPANCY FOR EACH TOWNHOME BUILDING.

NOTE: INSTALL SOD BEHIND ALL CURB, SIDEWALK, AND DISTURBED AREAS WITHIN THE RIGHT-OF-WAY

86' PRIVATE RIGHT-OF-WAY AND ROAD SECTION DETAIL (MAIN ENTRANCE)

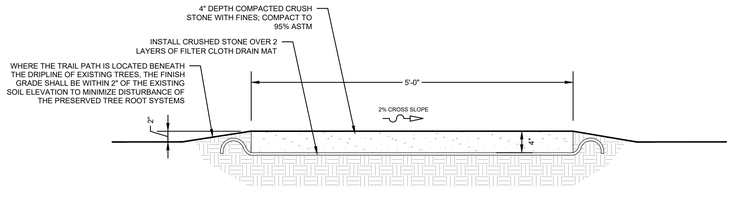
N.T.S.



SECTION D-D POND 1 AND POND 2 SECTION

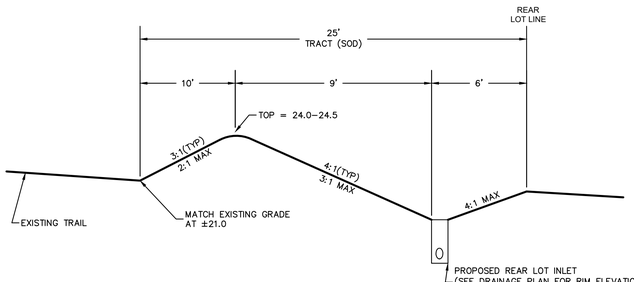
NTS

TOB = TOP OF BANK



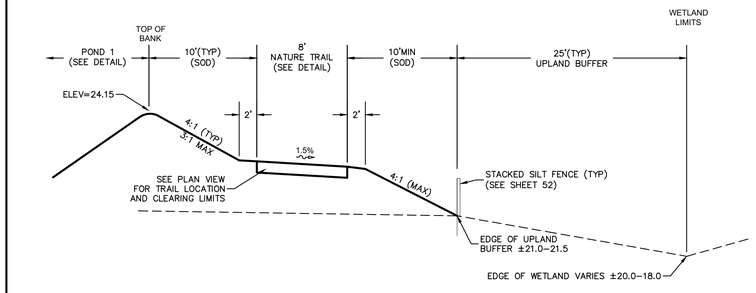
NATURE TRAIL DETAIL

NTS



SECTION C-C NORTHEAST PROPERTY LINE

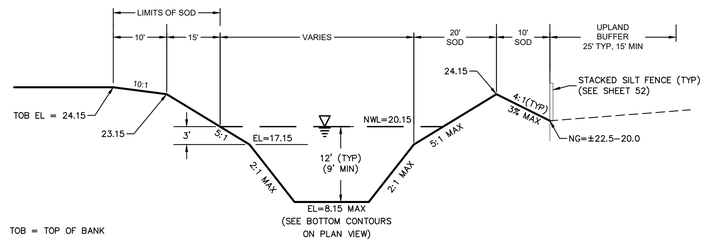
NTS



ABOVE DETAIL IS TYPICAL- SEE PLAN VIEW FOR DETAILED SPOT ELEVATIONS. SEE PLAN VIEW FOR LIMITS OF ASPHALT PATH VERSUS STONE PATH.

SECTION E-E

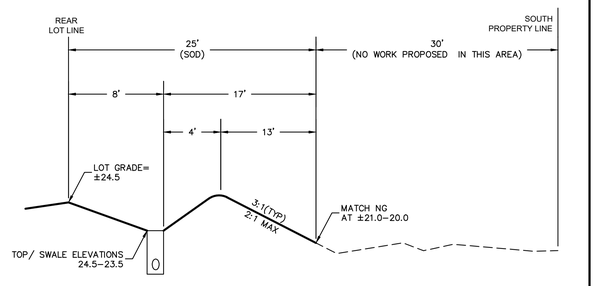
NTS



TOB = TOP OF BANK

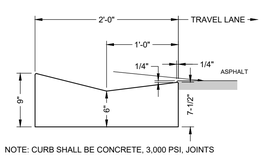
SECTION F-F POND 3 WETLAND SECTION

NTS



SECTION G-G SOUTH PROPERTY LINE

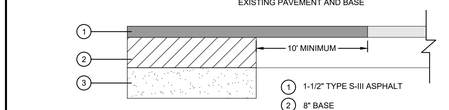
NTS



NOTE: CURB SHALL BE CONCRETE, 3,000 PSI, JOINTS CUT PER CITY OF COCOA CODE / FDOT CRITERIA.

MIAMI CURB ASPHALT OVER LAY DETAIL

N.T.S.



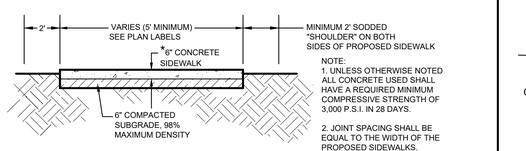
1. 1-1/2" TYPE S-III ASPHALT
2. 8" BASE
3. STABILIZED SUB-GRADE

1. 2" TYPE SP12.5 ASPHALT CONCRETE MARSHALL STABILITY 1500 P.S.I. MIN.
2. 10" BASE OPTIONS: (WITH PRIME COAT)
   LIMEROCK, L.B.R. 100 MIN.
   CEMENTED COQUINA SHELL, F.D.O.T. APPROVED, L.B.R. 100 MIN., COMPACTED TO 98% DENSITY PER AASHTO T-180
3. 12" STABILIZED SUB-GRADE, L.B.R. 40 MIN., COMPACTED TO 98% DENSITY PER AASHTO T-180

NOTE:
1. THE EXISTING ASPHALT WEARING SURFACE SHALL BE SAW CUT AND REMOVED 10' FROM THE END OF THE TRAVEL LANE WHERE NEW PAVEMENT SHALL ABUT THE EXISTING PAVEMENT.
2. CONTRACTOR SHALL CONFIRM THE EXISTING INDIVIDUAL SECTIONS OF PAVEMENT/SUB-BASE THICKNESS.

PAVEMENT TRANSITION / CONNECTION

N.T.S.

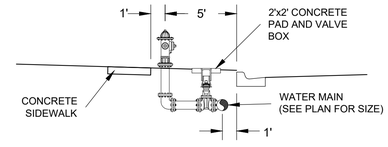


NOTE:
1. UNLESS OTHERWISE NOTED ALL CONCRETE USED SHALL HAVE A REQUIRED MINIMUM COMPRESSIVE STRENGTH OF 3,000 P.S.I. IN 28 DAYS.
2. JOINT SPACING SHALL BE EQUAL TO THE WIDTH OF THE PROPOSED SIDEWALKS.

* CONCRETE THICKNESS VARIES; 6" FOR SIDEWALKS WITHIN PUBLIC R/W AND PUBLIC SIDEWALK EASEMENTS.

SIDEWALK DETAIL

NTS



NOTE: AT FIRE HYDRANT LOCATIONS, WATER MAIN TO BE PLACED 1' BACK OF CURB AS TO ALLOW 5' FROM BACK OF CURB TO HYDRANT

FIRE HYDRANT ASSEMBLY DETAIL

(SEE ALSO CITY OF COCOA HYDRANT DETAILS)
N.T.S.

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
1	CITY COMMENTS 02/25/26
2	SJRWMD COMMENTS 12/16/25
1	CITY COMMENTS 07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

PAVING, GRADING, AND DRAINAGE DETAILS

PROJECT NO.

11748

DRAWING NO.

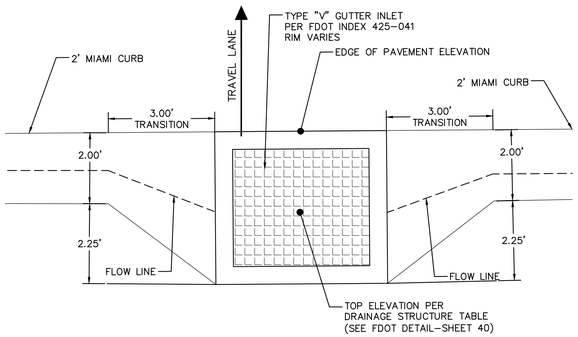
11748_400_036

SHEET

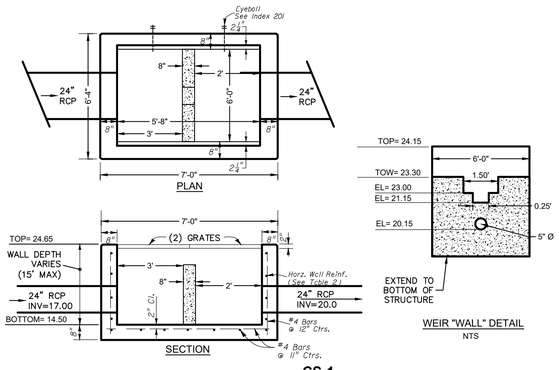
36 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_036-037.dwg April 17, 2026 4:02:09 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

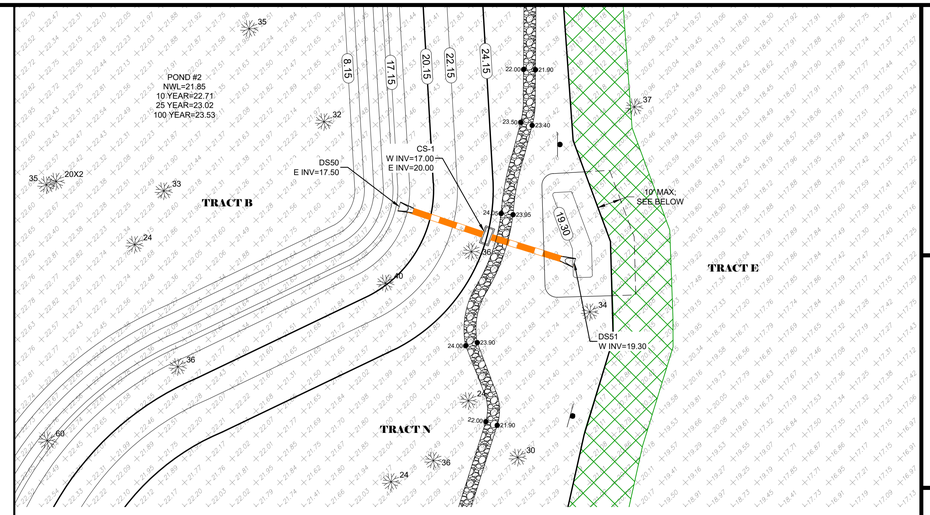


TYPE "V" INLET CURB TRANSITION
NTS

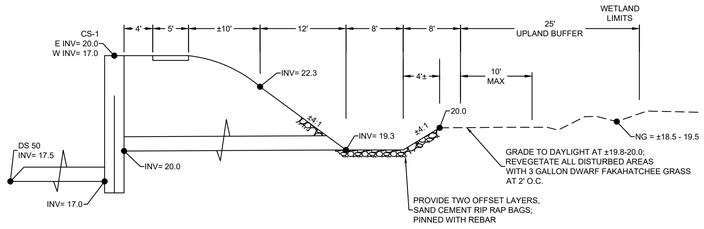


Recommended Maximum Pipe Size:
3'-1" Wall - 24" Pipe
4'-1" Wall - 36" Pipe

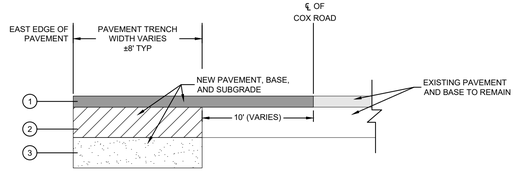
CS-1
MODIFIED TYPE G INLET
NTS



SPREADER SWALE CONSTRUCTION
NTS



SPREADER SWALE DETAIL
NTS



1. 2" TYPE SP12.5 ASPHALT CONCRETE
   MARSHALL STABILITY 1500 P.S.I. MIN.
2. 10" BASE OPTIONS: (WITH PRIME COAT)
   LIMEROCK, L.B.R. 100 MIN.
   CEMENTED COQUINA SHELL, F.D.O.T.
   APPROVED, L.B.R. 100 MIN., COMPACTED TO
   98% DENSITY PER AASHTO T-180
3. 12" STABILIZED SUB-GRADE, L.B.R. 40 MIN.,
   COMPACTED TO 98% DENSITY PER AASHTO T-180

NOTE:
1. THE EXISTING ASPHALT WEARING SURFACE SHALL BE SAW CUT AND REMOVED.
2. CONTRACTOR SHALL CONFIRM THE EXISTING INDIVIDUAL SECTIONS OF PAVEMENT/SUB-BASE THICKNESS.

PAVEMENT RESTORATION - COX ROAD FORCE MAIN
N.T.S.

PRESERVATION AREA
(BOTH SIDES OF THE TRAIL)

NO DUMPING, LAND CLEARING, SOIL DISTURBANCE, DESTRUCTION OF TREES, SHRUBS AND VEGETATION, PLACING OF TRASH, OR WASTE, EXCAVATION OF SOIL, ROCK OR OTHER MATERIAL IS PERMITTED.

ALL MAINTENANCE ACTIVITIES, INCLUDING MOWING OF LAKE BANKS AND REMOVAL OF EXOTIC VEGETATION, MUST BE DONE IN STRICT CONFORMANCE WITH APPLICABLE ENVIRONMENTAL PERMITS AND APPROVALS.

12"X18" SIGN ON
4"X4" WOOD POST

NOTES:

1. THE ABOVE SIGN IS A SAMPLE AND CONTAINS INFORMATION TYPICALLY PLACED ON CONSERVATION SIGNAGE. THE ACTUAL SIGN TEXT MAY BE ALTERED DEPENDING UPON LOCATION AND THE PRESERVATION AREA THAT IS DELINEATED. ALL FINAL SIGNAGE LANGUAGE SHALL BE ADEQUATE TO CONVEY APPLICABLE RESTRICTIONS.
2. THE LOCATION AND FREQUENCY OF THE PRESERVATION SIGNS SHALL BE AS SHOWN THIS SHEET.
   (A) VISIBLE AT ANY INGRESS/EGRESS FOR MAINTENANCE.
   (b) VISIBLE ADJACENT TO PUBLIC/PRIVATE ROADWAYS, PEDESTRIAN PATHS AND WALKWAYS.
   (c) ADJACENT TO LAKE BANK AREAS WHERE PONDS DIRECTLY ABUT WETLAND AREAS.

PRESERVATION AREA SIGN DETAIL
NTS

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

VERTICAL DATUM: NAVD88

6	
5	
4	
3	
2	
1	
1 CITY COMMENTS	02/25/26
1 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
PAVING, GRADING AND DRAINAGE DETAILS

PROJECT NO. 11748

DRAWING NO. 11748_400_037

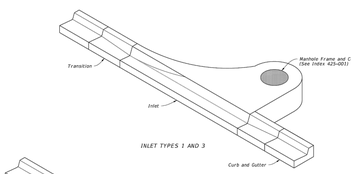
SHEET 37 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_036-037.dwg April 13, 2026 4:35:35 PM fc

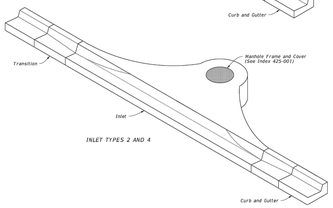
SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

GENERAL NOTES:

1. Work this Index with Index 425-001 and Index 425-010.
2. Conform finished grade and slope of the Inlet Tops to the finished cross slope and grade of the adjacent sidewalk and/or border.
3. Provide 1½" minimum cover for steel in the Inlet Top.
4. Construction of Inlet Tops are either precast or cast-in-place.
5. For precast units, the rear wall and apron may be precast as a separate piece from the top slab. Provide a minimum of 7 – #4 dowels, otherwise install in accordance with Index 425-001 "OPTIONAL CONSTRUCTION JOINTS".
6. These inlets are designed for use with standard curb and gutter Type E and Type F.
7. Use only round concrete support posts.



INLET TYPES 1 AND 3



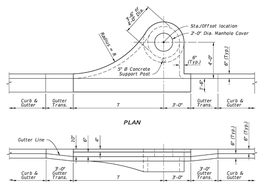
INLET TYPES 2 AND 4

TABLE OF CONTENTS:

Sheet	Description
1	General Notes and Contents
2	Top Dimensional and Reinforcing Details
3	Transverse Dimensional and Reinforcing Details

CURB INLET TOPS

LAST REVISION 11/01/20	DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	CURB INLET TOP TYPES 1, 2, 3, AND 4	INDEX 425-020	SHEET 1 of 3

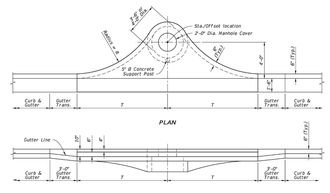


PLAN

ELEVATION

TYPE 1 AND 3

TABLE 1 INLET DIMENSIONS		
Inlet Type	R	T
1	10'-0"	10'-0"
2	10'-0"	10'-0"
3	6'-0"	6'-0"
4	6'-0"	6'-0"

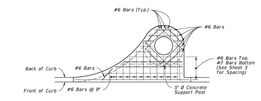


PLAN

ELEVATION

TYPE 2 AND 4

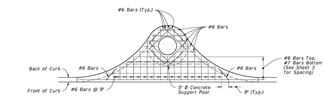
TOP DIMENSIONAL DETAILS



PLAN

TYPE 1 AND 3

NOTE:
For transverse section reinforcement, see Sheet 3.



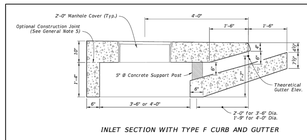
PLAN

TYPE 2 AND 4

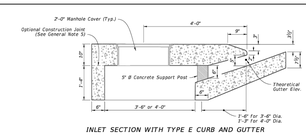
TOP REINFORCING DETAILS

TOP DIMENSIONAL AND TOP REINFORCING DETAILS

LAST REVISION 11/01/20	DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	CURB INLET TOP TYPES 1, 2, 3, AND 4	INDEX 425-020	SHEET 2 of 3

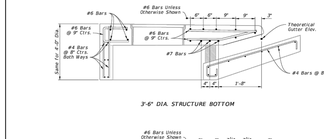


INLET SECTION WITH TYPE F CURB AND GUTTER

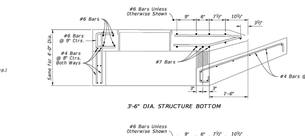


INLET SECTION WITH TYPE E CURB AND GUTTER

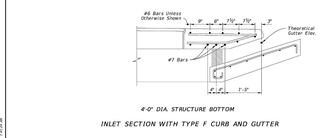
TRANSVERSE DIMENSIONAL DETAILS



3'-6" DIA. STRUCTURE BOTTOM

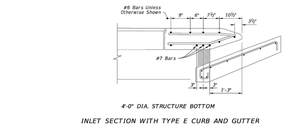


3'-6" DIA. STRUCTURE BOTTOM



4'-0" DIA. STRUCTURE BOTTOM

INLET SECTION WITH TYPE F CURB AND GUTTER



4'-0" DIA. STRUCTURE BOTTOM

INLET SECTION WITH TYPE E CURB AND GUTTER

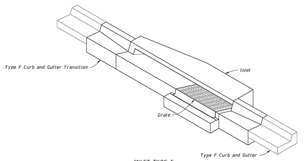
TRANSVERSE REINFORCING DETAILS

TRANSVERSE DIMENSIONAL AND REINFORCING DETAILS

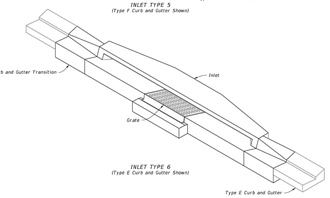
LAST REVISION 11/01/20	DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	CURB INLET TOP TYPES 1, 2, 3, AND 4	INDEX 425-020	SHEET 3 of 3

GENERAL NOTES:

1. Work this Index with Index 425-001 and Index 425-010.
2. Conform the finished grade and slope of the inlet tops with the finished cross slope and grade of the proposed sidewalk and/or border.
3. For inlets constructed on a curve, refer to the plans to determine the radius. Bend steel when necessary.
4. Use Grade 60 reinforcing bars with 1½" minimum cover unless otherwise shown, see Sheet 6 for equivalent area Welded Wire Reinforcement details.
5. Inlet tops may be either cast-in-place or precast concrete. Conform precast units to the dimensions shown or in accordance with approved shop drawings.
6. Corner fillets are required at inlet opening for precast units or C-I-P units used in conjunction with circular inlet bottoms or skewed rectangular inlet boxes. Finish top of Fillets flush with drain throat bottom and match slope.
7. For Type E curb and gutter, transition the shape of the curb over the gutter transition length to match the face of the inlet (Type F1).
8. Meet the requirements of ASTM A36/A36M with steel used for frames and grates.
9. Use either cast iron grates or steel grates.



INLET TYPE 5
(Type F Curb and Gutter Shown)



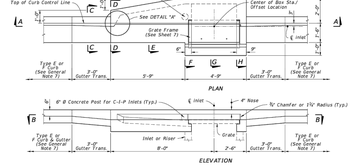
INLET TYPE 6
(Type E Curb and Gutter Shown)

TABLE OF CONTENTS:

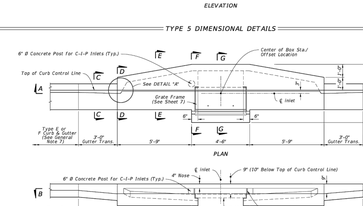
Sheet	Description
1	General Notes and Contents
2	Type 5 and 6 Dimensional Details
3	Type 5 and 6 Reinforcing and Bar Bending Details
4	Precast Dimensional and Reinforcing Details
5	Cast-In-Place Dimensional and Reinforcing Details
6	Alternate Welded Wire Reinforcing (WWR) Details
7	Grate, Anchor, and Grouting Details

CURB INLETS TOPS

LAST REVISION 11/01/20	DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	CURB INLET TOP TYPES 5 AND 6	INDEX 425-021	SHEET 1 of 7

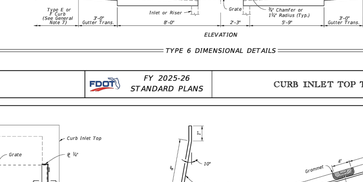


PLAN

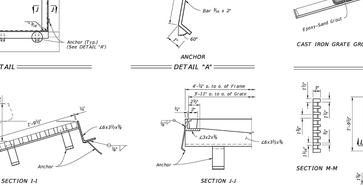


ELEVATION

TYPE 5 DIMENSIONAL DETAILS



PLAN

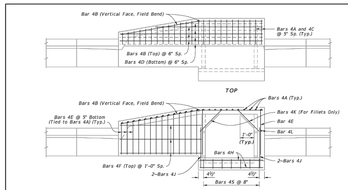


ELEVATION

TYPE 6 DIMENSIONAL DETAILS

TYPE 5 AND 6 DIMENSIONAL DETAILS

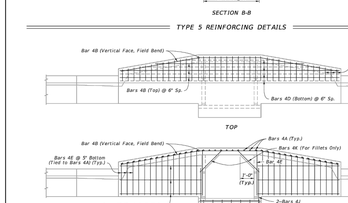
LAST REVISION 11/01/20	DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	CURB INLET TOP TYPES 5 AND 6	INDEX 425-021	SHEET 2 of 7



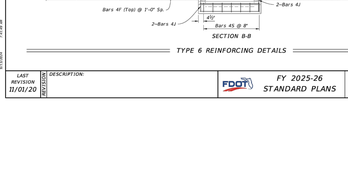
TOP

SECTION B-B

TYPE 5 REINFORCING DETAILS

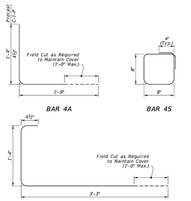


TOP



SECTION B-B

TYPE 6 REINFORCING DETAILS

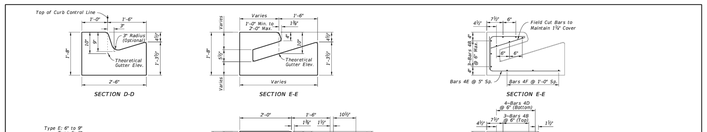


BILL OF REINFORCING STEEL					
MARK	SIZE	TYPE 5 INLET NO.	TYPE 5 INLET LENGTH	TYPE 6 INLET NO.	TYPE 6 INLET LENGTH
A (Precast)	4	25	7'-1"	38	7'-1"
A (C-I-P)	4	25	7'-1½"	38	7'-1½"
B	4	6	10'-3"	6	13'-9"
C	4	25	11" to 7'-11"	38	11" to 7'-11"
D	4	4	10'-3"	4	13'-9"
E	4	16	4'-11½"	30	4'-11½"
F	4	3	8'-0"	6	8'-0"
H	4	4	4'-8"	4	4'-8"
J	4	4	7'-0"	4	7'-0"
K (Fillet)	4	2	2'-3"	2	2'-3"
L (Precast)	4	1	1'-4"	0	---
L (C-I-P)	4	10	1'-4"	9	1'-4"
S	4	7	7'-2"	7	7'-2"

NOTES:
1. All bar dimensions in the bending diagrams are out to out.
2. Bars 4A and 4E may be combined into a single bar.
3. Welded Wire Reinforcement consists of smooth or deformed wire meeting the requirements of Specification 933.

TYPE 5 AND 6 REINFORCING AND BAR BENDING DETAILS

LAST REVISION 11/01/20	DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	CURB INLET TOP TYPES 5 AND 6	INDEX 425-021	SHEET 3 of 7



SECTION D-D

SECTION E-E

SECTION C-C

SECTION F-F

SECTION G-G

SECTION H-H

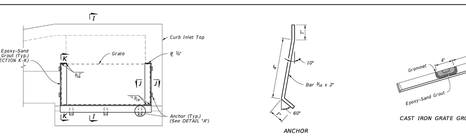
NOTES:
1. For location of Sections D-D thru H-H see Sheet 2.
2. Match slope of adjacent curb with 3" top radius and ½" batter chamfer at 1½" radius.
3. See Plans for bottom and riser type.

DIMENSIONAL DETAILS

REINFORCING DETAILS

PRECAST DIMENSIONAL AND REINFORCING DETAILS

LAST REVISION 11/01/20	DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	CURB INLET TOP TYPES 5 AND 6	INDEX 425-021	SHEET 4 of 7



FRAME DETAIL

ANCHOR

CAST IRON GRATE GROUTING DETAILS

STEEL GRATE GROUTING DETAILS

SECTION I-I

SECTION J-J

SECTION K-K

SECTION M-M

SECTION L-L

SECTION O-O

SECTION N-N

CAST IRON GRATE

STEEL GRATE

GRATE, ANCHOR, AND GROUTING DETAILS

LAST REVISION 11/01/20	DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	CURB INLET TOP TYPES 5 AND 6	INDEX 425-021	SHEET 7 of 7

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

VERTICAL DATUM: NAVD88

1	CITY COMMENTS	02/25/26
2	SJRWMD COMMENTS	12/16/25
1	CITY COMMENTS	07/21/25
	DATE:	5/16/25
	DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
FDOT DETAILS

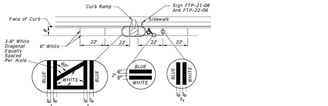
PROJECT NO. 11748

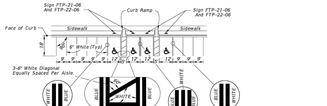
DRAWING NO. 11748_400_038

SHEET 38 of 58

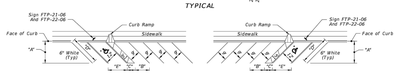
H:\Projects Folder\11748\Drawings\11748_400\11748_400_038-041.dwg, April 13, 2026 4:48:19 PM, fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.





TYPICAL



FORWARD-IN PARKING

REVERSE-IN PARKING

*FOR ACCESSIBLE MARKINGS - SEE ABOVE

DIMENSIONS					
"A"	"B"	"C"	"D"	"E"	"F"
45°	17'-0"	12'-9"	7'-0"	24'-0"	17'-0"

PAVEMENT MARKING FOR PARKING





(See Note 5)

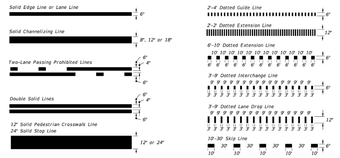
UNIVERSAL SYMBOL OF ACCESSIBILITY

NOTES:

1. Dimensions are to the centerline of markings.
2. An Access Aisle is required for each accessible space when angle parking is used.
3. Criteria for pavement markings only, not public sidewalk curb ramp locations. For ramp locations refer to plans.
4. Mount FTP-22-06 sign below the FTP-21-06 sign.
5. Use of the pavement symbol in accessible parking spaces is optional. When pavement symbol is used, the symbol is either 3'-0" or 5'-0" high and white in color.

LAST REVISION	DESCRIPTION:
11/01/21	

FDOT FY 2025-26 STANDARD PLANS | PAVEMENT MARKINGS | INDEX 711-001 | SHEET 11 of 13



PAVEMENT MARKING LINES



10'-30' SKIP LINE WITH CONTRAST MARKINGS



DOTTED LINE WITH ALTERNATING CONTRAST MARKINGS
(3'-9' Dotted Line Shown, Other Dotted Lines Similar)



LONGITUDINAL SOLID LANE LINE WITH CONTRAST MARKINGS
(Not For Use On Edge Lines)



MARKINGS FOR MERGE

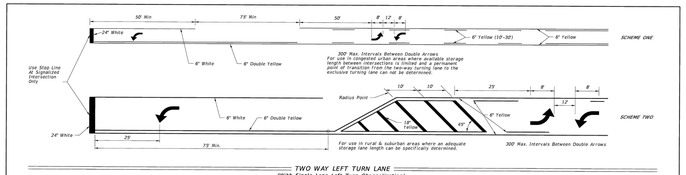


YIELD LINES

Yield Lines consist of five - 18" X 27" white triangles which face traffic. Equally space triangles within traffic lane. Where a bike lane is present, place an optional triangle in the center of the bike lane.

LAST REVISION	DESCRIPTION:
11/01/22	

FDOT FY 2025-26 STANDARD PLANS | PAVEMENT MARKINGS | INDEX 711-001 | SHEET 2 of 13



TWO WAY LEFT TURN LANE
(With Single Lane Left Turn Channelization)

POSTED SPEED LIMIT MPH	"W" (FT.)
30 OR LESS	10
35	20
40	35
45	30
50 OR MORE	40

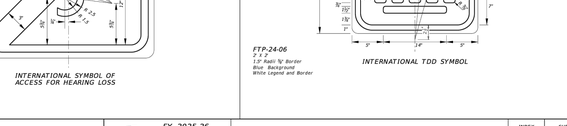


MARKINGS FOR TRAFFIC SEPARATION

TRAFFIC CHANNELIZATION AT GORE

LAST REVISION	DESCRIPTION:
11/01/21	

FDOT FY 2025-26 STANDARD PLANS | PAVEMENT MARKINGS | INDEX 711-001 | SHEET 8 of 13



RPM PLACEMENT AT INTERSECTIONS

RPM PLACEMENT AT TRAFFIC CHANNELIZATION AT GORE
(Traffic Flows In Same Direction)

RPM PLACEMENT AT TRAFFIC SEPARATION
(Traffic Flows In Opposite Direction)

NOTE:
Center the Raised Pavement Markers between chevrons and crosshatching.

LEGEND:
B/C = BACK OF CURB
EOP = EDGE OF PAVEMENT
RPM = RAISED PAVEMENT MARKER
W/R = WHITE/RED RPM
Y/Y = YELLOW/YELLOW RPM
Y/R = YELLOW/RED RPM
MO/Y = MONO-DIRECTIONAL YELLOW RPM

RPM PLACEMENT AT ROADSIDE CROSSHATCHING

Right side of the roadway shown. For the left side of roadway, the pavement marking is yellow and oriented opposite hand.

WRONG-WAY ARROW

LAST REVISION	DESCRIPTION:
11/01/21	

FDOT FY 2025-26 STANDARD PLANS | TYPICAL PLACEMENT OF RAISED PAVEMENT MARKERS | INDEX 706-001 | SHEET 2 of 6

DETAIL "A"

DETAIL "D"

RPM ORIENTATION DETAIL

DETAIL "B"

DETAIL "E"

POSTED SPEED LIMIT MPH	"Y" FEET
30 OR LESS	10
35	20
40	20
45	30
50 OR MORE	40

LEGEND:
B/C = BACK OF CURB
EOP = EDGE OF PAVEMENT
RPM = RAISED PAVEMENT MARKER
W/R = WHITE/RED RPM
Y/Y = YELLOW/YELLOW RPM
Y/R = YELLOW/RED RPM
MO/Y = MONO-DIRECTIONAL YELLOW RPM

DETAIL "C"

FLUSH MEDIAN OPENINGS
(Type "E" Curb Similar. See Note 1)

DETAIL "F"

TYPE "D" OR "F" CURB

NOTES:

1. For Type "E" Curb, install RPMs along the pavement edge marking using the same spacing shown.
2. Orient traffic faces of RPMs in curb median radii to be parallel to direction of travel lanes.
3. Use epoxy adhesive to install RPMs on concrete median nose curbs.
4. Install RPMs on clean, unpainted surface. Do not paint curb surface where RPMs will be placed.

RPM PLACEMENT AT MEDIAN OPENINGS
(When called for in the Plans)

LAST REVISION	DESCRIPTION:
11/01/21	

FDOT FY 2025-26 STANDARD PLANS | TYPICAL PLACEMENT OF RAISED PAVEMENT MARKERS | INDEX 706-001 | SHEET 3 of 6

DETAIL "G"

DETAIL "J"

DETAIL "H"

DETAIL "K"

RPM PLACEMENT AT ISLANDS
(When called for in the Plans)

POSTED SPEED LIMIT MPH	"Y" FEET
30 OR LESS	10
35	20
40	20
45	30
50 OR MORE	40

NOTES:

1. For Type "E" Curb install RPMs along the pavement edge marking using the same spacing shown.
2. Orient traffic faces of RPMs in median radii to be parallel to direction of travel lanes.

RPM PLACEMENT AT TRAFFIC SEPARATORS
(When called for in the Plans)

LEGEND:
B/C = BACK OF CURB
EOP = EDGE OF PAVEMENT
RPM = RAISED PAVEMENT MARKER
W/R = WHITE/RED RPM
Y/Y = YELLOW/YELLOW RPM
Y/R = YELLOW/RED RPM
MO/Y = MONO-DIRECTIONAL YELLOW RPM
MO/W = MONO-DIRECTIONAL WHITE RPM

LAST REVISION	DESCRIPTION:
11/01/21	

FDOT FY 2025-26 STANDARD PLANS | TYPICAL PLACEMENT OF RAISED PAVEMENT MARKERS | INDEX 706-001 | SHEET 4 of 6

LAST REVISION	DESCRIPTION:
11/01/20	

FDOT FY 2025-26 STANDARD PLANS | SPECIAL SIGN DETAILS | INDEX 700-102 | SHEET 4 of 12

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
3	CITY COMMENTS 02/25/26
2	SJRWMD COMMENTS 12/16/25
1	CITY COMMENTS 07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

FDOT DETAILS

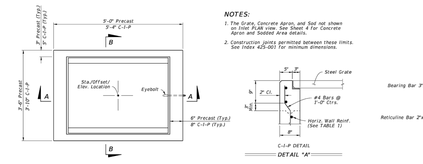
PROJECT NO.
11748

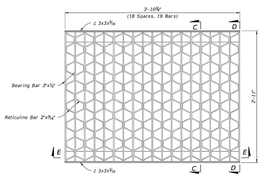
DRAWING NO.
11748_400_039

SHEET
39 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_038-041.dwg April 13, 2026 4:52:00 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.





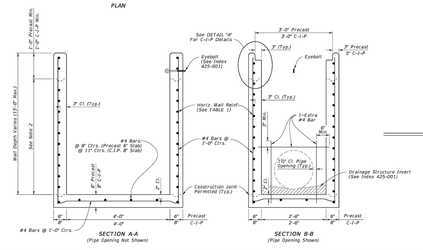


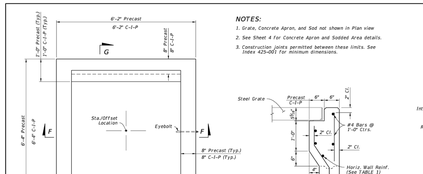
TABLE 1 HORIZONTAL WALL REINFORCING SCHEDULE				
WALL DEPTH	SCHEDULE	AREA (in²/ft.)	MAX. SPACING BARS	MAX. SPACING WWR
0' – 4'	A12	0.200	12"	8"
4' – 7'	A6	0.200	6"	3"
7' – 12'	B5.5	0.240	5½"	3"
12' – 13'	Special 1	0.267	3"	4"

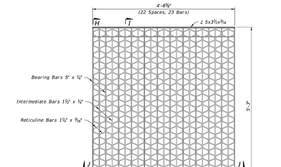
STEEL GRATE DETAIL

DIMENSIONAL AND REINFORCING DETAILS

TYPE F - DIMENSIONAL, REINFORCING, AND GRATE DETAILS

LAST REVISION 11/01/20	NO.	DESCRIPTION:	FDOT STANDARD PLANS FY 2025-26	DITCH BOTTOM INLET TYPES F AND G	INDEX 425-053	SHEET 2 of 4





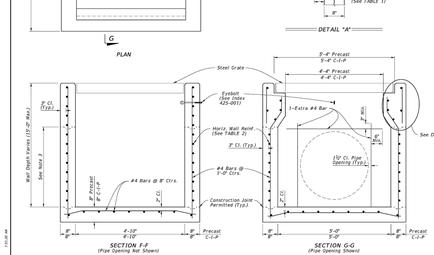


TABLE 2 HORIZONTAL WALL REINFORCING SCHEDULE				
WALL DEPTH	SCHEDULE	AREA (in²/ft.)	MAX. SPACING BARS	MAX. SPACING WWF
0' – 3'	A12	0.20	12"	8"
3' – 7'	A6	0.20	6"	3"
7' – 10'	B5.5	0.24	5½"	3"
10' – 13'	C6.5	0.31	4½"	4"

STEEL GRATE DETAIL

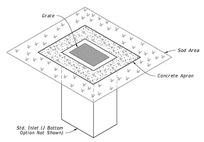
DIMENSIONAL AND REINFORCING DETAILS

TYPE G - DIMENSIONAL, REINFORCING, AND GRATE DETAILS

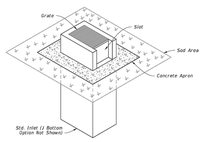
LAST REVISION 11/01/20	NO.	DESCRIPTION:	FDOT STANDARD PLANS FY 2025-26	DITCH BOTTOM INLET TYPES F AND G	INDEX 425-053	SHEET 3 of 4

GENERAL NOTES:

1. Work this Index with Index 425-001 and Index 425-010.
2. Chamfer all exposed edges and corners ¾" chamfer or tooled to ½" radius.
3. All reinforcing is Grade 60 bars with 2" minimum, cover unless otherwise noted. Cut or bend bars for 1½" clearance around pipe opening. Provide one additional #4 bar above and at each side of pipe opening.
4. Use Concrete Apron on inlets without slots and inlets with non-traversable slots only when called for in the Plans.
5. Quantities are for informational and estimating purposes only.
6. Slots are not permitted on sides with grate seats.



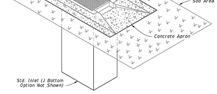
DITCH BOTTOM INLET TYPE C
TRAVERSABLE
(Without Slot – Type D, E, and H Similar, Pipe Connection Not Shown)



DITCH BOTTOM INLET TYPE C
NON-TRAVERSABLE
(Slot > 7" Shown – Type D, E, and H Similar, Pipe Connection Not Shown)

TABLE OF CONTENTS:

Sheet	Description
1	General Notes and Contents
2	Type C – Dimensional, Reinforcing, and Grate Details
3	Type D – Dimensional, Reinforcing, and Grate Details
4	Type E – Dimensional, Reinforcing, and Grate Details
5	Type H (2 & 3 Grate) – Dimensional, Reinforcing, and Steel Grate Details
6	Type H (4 Grate) – Dimensional, Reinforcing, and Steel Grate Details
7	Cast Iron Grate Details
8	Non-Traversable Inlet Details
9	Traversable Inlet Without Slot Details
10	Traversable Inlet With Slot Details
11	Case 1 – Add Traversable Slots to Existing Inlets
12	Case 2 – Add Traversable Slots (Partial) to Existing Inlets
13	Case 3 – Add Traversable Slots (Partial) to Existing Inlets and Ditch Block
14	Alternate 4 Structure Bottom – Top Slab Details

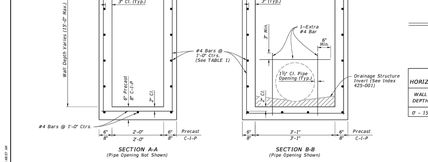


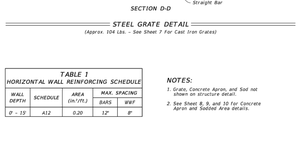
DITCH BOTTOM INLET TYPE C
TRAVERSABLE
(Single Slot < 7" Shown, Double Slot, Type D, and E Similar, Pipe Connection Not Shown)

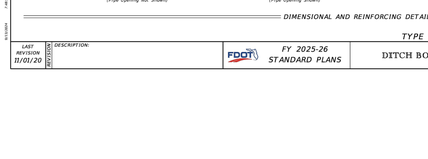
DIMENSIONAL AND REINFORCING DETAILS

TYPE C - DIMENSIONAL, REINFORCING, AND STEEL GRATE DETAILS

LAST REVISION 11/01/23	NO.	DESCRIPTION:	FDOT STANDARD PLANS FY 2025-26	DITCH BOTTOM INLET TYPES C, D, E, AND H	INDEX 425-052	SHEET 1 of 14







STEEL GRATE DETAIL
(Approx. 104 Lbs. – See Sheet 7 For Cast Iron Grates)

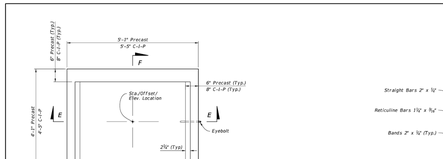
TABLE 1 HORIZONTAL WALL REINFORCING SCHEDULE				
WALL DEPTH	SCHEDULE	AREA (in²/ft.)	MAX. SPACING BARS	MAX. SPACING WWF
0' – 13'	A12	0.20	12"	8"

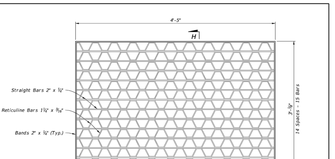
NOTES:
1. Grate, Concrete Apron, and Sod not shown on structure detail.
2. See Sheet 8, 9, and 10 For Concrete Apron and Sodded Area details.

DIMENSIONAL AND REINFORCING DETAILS

TYPE C - DIMENSIONAL, REINFORCING, AND STEEL GRATE DETAILS

LAST REVISION 11/01/20	NO.	DESCRIPTION:	FDOT STANDARD PLANS FY 2025-26	DITCH BOTTOM INLET TYPES C, D, E, AND H	INDEX 425-052	SHEET 2 of 14





STEEL GRATE DETAIL
(Approx. 190 lbs. – See Sheet 7 For Cast Iron Grates)

TABLE 2 HORIZONTAL WALL REINFORCING SCHEDULE				
WALL DEPTH	SCHEDULE	AREA (in²/ft.)	MAX. SPACING BARS	MAX. SPACING WWF
0' – 6'	A12	0.20	12"	8"
6' – 10'	A6	0.20	6"	3"
10' – 13'	A4	0.20	4"	3"
10' – 13'	B5.5	0.24	5½"	3"

NOTES:
1. Grate, Concrete Apron, and Sod not shown on structure details.
2. See Sheet 8, 9, and 10 For Concrete Apron and Sodded Area details.
3. Cast Iron Grate is not permitted on inlet Type D.

DIMENSIONAL AND REINFORCING DETAILS

TYPE D - DIMENSIONAL, REINFORCING, AND STEEL GRATE DETAILS

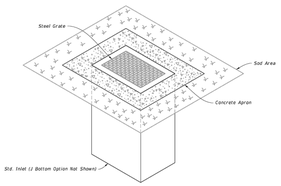
LAST REVISION 11/01/20	NO.	DESCRIPTION:	FDOT STANDARD PLANS FY 2025-26	DITCH BOTTOM INLET TYPES C, D, E, AND H	INDEX 425-052	SHEET 3 of 14

GENERAL NOTES:

1. Work this Index with Index 425-001 and Index 425-010.
2. When inlet is placed in areas subject to bicycle traffic, install filler bar when clearance or gap is greater than ¾" as shown in Index 425-031.
3. These inlets may be used with Alternate B structure bottoms, Index 425-010.
4. Chamfer all exposed edges and corners ¾" chamfer or tooled to ½" radius.
5. See Index for supplemental details.
6. Reinforcing bars are Grade 60 with 2" minimum cover unless otherwise noted. Cut or bend bars to provide 1½" clearance around pipe opening. Provide one additional #4 bar above and at each side of pipe opening as shown.
7. Dimensions are for both precast and cast-in-place inlets unless otherwise noted.
8. Quantities are for informational and estimating purposes only.

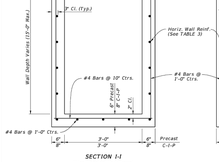
TABLE OF CONTENTS:

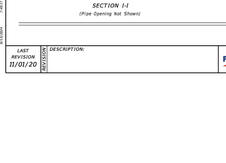
Sheet	Description
1	General Notes and Contents
2	Type F – Dimensional, Reinforcing, and Grate Details
3	Type G – Dimensional, Reinforcing, and Grate Details
4	Concrete Apron and Sodded Area Details

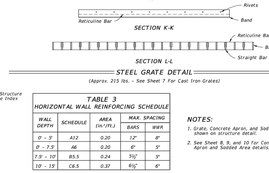


DITCH BOTTOM INLET TYPE F
(Type G Similar, Pipe Connection Not Shown)

LAST REVISION 11/01/20	NO.	DESCRIPTION:	FDOT STANDARD PLANS FY 2025-26	DITCH BOTTOM INLET TYPES F AND G	INDEX 425-053	SHEET 1 of 4







STEEL GRATE DETAIL
(Approx. 215 lbs. – See Sheet 7 For Cast Iron Grates)

TABLE 3 HORIZONTAL WALL REINFORCING SCHEDULE				
WALL DEPTH	SCHEDULE	AREA (in²/ft.)	MAX. SPACING BARS	MAX. SPACING WWF
0' – 3'	A12	0.20	12"	8"
3' – 7.5'	A6	0.20	6"	3"
7.5' – 10'	B5.5	0.24	5½"	3"
10' – 13'	C6.5	0.31	4½"	4"

NOTES:
1. Grate, Concrete Apron, and Sod not shown on structure detail.
2. See Sheet 8, 9, and 10 For Concrete Apron and Sodded Area details.

DIMENSIONAL AND REINFORCING DETAILS

TYPE E - DIMENSIONAL, REINFORCING, AND STEEL GRATE DETAILS

LAST REVISION 11/01/20	NO.	DESCRIPTION:	FDOT STANDARD PLANS FY 2025-26	DITCH BOTTOM INLET TYPES C, D, E, AND H	INDEX 425-052	SHEET 4 of 14

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

VERTICAL DATUM: NAVD88

7	
6	
5	
4	
3	
2	
1	CITY COMMENTS 02/25/26
0	SJRWMD COMMENTS 12/16/25
1	CITY COMMENTS 07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

FDOT DETAILS

PROJECT NO.

11748

DRAWING NO.

11748_400_040

SHEET

40 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_038-041.dwg April 13, 2026 4:55:08 PM flc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

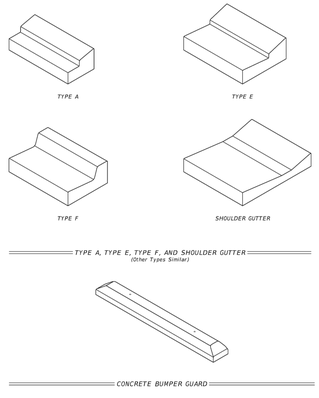
GENERAL NOTES:

1. For curb, gutter and curb & gutter provide ½" - ¾" contraction joints at 10 centers (max). Contraction joints adjacent to concrete pavement on tangents and flat curves are to match the pavement joints, with intermediate joints not to exceed 10' centers.

2. Locate expansion joints for curb, gutter and curb & gutter in accordance with Specification 520.

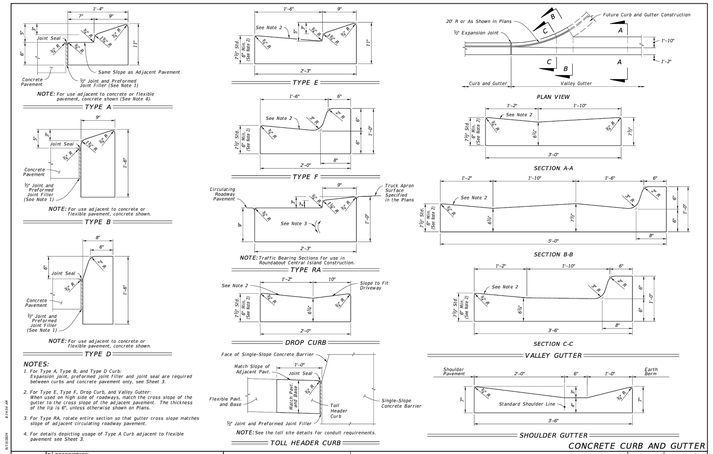
TABLE OF CONTENTS:

Sheet	Description
1	General Notes and Contents
2	Concrete Curb and Gutter
3	Curb and Gutter Joints and Endings, Concrete Bumper Guard, and Asphaltic Concrete Curb



TYPE A, TYPE E, TYPE F, AND SHOULDER GUTTER
(Other Types Similar)

CONCRETE BUMPER GUARD



NOTE: For use adjacent to concrete or flexible pavement, concrete shown. (See Note 4).

NOTE: For use adjacent to concrete or flexible pavement, concrete shown.

NOTE: For use adjacent to concrete or flexible pavement, concrete shown.

NOTE: Traffic Bearing Sections For use in Roadabout Central Island Construction.

NOTE: See the toll site details for conduit requirements.

NOTES:

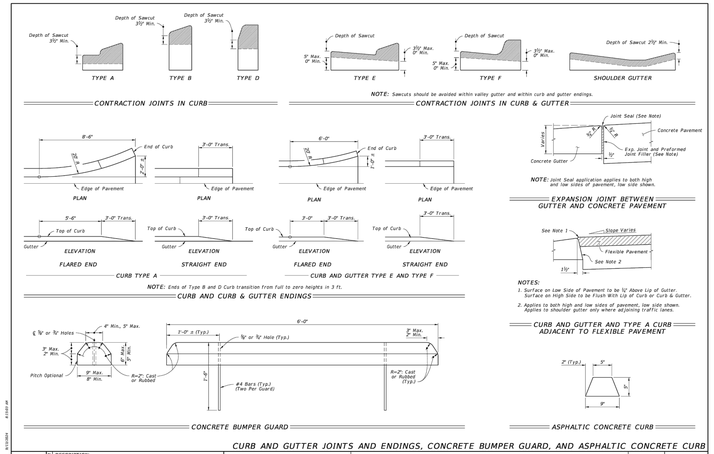
1. For Type A, Type B, and Type D Curb: Expansion joint, preformed joint filler and joint seal are required between curb and concrete pavement only, see Sheet 3.

2. For Type E, Type F, Drop Curb, and Valley Gutter: When used on high side of roadways, match the cross slope of the gutter to the cross slope of the adjacent travel lane. The thickness of the lip is 6", unless otherwise shown on Plans.

3. For Type RA, rotate entire section so that gutter cross slope matches slope of adjacent circulating roadway pavement.

4. For details depicting usage of Type A Curb adjacent to flexible pavement see Sheet 3.

CONCRETE CURB AND GUTTER



CONTRACTION JOINTS IN CURB

NOTE: Sawcuts should be avoided within valley gutter and within curb and gutter endings.

CONTRACTION JOINTS IN CURB & GUTTER

NOTE: Ends of Type B and D Curb transition from full to zero heights in 3 ft.

CURB AND CURB & GUTTER ENDINGS

CURB AND GUTTER JOINTS AND ENDINGS, CONCRETE BUMPER GUARD, AND ASPHALTIC CONCRETE CURB

GENERAL NOTES:

1. Cross Slopes and Grades:

A. Sidewalk, ramp, and landing slopes (i.e. 0.02, 0.05, and 1:12) shown in this Index are maximums. With approval of the Engineer, provide the minimum feasible slope where the requirements cannot be met.

B. Landings must have cross-slopes less than or equal to 0.02 in any direction.

C. Maintain a single longitudinal slope along each side of the curb ramp. Ramp slopes are not required to exceed 15 feet in length.

D. Joints permitted at the location of Slope Breaks. Otherwise locate joints in accordance with Index 522-001. No joints are permitted within the ramp portion of the Curb Ramp.

2. Curb, Curb and Gutter and/or Sidewalk:

A. Refer to Index 522-001 for concrete thickness and sidewalk details.

B. Remove any existing curb, curb and gutter, or sidewalk to the nearest joint beyond the curb transition or to the extent that no remaining section is less than 5 feet long.

C. Width of Curb Ramp is 4'-0" minimum. Match sidewalk or Shared Use Path width as shown in the Plans.

3. Curb Ramp Alpha-Identification:

A. Sidewalk curb ramp alpha-identifications (e.g. CR-A) are provided for reference purposes in the Plans.

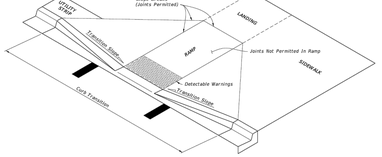
B. Alpha-identifications CR-I and CR-J are intentionally omitted.

4. Detectable Warnings:

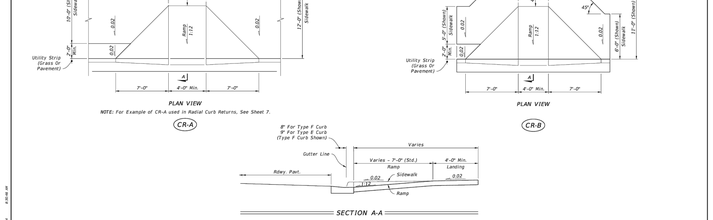
A. Install detectable warnings in accordance with Specification 527.

B. Place detectable warnings across the full width of the ramp or landing, to a minimum depth of 2 feet measured perpendicular to the curb line and no greater than 5 feet from the back of the curb or edge of pavement.

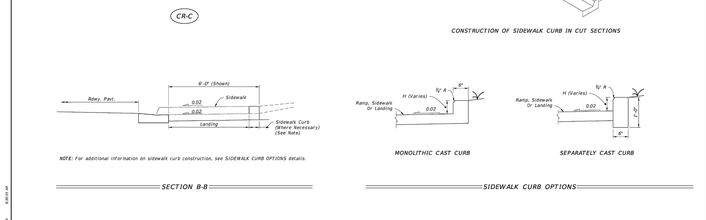
C. If detectable warnings are shown in the Plans on slopes greater than 5%, align the truncated domes with the centerline of the ramp, otherwise, the truncated domes are not required to be aligned.



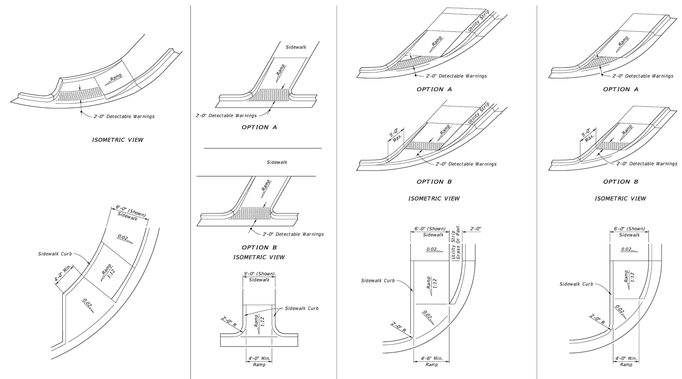
CURB RAMP NOMENCLATURE



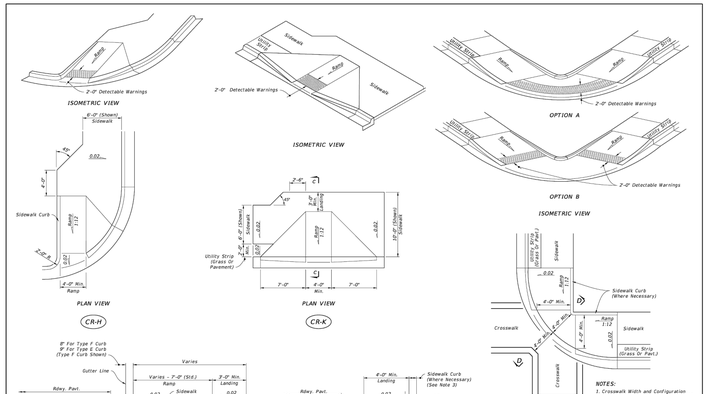
SIDEWALK CURB RAMPS CR-A AND CR-B



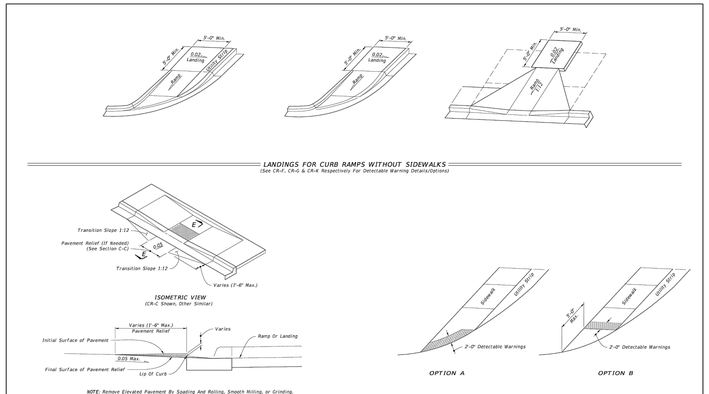
SIDEWALK CURB RAMPS CR-C AND SIDEWALK CURB



SIDEWALK CURB RAMPS CR-D, CR-E, CR-F & CR-G



SIDEWALK CURB RAMPS CR-H, CR-K & CR-L



CURB RAMPS WITHOUT SIDEWALKS AND FLUSH SHOULDER SIDEWALKS

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
7 CITY COMMENTS	02/25/26
8 SJRWMD COMMENTS	12/16/25
9 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

FDOT DETAILS

PROJECT NO.

11748

DRAWING NO.

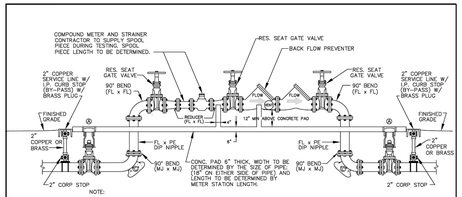
11748_400_041

SHEET

41 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_038-041.dwg April 13, 2026 4:52:49 PM fc

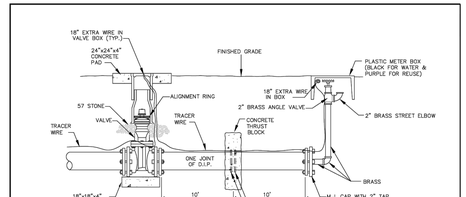
SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

3 INCH AND LARGER METER WITH BACKFLOW PREVENTER ABOVE GROUND INSTALLATION

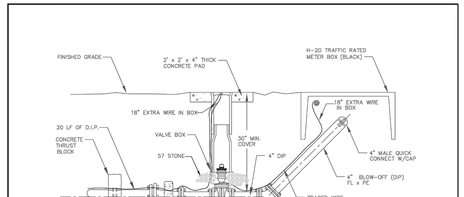
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: 3 IN AND LARGER METER WITH BACKFLOW.dwg	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

BLOW-OFF DETAIL 1

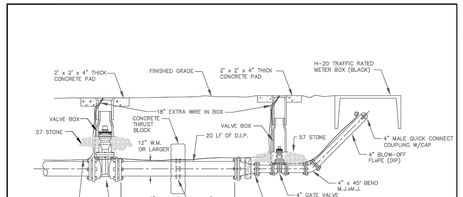
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 3
ACAD NAME: BLOW OFF DETAIL 1	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

BLOW-OFF DETAIL 2

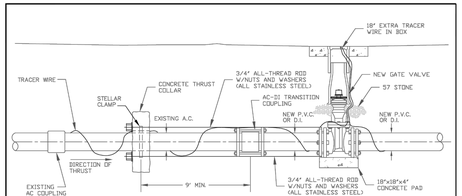
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 2 OF 3
ACAD NAME: BLOW OFF DETAIL 2	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

BLOW-OFF DETAIL 3

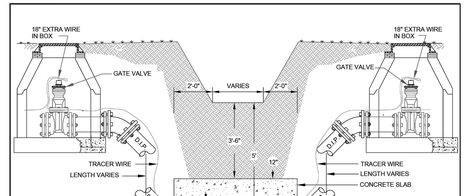
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 3 OF 3
ACAD NAME: BLOW OFF DETAIL 3	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

A.C. PIPE TIE-IN

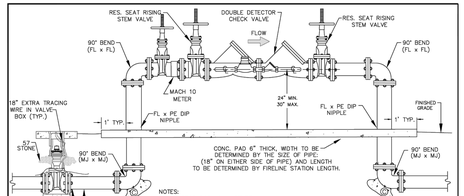
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: A.C. PIPE TIE IN	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

CANAL OR DRAINAGE DITCH CROSSING

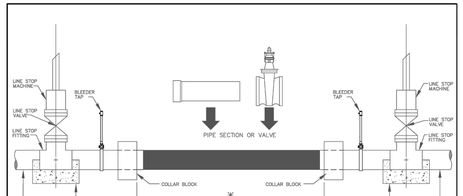
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: CANAL OR DRAINAGE DITCH CROSSING	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

DOUBLE CHECK DETECTOR METERED FIRELINE

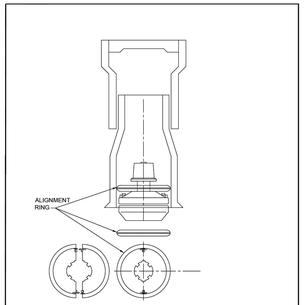
DRAWN BY: TW	SCALE: NOT TO SCALE
CHECKED BY: D. VELOZA	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: DOUBLE CHECK DETECTION ASSEMBLY 3 VALVES	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

DOUBLE LINE STOP DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: DOUBLE LINE STOP DETAIL	

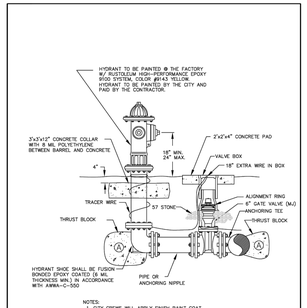


NOTES:
1. FOR ALL VALVES REGARDLESS OF SIZE AND DEPTH.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

ALIGNMENT RING

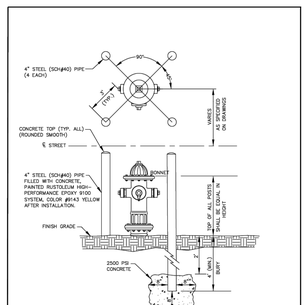
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: ALIGNMENT RING	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

FIRE HYDRANT DETAIL

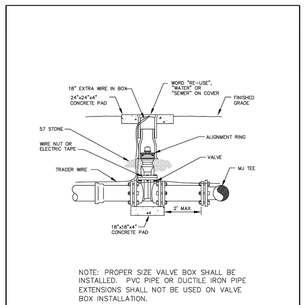
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: FIRE HYDRANT DETAIL	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

FIRE HYDRANT GUARD POSTS

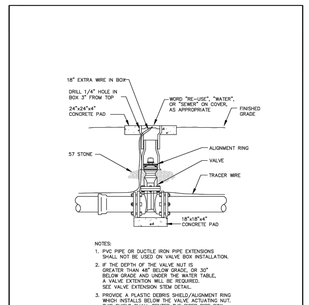
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: FIRE HYDRANT GUARD POSTS	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

GATE VALVE AND FITTING DETAIL

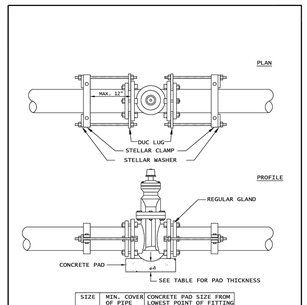
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: GATE VALVE & FITTING DETAIL	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

GATE VALVE AND VALVE BOX DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: GATE VALVE & VALVE BOX DETAIL	



SIZE	MIN. COVER OF PIPE	CONCRETE PAD SIZE FROM LOWEST POINT OF FITTING
4"	24"	16"x16"x6"
6"	26"	18"x18"x6"
8"	30"	20"x20"x6"
*10"	36"	24"x24"x8"
*12"	40"	30"x30"x8"

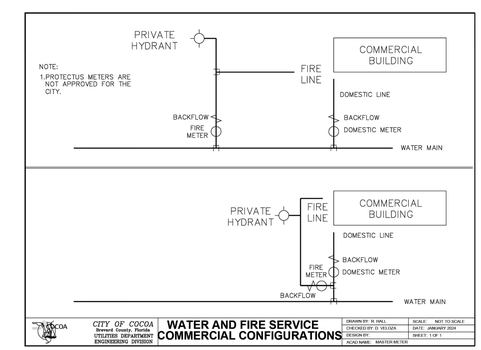
* NOTE: 10" AND 12" REQUIRE TWO CLAMPS AND FOUR RODS PER SIDE.

VALVES INSTALLED PER MANUFACTURER'S RECOMMENDATION ON DIP AND PVC.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

VALVE INSERT FOR A.C. PIPE

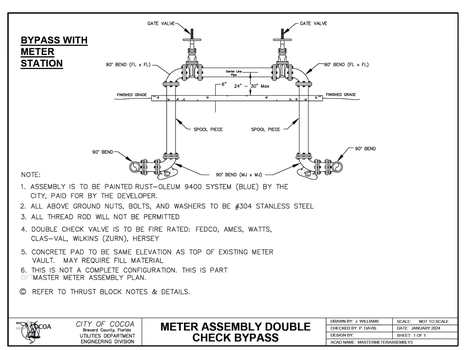
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: VALVE INSERT	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

WATER AND FIRE SERVICE COMMERCIAL CONFIGURATIONS

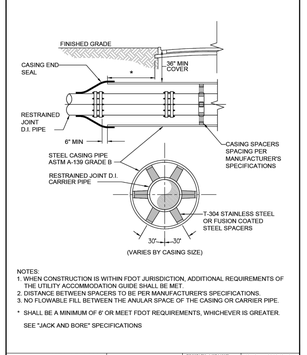
DRAWN BY: R. HALL	SCALE: NOT TO SCALE
CHECKED BY: D. VELOZA	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: MASTER METER	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

METER ASSEMBLY DOUBLE CHECK BYPASS

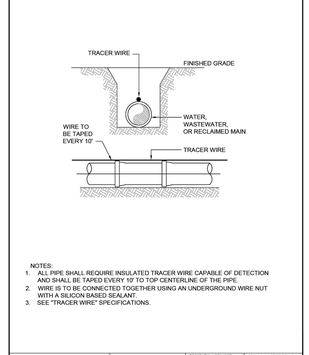
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: MASTERMETERASSEMBLY3	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

JACK AND BORE

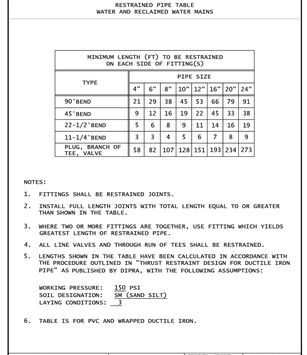
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: JACK AND BORE	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

TRACER WIRE DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TRACER WIRE DETAIL	



RESTRAINED PIPE TABLE
WATER AND RECLAIMED WATER MAINS

TYPE	MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S) PIPE SIZE							
	4"	6"	8"	10"	12"	16"	20"	24"
90°BEND	21	29	38	45	53	66	79	91
45°BEND	9	12	16	19	22	45	33	38
22-1/2°BEND	5	6	8	9	11	14	16	19
11-1/4°BEND	3	3	4	5	6	7	8	9
PLUG, BRANCH OF TEE, VALVE	58	82	107	128	151	193	234	273

NOTES:
1. FITTINGS SHALL BE RESTRAINED JOINTS.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. ALL LINE VALVES AND THROUGH RUN OF TEES SHALL BE RESTRAINED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:
   WORKING PRESSURE: 150 PSI
   SOIL DESIGNATION: SM (SAND SILT)
   LAYING CONDITIONS: 3
6. TABLE IS FOR PVC AND WRAPPED DUCTILE IRON.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

RESTRAINED PIPE TABLE WATER & RECLAIMED WATER MAINS

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: RESTRAINED PIPE TABLE WATER AND RECLAIMED	

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
3 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

CITY OF COCOA WATER DETAILS

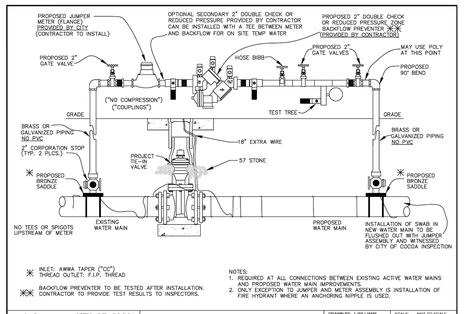
PROJECT NO. 11748

DRAWING NO. 11748_400_042

SHEET 42 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_042.dwg April 13, 2026 4:45:18 PM llc

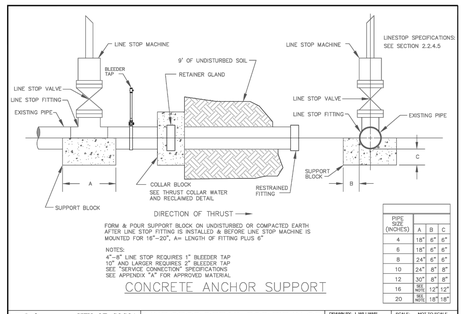
SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

JUMPER METER ASSEMBLY

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: JUMPER METER ASSEMBLY	

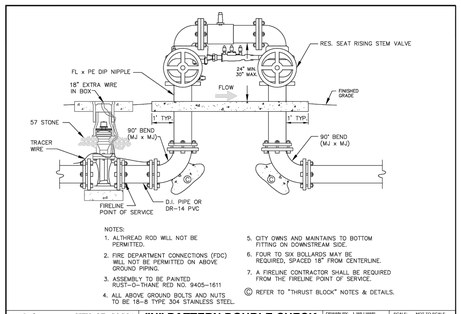


PIPE SIZE (INCHES)	A	B	C
4	18"	6"	6"
6	18"	6"	6"
8	24"	6"	6"
10	24"	6"	8"
12	30"	8"	8"
16	36" MIN	12"	12"
20	36" MIN	18"	18"

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

LINE STOP DETAIL FOR TIE IN OR CAPPING EXISTING WATER MAIN

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: LINE STOP DETAIL FOR TIE IN OR CAPPING EXISTING WATER MAIN	



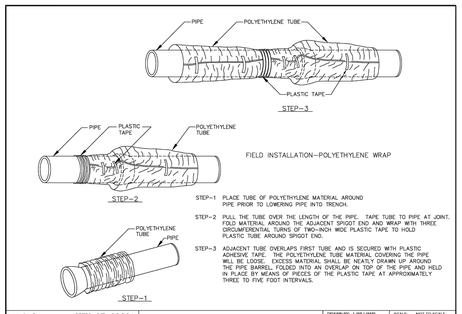
NOTES:
1. ALTHREAD ROD WILL NOT BE PERMITTED.
2. FIRE DEPARTMENT CONNECTIONS (FDC) WILL NOT BE PERMITTED ON ABOVE GROUND PIPING.
3. ASSEMBLY TO BE PAINTED RUST-O-THANE RED NO. 9405–1611
4. ALL ABOVE GROUND BOLTS AND NUTS TO BE 18–8 TYPE 304 STAINLESS STEEL.
5. CITY OWNS AND MAINTAINS TO BOTTOM FITTING ON DOWNSTREAM SIDE.
6. FOUR TO SIX BOLLARDS MAY BE REQUIRED, SPACED 18" FROM CENTERLINE.
7. A FIRELINE CONTRACTOR SHALL BE REQUIRED FROM THE FIRELINE POINT OF SERVICE.

Ⓒ REFER TO "THRUST BLOCK" NOTES & DETAILS.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

"N" PATTERN DOUBLE CHECK DETECTOR ASSEMBLY

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: N PATTERN DOUBLE CHECK DETECTOR ASSEMBLY	



STEP–1 PLACE TUBE OF POLYETHYLENE MATERIAL AROUND PIPE PRIOR TO LOWERING PIPE INTO TRENCH.

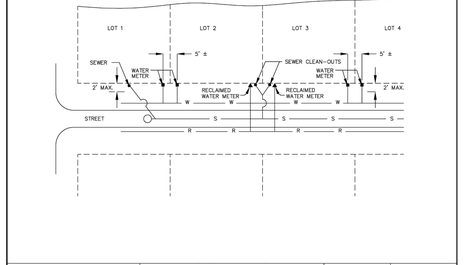
STEP–2 PULL THE TUBE OVER THE LENGTH OF THE PIPE. TAPE TUBE TO PIPE AT JOINT. FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH THREE CIRCUMFERENTIAL TURNS OF TWO–INCH WIDE PLASTIC TAPE TO HOLD PLASTIC TUBE AROUND SPIGOT END.

STEP–3 ADJACENT TUBE OVERLAPS FIRST TUBE AND IS SECURED WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE WILL BE LOOSE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED INTO AN OVERLAP ON TOP OF THE PIPE AND HELD IN PLACE BY MEANS OF PIECES OF THE PLASTIC TAPE AT APPROXIMATELY THREE TO FIVE FOOT INTERVALS.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

POLYETHYLENE WRAP

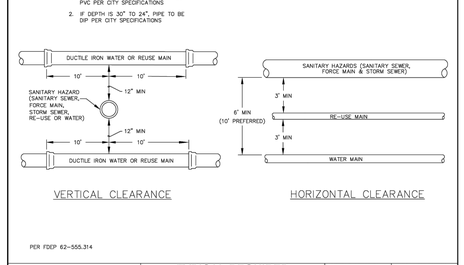
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: POLY WRAP	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

SOLID SLEEVE DETAIL

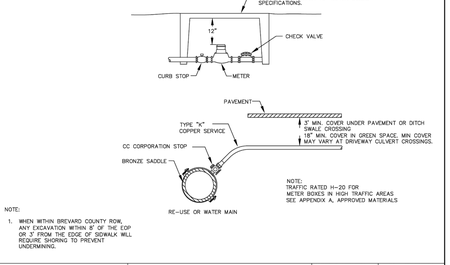
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: SOLID SLEEVE DETAIL	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

STORM DRAIN CROSSING

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: STORM DRAIN CROSSING	

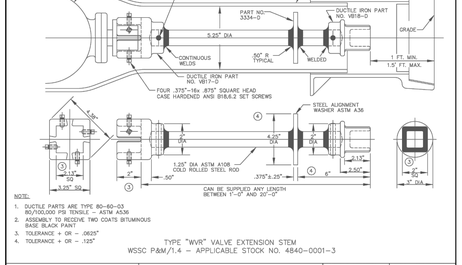


NOTES:
1. MAIN SHALL BE A CONTINUOUS LENGTH OF D.I. PIPE TO EXTEND 2 FEET MINIMUM EITHER SIDE OF THE DRAINAGE SWALE.
2. IF 1 OR MORE JOINTS OF PIPE IS REQUIRED, JOINT MUST BE RESTRAINED.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

SWALE CROSSING

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: SWALE CROSSING	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

TAPPING SADDLE AND VALVE

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TAPPING SADDLE AND VALVE	

THRUST BLOCK NOTES

1.) WRAP ALL FITTINGS WITH POLYETHYLENE FILM BEFORE POURING THRUST BLOCK, MAKING CERTAIN TO KEEP CONCRETE AWAY FROM ALL BOLTS, GLANDS, AND FLANGES.

2.) THRUST BLOCKS TO BE POURED AGAINST UNDISTURBED EARTH.

3.) REQUIRED VOLUMES OF BEARING AREAS TO BE AS SHOWN IN CHART. ADJUSTMENTS, IF NEEDED, WILL BE ALLOWED TO CONFORM TO TEST PRESSURE AND ALLOWABLE SOIL BEARING STRESS AS SHOWN IN SPECIFICATIONS.

4.) BEARING AREA FOR TRANSIT BLOCKS ON HORIZONTAL BENDS IS BASED ON A TEST PRESSURE OF 150 P.S.I. AND SOIL BEARING STRESS OF 2,000 P.S.F., THE DEPTH TO THE THRUST BLOCK BASE TO BE EQUAL TO OR GREATER THAN TWICE THE HEIGHT. (EXAMPLE: IF BLOCK IS 2' THICK, THE BASE IS TO BE NO GREATER THAN 4' BELOW GRADE.)

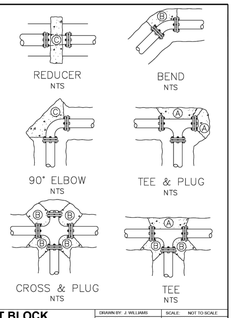
5.) VERTICAL BEND THRUST BLOCKS TO BE THE SAME AS HORIZONTAL BENDS.

6.) BEARING AREA OF THRUST BLOCK TO BE NOT LESS THAN ONE SQUARE FOOT.

MINIMUM BEARING AREA (SQ. FT.)

LETTER	PIPE SIZE 4"	6"	8"	10"	12"	16"	20"
A	1–1/2	2–3/4	5	7–1/4	10–1/4	18	27–1/2
B(22–1/2)	3/4	1	2	3	4	7	11
B (45°)	1	2–1/4	5–3/4	5–1/2	8	13–3/4	21
C	2	4	7	11–1/4	14–1/2	25–1/4	59

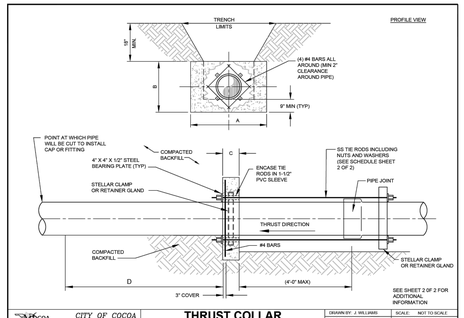
THE FIGURES IN THIS TABLE REPRESENT AREA OF CONCRETE BLOCKING AGAINST THE VERTICAL TRENCH WALL OF UNDISTURBED EARTH IN SQUARE FEET AT 2000 P.S.F. SOIL BEARING CAPACITY.



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

THRUST BLOCK NOTES & DETAILS

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: THRUST BLOCK NOTES & DETAILS	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

THRUST COLLAR WATER AND RECLAIMED

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 2
ACAD NAME: THRUST COLLAR WATER AND RECLAIMED 1 OF 2	

SCHEDULE OF DIMENSIONS AND MATERIALS

PIPE SIZE (INCHES)	DIMENSIONS (FT.) A	B	C	D	TIE RODS REQ'D DIA. (in.)	NO.
4	2.0	2.0	1.0	2.0	3/4	2
6	2.0	2.0	1.0	4.0	3/4	2
8	3.0	3.0	1.0	5.0	3/4	2
10	4.0	3.0	1.0	8.0	3/4	4
12	5.0	3.0	1.0	10.0	3/4	4
16	*	*	*	*	*	*
20	*	*	*	*	*	*
24	*	*	*	*	*	*

NOTE: THRUST COLLAR AREAS TO BE COMPUTED ON BASIS OF 2000 LBS/SF SOIL RESTRAINT BEARING. SOIL DENSITY ASSUMED 120 PCF. SOIL COHESION 20'.

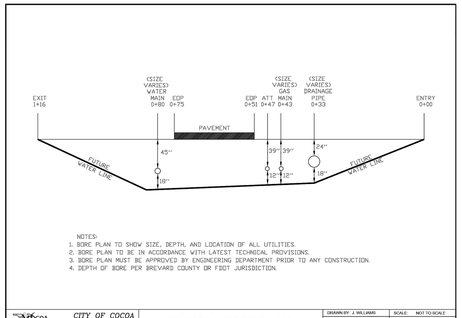
NOTES:
1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
3. BEDDING, BACKFILL AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE: 150 PSI.
7. TIE RODS TO BE 3/4" SS 18-8 TYPE 304.

* TO BE DESIGNED BY ENGINEER OF RECORD.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

THRUST COLLAR WATER AND RECLAIMED

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 2 OF 2
ACAD NAME: THRUST COLLAR WATER AND RECLAIMED 2 OF 2	



NOTES:
1. BORE PLAN TO SHOW SIZE, DEPTH, AND LOCATION OF ALL UTILITIES.
2. BORE PLAN TO BE IN ACCORDANCE WITH LATEST TECHNICAL PROVISIONS.
3. BORE PLAN MUST BE APPROVED BY ENGINEERING DEPARTMENT PRIOR TO ANY CONSTRUCTION.
4. DEPTH OF BORE PER BREVARD COUNTY OR FDOT JURISDICTION.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

TYPICAL BORE PLAN

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TYPICAL BORE PLAN	

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

TYPICAL LOT SERVICE LINE LOCATION

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TYPICAL LOT SERVICE LINE LOCATION	

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

TYPICAL REQUIRED SEPARATION

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TYPICAL REQUIRED SEPARATION	

NOTE:
1. WHEN WITHIN BREVARD COUNTY ROW, ANY EXCAVATION WITHIN 8' OF THE EOP OR 3' FROM THE EDGE OF SIDEWALK WILL REQUIRE SHORING TO PREVENT UNDERMINING.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

TYPICAL 3/4"- 2" SERVICE LINE

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TYPICAL SERVICE LINE	

NOTE:
1. DUCTILE PARTS ARE TYPE 80–60–03. 80,000 PSI TENSILE – ASTM A536
2. ASSEMBLY TO RECEIVE TWO COATS BITUMINOUS BASE BLACK PAINT.
3. TOLERANCE + OR – .0625"
4. TOLERANCE + OR – .125"

TYPE "WVR" VALVE EXTENSION STEM
WSSC P&M/1.4 – APPLICABLE STOCK NO. 4840–0001–3

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

VALVE EXTENSION STEM FOR W.S.S.C. VALVE BOXES

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: VALVE EXTENSION STEM	

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
7 CITY COMMENTS	02/25/26
8 SJRWMD COMMENTS	12/16/25
9 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

CITY OF COCOA WATER DETAILS

PROJECT NO.
11748

DRAWING NO.
11748_400_043

SHEET
43 of 58

I:\Projects Folder\11748\Drawings\11748_400\11748_400_043.dwg April 13, 2026 4:44:03 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

SECTION 1. GENERAL INFORMATION

1.1 GENERAL

These Technical Provisions and Standard Details identifies design, installation, inspection, and acceptance specifications to be used for water, wastewater, and reclaimed water systems that will be maintained and operated by the City of Cocoa. All potable water, wastewater, and reclaimed water mains and appurtenances must be installed in accordance with this Manual, the City of Cocoa Cross Connection Control Program Manual, the City of Cocoa Utilities Handbook, and the approved plans.

Contractor requirements include:

- Furnishing all labor, materials, tools and equipment necessary or incidental to the construction.
- Obtaining and paying for all permits, inspections, and other official fees in connection with the work.
- Arranging a pre-construction conference with the Engineering Inspection Division. **All fees must be paid prior to the pre-construction meeting.** It is required that the pre-construction meeting be held prior to ordering materials.
- Scheduling materials inspection (24-hour notice), open ditch inspection, pressure/leakage test, and final inspection.
- Provide all documents per the project requirement letter, including but not limited to As Built Drawings, Bills of Sale, Easements, etc.
- Make certain that no public water/wastewater lines are placed on private property.

Technical information provided by the City shall be used for informational purposes only. The Contractor and Engineer of Record are responsible for verifying field conditions.

Any deviation from these requirements must be approved in writing by the Utilities Director or his designee prior to commencement of construction.

Fees charged by the City are set by City Council by resolution and are listed on the appendix "Water Service Rates and Charges" made a part of the Utilities Handbook. Fees are subject to change without notice. The most current fees will be charged.

The Utilities Department and Engineering Division are located at 351 Shearer Blvd., Cocoa, Florida, 32922. The telephone number is (321) 433-8701; facsimile number is (321) 433-8708.

1.2 DEFINITIONS

The term "**approved equal**" is used to mean a part or item that has been approved in writing by the Technical Provision and Standard Details Advisory Committee or the Utilities Director. A written request must be made in order to have an item accepted as an approved equal. Written specifications on the part or item must be furnished with the request.

Approved Tapping/Linestop Contractor - A Contractor who has been approved by the Engineering Division to perform taps or linestops within the Cocoa Water System. A current list is maintained and available through the Engineering Division.

Backflow Preventer Assembly - A backflow preventer assembly, also called a cross connection control (CCC) device, is a mechanical or non-mechanical device used to prevent the flow of water from a non-potable source to the potable water distribution system. Approved backflow preventers are testable assemblies composed of two independently acting, approved check valves, including tightly closing resilient seated shutoff valves attached at each end of the assembly, and fitted with properly located resilient seated test cocks.

Canal - A trench, the bottom of which is normally covered by water, with the upper edges of its two sides normally above water.

City - Means the City of Cocoa.

Collection Mains - Wastewater gravity mains.

Competent Person - A person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Distribution Main - Any water main 12" and smaller.

Domestic - Means made or manufactured in the USA.

Drainage Ditch or Irrigation Ditch - A man-made trench which is dug for the purpose of draining water from the land or for transporting water for use on the land and which is not built for navigational purposes.

Force Main - Wastewater main under pressure.

Manual - City of Cocoa Utilities Technical Specification and Standard Details Manual

Normal Working Day - Monday through Friday, excluding CITY holidays.

Normal Working Hours - Hours are between the hours of 8:00 a.m. to 5:00 p.m. of a NORMAL WORKING DAY.

Passivated - Treated or coated metal to reduce the chemical reactivity of its surface.

Stainless Steel - A steel alloy with a minimum of 10.5% to 11% chromium.

Substantial Completion - The point when the construction project has been finished to the point that the City of Cocoa can use the project for the purpose it was intended.

Swale - A manmade trench which:

A. Has a top width-to-depth ratio of the cross-section equal to or greater than 6:1, or side slopes equal to or greater than 3' horizontal to 1' vertical;

B. Contains contiguous areas of standing or flowing water only following a rainfall event;

C. Is planted with or has stabilized vegetation suitable for soil stabilization, stormwater treatment, and nutrient uptake;

D. Is designed to take into account the soil erodibility, soil percolation, slope, slope length, and drainage area to prevent erosion and reduce pollutant concentration of any discharge.

Technical Provision and Standard Details Committee - Committee whose members shall consist of the manager, or their designee, of the following UTILITIES staff: Engineering, Inspections, Water Field Operations, and Sewer Field Operations. The committee evaluates and proposes revisions for the design standards, specifications, drawings, products and procedures for the Manual.

Transmission Main - Any water main 16" and larger. 14" pipelines are not acceptable.

Utilities - Utilities Department of the City of Cocoa, Cocoa, Florida, and/or its designated representative(s).

Utilities Handbook - The City of Cocoa Utilities Handbook produced by the Customer Service Division of the Finance Department.

Whenever a specification from a specific source is cited, the most current revision of that specification will be used. **The word "shall" is mandatory, and the word "may" is permissive.**

Unless otherwise specified, "**City**" means City of Cocoa; "**Utilities Department**" means City of Cocoa Utilities Department; "**Engineering Division**" means City of Cocoa Utilities Engineering Division, **"Inspections or Inspector"** means City of Cocoa Utilities Engineering Inspections Division.

1.3 ABBREVIATIONS

Ampere - A
American Association of State Highway and Transportation Officials - AASHTO
Asbestos Cement - AC
Association of PVC Pipe Manufacturers - Uni-Bell
American National Standards Institute - ANSI
American Society of Civil Engineers - ASCE
American Society of Mechanical Engineers - ASME
American Society for Testing and Materials - ASTM
American Water Works Association - AWWA
American Water Works Association Tapered Thread - CC
American Society of Sanitary Engineers - ASSE
Automatic Transfer Switch - ATS
City of Cocoa - CoC
Copper Clad Steel - CCS
Copper Development Association - CDA
Cross Connection Control - CCC
Dimension Ratio - DR
Double Check Backflow Assembly - DC
Double Check Detector Assemblies - DCDA
Dry Film Thickness - DFT
Ductile Iron Pipe Research Association - DIPRA
Ductile Iron Pipe - DIP
Engineer of Record - EOR
Florida Administrative Code - FAC
Florida Department of Environmental Protection - FDEP
Florida Department of Transportation - FDOT
Florida East Coast Rail Road - FECRR
Foundation for Cross-Connection Control and Hydraulic Research - FCCCHR Flange - FL
Factory Mutual - FM
Ground Fault Circuit Interceptor - GFC
High-Density Polyethylene - HDPE
High-Strength - HS
Horizontal Directional Drilling - HDD
Jack and Bore - J&B
Kilovolt-Ampere - kVA
Maintenance of Traffic - MOT
Manual on Uniform Traffic Control Devices - MUTCD
National Association of Corrosion Engineers - NACE
National Fire Protection Association - NFPA
National Sanitation Foundation - NSF
National Standard Thread - NST
Non-rising stem - NRS
Original Equipment Manufacturer - OEM
Outside Screw and Yoke - OS&Y
National Pollution Discharge Elimination System - NPDES
Plain End - PE
Polyvinylchloride - PVC
Precautionary Boil Water Notice - PBWN
Portable Changeable Message Signs - PCMS
Pre-stressed Concrete Cylinder Pressure Pipe - PCCP
Project Manager - PM
Pounds per Square Inch - PSI
Raised Pavement Marker - RPM
Reduced Pressure Backflow Assembly - RP
Reduced Pressure Detector Assembly - RPDA
Reduced Pressure Zone - RPZ
Reinforced Concrete Pressure Pipe - RCP
Society of Cable and Telecommunications Engineers - SCTE
Stainless Steel - SS
Tamper-Proof - TP
Technical Provision and Standard Details - TPSD
Traffic Control Plan - TCP
Underwriters Laboratories - UL
Unified Numbering System - UNS
Variable Frequency Drive - VFD
Volts Alternating Current - VAC
Weather-Proof - WP

SECTION 2. WATER - POTABLE AND RECLAIMED

2.1 WATER MAIN CROSSINGS

2.1.1 GENERAL

In all cases where sanitary gravity or force mains cross water mains the crossing shall meet the vertical and horizontal separation requirements of FAC Rule 62-555.314. When separation requirements cannot be met, the Engineer of Record (EOR) must propose an alternative solution that meets the requirements of FAC 62-555.314 for approval by the Engineering Division. The water main should cross above the sanitary main. When the water main must cross below the sanitary main, the minimum separation shall be 12".

2.2 MATERIALS SPECIFICATIONS

2.2.1 PIPE

2.2.1.1 Polyvinyl Chloride Pressure Pipe, 4" - 12" (Potable Water)

Polyvinyl chloride pressure pipe (sizes 4" through 12") with cast iron pipe outside diameter (CIOD) and Class 235 (DR 18) conforming to the American Water Works Association's (AWWA) specification C900 and will be blue or white in color. Pipe will be in standard 20'-lengths. All joints will be of the elastomeric-gasket type with thickened, integral solid-wall bell or coupling with the same DR as the barrel. All PVC pipe and couplings will bear the UL label and NSF approval for potable water.

2.2.1.2 Fusible Polyvinyl Chloride Pipe, 4" - 12" (Potable Water)

Fusible polyvinyl chloride pipe (size 4" through 12") with cast iron pipe outside diameter (CIOD) and a pressure rating of 235 psi (DR 18) conforming to AWWA specification C900 and will be blue or white in color. Fusible PVC pipe shall be supplied by Underground Solutions, Inc. It shall be installed in accordance with the suppliers' specifications. All PVC pipe will bear the UL label and NSF approval for potable water.

2.2.1.3 Ductile Iron Pipe (Potable Water)

Ductile iron pipe will be cement-lined pressure Class 350 for 12"-diameter and smaller and Class 250 for 16" and larger conforming to AWWA specification C151. Water main and storm drain crossing conflicts will be properly designed by the project engineer and approved by the Utilities Department prior to installation. Water mains that are less than 10' apart from building foundations or other permanent objects will be ductile iron pipe. In no case will water mains be located less than 5' from foundations. The above distances will be doubled for water mains larger than 8" in diameter. Polyethylene sleeve conforming to AWWA specification C105 will be provided for all installations. The polyethylene sleeve will be sealed with tape and shall be blue for water mains.

2.2.1.4 High Density Polyethylene (HDPE) Pipe (Potable Water)

HDPE pipe is generally not accepted in the City of Cocoa water system, except as a carrier pipe for a pressurized utility main.

2.2.1.5 Reclaimed Water

PVC pipe installed in reclaimed water systems will be Class 235 (DR 18) conforming to AWWA specification C900 and will be purple in color. Ductile iron pipe installed in the reclaimed water system will be pressure Class 350 for 12" and smaller and pressure Class 250 for 16" and larger, provided 3' of cover can be maintained. Where cover is less than 3', pressure Class 350 is required. Polyethylene sleeve conforming to AWWA specification C105 will be provided for all installations. The polyethylene sleeve will be sealed with tape and shall be purple for reclaimed water mains.

2.2.2 VALVES, VALVE BOXES, AND VALVE EXTENSIONS

2.2.2.1 Resilient Seat Gate Valves, 4" - 36"

Resilient seat gate valves will have mechanical joint ends as manufactured by **American Flow Control; AVK; M&H; U.S. Pipe; Clow; Mueller** or an approved equal. The resilient seat gate valves must conform to AWWA specification C509 or C515 and be manufactured in the U.S.A. Resilient seats will be of natural or synthetic rubber and be fully encapsulated to gate. Valves will have 18- 8 Type 304 stainless steel bolts and nuts. The interior and exterior of the valve body will be fusion- bonded epoxy coated in accordance with AWWA specification C550 in order to provide a corrosion-resistant seat. The coating must be applied in a manner to withstand the action of line fluids and operation of the sealing gate under long-term service. Valve seats must seal by compression only. Wedging or sliding of the resilient seat is not acceptable. Valves will be supplied with 2"-square operating nuts and be designed to provide a bubble tight seal regardless of direction of flow. Opening the valve will be in the counterclockwise direction. Valves 16" and larger will have Bevel Gear Operators. For gate valves 16" and larger to be stood up straight, the 2" operating nut must have 12" of cover. EOR or Contractor must demonstrate the 12" of cover over the 2" operating nut can be achieved by showing all pertinent dimensions. Tapping valves shall have a centering ring.

2.2.2.2 Butterfly Valves, 16" and Larger

Butterfly valves shall be used for above ground service. Butterfly valves shall have flanged ends, be rubber seated, 90° tight closing type, short body. The interior and exterior will be fusion- bonded epoxy coated in accordance with AWWA specification C550. The valve shaft will be of Grade 316 stainless steel. Body dimensions and minimum shaft diameter will be in accordance with Tables 1 and 3 of AWWA specification C504. The valve seat will be of molded natural or synthetic rubber, will be mechanically secured to the disc or to the valve body, and will mate against a stainless-steel seat surface. The gear ratio will be such as to require not more than 50- foot pounds of input torque to operate the valve against the worst case of a water flow velocity of 10 feet per second at a pressure of 100 psi differential. A torque-limiting device will be supplied if the allowable operator input is less than 450-foot pounds. Butterfly valves will have a factory installed hand wheel. The valve will open when the operator nut is turned counterclockwise. **Butterfly valves will not be used for buried service.**

2.2.2.3 Valves, 2"

2" valves for use with the 2" blow-off gate valve will be rated at 125 SWP or 200 WOG. All 2" gate valves must meet all EPA and FDEP requirements regarding lead and zinc contents. Brass fittings and 2" brass wheel valves are shall be used on blow-offs. All valves must be manufactured in the U.S.A.

2.2.2.4 Valve Boxes

Valve boxes and lids must be manufactured in the U.S.A. Boxes and lids must be structurally equal to those produced by **East Jordan Iron Works** or **Tyler** and must have 5-1/4" minimum inside diameter. Cast iron valve boxes will consist of a circular cast iron top and bottom section. The depth must be determined, and the appropriate valve box must be installed. No PVC or Ductile is permitted in the valve box. Boxes must be set flush with finished ground surface in such a manner as to permit easy use of a valve wrench and to prevent surface loads from being transmitted to the valve or pipe. Box sections must be telescopic and adjustable. Valve box lids should have the word "WATER" or "SEWER" or "REUSE", as appropriate, cast on the top. A concrete pad (24" L x 24" W x 4" D) will be poured around all boxes at finished grade level unless the valve is located in a paved roadway or parking lot. A Valve identification plate engraved to indicate the type, size, and number of turns will be securely anchored to the concrete pad. Valve identification plates for valves 12" and larger will also indicate the torque necessary for actuation.

2.2.2.5 Valve Extensions

If the depth of the valve nut is greater than 48" below grade, or 30" below grade and under the water table, a valve extension stem will be required. The extension will have a centering collar and will be mechanically attached to the valve operating nut, such as extensions manufactured by the **General Engineering Company, Model #4840-0001-3**, or an approved equal to be determined by the Engineering Supervisor or his/her designee.

2.2.2.6 Valve Box Debris Shield

All buried valves 4" through 12" requiring a valve box shall be furnished with a valve box shield (alignment device). The device shall minimize debris infiltration and center the valve box over the operating nut. The device shall be of HDPE or plastic and colored white or black. It shall be furnished in two pieces that will lock together under the operating nut without requiring the removal of the operating nut. The device shall not affect the operation of the valve. No one- piece device will be accepted. The device shall be **Box Lok**, **American** or approved equal.

2.2.2.7 Insert Valve Specification

The Insert Valve shall conform to the following:

The Ductile Iron 250 psig Insert Valve shall be a Resilient Wedge Gate Valve designed for use in potable water, raw water, reclaimed water, wastewater and backflow control systems. The host pipe shall not be a permanent component of the Insert Valve. The ductile iron body, bonnet, and wedge provide strength and a pressure rating that meets or exceeds the requirements of AWWA C515. Insert Valve shall be ductile iron construction meeting ASTM A536 Grade 65-45-12. Sizes 12" and smaller must be capable of working on Cast/Grey Iron or Ductile Iron Class A, B, C and D, IPS PVC, C900 and C909 PVC, Steel, AC pipe diameters without changing either top or bottom portion of split valve body. The Insert Valve shall have a 250 psig maximum working pressure. The pressure rating markings must be cast into the body of the insert valve. The construction of the Resilient Wedge shall comply with AWWA C509 requirements. The ductile iron wedge shall be fully encapsulated with EPDM rubber by a high pressure and high temperature compression or injection mold process. The resilient wedge shall seat on the valve body and not the pipe to obtain the optimum seating and flow control results. The resilient wedge shall be totally independent of the carrier pipe. The resilient wedge shall not come into contact with the carrier pipe or depend on the carrier pipe to create a seal. The resilient wedge must ride inside the body channels to maintain wedge alignment throughout its travel. The insert valve is fully epoxy coated on the interior and the exterior. Valve shall be coated with a minimum of 10 mils epoxy in compliance with AWWA C550 and certified to ANSI/NSF-61. The stuffing box, operating stem and resilient wedge (complete bonnet and all moving parts) shall be removable, repairable and or replaceable under pressure.

See "Appendix A" Approved Materials for approved Insert Gate Valves.

2.2.3 BACKFLOW PREVENTERS

2.2.3.1 General

All connections to the City of Cocoa potable water system shall contain a backflow preventer assembly as required in the "City of Cocoa Cross Connection Control Program Manual". Backflow preventer assemblies shall be in accordance with AWWA specification C510, ASSE 1048, UL 1469, and as listed in "Appendix A" of this document. All backflow preventers shall be installed per Standard Details in "Appendix B". Backflow preventers on fire line and commercial services shall have test certifications submitted and approved prior to final inspection.

Commercial Services: Cross connection control device required for commercial service, including multi-family residences, shall be a reduced pressure (RP) backflow preventer unless otherwise approved by the Engineering Division. Backflow preventers will have interior fusion bonded epoxy coating 5 to 12 mils and will be installed above grade in accordance with manufacturer's recommendations on a concrete slab adjacent to the meter. Check valves must have bronze seats.

Residential Services: Cross connection control device required for residential service shall be a dual check backflow preventer.

Construction Sites: Cross connection control device required for temporary construction jumpers shall be a double check backflow preventer. The Contractor shall provide test certifications on the jumper backflow preventer before the jumper is placed into service.

2.2.3.2 Fire Services

Cross connection control devices for fire line systems shall be double check detector assemblies (DCDA) or reduced pressure detector assemblies (RPDA). DCDA and RPDA shall meet the requirements of the Florida Building Code and must be supplied with a ¾" or larger bypass assembly. DCDA will be accepted as a complete approved assembly in accordance with the section on "Backflow Prevention and Cross-Connection Control" in the Utilities Handbook. The Engineering Division will inspect the interior of the DCDA prior to installation. DCDA must be installed horizontally above ground in a grassed or non-traffic area. The DCDA will be installed with 24" minimum and 30" maximum clearance from finished grade. "N" shaped DCDA will be accepted on a case-by-case basis. Fire lines requiring a Reduced Pressure Zone (RPZ) will be handled on a case-by-case base. The Engineering Division shall paint the DCDA, to be paid for by the Developer/Contractor. All new fire lines constructed are required to be metered.

2.2.3.3 Meter Station Backflow Preventer

Backflow Preventers for the large meter stations (3" and larger) are an RPZ assembly and manufactured in accordance with AWWA C511. The assembly will be installed so as the relief valve opening will be a minimum of 12" above concrete slab. If the meter station is in a planter, the top of the planter is considered the flood rim and the relief valve opening shall be 12" above the concrete slab. The Engineering Division shall paint the meter station assembly, to be paid for by the Developer/Contractor.

2" meter stations may be allowed on a case-by-case basis as approved by the Engineering Division.

A Mach 10 USG R9001 Meter & Strainer to be used on 2" and larger meter stations.

2.2.3.4 Backflow Preventer Certification Test

The Contractor will provide test certifications on the jumper backflow preventer before jumper is placed into service. Backflow preventers on fire-line and meter stations will have test certifications submitted and approved prior to final inspection.

2.2.4 FITTINGS

All fittings must be of the mechanical joint type with an approved joint restraint, or push-on joint with a gasket joint field restraint system. All fittings must be manufactured in the U.S.A.

2.2.4.1 Cast Iron

Cast iron fittings will be AWWA specification C110; Class 250, cement lined with inside seal coating. The fittings will be bituminous coated on the outside and be wrapped with 6 mil polyethylene (sealed with tape). Cast iron fittings are only to be used in larger applications where ductile iron fittings are not available.

2.2.4.2 Ductile Iron, 4" - 16"

Ductile iron compact fittings (sizes 4" through 16") must conform to AWWA specification C153. Ductile iron compact fittings will be mechanical joint with an interior cement lining with seal coating and an exterior bituminous coating. All fittings will be wrapped with 6 mil polyethylene (sealed with tape).

2.2.4.3 Bolts

All buried mechanical joint bolts and nuts must be CORTEN Steel. All above ground bolts and nuts for flanged fittings must be 18-8 Type 304 stainless steel. Never-seize/Anti-seize shall be applied to all SS bolts and nuts.

2.2.4.4 Tapping Sleeve

Tapping sleeves on mains 4" to 12" in diameter will be All Stainless Steel Sleeves.

The All Stainless Steel Sleeve shall be fabricated from 304 stainless steel. They shall have a pass- through bolt design and full circumferential gasket to provide 360° seal around the pipe. The tapping sleeve is to be fully passivated to return the stainless steel to its highest corrosion resistance stage.

Sleeves on mains 16" to 24" in diameter will be fabricated steel with O-ring seal, fusion bonded, epoxy coated with 304 stainless steel nuts and bolts or M.J. ductile iron body. Sleeves on mains larger than 24" will be handled on a case-by-case basis.

Tapping Sleeves for reinforced concrete mains will be handled on a case-by-case basis. The sleeves will have a fusion-bonded epoxy coating on the entire body and throat assembly. The straps and bolts shall be 18-8 Type 304 stainless steel.

The tapping valve must have centering ring and conform to Section 2.2.2.1 Resilient Seat Gate Valves, 4" - 36" in these Technical Provisions.

Tapping saddles to be placed on asbestos concrete (AC) pipe shall be a **JCM 432** All Stainless Steel Sleeve or equal.

2.2.4.5 Line Stop Sleeve Specifications

Sizes 4" through 12"

Sleeve/Body

The entire Line Stop sleeve shall be fabricated from 304 stainless steel. They shall have a pass- through bolt design and provide 360° seal around the pipe. The line stop sleeve is to be fully passivated to return the stainless steel to its highest corrosion resistance stage. Outlet on sleeve will be full port, i.e. on 8" sleeve, outlet will be 8", on 6" sleeve, outlet will be 6".

Bolts, Nuts & Washers

18-8 Type 304 stainless steel, the bolts shall be track head type and furnished with permanently lubricated heavy-hex nuts and stainless washers.

Gasket

The full circumferential gasket shall be molded of synthetic rubber compounded for use with water salt solutions, mild acids, bases and sewage. The gasket shall have a gridded surface, be a full 1/4" thick with 304 stainless steel bridge plates molded flush into the gasket and have a raised hydromechanical outlet seal to seal against line surges and water hammer.

Pressure Rating

The sleeves shall be rated at 150 psi hydrostatic with a test pressure of 200 psi on pipe with a full circumferential break.

Line Stop Sleeves shall be a **JCM 440 Line Stop Sleeve** or approved equal.

2.2.5 FIRE HYDRANTS

Fire hydrants must be manufactured in accordance with AWWA specification C502. Hydrants must have bronze-to-bronze main seat threading surfaces. They will be traffic type with drain holes plugged at the factory. Fire hydrants will have 18-8 Type 304 stainless steel bolts and nuts (bonnet, traffic flange and shoe).

Hydrants will have a minimum 5-1/4" main valve opening, with one 4-1/2" pumper nozzle, and two 2-1/2" hose nozzles. Nozzles to have NST threads. Stem couplings are to be cast iron or stainless steel. The upper valve plate must be bronze. The hydrant shoe will be coated inside with fusion-bonded epoxy, 6 mil minimum. All hydrants will be painted at the factory with Rustoleum high-performance epoxy 9100 system, non-lead, dry film thickness 5 to 8 mils, color #9143 Yellow. City crews will apply finish paint to each new fire hydrant after the Contractor has paid the appropriate fees.

Finish grade is to be established and the proper length hydrant is to be installed by the Contractor prior to acceptance by the City. All nozzles will be a minimum of 18" and a maximum of 24" above finished grade. A 6" mechanical joint hydrant connection will be provided using a hydrant valve-anchoring tee with integrally cast standard mechanical joint gland on 6" plain end branch. The Contractor will not be allowed to install risers on hydrants. At final inspection, if it is determined that a fire hydrant is not at grade, the Contractor shall purchase a proper length hydrant and install it under the direction of the Engineering Division.

CITY OF COCOA
Brevard County, Florida
UTILITIES DEPARTMENT

WATER
TECHNICAL PROVISIONS

DRAWN BY:	SCALE:
CHECKED BY:	DATE: JANUARY 2024
DRAWING No. :	SHEET: 1 OF 3
ACAD NAME:	

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

VERTICAL DATUM: NAVD88

7	
6	
5	
4	
3	
2	
1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

CITY OF COCOA WATER TECHNICAL PROVISIONS

PROJECT NO.

11748

DRAWING NO.

11748_400_044

SHEET

44 of 58

I:\Projects Folder\11748\Drawings\11748_400\11748_400_042-047.dwg April 13, 2026 4:46:16 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

2.2.6 SERVICE CONNECTIONS, 3/4"-2"

All service connections will be single connections. Services that are 3/4" and 1" are to be type K annealed temper soft copper. All connections are to be of the flare type. 1-1/2" and 2" services are to be of type K drawn temper in straight lengths or annealed temper if furnished in coils. Absolutely no lead-based solder joints will be accepted. Any repairs of service lines will be by flare-to-flare coupling. No compression fittings will be accepted. Taps in the pipe will be the same nominal diameter as the service line. Service taps in PVC pipe will be drilled with a shellcutter designed to cut PVC pipe, and the PVC plug will be removed. Long side service lines are to have PVC or HDPE sleeve.

Brass goods furnished under this specification shall be new and unused. All fittings shall conform to ANSI/AWWA Standard C800, latest revision.

All brass components in contact with potable water must be made from either CDA/UNS Brass Alloys C89520 or C89833 with a maximum lead content of .25% by weight. Brass alloys not listed in ANSI/AWWA C800 Paragraph 4.1.2 are not approved. All service fittings shall be certified as suitable for contact with drinking water by an ANSI accredited organization in accordance with ANSI/NSF Standard 61. All fittings shall be stamped or embossed with a mark or name indicating that the product is manufactured from the low-lead alloy as specified above.

Brass saddles shall be made from CDA/UNS C83600 and are exempt from the "no lead" requirement.

2.2.6.1 Saddles

Saddles must be used for all connections to PVC, AC and D.I. pipe. Saddles must be all brass with "CC" threads as manufactured by **Mueller Company**, or **Ford Meter Box Company**. The pipe sizes for these manufacturers are noted below (approved materials are also listed in "Appendix A"):

MUELLER: For ductile iron pipe sizes 4" to 12", for 3/4" and 1" services, the single strap design must be used. For 1-1/2" and 2" services, the BR 2 B double strap design must be used

FORD: For pipe sizes 4" to 12", for 3/4" and 1" services, the style 101B single strap design must be used. For 1-1/2" and 2" services, the style 202B double strap design must be used. For pipe sizes 16" and larger, for 3/4", 1", 1-1/2," and 2" services, the style 202B double strap design must be used.

An approved equal may be used in lieu of any of the above-listed designs/models.

2.2.6.2 Curb Stops, 3/4" - 2"

Curb stops 3/4" and 1" in size will be flare-by-meter coupling. **Curb stops must have locking wings and a swivel meter nut.** Curb stops that are 1-1/2" or 2" will be flare-by-meter flange with locking wing or an approved equal. All curb stops shall be centered in the meter box and installed in a horizontal position.

2.2.6.3 Corporation Stops, 3/4" - 2"

All corporation stops for water service ¾" thru 2" will be brass and have "CC" inlet threads and copper flare outlet. 2" Corporation stops for "jumpers" will be "CC"-by- F.I.P.

2.2.6.4 Meter Boxes

Meter boxes for radio-read meters must have a lid compatible with City's AMR meter antennae (4-1/2" round). Service locations will be permanently cut and painted on concrete curb or the street with a blue "W" for potable water or a purple "R" for reclaimed. Reclaimed services will be located at the opposite lot corner from water services where practical or with 5' minimum separation.

For larger 1-1/2" and 2" meters, 17" x 30" meter boxes shall be used.

Meter boxes shall have the appropriate ANSI/SCTE 77 load rating for their intended location: Meter boxes located within paved areas subject to deliberate heavy vehicular traffic such as roadways, driveways, and parking lots shall be AASHTO H-20 load rated; otherwise, meter boxes shall be Tier 15 load rated.

Reclaimed Water services will be set in purple meter boxes of materials per above. They are also required to have a 3" x 5" permanent plastic tag, secured to the curb stop with a nylon tie wrap, which will be supplied. Tags will be inscribed, "RECLAIMED WATER DO NOT DRINK"

2.3 PROTECTION OF PROPERTY AND OBSTRUCTIONS

2.3.1 PROTECTION

Temporary supports and/or adequate protection and maintenance must be provided on all underground and surface structures encountered in the progress of the work. Structures that have been disturbed will be restored to a condition equal to their original state upon completion of the work.

2.3.2 OBSTRUCTIONS

All utility owners must be notified prior to beginning construction. Any known obstructions will be shown on the plans; however, Contractor is solely responsible for field verifying existing conditions. Receiving utility maps from the City do not relief Contractor of this responsibility. The utmost caution will be taken in all operations to avoid damage to existing obstructions whether or not shown on the plans. Damage to other utilities will be at the Contractor's expense.

If the Contractor encounters any unforeseen obstructions during construction, the Contractor shall immediately cease work in that area and notify the EOR. The EOR shall design and provide detailed drawings to correct the situation. The drawings shall be submitted to the Engineering Division for approval. After approval by the Engineering Division, a set of approved drawings will be given to the contractor and they may resume work.

2.3.3 EXISTING ASBESTOS CEMENT WATERMAINS

In areas where asbestos cement water mains are existing, water main relocations or replacements may be necessary. If new construction of facilities is over, under, or near asbestos cement water mains, it shall require that the asbestos cement water main be changed out to polyvinyl chloride pipe or ductile iron pipe. All asbestos cement pipe that is replaced shall be removed and disposed of by the contractor unless specifically directed in writing by the City to abandon in place. New pipe material shall depend upon the type and location of the facilities being constructed. The Developer's Engineer shall design the replacement and submit it to the Engineering Division for approval. The Developer is responsible for all design, materials, labor, equipment, testing, and costs for the replacement.

2.3.4 ABANDONMENT OF ASBESTOS CEMENT PIPE

Contractor shall remove and dispose of AC pipe in accordance with FAC Codes 62-204.800 and 62-257. Where asbestos cement water mains have been directed by the City to be Abandoned in place they shall be filled with a sand/cement grout by the contractor. Grout shall be injected within the pipe sections to be abandoned where the ends of the sections shall be capped and or plugged. The grouting program shall consist of pumping sand-cement grout with suitable chemical additives at pressures necessary to fill the pipe sections to prevent the potential for future collapse. The rate of pumping shall not exceed six (6) cubic feet per minute. The pumping pressures shall be in the range of 100 to 150 psi.

The Contractor shall provide standpipes and/or additional means of visual inspections as required by the City to determine if adequate grout material has filled the entire pipe section(s).

2.4 TRENCH PREPARATION

2.4.1 EXCAVATION

A trench will be opened so that the pipe can be installed to the alignment and depth required. It will be excavated only so far in advance of pipe placement as necessary. The trench will be excavated to the depth required to provide a uniform and continuous bearing support for the pipe or undisturbed ground. Bell holes will be provided at each joint to permit jointing to be made and inspected properly.

During excavation, if ashes, cinders, muck or other organic material considered unsuitable is discovered at the bottom of the trench at sub-grade, unsuitable material will be removed and backfilled with approved material. This material will be compacted in layers to provide a uniform and continuous bearing characteristic of that area's soil condition. Where the bottom of the trench at sub-grade consists of unstable material to such a degree that it cannot be removed and replaced with an approved material to support the pipe properly, a suitable foundation must be constructed. Excavated material will be piled in such a manner that it will not endanger work or obstruct natural watercourses, sidewalks or driveways. Fire hydrants under pressure, valve boxes, or other utility controls will be left unobstructed and accessible at all times. Gutters will be kept clear or other satisfactory provisions will be made for street drainage.

2.4.2 SHORING AND BRACING

Open cut trenches must be sloped, shored or braced as required by all governing State law, municipal ordinances, OSHA Standards, and as may be necessary to protect life, property, or the work. Trench bracing may be removed after backfilling has been completed or has been brought up to such an elevation as to permit its safe removal. The use of a trenching box may be used in place of sheeting and bracing where appropriate. The Contractor is required to have a Competent Person designated and in charge at all times while workers are in the trench.

2.4.3 DE-WATERING

Excess water must not be allowed in the trench at any time. An adequate supply of well points, headers or pumps, all in first-class operating condition, may be used to remove the water. The use of gravel and pumps will also be an acceptable means of removing the water. The trench will be excavated no more than the available pumping facilities are capable of de-watering. Discharge from pumps will be accommodated in accordance with the St. Johns River Water Management District's requirements. The Contractor is responsible for obtaining all de-watering permits such as NPDES permit.

2.5 PIPELINE CONSTRUCTION

2.5.1 GENERAL

All water mains, service lines, and appurtenances must be installed as specified on the approved plans and in accordance with the Standard Detail Sheet. Installation will conform to AWWA specification C600 except as modified herein.

Domestic water service can only come from a Distribution main. When water service is requested and the only water main available is a Transmission main, a large tap and section of pipe shall be installed on the Transmission Main for the water service.

The minimum size tap on a Transmission Main shall be 6".

2.5.2 MATERIAL HANDLING

2.5.2.1 Precautions

Every precaution will be taken to prevent damage to pipe and piping materials during transportation and delivery to the work site. Under no condition will pipe be dropped, bumped, dragged or picked up by inserting forks into end of pipe. Pipe lifted by placing forks into pipe shall be removed from job site.

2.5.2.2 Damaged Materials

If in the process of transportation, unloading or handling, any pipe or fitting is damaged, it will be rejected and removed from the site.

2.5.2.3 Storage

Pipe fittings and specials will be stored in a manner which will assure the protection of the material from damage and which will keep it clean.

2.5.3 INSPECTION OF MATERIALS

Materials delivered to the job site will be subject to inspection by the Engineering Division prior to installation. Contractor shall notify Inspections 24 hours in advance. All materials found to be defective or not meeting specifications during inspection or during the progress of the work will be rejected and removed from the job site without delay. All materials delivered to the job site will be in accordance with the materials specifications. Materials not inspected by the Engineering Division prior to installation will be uncovered by the Contractor at their expense to verify compliance with these specifications. The Contractor will furnish copies of the packing list(s) for materials upon demand.

2.5.4 PIPE PLACEMENT

The bottom of the trench will not be excavated below the specified grade. If undercutting occurs, the bottom of the trench will be brought up to the original grade with approved material and thoroughly compacted, as directed by the Engineering Division. Before placing pipe into the trench, the outside of the spigot and the inside of the bell will be wiped clean, dry, and free from oil and grease. Every precaution will be taken to prevent foreign material from entering the pipe. During placement operation, no debris, tools, clothing or other material will be placed in the pipe.

All mechanical joints will be made up in strict accordance with the manufacturer's specifications. Beveled ends will be removed from PVC pipe entering a mechanical joint. The bell will be carefully cleaned before the gasket is inserted. Gaskets must be evenly seated, the gland placed in position with the bolts, and evenly tightened. All slip joints will be made up in strict accordance with the manufacturer's specifications.

After placing a length of pipe in the trench, the spigot end will be centered in the bell, the pipe forced home, brought to correct alignment, and covered with an approved backfill material. Ductile iron pipe will be backfilled to the centerline of the pipe and compacted to ninety-five percent (95%) of standard Proctor T-99.

PVC pipe will be backfilled in accordance with the manufacture's recommendations for the laying conditions.

Pipe will be installed with 30" minimum cover. Maximum cover of 42" will be accepted. Cover depth will be determined from proposed finish grade as indicated on the plans. At times when pipe placement is not in progress, the open ends of pipe must be closed by a watertight plug or other approved means. This provision will apply during the lunch hour as well as overnight. If water is in the trench, the seal will remain in place until the trench is pumped completely dry.

All underground water main shall meet the horizontal and vertical separation requirements in FAC 62-555.314 as related to sanitary force main and gravity main, reclaim mains, and storm water gravity and force mains.

Pipe installed under swales shall be D.I. and have 3' minimum cover. D.I. pipe to be centered on swale. If more than one joint of pipe is necessary, restrained joint pipe is required. See "Swale Crossing" detail and definitions.

Pipe installed under canal or drainage ditch shall conform to all FDEP requirements. Pipe shall be restrained joint D.I. pipe with gate valves on both sides of canal/ditch. D.I. pipe shall have 5' minimum cover with a concrete cap. See "Canal or Drainage Ditch Crossing" detail and definitions.

2.5.5 TRACER WIRE

For the purpose of electronically locating pipe after it is buried, tracer wire will be installed with all potable, reclaimed, and wastewater mains in accordance with the Standard Detail Sheet.

The color of the wire insulation shall be the same color as the color code for the pipe being installed. Insulation color shall be blue for potable, purple for reclaimed, and green for wastewater.

Tracer wire for pipe installed by direct burial will meet the following requirements: #12 AWG (0.0808" diameter) fully annealed copper wire, rated at 30 volts, insulated with a 30 mil, high- density, high molecular weight polyethylene (HDPE) insulation, rated for direct burial use.

Tracer wire for pipe installed by directional drilling or jack and bore will meet the following requirements: #10 AWG (0.1019" diameter) fully annealed, high carbon 1055 grade steel, high strength solid copper-clad steel conductor (HS-CCS) rated at 30 volts, insulated with a 45 mil, high-density, high molecular weight polyethylene (HDPE) insulation rated for horizontal directional drill use, average with minimum break load of 1,940lbs.

Branch connections and tracer wire splices shall be connected together using a direct-bury wire connector filled with a dielectric silicone sealant.

Tracer wire shall be properly grounded at all dead ends and shall be achieved by use of a 1.5lb drive-in magnesium grounding anode rod specifically manufactured for this purpose.

The tracer wire shall be installed in such a manner as to be able to properly trace all pipelines without loss or deterioration of signal or without the transmitted signal migrating off the tracer wire. The tracer wire shall be installed as a continuous single wire. Except for approved spliced- in repair or replacement connections, tracer wire shall be continuous and without splices from each tracer wire access point.

Tracer wire shall be installed in the same trench and inside bored holes and casing with pipe during pipe installation. It shall be secured and taped to the top of the pipe in 10' intervals. Protect wire insulation from damage during installation and backfilling. Wire insulation that is broken, cut, or damaged shall be replaced. If the pipeline requiring tracer wire is over 8' deep, special circumstances exist and the installation method must be submitted to the Engineering Division for approval.

Provide no less than 18" of coiled wire at access points and valve boxes. A run of tracer wire must run from the main to each fire hydrant and each fire hydrant must have one wrap of the wire around the barrel located at final grade.

Where existing tracer wire is encountered on an existing utility that is being extended or tied into, the new and existing tracer wire splice shall be connected using a direct-bury wire connector. At all main end caps, a minimum of 6' of tracer wire shall be extended beyond the end of the pipe, coiled, and secured to the cap for future connections and shall be properly grounded.

After all of the trench backfill operations are successfully completed, and prior to final paving, the Contractor shall perform continuity and trace tests on all newly installed tracer wire in the presence of an Inspector. If the tracer wire is found to not be continuous after testing, the Contractor shall repair or replace the failed segment of the wire and retest for continuity. Tracer wire exposed during testing shall have the insulation restored with 30 mil rubber splicing tape. The Contractor shall be responsible for all costs to confirm, locate, and repair any breaks in the tracer wire identified in the continuity test.

2.5.6 SERVICE LINE LOCATION

Service lines will be located at alternating lot lines and within the right of way or easement. Curb stop shall be installed within two feet of the right-of-way line.

Reclaimed service line is to be located adjacent to sewer cleanouts.

2.5.7 BACKFILLED MATERIAL AND INSPECTION

All backfilling material will be free from cinders, ashes, refuse, vegetable or organic material, boulders, rocks, stones, or other material which is considered unsuitable. When backfill material is not specified on the plans, backfilling with the excavated material may be acceptable provided that such material is suitable for backfilling. Pipe should be backfilled as soon as possible to minimize the length of open trench. Pipe joints, valves, fittings, and thrust blocks will be left uncovered until inspection by the Engineering Division has been completed.

2.5.8 VALVES AND FITTINGS

All valves and fittings will be set and joined to the pipe in the proper location as shown on the plans. Valves should be installed outside of the pavement where practical. A roadway valve box will be provided for every valve. This valve box must not transmit shock or stress to the valve. Valve will have alignment ring installed and valve box centered and plumb over the wrench nut of the valve. The box cover is to be flush with the surface of the finished pavement or grade level as specified in the plans. A 24"-square concrete pad 4" in thickness will be poured around the valve box when it is located outside of pavement. A bronze or stainless steel disc will be cast into the pad for all valves 12" or larger. Valve nomenclature to be stamped into the disc will include the valve size, type, manufacturer's initials, number of turns, and direction to open the valve. (Example: 12" G.V. U.S.P. 20 c.c.w.)

All valves will be located within 2' of the tee, see detail "Gate Valve and Fitting."

When solid sleeves or couplings are used to join/tie-in pipelines, a Spacer Piece shall be installed if there is a gap in the pipeline.

2.5.9 FIRE HYDRANTS

All fire hydrants (hydrants) will be located as shown on the plans and marked on the pavement with a blue reflector. On unpaved streets, a blue reflector will be affixed to a post and placed as close to the edge of the road as feasible to be easily visible. The hydrants will be located in such a manner as to provide complete accessibility and in a manner so that the possibility of damage from vehicles or injury to pedestrians will be minimized. All hydrants must stand plumb and the bury line of the hydrant at the finished grade. Hydrants installed in State highway rights-of-way will be placed in accordance with any F.D.O.T. requirements. Contractors shall not turn or add risers to hydrants. All hydrants will be connected to the main in the manner shown on the Standard Detail Sheet. If the installation of the hydrant requires the hydrant to be greater than 40 ft. away from the fire hydrant valve, an additional valve shall be installed. If the fire hydrant valve ends up in asphalt of a major road (not subdivision) an additional hydrant valve regardless of distance shall be installed.

2.5.10 RESTRAINED PIPE JOINTS

The EOR shall provide a restrained joint detail on drawings submitted to the City for approval. Restraining is to apply to all new fittings installed as part of the job, including tapping saddles.

2.5.11 THRUST BLOCKS AND COLLARS

Restrained joint systems are the preferred method. Thrust blocks may only be used with the City's prior approval at bends, fire hydrants, and as specified on the plans, in accordance with the Standard Detail Sheet. Metal harnesses, tie rods, or clamps of adequate strength to prevent movement may be installed at locations where thrust blocks are not practical. Rods and clamps will be stainless steel. A 20' length of ductile iron pipe will be installed at all main endings and a concrete thrust collar will be poured around the pipe at a distance of 10' from the end of the joint. In lieu of concrete thrust collar, restrained pipe upstream of the proposed concrete thrust collar may be used.

2.5.12 JACK AND BORE, PIPE INSTALLED IN CASINGS

Pipe to be installed under pavement where open trenching is not permitted will be installed through a steel casing that has been jacked and bored. The casing pipe will be 6" to 8" larger than the outside diameter of the bells on the Ductile Iron pipe. The EOR will design the casing and bore to meet FDOT or FECRR requirements.

Ductile Iron pipe of the appropriate Class will be installed in the casing. Water mains must be pushed or pulled through the casing on stainless steel casing spacers with polyethylene skids attached to the pipe with stainless steel straps. The stainless steel casing spacers with polyethylene skids will be placed in accordance with manufacturer's recommendations. Casing spacers must be manufactured by Cascade or an approved equal. Restrained joints are required on mains installed inside casings

JACK AND BORE

J&B installed under FDOT roadways shall conform to the latest FDOT Road and Bridge Construction design standards. J&B installed under FECRR shall conform to FECRR requirements.

2.5.13 HORIZONTAL DIRECTIONAL DRILLING

Only DIP and Fusible PVC may be horizontal directional drilled (HDD) under pavement or surface waterway crossings. The HDD pipe shall only extend to 10' on each side of the crossing. Then the piping will change to the standard piping material.

HDD installed under FDOT roadways shall conform to the latest FDOT Road and Bridge Construction design standards.

ENGINEERING PROCEDURE HORIZONTAL DIRECTIONAL DRILLS

PRECONSTRUCTION CONFERENCE

1. A preconstruction conference will be required. The preferred attendees for the preconstruction shall be but not limited to:
   - The directional bore contractor (preferably the Field Superintendent)
   - The permitting agency
   - EOR
   - City Engineering Division Representative
   - Inspector for the project

ENGINEER OF RECORD

1. The EOR must include a scaled drawing showing the details of the directional drill on the construction drawings (i.e., profile, depth, location of existing utilities, maximum deflection angle).
2. If during construction it is determined a directional drill is required (and was not previously approved), the EOR is required to update the construction drawings and receive approval.

HDD CONTRACTOR

1. Approval required prior to the HDD, the HDD contractor shall submit a bore plan (see sample drawing in "Appendix B") to Utilities Development allowing for a 5-business day review period. The bore plan shall be a scaled drawing or computer generated drawing showing the following information but not limited to: (see drawing "Typical Bore Plan")
   - The entrance and exit location
   - Profile of the bored pipe
   - Proposed deflection angle for approach and exit
   - Documentation from pipe manufacturer on the allowable maximum and minimum deflection for the particular pipe being used
   - All utilities including their depths and clearances from reamer
   - Width of the right of way
   - Pavement width
   - Length of the bore
   - The bore plan shall be signed by the EOR.
2. The HDD contractor shall follow the minimum clearances as shown below from the bottom of the water main to the top of the reamer:
   - Water mains 12" and greater minimum clearance is 18"
   - Water mains 10" and less minimum clearance is 12"
3. The HDD contractor will be responsible for obtaining locates for all utilities in accordance with Chapter 556 of the Florida Statutes.
4. The HDD contractor shall notify the City of Cocoa Inspection Division 48 hours in advance of the bore and notify the appropriate permitting agency per the conditions of the permit.

ENGINEERING INSPECTOR

1. An approved copy of the bore plan will be given to Engineering Inspection Division.
2. The Inspector for the project will have a copy of the bore plan at the project site.
3. Prior to the HDD the Inspector shall verify that the materials at the project site for the directional bore are in accordance with the City of Cocoa's latest technical provisions and standard details.
4. The Inspector shall verify the following prior to the commencement of the HDD:
   a. Verify that the HDD contractor has obtained his/her utility locates;
   b. Verify that all utilities have been visually spotted by the HDD contractor;
   c. Verify that the permitting agency has been notified of the HDD; and
   d. Witness the calibration of the sonde.
5. The Inspector shall remain at the project site until completion of the HDD. Any discrepancies shall be immediately reported to the Engineering Division. Once the corrective action is determined, the proper authority will be notified

COMPLETION OF THE BORE

1. A bore log shall be submitted to Utilities Development after completion of the bore.

2.5.14 BLOWOFFS

Flushing blow-offs are to be installed and constructed as shown on the Standard Detail Sheet. Blow-off materials include 2" brass for nipples, brass threaded fittings, 2" brass angle wheel valve, and plastic meter box (purple for reclaimed). The plastic meter box is to be installed at grade over the wheel valve. The angle wheel valve will be within 6" of finished grade and will be plugged with a brass plug. 4" blow-offs will be required on both potable water and reclaimed water mains 12" and larger and must be constructed as shown on the Standard Detail Sheet. Blow-off to be used at the end of water main extensions and not a plug and cap. A reclaimed tag will be installed on reclaimed main blow-offs in a reclaimed meter box. All blow-offs will need a gate valve right before it.

Brass used in potable water shall meet the low lead requirements as set forth in Section 2.2.6 Service Connections, 3/4"-2".

2.6 TIE-INS TO EXISTING SYSTEMS

2.6.1 GENERAL

The Contractor is not to operate any valve or remove any thrust block from City-owned mains except under direct supervision of an Inspector of the Engineering Division. The Contractor may need a post restraining the existing piping for the tie-in as required by the Engineering Division. All Contractors must follow the procedures listed below for connecting new mains to existing water systems.

All Appurtances including items like valves and curb stops located in the system to the best of the utilities understanding are functional. If it is determined that one of these items is not functioning properly, the Engineer of Record shall propose a resolution for City approval.

2.6.1.1 Mains 8" and smaller

Existing tie-in valves will be operated and pressure tested to verify water tightness prior to the proposed tie-in. Existing system valves that are not watertight, shall have a new valve installed immediately adjacent (within 2') to the existing valve. The Contractor will provide a 2" tap on the new main and a 2" tap on the existing main at the tie-in valve. A 2" jumper equipped with a City supplied meter and contractor supplied backflow preventer (double check) will be installed. The jumper will be utilized for filling the main, flushing the main, providing water for bacteriological sampling, and maintaining pressure in the main after a successful bacteriological test. The proposed tie-in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from FDEP and the City. The EOR will be required to provide an executed FDEP certificate of completion prior to clearance. After clearance, the tie-in valve will be opened, the jumper removed, and the main thoroughly flushed under the supervision of the Inspector. All other existing valves closed as part of the job will be opened by the contractor under the supervision of Engineering Division.

CITY OF COCOA
Brevard County, Florida
UTILITIES DEPARTMENT

WATER
TECHNICAL PROVISIONS

DRAWN BY:	SCALE:
CHECKED BY:	DATE: JANUARY 2024
DRAWING No. :	SHEET: 2 OF 3
ACAD NAME:	

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

CITY OF COCOA WATER TECHNICAL PROVISIONS

PROJECT NO.
11748

DRAWING NO.
11748_400_045

SHEET
45 of 58

H:\Projects-Folder\11748\Drawings\11748_400\11748_400_045.dwg April 13, 2026 - 4:55:34 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

2.7 TESTING

2.7.1 GENERAL

All newly installed pipe and services that have been backfilled must be tested in accordance with AWWA specification C651.

2.7.2 JUMPER METER ASSEMBLY

All filling, and flushing, must be accomplished through a jumper meter assembly. The jumper meter assembly shall consist of a meter (provided by the City, paid for by the Developer/Contractor), and a double check backflow preventer and galvanized piping (provided by the Contractor). The jumper meter assembly shall be installed by the Contractor under the direct supervision of the Engineering Division. After installation, the Contractor shall have the backflow preventer certified by a backflow technician, and a copy of the test report shall be provided to the Engineering Division.

1. A temporary jumper connection is required at ALL connections between existing active water mains and proposed new water main improvements, per the City of Cocoa Utilities Handbook. The only exception is the installation of a new fire hydrant involving a tap and using an anchoring/swivel nipple. In this case, all fittings and fire hydrant SHALL be swabbed with a 100 ppm chlorine solution prior to installation.
2. The details for filling any water main from existing active water mains and for flushing of new mains up to 8" diameter (2.5 FPS minimum velocity) and for pulling bacteriological samples from any new water main of any size can be found in **Section 2.7.3 Flushing and Swabbing**. The jumper connection shall be maintained until after filling, flushing, testing, and disinfection of the new main has been successfully completed and clearance for use from the Florida Department of Environmental Protection (FDEP) and other pertinent agencies has been received. The jumper connection shall also be used to maintain pressure in the new mains all the time after disinfection and until the FDEP clearance letter is obtained. Adequate thrust blocking and/or restraints shall be provided temporarily, as required. Pipe and fittings used for connecting the new pipe to the existing pipe shall be disinfected prior to installation in accordance with AWWA C651. The tapping sleeve and the exterior of the main to be tapped shall be disinfected by spraying or swabbing per Section II of AWWA C561.
3. Flushing of 10" diameter and larger water mains may be done through the tie-in valve, under the direct supervision of the Engineering Division. The Engineering Division will be notified in writing 48 hours prior to the flushing of said mains.

   The following procedures shall be followed:

   A. The existing tie-in valves shall be operated and pressure tested in the presence of the Engineering Division or Engineer to verify water tightness prior to the proposed tie-in. Valves which are not watertight shall be replaced or a new valve installed immediately adjacent to the leaking valve.

   B. The temporary jumper connection shall be constructed as detailed. The jumper connection shall be used to fill the new water main and for providing water for bacteriological sampling of the new main as required by the FDEP permit.

   - Flushing shall not be attempted during peak demand hours of the existing water main.
   - All downstream valves in the new system must be open prior to opening the tie-in valve.
   - Provide for and monitor the pressure at the tie-in point, the pressure in the existing main must not drop below 35 psi.
   - Tie-in valve shall be opened a few turns only, ensuring a pressure drop across the valve is always greater than 10 psi.
4. The contractor shall provide documentation demonstrating that the double check backflow prevention device has been tested and is in good working order at the time of installation. The test shall be performed by a qualified backflow prevention technician.
5. Except as required to flush lines of greater than 8" in diameter, the tie-in valve shall remain closed. The tie-in valve shall remain closed until the new system has been cleared for use by FDEP and all other pertinent agencies.
6. Upon receipt of clearance for use from FDEP and all other pertinent agencies, the contractor shall remove the jumper connection. The corporation stops are to be closed and plugged with 2" brass plugs.
7. All installation and maintenance of the temporary jumper connection and associated backflow prevention device fittings, valve, etc., shall be the responsibility of the contractor.

2.7.3 FLUSHING AND SWABBING

The City will provide an adequate volume of water for the filling, flushing, and testing of mains. The Contractor will notify the Engineering Division prior to flushing or filling mains. The pressure in the City's system will be monitored during the flushing; at no time should the pressure in the City's system be allowed to drop below 35 psi. Water used during flushing will be billed to the Contractor.

The City of Cocoa Engineering Division requires all new mains regardless of size or material to be pigged/swabbed. In an effort to make sure all footages of a pipeline are pigged, the following procedures are to be used as a guide and in no way to be construed as means and methods.

The following terminology may be used in the discussion or operation of the pigging procedure.

Pigs shall be manufactured of a 2 pounds per cubic foot density open cell polyurethane foam body (swab) complete with rear polyurethane drive seal.

Pig launching station may be a "wye", "tee", or simply inserting the pig at the very beginning of the pipeline. The beginning of the pipeline is defined at the jumper assembly location.

Pig retrieval point or cannon is a "wye", "tee" or open end of pipe at which point the pig will exit the pipeline.

The pipeline will be filled through the jumper assembly the day before of the pigging operation.

The pig will be advanced through the pipeline at a rate of 2 feet per second, 80 gpm for 4"; 180 gpm for 6"; 320 gpm for 8". Flow rates and jumper assemblies for mains 10" and larger will be determined by the EOR and approved by the City of Cocoa Engineering Division.

The pig retrieval point or cannon will project at least one foot above the surrounding grade. The water from the pig retrieval station discharge and its location to discharge shall be approved by the Engineering Division. The contractor will be responsible for following the National Pollutant Discharge Elimination System (NPDES) requirements to remove chlorine from discharge as well as protect retrieval area from erosion. Retrieval cannons will not be left in place. After pigging and flushing are complete, the cannon will be removed and capped below ground in accordance with EOR details or City of Cocoa Standard Details.

The contractor may insert the pig into the first section of pipe between the isolation valve and the downstream point of jumper assembly. By inserting the pig between the isolation valve and the downstream jumper assembly point it will allow the pipeline to be filled without moving the pig down the pipeline. If the pig is moved during filling operation another pig will be inserted into the pipeline. The isolation valve may be cracked open for a few seconds under the direction of the Engineering Division to move the pig past the jumper assembly downstream point so the jumper assembly can advance the pig through the pipeline.

When the pig exits the pipeline, the flushing will continue until the water is clear. A simple way to determine if water is running clear is to capture some water in a WHITE cup. If water is clear and no particles settle in the cup then flushing is complete; if not, flushing will continue until water is clear.

2.7.4 HYDROSTATIC TEST

A blow-off or fire hydrant will be installed at the end of the pipeline under test. The line being tested will be slowly filled with water to the specified test pressure. Before applying the specified test pressure, all air will be expelled from the test section including service connections. If fire hydrants or blow-offs are not available at high elevations, taps at points of highest elevation will be made to facilitate air removal and testing. When testing is complete, the service lines installed for air removal must be removed.

The line must hold the 150 psi test pressure for a two-hour test period and must be performed under the direct supervision of the Engineering Division. Sufficient human resources are to be employed to ensure inspection. If the line fails to meet the test, it will be repaired and re-tested until the test requirements are satisfied. Line pressure will be maintained to within 5 psi of the test pressure at all times.

2.7.5 LEAKAGE TEST

A leakage test at 150 psi will be performed on all newly installed sections of pipe in accordance with AWWA C600 or C605 after installation of all service connections. Any leakage observed must be less than the following per thousand feet of pipe:

Size (in)	Allowable Leakage (gal/hour)
2	0.20
4	0.33
6	0.50
8	0.67
10	0.83
12	1.06
14	1.16
16	1.32

$$L = \frac{SD\sqrt{P}}{148{,}000}$$

L = testing allowance (makeup water), in gallons per hour
S = length of pipe in feet
D = nominal diameter of pipe, in inches
P = average test pressure during the hydrostatic test, in pounds per square inch (gauge). P has the square root taken.

On small main extensions where the allowable leakage loss cannot be reasonable measured (.25 gallons or less), NO LOSS OF PRESSURE shall be allowed.

2.8 DISINFECTION AND BACTERIOLOGICAL TESTING

2.8.1 GENERAL

The Contractor must flush potable mains and arrange for complete disinfection by chlorination in coordination with the Engineering Division. Work will conform to applicable provisions of AWWA specification C651-14, "Disinfecting Water Mains". Water with a chlorine concentration of 50 ppm will be evenly distributed throughout the pipe system and allowed to remain in the pipe for twenty-four hours. Transmission mains may be chlorinated using the "slug method". If the slug method is used, a detailed written procedure shall be submitted for approval. The main shall be dechlorinated to zero ppm chlorine before any flushing is performed. The method for dechlorination shall be approved by the EOR. After flushing, the water shall remain in the pipe for 24 hours before sampling. Service connections and tie-ins made before testing must be disinfected in accordance with AWWA specification C651. Samples will be taken by an Engineering Division approved laboratory. Two consecutive day samples are required for potable water mains. Water mains shall not be flushed between samples. The Contractor will be responsible for ALL bacteriological testing fees. Sample points are determined by the EOR and approved by FDEP. If samples taken do not demonstrate satisfactory results, re-chlorination and retesting of all sample locations is required at the Contractors expense.

CONTRACTORS WORKING ON EXISTING MAINS

When existing water mains are taken out of service by contractors, and water service to existing customers is interrupted causing a precautionary boil water notice (PBWN), the water main will be taken out of service on Monday or Tuesday. If for some reason the water main cannot be taken out of service on Monday or Tuesday, then the contractor at their expense shall have the laboratory perform bacteriological testing after normal working hours. This procedure is to lessen the time water customers are under a PBWN.

2.9 WET TAP CONNECTIONS TO EXISTING SYSTEM

2.9.1 GENERAL

Tap Being Performed	Parties Allowed to Perform the Tap
Taps 2" and smaller	• Approved tapping and line stop contractor • Contractor approved to tap mains solely for their own project o Contractor must perform 5 successful taps under the supervision of the inspection team and demonstrate possession of proper tapping equipment
Taps 2"-16"	• Approved tapping and line stop contractor
Taps 16" and greater	• Approved tapping and line stop contractor o Each tap requires independent review and approval o The tap must be performed under direct supervision of the engineering division
Taps on concrete transmission mains	• Contractor approved for taps on City of Cocoa transmission mains o Tapping plan must be submitted by the contractor prior to the tap

- On transmission mains, the approved tapping and line stop contractor will install the tapping saddle and valve. For all connections from 4"-12" the contractor may install tapping saddles under direct supervision of the Engineering Division.
- For all water main connections, the Contractor must obtain all required permits, provide a dry pit area, provide pit preparation including shoring and bracing, provide maintenance of traffic, provide all right-of-way restoration, and notify all utilities prior to construction. Connections must be completed under direct supervision of the Engineering Division.
- The list of approved contractors may be found on page 68.

Tapping saddles and valves supplied by the Contractor will be inspected by the Engineering Division prior to installation. The installed tapping saddle and valve must be tested with water at 100 psi for 15 minutes prior to tapping to ensure a watertight installation. Saddles installed on concrete pressure pipe will be tested 10% over line pressure. The pressure test will be performed by the Contractor and supervised by the Engineering Division. After the pressure test of the saddle has been completed, an Approved Tapping Contractor can tap the main.

2.9.2 TAPPING AND LINESTOP PROCEDURES

- ALL TAPS or LINESTOPS on City of Cocoa potable, reclaimed, and wastewater mains will be performed by an **Approved Tapping Contractor.***
- Absolutely NO taps or linestops will be performed on Friday or any day preceding a holiday.
- Approved Contractors must disinfect tapping machine with AWWA approved disinfectant. This will be witnessed by the Inspector.
- The Contractor's tapping or linestop machines will be in good working order with appropriate bits and shell cutters for the type of pipe being worked on (i.e. shellcutter for PVC). **
- When taps or linestops are installed on Transmission Mains (> 12"), a preconstruction meeting will be held with the tapping contractor prior to ANY work being performed. The meeting may be held at the job site.
- Taps and linestops on the Utilities concrete pressure mains will be a two (2) day process and will require a pre-construction meeting. Grout submittal will need to be submitted for approval prior to work. Day one the saddle is installed and grouted, Day two tighten straps, cut pre-stressing wires, install throat and valve. Pressure test on saddle is 10% over line pressure for 30 minutes. After successfully completing pressure test, tap can be made.
- Toggle bolts will be required for PCCP taps to assure the entire coupon remains intact. The coupon must be provided to the City.
- ALL excavations must conform to current OSHA Trench Safety Act.
- The City of Cocoa reserves the right to remove any contractor from the approved list for any work considered substandard.

* Tap or linestop to include: Material, installation, labor, drilling, and testing

** Bit, boring bar, and adaptor

2.10 FINAL CLEAN-UP AND ACCEPTANCE

2.10.1 GENERAL

Upon completion of the work and before acceptance by the Engineering Division, the Contractor will meet all permit conditions, remove all debris, and complete sodding, sprigging, or seeding if required by the plans. The Contractor will leave all areas affected by operations in a neat and presentable condition.

Acceptance of completed work by the City will be contingent on the following work items completed to the satisfaction of the Engineering Division.

- Pressure Test
- Bacteriological Testing
- Restoration
- Payment of fees
- Approved As-Builts
- Easements
- Bill of Sale
- Fire line DCDA certification, as needed
- Final Inspection

2.11 FIRE SERVICE

2.11.1 GENERAL

All Fire Lines shall be installed by a licensed Fire Line Contractor in accordance with Florida Statute Chapter 633 and Rule Chapter: 69A-46. Where wet pipe sprinkler service is used, an RPDA or DCDA will be installed in accordance with the "Backflow Prevention and Cross- Connection Control" Section of the Utilities Handbook and as described in the "City of Cocoa Cross Connection Control Program Manual".

Fire line backflow preventer assemblies shall be installed in non-traffic areas. Four to six bollards may be required.

2.11.2 CONFIGURATIONS

The City provides water service for fire protection. On public, commercial, and multifamily residential fire protection systems, the City requires a meter and a double check detector assembly (DCDA), the size of which has been determined by a private fire protection system Engineer. The City is responsible for operating and maintaining its water system up to and including the DCDA piping leg and in-ground 90-degree or 45-degree fitting on the customer's side of the DCDA. The City has determined the point of service for the fire line system to be the gate valve installed at the fitting upstream of the DCDA. A fire line contractor is required for the installation of the DCDA.

Fire lines shall be 6" minimum in diameter if it is to be attached to any hydrants. Appurtenances downstream of the DCDA shall be owned privately.

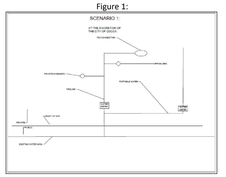
Proposed water services to commercial developments shall follow one of the three following configurations:

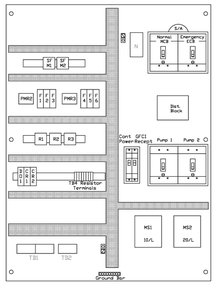
Configuration 1: Commercial establishments with combined domestic and fire flow service connection:

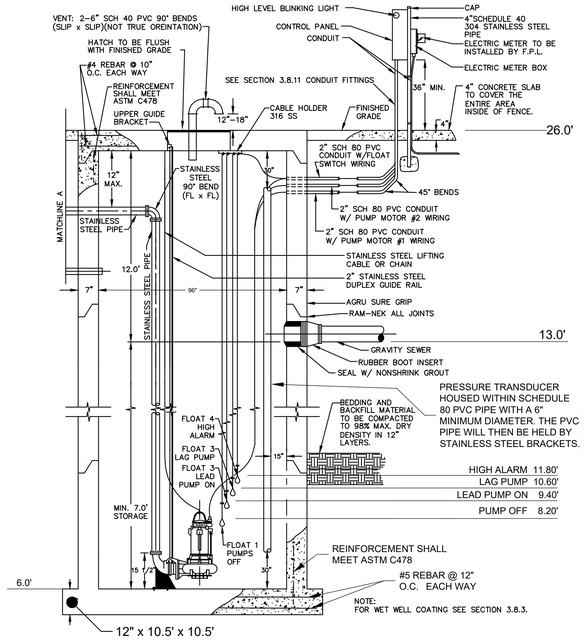
A single pipe shall provide domestic and fire flow services to commercial development. Tap and pipe size should be designed/modeled to sustain demands for both fire and potable. Two respective meters for fire and potable water shall be installed on the pipe within public ROW. If such a placement is not feasible in the field, then place the two respective meters as close as possible to the public/private ROW boundary. City of Cocoa will own both respective meters. Appurtenances downstream of the two respective meters shall be privately owned and maintained.

This configuration shall be reviewed and approved at the discretion of the City of Cocoa. Please refer to Figure 1.

Figure 1:

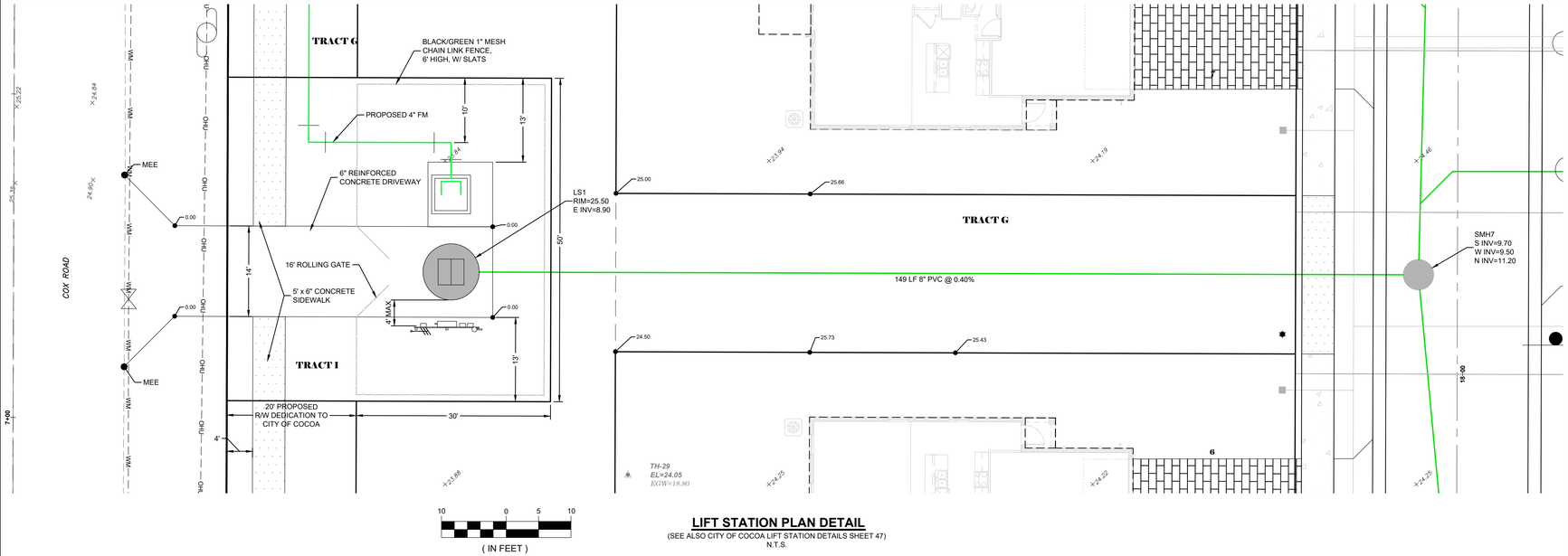

SCENARIO 1
AT THE DISCRETION OF THE CITY OF COCOA
TAP SADDLE AND VALVE
PROPERTY LINE
WATER METER
DOMESTIC SERVICE
FIRE SERVICE
DOUBLE CHECK DETECTOR ASSEMBLY
DOMESTIC SERVICE
FIRE SERVICE
PROPERTY LINE
WATER METER
DOMESTIC SERVICE
FIRE SERVICE
DOUBLE CHECK DETECTOR ASSEMBLY


SCADA
PANEL 1
PANEL 2
Spare
Spare
Spare



LIFT STATION CROSS SECTION DETAIL

(SEE ALSO CITY OF COCOA LIFT STATION DETAILS SHEET 47)
N.T.S.



LIFT STATION PLAN DETAIL

(SEE ALSO CITY OF COCOA LIFT STATION DETAILS SHEET 47)
N.T.S.

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
CITY COMMENTS	02/25/26
SJRWMD COMMENTS	12/16/25
CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

LIFT STATION DETAILS

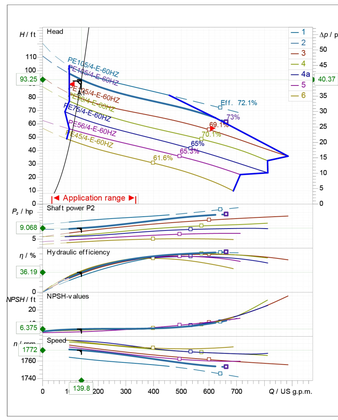
PROJECT NO. 11748

DRAWING NO. 11748_400_048

SHEET 48 of 58

SULZER

XFP100E CB1 60HZ (wet pit)



Test Standard
ISO 9906, HI 11.6/14.6≤10kW

Curve Name
2
Impeller Diameter
9 7/16 inch

This pump (non oil-cooled) is suitable for wet pump installation only.
It is NOT suitable for dry pump installation.

02.06.2025

Operating data specification		Power input	9.84 hp
Flow	139.8 US g.p.m.	Head	93.2 ft
Efficiency	36.2 %	Shaft power	9.07 hp
NPSH	6.38 ft	Fluid	Water
Temperature	68 °F	Nature of system	Single head pump
No. of pumps	1		
Pump data			
Type	XFP100E CB1 60HZ (wet pit)	Make	SULZER
Series	XFP PE1-PE3	Impeller	Contrablock Plus impeller, 1 vane
N° of vanes	1	Impeller size	9 7/16 inch
Free passage	3.15 inch	Suction flange	DN100
Discharge flange	DN100	Type of installation	
Moment of inertia	8.14 lb ft²		Wet well installation with pedestal
Motor data			
Rated voltage	460 V	Frequency	60 Hz
Rated power P2	14.1 hp	Nominal Speed	1750 rpm
Number of poles	4	Efficiency	92.4 %
Power factor	0.81	Rated current	17.7 A
Starting current	106 A	Rated torque	42.2 lbf ft
Starting torque	87.3 lbf ft	Degree of protection	IP 68
Insulation class	H	No. starts per hour	15

Sulzer reserves the right to change any data and dimensions without prior notice and can not be held responsible for the use of information contained in this software.

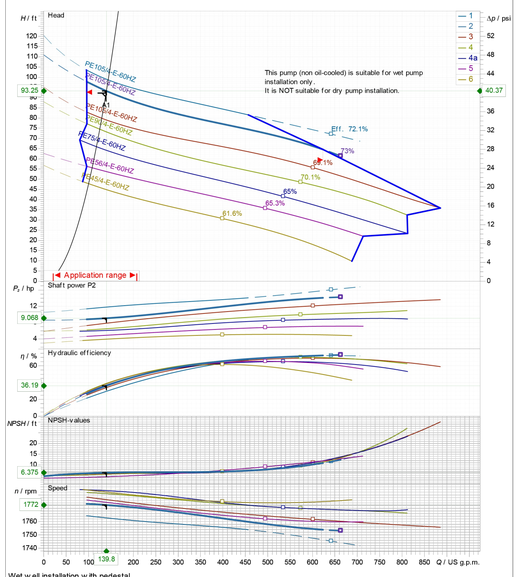
Sulzer® 6-25.1 - 2025/04/15 (Build 578.1075442), 64 bit Data version April 25.1

SULZER

Pump performance curves

XFP100E CB1 60HZ (wet pit)

Curve number				Discharge	Frequency
Reference curve XFP100E CB1 60HZ				DN100	60 Hz
Density	Viscosity	Test Standard		Rated speed	Date
62.32 lb/ft³	1.082E-5 ft²/s	ISO 9906, HI 11.6/14.6≤10kW		1772 rpm	02.06.2025
Flow	Head	Shaft power	Power input	Rated power P2	Hyd. efficiency	NPSH
139.8 US g.p.m	93.2 ft	9.07 hp	9.84 hp	14.1 hp	36.2 %	6.38 ft



This pump (non oil-cooled) is suitable for wet pump installation only.
It is NOT suitable for dry pump installation.

Wet well installation with pedestal

Impeller size	N° of vanes	Impeller	Solid size	Revision
9 7/16 inch	1	Contrablock Plus impeller, 1 vane	3.15 inch	

Sulzer reserves the right to change any data and dimensions without prior notice and can not be held responsible for the use of information contained in this software.

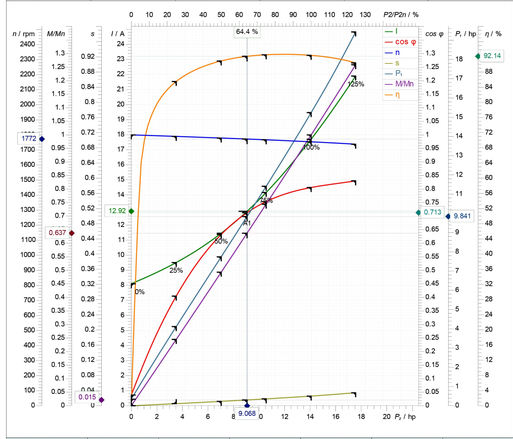
Sulzer® 6-25.1 - 2025/04/15 (Build 578.1075442), 64 bit Data version April 25.1

SULZER

Motor performance curve

PE105/4-E-60HZ

Frequency 60 Hz	PE2				
Rated power	Service factor	Nominal Speed	Number of poles	Rated voltage	Date
14.1 hp	1.3	1754 rpm	4	460 V	02.06.2025



Symbol	No load	25 %	50 %	75 %	100 %	125 %
P2 / hp	0	3.52	7.04	10.56	14.08	
P1 / hp	0.3424	4.116	7.743	11.41	15.24	
I / A	8.1	9.514	11.46	14.17	17.7	
cos φ	0.03956	0.4049	0.6324	0.7537	0.8057	
n / rpm	1800	1790	1779	1767	1754	
s / %	0.0007998	0.5572	1.163	1.819	2.56	
M / lbf ft	0	10.33	20.79	31.39	42.17	
η / %	0	85.52	90.93	92.56	92.4	

Tolerance according to VDE 0530 T1 12.84 for rated power

Starting current	Starting torque	Moment of inertia	No. starts per hour
106 A	87.3 lbf ft	1.07 lb ft²	15

Sulzer reserves the right to change any data and dimensions without prior notice and can not be held responsible for the use of information contained in this software.

Sulzer® 6-25.1 - 2025/04/15 (Build 578.1075442), 64 bit Data version

SULZER

Massblatt XFP 100E–CB1 Nassinstallation	No: AN–M.22.566 – 08
Dimension sheet WET–WELL Installation	Drawn: 12/05/09 D.Whelan
Dimensioni Installazione sommersa	Issue Date: 09/05/2013
Hoja de dimensiones instalacion sumergida	Änderungen vorbehalten Technical changes reserved Con riserva di modifiche Con reserva de modificaciones Sous reserve de modification
Plan d'encombrement Installation noyee	

50 Hz

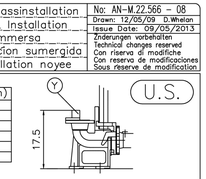
Typ Type Tipo	Gewicht Weight Poids Peso (lbs)	H (*)
PE 40/4	377	30
PE 60/4	400	30
PE 75/4	444	32.8
PE 90/4	444	32.8

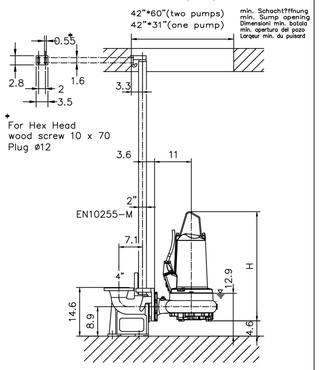
60 Hz

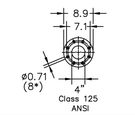
Typ Type Tipo	Gewicht Weight Poids Peso (lbs)	H (*)
PE 35/6	400	30
PE 45/4	377	30
PE 56/4	377	30
PE 75/4	400	30
PE 90/4	444	32.8
PE 105/4	462	32.8

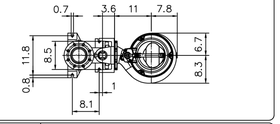
	Part No.	Y(mm)
	DN 100	
	6 232 0652	
	6 232 0653	ø 110
ASA	6 232 0654	ø 115
	6 232 0664	
	6 232 0665	ø 115

U.S.







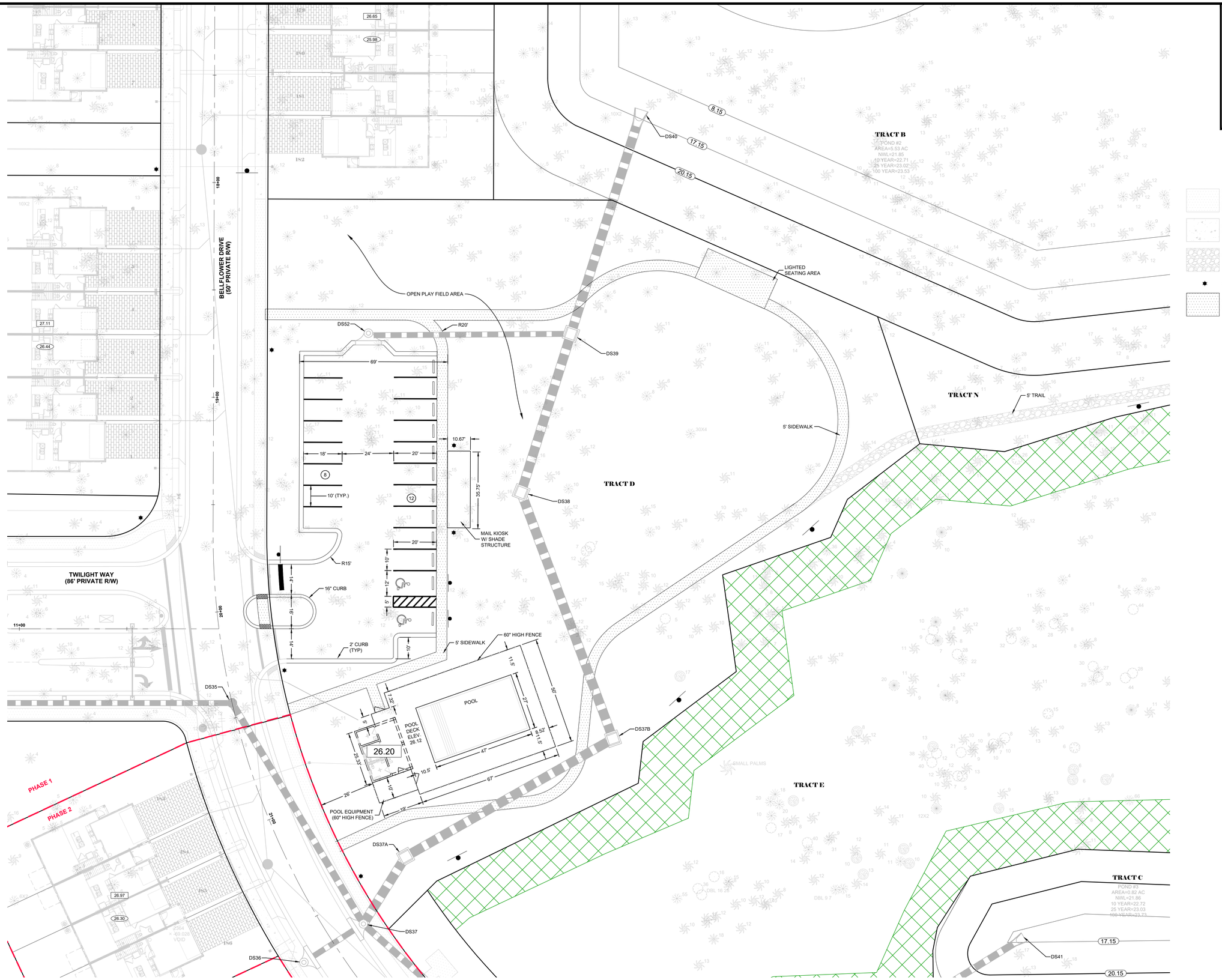


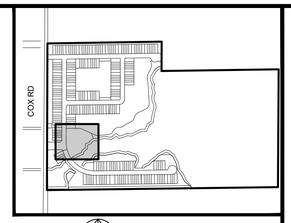
Gewicht: Bohrloch Pumpe/Halterung(Edelstahl) und Kabel (50 Hz = 10 m; 60 Hz = 15 m)
Weight: includes pump, slider bracket and cable (50 Hz = 10 m; 60 Hz = 15 m)
Peso: include pompa, pezzo intermedio a cava (50 Hz = 10 m; 60 Hz = 15 m)
Peso: incluye bomba, soporte deslizante y cable (50 Hz = 10 m; 60 Hz = 15 m)
Poids : incluant la pompe, le coulisseau et le cable (50 Hz = 10 m; 60 Hz = 15 m)

Guss–Allgemeintoleranzen nach DIN1680 – GTB16
General tolerances for castings in acc. to DIN1680–GTB16
Tolleranze generali delle fusioni secondo DIN1680–GTB16
Tolerancias generales para la fundicion seg. de DIN1680–GTB16
Tolérance générale de la fonderie selon DIN1680–GTB16

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

H:\Projects Folder\11748\Drawings\11748_400\11748_400_048.dwg April 13, 2026 4:48:05 PM fc





KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOMEBUILDER SIDEWALK AREAS
- NATURE TRAIL
- STREET LIGHT
- AMENITY CENTER SIDEWALKS
- PRESERVED WETLAND LIMITS
- PROPOSED WETLAND IMPACT
- SURFACE WATER
- WETLAND BUFFER

PINE
PALM
OAK
UNKNOWN
TREE
MAPLE
BAY

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

20 0 10 20
(IN FEET)
VERTICAL DATUM: NAVD88

9	
8	
7	
6	
5	
4	
3 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

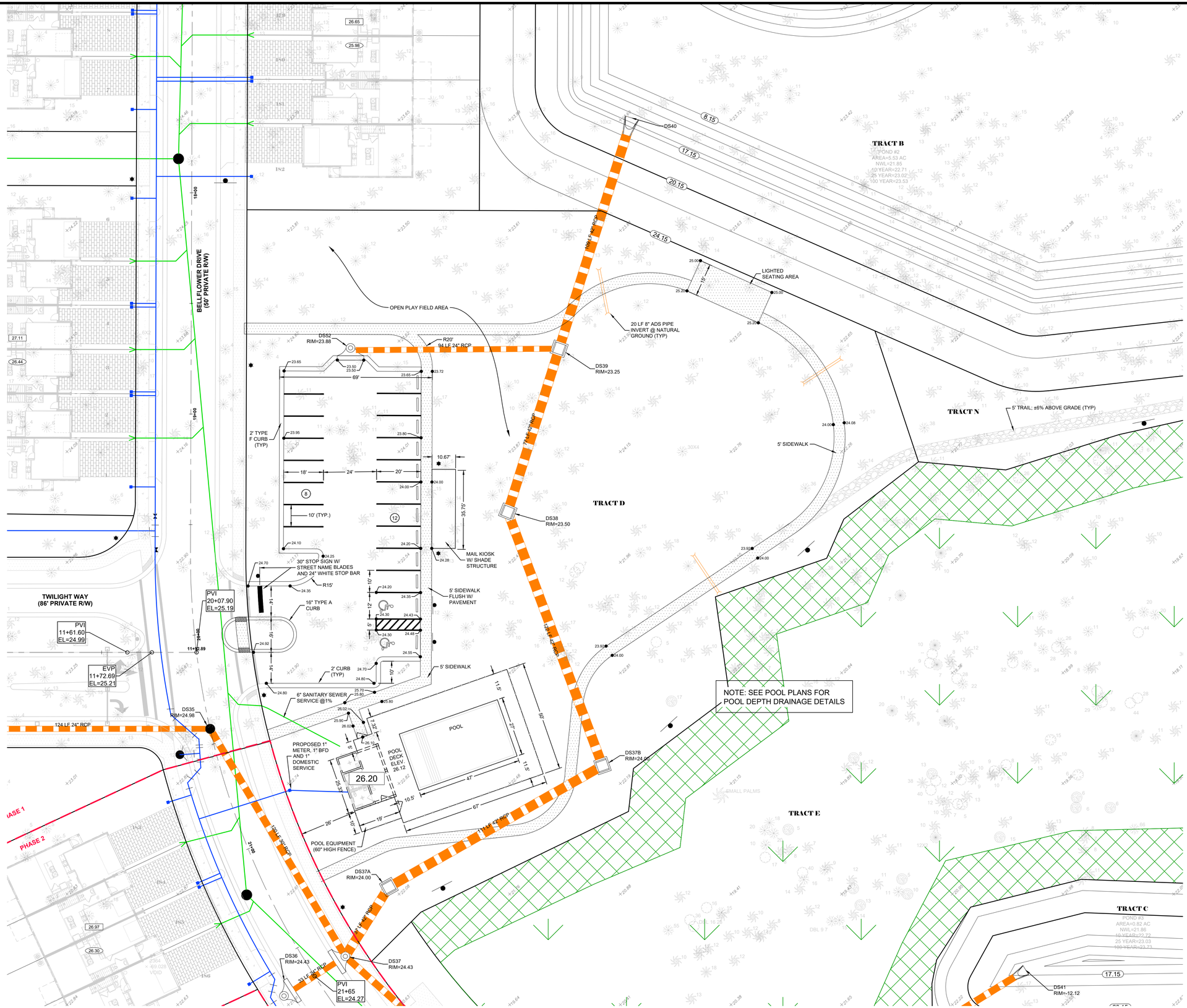
SHEET TITLE
AMENITY AREA SITE PLAN

PROJECT NO.
11748

DRAWING NO.
11748_400_049

SHEET
49 of 58

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

6	
5	
4	
3	
2	
1	CITY COMMENTS 02/25/26
0	SJRWMD COMMENTS 12/16/25
	CITY COMMENTS 07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

AMENITY AREA PAVING, GRADING & DRAINAGE, & UTILITIES

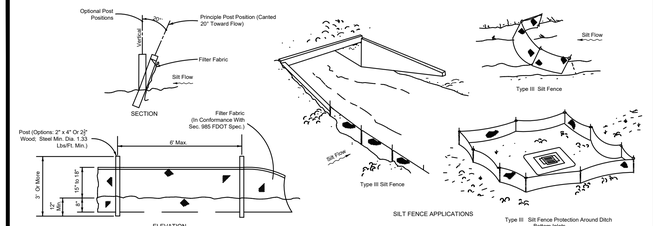
PROJECT NO. 11748

DRAWING NO. 11748_400_050

SHEET 50 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_050.dwg April 13, 2026 4:33:04 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



TYPICAL SILT FENCE
N.T.S.

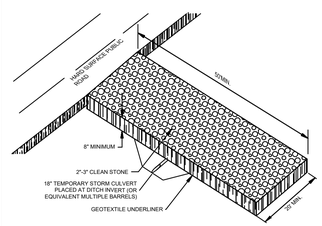
SILT FENCE APPLICATIONS

TYPE III SILT FENCE

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

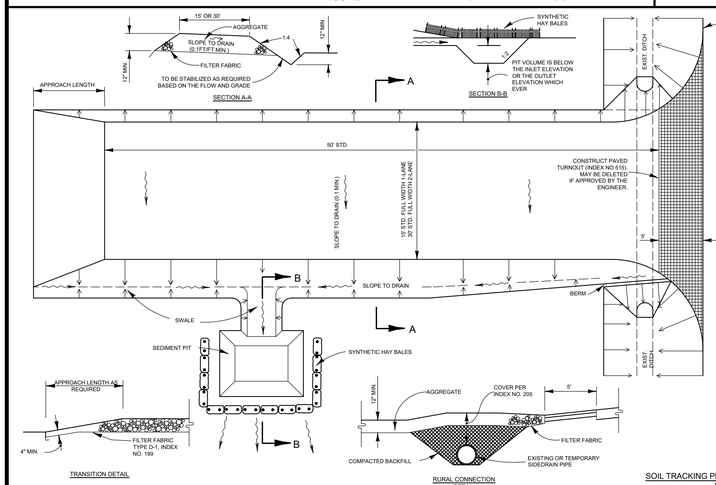
Note: Silt Fence to be paid for under the contract unit price for Staked Silt Fence (LF).

FIGURE 1



CONSTRUCTION ENTRANCE
NTS

FIGURE 2



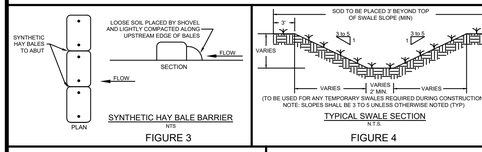
1. EXISTING ROADWAY EDGE OF PAVEMENT

GENERAL NOTES

1. A SOIL TRACKING PREVENTION DEVICE (STPD) SHALL BE CONSTRUCTED AT LOCATION DESIGNATED BY THE ENGINEER FOR POINTS OF EGRESS FROM UNSTABILIZED AREAS OF THE PROJECT TO PUBLIC ROADS WHERE OFFSITE TRACKING OF MUD COULD OCCUR. TRAFFIC FROM UNSTABILIZED AREAS OF THE CONSTRUCTION PROJECT SHALL BE DIRECTED THROUGH STPD. BARRIERS, FLAGGING, OR OTHER POSITIVE MEANS SHALL BE USED AS REQUIRED TO LIMIT AND DIRECT VEHICULAR EGRESS ACROSS STPD.
2. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE TECHNIQUE TO MINIMIZE OFFSITE TRACKING OF SEDIMENT. THE ALTERNATIVE MUST BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ITS USE.
3. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE STPD AGGREGATE AND CONSTRUCTION MUD) SHALL BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER.
4. AGGREGATES SHALL BE DESCRIBED IN SECTION 901 EXCLUDING 901-2.3. AGGREGATES SHALL BE FDOT SIZE #1. IF THIS SIZE IS NOT AVAILABLE, THE NEXT AVAILABLE SMALLER SIZE AGGREGATE MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER. SIZES CONTAINING EXCESSIVE SMALL AGGREGATE WILL TRACK OFF THE PROJECT AND ARE UNSUITABLE.
5. THE SEDIMENT PIT SHOULD PROVIDE A RETENTION VOLUME OF 3600 CUBIC FEET/ACRE OF SURFACE AREA DRAINING TO THE PIT. WHEN THE STPD IS ISOLATED FROM OTHER DRAINAGE AREAS, THE FOLLOWING PIT VOLUMES WILL SATISFY THIS REQUIREMENT:
   15' X 50' = 100 CU. FT. 30' X 50' = 200 CU. FT.
6. AS AN OPTION TO THE SEDIMENT PIT, THE WIDTH OF THE SWALE BOTTOM CAN BE INCREASED TO OBTAIN THE VOLUME. WHEN THE SEDIMENT PIT OR SWALE VOLUME HAS BEEN REDUCED TO ONE HALF, IT SHALL BE CLEANED. WHEN THE SWALE IS USED, SYNTHETIC HAY BALES OR SILT FENCE SHALL BE PLACED ALONG THE ENTIRE LENGTH.
7. THE SWALE DITCH DRAINING THE STPD SHALL HAVE A 0.2% MINIMUM AND A 0.1% MAXIMUM GRADE ALONG THE STPD AND TO THE SEDIMENT PIT.
8. MITERED END SECTIONS ARE NOT REQUIRED WHEN THE SIDEDRAIN PIPE SATISFIES THE CLEAR ZONE REQUIREMENTS.
9. THE STPD SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM ITS FUNCTION, TO PREVENT OFFSITE TRACKING, THE STPD SHALL BE RAISED (DAILY WHEN IN USE) TO MOVE ACCUMULATED MUD DOWNWARD THRU THE STONE. ADDITIONAL STABILIZATION OF THE VEHICULAR ROUTE LEADING TO THE STPD MAY BE REQUIRED TO LIMIT THE MUD TRACKED.
10. A STPD SHALL BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR SOIL TRACKING PREVENTION DEVICE, EA. THE UNIT PRICE SHALL CONSTITUTE FULL COMPENSATION FOR CONSTRUCTION, MAINTENANCE, REPLACEMENT OF MATERIALS, REMOVAL, AND RESTORATION OF THE AREA UTILIZED FOR THE STPD, INCLUDING BUT NOT LIMITED TO EXCAVATION, GRADING, TEMPORARY PIPE (INCLUDING MES WHEN REQUIRED), FILTER FABRIC, AGGREGATE, PAVED TURNOUT (INCLUDING ASPHALT AND BASE CONSTRUCTION), DITCH STABILIZATION, APPROACH ROUTE STABILIZATION, SEDIMENT REMOVAL AND DISPOSAL, WATER, RINSING AND CLEANING OF THE STPD AND CLEANING OF THE PUBLIC ROADS, GRASSING AND SOD. SYNTHETIC HAY BALES SHALL BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR HAY OR STRAW BALED, EA. SILT FENCE SHALL BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE, LF.
11. THE NOMINAL SIZE OF A STANDARD STPD IS 15' X 50' UNLESS OTHERWISE SHOWN IN THE PLANS. IF THE VOLUMES OF ENTERING AND EXITING VEHICLES WARRANT, A 30' WIDTH STPD MAY BE USED IF APPROVED BY THE ENGINEER, WHEN A DOUBLE WIDTH (30') STPD IS USED, THE PAY QUANTITY SHALL BE 2 FOR EACH LOCATION.

SOIL TRACKING PREVENTION DEVICE
NTS

FIGURE 2A

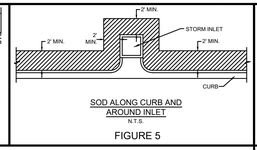


SYNTHETIC HAY BALE BARRIER
NTS

FIGURE 3

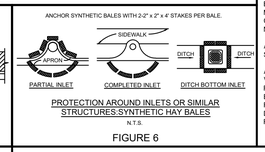
TYPICAL SWALE SECTION
N.T.S.

FIGURE 4



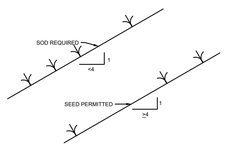
SOD ALONG CURB AND AROUND INLET
N.T.S.

FIGURE 5



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES SYNTHETIC HAY BALES
N.T.S.

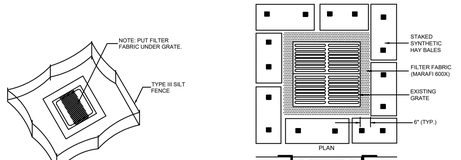
FIGURE 6



NOTE: REFER TO SPECIFICATIONS AND POND CROSS SECTIONS AND DETAILS FOR SLOPE PLANTING AND ANY SPECIALTY EROSION AND CONTROL MEASURES

GRASS SLOPES
N.T.S.

FIGURE 7

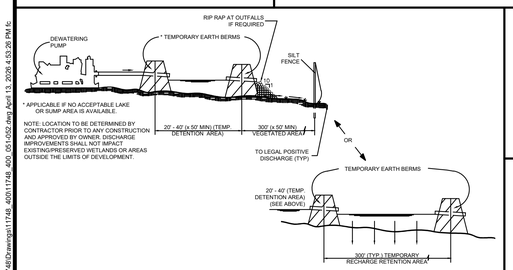


STAKED SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS

SEDIMENT CONTROL DETAIL
NTS

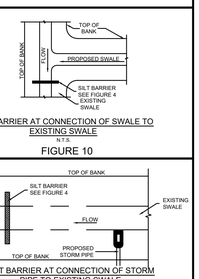
SYNTHETIC HAY BALE PROTECTION AROUND DITCH BOTTOM INLETS

FIGURE 8



TYPICAL DEWATERING DISCHARGE PLAN
NTS

FIGURE 9



SILT BARRIER AT CONNECTION OF SWALE TO EXISTING SWALE
N.T.S.

FIGURE 10

SILT BARRIER AT CONNECTION OF STORM PIPE TO EXISTING SWALE
N.T.S.

FIGURE 11

NOTE: SEE ** STORMWATER MANAGEMENT CRITERIA FOR MINIMUM STANDARDS.

THIS PLAN IS INTENDED TO COMPLY WITH APPROPRIATE CONDITIONS OF THE BREVARD COUNTY LAND DEVELOPMENT REGULATIONS, THE RULES OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, CHAPTER 17-25, F.A.C., AND THE ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT, DURING ALL CONSTRUCTION ACTIVITIES. THE PLAN ADDRESSES THE FOLLOWING AREAS:

1. GENERAL EROSION CONTROL
2. PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION.
3. CONTROL OF WIND EROSION.

THE VARIOUS TECHNIQUES OR ACTIONS IDENTIFIED UNDER EACH SECTION INDICATE THE APPROPRIATE SITUATION WHEN THE TECHNIQUES SHOULD BE EMPLOYED. ALSO IDENTIFIED IS A CROSS-REFERENCE TO A DIAGRAM OR FIGURE REPRESENTING THE TECHNIQUE.

IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED BMP(S). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS REQUIRED BY NPDES AND AS NECESSARY FOR EACH SPECIFIC APPLICATION.

SECTION 1 GENERAL EROSION CONTROL

GENERAL EROSION CONTROL BMP'S SHALL BE EMPLOYED TO MINIMIZE SOIL EROSION AND POTENTIAL LAKE SLOPE CAVE-INS. WHILE THE VARIOUS TECHNIQUES REQUIRED WILL BE SITE AND PLAN SPECIFIC, THEY SHOULD BE EMPLOYED AS SOON AS POSSIBLE DURING CONSTRUCTION ACTIVITIES.

CLEARED SITE DEVELOPMENT AREAS NOT CONTINUALLY SCHEDULED FOR CONSTRUCTION ACTIVITIES SHALL BE COVERED WITH HAY OR OVER SEEDED AND PERIODICALLY WATERED SUFFICIENTLY TO STABILIZE THE TEMPORARY GROUND COVER.

SLOPES OF BANKS OF RETENTION / DETENTION PONDS SHALL BE CONSTRUCTED NOT STEEPER THAN 3H:1V FROM TOP OF BANK TO TWO FEET BELOW NORMAL WATER LEVEL UNLESS SPECIFIED OTHERWISE.

SOD SHALL BE PLACED IN A MINIMUM OF A 2- FOOT WIDE STRIP ADJOINING ALL CURBING AND AROUND ALL INLETS AS SHOWN IN FIGURE 5 OR AS REQUIRED BY THE LANDSCAPE PLAN OR CONTRACT DOCUMENTS. SOD SHALL BE PLACED BEFORE SILT BARRIERS, SHOWN IN FIGURE 8, ARE REMOVED.

SECTION 2 PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION.

SURFACE WATER QUALITY SHALL BE MAINTAINED BY EMPLOYING, AT A MINIMUM, THE FOLLOWING BMP'S AND OTHER MEASURES AS REQUIRED IN THE PLANNING AND CONSTRUCTION OF ALL IMPROVEMENTS.

WHERE PRACTICAL, STORM WATER SHALL BE CONVEYED BY SWALES.

EROSION CONTROL MEASURES SHALL BE EMPLOYED TO MINIMIZE TURBIDITY OF SURFACE WATERS LOCATED DOWNSTREAM OF ANY CONSTRUCTION ACTIVITY. WHILE THE VARIOUS MEASURES REQUIRED WILL BE SITE SPECIFIC, THE FOLLOWING MEASURES SHALL BE UTILIZED AS A MINIMUM.

IN GENERAL EROSION SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM LOCATION.

STORM WATER INLETS SHALL BE PROTECTED DURING CONSTRUCTION AS SHOWN IN FIGURES 5,6, AND 8. PROTECTION MEASURES SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL REMAIN IN PLACE UNTIL SODDING AROUND INLETS IS COMPLETE OR AS OTHERWISE REQUIRED.

HEAVY CONSTRUCTION EQUIPMENT PARKING AND MAINTENANCE AREAS SHALL BE DESIGNED TO PREVENT OIL, GREASE, AND LUBRICANTS FROM ENTERING SITE DRAINAGE FEATURES INCLUDING STORM WATER COLLECTION AND TREATMENT SYSTEMS. CONTRACTOR SHALL PROVIDE BROAD DIKES, SYNTHETIC HAY BALES OR SILT SCREENS AROUND, AND SEDIMENT SUMPS WITHIN, SUCH AREAS AS REQUIRED TO CONTAIN SPILLS OF OIL, GREASE OR LUBRICANTS. CONTRACTORS SHALL HAVE AVAILABLE AT SMALL USE ABSORBENT FILTER PADS OR OTHER METHODS TO CLEAN UP SPILLS AS SOON AS POSSIBLE AFTER OCCURRENCE.

SILT BARRIERS SHALL BE ERECTED AS SHOWN PRIOR THE INITIATION OF CLEARING OR EARTHWORK AND SHALL REMAIN INTACT, VEGETATIVE COVER OR ALL DISTURBED AREAS HAVE BEEN ESTABLISHED OR AS REQUIRED BY THE OWNER. SILT BARRIERS SHALL BE CONTINUOUSLY MAINTAINED FOR ENTIRE PROJECT DURATION. SILT BARRIERS SHALL NOT BE REMOVED UNTIL APPROVED BY THE OWNER. SILT BARRIERS, ANY SILT WHICH ACCUMULATES BEHIND THE BARRIERS, AND ANY FILL USED TO ANCHOR THE BARRIERS SHALL BE REMOVED PROMPTLY AFTER THE END OF THE MAINTENANCE PERIOD SPECIFIED FOR THE BARRIERS.

WHERE REQUIRED TO PREVENT EROSION FROM SHEET FLOW ACROSS BARE GROUND FROM ENTERING A LAKE OR SWALE AND IN THE ABSENCE OF AN ACCEPTABLE TEMPORARY LAKE OR SUMP AREA, A TEMPORARY SUMP SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON THE GROUND DRAINING TO THE SUMP.

SECTION 3 CONTROL OF WIND EROSION

WIND EROSION SHALL BE CONTROLLED BY EMPLOYING BMP'S WHICH SHALL INCLUDE THE FOLLOWING AND/OR OTHER METHODS AS A MINIMUM:

BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE TRANSPORT OF FUGITIVE DUST. IT MAY BE NECESSARY TO LIMIT CONSTRUCTION VEHICLE SPEED IF BARE EARTH HAS NOT BEEN EFFECTIVELY WATERED. IN NO CASE SHALL FUGITIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.

AS SOON AS PRACTICAL AFTER COMPLETION OF CONSTRUCTION, BARE EARTH AREAS SHALL BE VEGETATED.

AT ANY TIME BOTH DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS MAY INCLUDE ERECTION OF DUST CONTROL FENCES. IF REQUIRED, DUST CONTROL FENCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAIL FOR A SILT FENCE SHOWN IN FIGURE 1 EXCEPT THE MINIMUM HEIGHT SHALL BE 4 FEET.

SWPPP COORDINATOR DUTIES

THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING AND ALL OTHER REQUIREMENTS OF THE EPA, FDEP, SJRWMD, AND BREVARD COUNTY REGULATIONS:

1. MAINTAIN RECORDS OF CONSTRUCTION ACTIVITIES, INCLUDING:
   DATES WHEN MAJOR GRADING ACTIVITIES OCCUR.
   DATES WHEN CONSTRUCTION ACTIVATES TEMPORARILY CEASE ON A PORTION OF THE SITE.
   DATES WHEN STABILIZATION MEASURES ARE INITIATED ON SITE.
   RECORDS MUST BE MAINTAINED AT THE JOB SITE.
2. PREPARE INSPECTION REPORTS SUMMARIZING:
   QUALIFICATIONS OF INSPECTOR.
   DAILY RAINFALL TOTALS.
   MEASURES/AREAS INSPECTED.
   CHANGES NECESSARY TO THE SWPPP.
   INSPECTIONS SHALL BE COMPLETED ON A WEEKLY BASIS; AND AFTER RAINFALL EVENTS EXCEEDING 1/2" INTENSITY.
3. A SAMPLE INSPECTION FORM SHALL BE SUPPLIED TO THE CONTRACTOR FOR HIS USE. CONTRACTOR MUST UTILIZE THIS INSPECTION FORM OR AN APPROVED EQUIVALENT.
4. CONTRACTOR MUST EXECUTE NPDES CERTIFICATION FORM AND INSURE THAT ALL SUBCONTRACTORS RESPONSIBLE FOR EROSION CONTROL MEASURES EXECUTE THE NPDES CERTIFICATION FORM. COPIES OF THIS CERTIFICATION MUST BE PROVIDED TO THE OWNER PRIOR TO THE START OF ANY NEW CONSTRUCTION, AND COPIES SHALL BE MAINTAINED AT THE JOB SITE.
5. REPORT RELEASES OF REPORTABLE QUANTITIES OF OIL OR HAZARDOUS MATERIALS (IF THEY OCCUR):
   NOTIFY NATIONAL RESPONSE CENTER @ 1-800-424-8802.
   NOTIFY PERMITTING AUTHORITY IN WRITING WITHIN 14 DAYS.
   MODIFY THE POLLUTION PREVENTION PLAN TO INCLUDE IMPROVED MANAGEMENT CONTROLS.
6. MODIFY THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS NECESSARY TO:
   COMPLY WITH MINIMUM PERMIT REQUIREMENTS WHEN NOTIFIED BY THE EPA, ADDRESS CHANGES IN DESIGN, CONSTRUCTION OPERATION OR MAINTENANCE WHICH HAVE AN AFFECT ON THE POTENTIAL FOR DISCHARGE OF POLLUTANTS INTO STATE WATERS.
   PREVENT REOCCURRENCE OF REPORTABLE QUANTITY RELEASES HAZARDOUS MATERIAL, OIL, AND OR FUEL.
7. AT THE COMPLETION OF THE PROJECT AND AS A CONDITION OF FINAL PAYMENT, CONTRACTOR SHALL PROVIDE THE OWNER WITH TWO COPIES OF THE THE ABOVE DESCRIBED REPORTS IN A CONSOLIDATED REPORT FORMAT; THREE RING BINDERS OR EQUIVALENT.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING AND MAINTAINING A COPY OF DEP DOCUMENT NO. 62-621.300(4)(a). THIS PERMIT IS THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION GENERIC PERMIT FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES THAT DISTURB ONE OR MORE ACRES OF LAND.
9. ALL FERTILIZERS, HERBICIDES, AND PESTICIDES TO BE APPLIED, STORED, AND DISPOSED OF PER THE MANUFACTURER RECOMMENDATIONS.
10. CONTRACTOR IS RESPONSIBLE TO ASSURE THAT ALL WASTE, SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTE ARE PROPERLY CONTROLLED AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE STATE, LOCAL, AND FEDERAL REGULATIONS.

GENERAL MAINTENANCE PLAN

THE FOLLOWING MAINTENANCE PLAN IS GENERAL IN NATURE AND IS INTENDED TO PROVIDE A GUIDELINE FOR THE CONTRACTOR. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COMPLETE THE PROJECT IN CONFORMANCE WITH THE NPDES STANDARDS AND APPROVED PLANS AND PERMITS.

SHORT TERM:

1. ALL EROSION CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY 1/2" RAINFALL EVENT, BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ALL NEEDED REPAIRS WILL BE RECORDED AND MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. SEDIMENT BUILDUP WILL BE CLOSELY MONITORED AND REMOVED FROM INLET PROTECTION DEVICES TO ENSURE PROPER MANAGEMENT AND STORAGE CAPACITIES. SEDIMENT CONTROL DEVICES SHALL BE CLEANED OR REPLACED WHEN THE SEDIMENT CONTROL NO LONGER WORKS EFFECTIVELY AS DESIGNED.
3. THE SEDIMENT CONTROLLING SILT FENCE SHALL BE MAINTAINED AND/OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
4. ALL SEEDED AREAS SHALL BE RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VEGETATIVE COVER ADEQUATE TO PREVENT EROSION TO OFFSITE AREAS.
5. AS NEEDED, NEW OR ADDITIONAL WORKERS WILL BE INFORMED OF THE PLAN DETAILS IN THE OPERATION AND MAINTENANCE OF PLAN FEATURES.

LONG TERM:

1. ALL VEGETATED AREAS WILL BE MAINTAINED IN ADEQUATE CONDITION TO PROVIDE PROPER GROUND COVER, THEREBY REDUCING EROSION POTENTIAL.
2. AREAS WHERE VEGETATION IS LOST WILL BE RESTABILIZED AND MAINTAINED AS NECESSARY TO RESTORE PROPER GROUND COVER.
3. STRUCTURAL MEASURES WILL BE EXAMINED AT LEAST ANNUALLY AND MAINTENANCE PERFORMED AS NEEDED.

GENERAL CONSTRUCTION SEQUENCING PLAN

THE FOLLOWING CONSTRUCTION SEQUENCING IS GENERAL IN NATURE AND IS INTENDED TO PROVIDE A GUIDELINE FOR THE CONTRACTOR. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COMPLETE THE PROJECT IN CONFORMANCE WITH THE NPDES STANDARDS AND APPROVED PLANS AND PERMITS.

1. OBTAIN PLAN APPROVAL AND OTHER APPLICABLE PERMITS.
2. FLAG THE WORK LIMITS OF CONSTRUCTION AND IDENTIFY AREAS NOT TO BE DISTURBED.
3. HOLD PRE CONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION. WEEKLY REVIEWS OF EROSION, SEDIMENT, AND STORM WATER CONTROLS WILL BE CONDUCTED. REVIEWS WILL ALSO BE CONDUCTED WITHIN 24 HOURS FOLLOWING ALL RAIN EVENTS EXCEEDING 1/2" INTENSITY.
4. INSTALL SEDIMENT CONTROLS AS THE FIRST CONSTRUCTION ACTIVITY.
5. INSTALL STORM DRAIN WITH STABILIZED INLET PROTECTION AT THE CONSTRUCTION ENTRANCE/EXIT.
6. INSTALL TEMPORARY STABILIZED CONSTRUCTION ENTRANCE/EXIT.
7. COMPLETE SITE CLEARING EXCEPT FOR AREAS DESIGNATED NOT TO BE DISTURBED.
8. ROUGH GRADE SITE, STOCKPILE TOPSOIL, CONSTRUCT WATERWAYS, INSTALL CULVERTS AND OUTLET PROTECTION (INSTALL SEDIMENT CONTROLS AND SILT FENCING AS NEEDED).
   BARE AREAS OF EXPOSED LAND SHALL BE MULCHED AND SEEDED ONCE GRADING HAS BEEN COMPLETED.
9. FINISH THE SLOPES AROUND BUILDING DIRT PADS AS SOON AS ROUGH GRADING IS COMPLETE.
10. COMPLETE FINAL GRADING FOR ROADS AND STABILIZE WITH APPROVED MATERIAL.
11. COMPLETE FINAL GRADING OF GROUNDS, TOPSOIL CRITICAL AREAS, AND PERMANENTLY VEGETATE, LANDSCAPE, AND MULCH.
12. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSPECTED WEEKLY AND FOLLOWING 1/2" RAINFALL EVENTS. NEEDED REPAIRS WILL BE RECORDED WITHIN 24 HOURS, AND CORRECTED IMMEDIATELY.
13. AFTER SITE IS STABILIZED, REMOVE ALL TEMPORARY MEASURES AND INSTALL PERMANENT VEGETATION ON THE DISTURBED AREAS.

SPECIAL NOTICE:

THE CERTIFICATIONS BELOW ARE INCLUDED FOR INFORMATIONAL PURPOSES ONLY. OFFICIAL EXECUTED CERTIFICATIONS ARE KEPT IN THE PROJECT FILE.

CONTRACTORS CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND AND SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER."

NAME:_____
TITLE:_____
COMPANY NAME:_____
COMPANY ADDRESS:_____
COMPANY PHONE #:_____(___) ___-____
PROJECT SITE DESCRIPTION:____

SIGNATURE:_____

DATE OF CERTIFICATION:_____

ENGINEERS CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

NAME:..... Scott M. Glaubitz, P.E./Hassan Kamal, P.E.
TITLE:..... President/Vice President
COMPANY NAME:..... B.S.E. Consultants, Inc.
COMPANY ADDRESS:..... 312 S. Harbor City Blvd., Suite 4
Melbourne, Florida 32901
COMPANY PHONE #:..... (321) 725-3674
PROJECT SITE DESCRIPTION:.....

SIGNATURE:_____

DATE OF CERTIFICATION:_____

CORPORATE OFFICERS CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

NAME:.....
TITLE:.....
COMPANY NAME:.....
COMPANY ADDRESS:.....

COMPANY PHONE #:.....
PROJECT SITE DESCRIPTION:.....

SIGNATURE:_____

DATE OF CERTIFICATION:_____

NON-SYNTHETIC HAY BALES SHALL NOT BE PERMITTED

NOTE: SILT FENCE LOCATION IS SCHEMATIC REPRESENTATION. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING SILT FENCE AT THE LOCATION NEEDED TO PREVENT THE TRANSPORT OF SEDIMENT OFFSITE AND NOT INTERFERE WITH THE REQUIRED ONSITE CONSTRUCTION. CONTRACTOR MAY NEED TO RELOCATE/REPLACE/ADJUST SILT FENCE LOCATIONS TO ACCOMMODATE CONSTRUCTION SEQUENCING.

SEE SHEET 52 FOR PLAN VIEW

GENERAL SITE INFORMATION

SITE DESCRIPTION: PROPOSED RESIDENTIAL COMMUNITY WITHIN VILLAGE 2 OF WEST VIERA DRI

TOTAL AREA AND DISTURBED AREA: ±162 ACRES

QUALITY RECEIVING SURFACE WATERS AND WETLANDS: VILLAGE 2 MASTER SYSTEM TO SJ RIVER

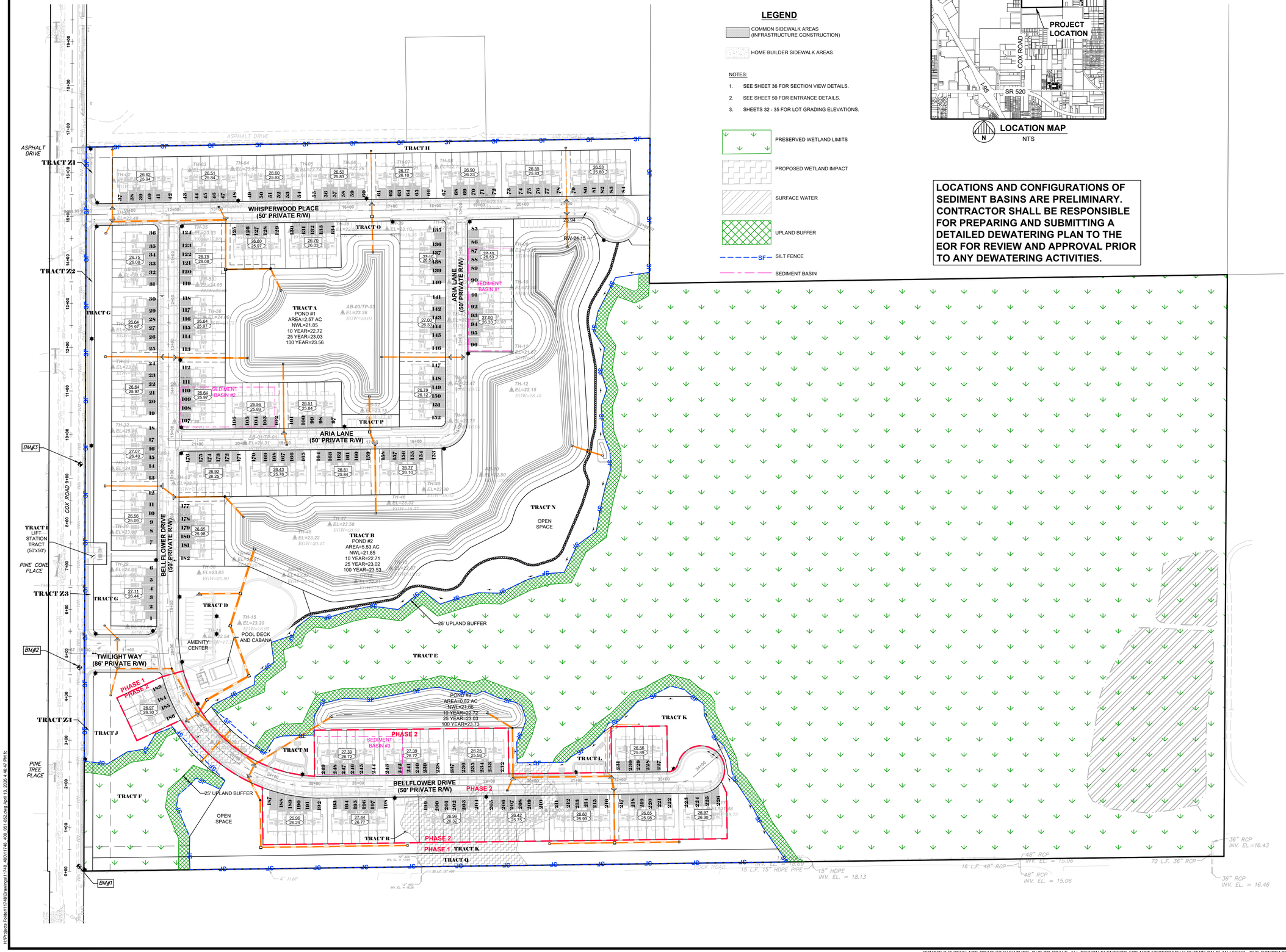
EXISTING SOIL TYPES: Myakka Sand, Anclote Sand, Malabar, Holopaw and Pineda Soils, Basinger Sand, Copeland Sand

STORM WATER POLLUTION PREVENTION MEASURES & CONTROLS:
THERE ARE A VARIETY OF CONTROLS PROPOSED FOR THIS SITE. SOME CONTROLS ARE INTENDED TO FUNCTION TEMPORARILY AND WILL BE USED AS NEEDED FOR POLLUTANT CONTROL. THESE INCLUDE TEMPORARY SEDIMENT BARRIERS AND SILT FENCES. FOR MOST DISTURBED AREAS, PERMANENT STABILIZATION WILL BE ACCOMPLISHED BY COVERING THE SOIL WITH PAVEMENT OR VEGETATION.

SOIL STABILIZATION:
THE PURPOSE OF SOIL STABILIZATION IS TO PREVENT SOIL FROM LEAVING THE SITE. IN THE NATURAL CONDITION, SOIL IS STABILIZED BY NATIVE VEGETATION. THE PRIMARY TECHNIQUES TO BE USED AT THIS PROJECT FOR STABILIZATION AFTER CONSTRUCTION WILL BE TO PROVIDE PROTECTIVE TURF GRASS OR PAVEMENT.

NOTES:
ACCESS SHALL BE PROVIDED BY AN UNOBSTRUCTED ALL WEATHER DRIVING SURFACE CAPABLE OF SUPPORTING THE LOADS IMPOSED BY RESPONDING APPARATUS OF NOT LESS THAN 20 FEET AND SHALL BE MAINTAINED DURING CONSTRUCTION (SEE FIGURE 2). THE LOCATION OF EROSION CONTROL FEATURES SHOWN ON THIS PLAN REPRESENTS MINIMUM REQUIREMENTS. DEPENDING UPON

SEE LANDSCAPE PLANS FOR TREE PROTECTION REQUIREMENTS



LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOME BUILDER SIDEWALK AREAS

NOTES:

1. SEE SHEET 36 FOR SECTION VIEW DETAILS.
2. SEE SHEET 50 FOR ENTRANCE DETAILS.
3. SHEETS 32 - 35 FOR LOT GRADING ELEVATIONS.

- PRESERVED WETLAND LIMITS
- PROPOSED WETLAND IMPACT
- SURFACE WATER
- UPLAND BUFFER
- SF — SILT FENCE
- SEDIMENT BASIN

LOCATION MAP
NTS

LOCATIONS AND CONFIGURATIONS OF SEDIMENT BASINS ARE PRELIMINARY. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING A DETAILED DEWATERING PLAN TO THE EOR FOR REVIEW AND APPROVAL PRIOR TO ANY DEWATERING ACTIVITIES.

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

100 0 50 100
(IN FEET)
VERTICAL DATUM: NAVD88

6	
5	
4	
3	
2	
1 CITY COMMENTS	02/25/26
0 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

SURFACE WATER POLLUTION PREVENTION PLAN (SWPPP)

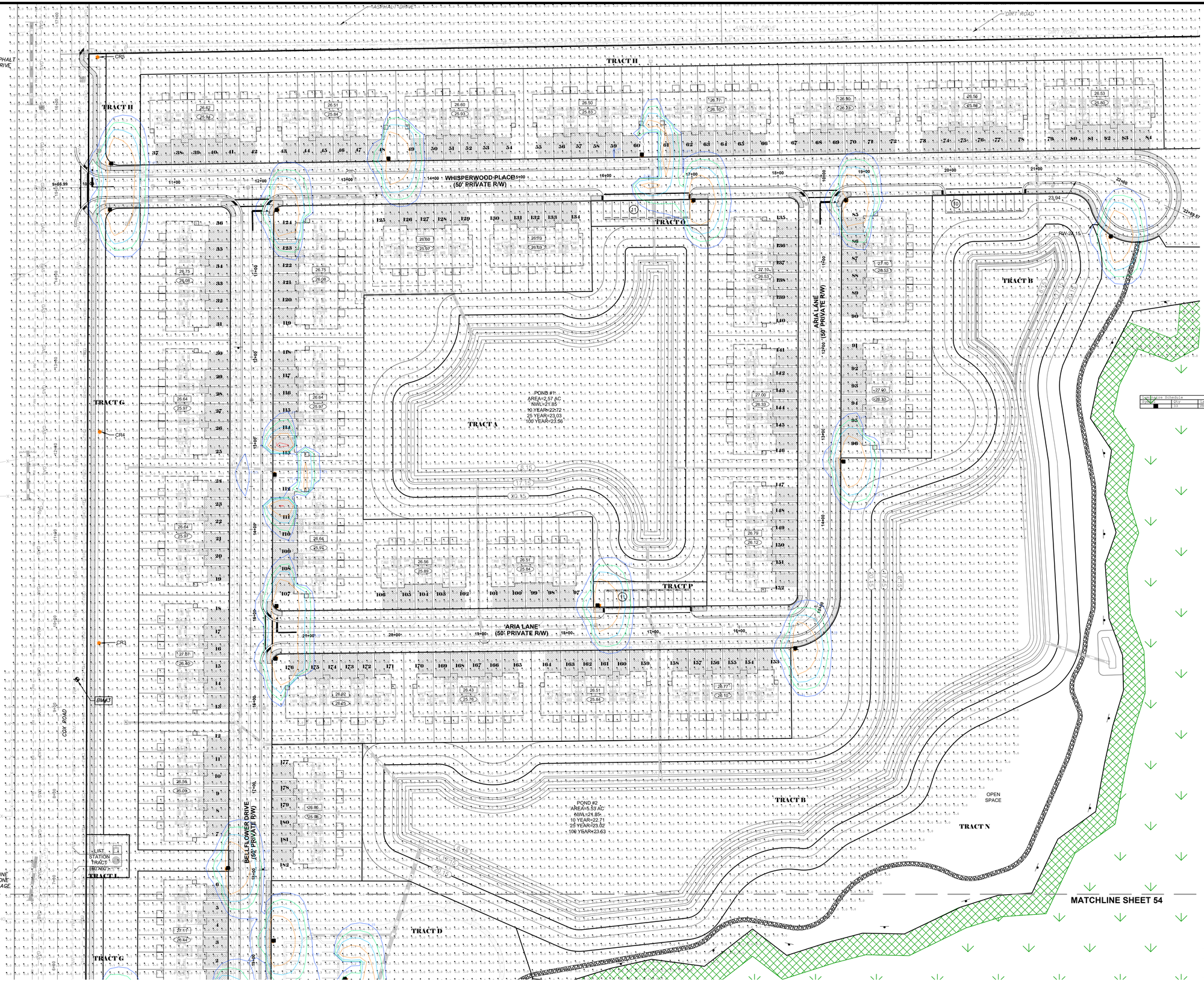
PROJECT NO. 11748

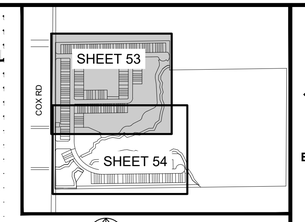
DRAWING NO. 11748_400_052

SHEET 52 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_051-052.dwg April 13, 2026 4:46:47 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.





KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOMEBUILDER SIDEWALK AREAS
- NATURE TRAIL
- PRESERVED WETLAND LIMITS
- SURFACE WATER
- WETLAND BUFFER
- STREET LIGHT

LIGHTING SHALL BE DESIGNED, INSTALLED, MAINTAINED, AND DIRECTED TO AVOID GLARE ON ADJOINING PROPERTIES AND RIGHTS-OF-WAY THROUGH THE USE OF SEMI AND FULL CUT-OFF FEATURES.

Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Luminaire Watts
	33	P80-SA2A-740-U-P3	Single	66

Luminaire Location Summary		
Lumbo	Label	E
1	P80-SA2A-740-U-P3	15.5
2	P80-SA2A-740-U-P3	15.5
3	P80-SA2A-740-U-P3	15.5
4	P80-SA2A-740-U-P3	15.5
5	P80-SA2A-740-U-P3	15.5
6	P80-SA2A-740-U-P3	15.5
7	P80-SA2A-740-U-P3	15.5
8	P80-SA2A-740-U-P3	15.5
9	P80-SA2A-740-U-P3	15.5
10	P80-SA2A-740-U-P3	15.5
11	P80-SA2A-740-U-P3	15.5
12	P80-SA2A-740-U-P3	15.5
13	P80-SA2A-740-U-P3	15.5
14	P80-SA2A-740-U-P3	15.5
15	P80-SA2A-740-U-P3	15.5
16	P80-SA2A-740-U-P3	15.5
17	P80-SA2A-740-U-P3	15.5
18	P80-SA2A-740-U-P3	15.5
19	P80-SA2A-740-U-P3	15.5
20	P80-SA2A-740-U-P3	15.5
21	P80-SA2A-740-U-P3	15.5
22	P80-SA2A-740-U-P3	15.5
23	P80-SA2A-740-U-P3	15.5
24	P80-SA2A-740-U-P3	15.5
25	P80-SA2A-740-U-P3	15.5
26	P80-SA2A-740-U-P3	15.5
27	P80-SA2A-740-U-P3	15.5
28	P80-SA2A-740-U-P3	15.5
29	P80-SA2A-740-U-P3	15.5
30	P80-SA2A-740-U-P3	15.5
31	P80-SA2A-740-U-P3	15.5
32	P80-SA2A-740-U-P3	15.5
33	P80-SA2A-740-U-P3	15.5

POLES ALONG COX ROAD, IDENTIFIED AS CR1-CR5, SHALL BE STANDARD FPL COBRA HEADS AND WILL BE ADDED TO THE CITY OF COCOA MASTER STREET LIGHT ACCOUNT. CR1-CR5 ARE LOCATED WITHIN THE EXISTING OR FUTURE R/W AND EXACT LOCATION SHALL BE COORDINATED WITH FPL AND THE EXISTING POLES AND OVERHEAD LINES ALONG COX ROAD.

BENCHMARK (BM) TABLE		
NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

50 0 25 50

(IN FEET)

VERTICAL DATUM: NAVD88

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

1	
2	
3	
4	
5	
6	
1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

PHOTOMETRIC PLAN

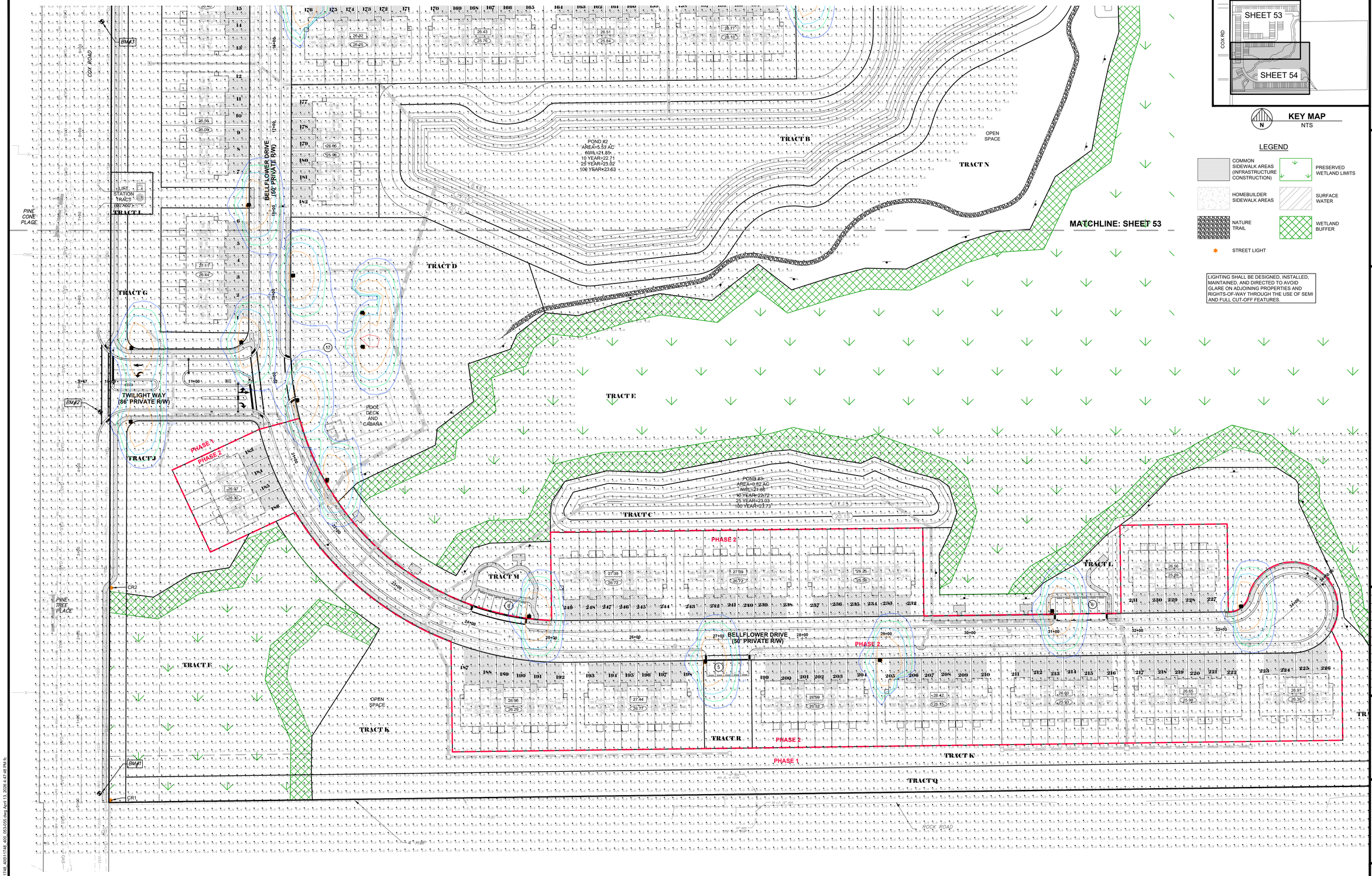
PROJECT NO.
11748

DRAWING NO.
11748_400_053

SHEET
53 of 58

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

H:\Projects Folder\11748\Drawings\11748_400\11748_400_053-055.dwg April 13, 2026 4:51:27 PM fc



POLES ALONG COX ROAD, IDENTIFIED AS CR1-CR5, SHALL BE STANDARD FPL COBRA HEADS AND WILL BE ADDED TO THE CITY OF COCOA MASTER STREET LIGHT ACCOUNT. CR1-CR5 ARE LOCATED WITHIN THE EXISTING OR FUTURE R/W AND EXACT LOCATION SHALL BE COORDINATED WITH FPL AND THE EXISTING POLES AND OVERHEAD LINES ALONG COX ROAD.

N

KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOMEBUILDER SIDEWALK AREAS
- NATURE TRAIL
- PRESERVED WETLAND LIMITS
- SURFACE WATER
- WETLAND BUFFER
- STREET LIGHT

LIGHTING SHALL BE DESIGNED, INSTALLED, MAINTAINED, AND DIRECTED TO AVOID GLARE ON ADJOINING PROPERTIES AND RIGHTS-OF-WAY THROUGH THE USE OF SEMI AND FULL CUT-OFF FEATURES.

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

50 0 25 50
(IN FEET)
VERTICAL DATUM: NAVD88

1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
PHOTOMETRIC PLAN

PROJECT NO.
11748

DRAWING NO.
11748_400_054

SHEET
54 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_053-055.dwg April 13, 2026 4:47:48 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

POST TOP LIGHTING (Page 1 of 2)

Manufacturer	Style	Fixture	Pole Options	Bracket Options	Light Pattern	Line Watts/ NEMA Label	Color Temp	Lumens	Glare Rating (BUG)	.ies File	Billing Tier
AEL	Contemporary (Contempo)	(Gray)	1 (20'), 2, 8	NA	3	38/40	3000K	3,358	B1-U3-G2	245L_P30_XX_30K_R3_RNA_FPD95.ies	C2
						72/70	3000K	6,385	B2-U3-G2	245L_P55_XX_30K_R3_RNA_FPD95_SPECIAL.ies	E3
						38/40	4000K	3,615	B1-U3-G2	245L_P30_XX_40K_R3_RNA_FPD95.ies	C2
						72/70	4000K	6,874	B2-U3-G2	245L_P55_XX_40K_R3_RNA_FPD95_SPECIAL.ies	E3
Cooper	Arbor		1 (20'), 2**, 5, 8	NA or 4,5	3	48	3000K	4,173	B1-U0-G2	ARB-B2-LED-D1-T3-7030	D6
						48	4000K	4,534	B1-U0-G2	ARB-B2-LED-D1-T3-7040	D6
						99	3000K	7,779	B2-U0-G3	ARB-B3-LED-D1-T3-7030	G6
						99	4000K	8,451	B2-U0-G3	ARB-B3-LED-D1-T3-7040	G6
	Mesa	(Black)	1 (20'), 2**, 5, 8, 9	NA or 4,5	3	75/80	4000K	9,017	B2-U0-G2	PMMSA2A740UT3-75W	E5
						150/150	4000K	17,958	B3-U0-G3	PMMSA4A740UT3-150W	J6
					5	258	4000K	28,336	B5 U0 G4	PMMSA4D740U5WQ-258W	Q6
Current	EPTC	(Black)	1 (20'), 2, 8	NA or 4,5	3	65/70	4000K	7,300	B3-U0-G1	EPTC02_07B40_____.ies	E4
Post Top	Traditional No Side Panels	(Black)	1 (20'), 2, 8	NA or 4,5	3	39/40	3000K	4,300	B1-U0-G2	Upon Request	C3
						39/40	4000K	4,500	B1-U0-G2		C3
						73/70	3000K	7,650	B2-U0-G2		E3
						73/70	4000K	7,970	B2-U0-G2		E3
	Traditional W/Side Panels	(Black)	1 (20'), 2, 8	NA or 4,5	3	39/40	3000K	3,840	B1-U3-G3	Upon Request	C3
						39/40	4000K	4,000	B1-U3-G3		C3
						73/70	3000K	7,010	B2-U4-G3		E3
						73/70	4000K	7,300	B2-U4-G3		E3

*Also available in double bracket configuration

**New construction only

POLES

Standard Concrete
1
Tenon Mount
20' (13' MH)
35' (27'6" MH)

Standard Black Fiberglass
2
Tenon Mount
14' (10' MH)
21' (15'6" MH)

Black Washington Concrete
3
Tenon Mount
23' (16' MH)

Black Octagonal Concrete
4
Tenon Mount
37' (30' MH)

Black or Green Washington Concrete
5
Tenon Mount
18.5' (14'6" MH)

Standard Wood
6
Side Mount
35' (29' MH)
40' (33'6" MH)
45' (38" MH)

Standard Concrete
7
Side Mount
30' (22'6" MH)
35' (27'6" MH)
40' (30"' MH)
45' (35' MH)

Black Tapered Concrete
8
Tenon Mount
14'6" (10' MH)
21'(15'6" MH)
33' (24' MH)

Grey or Black Round Concrete Pole on Concrete Base
(Non-roadway Only)
9
Tenon Mount
22' pole
25' MH

Unfinished Round Tapered Concrete
10
Side Mount
28' pole
35' MH
(For use with bracket 7 only)

Smart Pole Concrete
11
Side Mount
49' & 43'

*MH = Approximate Mounting Height

FPLES_128297

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

VERTICAL DATUM: NAVD88

7	
6	
5	
4	
3	
2	
1 CITY COMMENTS	02/25/26
SJRWMD COMMENTS	12/16/25
CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

PHOTOMETRIC DETAILS

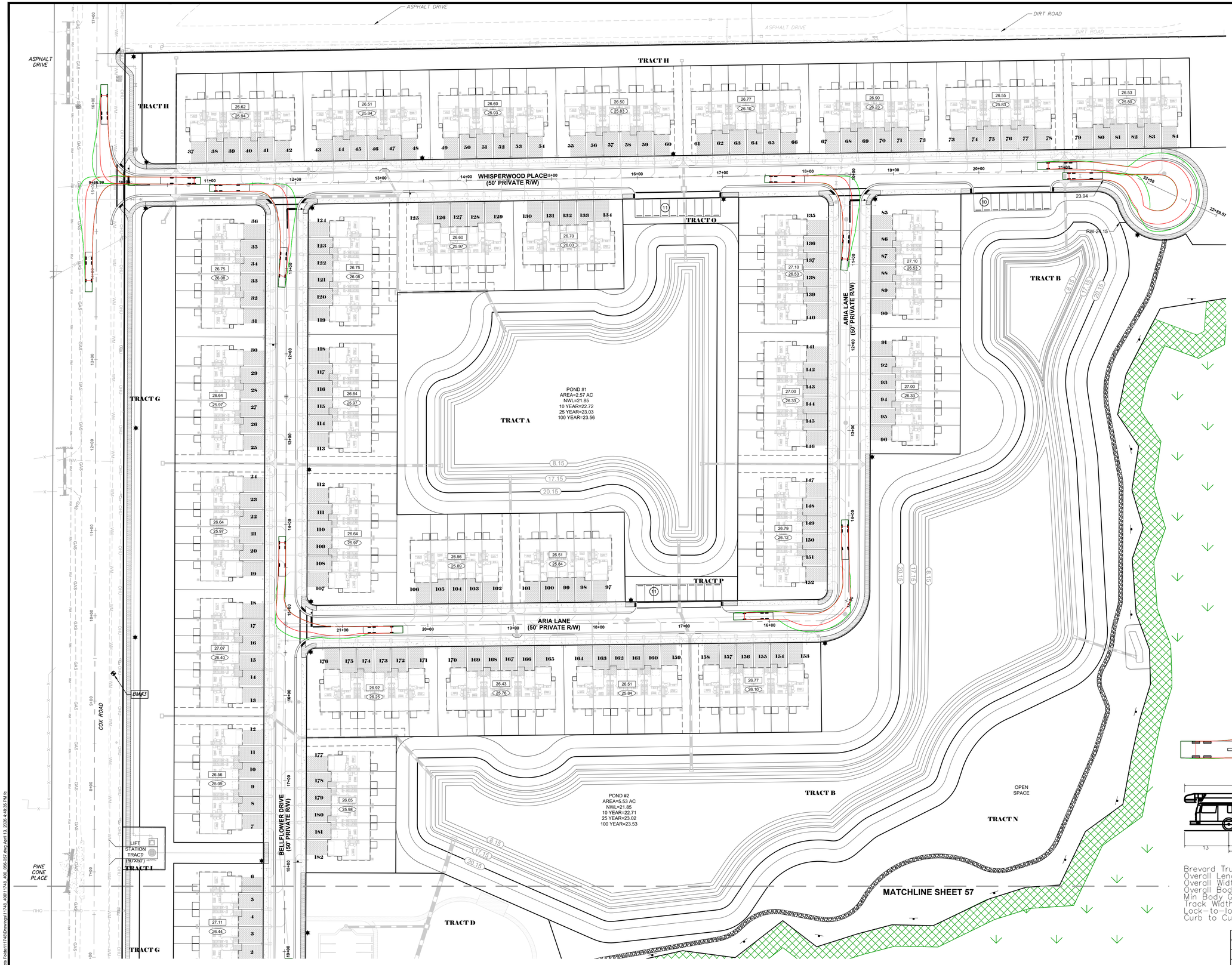
PROJECT NO. 11748

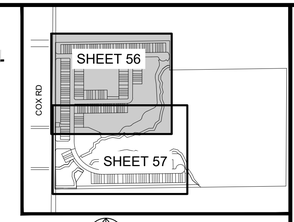
DRAWING NO. 11748_400_055

SHEET 55 of 58

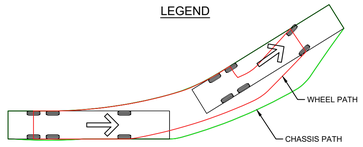
H:\Projects Folder\11748\Drawings\11748_400\11748_400_053-055.dwg April 13, 2026 4:54:47 PM fs

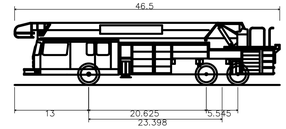
SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.





KEY MAP
NTS





Brevard Truck 63	
Overall Length	46.500ft
Overall Width	8.068ft
Overall Body Height	10.907ft
Min Body Ground Clearance	1.337ft
Track Width	8.068ft
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	35.330ft

BENCHMARK (BM) TABLE		
NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

50 0 25 50
(IN FEET)
VERTICAL DATUM: NAVD88

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

7	
6	
5	
4	
3	
2	
1	
7 CITY COMMENTS	02/25/26
6 SJRWMD COMMENTS	12/16/25
5 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
VEHICLE TRACKING PLAN

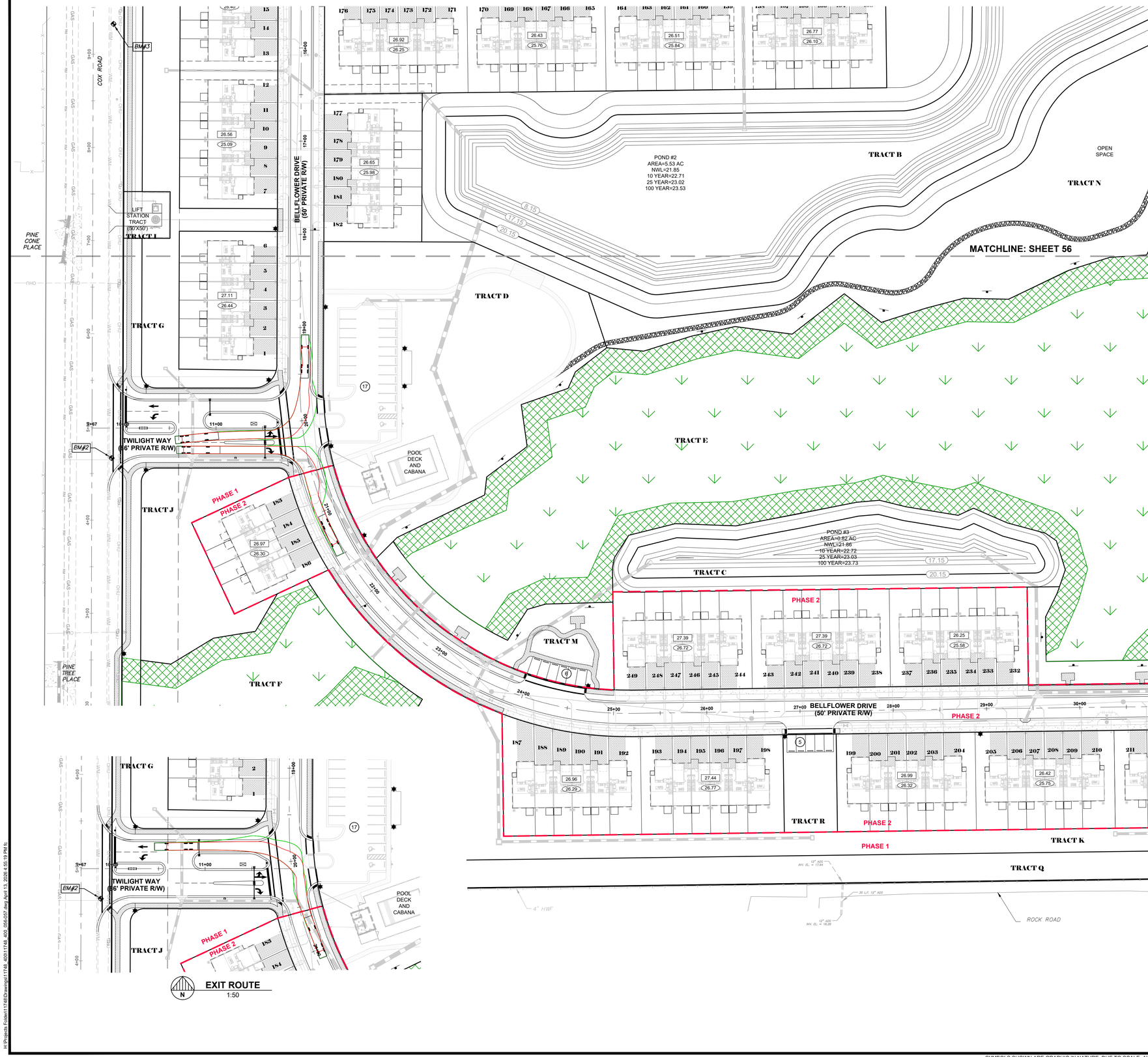
PROJECT NO.
11748

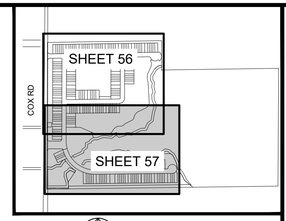
DRAWING NO.
11748_400_056

SHEET
56 of 58

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

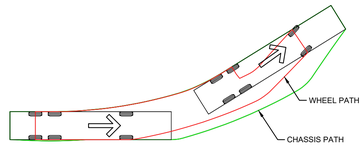
H:\Projects Folder\11748\Drawings\11748_400\11748_400_056-057.dwg April 13, 2026 4:48:35 PM ES

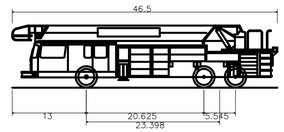




KEY MAP
NTS

LEGEND





Brevard Truck 63	
Overall Length	46.500ft
Overall Width	8.068ft
Overall Body Height	10.907ft
Min Body Ground Clearance	1.337ft
Track Width	8.068ft
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	35.330ft

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

50 0 25 50
(IN FEET)
VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
1 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
3 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

VEHICLE TRACKING PLAN

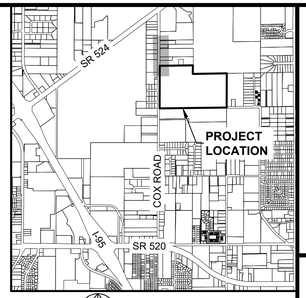
PROJECT NO.
11748

DRAWING NO.
11748_400_057

SHEET
57 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_056-057.dwg April 13, 2026 4:55:19 PM fc

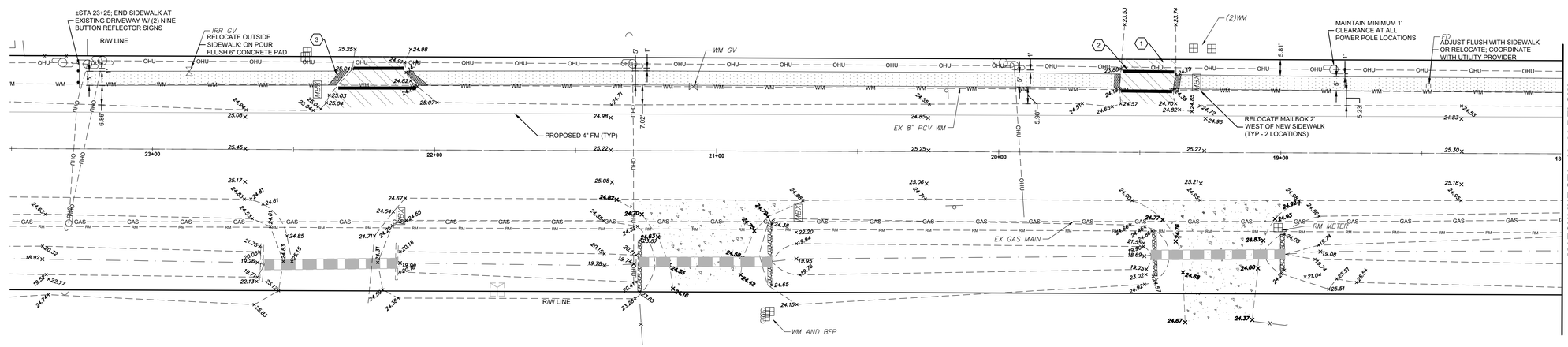
SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

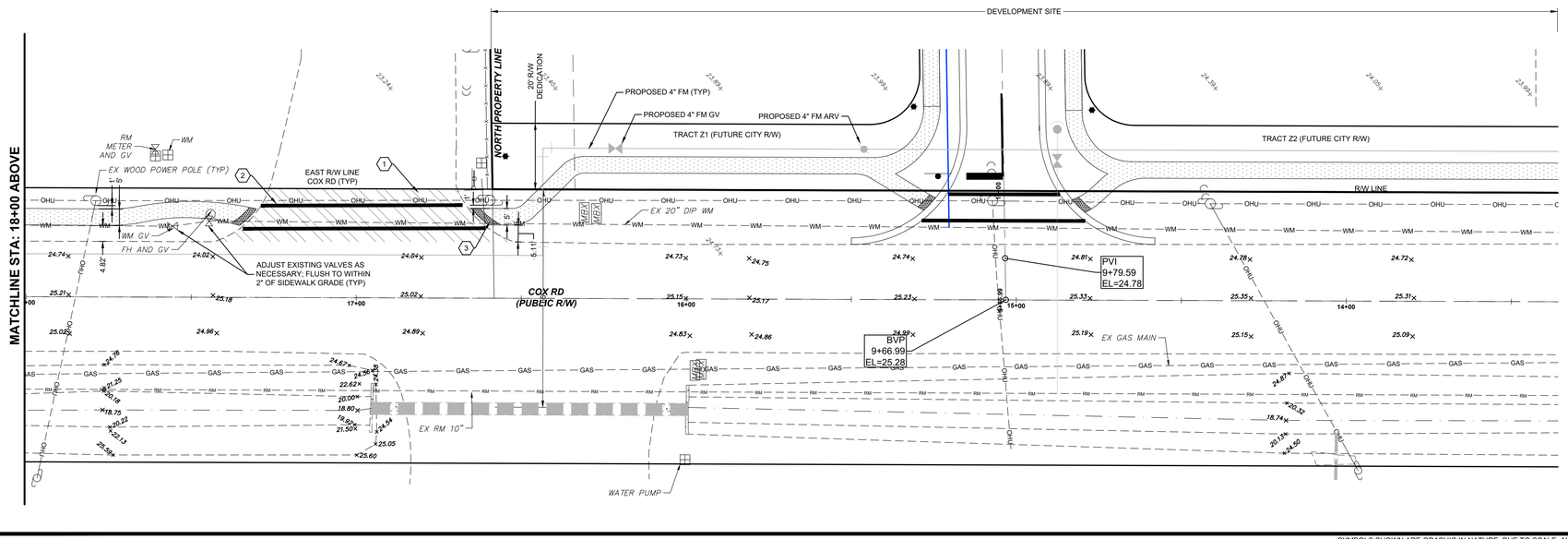


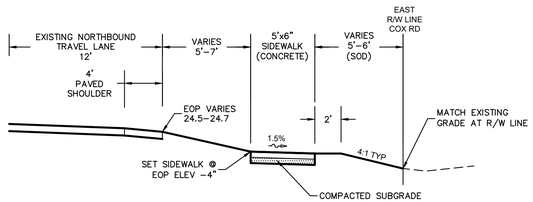
LOCATION MAP
NTS

NOTE: POSTED SPEED LIMIT FOR COX RD IS 40 MPH

1. SAWCUT EXISTING ASPHALT AT LIMIT, AS SHOWN; SCARIFY EXISTING BASE AND GRADE TO MATCH REMAINING EDGE OF PAVEMENT; APPLY PRIME COAT AND 1 1/2 SP 12.5 ASPHALT
2. 12" WHITE CROSSWALK, 7' INSIDE TO INSIDE, THERMOPLASTIC STRIPING
3. ADA COMPLIANT TRUNCATED MATT, FLUSH WITH NEW PAVEMENT







TYPICAL SIDEWALK INSTALLATION SECTION
NTS

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

20 0 10 20
(IN FEET)
VERTICAL DATUM: NAVD88

8	
7	
6	
5	
4	
3 CITY COMMENTS	02/25/26
2 SJRWMD COMMENTS	12/16/25
1 CITY COMMENTS	07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
PROPOSED COX ROAD SIDEWALK EXTENSION

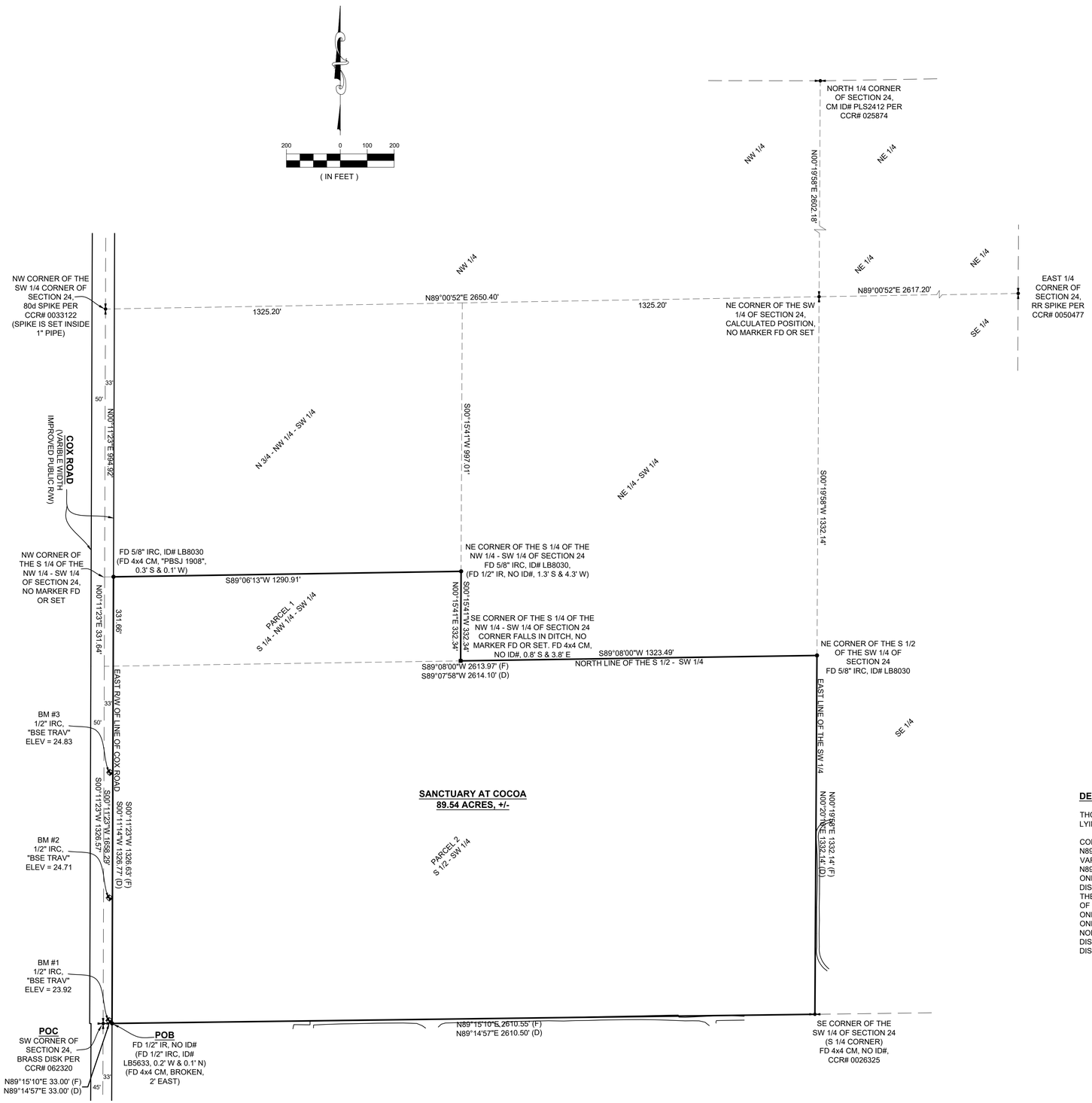
PROJECT NO. 11748

DRAWING NO. 11748_400_058

SHEET 58 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_058.dwg, April 13, 2026 4:57:20 PM, fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



SURVEY NOTES:

SURVEY OF PART OF THE SOUTHWEST ONE-QUARTER OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA.

SURVEY FOR BOUNDARY, ELEVATIONS AND LOCATIONS OF PERTINENT VISIBLE ABOVEGROUND IMPROVEMENTS.

UNLESS OTHERWISE SHOWN AND/OR NOTED HEREON, UNDERGROUND IMPROVEMENTS AND/OR UTILITIES ARE NOT LOCATED OR SHOWN ON THIS SURVEY.

BEARING REFERENCE: ASSUMED BEARING OF N89°08'33"E ON THE WEST LINE OF THE SOUTHWEST ONE-QUARTER OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA.

ELEVATIONS SHOWN ARE REFERENCED TO NAVD88 DATUM.

ELEVATIONS SHOWN WERE DERIVED THROUGH A COMBINATION OF CONVENTIONAL SURVEY METHODS TOGETHER WITH INFORMATION ACQUIRED FROM LIDAR IMAGING. LIDAR IMAGING ELEVATIONS WERE "GROUND TRUTHED" FOR CONFIRMATION.

BENCHMARKS ARE AS SHOWN AND NOTED HEREON.

ORIGINATING BENCHMARK: BREVARD COUNTY SURVEY DEPARTMENT PID# E5A11, PUBLISHED ELEVATION = 24.203, NAVD88.

THIS SURVEY IS SUBJECT TO EASEMENTS, RESTRICTIONS, RESERVATIONS AND RIGHTS-OF-WAY OF RECORD.

SURVEYOR RELIED SOLELY ON THAT CERTAIN FIRST AMERICAN TITLE INSURANCE COMPANY PROPERTY INFORMATION REPORT, FATIC FILE NO.: 110489631, DATED DECEMBER 4, 2025 FOR INFORMATION REGARDING EASEMENTS AND/OR ENCUMBRANCES AFFECTING THE LANDS SURVEYED AND DESCRIBED HEREON. NO OTHER SUCH INFORMATION WAS PROVIDED TO, NOR RESEARCHED BY, THE SURVEYOR DURING THE PERFORMANCE AND PREPARATION OF THIS SURVEY.

THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER UNLESS ELECTRONICALLY SIGNED AND SEALED IN ACCORDANCE WITH FLORIDA STATUTES CHAPTER 472.025.

THIS SURVEY MEETS THE STANDARDS OF PRACTICE FOR SURVEYS AS REQUIRED BY FLORIDA STATUTES CHAPTER 472 AND THE STANDARDS OF PRACTICE FOR SURVEYS AS REQUIRED BY CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE.

DATE OF LAST FIELD WORK: 03/28/2025

DESCRIPTION FROM EXHIBIT "A" IN THAT CERTAIN FIRST AMERICAN TITLE INSURANCE COMPANY PROPERTY INFORMATION REPORT, FATIC FILE NO.: 110489631, DATED DECEMBER 4, 2025:

PARCEL 1:

THE SOUTH QUARTER (SOUTH 1/4) OF THE NORTHWEST QUARTER (NORTHWEST 1/4) OF THE SOUTHWEST QUARTER (SOUTHWEST 1/4) OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA, EXCEPT ROAD RIGHT-OF-WAY.

PARCEL 2:

THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, LESS THE WEST 33 FEET FOR COX ROAD RIGHT-OF-WAY.

ALSO DESCRIBED AS:

A PARCEL OF LAND BEING THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA, LESS AND EXCEPT THE RIGHT OF WAY OF COX ROAD, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A BRASS DISK (NO IDENTIFICATION) WHICH MONUMENTS THE SOUTHWEST CORNER OF SAID SECTION 24, AND RUN NORTH 89°14'57" EAST, ALONG THE SOUTH LINE OF SAID SECTION, A DISTANCE OF 33.00 FEET TO A POINT ON THE EAST RIGHT OF WAY LINE OF COX ROAD, THE POINT OF BEGINNING; THENCE CONTINUE NORTH 89°14'57" EAST, ALONG SAID SOUTH LINE, A DISTANCE OF 2610.50 FEET TO A 4" X 4" CONCRETE MONUMENT (NO IDENTIFICATION), WHICH MARKS THE SOUTH 1/4 CORNER OF SAID SECTION; THENCE NORTH 00°20'16" EAST, ALONG THE EAST LINE OF THE SOUTHWEST 1/4, A DISTANCE OF 1332.14 FEET TO THE NORTH-EAST CORNER OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4; THENCE SOUTH 89°07'58" WEST, ALONG THE NORTH LINE OF SAID SOUTH 1/2 OF THE SOUTHWEST 1/4, A DISTANCE OF 2614.10 FEET TO A POINT ON THE EAST RIGHT OF WAY LINE OF COX ROAD (A 66 FOOT WIDE RIGHT OF WAY); THENCE SOUTH 00°11'14" WEST, ALONG SAID EAST RIGHT OF WAY LINE A DISTANCE OF 1326.77 FEET TO THE POINT OF BEGINNING.

DESCRIPTION BY SURVEYOR

THOSE CERTAIN PARCELS OF LAND DESCRIBED IN OFFICIAL RECORDS BOOK 9424, PAGE 2754, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA LYING IN SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA AND RUN N89°15'10"E, ALONG THE SOUTH LINE OF SAID SECTION 24, A DISTANCE OF 33.00 FEET TO THE EAST RIGHT-OF-WAY LINE OF COX ROAD, (A VARIABLE WIDTH PUBLIC RIGHT-OF-WAY), AND THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED; THENCE CONTINUE N89°15'10"E, ALONG THE SOUTH LINE OF SAID SECTION 24, A DISTANCE OF 2610.55 FEET TO THE SOUTHEAST CORNER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24; THENCE N00°19'58"E, ALONG THE EAST LINE OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24, A DISTANCE OF 1332.14 FEET TO THE NORTHEAST CORNER OF THE SOUTH ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24; THENCE S89°08'00"W, ALONG THE NORTH LINE OF SAID SOUTH ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24, A DISTANCE OF 1323.49 FEET TO THE SOUTHEAST CORNER OF THE SOUTH ONE-QUARTER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24; THENCE N00°15'41"E A DISTANCE OF 332.34 FEET TO THE NORTHEAST CORNER OF SAID SOUTH ONE-QUARTER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24; THENCE S89°06'13"W, ALONG THE NORTH LINE OF SAID SOUTH ONE-QUARTER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24, A DISTANCE OF 1290.91 FEET TO THE EAST RIGHT-OF-WAY LINE OF SAID COX ROAD; THENCE S00°11'23"W, ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 1658.29 FEET TO THE POINT OF BEGINNING. CONTAINING 89.54 ACRES, MORE OR LESS.

SEE SHEETS 2 THROUGH 11 FOR DETAILED TOPOGRAPHIC INFORMATION

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CCR	CERTIFIED CORNER RECORD
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
(D)	DEED DIMENSION
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
(F)	FIELD MEASURED DIMENSION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
N#	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

FIELD BOOK: ---
PAGE(S): ---

6	
5	
4	
3	
2	
1 CORRECTED TYPOGRAPHICAL ERROR IN DESCRIPTION BY SURVEYOR	04/10/2026
0 ADDED DESCRIPTION BY SURVEYOR	03/10/26
REVISED TO REFLECT LATEST PROPERTY INFORMATION REPORT	01/08/2026
ADDED COMMITMENT NOTE	04/01/2025

DATE: 03/31/2025
DESIGN/DRAWN: LEH/TBS

PROJECT TITLE
SANCTUARY AT COCOA

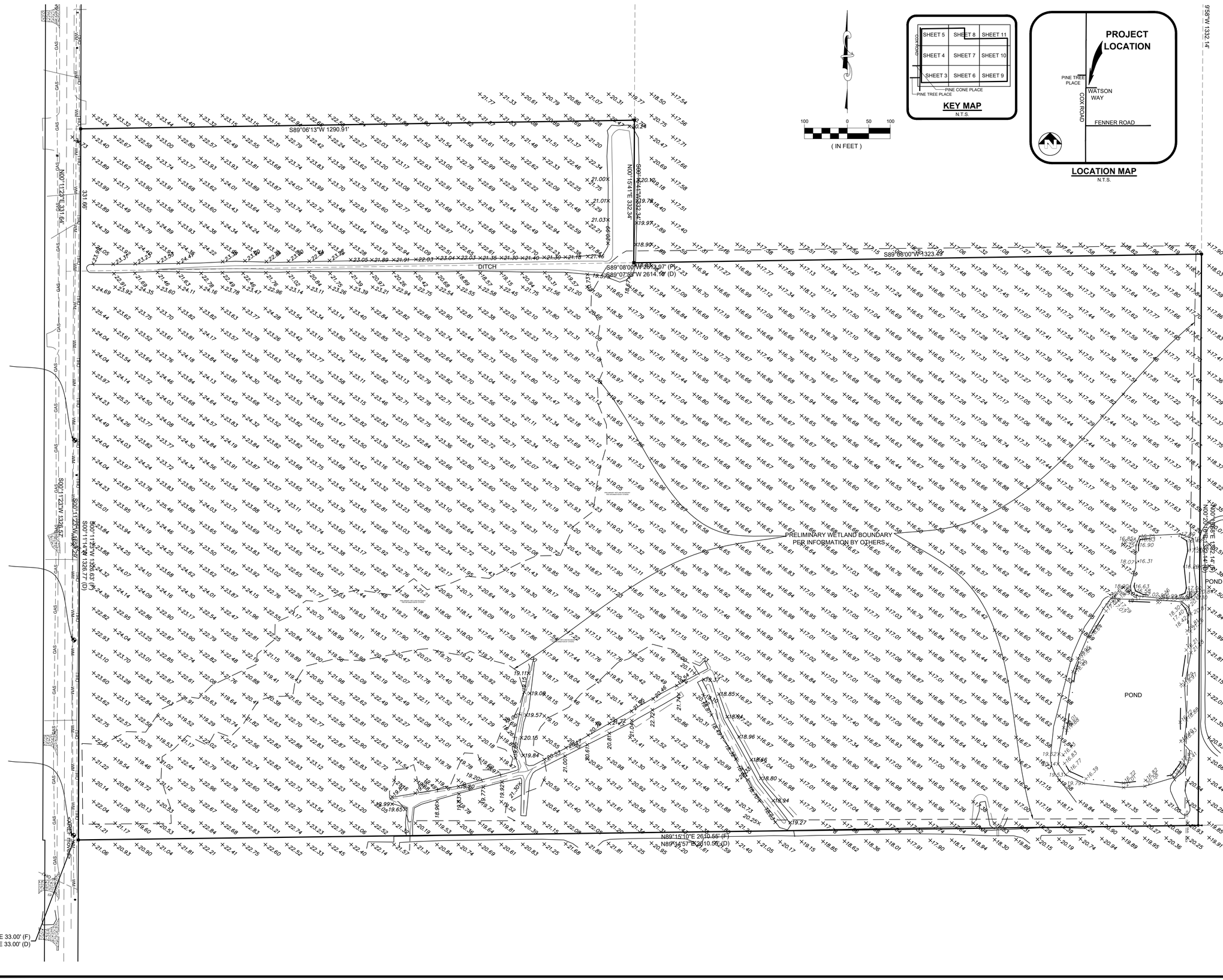
SHEET TITLE
BOUNDARY & TOPOGRAPHIC SURVEY

PROJECT NO.
11748

DRAWING NO.
11748_100_003_BNDY-TOPO

SHEET
1 of 11

H:\Projects Folder\11748\Dwgs\11748_100_003_BNDY-TOPO.dwg April 13, 2026 4:54:28 PM fc



B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
CL	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CCR	CERTIFIED CORNER RECORD
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
(D)	DEED DIMENSION
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
(F)	FIELD MEASURED DIMENSION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NB	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRICU UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

FIELD BOOK:	---
PAGE(S):	---
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
CITY COMMENTS	07/21/25
DATE:	03/31/2025
DESIGN/DRAWN:	LEH/TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

BOUNDARY & TOPOGRAPHIC SURVEY

PROJECT NO.

11748

DRAWING NO.

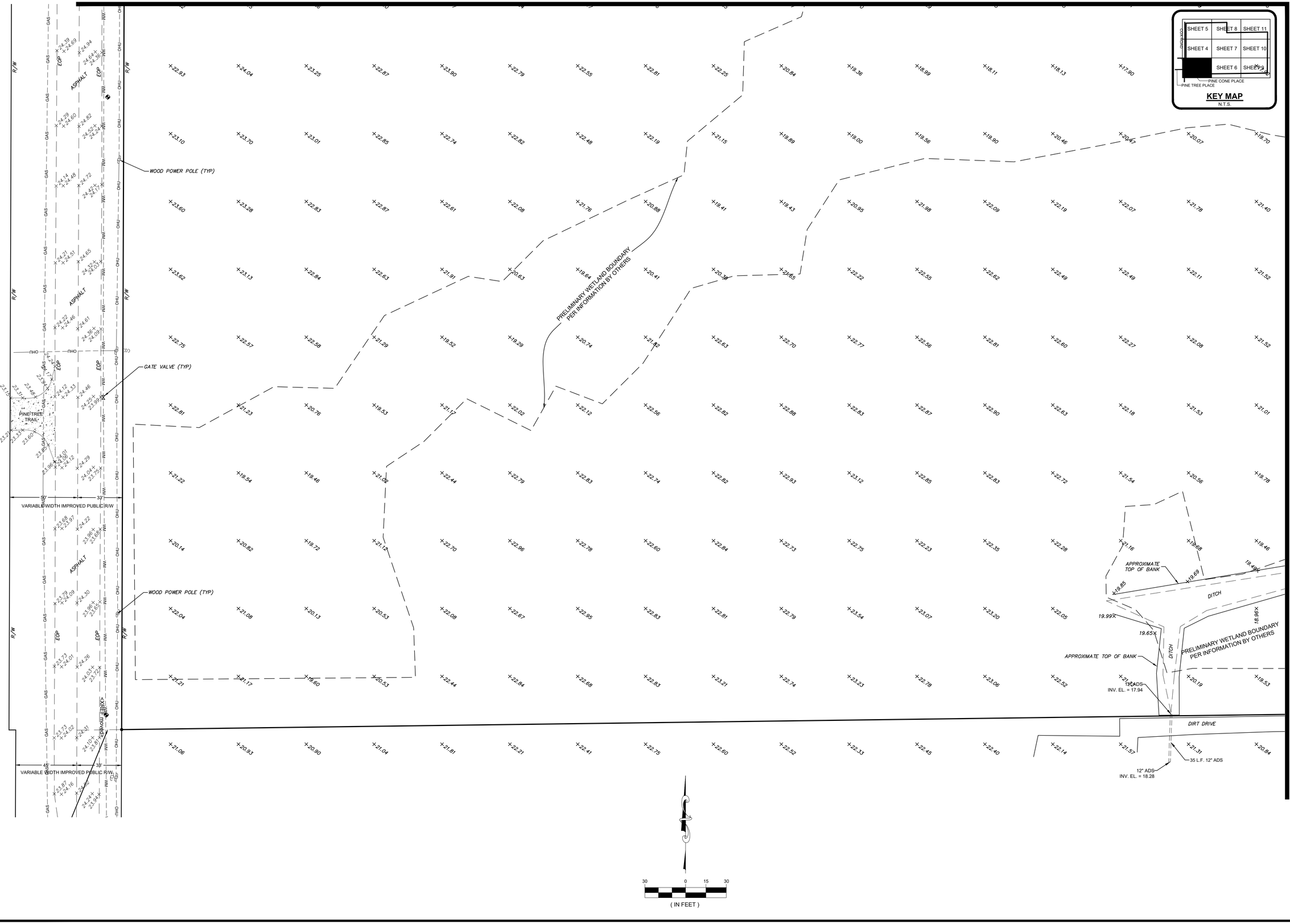
11748_100_003_BNDY-TOPO

SHEET

2 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_003_BNDY-TOPO.dwg April 13, 2026 4:05:54 PM rlc

CONTINUES ON SHEET 4



KEY MAP
N.T.S.

30 0 15 30
(IN FEET)

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CCR	CERTIFIED CORNER RECORD
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
(D)	DEED DIMENSION
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
(F)	FIELD MEASURED DIMENSION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NR	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

FIELD BOOK: ---
PAGE(S): ---

1	
2	
3	
4	
5	
6	
7	
8	
9	CITY COMMENTS 07/21/25

DATE: 03/31/2025
DESIGN/DRAWN: LEH/TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

BOUNDARY & TOPOGRAPHIC SURVEY

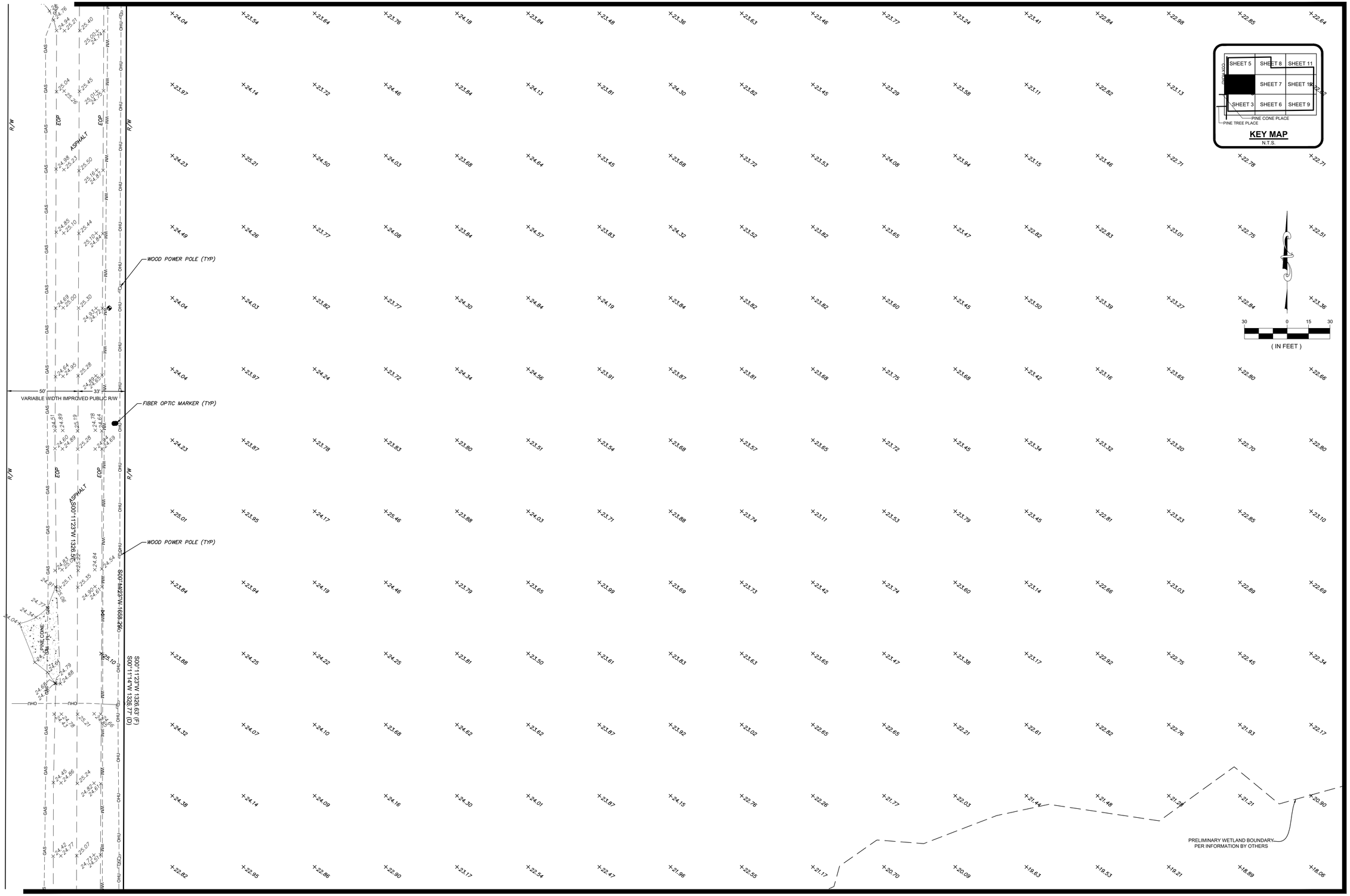
PROJECT NO.
11748

DRAWING NO.
11748_100_003_BNDY-TOPO

SHEET
3 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_003_BNDY-TOPO.dwg April 13, 2026 4:51:49 PM fc

CONTINUES ON SHEET 5



CONTINUES ON SHEET 3

KEY MAP
N.T.S.

30 0 15 30
(IN FEET)

CONTINUES ON SHEET 7

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CCR	CERTIFIED CORNER RECORD
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
(D)	DEED DIMENSION
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
(F)	FIELD MEASURED DIMENSION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NH	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

FIELD BOOK: ---
PAGE(S): ---

1	CITY COMMENTS 07/21/25
2	
3	
4	
5	
6	
7	
8	
9	

DATE: 03/31/2025
DESIGN/DRAWN: LEH/TBS

PROJECT TITLE
SANCTUARY AT COCOA

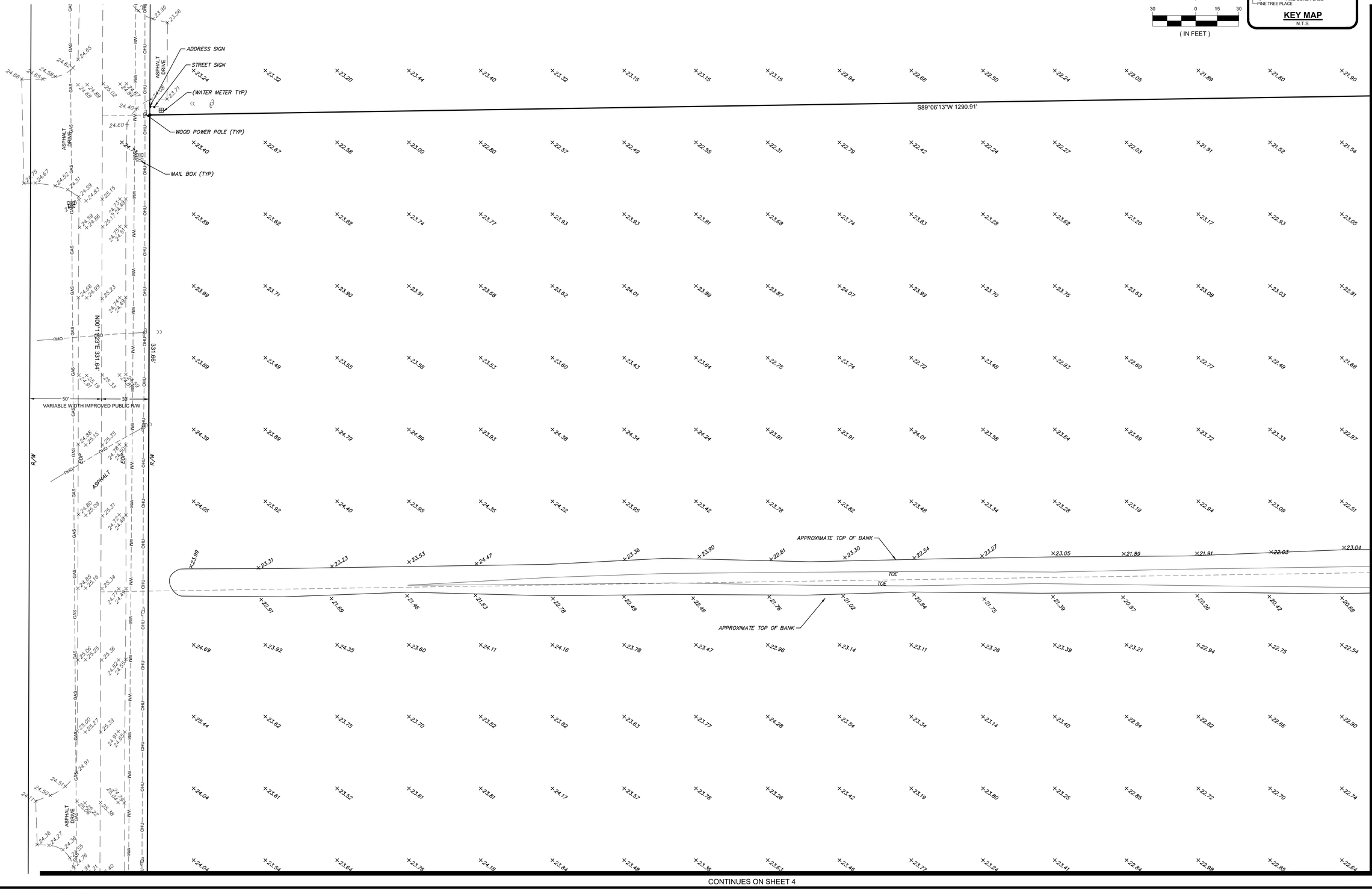
SHEET TITLE
BOUNDARY & TOPOGRAPHIC SURVEY

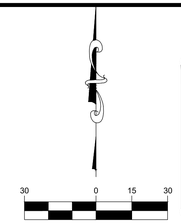
PROJECT NO.
11748

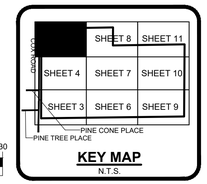
DRAWING NO.
11748_100_003_BNDY-TOPO

SHEET
4 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_003_BNDY-TOPO.dwg April 13, 2026 4:44:19 PM rlc







KEY MAP
N.T.S.

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
COR	CERTIFIED CORNER RECORD
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
(D)	DEED DIMENSION
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
(F)	FIELD MEASURED DIMENSION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NI#	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

FIELD BOOK: ---
PAGE(S): ---

6	
5	
4	
3	
2	
1	
1	CITY COMMENTS 07/21/25

DATE: 03/31/2025
DESIGN/DRAWN: LEH/TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

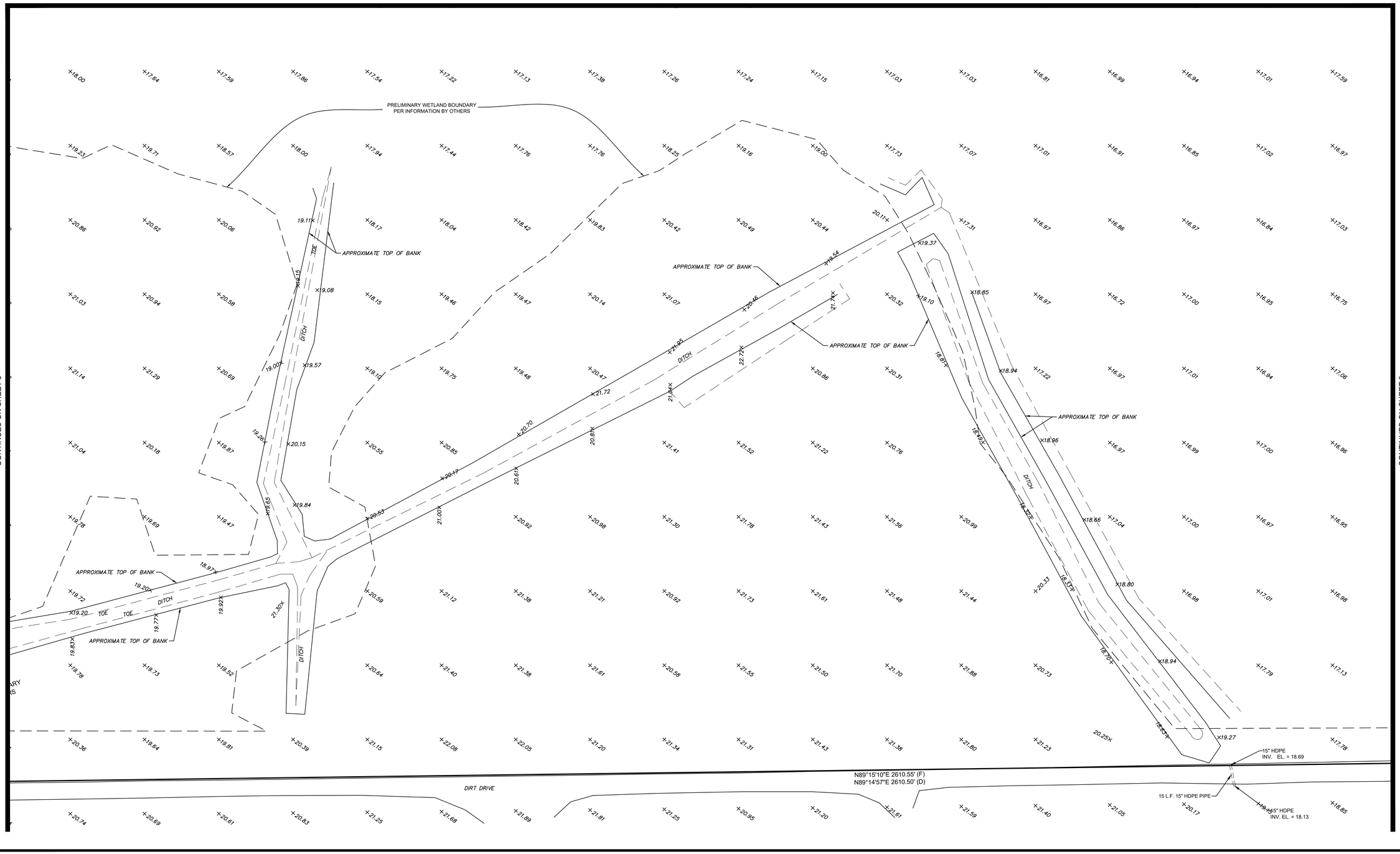
BOUNDARY & TOPOGRAPHIC SURVEY

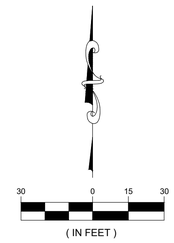
PROJECT NO.
11748

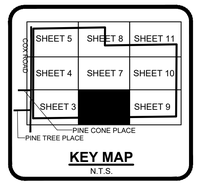
DRAWING NO.
11748_100_003_BNDY-TOPO

SHEET
5 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_003_BNDY-TOPO.dwg April 13, 2026 4:51:20 PM ltc







KEY MAP
N.T.S.

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
COR	CERTIFIED CORNER RECORD
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
(D)	DEED DIMENSION
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
(F)	FIELD MEASURED DIMENSION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NI#	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
P/K	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

FIELD BOOK: ---
PAGE(S): ---

1	
2	
3	
4	
5	
6	
7	
8	
9	CITY COMMENTS 07/21/25

DATE: 03/31/2025
DESIGN/DRAWN: LEH/TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

BOUNDARY & TOPOGRAPHIC SURVEY

PROJECT NO.
11748

DRAWING NO.
11748_100_003_BNDY-TOPO

SHEET
6 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_003_BNDY-TOPO.dwg April 13, 2026 4:44:13 PM fc

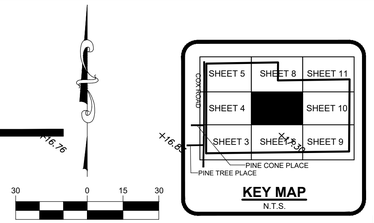
CONTINUES ON SHEET 8



CONTINUES ON SHEET 4

CONTINUES ON SHEET 10

CONTINUES ON SHEET 6



KEY MAP
N.T.S.

30 0 15 30
(IN FEET)

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
COR	CERTIFIED CORNER RECORD
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
(D)	DEED DIMENSION
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
(F)	FIELD MEASURED DIMENSION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NI#	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

FIELD BOOK: ---
PAGE(S): ---

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	CITY COMMENTS 07/21/25

DATE: 03/31/2025
DESIGN/DRAWN: LEH/TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

BOUNDARY & TOPOGRAPHIC SURVEY

PROJECT NO.
11748

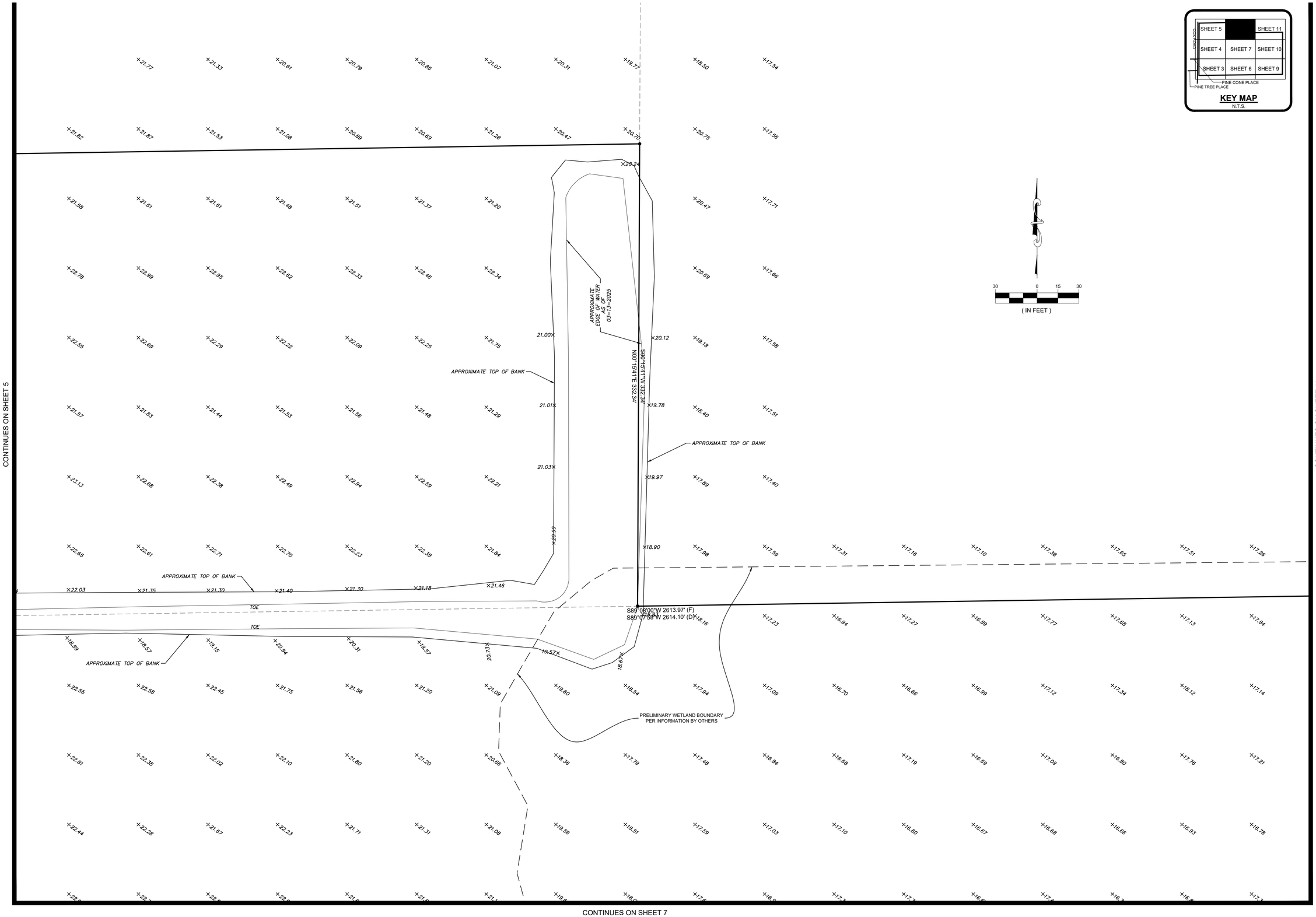
DRAWING NO.
11748_100_003_BNDY-TOPO

SHEET
7 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_003_BNDY-TOPO.dwg April 13, 2026 4:32:31 PM fc

CONTINUES ON SHEET 5

CONTINUES ON SHEET 11



CONTINUES ON SHEET 7

KEY MAP
N.T.S.

(IN FEET)

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
CL	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CCR	CERTIFIED CORNER RECORD
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
(D)	DEED DIMENSION
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
(F)	FIELD MEASURED DIMENSION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NI#	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

FIELD BOOK: ---
PAGE(S): ---

1	
2	
3	
4	
5	
6	
7	
8	
1	CITY COMMENTS 07/21/25

DATE: 03/31/2025
DESIGN/DRAWN: LEH/TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

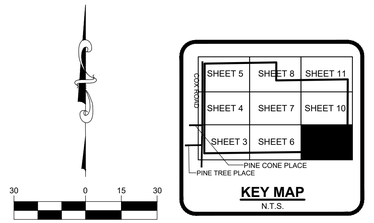
BOUNDARY & TOPOGRAPHIC SURVEY

PROJECT NO.
11748

DRAWING NO.
11748_100_003_BNDY-TOPO

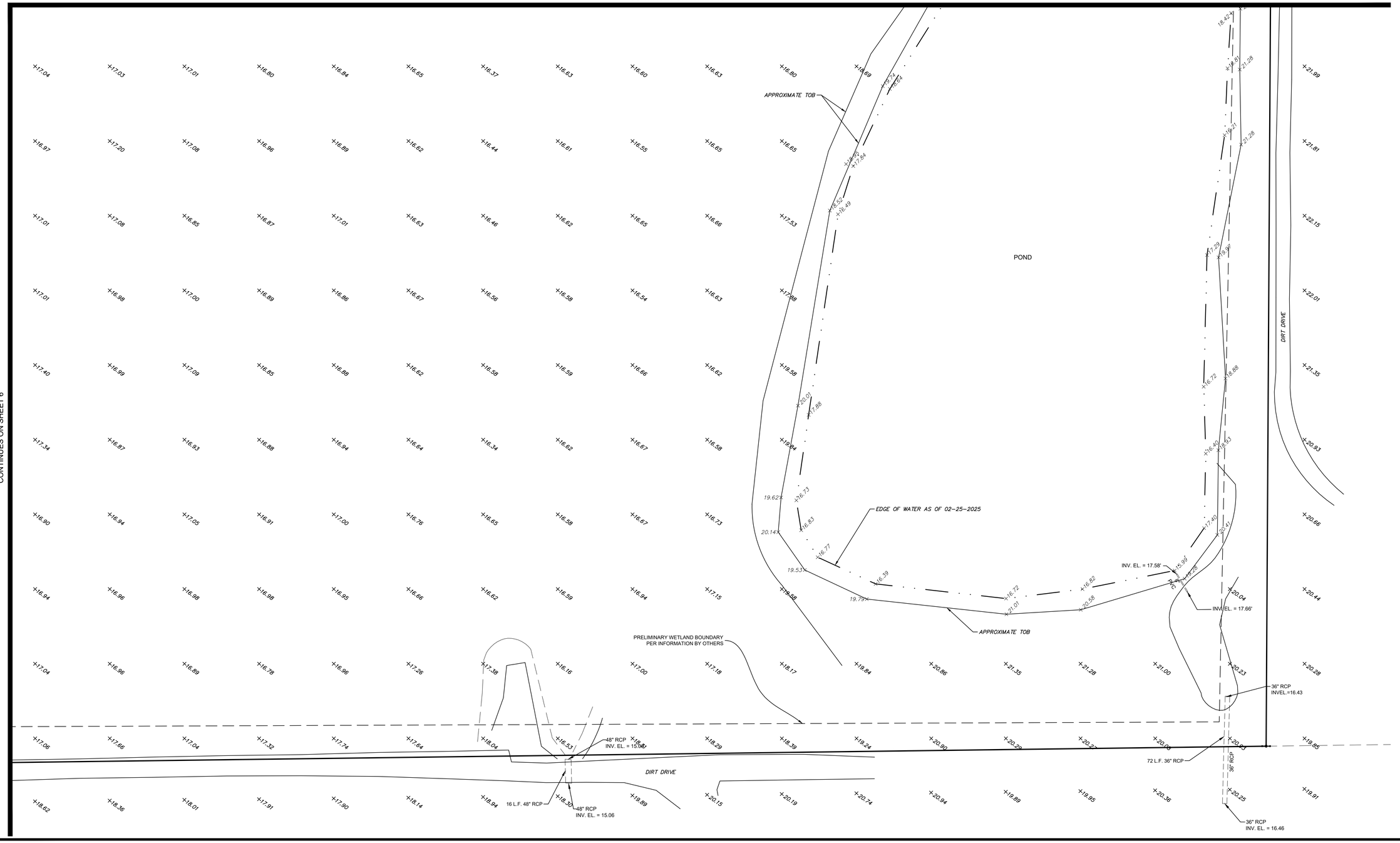
SHEET
8 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_003_BNDY-TOPO.dwg April 13, 2026 4:46:10 PM fc



CONTINUES ON SHEET 10

CONTINUES ON SHEET 6



B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CCR	CERTIFIED CORNER RECORD
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
(D)	DEED DIMENSION
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
(F)	FIELD MEASURED DIMENSION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NR	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

FIELD BOOK: ---
PAGE(S): ---

8	
7	
6	
5	
4	
3	
2	
1	CITY COMMENTS 07/21/25

DATE: 03/31/2025
DESIGN/DRAWN: LEH/TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

BOUNDARY & TOPOGRAPHIC SURVEY

PROJECT NO.
11748

DRAWING NO.
11748_100_003_BNDY-TOPO

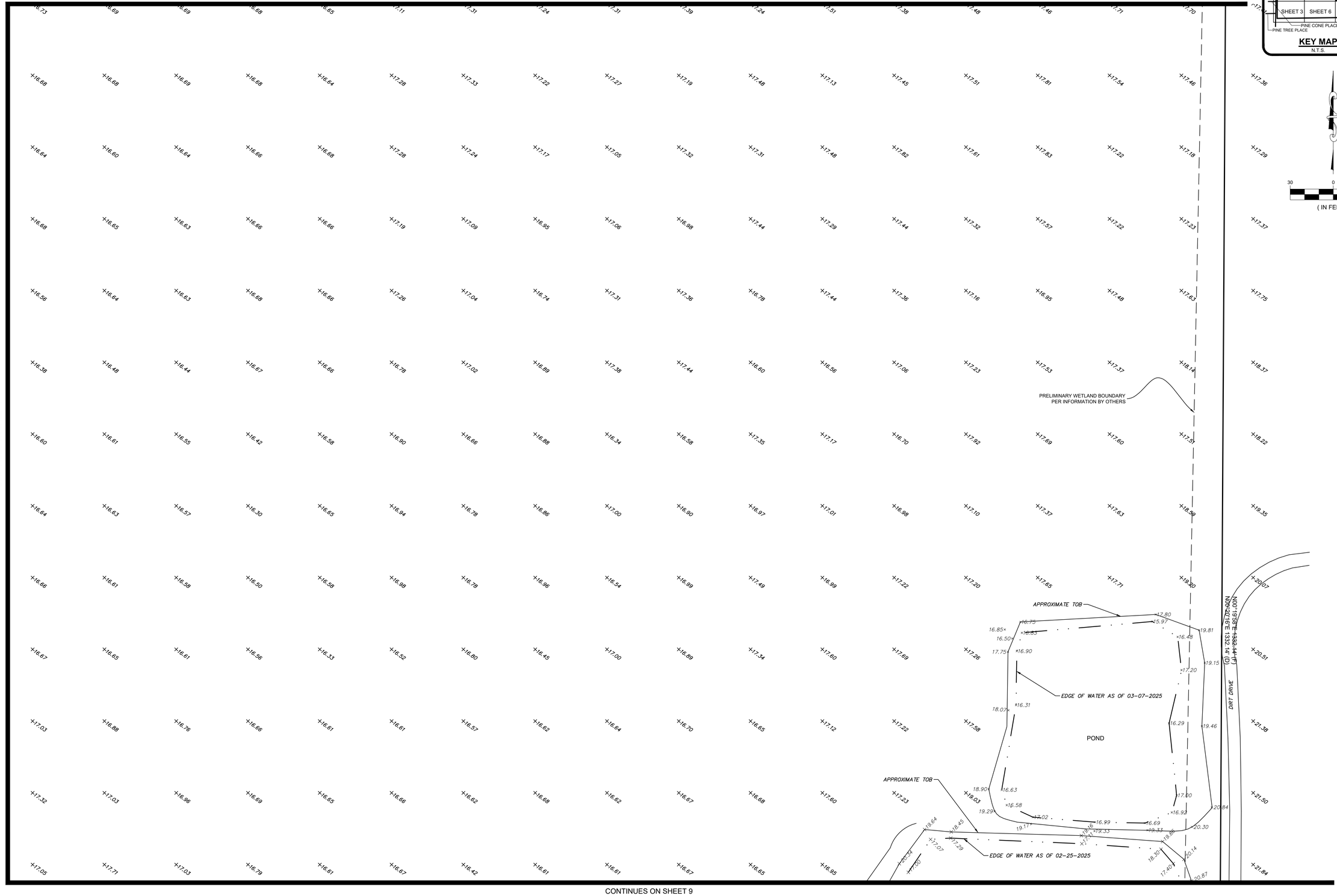
SHEET
9 of 11

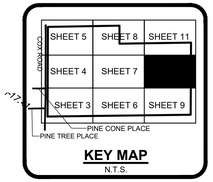
I:\Projects Folder\11748\Drawings\11748_100\11748_100_003_BNDY-TOPO.dwg April 10, 2026 4:52:37 PM fc

CONTINUES ON SHEET 11

CONTINUES ON SHEET 7

CONTINUES ON SHEET 9





KEY MAP
N.T.S.

30 0 15 30
(IN FEET)

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CCR	CERTIFIED CORNER RECORD
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
(D)	DEED DIMENSION
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
(F)	FIELD MEASURED DIMENSION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NI#	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

FIELD BOOK:	---
PAGE(S):	---
8	
7	
6	
5	
4	
3	
2	
1	
1 CITY COMMENTS	07/21/25
DATE:	03/31/2025
DESIGN/DRAWN:	LEH/TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

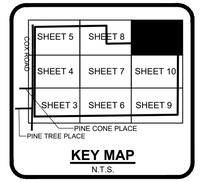
BOUNDARY & TOPOGRAPHIC SURVEY

PROJECT NO.
11748

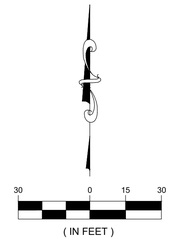
DRAWING NO.
11748_100_003_BNDY-TOPO

SHEET
10 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_003_BNDY-TOPO.dwg April 13, 2026 4:51:51 PM fc



KEY MAP
N.T.S.



(IN FEET)

CONTINUES ON SHEET 8

S89°08'00"W 1323.49'

PRELIMINARY WETLAND BOUNDARY
PER INFORMATION BY OTHERS

+17.59	+17.15	+17.00	+16.50	+17.01	+17.06	+17.32	+17.08	+17.27	+17.39	+17.64	+17.56	+17.64	+18.02	+17.86	+18.19	+18.15	+17.90
+17.27	+17.47	+17.18	+16.64	+16.79	+17.48	+17.28	+17.51	+17.38	+17.60	+17.63	+17.38	+17.54	+17.68	+17.85	+17.79	+18.31	+18.03
+17.20	+17.51	+17.24	+16.69	+16.86	+17.30	+17.32	+17.45	+17.41	+17.70	+17.80	+17.73	+17.59	+17.64	+17.67	+17.80	+17.84	+17.59
+17.50	+17.04	+16.69	+16.65	+16.67	+17.54	+17.57	+17.61	+17.07	+17.51	+17.72	+17.44	+17.61	+17.62	+17.77	+17.66	+17.70	+17.86
+17.10	+16.99	+16.69	+16.66	+16.66	+17.25	+17.28	+17.24	+17.69	+17.41	+17.54	+17.32	+17.46	+17.59	+17.66	+17.65	+17.63	+17.83
+16.73	+16.69	+16.69	+16.68	+16.65	+17.11	+17.31	+17.24	+17.31	+17.39	+17.24	+17.51	+17.38	+17.48	+17.46	+17.71	+17.70	+17.41

CONTINUES ON SHEET 10

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
COR	CERTIFIED CORNER RECORD
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
(D)	DEED DIMENSION
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
(F)	FIELD MEASURED DIMENSION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NH	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

FIELD BOOK: ---
PAGE(S): ---

1	
2	
3	
4	
5	
6	
7	
8	
9	CITY COMMENTS 07/21/25
DATE:	03/31/2025
DESIGN/DRAWN:	LEH/TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

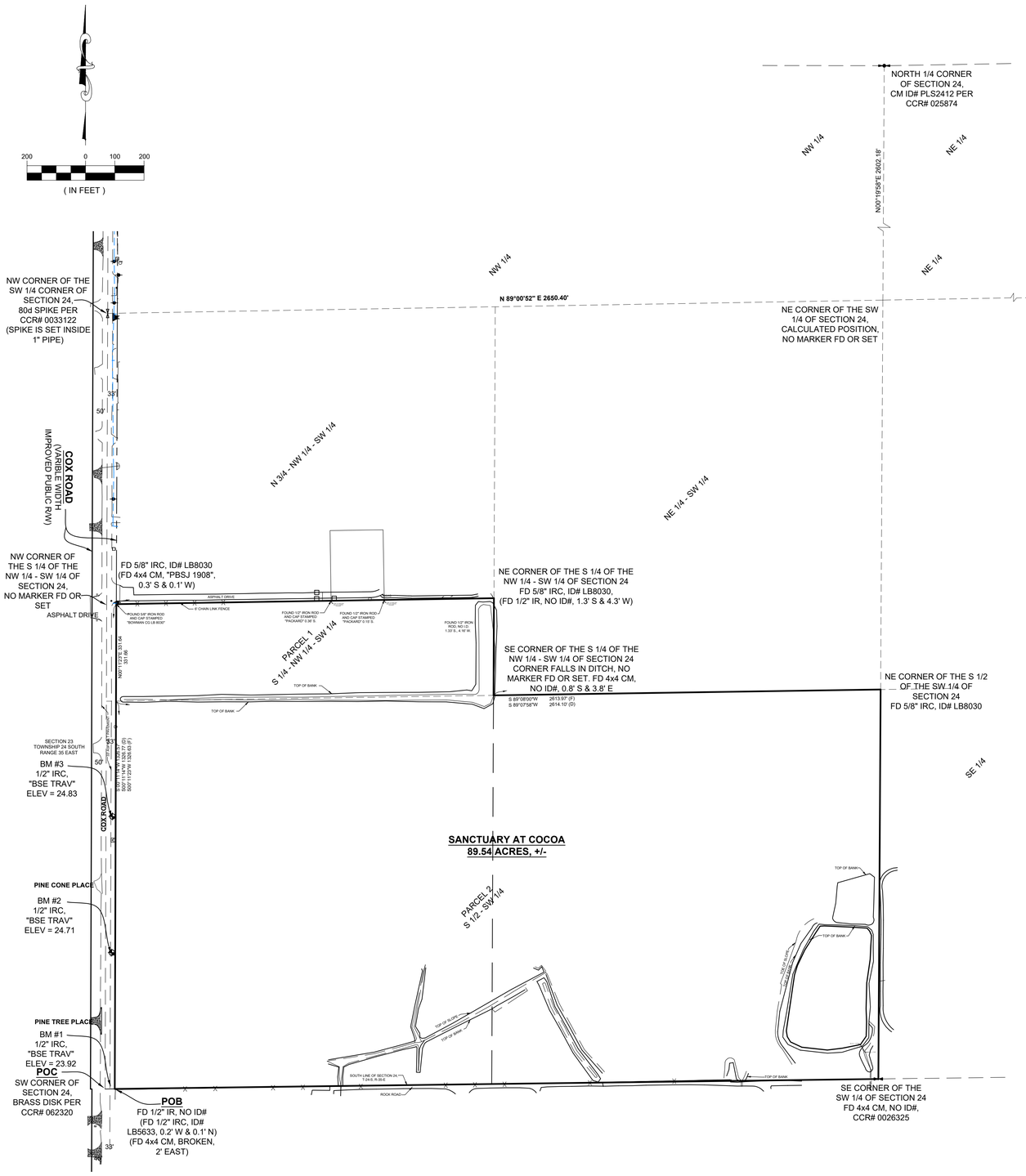
BOUNDARY & TOPOGRAPHIC SURVEY

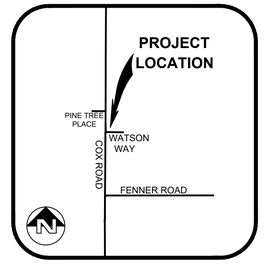
PROJECT NO.
11748

DRAWING NO.
11748_100_003_BNDY-TOPO

SHEET
10 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_003_BNDY-TOPO.dwg April 13, 2026 4:48:48 PM fc





LOCATION MAP
N.T.S.

SURVEY NOTES:

SURVEY OF PART OF THE SOUTHWEST ONE-QUARTER OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA.

SURVEY FOR LOCATIONS AND TYPE OF PERTINENT SPECIMEN TREES.

UNLESS OTHERWISE SHOWN AND/OR NOTED HEREON, UNDERGROUND IMPROVEMENTS AND/OR UTILITIES ARE NOT LOCATED OR SHOWN ON THIS SURVEY.

BEARING REFERENCE: ASSUMED BEARING OF N89°08'33"E ON THE WEST LINE OF THE SOUTHWEST ONE-QUARTER OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA.

BOUNDARY INFORMATION SHOWN IS TAKEN FROM A BOUNDARY/TOPOGRAPHIC SURVEY OF THE SITE PERFORMED AND PREPARED BY THIS COMPANY, DRAWING NUMBER: 11748_100_003_BNDY-TOPO, PROJECT NUMBER: 11748, SURVEY DRAWING DATE 03/31/2025

THIS SURVEY IS SUBJECT TO EASEMENTS, RESTRICTIONS, RESERVATIONS AND RIGHTS-OF-WAY OF RECORD.

THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE.

THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER UNLESS ELECTRONICALLY SIGNED AND SEALED IN ACCORDANCE WITH FLORIDA STATUTES CHAPTER 472.025.

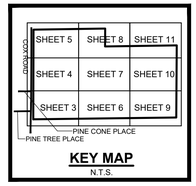
THIS SURVEY MEETS THE STANDARDS OF PRACTICE FOR SURVEYS AS REQUIRED BY FLORIDA STATUTES CHAPTER 472 AND THE STANDARDS OF PRACTICE FOR SURVEYS AS REQUIRED BY CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE.

DATE OF LAST FIELD WORK: 09/02/2025

TREE TYPE

32 TREE SIZE

- PINE
- 9 PALM
- 18 OAK
- 5 UNKNOWN
- 10 TREE
- 9 MAPLE
- 4 BAY



KEY MAP
N.T.S.

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NR	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	



LOCATION MAP
N.T.S.

KEY MAP
N.T.S.

100 0 50 100
(IN FEET)
VERTICAL DATUM: NAVD88

NOTES

1. WETLAND LIMITS DELINEATED BY:
   Aquatic Research FL and Approved by SJRWMD on April 15, 2025

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
CL	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NR	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

1 CITY COMMENTS	07/21/25
DATE:	03/31/2025
DESIGN/DRAWN:	LEH / TBS

PROJECT TITLE
SANCTUARY AT COCOA

SHEET TITLE
TREE SURVEY

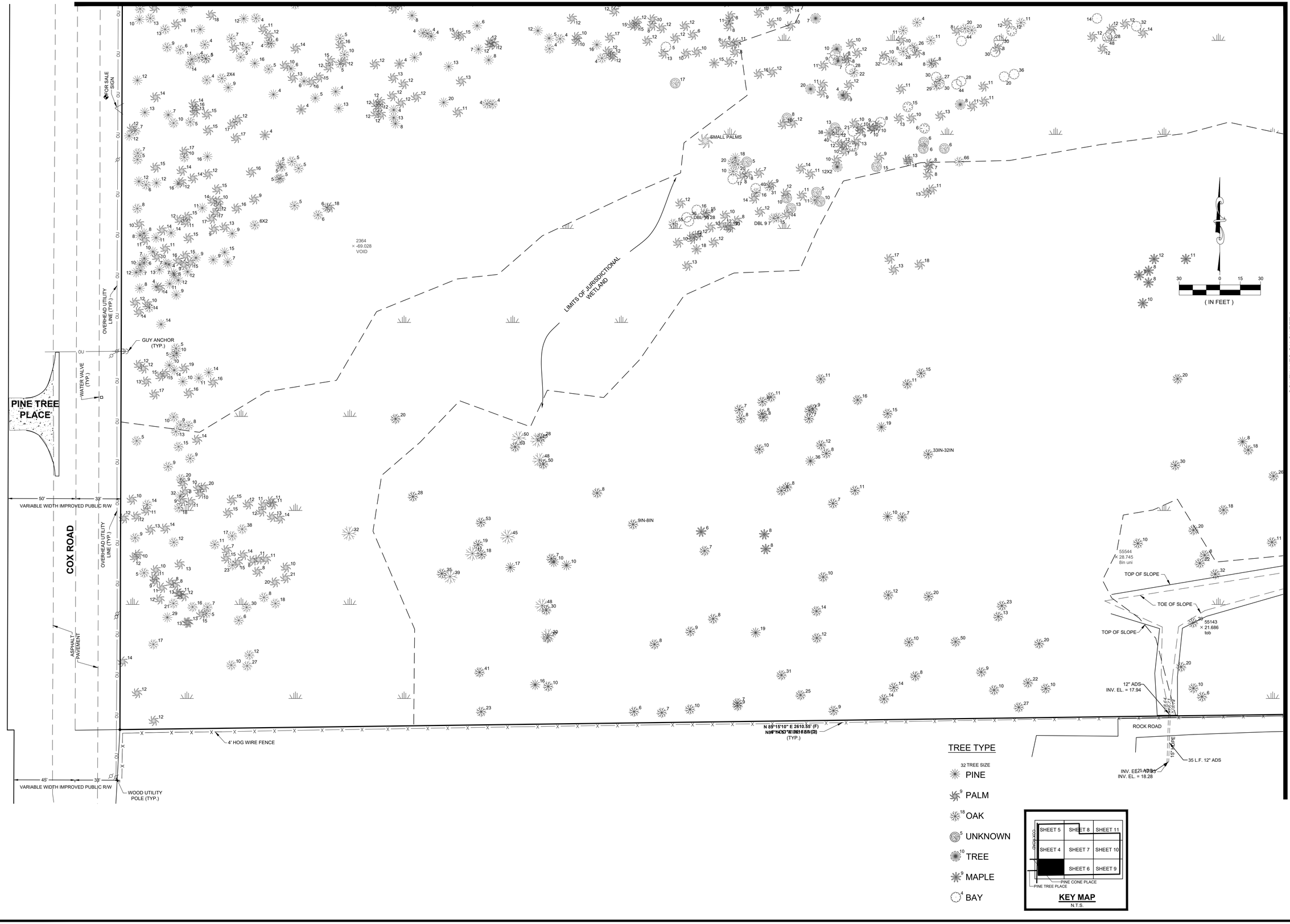
PROJECT NO.
11748

DRAWING NO.
11748_100_004_TREES

SHEET
2 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_004_TREES.DWG April 13, 2026 4:48:53 PM fc

CONTINUES ON SHEET 4



CONTINUES ON SHEET 6

TREE TYPE

32 TREE SIZE

- PINE
- 9 PALM
- 18 OAK
- 5 UNKNOWN
- 10 TREE
- 9 MAPLE
- 4 BAY

KEY MAP
N.T.S.

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
CL	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NR	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
POC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
7	
8	
1 CITY COMMENTS	07/21/25
DATE:	03/31/2025
DESIGN/DRAWN:	LEH / TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

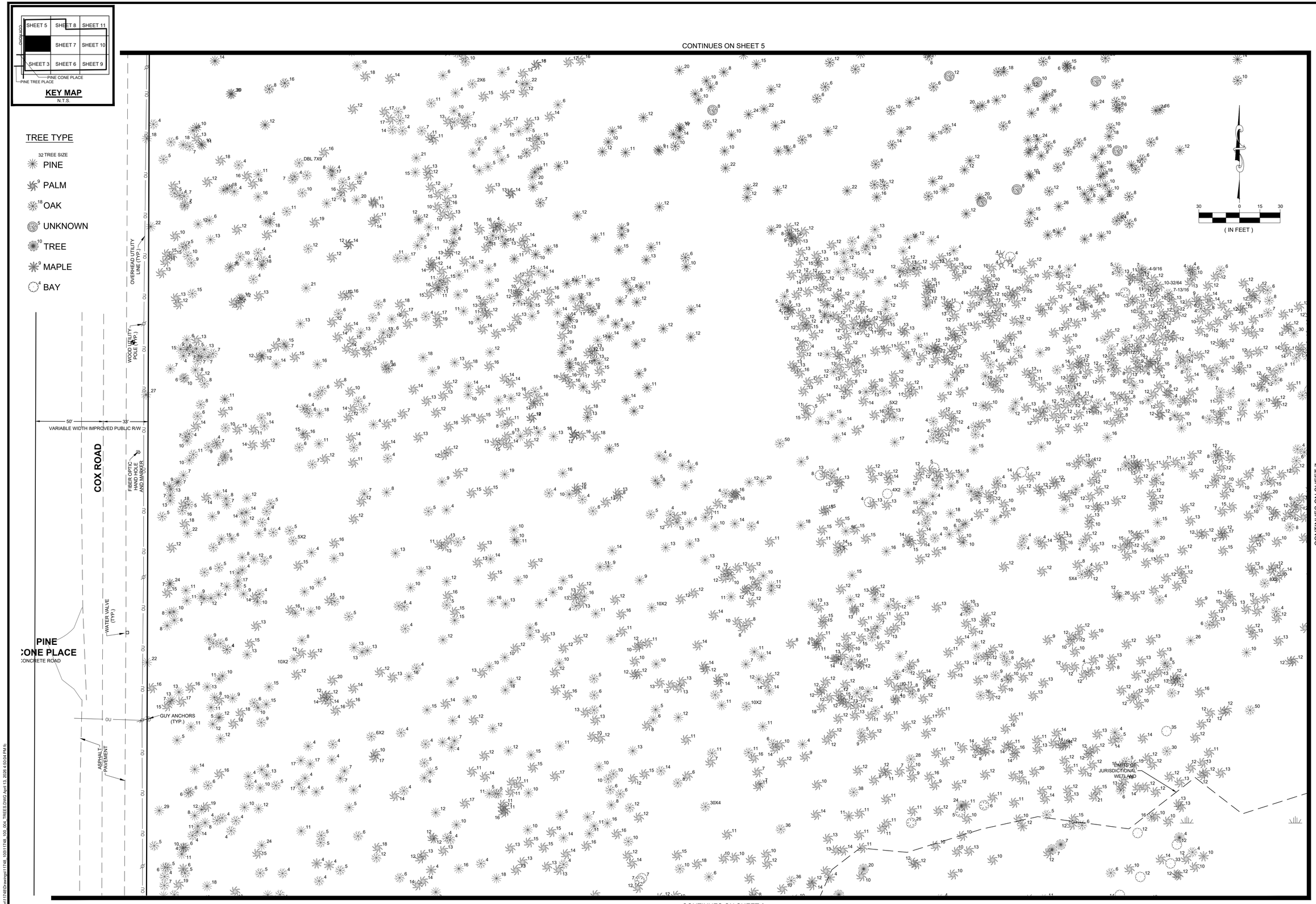
TREE SURVEY

PROJECT NO. 11748

DRAWING NO. 11748_100_004_TREES

SHEET 3 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_004_TREES.DWG April 13, 2026 4:40:44 PM fc



B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
CL	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NR	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

VERTICAL DATUM: NAVD88

1 CITY COMMENTS	07/21/25
DATE:	03/31/2025
DESIGN/DRAWN:	LEH / TBS

PROJECT TITLE
SANCTUARY AT COCOA

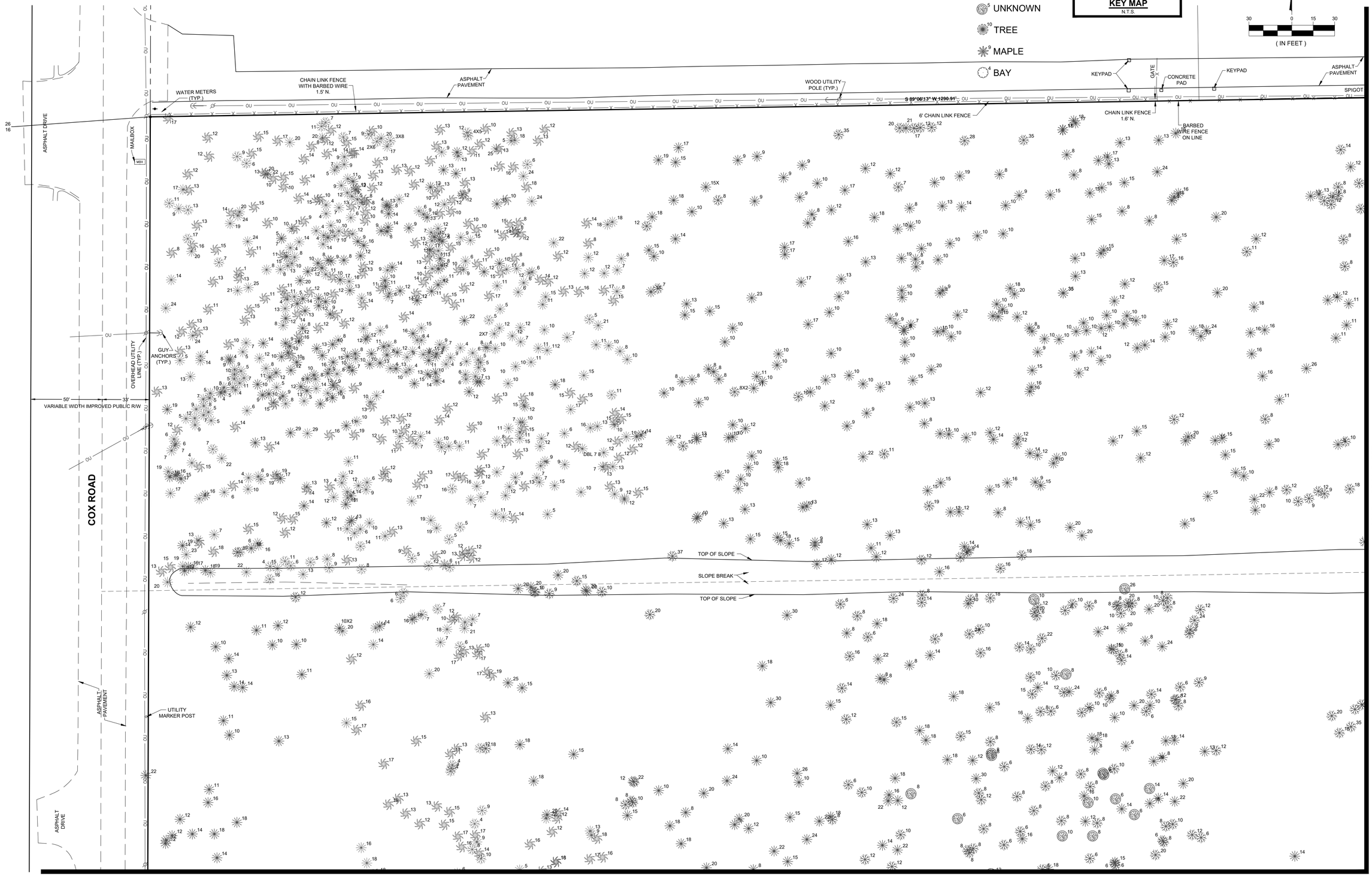
SHEET TITLE
TREE SURVEY

PROJECT NO. 11748

DRAWING NO. 11748_100_004_TREES

SHEET 4 of 11

H:\Projects Folder\11748\Drawings\11748_100_004_TREES.DWG April 13, 2026 4:50:04 PM fc



B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
CL	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NI#	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

VERTICAL DATUM: NAVD88

1 CITY COMMENTS	07/21/25
DATE:	03/31/2025
DESIGN/DRAWN:	LEH / TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

TREE SURVEY

PROJECT NO. 11748

DRAWING NO. 11748_100_004_TREES

SHEET 5 of 11

H:\Projects Folder\11748\Dwgs\pg\11748_100_004_TREES.DWG April 13, 2026 4:54:45 PM fc

CONTINUES ON SHEET 7

CONTINUES ON SHEET 3

CONTINUES ON SHEET 9

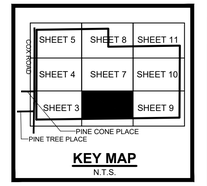
TREE TYPE

32 TREE SIZE

- PINE
- 9 PALM
- 18 OAK
- 5 UNKNOWN
- 10 TREE
- 9 MAPLE
- 4 BAY

30 0 15 30

(IN FEET)



KEY MAP
N.T.S.

LIMITS OF JURISDICTIONAL WETLAND

TOP OF SLOPE
TOE OF SLOPE
TOP OF BANK

WETLAND BOUNDARY
(PROVIDED BY OTHERS)

×55636
N 17.556
end

×55388

×55374

KAPOK 12
KAPOK 15
ASH 10

DBL 5
DBL 7
DBL 16

4" HOG WIRE FENCE
CROSSES INTO PROPERTY

4" HOG WIRE
FENCE (TYP.)

ROCK ROAD

15" HDPE
INV. EL. = 18.69

15 L.F. 15" HDPE @ 8.13°

15" HDPE
INV. EL. = 18.13

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
CL	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NH	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

VERTICAL DATUM: NAVD88

1 CITY COMMENTS	07/21/25
DATE:	03/31/2025
DESIGN/DRAWN:	LEH / TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

TREE SURVEY

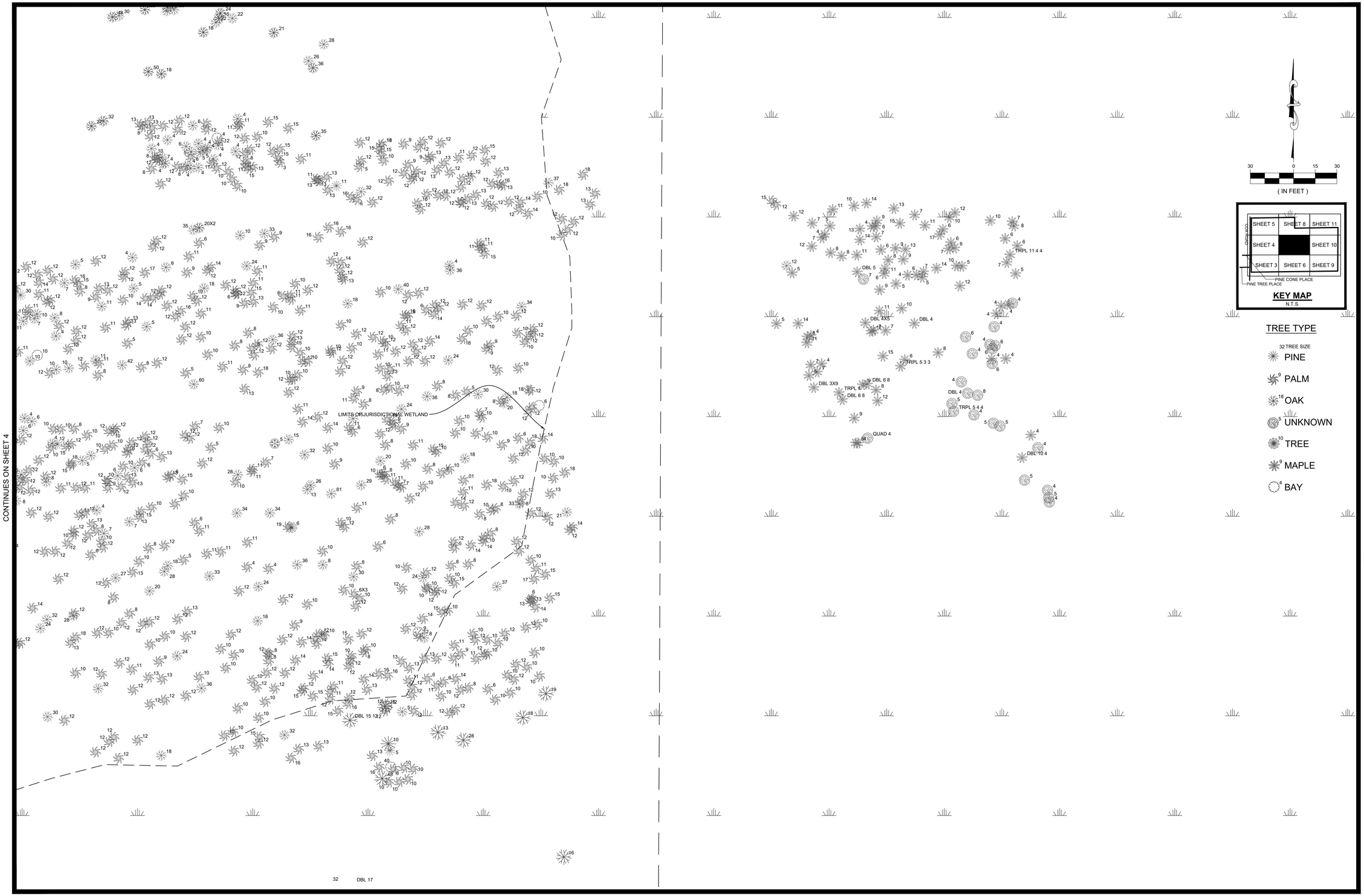
PROJECT NO. 11748

DRAWING NO. 11748_100_004_TREES

SHEET 6 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_004_TREES.DWG April 13, 2026 4:46:02 PM fc

CONTINUES ON SHEET 8



CONTINUES ON SHEET 4

CONTINUES ON SHEET 10

CONTINUES ON SHEET 6

30 0 15 30

(IN FEET)

KEY MAP
N.T.S.

TREE TYPE

32 TREE SIZE

- PINE
- PALM
- OAK
- UNKNOWN
- TREE
- MAPLE
- BAY

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
CL	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NM	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

VERTICAL DATUM: NAVD88

8	
7	
6	
5	
4	
3	
2	
1 CITY COMMENTS	07/21/25
DATE:	03/31/2025
DESIGN/DRAWN:	LEH / TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

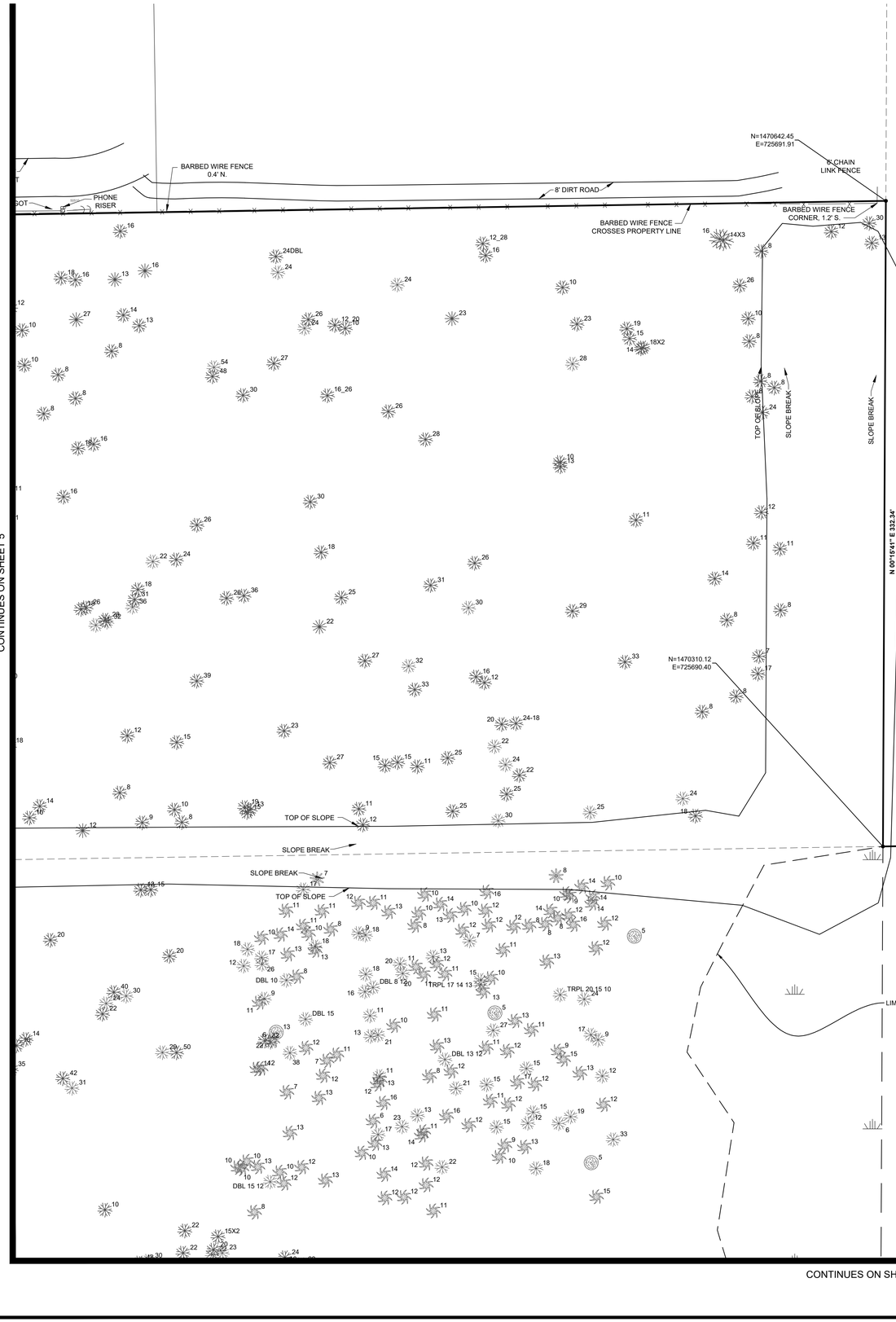
TREE SURVEY

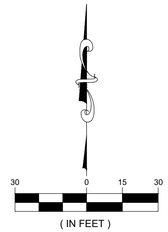
PROJECT NO. 11748

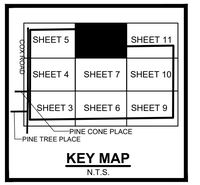
DRAWING NO. 11748_100_004_TREES

SHEET 7 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_004_TREES.DWG April 13, 2026 4:51:43 PM E







KEY MAP
N.T.S.

TREE TYPE

32 TREE SIZE

- PINE
- 9 PALM
- 18 OAK
- 5 UNKNOWN
- 10 TREE
- 9 MAPLE
- 4 BAY

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
CL	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NI#	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
7	
8	
1 CITY COMMENTS	07/21/25
DATE:	03/31/2025
DESIGN/DRAWN:	LEH / TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

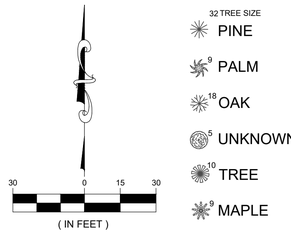
TREE SURVEY

PROJECT NO.
11748

DRAWING NO.
11748_100_004_TREES

SHEET
8 of 11

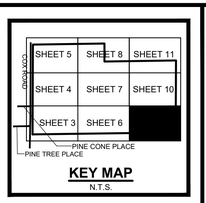
H:\Projects Folder\11748\Drawings\11748_100\11748_100_004_TREES.DWG April 13, 2026 4:44:29 PM lc



TREE TYPE

32 TREE SIZE

- PINE
- 9 PALM
- 18 OAK
- 5 UNKNOWN
- 10 TREE
- 9 MAPLE
- 4 BAY



KEY MAP
N.T.S.

CONTINUES ON SHEET 10

CONTINUES ON SHEET 6

POND

TOP OF BANK

TOE OF SLOPE

TOP OF SLOPE

LIMITS OF JURISDICTIONAL WETLAND

ROCK ROAD

DIRT ROAD

GATE

FENCE 4.0' N.

4' CATTLE GATE

FENCE 0.2' S.

48" RCP
INV. EL. = 15.06

INV. EL. = 14.68'

INV. EL. = 14.91'
16 L.F. 48" RCP

INV. EL. = 17.58'

INV. EL. = 17.66'

4' HOG WIRE FENCE

72 L.F. 36" RCP

36" RCP
INV.EL.=16.43

N=1468998.02
E=727006.00

FENCE 0.6' S.

36" RCP

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
N#	NEIGHBORHOOD IDENTIFICATION
NAD	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

VERTICAL DATUM: NAVD88

8	
7	
6	
5	
4	
3	
2	
1	CITY COMMENTS 07/21/25

DATE: 03/31/2025
DESIGN/DRAWN: LEH / TBS

PROJECT TITLE
SANCTUARY AT COCOA

SHEET TITLE
TREE SURVEY

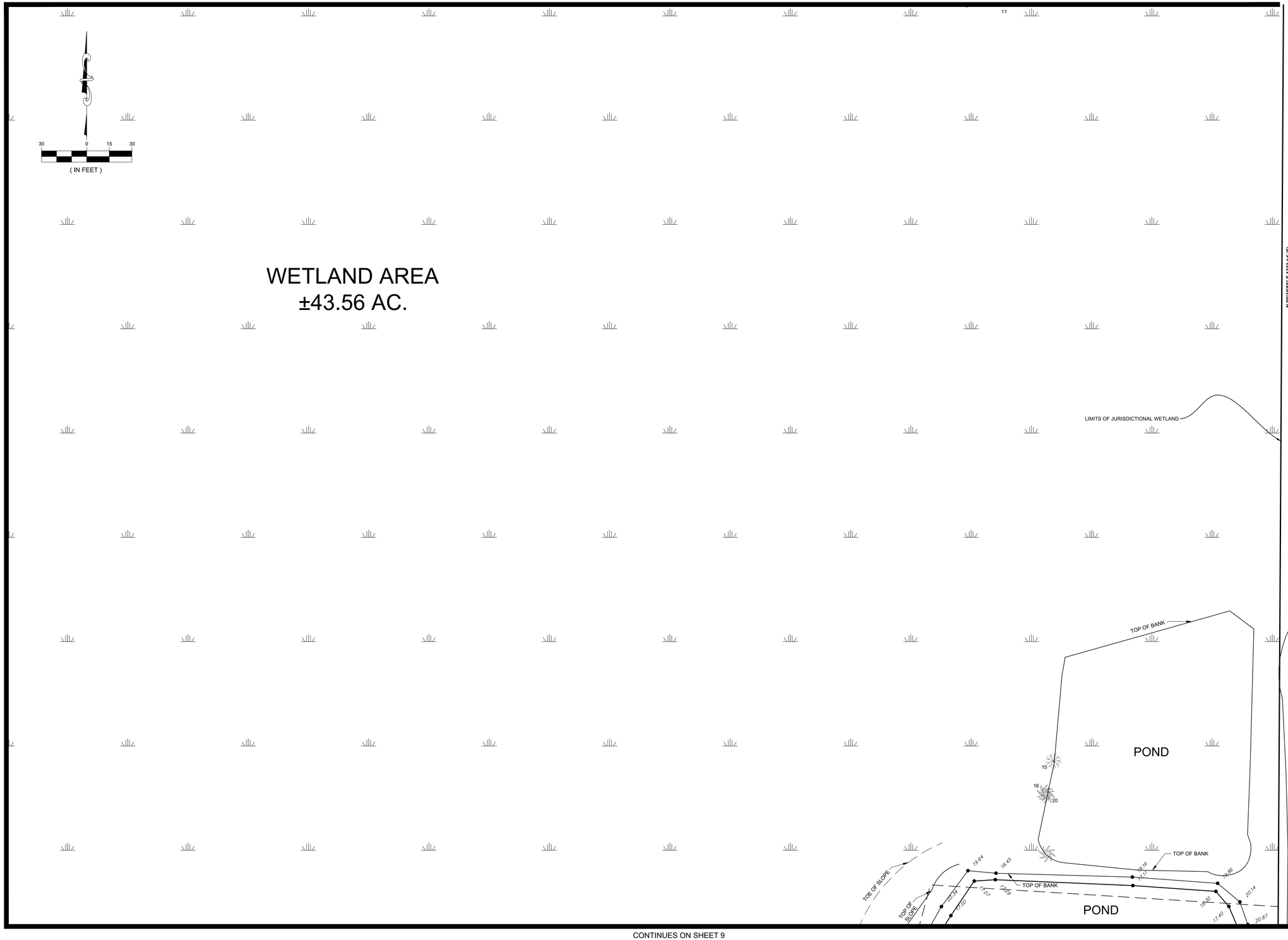
PROJECT NO. 11748

DRAWING NO. 11748_100_004_TREES

SHEET 9 of 11

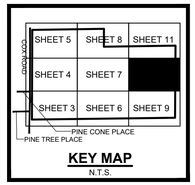
H:\Projects Folder\11748\Drawings\11748_100\11748_100_004_TREES.DWG April 13, 2026 4:56:15 PM Ec

CONTINUES ON SHEET 11



CONTINUES ON SHEET 7

CONTINUES ON SHEET 9



KEY MAP
N.T.S.

TREE TYPE

32 TREE SIZE

- PINE
- 9 PALM
- 18 OAK
- 5 UNKNOWN
- 10 TREE
- 9 MAPLE
- 4 BAY

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
CL	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
EL/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
N#	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

VERTICAL DATUM: NAVD88

1	CITY COMMENTS 07/21/25
DATE:	03/31/2025
DESIGN/DRAWN:	LEH / TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

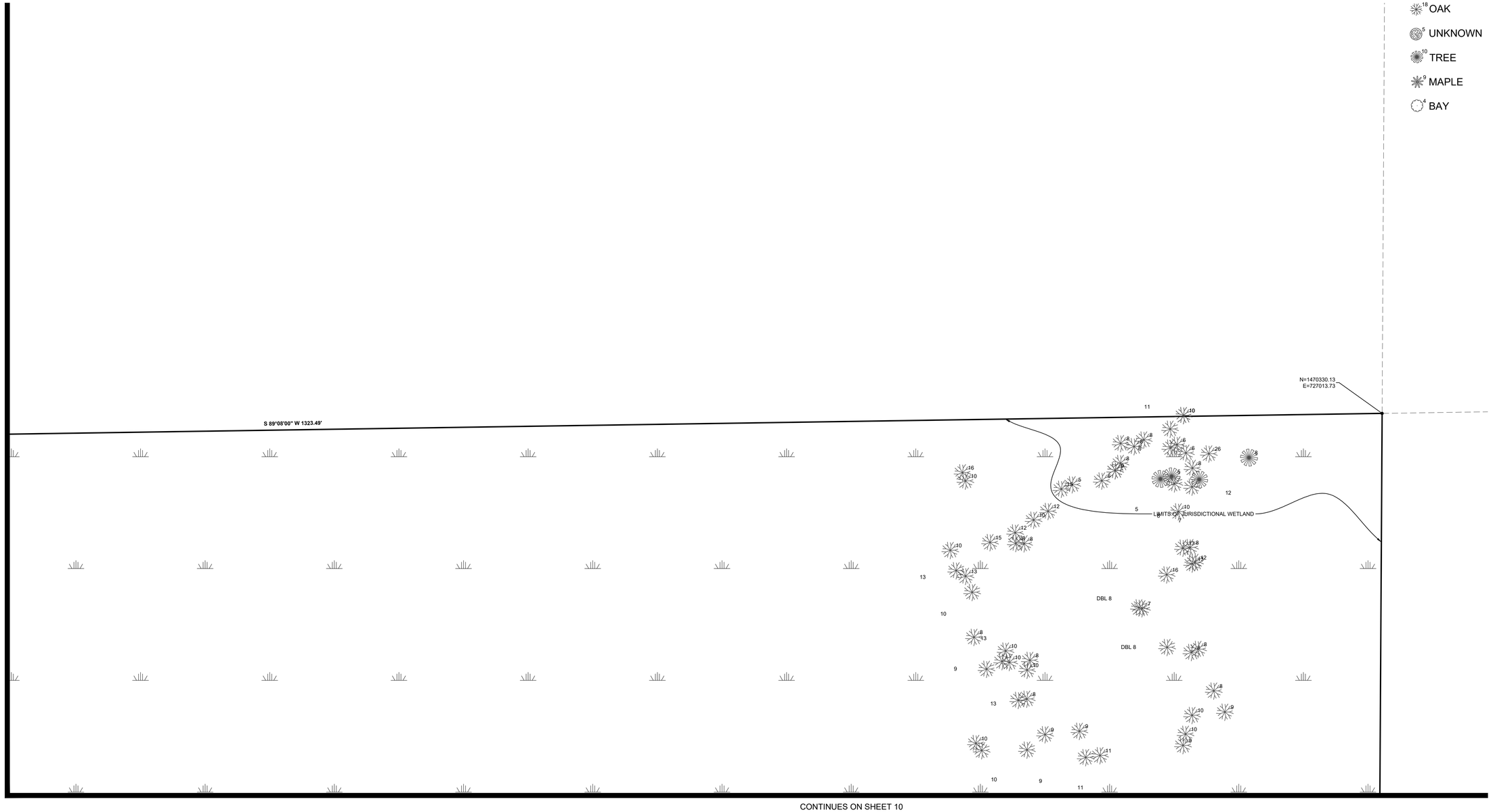
TREE SURVEY

PROJECT NO.
11748

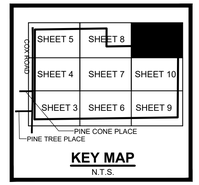
DRAWING NO.
11748_100_004_TREES

SHEET
10 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_004_TREES.DWG April 13, 2026 4:45:14 PM fc







KEY MAP
N.T.S.

TREE TYPE

32 TREE SIZE

- PINE
- 9 PALM
- 18 OAK
- 5 UNKNOWN
- 10 TREE
- 9 MAPLE
- 4 BAY

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
ELE/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NH	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

VERTICAL DATUM: NAVD88

7	
6	
5	
4	
3	
2	
1	
CITY COMMENTS	07/21/25
DATE:	03/31/2025
DESIGN/DRAWN:	LEH / TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

TREE SURVEY

PROJECT NO.
11748

DRAWING NO.
11748_100_004_TREES

SHEET
11 of 11

H:\Projects Folder\11748\Drawings\11748_100\11748_100_004_TREES.DWG April 13, 2026 4:45:00 PM fc

SANCTUARY AT COCOA - PHASE 1

SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

PLAT NOTES:

1. BEARING REFERENCE: ASSUMED BEARING OF NORTH 89°15'10" EAST ALONG THE SOUTH LINE OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST; BETWEEN THE SOUTHWEST CORNER OF SECTION 24 AND THE SOUTHEAST CORNER OF THE SOUTHWEST 1/4 OF SECTION 24.

2. SURVEY MONUMENTATION WITHIN THE SUBDIVISION SHALL BE SET IN ACCORDANCE WITH FLORIDA STATUTES, CHAPTER 177.091(8) AND 177.091(9).

3. ALL CURVILINEAR LOT/TRACT LINES ARE RADIAL UNLESS OTHERWISE NOTED.

4. THE LANDS PLATTED HEREUNDER ARE SUBJECT TO THE TERMS AND PROVISIONS OF THE FOLLOWING:
   A. DECLARION OF COVENANTS, CONDITIONS, AND RESTRICTIONS FOR THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION INC, OFFICIAL RECORDS BOOK _____, PAGE _____
   B. TERMS AND PROVISIONS OF THE DEVELOPMENT AGREEMENT RECORDED IN THE OFFICIAL RECORD BOOKS OF BREVARD COUNTY, OFFICIAL RECORDS BOOK _____, PAGE ___
   C. MORTGAGE FROM LEGACY VILLAS AT COCOA, LLC, A FLORIDA LIMITED LIABILITY COMPANY IN FAVOR OF CITY NATIONAL BANK OF FLORIDA, RECORDED IN OFFICIAL RECORDS BOOK 9424, PAGE 2758, AS MODIFIED BY MORTGAGE MODIFICATION AGREEMENT RECORDED APRIL 1, 2025 IN OFFICIAL RECORDS BOOK 10298, PAGE 2146.
   D. ASSIGNMENT OF RENTS AND LEASES FROM LEGACY VILLAS AT COCOA, LLC, A FLORIDA LIMITED LIABILITY COMPANY TO CITY NATIONAL BANK OF FLORIDA RECORDED IN OFFICIAL RECORDS BOOK 9424, PAGE 2795.
   E. FINANCING STATEMENT FROM LEGACY VILLAS AT COCOA, LLC TO CITY NATIONAL BANK OF FLORIDA RECORDED IN OFFICIAL RECORDS BOOK 9424, PAGE 2804, AS AMENDED BY UCC-3 FINANCING STATEMENT AMENDMENT RECORDED APRIL 1, 2025 IN OFFICIAL RECORDS BOOK 10298, PAGE 2152.

5. ALL PLATTED PUBLIC UTILITY EASEMENTS SHALL ALSO BE EASEMENTS FOR THE CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES; PROVIDED, HOWEVER, NO SUCH CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES SHALL INTERFERE WITH THE FACILITIES AND SERVICES OF AN ELECTRIC, TELEPHONE, GAS, OR OTHER PUBLIC UTILITY. IN THE EVENT A CABLE TELEVISION COMPANY DAMAGES THE FACILITIES OF A PUBLIC UTILITY, IT SHALL BE SOLELY RESPONSIBLE FOR THE DAMAGES. THIS SECTION SHALL NOT APPLY TO THOSE PRIVATE EASEMENTS GRANTED TO OR OBTAINED BY A PARTICULAR ELECTRIC, TELEPHONE, GAS, OR OTHER PUBLIC UTILITY. SUCH CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION SHALL COMPLY WITH THE NATIONAL ELECTRICAL SAFETY CODE AS ADOPTED BY THE FLORIDA PUBLIC SERVICE COMMISSION.

6. THERE IS HEREBY DEDICATED OVER AND ACROSS THE FRONT OF ALL LOTS AND TRACTS, ABUTTING AND COINCIDENT WITH THE STREET RIGHTS-OF-WAY A 10.00' PUBLIC UTILITY EASEMENT (UNLESS OTHERWISE NOTED). FOR PURPOSES OF THIS PLAT, THE TERM PUBLIC AND PRIVATE UTILITY COMPANIES SHALL INCLUDE, BUT NOT BE LIMITED TO, FLORIDA POWER & LIGHT CO., SOUTHERN BELL AND CHARTER COMMUNICATIONS (A CABLE TELEVISION AND TELECOMMUNICATION SERVICE PROVIDER).

7. THE PRIVATE DRAINAGE EASEMENTS SHOWN ON LOTS 12, 13, 24, 25, 60, 61, 78, 79, 101, 102, 112, 113, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 146, 147, 158, 159, 171, 172, 173, 174, 175, 176, 177, 216, & 217 ARE NON-EXCLUSIVE EASEMENTS GRANTED TO THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION IN PERPETUITY FOR THE INSTALLATION, CONSTRUCTION, REPAIR, RECONSTRUCTION, USE, MAINTENANCE, IMPROVEMENT AND INSPECTION OF DRAINAGE IMPROVEMENTS COMPRISING THE STORMWATER MANAGEMENT SYSTEM; TOGETHER WITH THE RIGHT OF INGRESS AND EGRESS FOR PEDESTRIANS, VEHICLES AND EQUIPMENT OVER SUCH EASEMENT AREAS IN CONNECTION THEREWITH. NO FENCES, LANDSCAPING (OTHER THAN SOD), POOLS, PATIOS, ENCLOSURES, SLABS, POOL PUMPS, COMPRESSORS AND OTHER IMPROVEMENTS MAY BE INSTALLED OR CONSTRUCTED WITHIN SUCH EASEMENT AREAS. WITHOUT LIMITING THE FORGOING SENTENCE, THE PLANTING OF ANY TREE OR SHRUB WITHIN THE PRIVATE DRAINAGE EASEMENT AREAS REFERENCED IN THIS NOTE IS PROHIBITED.

8. THE 5.00' PRIVATE DRAINAGE EASEMENTS SHOWN ON LOTS 18, 19, 31, 30, 42, 43, 48, 49, 54, 55, 66, 67, 72, 73, 90, 91, 102, 101, 129, 130, 140, 141, 164, 165, 170, 171, 192, 193, 204, 205, 210, 211, 222, 223, 237, 238, 243, AND 244 ARE NON-EXCLUSIVE EASEMENTS GRANTED TO THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION IN PERPETUITY FOR THE INSTALLATION, CONSTRUCTION, REPAIR, RECONSTRUCTION, USE, MAINTENANCE, IMPROVEMENT AND INSPECTION OF DRAINAGE IMPROVEMENTS COMPRISING THE STORMWATER MANAGEMENT SYSTEM; TOGETHER WITH THE RIGHT OF INGRESS AND EGRESS FOR PEDESTRIANS, VEHICLES AND EQUIPMENT OVER SUCH EASEMENT AREAS IN CONNECTION THEREWITH. NO FENCES, LANDSCAPING (OTHER THAN SOD), POOLS, PATIOS, ENCLOSURES, SLABS, POOL PUMPS, COMPRESSORS AND OTHER IMPROVEMENTS MAY BE INSTALLED OR CONSTRUCTED WITHIN SUCH EASEMENT AREAS. WITHOUT LIMITING THE FORGOING SENTENCE, THE PLANTING OF ANY TREE OR SHRUB WITHIN THE PRIVATE DRAINAGE EASEMENT AREAS REFERENCED IN THIS NOTE IS PROHIBITED.

9. ALL DRAINAGE TRACTS AND DRAINAGE EASEMENTS DESCRIBED HEREON SHALL BE PRIVATE EXCEPT AS OTHERWISE EXPRESSLY PROVIDED HEREIN. THE CITY OF COCOA SHALL NOT HAVE ANY RESPONSIBILITY REGARDING THE MAINTENANCE, REPAIR AND/OR RESTORATION OF ANY STORM PIPES, STORM STRUCTURES OR ASSOCIATED STORMWATER MANAGEMENT FACILITIES LOCATED WITHIN THE LIMITS OF ANY SUCH TRACT OR PRIVATE DRAINAGE EASEMENT, AND SUCH MAINTENANCE, REPAIR AND/OR RESTORATION SHALL BE THE RESPONSIBILITY OF THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION WITH RESPECT TO THE STORMWATER MANAGEMENT SYSTEM AS PROVIDED IN OTHER INSTRUMENTS RECORDED IN THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.

10. AN EASEMENT SHALL BE GRANTED TO THE CITY OF COCOA FOR EMERGENCY ACCESS FOR INGRESS/EGRESS AND MAINTENANCE OVER ALL PRIVATE DRAINAGE EASEMENTS AND STORMWATER MANAGEMENT TRACTS. THE CITY OF COCOA SHALL HAVE THE RIGHT, BUT NOT THE OBLIGATION, TO ACCESS, MAINTAIN, REPAIR, REPLACE OR OTHERWISE CARE FOR OR CAUSE TO BE CARED FOR, THE DRAINAGE EASEMENTS AND STORMWATER TRACTS SHOWN ON THIS PLAT AND THE PRIVATE DRAINAGE FACILITIES THEREIN, INCLUDING WITHOUT LIMITATION THE DRAINAGE SYSTEMS CONSTRUCTED THEREON, IN THE EVENT OF AN EMERGENCY AND IS GRANTED AN EASEMENT FOR SUCH PURPOSES. TO THE EXTENT THAT THE CITY OPTS TO MAINTAIN, REPAIR, REPLACE, OR OTHERWISE CARE FOR OR CAUSE TO BE CARED FOR THE DRAINAGE EASEMENTS AND STORMWATER TRACTS SHOWN ON THIS PLAT AND THE DRAINAGE SYSTEMS CONSTRUCTED THEREON, THE FREQUENCY, QUALITY OR EXTENT OF SUCH MAINTENANCE, REPAIR, REPLACEMENT AND CARE WILL BE SUBJECT TO THE CITY'S DISCRETION.

11. WHERE PRIVATE SIDEWALKS ARE LOCATED WITHIN LOTS OR TRACTS SHOWN HEREON, SUCH LOTS AND TRACTS SHALL BE SUBJECT TO A PRIVATE SIDEWALK EASEMENT HEREBY DEDICATED TO SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC. TO ACCOMMODATE SUCH SIDEWALK, FOR THE SOLE PURPOSE OF MAINTAINING AND REPAIRING THE PRIVATE SIDEWALKS WITHIN SAID PRIVATE SIDEWALK EASEMENTS.

12. TRACT A, TRACT B AND TRACT C ARE HEREBY DEDICATED TO THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC FOR STORMWATER FACILITIES, LANDSCAPING, IRRIGATION, AND RELATED FACILITIES AND SHALL BE OWNED AND MAINTAINED BY THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC.

13. TRACT E IS HEREBY DEDICATED TO LEGACY VILLAS AT COCOA LLC FOR THE PURPOSES OF UPLAND BUFFER, OPEN SPACE, AND WETLAND PRESERVATION AND SHALL BE OWNED AND MAINTAINED BY LEGACY VILLAS AT COCOA LLC PURSUANT TO THE DEVELOPMENT AGREEMENT RECORDED IN OFFICIAL RECORD BOOKS OF BREVARD COUNTY, BOOK ___ PAGE ___, TRACT E SHALL BE CONVEYED TO THE CITY OF COCOA PRIOR TO CERTIFICATES OF OCCUPANCY BEING ISSUED FOR ANY TOWNHOMES WITHIN THE PROJECT.

14. TRACT F IS HEREBY DEDICATED TO THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC FOR THE PURPOSES OF UPLAND BUFFER, OPEN SPACE, AND WETLAND PRESERVATION AND SHALL BE OWNED AND MAINTAINED BY THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION INC.

15. A PERPETUAL NON-EXCLUSIVE EASEMENT IS HEREBY DEDICATED TO THE CITY OF COCOA OVER AND ACROSS TRACT Q FOR RIGHT-OF-WAY EXPANSION PURPOSES. TRACT Q IS A COMMON AREA UNDER DECLARATION AND SHALL BE OWNED AND MAINTAINED BY THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, UNTIL THE RIGHT-OF-WAY IS OPENED AND IMPROVED.

16. TRACT G IS HEREBY DEDICATED TO THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC FOR THE PURPOSES OF THE INSTALLATION AND MAINTENANCE OF UTILITIES, LANDSCAPE AMENITIES, RECREATION, OPEN SPACE, AND STORMWATER MANAGEMENT AND SHALL BE OWNED AND MAINTAINED BY THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC.

17. TRACT H IS HEREBY DEDICATED TO THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC FOR THE PURPOSES OF THE INSTALLATION AND MAINTENANCE OF UTILITIES, LANDSCAPE AMENITIES, RECREATION, OPEN SPACE, AND STORMWATER MANAGEMENT AND SHALL BE OWNED AND MAINTAINED BY THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC.

18. TRACT I IS HEREBY DEDICATED AND CONVEYED TO THE CITY OF COCOA FOR A SANITARY SEWER LIFTSTATION AND RELATED IMPROVEMENTS AND SHALL BE OWNED BY THE CITY OF COCOA. THE CITY OF COCOA SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE LIFT STATION.

19. TRACT D IS HEREBY DEDICATED TO THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC FOR THE PURPOSES OF THE INSTALLATION AND MAINTENANCE OF UTILITIES, LANDSCAPE, AMENITIES, RECREATION, OPEN SPACE, AND STORMWATER MANAGEMENT AND SHALL BE OWNED BY AND MAINTAINED BY THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC.

20. THE RIGHTS-OF-WAY FOR TWILIGHT WAY, WHISPERWOOD PLACE, ARIA LANE, AND BELLFLOWER DRIVE, DESCRIBED HEREON AS TRACT ZZ1 ARE HEREBY DEDICATED TO THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC FOR THE PURPOSES OF INSTALLATION AND MAINTENANCE OF PRIVATE VEHICULAR/PEDESTRIAN ACCESS, PUBLIC AND PRIVATE UTILITIES, PRIVATE LANDSCAPING, PRIVATE SIGNAGE AND PRIVATE SIDEWALKS AND SHALL BE OWNED AND MAINTAINED BY THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC.

21. A PERPETUAL NON-EXCLUSIVE EASEMENT IS HEREBY DEDICATED TO BREVARD COUNTY, CITY OF COCOA AND PRIVATE AND PUBLIC UTILITY COMPANIES OVER, UNDER AND ACROSS TRACTS ZZ1 FOR THE INSTALLATION, MAINTENANCE, REPAIR AND IMPROVEMENT OF UTILITIES AND RELATED IMPROVEMENTS, TOGETHER WITH THE RIGHT OF VEHICULAR AND PEDESTRIAN INGRESS AND EGRESS IN CONNECTION THEREWITH. ANY UTILITY COMPANY USING THIS EASEMENT WHICH CAUSES DAMAGE OF ANY NATURE TO THE PRIVATE STREET IMPROVEMENTS WITHIN TRACTS ZZ1 SHALL BE RESPONSIBLE FOR REPAIRING THE AFFECTED STREET IMPROVEMENTS AND RESTORING SUCH DAMAGED AREAS TO THE SAME OR SUBSTANTIALLY SIMILAR CONDITION AS REASONABLY PRACTICAL TO WHICH EXISTED PRIOR TO ANY ACTIVITY WHICH CAUSED DAMAGE.

22. FOR FLOODPLAIN DATA REFERENCE FEMA, FLOOD INSURANCE RATE MAP (FIRM) BREVARD COUNTY FLORIDA AND INCORPORATED AREAS. MAP NUMBER 12009C0320H; PANEL 0320; REVISED JANUARY 29, 2021.

23. TRACTS Z1, Z2, Z3, AND Z4 ARE HEREBY DEDICATED AND CONVEYED TO THE CITY OF COCOA AS PUBLIC RIGHTS-OF-WAY.

24. TRACTS A, B, C, D, E, F, G, H, J, K, L, M, N, O, P, Q, AND ZZ1 ARE COMMON AREAS UNDER THE DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR SANCTUARY AT COCOA.

25. TRACT J AND TRACT K ARE HEREBY DEDICATED TO THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC FOR THE PURPOSES OF LANDSCAPE, IRRIGATION, OPEN SPACE, AND RELATED IMPROVEMENTS AND SHALL BE OWNED AND MAINTAINED BY THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC.

26. TRACTS L, O, AND P ARE HEREBY DEDICATED TO THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC FOR VEHICULAR PARKING, LANDSCAPING, IRRIGATION, AND RELATED IMPROVEMENTS AND FOR INGRESS AND EGRESS TO TRACT C FOR THE MAINTENANCE AND OPERATION OF TRACT C AND SHALL BE OWNED AND MAINTAINED BY THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC.

27. TRACT M IS HEREBY DEDICATED TO THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC FOR OPEN SPACE AND RELATED IMPROVEMENTS AND SHALL BE OWNED AND MAINTAINED BY THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION INC.

TRACT AREA SUMMARY TABLE

TRACT	AREA (ACRES)	TRACT USE	OWNERSHIP AND MAINTENANCE ENTITY
TRACT A	2.86	STORMWATER FACILITIES, LANDSCAPING, IRRIGATION, OPEN SPACE, AND RELATED FACILITIES	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION
TRACT B	6.06	STORMWATER FACILITIES, LANDSCAPING, IRRIGATION, OPEN SPACE, AND RELATED FACILITIES	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION
TRACT C	0.84	STORMWATER FACILITIES, LANDSCAPING, IRRIGATION, AND RELATED FACILITIES	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION
TRACT D	1.59	AMENITIES, INSTALLATION AND MAINTENANCE OF UTILITIES, RECREATION, OPEN SPACE, AND STORMWATER MANAGEMENT	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION
TRACT E	46.12	WETLAND PRESERVATION, UPLAND BUFFER, OPEN SPACE	LEGACY VILLAS AT COCOA LLC (SEE NOTE 13)
TRACT F	1.46	WETLAND PRESERVATION, UPLAND BUFFER, OPEN SPACE	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION
TRACT G	0.93	LANDSCAPE IMPROVEMENTS, PUBLIC SIDEWALK, STORMWATER MANAGEMENT, AND RELATED IMPROVEMENTS	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION
TRACT H	0.93	LANDSCAPE BUFFER AND STORMWATER MANAGEMENT	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION
TRACT I	0.06	LIFT STATION	CITY OF COCOA
TRACT J	0.44	LANDSCAPE BUFFER, IRRIGATION AND OPEN SPACE	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION
TRACT K	1.95	LANDSCAPE BUFFER, IRRIGATION AND OPEN SPACE	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION
TRACT L	0.27	PARKING AREA, OPEN SPACE, AND INGRESS/EGRESS TO TRACT C, SPECIFIC FOR THE MAINTENANCE AND OPERATION OF TRACT C	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION
TRACT M	0.31	OPEN SPACE	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION
TRACT N	2.26	OPEN SPACE, TRAIL, AND STORMWATER FACILITIES	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION
TRACT O	0.09	PARKING, LANDCAPING & RELATED IMPROVEMENTS, INCLUDING THE INGRESS/EGRESS TO TRACT A SPECIFIC TO THE MAINTENANCE AND OPERATION OF TRACT A	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION
TRACT P	0.09	PARKING, LANDSCAPING & RELATED IMPROVEMENT, INCLUDING THE INGRESS/EGRESS TO TRACT A SPECIFIC TO THE MAINTENANCE AND OPERATION OF TRACT A	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION
TRACT Q	1.09	FUTURE RIGHT-OF-WAY EXPANSION	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION UNTIL RIGHT-OF-WAY IS OPENED AND IMPROVED
TRACT S	5.95	FUTURE DEVELOPMENT	LEGACY VILLAS AT COCOA LLC
TRACT Z1	0.06	ROAD RIGHT-OF-WAY	CITY OF COCOA
TRACT Z2	0.33	ROAD RIGHT-OF-WAY	CITY OF COCOA
TRACT Z3	0.07	ROAD RIGHT-OF-WAY	CITY OF COCOA
TRACT Z4	0.21	ROAD RIGHT-OF-WAY	CITY OF COCOA
TRACT ZZ1	4.45	PRIVATE RIGHT-OF-WAY, INGRESS/EGRESS, PUBLIC AND PRIVATE UTILITIES	SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION

28. TRACT N IS HEREBY DEDICATED TO THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION, INC FOR OPEN SPACE, TRAIL, STORMWATER FACILITIES AND RELATED IMPROVEMENTS AND SHALL BE OWNED AND MAINTAINED BY THE SANCTUARY AT COCOA RESIDENTIAL COMMUNITY ASSOCIATION INC.

29. TRACT S IS HEREBY DEDICATED FOR FUTURE DEVELOPMENT AND SHALL BE OWNED AND MAINTAINED BY LEGACY VILLAS AT COCOA LLC

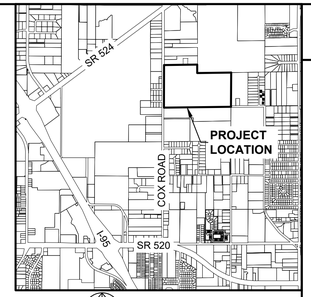
30. SEE OFFICIAL RECORDS BOOK _____, PAGE _____ FOR JOINDER IN DEDICATION FROM CITY NATIONAL BANK

DESCRIPTION

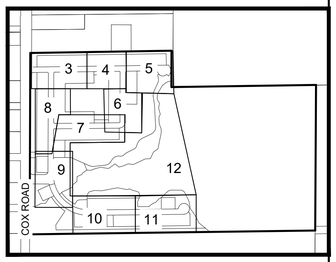
THOSE CERTAIN PARCELS OF LAND DESCRIBED IN OFFICIAL RECORDS BOOK 9424, PAGE 2754, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA LYING IN SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA AND RUN N89°15'10"E, ALONG THE SOUTH LINE OF SAID SECTION 24, A DISTANCE OF 33.00 FEET TO THE EAST RIGHT-OF-WAY LINE OF COX ROAD, (A VARIABLE WIDTH PUBLIC RIGHT-OF-WAY), AND THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED; THENCE CONTINUE N89°15'10"E, ALONG THE SOUTH LINE OF SAID SECTION 24, A DISTANCE OF 2610.55 FEET TO THE SOUTHEAST CORNER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24; THENCE N00°19'58"E, ALONG THE EAST LINE OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24, A DISTANCE OF 1332.14 FEET TO THE NORTHEAST CORNER OF THE SOUTH ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24; THENCE S89°08'00"W, ALONG THE NORTH LINE OF SAID SOUTH ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24, A DISTANCE OF 1323.49 FEET TO THE SOUTHEAST CORNER OF THE SOUTH ONE-QUARTER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24; THENCE N00°15'41"E A DISTANCE OF 332.34 FEET TO THE NORTHEAST CORNER OF SAID SOUTH ONE-QUARTER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24; THENCE S89°06'13"W, ALONG THE NORTH LINE OF SAID SOUTH ONE-QUARTER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24, A DISTANCE OF 1290.91 FEET TO THE EAST RIGHT-OF-WAY LINE OF SAID COX ROAD; THENCE S00°11'23"W, ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 1658.29 FEET TO THE POINT OF BEGINNING. CONTAINING 89.54 ACRES, MORE OR LESS.

NOTICE: THIS PLAT, AS RECORDED IN ITS GRAPHIC FORM, IS THE OFFICIAL DEPICTION OF THE SUBDIVIDED LANDS DESCRIBED HEREIN AND WILL IN NO CIRCUMSTANCES BE SUPPLANTED IN AUTHORITY BY ANY OTHER GRAPHIC OR DIGITAL FORM OF THE PLAT. THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORDED ON THIS PLAT THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.



LOCATION MAP
NTS



KEY MAP
NTS

SURVEY SYMBOL LEGEND

- SECTION CORNER; MARKED AS NOTED
- 1/4 SECTION CORNER; MARKED AS NOTED
- ■ PERMANENT REFERENCE MONUMENT (PRM); SET 4x4 INCH CONCRETE MONUMENT WITH DISK STAMPED "PRM LB4905", UNLESS OTHERWISE NOTED
- ▲ PERMANENT CONTROL POINT (PCP); SET MAG NAIL AND DISK STAMPED "PCP LB4905", UNLESS OTHERWISE NOTED
- ● SET 5/8" IRON ROD AND CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED.

ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
AC	ACRE
AL	ARC LENGTH
CB	CHORD BEARING
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CCR	CERTIFIED CORNER RECORD
COR	CORNER
DE	PRIVATE DRAINAGE EASEMENT
DEL	DELTA ANGLE
E	EAST / EASTING
FD	FOUND
FT	FEET
ID#	IDENTIFICATION NUMBER
IR	IRON ROD
IRC	IRON ROD AND CAP
N	NORTH / NORTHING
N&D	NAIL AND DISK
NR	NON-RADIAL
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PDE	PUBLIC DRAINAGE EASEMENT
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
PRM	PERMANENT REFERENCE MONUMENT
PT	POINT OF TANGENCY
R	RADIUS/RIGHT
R/W	RIGHT-OF-WAY
RGE	RANGE
S	SOUTH
SEC	SECTION
TWP	TOWNSHIP
UE	PUBLIC UTILITY EASEMENT
W	WEST

- THIS PLAT PREPARED BY -

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

DATE: 04/14/2026
DESIGN/DRAWN: HAK / FC
DRAWING# 11748_300_001
PROJECT# 11748

PLAT BOOK _____, PAGE _____
SHEET 1 OF 12
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST

DEDICATION

KNOW ALL MEN BY THESE PRESENTS, Legacy Villas at Cocoa LLC, being the owner in fee simple of the lands described in

SANCTUARY AT COCOA - PHASE 1

Hereby dedicates said lands and plat for the uses and purposes therein expressed and dedicates to the public and the City of Cocoa, Florida, all easements shown hereon or described in the notes as public easements. The owner further dedicates a perpetual public easement over and across the private right-of-way of Tract ZZ1 for the installation and maintenance of public utilities and for ingress and egress for law enforcement and emergency vehicles, mail and package delivery, solid waste/sanitation, and other similar governmental and quasi-governmental services and further dedicates Tract I to the City of Cocoa for the installation, operation and maintenance of a sanitary sewer lift station, and Tracts Z1, Z2, Z3 and Z4 to the City of Cocoa as a public right-of-way and Tract Q to the City of Cocoa for the future right-of-way expansion. The private right-of-way and drainage facilities within the subdivision are not dedicated to, nor the responsibility of, the City of Cocoa, Florida.

By:_____

SEAL

Witness:_____
Signature

_____
Printed Name:

Witness:_____
Signature

_____
Printed Name:

STATE OF FLORIDA COUNTY OF BREVARD

The foregoing instrument was acknowledged before me by means of ____ physical presence ____ or online notarization, this _____ by _____, Assistant Secretary of the above named corporation incorporated under the laws of State of Florida, on behalf of the company, who is personally known to me ___ or has produced _____ as identification.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the above date.

_____ SEAL
NOTARY PUBLIC
My Comm. Expires _____

CERTIFICATE OF SURVEYOR

KNOW ALL MEN BY THESE PRESENTS, That the undersigned, being a licensed professional surveyor and mapper, does hereby certify that on 03/28/2025 he completed the boundary survey of the lands shown on the foregoing plat; and that said plat was prepared under his direction and supervision and that said plat complies with all of the survey requirements of Chapter 177, part 1, Florida Statutes, and that said lands are located in the City of Cocoa, Brevard County, Florida.

_____ Registration Number 5611
LESLIE E. HOWARD
B.S.E. Consultants, Inc.
312 South Harbor City Boulevard, Suite #4
Melbourne, Fla. 32901
Certificate of Authorization Number: LB-0004905

CERTIFICATE OF CITY SURVEYOR

I HEREBY CERTIFY, That I have reviewed the foregoing plat and find that it is in conformity with Chapter 177, part 1, Florida Statutes.

_____
Edwin Munoz, Jr.
Reg. Florida Surveyor & Mapper #7288
Reviewing Surveyor for the City of Cocoa

CERTIFICATE OF APPROVAL OF MUNICIPALITY

THIS IS TO CERTIFY, That on _____, the foregoing plat was approved by the City Council of the City of Cocoa, Florida.

_____
Michael C. Blake, MAYOR

ATTEST: _____
Monica Arsenault - City Clerk

CERTIFICATE OF CLERK

I HEREBY CERTIFY, That I have examined the foregoing plat and find that it complies in form with all the requirements of Chapter 177, Part 1, Florida Statutes, and was filed for record on _____ at _____.

File No. _____

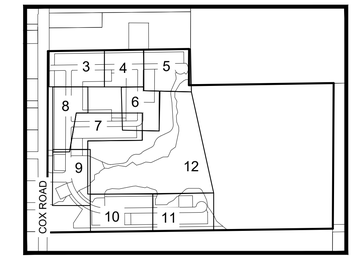
ATTEST: _____
Clerk of the Circuit Court in and for Brevard County, Fla.

H:\Projects Folder\11748\Drawings\11748_300\11748_300_001.PN1.dwg April 14, 2026 8:16:00 AM fc

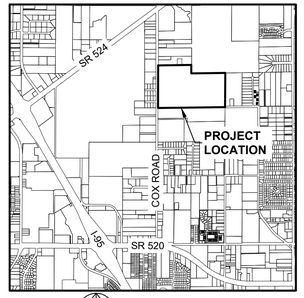
SANCTUARY AT COCOA - PHASE 1

SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

PLAT BOOK _____, PAGE _____
SHEET 2 OF 12
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST



KEY MAP
NTS



LOCATION MAP
NTS

SET 4"X4" PRM (FD 4x4 CM, "PBSJ 1908", 0.3' S & 0.1' W)
TRACT Z1 0.06 AC
50.00'
33.00'
TAX PARCEL ID# 24-35-24-00-506 UNPLATTED
TAX PARCEL ID# 24-35-24-00-512 UNPLATTED
TAX PARCEL ID# 24-35-24-00-506 UNPLATTED
NE CORNER OF THE S 1/4 OF THE NW 1/4 - SW 1/4 OF SECTION 24, SET 4"X4" PRM (FD 1/2" IR, NO ID#, 1.3' S & 4.3' W)
S89°06'13"W 1290.91'
TRACT H 0.93 AC
N00°15'41"E 332.34'
10' UE (TYP)
WHISPERWOOD PLACE (50.00' PRIVATE R/W)
TRACT ZZ1 4.45 AC
TRACT ZZ1 4.45 AC
TRACT O 0.09 AC
TRACT A 2.86 AC
N LINE OF THE S. 1/2 - SW 1/4
DRAINAGE EASEMENT (TYP)
TRACT P 0.09 AC
ARIA LANE (50.00' PRIVATE R/W)
TRACT B 6.06 AC
TRACT N 2.26 AC
TRACT E 46.12 AC
TAX PARCEL ID# 24-35-24-00-3 UNPLATTED
S89°08'00"W 1323.49'
N LINE OF THE S. 1/2 - SW 1/4
NE CORNER OF THE S 1/2 - SW 1/4 OF SECTION 24
SE CORNER OF THE S 1/4 OF THE NW 1/4 - SW 1/4 OF SECTION 24 CORNER FALLS IN DITCH, NO MARKER FD OR SET. (FD 4"x4" CM, NO ID#, 0.8' S & 3.8' E) (HELD AS PRM)
E LINE OF THE SW 1/4
N00°19'58"E 1332.14'
TAX PARCEL ID# 24-35-24-00-752 UNPLATTED
SECTION 24 / SECTION 23
SECTION LINE
S00°12'23"W 331.66'
S00°11'23"W 1326.93'
S00°12'23"W 1658.29' (TOTAL BOUNDARY)
COX ROAD (VARIABLE WIDTH IMPROVED PUBLIC R/W)
R/W LINE
TRACT Z2 0.33 AC
TRACT G 0.93 AC
BELLFLOWER DR (50.00' PRIVATE R/W)
TRACT Z3 0.07AC
TRACT I 0.06 AC
TWILIGHT WAY (86.00' PRIVATE R/W)
TRACT ZZ1 4.45 AC
TRACT J 0.44 AC
TRACT Z4 0.21 AC
TRACT F 1.46 AC
TRACT K 1.95 AC
TRACT C 0.84 AC
S89°15'10"W 461.49' (TOTAL)
TRACT M 0.31 AC
TRACT L 0.27 AC
TRACT S 5.95 AC
TRACT D 1.59 AC
S32°40'18"W 128.89'
N00°11'23"E 455.45'
N00°11'23"E 219.06'
S44°44'45"E 31.93'
S34°04'34"E 58.35'
S26°27'41"E 54.68'
S34°48'16"E 90.97'
N89°15'10"E 1063.00'
N89°15'10"E 1346.44'
S34°48'16"E 60.76'
N89°15'10"E 1589.71'
S34°48'16"E 36.21'
N89°15'10"E 1000.84'
SECTION 24 / SECTION 25
S LINE OF SECTION 24
SE CORNER OF THE SW 1/4 OF SECTION 24, FD 4"X4" CM, NO ID# PER CCR# 26325 (HELD AS PRM)
50.00' 33.00'
N89°15'10"E 222.50'
S00°28'18"E 45.79'
N00°11'23"E 30.00'
N89°15'10"E 1589.71'
30.00'
TRACT Q 1.09 AC
TAX PARCEL ID# 24-35-25-00-250 UNPLATTED
N89°15'10"E 2610.55' (BASIS OF BEARINGS)
45.00'
33.00'
N89°15'10"E 33.00'
POB
SET 4"X4" PRM (FD 1/2" IRC, ID# LB5633, 0.2' W & 0.1' N) (FD 4x4 CM, BROKEN, 2' EAST)
POC
SW CORNER OF SECTION 24, FD BRASS DISK, NO ID# PER CCR# 62320

SURVEY SYMBOL LEGEND

- SECTION CORNER; MARKED AS NOTED
- 1/4 SECTION CORNER; MARKED AS NOTED
- ■ PERMANENT REFERENCE MONUMENT (PRM); SET 4x4 INCH CONCRETE MONUMENT WITH DISK STAMPED "PRM LB4905", UNLESS OTHERWISE NOTED
  PERMANENT CONTROL POINT (PCP); ▲ SET MAG NAIL AND DISK STAMPED "PCP LB4905", UNLESS OTHERWISE NOTED
- ● SET 5/8" IRON ROD AND CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED.

ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
AC	ACRE
AL	ARC LENGTH
CB	CHORD BEARING
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CCR	CERTIFIED CORNER RECORD
COR	CORNER
DE	PRIVATE DRAINAGE EASEMENT
DEL	DELTA ANGLE
E	EAST / EASTING
FD	FOUND
FT	FEET
ID#	IDENTIFICATION NUMBER
IR	IRON ROD
IRC	IRON ROD AND CAP
N	NORTH / NORTHING
N&D	NAIL AND DISK
NR	NON-RADIAL
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PDE	PUBLIC DRAINAGE EASEMENT
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
PRM	PERMANENT REFERENCE MONUMENT
PT	POINT OF TANGENCY
R	RADIUS/RIGHT
R/W	RIGHT-OF-WAY
RGE	RANGE
S	SOUTH
SEC	SECTION
TWP	TOWNSHIP
UE	PUBLIC UTILITY EASEMENT
W	WEST

100 0 50 100
1 INCH = 100 FEET

H:\Projects Folder\11748\02\Drawings\11748_300\11748_300_001-PH1.dwg April 14, 2026 8:16:01 AM fc

- THIS PLAT PREPARED BY -

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
310 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

DATE: 04/14/2026
DESIGN/DRAWN: HAK/ FC
DRAWING# 11748_300_001
PROJECT# 11748

SANCTUARY AT COCOA - PHASE 1

SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

PLAT BOOK _____, PAGE _____
SHEET 3 OF 12
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST

20 0 10 20
1 INCH = 20 FEET

SET 4"X4" PRM
(FD 4x4 CM, "PBSJ
1908", 0.3' S & 0.1' W)

TAX PARCEL ID#
24-35-24-00-506
UNPLATTED

S89°06'13"W 1290.91' (TOTAL)
1270.90'
20.00'
N89°06'13"E 1185.99' (TOTAL)
N89°06'13"E 1290.75' (TOTAL)

S00°11'23"W 1658.29' (TOTAL BOUNDARY)
RVN LINE
130.02'
TRACT Z1
0.06 AC
N00°11'23"E 114.74'
TRACT H
0.93 AC
N00°11'23"E 105.02'
AL=23.85'
R=15.00'
DEL=91°05'10"
CB=S45°21'12"E
CH=21.41'
35.29'
24.72'

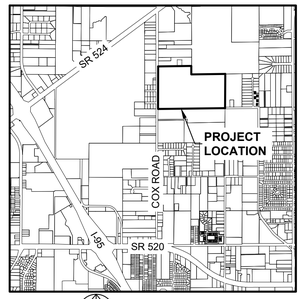
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
0.08 AC	0.05 AC	0.05 AC	0.05 AC	0.05 AC	0.08 AC	0.08 AC	0.05 AC	0.05 AC	0.05 AC	0.05 AC	0.08 AC	0.08 AC	0.05 AC	0.05 AC	0.05 AC	0.05 AC	0.08 AC	0.08 AC

34.00' 20.00' 20.00' 20.00' 20.00' 34.00' 5.00' 5.00' 34.00' 20.00' 20.00' 20.00' 20.00' 34.00' 5.00' 5.00' 34.00' 20.00' 20.00' 20.00' 20.00' 34.00' 5.00' 5.00' 34.00'
N00°53'47"W 105.00'
10' DRAINAGE EASEMENT (SEE NOTE #6)
10' DRAINAGE EASEMENT (SEE NOTE #6)
10' DRAINAGE EASEMENT (SEE NOTE #6)
35.99'
20.00' 20.00' 20.00' 20.00' 34.00' 34.00' 20.00' 20.00' 20.00' 20.00' 34.00' 34.00' 20.00' 20.00' 20.00' 20.00' 34.00' 34.00'
10' UE (TYP)
(SEE NOTE #4)
25.00'
N89°06'13"E 190.03'
N89°06'13"E 659.06'
50.00'
WHISPERWOOD PLACE
(50.00' PRIVATE R/W)
S00°11'23"W 331.66'
50.01'
COX RD (VARIABLE WIDTH R/W)
AL=19.08'
R=12.00'
DEL=91°05'10"
CB=N45°21'12"W
CH=17.13'
AL=17.07' R=11.00' DEL=88°54'50"
CB=S44°38'48"W CH=15.41'
N89°06'13"E 587.04' (TOTAL)
N89°06'13"E 152.80'
34.72'
25.29'
92.79'
94.23'
41.00'
20.00' 20.00' 20.00' 34.00' 34.00' 20.00' 20.00'
AL=23.28'
R=15.00'
DEL=88°54'50"
CB=S44°38'48"W
CH=21.01'
TRACT ZZ1
4.45 AC
39.00'
28.76'
25.00'
27.72'
40.51'
20' DRAINAGE EASEMENT (SEE NOTE #5)
10' DRAINAGE EASEMENT (SEE NOTE #6)
50.00'
S89°48'37"E 105.00'
N00°11'23"E 519.24'
BELLFLOWER DR
(50' PRIVATE R/W)
TRACT Z2
0.33 AC
N00°11'23"E 726.11'
N00°11'23"E 711.77'
S00°11'23"W 745.00' (TOTAL)
N00°11'23"E 902.25' (TOTAL)
S00°11'23"W 339.96' (TOTAL)
N00°11'23"E 260.42' (TOTAL)
TRACT G
0.93 AC
TRACT A
2.86 AC
14.70'
10.00'
42.99'
N89°06'13"E 264.99' (TOTAL)

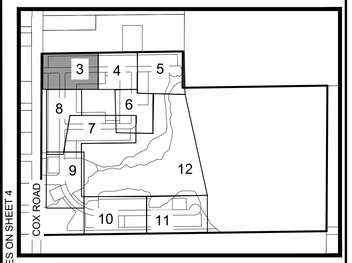
36	35	34	33	32	31	124	123	122	121	120	119	125	126	127	128	129	130	131	132
0.10 AC	0.05 AC	0.05 AC	0.05 AC	0.05 AC	0.08 AC	0.09 AC	0.05 AC	0.05 AC	0.05 AC	0.05 AC	0.08 AC	0.10 AC	0.05 AC	0.05 AC	0.05 AC	0.08 AC	0.08 AC	0.05 AC	0.05 AC

20.00' 20.00' 20.00' 20.00' 20.00' 34.00' 20.00' 20.00' 20.00' 20.00' 20.00' 34.00' 20.00' 20.00' 20.00' 20.00' 34.00' 34.00' 20.00' 20.00'
S89°48'37"E 105.00'
N00°53'44"W 105.00'
10' UE (TYP)
(SEE NOTE #4)
10' UE (TYP)
(SEE NOTE #4)
10' DRAINAGE EASEMENT (SEE NOTE #6)
5.00'
5.00'
10.00'
10.00'
10.00'
10.00'
34.00' 20.00' 20.00' 20.00' 20.00' 34.00' 34.00' 20.00' 20.00'
25.00' 25.00' 25.00' 25.00'

CONTINUES ON SHEET 4
CONTINUES ON SHEET 8



LOCATION MAP
NTS



KEY MAP
NTS

SURVEY SYMBOL LEGEND

- SECTION CORNER; MARKED AS NOTED
- 1/4 SECTION CORNER; MARKED AS NOTED
- ■ PERMANENT REFERENCE MONUMENT (PRM); SET 4x4 INCH CONCRETE MONUMENT WITH DISK STAMPED "PRM LB4905", UNLESS OTHERWISE NOTED
- ▲ PERMANENT CONTROL POINT (PCP); SET MAG NAIL AND DISK STAMPED "PCP LB4905", UNLESS OTHERWISE NOTED
- ● SET 5/8" IRON ROD AND CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED.

ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
AC	ACRE
AL	ARC LENGTH
CB	CHORD BEARING
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CCR	CERTIFIED CORNER RECORD
COR	CORNER
DE	PRIVATE DRAINAGE EASEMENT
DEL	DELTA ANGLE
E	EAST / EASTING
FD	FOUND
FT	FEET
ID#	IDENTIFICATION NUMBER
IR	IRON ROD
IRC	IRON ROD AND CAP
N	NORTH / NORTHING
N&D	NAIL AND DISK
NR	NON-RADIAL
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PDE	PUBLIC DRAINAGE EASEMENT
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
PRM	PERMANENT REFERENCE MONUMENT
PT	POINT OF TANGENCY
R	RADIUS/RIGHT
R/W	RIGHT-OF-WAY
RGE	RANGE
S	SOUTH
SEC	SECTION
TWP	TOWNSHIP
UE	PUBLIC UTILITY EASEMENT
W	WEST

- THIS PLAT PREPARED BY -
B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 725-1159
CERTIFICATE OF BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

DATE: 04/14/2026
DESIGN/DRAWN: HAK/ FC
DRAWING# 11748_300_001
PROJECT# 11748

H:\Projects Folder\11748\Drawings\11748_300\11748_300_001-PH1.dwg April 14, 2026 8:16:28 AM fc

SANCTUARY AT COCOA - PHASE 1

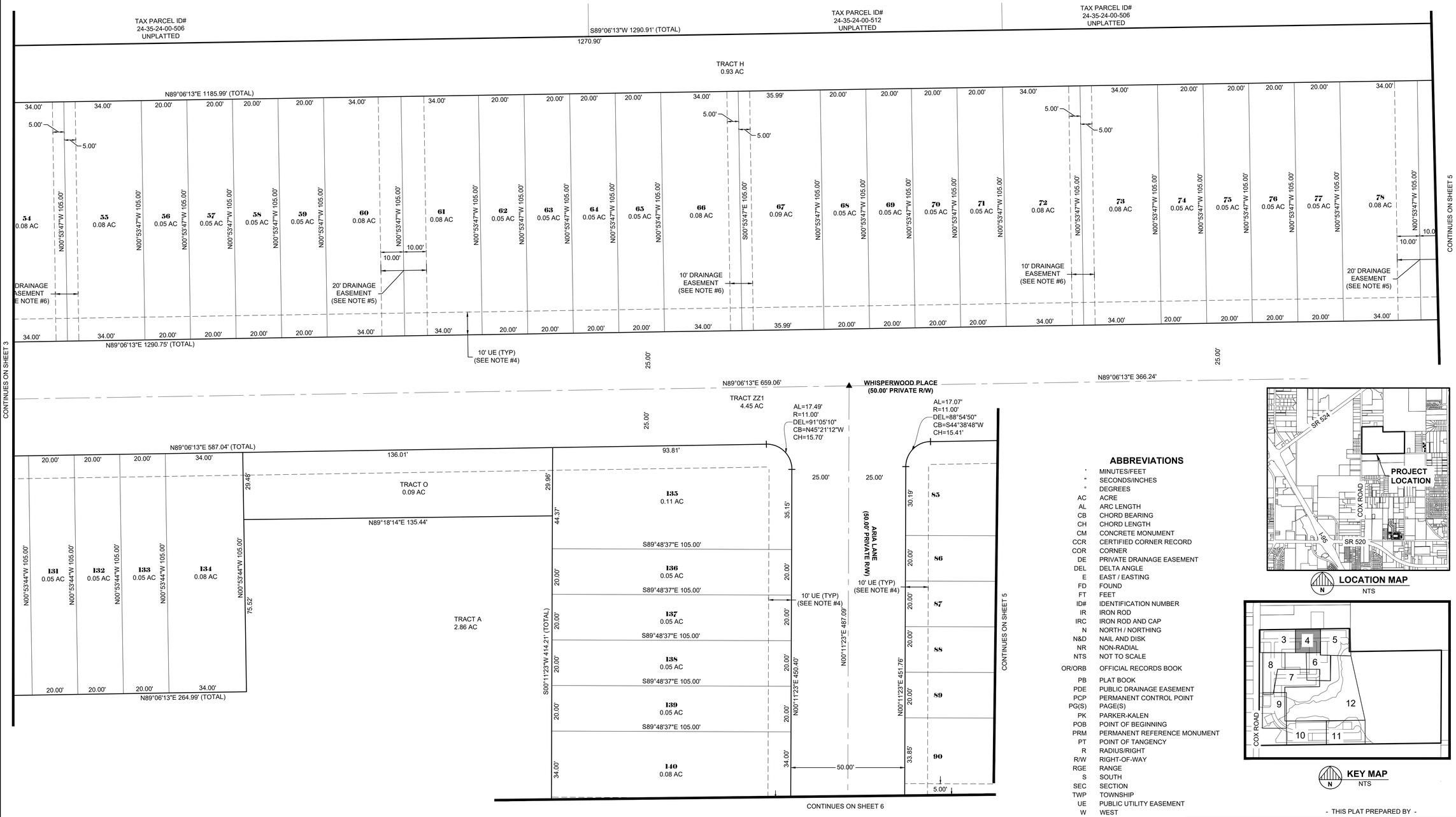
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

PLAT BOOK _____, PAGE _____
SHEET 4 OF 12
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST

20 0 10 20
1 INCH = 20 FEET

SURVEY SYMBOL LEGEND

- SECTION CORNER; MARKED AS NOTED
- 1/4 SECTION CORNER; MARKED AS NOTED
- PERMANENT REFERENCE MONUMENT (PRM); SET 4x4 INCH CONCRETE MONUMENT WITH DISK STAMPED "PRM LB4905", UNLESS OTHERWISE NOTED
- PERMANENT CONTROL POINT (PCP); SET MAG NAIL AND DISK STAMPED "PCP LB4905", UNLESS OTHERWISE NOTED
- SET 5/8" IRON ROD AND CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED.



LOCATION MAP
NTS

KEY MAP
NTS

ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
AC	ACRE
AL	ARC LENGTH
CB	CHORD BEARING
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CCR	CERTIFIED CORNER RECORD
COR	CORNER
DE	PRIVATE DRAINAGE EASEMENT
DEL	DELTA ANGLE
E	EAST / EASTING
FD	FOUND
FT	FEET
ID#	IDENTIFICATION NUMBER
IR	IRON ROD
IRC	IRON ROD AND CAP
N	NORTH / NORTHING
N&D	NAIL AND DISK
NR	NON-RADIAL
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PDE	PUBLIC DRAINAGE EASEMENT
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
PRM	PERMANENT REFERENCE MONUMENT
PT	POINT OF TANGENCY
R	RADIUS/RIGHT
R/W	RIGHT-OF-WAY
RGE	RANGE
S	SOUTH
SEC	SECTION
TWP	TOWNSHIP
UE	PUBLIC UTILITY EASEMENT
W	WEST

- THIS PLAT PREPARED BY -
B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
372 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 725-3160
CERTIFICATE OF AUTHORIZATION NUMBER: LB 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

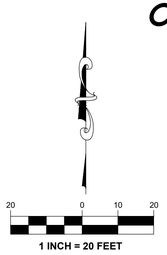
DATE: 04/14/2026
DESIGN/DRAWN: HAK / FC
DRAWING# 11748_300_001
PROJECT# 11748

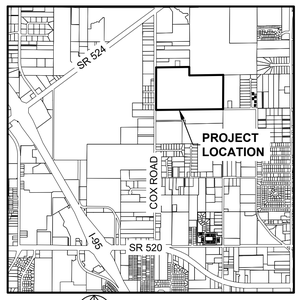
H:\Projects Folder\11748\Drawings\11748_300\11748_300_001-PH1.dwg April 14, 2026 8:16:23 AM fc

SANCTUARY AT COCOA - PHASE 1

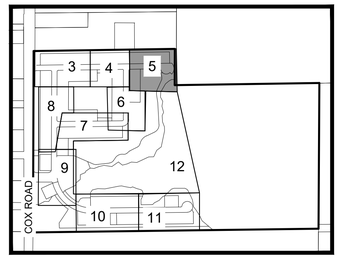
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

PLAT BOOK _____, PAGE _____
SHEET 5 OF 12
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST





LOCATION MAP
NTS



KEY MAP
NTS

SURVEY SYMBOL LEGEND

- SECTION CORNER; MARKED AS NOTED
- 1/4 SECTION CORNER; MARKED AS NOTED
- PERMANENT REFERENCE MONUMENT (PRM); SET 4x4 INCH CONCRETE MONUMENT WITH DISK STAMPED "PRM LB4905", UNLESS OTHERWISE NOTED
- PERMANENT CONTROL POINT (PCP); SET MAG NAIL AND DISK STAMPED "PCP LB4905", UNLESS OTHERWISE NOTED
- SET 5/8" IRON ROD AND CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED.

ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
AC	ACRE
AL	ARC LENGTH
CB	CHORD BEARING
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CCR	CERTIFIED CORNER RECORD
COR	CORNER
DE	PRIVATE DRAINAGE EASEMENT
DEL	DELTA ANGLE
E	EAST / EASTING
FD	FOUND
FT	FEET
ID#	IDENTIFICATION NUMBER
IR	IRON ROD
IRC	IRON ROD AND CAP
N	NORTH / NORTHING
N&D	NAIL AND DISK
NR	NON-RADIAL
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PDE	PUBLIC DRAINAGE EASEMENT
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
PRM	PERMANENT REFERENCE MONUMENT
PT	POINT OF TANGENCY
R	RADIUS/RIGHT
R/W	RIGHT-OF-WAY
RGE	RANGE
S	SOUTH
SEC	SECTION
TWP	TOWNSHIP
UE	PUBLIC UTILITY EASEMENT
W	WEST

- THIS PLAT PREPARED BY -

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
310 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 723-1109
CERTIFICATE OF BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

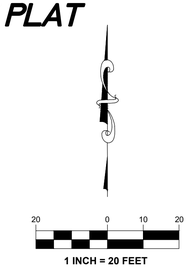
DATE: 04/14/2026
DESIGN/DRAWN: HAK / FC
DRAWING# 11748_300_001
PROJECT# 11748

H:\Projects Folder\11748\Dwgs\11748_300\11748_300_001-PH1.dwg April 14, 2026 8:16:09 AM fc

SANCTUARY AT COCOA - PHASE 1

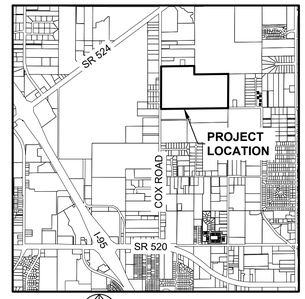
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

PLAT BOOK _____, PAGE _____
SHEET 6 OF 12
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST

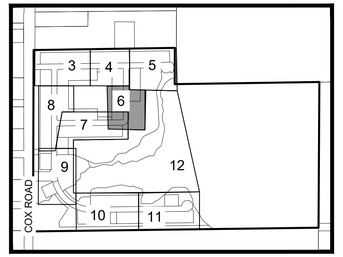


TRACT A
2.86 AC

140 0.08 AC
CONTINUES ON SHEET 4
S89°48'37"E 105.00'
141 0.08 AC
10' DRAINAGE EASEMENT (SEE NOTE #6)
S89°48'37"E 105.00'
142 0.05 AC
S89°48'37"E 105.00'
143 0.05 AC
S89°48'37"E 105.00'
144 0.05 AC
S89°48'37"E 105.00'
145 0.05 AC
S89°48'37"E 105.00'
146 0.10 AC
S89°48'37"E 105.00'
20' DRAINAGE EASEMENT (SEE NOTE #5)
147 0.10 AC
S89°48'37"E 105.00'
148 0.05 AC
S89°48'37"E 105.00'
149 0.05 AC
S89°48'37"E 105.00'
150 0.05 AC
S89°48'37"E 105.00'
151 0.05 AC
S89°48'37"E 105.00'
152 0.09 AC
S00°11'23"W 414.21'
50.00'
TRACT ZZ1 4.45 AC
N00°11'23"E 487.09'
90 0.08 AC
10' DRAINAGE EASEMENT (SEE NOTE #6)
S89°48'37"E 105.00'
91 0.08 AC
S89°48'37"E 105.00'
92 0.05 AC
S89°48'37"E 105.00'
93 0.05 AC
S89°48'37"E 105.00'
94 0.05 AC
S89°48'37"E 105.00'
95 0.05 AC
S89°48'37"E 105.00'
96 0.08 AC
S89°48'37"E 105.00'
10' UE (TYP) (SEE NOTE #4)
N00°11'23"E 159.87'
10' UE (TYP) (SEE NOTE #4)
ARIA LANE (50.00' PRIVATE R/W)
TRACT ZZ1 4.45 AC
AL=17.11'
R=11.00'
DEL=89°08'24"
CB=N44°45'35"E
CH=15.44'
AL=56.01' R=36.00' DEL=89°08'24"
CB=N44°45'35"E CH=50.53'
AL=94.90' R=61.00' DEL=89°08'24"
CB=N44°45'35"E CH=85.62'
AL=92.30' R=61.00' DEL=86°41'40"
AL=2.60'
R=81.00'
DEL=2°26'43"
100 0.05 AC
99 0.05 AC
98 0.05 AC
97 0.09 AC
S00°40'13"E 105.00'
75.16'
S89°48'37"E 131.84'
29.84'
TRACT P 0.09 AC
N89°19'47"E 131.41'
S00°11'23"W 27.86'
40.19'
27.77'
94.18'
N89°19'47"E 94.18' (TOTAL)
JE (TYP) NOTE #4)
25.00'
50.00'
N89°19'47"E 623.55'
CONTINUES ON SHEET 7
N89°19'47"E 588.09' (TOTAL)
TRACT ZZ1 4.45 AC
10' UE (TYP) (SEE NOTE #4)
TRACT B 6.06 AC



LOCATION MAP
NTS



KEY MAP
NTS

SURVEY SYMBOL LEGEND

- SECTION CORNER; MARKED AS NOTED
- 1/4 SECTION CORNER; MARKED AS NOTED
- ■ PERMANENT REFERENCE MONUMENT (PRM); SET 4x4 INCH CONCRETE MONUMENT WITH DISK STAMPED "PRM LB4905", UNLESS OTHERWISE NOTED
- ▲ PERMANENT CONTROL POINT (PCP); SET MAG NAIL AND DISK STAMPED "PCP LB4905", UNLESS OTHERWISE NOTED
- ● SET 5/8" IRON ROD AND CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED.

ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
AC	ACRE
AL	ARC LENGTH
CB	CHORD BEARING
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CCR	CERTIFIED CORNER RECORD
COR	CORNER
DE	PRIVATE DRAINAGE EASEMENT
DEL	DELTA ANGLE
E	EAST / EASTING
FD	FOUND
FT	FEET
ID#	IDENTIFICATION NUMBER
IR	IRON ROD
IRC	IRON ROD AND CAP
N	NORTH / NORTHING
N&D	NAIL AND DISK
NR	NON-RADIAL
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PDE	PUBLIC DRAINAGE EASEMENT
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
PRM	PERMANENT REFERENCE MONUMENT
PT	POINT OF TANGENCY
R	RADIUS/RIGHT
R/W	RIGHT-OF-WAY
RGE	RANGE
S	SOUTH
SEC	SECTION
TWP	TOWNSHIP
UE	PUBLIC UTILITY EASEMENT
W	WEST

- THIS PLAT PREPARED BY -

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
372 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 723-1168
CERTIFICATE OF AUTHORIZATION NUMBER: LB 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

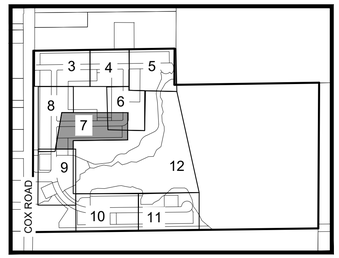
DATE: 04/14/2026
DESIGN/DRAWN: HAK / FC
DRAWING# 11748_300_001
PROJECT# 11748

H:\Projects Folder\11748\Drawings\11748_300\11748_300_001-PH1.dwg April 14, 2026 8:16:12 AM fc

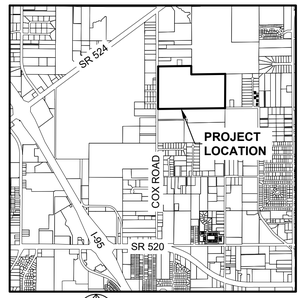
SANCTUARY AT COCOA - PHASE 1

SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

PLAT BOOK _____, PAGE _____
SHEET 7 OF 12
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST



KEY MAP
NTS



LOCATION MAP
NTS

20 0 10 20
1 INCH = 20 FEET

TRACT A
2.86 AC

N00°11'23"E 260.42' (TOTAL)

N89°19'47"E 266.00'

45.39'
20.00'
20.00'

39.00' | 20.00' | 20.00' | 20.00' | 34.00' | 34.00' | 20.00' | 20.00' | 20.00' | 39.00'

S89°48'37"E 105.00'

109 0.05 AC

S89°48'37"E 105.00'

108 0.05 AC

S89°48'37"E 105.00'

107 0.09 AC

28.12'
37.71'
93.80'

AL=17.49'
R=11.00'
DEL=91°05'46"
CB=S45°21'30"E
CH=15.70'

N89°19'47"E 492.78' (TOTAL)

N00°11'23"E 105.01'

106 0.10 AC — 40.58'

S00°40'13"E 105.00'

105 0.05 AC — 20.00'

S00°40'13"E 105.00'

104 0.05 AC — 20.00'

S00°40'13"E 105.00'

103 0.05 AC — 20.00'

S00°40'13"E 105.00'

102 0.08 AC — 34.00'

20' DRAINAGE EASEMENT (SEE NOTE #5)

10.00'
10.00'

S00°40'13"E 105.00'

101 0.08 AC — 34.00'

10' UE (TYP) (SEE NOTE #4)

S00°40'13"E 105.00'

100 0.05 AC — 20.00'

S00°40'13"E 105.00'

99 0.05 AC — 20.00'

S00°40'13"E 105.00'

98 0.05 AC — 20.00'

S00°40'13"E 105.00'

97 0.09 AC — 39.00'

S00°40'13"E 105.00'

75.16'

TRACT A
2.86 AC

S89°48'37"E 131.84'

TRACT P
0.09 AC

29.84'

S00°11'23"W 27.86'

40.19'

152 0.09 AC

AL=17.11'
R=11.00'
DEL=89°08'24"
CB=N44°45'35"E
CH=15.44'

27.77'

N89°19'47"E 131.41'

94.18'

N89°19'47"E 94.18' (TOTAL)

AL=17.11'
R=11.00'
DEL=89°08'24"
CB=N44°45'35"E
CH=15.44'

AL=56.01' R=36.00' DEL=89°08'24"

N89°19'47"E 623.55'

ARIA LANE
(50.00' PRIVATE R/W)

AL=94.90'
R=61.00'
DEL=89°08'24"
CB=N44°45'35"E
CH=85.62'

10' UE (TYP)
(SEE NOTE #4)

AL=2.60'
R=61.00'
DEL=2°26'43"

CONTINUES ON SHEET 8

CONTINUES ON SHEET 6

25.00'
50.00'
25.00'

N89°19'47"E 623.55'

N89°19'47"E 588.09' (TOTAL)

TRACT ZZ1
4.45 AC

27.69' | 20.00' | 20.00' | 20.00' | 20.00' | 34.00' | 5.00' | 34.00' | 5.00' | 20.00' | 20.00' | 20.00' | 20.00' | 34.00' | 5.00' | 34.00' | 20.00' | 20.00' | 20.00' | 20.00' | 34.00' | 10.00' | 34.00' | 20.00' | 20.00' | 20.00' | 20.00' | 36.39'

AL=17.11'
R=11.00'
DEL=89°08'24"
CB=S44°45'35"W
CH=15.44'

94.18'

176 0.09 AC — N00°40'13"W 105.00'
175 0.05 AC — N00°40'13"W 105.00'
174 0.05 AC — N00°40'13"W 105.00'
173 0.05 AC — N00°40'13"W 105.00'
172 0.05 AC — N00°40'13"W 105.00'
171 0.08 AC — N00°40'13"W 105.00'
170 0.08 AC — N00°40'13"W 105.00'
169 0.05 AC — N00°40'13"W 105.00'
168 0.05 AC — N00°40'13"W 105.00'
167 0.05 AC — N00°40'13"W 105.00'
166 0.05 AC — N00°40'13"W 105.00'
165 0.08 AC — N00°40'13"W 105.00'
164 0.08 AC — N00°40'13"W 105.00'
163 0.05 AC — N00°40'13"W 105.00'
162 0.05 AC — N00°40'13"W 105.00'
161 0.05 AC — N00°40'13"W 105.00'
160 0.05 AC — N00°40'13"W 105.00'
159 0.08 AC — N00°40'13"W 105.00'
158 0.08 AC — N00°40'13"W 105.00'
157 0.05 AC — N00°40'13"W 105.00'
156 0.05 AC — N00°40'13"W 105.00'
155 0.05 AC — N00°40'13"W 105.00'
154 0.05 AC — N00°40'13"W 105.00'
153 0.09 AC — N00°40'13"W 105.06' NR

10' UE (TYP)
(SEE NOTE #4)

N00°11'23"E 407.50' (TOTAL)

10' DRAINAGE EASEMENT (SEE NOTE #6)

15.06'

10' DRAINAGE EASEMENT (SEE NOTE #6)

20' DRAINAGE EASEMENT (SEE NOTE #5)

10.00'
10.00'

40.10' | 20.00' | 20.00' | 10.00' | 20.00' | 20.00' | 10.00' | 34.00' | 34.00' | 20.00' | 20.00' | 20.00' | 20.00' | 34.00' | 34.00' | 20.00' | 20.00' | 20.00' | 20.00' | 20.00' | 34.00' | 34.00' | 20.00' | 20.00' | 20.00' | 20.00' | 39.00'

N89°19'47"E 105.01'

N89°19'47"E 498.09'

TRACT B

20' DRAINAGE EASEMENT (SEE NOTE #5)

39.00'
40.58'

177 0.10 AC

N89°48'37"W 105.00'

178 0.05 AC — 20.00'

N89°48'37"W 105.00'

179 0.05 AC — 20.00'

N89°48'37"W 105.00'

180 0.05 AC — 20.00'

N89°48'37"W 105.00'

181 0.05 AC — 20.00'

N00°11'23"E 159.58'

CONTINUES ON SHEET 9

CONTINUES ON SHEET 12

ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
AC	ACRE
AL	ARC LENGTH
CB	CHORD BEARING
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CCR	CERTIFIED CORNER RECORD
COR	CORNER
DE	PRIVATE DRAINAGE EASEMENT
DEL	DELTA ANGLE
E	EAST / EASTING
FD	FOUND
FT	FEET
ID#	IDENTIFICATION NUMBER
IR	IRON ROD
IRC	IRON ROD AND CAP
N	NORTH / NORTHING
N&D	NAIL AND DISK
NR	NON-RADIAL
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PDE	PUBLIC DRAINAGE EASEMENT
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
PRM	PERMANENT REFERENCE MONUMENT
PT	POINT OF TANGENCY
R	RADIUS/RIGHT
R/W	RIGHT-OF-WAY
RGE	RANGE
S	SOUTH
SEC	SECTION
TWP	TOWNSHIP
UE	PUBLIC UTILITY EASEMENT
W	WEST

SURVEY SYMBOL LEGEND

- SECTION CORNER; MARKED AS NOTED
- 1/4 SECTION CORNER; MARKED AS NOTED
- PERMANENT REFERENCE MONUMENT (PRM); SET 4x4 INCH CONCRETE MONUMENT WITH DISK STAMPED "PRM LB4905", UNLESS OTHERWISE NOTED
- PERMANENT CONTROL POINT (PCP); SET MAG NAIL AND DISK STAMPED "PCP LB4905", UNLESS OTHERWISE NOTED
- SET 5/8" IRON ROD AND CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED.

- THIS PLAT PREPARED BY -

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 725-1159
CERTIFICATE OF BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

DATE: 04/14/2026
DESIGN/DRAWN: HAK / FC
DRAWING# 11748_300_001
PROJECT# 11748

H:\Projects Folder\11748\Drawings\11748_300\11748_300_001-PH1.dwg April 14, 2026 8:16:26 AM fc

SANCTUARY AT COCOA - PHASE 1

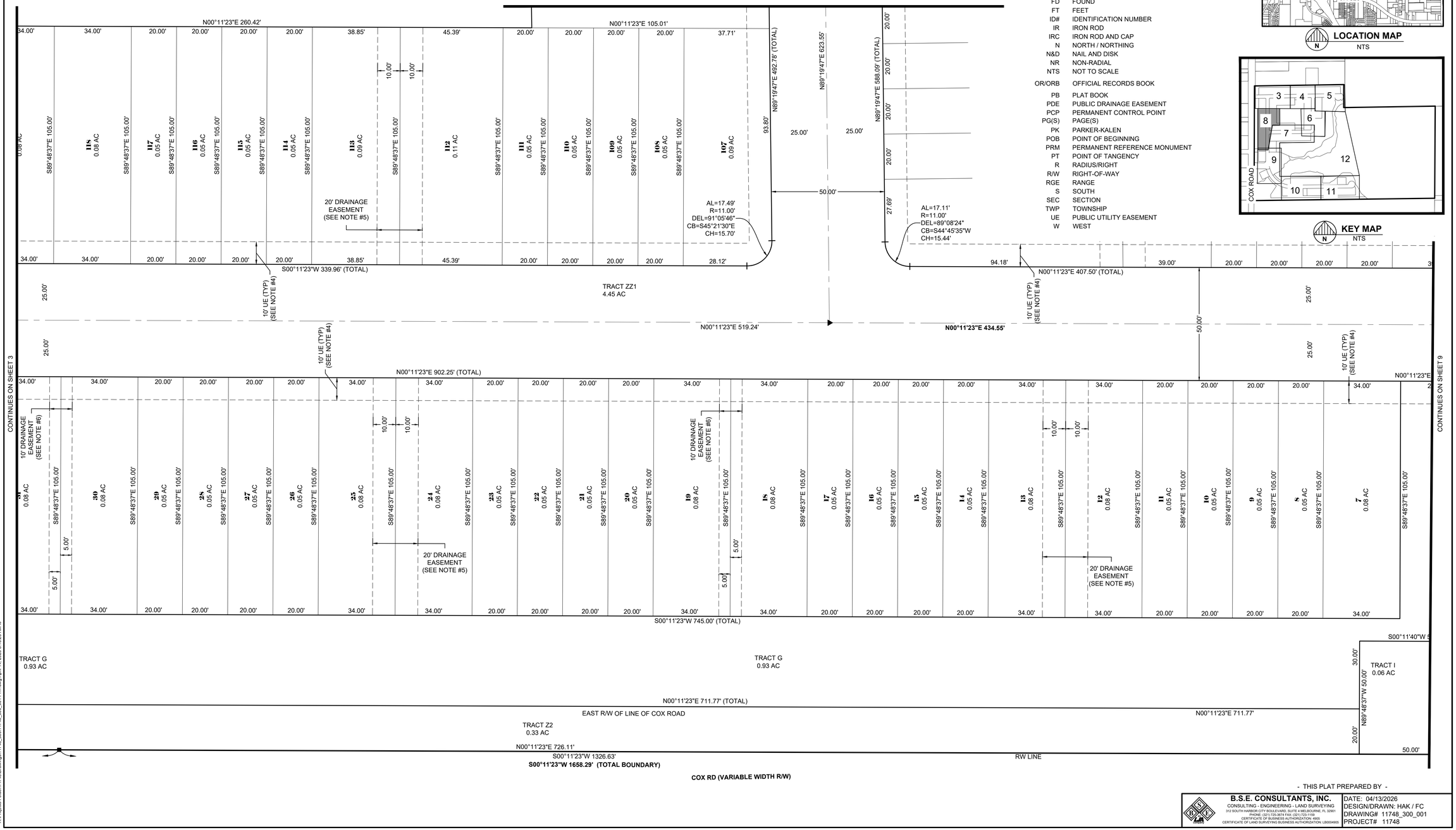
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

PLAT BOOK _____, PAGE _____
SHEET 8 OF 12
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST

20 0 10 20
1 INCH = 20 FEET

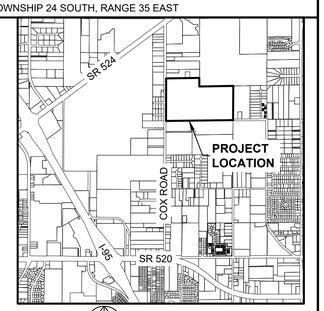
SURVEY SYMBOL LEGEND

- SECTION CORNER; MARKED AS NOTED
- 1/4 SECTION CORNER; MARKED AS NOTED
- PERMANENT REFERENCE MONUMENT (PRM); SET 4x4 INCH CONCRETE MONUMENT WITH DISK STAMPED "PRM LB4905", UNLESS OTHERWISE NOTED
- PERMANENT CONTROL POINT (PCP); SET MAG NAIL AND DISK STAMPED "PCP LB4905", UNLESS OTHERWISE NOTED
- SET 5/8" IRON ROD AND CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED.



ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
AC	ACRE
AL	ARC LENGTH
CB	CHORD BEARING
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CCR	CERTIFIED CORNER RECORD
COR	CORNER
DE	PRIVATE DRAINAGE EASEMENT
DEL	DELTA ANGLE
E	EAST / EASTING
FD	FOUND
FT	FEET
ID#	IDENTIFICATION NUMBER
IR	IRON ROD
IRC	IRON ROD AND CAP
N	NORTH / NORTHING
N&D	NAIL AND DISK
NR	NON-RADIAL
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PDE	PUBLIC DRAINAGE EASEMENT
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
PRM	PERMANENT REFERENCE MONUMENT
PT	POINT OF TANGENCY
R	RADIUS/RIGHT
R/W	RIGHT-OF-WAY
RGE	RANGE
S	SOUTH
SEC	SECTION
TWP	TOWNSHIP
UE	PUBLIC UTILITY EASEMENT
W	WEST



N
LOCATION MAP
NTS

N
KEY MAP
NTS

- THIS PLAT PREPARED BY -

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
372 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 723-1729
CERTIFICATE OF BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

DATE: 04/13/2026
DESIGN/DRAWN: HAK / FC
DRAWING# 11748_300_001
PROJECT# 11748

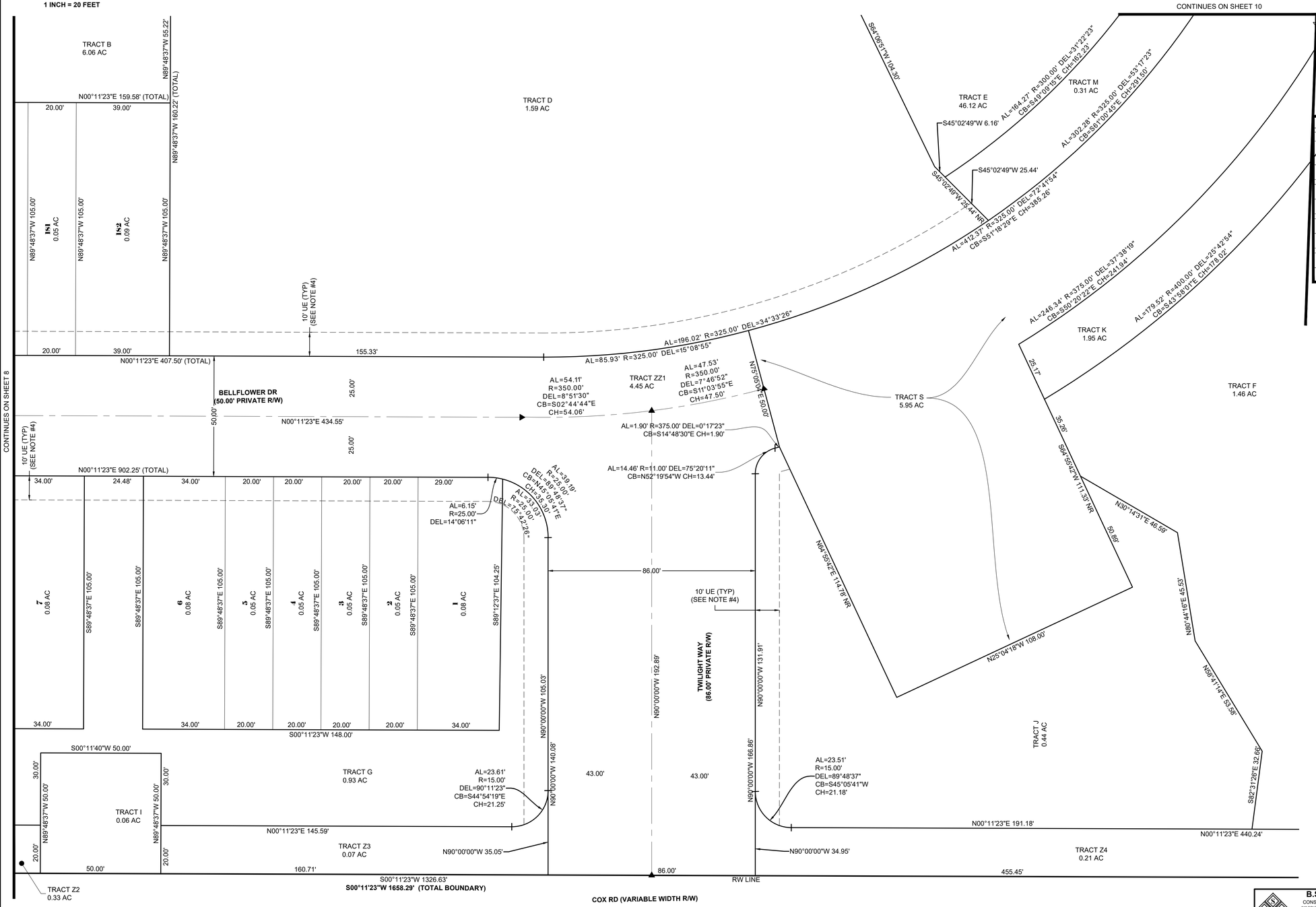
H:\Projects Folder\11748\Drawings\11748_300\11748_300_001-PH1.dwg April 14, 2026 8:16:23 AM fc

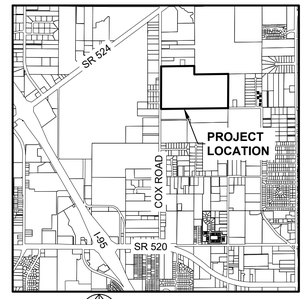
SANCTUARY AT COCOA - PHASE 1

SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

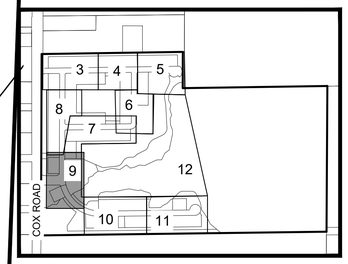
PLAT BOOK _____, PAGE _____
SHEET 9 OF 12
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST

20 0 10 20
1 INCH = 20 FEET





LOCATION MAP
NTS



KEY MAP
NTS

SURVEY SYMBOL LEGEND

- SECTION CORNER; MARKED AS NOTED
- 1/4 SECTION CORNER; MARKED AS NOTED
- ■ PERMANENT REFERENCE MONUMENT (PRM); SET 4x4 INCH CONCRETE MONUMENT WITH DISK STAMPED "PRM LB4905", UNLESS OTHERWISE NOTED
- ▲ PERMANENT CONTROL POINT (PCP); SET MAG NAIL AND DISK STAMPED "PCP LB4905", UNLESS OTHERWISE NOTED
- ● SET 5/8" IRON ROD AND CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED.

ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
AC	ACRE
AL	ARC LENGTH
CB	CHORD BEARING
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CCR	CERTIFIED CORNER RECORD
COR	CORNER
DE	PRIVATE DRAINAGE EASEMENT
DEL	DELTA ANGLE
E	EAST / EASTING
FD	FOUND
FT	FEET
ID#	IDENTIFICATION NUMBER
IR	IRON ROD
IRC	IRON ROD AND CAP
N	NORTH / NORTHING
N&D	NAIL AND DISK
NR	NON-RADIAL
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PDE	PUBLIC DRAINAGE EASEMENT
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
PRM	PERMANENT REFERENCE MONUMENT
PT	POINT OF TANGENCY
R	RADIUS/RIGHT
R/W	RIGHT-OF-WAY
RGE	RANGE
S	SOUTH
SEC	SECTION
TWP	TOWNSHIP
UE	PUBLIC UTILITY EASEMENT
W	WEST

- THIS PLAT PREPARED BY -

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 723-1102
CERTIFICATE OF BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

DATE: 04/14/2026
DESIGN/DRAWN: HAK / FC
DRAWING# 11748_300_001
PROJECT# 11748

H:\Projects Folder\11748\Drawings\11748_300\11748_300_001-PH1.dwg April 14, 2026 8:16:06 AM fc

SANCTUARY AT COCOA - PHASE 1

SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

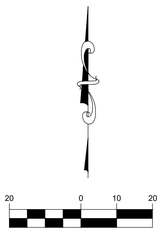
PLAT BOOK _____, PAGE _____
SHEET 10 OF 12
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST

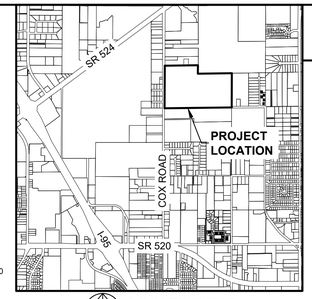
ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
AC	ACRE
AL	ARC LENGTH
CB	CHORD BEARING
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CCR	CERTIFIED CORNER RECORD
COR	CORNER
DE	PRIVATE DRAINAGE EASEMENT
DEL	DELTA ANGLE
E	EAST / EASTING
FD	FOUND
FT	FEET
ID#	IDENTIFICATION NUMBER
IR	IRON ROD
IRC	IRON ROD AND CAP
N	NORTH / NORTHING
N&D	NAIL AND DISK
NR	NON-RADIAL
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PDE	PUBLIC DRAINAGE EASEMENT
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
PRM	PERMANENT REFERENCE MONUMENT
PT	POINT OF TANGENCY
R	RADIUS/RIGHT
R/W	RIGHT-OF-WAY
RGE	RANGE
S	SOUTH
SEC	SECTION
TWP	TOWNSHIP
UE	PUBLIC UTILITY EASEMENT
W	WEST

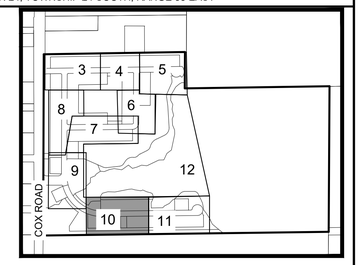
SURVEY SYMBOL LEGEND

- SECTION CORNER; MARKED AS NOTED
- 1/4 SECTION CORNER; MARKED AS NOTED
- PERMANENT REFERENCE MONUMENT (PRM); SET 4x4 INCH CONCRETE MONUMENT WITH DISK STAMPED "PRM LB4905", UNLESS OTHERWISE NOTED
- PERMANENT CONTROL POINT (PCP); SET MAG NAIL AND DISK STAMPED "PCP LB4905", UNLESS OTHERWISE NOTED
- SET 5/8" IRON ROD AND CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED.





LOCATION MAP
NTS



KEY MAP
NTS

CONTINUES ON SHEET 12

N11°08'41"E 10.93'

N00°44'50"W 37.08' NR
N00°44'50"W 26.02' NR

AL=17.54' R=220.00' DEL=4°34'03"
CB=S88°27'49"E CH=17.53'

TRACT C
0.84 AC

S89°15'10"W 461.49' (TOTAL)

S89°15'10"W 426.92'

N73°43'02"E 20.30'

N88°21'26"E 72.17'

AL=164.27' R=300.00' DEL=31°22'23"
CB=S19°09'15"E CH=162.23'

TRACT E
46.12 AC

N32°46'08"E 39.55' NR

N00°44'50"W 94.17' NR
N00°44'50"W 105.27' NR

TRACT M
0.31 AC

AL=302.28' R=325.00' DEL=53°17'23"

AL=302.28' R=325.00' DEL=53°17'23"
CB=S61°00'45"E CH=291.50'

AL=246.34' R=375.00' DEL=37°38'19"
CB=S50°20'22"E CH=241.94'

CONTINUES ON SHEET 9

CONTINUES ON SHEET 11

TRACT S
5.95 AC

TRACT K
1.95 AC

N00°44'50"W 131.31' NR

N89°15'10"E 1063.00'

N89°15'10"E 1346.44' (TOTAL)

30.00'

TRACT Q
1.09 AC

1589.71'
N89°15'10"E 2610.55' (TOTAL)
(BASIS OF BEARINGS)

S LINE OF SECTION 24

TAX PARCEL ID# 24-35-25-00-250
UNPLATTED

- THIS PLAT PREPARED BY -

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 723-1168
CERTIFICATE OF BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

DATE: 04/14/2026
DESIGN/DRAWN: HAK / FC
DRAWING# 11748_300_001
PROJECT# 11748

H:\Projects Folder\11748\Drawings\11748_300\11748_300_001-PH1.dwg April 14, 2026 8:16:17 AM fc

SANCTUARY AT COCOA - PHASE 1

SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

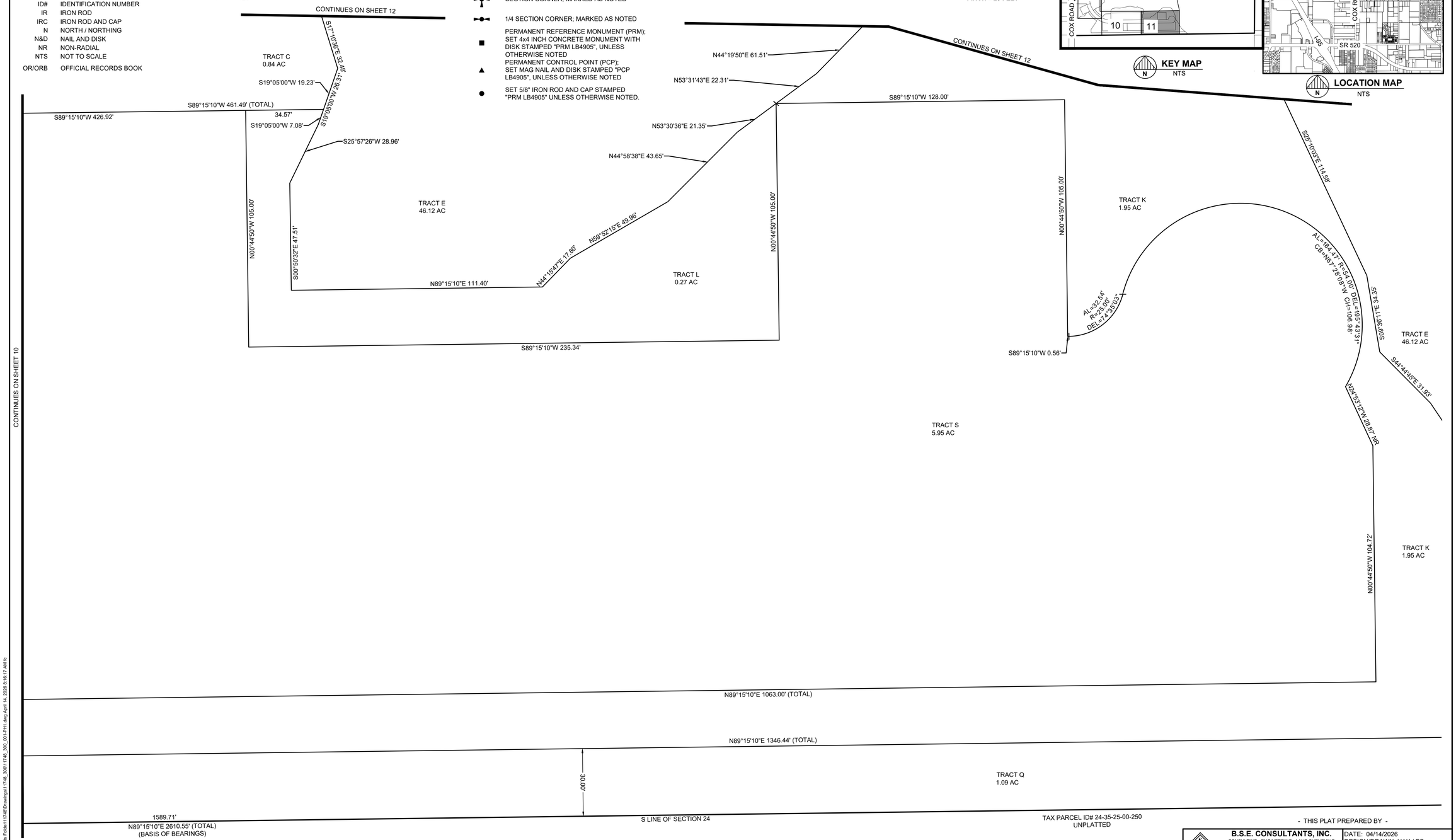
PLAT BOOK _____, PAGE _____
SHEET 11 OF 12
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST

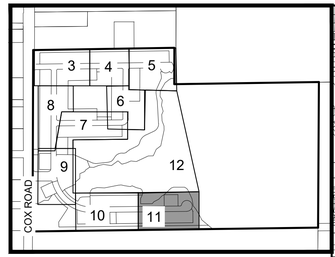
ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
AC	ACRE
AL	ARC LENGTH
CB	CHORD BEARING
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CCR	CERTIFIED CORNER RECORD
COR	CORNER
DE	PRIVATE DRAINAGE EASEMENT
DEL	DELTA ANGLE
E	EAST / EASTING
FD	FOUND
FT	FEET
ID#	IDENTIFICATION NUMBER
IR	IRON ROD
IRC	IRON ROD AND CAP
N	NORTH / NORTHING
N&D	NAIL AND DISK
NR	NON-RADIAL
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PDE	PUBLIC DRAINAGE EASEMENT
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
PRM	PERMANENT REFERENCE MONUMENT
PT	POINT OF TANGENCY
R	RADIUS/RIGHT
R/W	RIGHT-OF-WAY
RGE	RANGE
S	SOUTH
SEC	SECTION
TWP	TOWNSHIP
UE	PUBLIC UTILITY EASEMENT
W	WEST

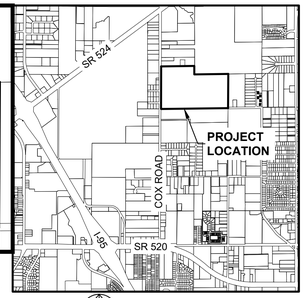
SURVEY SYMBOL LEGEND

- SECTION CORNER; MARKED AS NOTED
- 1/4 SECTION CORNER; MARKED AS NOTED
- PERMANENT REFERENCE MONUMENT (PRM); SET 4x4 INCH CONCRETE MONUMENT WITH DISK STAMPED "PRM LB4905", UNLESS OTHERWISE NOTED
- PERMANENT CONTROL POINT (PCP); SET MAG NAIL AND DISK STAMPED "PCP LB4905", UNLESS OTHERWISE NOTED
- SET 5/8" IRON ROD AND CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED.





KEY MAP
NTS



LOCATION MAP
NTS

1 INCH = 20 FEET

- THIS PLAT PREPARED BY -

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

DATE: 04/14/2026
DESIGN/DRAWN: HAK / FC
DRAWING# 11748_300_001
PROJECT# 11748

H:\Projects Folder\11748\Drawings\11748_300\11748_300_001-PH1.dwg April 14, 2026 8:16:17 AM fc

SANCTUARY AT COCOA - PHASE 1

SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

PLAT BOOK _____, PAGE _____
SHEET 12 OF 12
SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST

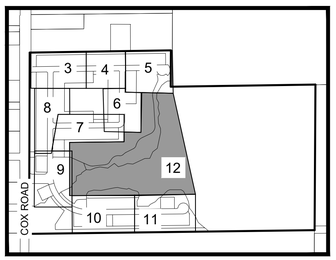
SURVEY SYMBOL LEGEND

- SECTION CORNER; MARKED AS NOTED
- 1/4 SECTION CORNER; MARKED AS NOTED
- PERMANENT REFERENCE MONUMENT (PRM); SET 4x4 INCH CONCRETE MONUMENT WITH DISK STAMPED "PRM LB4905", UNLESS OTHERWISE NOTED
- PERMANENT CONTROL POINT (PCP); SET MAG NAIL AND DISK STAMPED "PCP LB4905", UNLESS OTHERWISE NOTED
- SET 5/8" IRON ROD AND CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED.

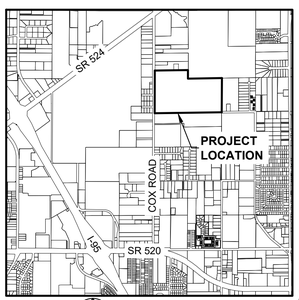
ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
AC	ACRE
AL	ARC LENGTH
CB	CHORD BEARING
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CCR	CERTIFIED CORNER RECORD
COR	CORNER
DE	PRIVATE DRAINAGE EASEMENT
DEL	DELTA ANGLE
E	EAST / EASTING
FD	FOUND
FT	FEET
ID#	IDENTIFICATION NUMBER
IR	IRON ROD
IRC	IRON ROD AND CAP
N	NORTH / NORTHING
N&D	NAIL AND DISK
NR	NON-RADIAL
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PDE	PUBLIC DRAINAGE EASEMENT
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
PRM	PERMANENT REFERENCE MONUMENT
PT	POINT OF TANGENCY
R	RADIUS/RIGHT
R/W	RIGHT-OF-WAY
RGE	RANGE
S	SOUTH
SEC	SECTION
TWP	TOWNSHIP
UE	PUBLIC UTILITY EASEMENT
W	WEST

50 0 25 50
1 INCH = 50 FEET



KEY MAP
NTS



LOCATION MAP
NTS

CONTINUES ON SHEET 5

CONTINUES ON SHEET 6

CONTINUES ON SHEET 7

CONTINUES ON SHEET 9

CONTINUES ON SHEET 10

CONTINUES ON SHEET 11

N00°15'41"E 332.34'
S89°08'00"W 1323.49'
SE CORNER OF THE S 1/4 OF THE NW 1/4 - SW 1/4 OF SECTION 24 CORNER FALLS IN DITCH, NO MARKER FD OR SET. (FD 4"x4" CM, NO ID#, 0.8' S & 3.8' E) (HELD AS PRM)

S81°02'49"W 78.69'
S27°13'05"W 72.94'
N23°56'55"E 108.46'
AL=36.40'
R=75.00'
DEL=27°48'21"
CB=S05°15'32"W
CH=36.04'
S11°49'29"W 48.07'
S33°40'01"E 44.39'
N08°38'39"W 76.09'
S08°49'10"W 51.89'
S16°39'02"E 46.08'
S19°05'47"W 39.08'
S04°08'39"E 63.37'
N03°14'44"W 200.55'
S20°14'51"E 46.25'
S01°44'41"E 39.71'
S16°30'08"W 41.31'
S12°28'02"W 45.78'
S10°39'34"W 68.53'
S53°56'17"W 53.96'
S23°36'14"W 69.56'
S86°12'52"W 39.62'
S72°31'52"W 48.66'
N88°51'26"W 48.34'
S75°17'05"W 41.56'
S72°20'22"W 50.30'
N52°19'17"W 50.17'
S52°10'32"W 70.70'
N82°22'45"W 61.77'
S77°30'32"W 47.96'
S72°39'59"W 53.74'
N84°41'46"W 39.60'
S52°26'55"W 42.51'
N18°21'58"W 62.36'
S66°18'05"E 57.40'
S66°18'05"E 192.34'
S66°18'05"E 134.93'
N89°48'37"W 55.22'
N83°41'04"E 120.65'
AL=26.38'
R=50.00'
DEL=30°13'55"
CB=S81°11'59"E
CH=26.08'
AL=45.27'
R=50.00'
DEL=51°52'42"
CB=N60°02'23"E
CH=43.74'
N34°06'02"E 32.81'
AL=84.35'
R=75.00'
DEL=64°26'07"
CB=S66°19'05"W
CH=79.97'
AL=34.43'
R=40.00'
DEL=49°18'44"
CB=N73°52'47"E
CH=33.37'
N49°13'25"E 25.68'
AL=9.93'
R=40.00'
DEL=14°13'41"
CB=S56°20'15"W
CH=9.91'
N63°27'06"E 78.31'
N18°06'54"E 14.73'
AL=35.99'
R=50.00'
DEL=41°14'49"
CB=N38°44'18"E
CH=35.22'
AL=565.09'
R=700.00'
DEL=46°14'37"
CB=S42°46'42"W
CH=83.46'
S17°10'36"E 32.48'
S89°15'10"W 461.49' (TOTAL)
S64°06'51"W 104.30'
S06°33'03"W 19.56'
S53°05'24"W 54.23'
S08°01'52"E 45.48'
S70°53'58"W 53.20'
S23°45'16"W 19.34'
N75°55'52"E 51.55'
S87°49'26"E 65.01'
N78°53'09"E 131.67'
S80°41'18"E 56.67'
S74°55'22"E 42.42'
S55°01'31"E 14.35'
S66°24'23"E 39.38'
N64°59'41"E 18.17'
S76°08'10"E 29.34'
N84°57'12"E 24.75'
N32°46'07"E 28.45'
N00°44'50"W 26.02'
N69°20'18"E 33.47'
N90°00'00"E 94.50'
S57°38'32"E 27.41'
S31°27'09"E 5.97'
S00°54'33"E 21.98'
S25°10'03"E 114.58'
N53°31'43"E 22.31'
N44°19'50"E 61.51'

TRACT B
6.06 AC

TRACT D
1.59 AC

TRACT E
46.12 AC

TRACT N
2.26 AC

TRACT C
0.84 AC

TRACT K
1.95 AC

TRACT E
46.12 AC

- THIS PLAT PREPARED BY -

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

DATE: 04/14/2026
DESIGN/DRAWN: HAK / FC
DRAWING# 11748_300_001
PROJECT# 11748

H:\Projects Folder\11748\Drawings\11748_300\11748_300_001-PH1.dwg April 14, 2026 8:16:11 AM fc

SANCTUARY AT COCOA

LANDSCAPE PLANS

SUBMITTED: 04/17/26

SHEET INDEX	ISSUE DATE	REVISION
CVR COVER SHEET	06/02/25	1 09/15/25
L-1 OVERALL EXISTING VEGETATION & TREE SAMPLING PLAN	06/02/25	3 04/16/26
L-1.1 EXISTING TREE & VEGETATION PRESERVATION PLAN	06/02/25	1 09/15/25
L-2 EXISTING TREE SAMPLE AREA - DEVELOPMENT AREA CALCS	06/02/25	1 09/15/25
L-2.1 EXISTING TREE SAMPLE AREA - DEDICATED WETLAND CALCS	06/02/25	1A 09/29/25
L-3 OVERALL LANDSCAPE SHEET KEY	06/02/25	2 01/07/26
L-4 SITE LANDSCAPE PLAN	06/02/25	2 01/07/26
L-5 SITE LANDSCAPE PLAN	06/02/25	2 01/07/26
L-6 SITE LANDSCAPE PLAN	06/02/25	2 01/07/26
L-7 SITE LANDSCAPE PLAN	06/02/25	3 04/16/26
L-8 SITE LANDSCAPE PLAN	06/02/25	3 04/16/26
L-9 TYPICAL 6-UNIT TOWNHOME LANDSCAPE PLAN	06/02/25	1 09/15/25
L-10 TYPICAL 5-UNIT TOWNHOME LANDSCAPE PLAN	06/02/25	1 09/15/25
L-11 TYPICAL 4 UNIT TOWNHOME LANDSCAPE PLAN	06/02/25	1 09/15/25
L-12 SITE LANDSCAPE PLANT LIST & DETAILS	06/02/25	2 01/07/26
L-13 LANDSCAPE SPECIFICATIONS	06/02/25	2 01/07/26

NOTE TO CONTRACTOR:

CONTRACTOR SHALL VERIFY WITH THE LANDSCAPE ARCHITECT THAT HE / SHE HAS THE MOST CURRENT LANDSCAPE PLANS PRIOR TO COMMENCEMENT OF WORK OR PROCUREMENT OF LANDSCAPE MATERIAL.



KNOW WHAT'S BELOW
ALWAYS CALL 811
BEFORE YOU DIG

It's fast, It's free, It's the law.

Call 811 two business days before digging

Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa
Cox Road
Cocoa, FL

SHEET TITLE
Cover Sheet

DATE 06-02-25

DESIGN S.H.

DRAWN M.M.

SCALE NTS

REVISIONS

SEAL
SUSAN HALL LANDSCAPE ARCHITECT #6670 STATE OF FLORIDA
04-17-26

CVR SHEET | 15 OF

LEGEND

- TOTAL SITE AREA = 89.5 AC
- SITE WETLAND = 1.0 AC
- DEDICATED CITY OF COCOA WETLAND = 44.1 AC
- DEVELOPMENT AREA = 44.4 AC
- IMPACT AREA (TREE REMOVAL) WITHIN DEVELOPMENT AREA = 37.0 AC
- PRESERVATION AREA WITHIN DEVELOPMENT AREA = 7.4 AC

PRESERVATION & MITIGATION CALCULATIONS - SUMMARY

Table 1.1 Preservation (Dedicated Wetland) - DATA FROM SAMPLES E,F,G,H,I

D.B.H of Preserved Tree	Reduction in Replacement Trees	Total Trees Preserved	Credits - Rounded	
6" - 23"	1 credit for every 12" preserved (cumulative inches removed)	30,239	2,520	
24" - 35"	8 credits for each tree	134	1,072	
36" - 42"	10 credits for each tree	48	480	
>42"	12 credits for each tree	19	228	
		Total Credits	4,300	
			12,900	Total inches in diameter preserved (Credits x 3")

Table 1.2 Preservation (Developed Area) - DATA FROM SAMPLES A,B,C,D

D.B.H of Preserved Tree	Reduction in Replacement Trees	Total Trees Preserved	Credits - Rounded	
6" - 23"	1 credit for every 12" preserved (cumulative inches removed)	17,456	1,455	
24" - 35"	8 credits for each tree	54	432	
36" - 42"	10 credits for each tree	12	120	
>42"	12 credits for each tree	4	48	
		Total Credits	2,055	
			6,164	Total inches in diameter preserved (Credits x 3")

Table 2 Removal - (Developed Area) - DATA FROM SAMPLES A,B,C,D

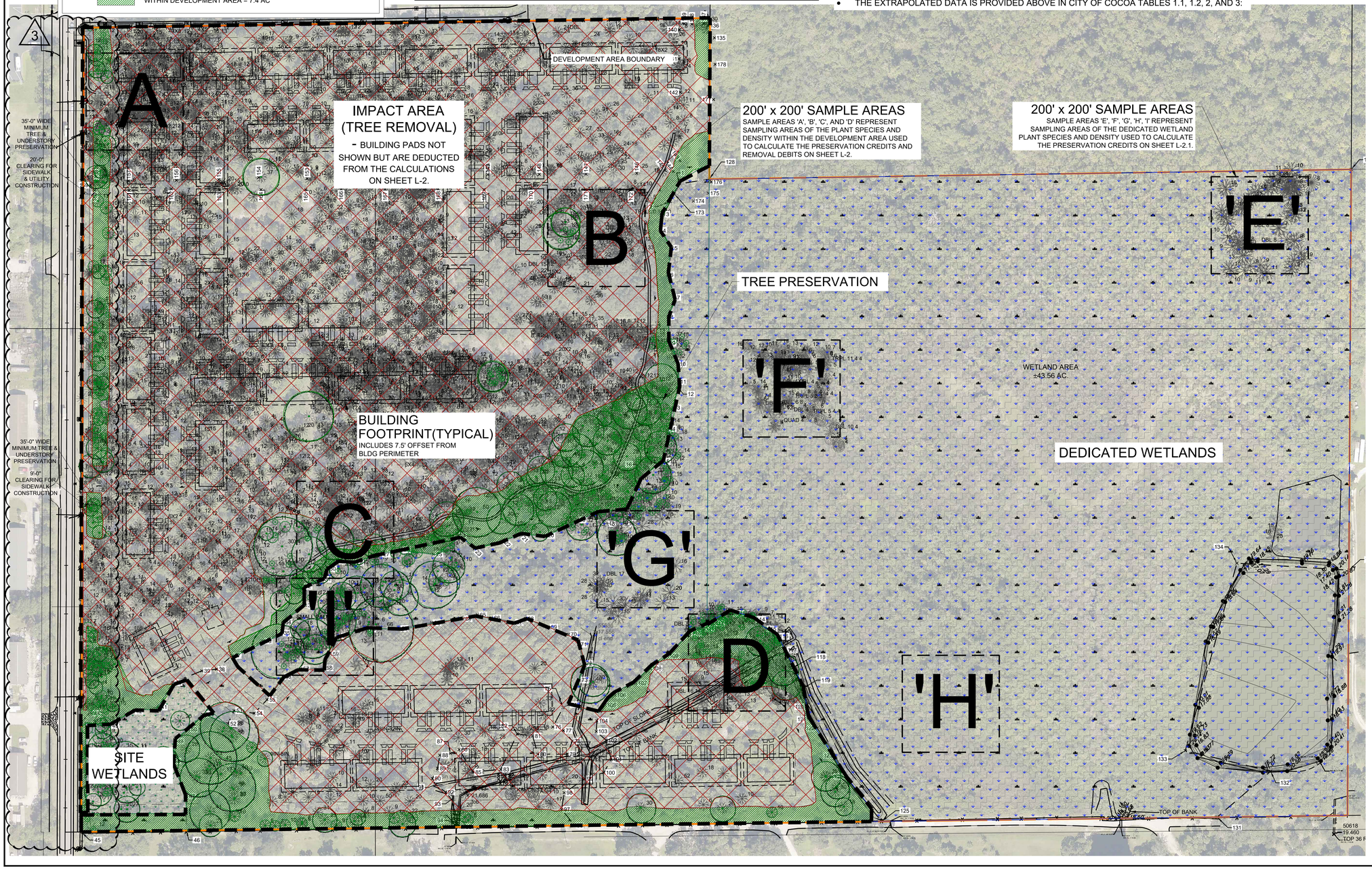
D.B.H. of Protected Tree	Number of Replacement Trees Required for each tree removed	Minimum Size of Replacement Tree	Total Replacement Required (Inches)	Total Trees Removed	Total Inches Replacement
6" - 12"	1	3"	3"	4954	14862
13" - 23"	4	3"	12"	703	8436
24" and Above	9	3"	27"	268	7236

Total inches removed and not replaced < 24"	23,298	
Less Total inches Preserved (Dedicated Wetland)	12,900	
Less Total inches Preserved (Development Area)	6,164	
Less Total inches to be Planted	4,953	
Total inches to be Mitigated < 24"	(719)	Note: ( ) denote negative / less than zero data entry
Additional inches to be Mitigated 24" & up	7236	

Table 3 Summary

D.B.H of Removed Trees not Replaced	Arbor Mitigation Amount	
6-23"	$100 per inch	-$71,875.00 Total inches Mitigated < 24"
24" and up	$200 per inch	$1,447,200.00 Additional inches Mitigated 24" & up
Total Arbor Mitigation Amount		$1,375,325.00

NOTE:
- REFER TO SHEET L-2 AND L-2.1 FOR INVENTORIED DATA FROM TREE SAMPLE AREAS
- THE EXTRAPOLATED DATA IS PROVIDED ABOVE IN CITY OF COCOA TABLES 1.1, 1.2, 2, AND 3:



0' 50' 100' 200' 300'

SCALE: 1" = 100'-0"

Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa

Cox Road
Cocoa, FL

SHEET TITLE: Overall Existing Vegetation & Tree Survey Samples Plan

DATE: 06-02-25

DESIGN: S.H.

DRAWN: M.M.

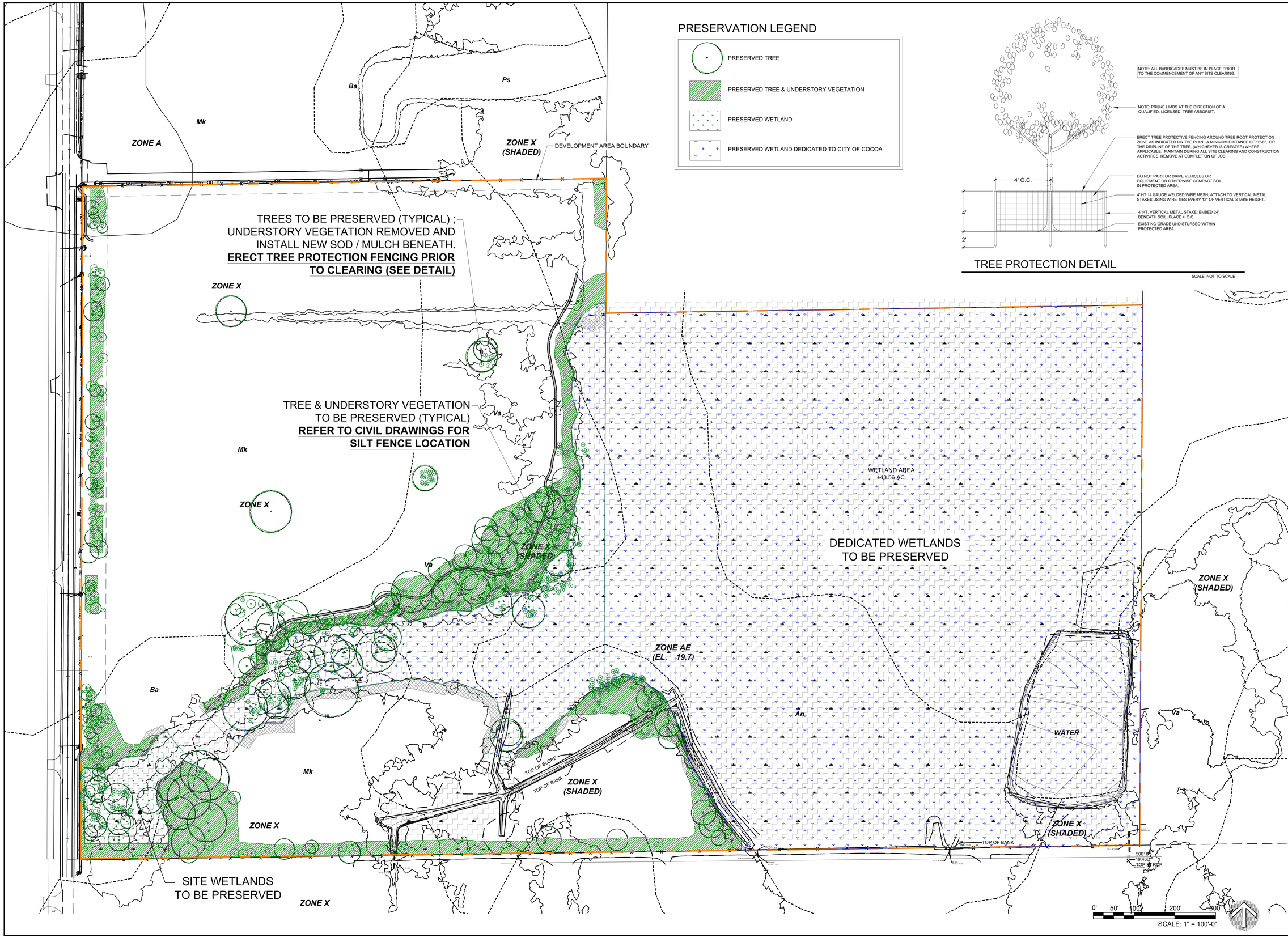
SCALE: 1" = 100' - 0"

REVISIONS
- 1 09-15-25 RESPONSE TO COMMENT
- 1A 09-15-25 RESPONSE TO COMMENT
- 2 01-07-26 RESPONSE TO COMMENT
- 3 04-17-26 RESPONSE TO CITY MEETING

SEAL

04-17-26

SHEET L-1 OF 15



Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa

Cox Road
Cocoa, FL

SHEET TITLE
Existing Tree & Vegetation Preservation Plan

DATE 06-02-25

DESIGN S.H.

DRAWN M.M.

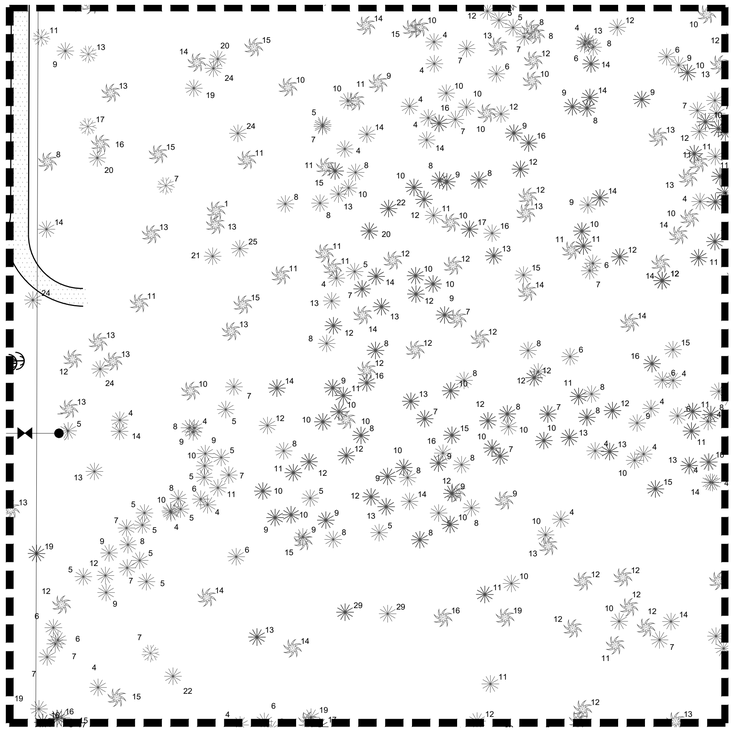
SCALE 1" = 100' - 0"

REVISIONS
1 09-15-25 RESPONSE TO COMMENT

SEAL
REGISTERED LANDSCAPE ARCHITECT
ELLIS TOM
#853
FLORIDA
04-17-26

SHEET L-1.1 OF 15

SAMPLE AREA 'A'

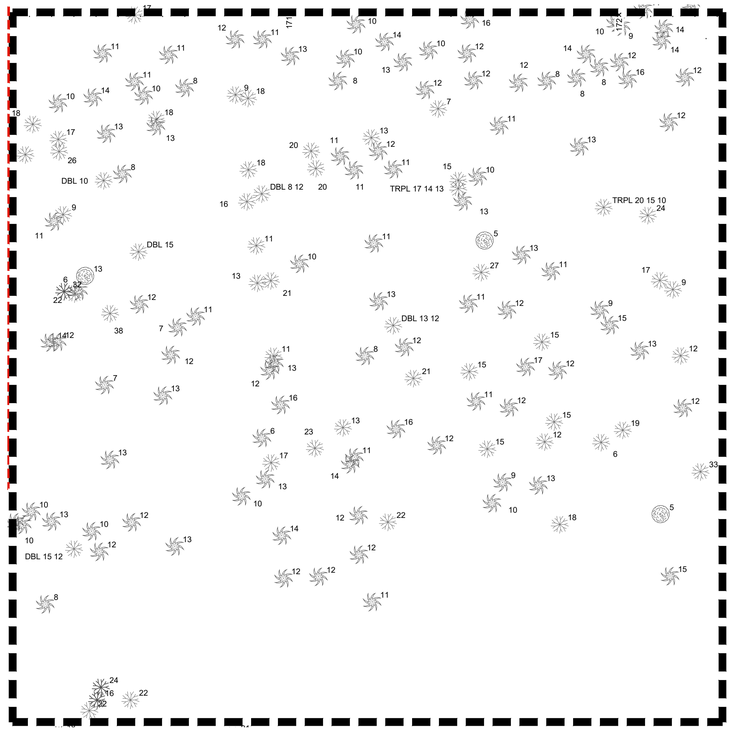


SAMPLE AREA 'A'
AREA 200'X200S=40,000SF=0.92AC

PRESERVED INVENTORY:
- PALMS = 910" TOTAL INCHES
- 6-23" DBH = 2,040" TOTAL INCHES
- 24-35" DBH = 7 TREES
- 36-42" DBH = 0 TREES
- 43"+ DBH = 0 TREES

REMOVED INVENTORY:
- PALMS= 75 TREES
- 6-12" DBH = 135 TREES
- 13-23" DBH = 50 TREES
- 24"+ DBH = 7 TREES
  (4 TREE @ 24")
  (1 TREE @ 25")
  (2 TREE @ 29")

SAMPLE AREA 'B'

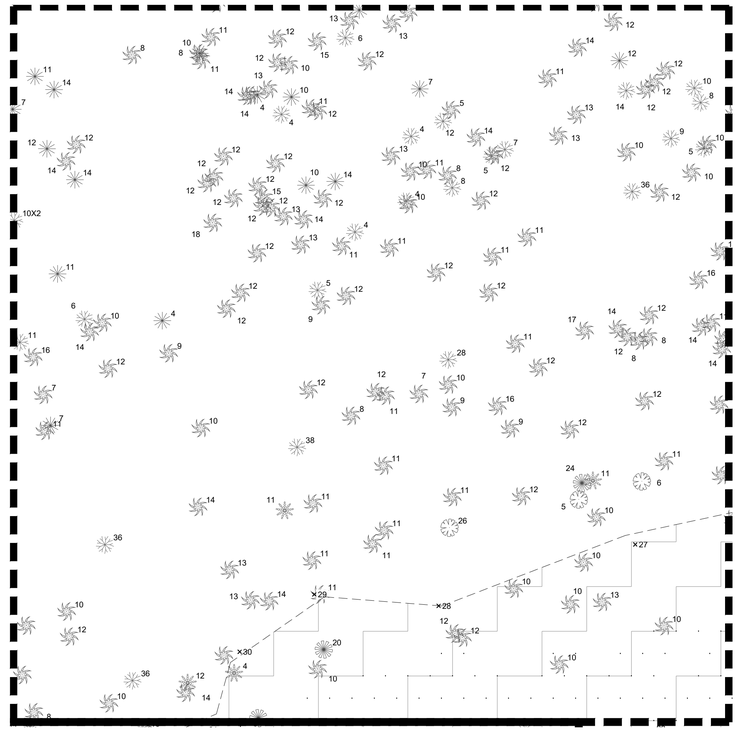


SAMPLE AREA 'B'
AREA 200'X200S=40,000SF=0.92AC

PRESERVED INVENTORY:
- PALMS = 1,154" TOTAL INCHES
- 6-23" DBH = 662" TOTAL INCHES
- 24-35" DBH = 9 TREES
- 36-42" DBH = 1 TREES
- 43"+ DBH = 2 TREES

REMOVED INVENTORY:
- PALMS = 100 TREES
- 6-12" DBH = 10 TREES
- 13-23" DBH = 30 TREES
- 24"+ DBH = 12 TREES
  (2 TREE @ 24")
  (1 TREE @ 25")
  (1 TREE @ 26")
  (2 TREE @ 27")
  (1 TREE @ 30")
  (1 TREE @ 32")
  (1 TREE @ 33")
  (1 TREE @ 38")
  (1 TREE @ 44")
  (1 TREE @ 45")

SAMPLE AREA 'C'

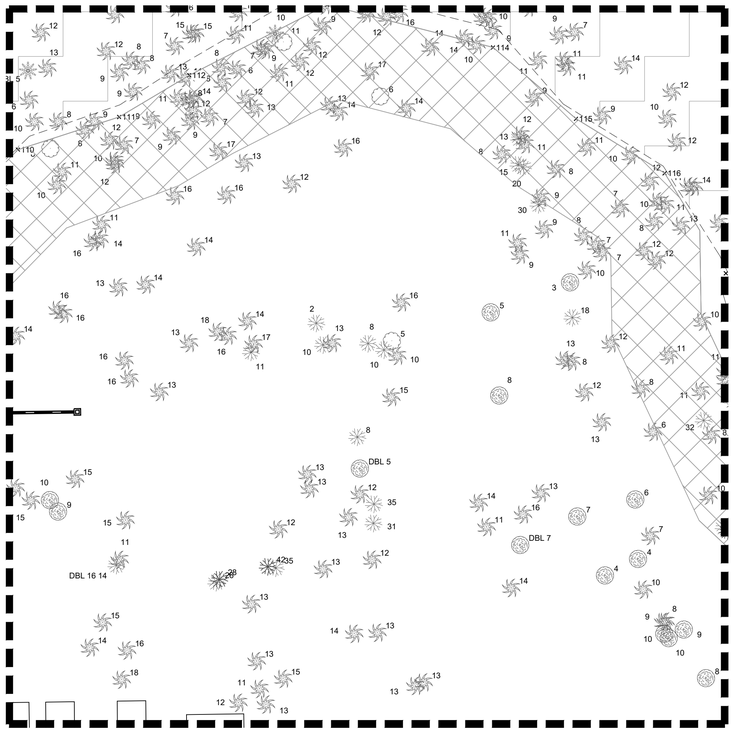


SAMPLE AREA 'C'
AREA 200' x 200' = 40,000SF = 0.92AC

PRESERVED INVENTORY:
- PALMS = 1,433" TOTAL INCHES
- 6-23" DBH = 300" TOTAL INCHES
- 24-35" DBH = 3 TREES
- 36-42" DBH = 4 TREES
- 43"+ DBH = 0 TREES

REMOVED INVENTORY:
- PALMS = 123 TREES
- 6-12" DBH = 22 TREES
- 13-23" DBH = 7 TREES
- 24"+ DBH = 7 TREES
  (1 TREE @ 24")
  (1 TREE @ 26")
  (1 TREE @ 28")
  (3 TREE @ 36")
  (1 TREE @ 38")

SAMPLE AREA 'D'



SAMPLE AREA 'D'
AREA 200'X200S=40,000SF=0.92AC

PRESERVED INVENTORY:
- PALM DBH = 1897" TOTAL INCHES
- 6-23" DBH = 259" TOTAL INCHES
- 24-35" DBH = 8 TREES
- 36-42" DBH = 1 TREES
- 43"+ DBH = 0 TREES

REMOVED INVENTORY:
- PALM S = 163 TREES
- 6-12" DBH = 20 TREES
- 13-23" DBH = 5 TREES
- 24"+ DBH = 9 TREES
  (1 TREE @ 26")
  (1 TREE @ 28")
  (2 TREE @ 30")
  (1 TREE @ 31")
  (1 TREE @ 32")
  (2 TREE @ 35")
  (1 TREE @ 42")

EXTRAPOLATED PERCENTAGES

TOTAL SITE AREA = 89.5 AC
TOTAL DEVELOPMENT AREA = 44.4 AC (USED FOR UPLAND TREE SAMPLING CALCULATIONS; EXCLUDES PRESERVED WETLANDS) A. PRESERVATION AREA WITHIN DEVELOPMENT AREA (NON - WETLAND) = **7.4 AC (16.7%)**. B. IMPACTED TREE REMOVAL AREA = 37.0 AC LESS 8.9 AC BUILDING FOOTPRINTS = **28.1 AC (63.3%)**
DEDICATED WETLAND TO CITY OF COCOA = 44.1 AC (SEE SEPARATE PRESERVATION CALCULATIONS ON SHEET L-2.1)
WETLAND AREA TO BE PRESERVED & **NOT** DEDICATED TO THE CITY = 1.0 AC (EXCLUDED FROM TREE SAMPLING PRESERVATION CALCULATIONS TO THE RIGHT)
SAMPLE SURVEY AREA: 40,000SF = 0.92 AC

TREE SURVEY LEGEND

PINE (PINUS ELIOTTII)	MAPLE (ACER RUBRUM)
CABBAGE PALM (SABAL PALMETTO)	SWAMP BAY (PERSEA PALUSTRIS)
OAK (QUERCUS VIRGINIANA & QUERCUS LAURIFOLIA)	MAGNOLIA (MAGNOLIA GRANDIFLORA)
GREEN ASH (FRAXINUS PENNYSLVANICA)	UNKNOWN TREE

EXTRAPOLATED INVENTORIES - DEVELOPMENT AREA

PRESERVATION

SAMPLE AREA 'A' PRESERVED INVENTORY:
AREA 200'X200' = 40,000 SF = 0.92 AC
0.92 AC / 44.4 AC = 0.0207
- 6-23" DBH = 2,950" TOTAL TREE & PALM INCHES / 0.0207 = 142,512
- 24-35" DBH = 7 TREES / 0.0207 = 338
- 36-42" DBH = 0 TREES / 0.0207 = 0
- 43"+ DBH = 0 TREES / 0.0207 = 0

SAMPLE AREA 'B' PRESERVED INVENTORY:
AREA 200'X200' = 40,000 SF = 0.92 AC
0.92 AC / 44.4 AC = 0.0207
- 6-23" DBH = 1,816" TOTAL TREE & PALM INCHES / 0.0207 = 87,729
- 24-35" DBH = 9 TREES / 0.0207 = 435
- 36-42" DBH = 1 TREES / 0.0207 = 48
- 43"+ DBH = 2 TREES / 0.0207 = 97

SAMPLE AREA 'C' PRESERVED INVENTORY:
AREA 200'X200' = 40,000 SF = 0.92 AC
0.92 AC / 44.4 AC = 0.0207
- 6-23" DBH = 1,733" TOTAL TREE & PALM INCHES / 0.0207 = 83,720
- 24-35" DBH = 3 TREES / 0.0207 = 145
- 36-42" DBH = 4 TREES / 0.0207 = 193
- 43"+ DBH = 0 TREES / 0.0207 = 0

SAMPLE AREA 'D' PRESERVED INVENTORY:
AREA 200'X200' = 40,000 SF = 0.92 AC
0.92 AC / 44.4 AC = 0.0207
- 6-23" DBH = 2,156" TOTAL TREE & PALM INCHES / 0.0207 = 104,155
- 24-35" DBH = 8 TREES / 0.0207 = 387
- 36-42" DBH = 1 TREES / 0.0207 = 48
- 43"+ DBH = 0 TREES / 0.0207 = 0

AVERAGED PRESERVED INVENTORIES
- 6-23" DBH = (142,512 + 87,729 + 83,720 + 104,155) / 4 = 104,529"
- 24-35" DBH = (338 + 435 + 145 + 387) / 4 = 326 TREES
- 36-42" DBH = (0 + 48 + 193 + 48) / 4 = 72 TREES
- 43"+ DBH = (0 + 97 + 0 + 0) / 4 = 24 TREES

PERCENTAGE OF SITE PRESERVED:
TOTAL DEVELOPMENT AREA = 44.4 AC
PRESERVATION IN DEVELOPMENT AREA = 7.4 AC = 16.7%
- 6-23" DBH = 104,529" X 16.7% = 17,456"
- 24-35" DBH = 326 TREES X 16.7= 54
- 36-42" DBH = 72 TREES X 16.7% = 12
- 43"+ DBH = 24 TREES X 16.7% = 4

REMOVED / IMPACTED

SAMPLE AREA 'A' REMOVED INVENTORY:
AREA 200'X200' = 40,000 SF = 0.92 AC
0.92 AC / 44.4 AC = 0.0207
- 6-12" DBH & PALMS = 210 TREES & PALMS / 0.0207 = 10,145
- 13-23" DBH = 50 TREES / 0.0207 = 2,415
- 24"+ DBH = 7 TREES / 0.0207 = 338

SAMPLE AREA 'B' REMOVED INVENTORY:
AREA 200'X200' = 40,000 SF = 0.92 AC
0.92 AC / 44.4 AC = 0.0207
- 6-12" DBH & PALMS = 110 TREES & PALMS / 0.0207 = 5,314
- 13-23" DBH = 30 TREES / 0.0207 = 1,449
- 24"+ DBH = 12 TREES / 0.0207 = 580

SAMPLE AREA 'C' REMOVED INVENTORY:
AREA 200'X200' = 40,000 SF = 0.92 AC
0.92 AC / 44.4 AC = 0.0207
- 6-12" DBH & PALMS = 145 TREES & PALMS / 0.0207 = 7,005
- 13-23" DBH = 7 TREES / 0.0207 = 338
- 24"+ DBH = 7 TREES / 0.0207 = 338

SAMPLE AREA 'D' REMOVED INVENTORY:
AREA 200'X200' = 40,000 SF = 0.92 AC
0.92 AC / 44.4 AC = 0.0207
- 6-12" DBH & PALMS = 183 TREES & PALMS / 0.0207 = 8,841
- 13-23" DBH = 5 TREES / 0.0207 = 242
- 24"+ DBH = 9 TREES / 0.0207 = 435

AVERAGED REMOVED INVENTORIES
- 6-12" DBH = (10,145 + 5,314 + 7,005 + 8,841) / 4 = 7,826
- 13-23" DBH = (2,415 + 1,449 + 338 + 242) / 4 = 1,111
- 24"+ DBH = (338 + 580 + 338 + 435) / 4 = 423

PERCENTAGE OF SITE IMPACTED:
TOTAL DEVELOPMENT AREA = 44.4 AC
IMPACTED AREA LESS BUILDING FOOTPRINT* (37.0 AC - 8.9 AC*) = 28.1 AC= 63.3%
- 6-12" DBH = 7,826 X 63.3% = 4,954
- 13-23" DBH = 1,111 X 63.3% = 703
- 24"+ DBH = 423 X 63.3% = 268

Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa
Cox Road
Cocoa, FL

SHEET TITLE
Existing Tree Sample Area - Development Area Calcs

DATE 06-02-25

DESIGN S.H.

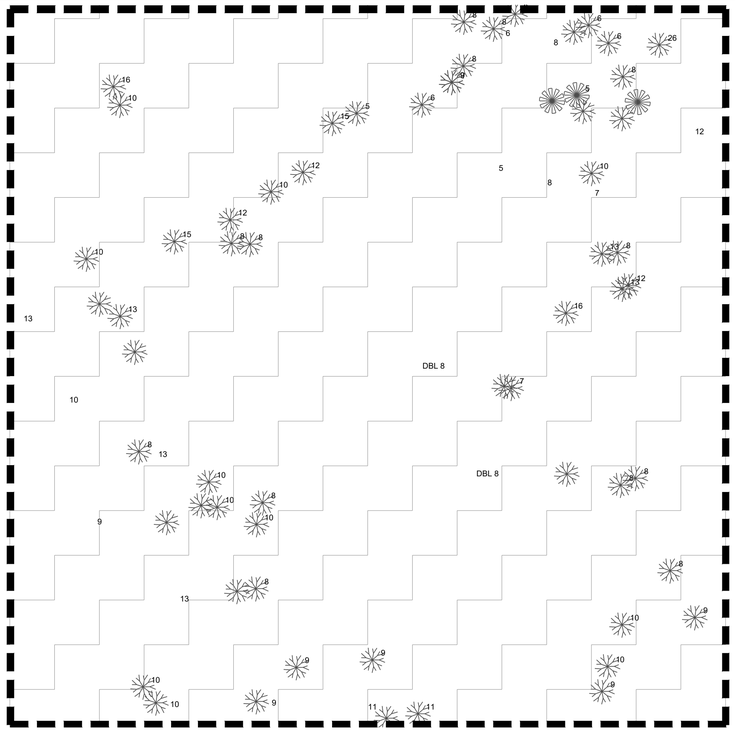
DRAWN M.M.

SCALE 1" = 20' - 0"

REVISIONS
1 09-15-25 RESPONSE TO COMMENT

SEAL
SUSAN HALL REGISTERED LANDSCAPE ARCHITECT 6666 STATE OF FLORIDA
04-17-26

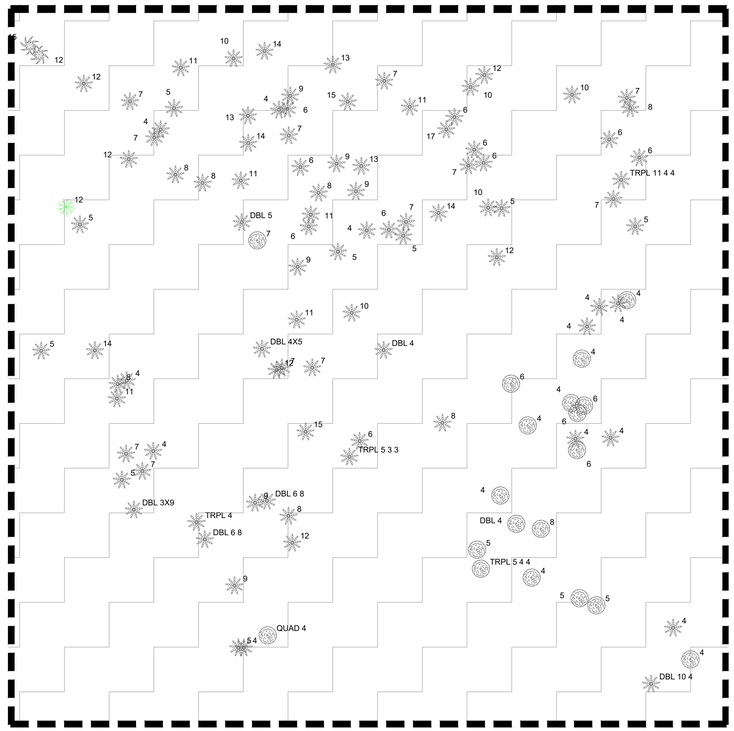
L-2 SHEET | 15 OF



SAMPLE AREA 'E'

SAMPLE AREA 'E'
AREA 200'X200S=40,000SF=0.92AC

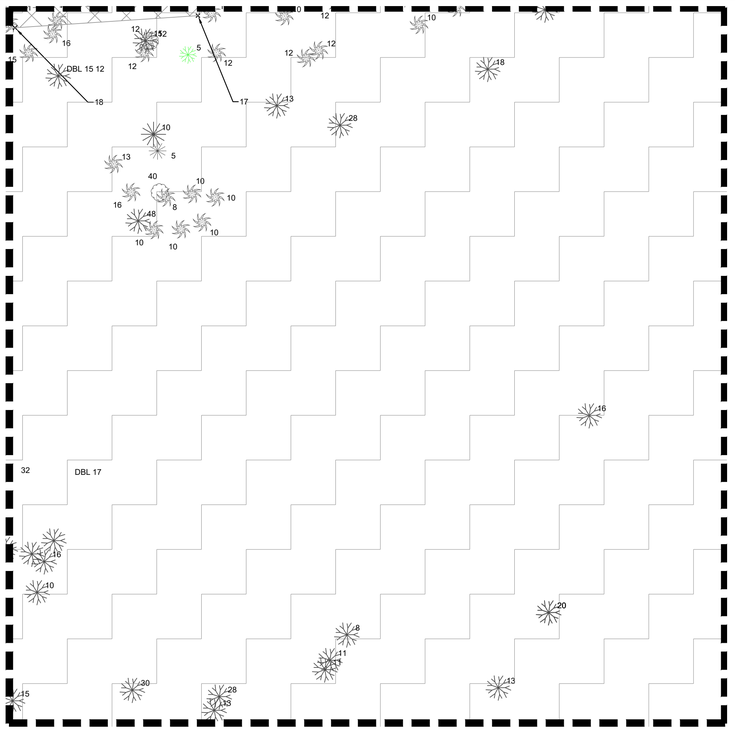
PRESERVED INVENTORY:
- PALMS = 0" TOTAL INCHES
- 6-23" DBH = 583" TOTAL INCHES
- 24-35" DBH = 1 TREES
- 36-42" DBH = 0 TREES
- 43"+ DBH = 0 TREES



SAMPLE AREA 'F'

SAMPLE AREA 'F'
AREA 200'X200S=40,000SF=0.92AC

PRESERVED INVENTORY:
- PALMS = 27" TOTAL INCHES
- 6-23" DBH = 795" TOTAL INCHES
- 24-35" DBH = 0 TREES
- 36-42" DBH = 0 TREES
- 43"+ DBH = 0 TREES



SAMPLE AREA 'G'

SAMPLE AREA 'G'
AREA 200' x 200' = 40,000SF = 0.92AC

PRESERVED INVENTORY:
- PALMS = 186" TOTAL INCHES
- 6-23" DBH = 213" TOTAL INCHES
- 24-35" DBH = 6 TREES
- 36-42" DBH = 1 TREES
- 43"+ DBH = 0 TREES

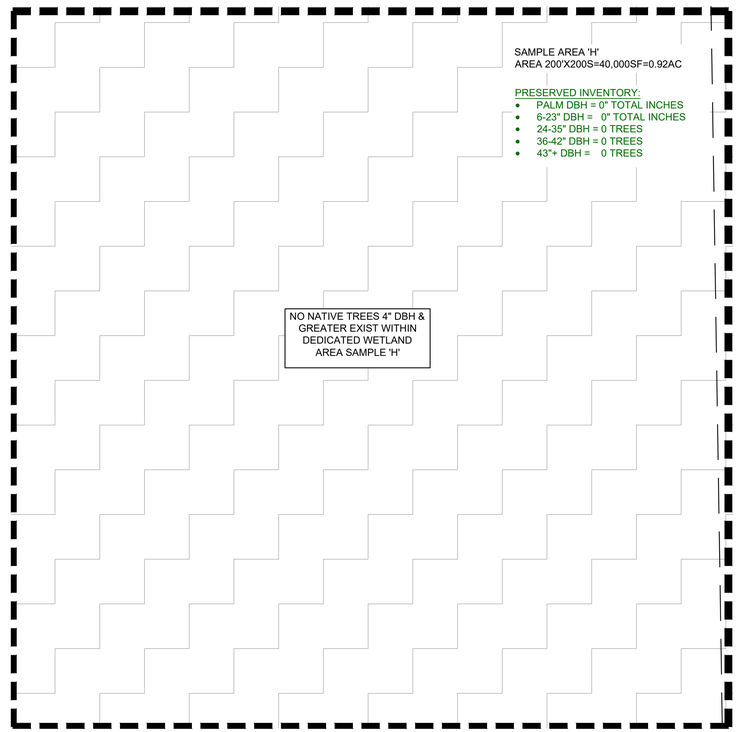
EXTRAPOLATED PERCENTAGES

DEDICATED WETLAND TO CITY OF COCOA = 44.1 AC (100% PRESERVATION)

SAMPLE SURVEY AREA: 40,000SF = 0.92 AC

TREE SURVEY LEGEND

PINE (PINUS ELIOTTII)	MAPLE (ACER RUBRUM)
CABBAGE PALM (SABAL PALMETTO)	SWAMP BAY (PERSEA PALUSTRIS)
OAK (QUERCUS VIRGINIANA & QUERCUS LAURIFOLIA)	MAGNOLIA (MAGNOLIA GRANDIFLORA)
GREEN ASH (FRAXINUS PENNYSLVANICA)	UNKNOWN TREE

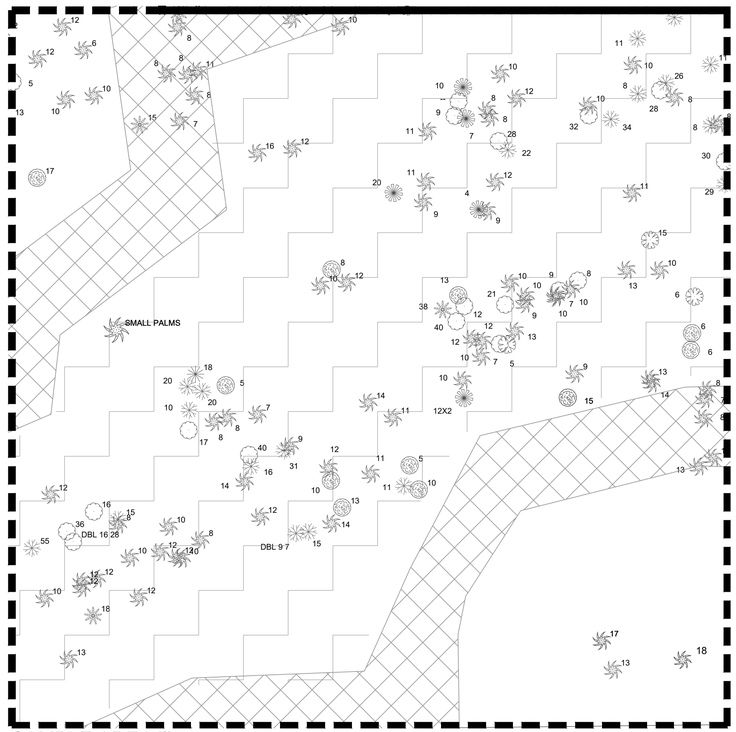


SAMPLE AREA 'H'
AREA 200'X200S=40,000SF=0.92AC

PRESERVED INVENTORY:
- PALM DBH = 0" TOTAL INCHES
- 6-23" DBH = 0" TOTAL INCHES
- 24-35" DBH = 0 TREES
- 36-42" DBH = 0 TREES
- 43"+ DBH = 0 TREES

NO NATIVE TREES 4" DBH & GREATER EXIST WITHIN DEDICATED WETLAND AREA SAMPLE 'H'

SAMPLE AREA 'H'



SAMPLE AREA 'I'

SAMPLE AREA 'I'
AREA 200'X200S=40,000SF=0.92AC

PRESERVED INVENTORY:
- PALM DBH = 847" TOTAL INCHES
- 6-23" DBH = 509" TOTAL INCHES
- 24-35" DBH = 7 TREES
- 36-42" DBH = 4 TREES
- 43"+ DBH = 2 TREES

EXTRAPOLATED INVENTORIES - DEDICATED WETLAND

PRESERVATION

SAMPLE AREA 'E' PRESERVED INVENTORY:
AREA 200'X200' = 40,000 SF = 0.92 AC
0.92 AC / 44.1 AC = 0.0209
- 6-23" DBH = 583" TOTAL TREE & PALM INCHES / 0.0209 = 27,895
- 24-35" DBH = 1 TREES / 0.0209 = 48
- 36-42" DBH = 0 TREES / 0.0209 = 0
- 43"+ DBH = 0 TREES / 0.0209 = 0

SAMPLE AREA 'F' PRESERVED INVENTORY:
AREA 200'X200' = 40,000 SF = 0.92 AC
0.92 AC / 44.1 AC = 0.0209
- 6-23" DBH = 822" TOTAL TREE & PALM INCHES / 0.0209 = 39,330
- 24-35" DBH = 0 TREES / 0.0209 = 0
- 36-42" DBH = 0 TREES / 0.0209 = 0
- 43"+ DBH = 0 TREES / 0.0209 = 0

SAMPLE AREA 'G' PRESERVED INVENTORY:
AREA 200'X200' = 40,000 SF = 0.92 AC
0.92 AC / 44.1 AC = 0.0209
- 6-23" DBH = 399" TOTAL TREE & PALM INCHES / 0.0209 = 19,091
- 24-35" DBH = 6 TREES / 0.0209 = 287
- 36-42" DBH = 1 TREES / 0.0209 = 48
- 43"+ DBH = 0 TREES / 0.0209 = 0

SAMPLE AREA 'H' PRESERVED INVENTORY:
AREA 200'X200' = 40,000 SF = 0.92 AC
0.92 AC / 44.1 AC = 0.0209
- 6-23" DBH = 0" TOTAL TREE & PALM INCHES / 0.0209 = 0
- 24-35" DBH = 0 TREES / 0.0209 = 0
- 36-42" DBH = 0 TREES / 0.0209 = 0
- 43"+ DBH = 0 TREES / 0.0209 = 0

SAMPLE AREA 'I' PRESERVED INVENTORY:
AREA 200'X200' = 40,000 SF = 0.92 AC
0.92 AC / 44.1 AC = 0.0209
- 6-23" DBH = 1,358" TOTAL TREE & PALM INCHES / 0.0209 = 64,880
- 24-35" DBH = 7 TREES / 0.0209 = 335
- 36-42" DBH = 4 TREES / 0.0209 = 191
- 43"+ DBH = 2 TREES / 0.0209 = 96

AVERAGED PRESERVED INVENTORIES
- 6-23" DBH = (27,895 + 39,330 + 19,091 + 0 + 64,880) / 5 = 30,239"
- 24-35" DBH = (48 + 0 + 267 + 0 + 335) / 5 = 134 TREES
- 36-42" DBH = (0 + 0 + 48 + 0 + 191 / 5 = 48 TREES
- 43"+ DBH = (0 + 0 + 0 + 0 + 96) / 5 = 19 TREES

PERCENTAGE OF SITE PRESERVED:
PRESERVED AREA = 44.1 AC = 100%
- 6-23" DBH = 30,239" X 100% = 30,239"
- 24-35" DBH = 134 TREES X 100% = 134
- 36-42" DBH = 48 TREES X 100% = 48
- 43"+ DBH = 19 TREES X 100% = 19

Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa

Cox Road
Cocoa, FL

SHEET TITLE
Existing Tree Sample Area Calculations - Dedicated Wetland

DATE 06-02-25

DESIGN S.H.

DRAWN M.M.

SCALE 1" = 20' - 0"

REVISIONS
1 09-15-25 RESPONSE TO COMMENT
1A 09-29-25 RESPONSE TO COMMENT

SEAL
SUSAN HALL LANDSCAPE ARCHITECT LC26000357 FLORIDA
04-17-26

L-2.1 SHEET | 15 OF

SHEET L-4

SHEET L-5

SHEET L-6

SHEET L-7

SHEET L-8

LANDSCAPE CALCULATIONS

NORTH LANDSCAPE BUFFER
- 1,290 LF ADJACENT ZONING RU-2-15 MULTIPLE FAMILY DWELLING
- 10' WIDTH REQUIRED / PROVIDED
- 23 SLASH PINES PROVIDED

EAST LANDSCAPE BUFFER
- 332 LF ADJACENT ZONING RU-1-7 SINGLE FAMILY DWELLING
- 20' WIDTH REQUIRED / PROVIDED
- EXISTING NATURAL VEGETATION PROVIDED

SOUTH LANDSCAPE BUFFER
- 1,629 LF ADJACENT ZONING RA - RESIDENTIAL AGRICULTURAL
- 20' WIDTH REQUIRED / PROVIDED
- EXISTING NATURAL VEGETATION PROVIDED

INTERIOR PARKING LOT LANDSCAPE
- ALL PARKING SCREENED FROM PUBLIC VIEW AND /OR ADJACENT PROPERTIES BY BUILDINGS AND/OR EXISTING VEGETATION.
- 1 TREE REQUIRED PER TERMINAL PARKING ISLAND
- 16 TREES REQUIRED / 16 OAKS & CRAPE MYRTLE PROPOSED

TREE MITIGATION
- REFER TO DEVELOPER'S AGREEMENT

0' 40' 80' 160' 240'
SCALE: 1" = 80'-0"

Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa

Cox Road
Cocoa, FL

SHEET TITLE
Overall Landscape Sheet Key

DATE 06-02-25

DESIGN S.H.

DRAWN M.M.

SCALE 1" = 80' - 0"

REVISIONS
1 01-07-26 RESPONSE TO COMMENT

SEAL
SUSAN HALL LANDSCAPE ARCHITECT #6667 STATE OF FLORIDA
04-17-26

SHEET L-3 OF 15

EXISTING UPLAND TREES AND UNDERSTORY VEGETATION TO REMAIN; CREATE MULCH LINE AGAINST SOD AREAS - TYPICAL

10' LANDSCAPE BUFFER

6' HT. OPAQUE FENCE

SOD (BAHIA)

PE 17

6 UNIT TYPICAL SEE SHEET L-9

6 UNIT TYPICAL (ALTERNATE) SEE SHEET L-9

40'-0"

40'-0" SIGHT TRIANGLE

COS 11 (FOR END BUILDING)

COS 11

STREET (CRAPE MYRTLE VARIETY: NATCHEZ)

ST. AUG SOD

5 UNIT TYPICAL SEE SHEET L-10

LI 2

DR 1

SP 4

SP 8

QV 1

QV 2

AR 3

SP 5

SP 2

SP 10

SP 9

EXISTING 37" DBH LIVE OAK (QUERCUS VIRGININA) TO BE PRESERVED

STREET (CRAPE MYRTLE VARIETY: TUSKEGEE)

STREET (CRAPE MYRTLE VARIETY: MUSKOGEE)

STREET

BENCH - TYPICAL

Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa

Cox Road
Cocoa, FL

0' 15' 30' 60'
SCALE: 1" = 30'-0"

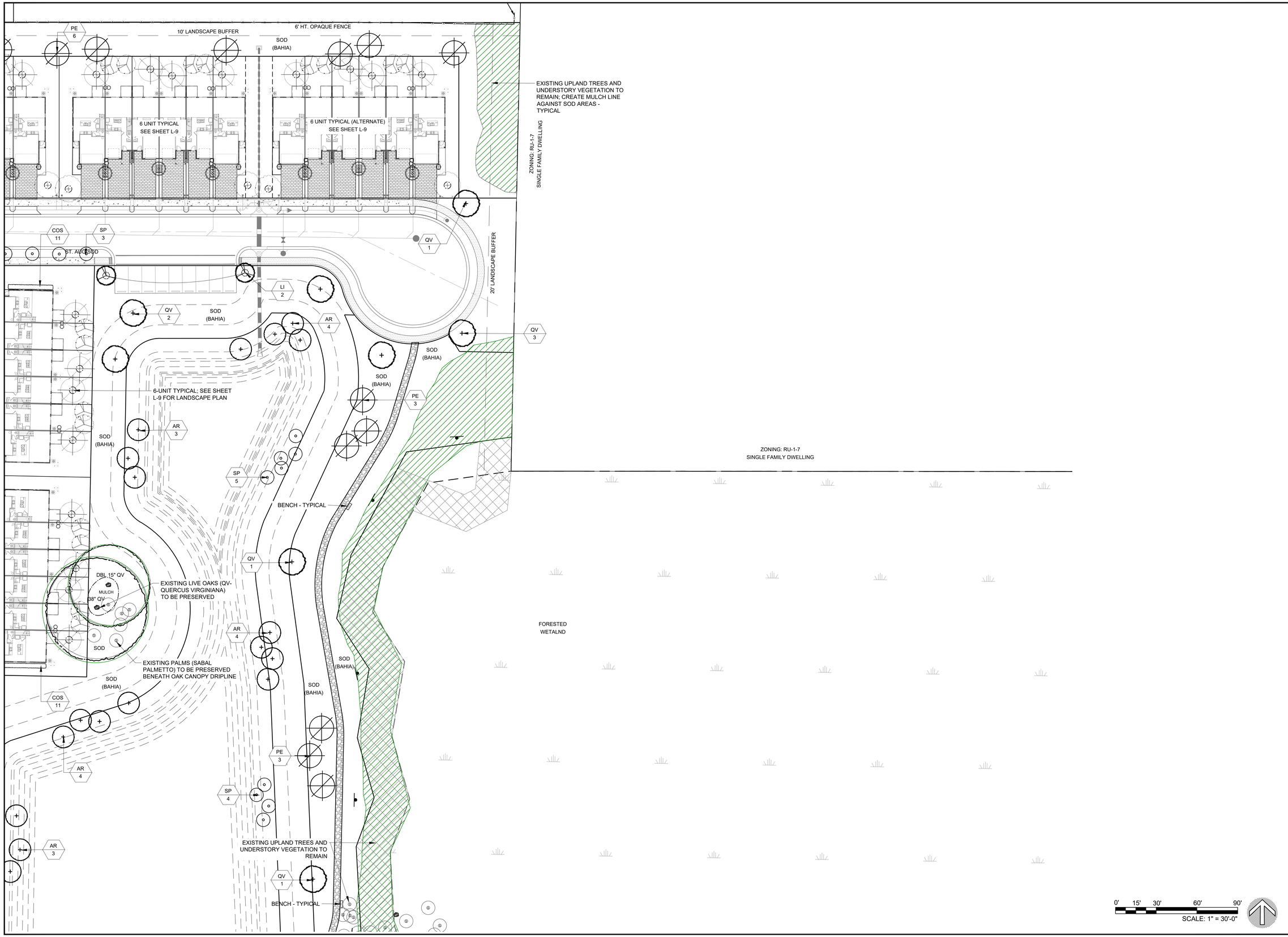
SHEET TITLE
Site Landscape Plan

DATE 06-02-25
DESIGN S.H.
DRAWN M.M.
SCALE 1" = 30' - 0"

REVISIONS
1 09-15-25 RESPONSE TO COMMENT
2 01-07-26 RESPONSE TO COMMENT

SEAL
SUSAN HALL LANDSCAPE ARCHITECT LICENSE 6667 STATE OF FLORIDA
04-17-26

SHEET L-4 OF 15



Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa

Cox Road
Cocoa, FL

SHEET TITLE
Site Landscape Plan

DATE 06-02-25

DESIGN S.H.

DRAWN M.M.

SCALE 1" = 30' - 0"

REVISIONS
1 09-15-25 RESPONSE TO COMMENT
2 01-07-26 RESPONSE TO COMMENT

SEAL
SUSAN HALL LANDSCAPE ARCHITECT #6666 STATE OF FLORIDA
04-17-26

SHEET L-5 OF 15

STREET
(CRAPE MYRTLE VARIETY: MUSKOGEE)

STREET
(CRAPE MYRTLE VARIETY: TUSKEGEE)

6 UNIT TYPICAL
SEE SHEET L-9

4 UNIT TYPICAL
SEE SHEET L-11

EXISTING UPLAND TREES AND UNDERSTORY VEGETATION TO REMAIN; CREATE MULCH LINE AGAINST SOD AREAS - TYPICAL

EXISTING PALMS (SABAL PALMETTO) TO BE PRESERVED BENEATH LARGE EXISTING LIVE OAK DRIPLINE

EXISTING 30" DBH LIVE OAK (QUERCUS VIRGININA) TO BE PRESERVED

EXISTING 50" DBH LIVE OAK (QUERCUS VIRGINIANA) TO BE PRESERVED

EXISTING PALMS (SABAL PALMETTO) TO BE PRESERVED

EXISTING TREES TO BE PRESERVED. 'QV' DENOTES (QUERCUS VIRGINIANA - LIVE OAK). 'ASH' DENOTES (GREEN ASH - FRAXINUS PENNSYLVANICA)

TERRACE FOR TABLES AND CHAIRS

COVERED MAIL KIOSK WITH SHADE SAILS

SOD BENEATH EXISTING TREES TO REMAIN IN THIS AREA. ADD MULCH RINGS AROUND TREES.

POOL (BY POOL CONTRACTOR)

4' HT. BLACK ALUMINUM POOL FENCE WITH SELF LATCHING / SELF CLOSING GATES

NATURE TRAIL

BENCH - TYPICAL

PAVERS

FORESTED WETLAND & UNDERSTORY VEGETATION

SOD (BAHIA)

ST. AUG SOD

MULCH

0' 15' 30' 60' 90'
SCALE: 1" = 30'-0"

Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa

Cox Road
Cocoa, FL

SHEET TITLE
Site Landscape Plan

DATE 06-02-25

DESIGN S.H.

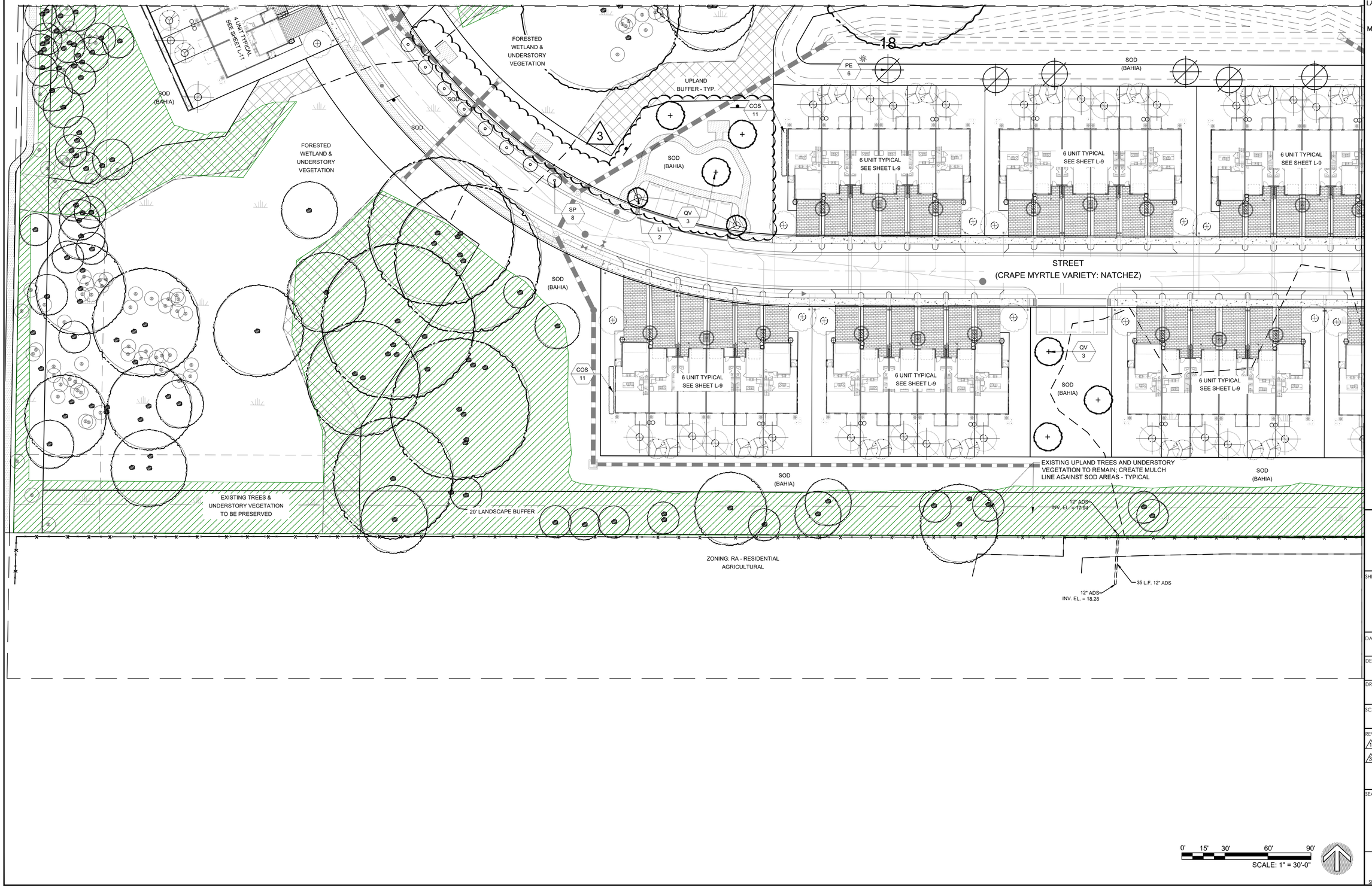
DRAWN M.M.

SCALE 1" = 30' - 0"

REVISIONS
1 09-15-25 RESPONSE TO COMMENT
2 01-07-26 RESPONSE TO COMMENT

SEAL
SUSAN HALL LANDSCAPE ARCHITECT #6670 STATE OF FLORIDA
04-17-26

SHEET L-6 OF 15



Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa

Cox Road
Cocoa, FL

SHEET TITLE
Site Landscape Plan

DATE 06-02-25

DESIGN S.H.

DRAWN M.M.

SCALE 1" = 30' - 0"

REVISIONS
1 09-15-25 RESPONSE TO COMMENT
2 04-17-26 RESPONSE TO CITY MEETING

SEAL
SUSAN HALL LANDSCAPE ARCHITECT #6666 STATE OF FLORIDA
04-17-26

SHEET L-7 | OF 2

UPLAND BUFFER - TYP.

FORESTED WETLAND & UNDERSTORY VEGETATION

EXISTING TREES & UNDERSTORY VEGETATION TO BE PRESERVED

PE 6

SOD (BAHIA)

3

5 UNIT TYPICAL SEE SHEET L-10

EXISTING UPLAND TREES AND UNDERSTORY VEGETATION TO REMAIN; CREATE UNDULATING MULCH LINE AGAINST SOD AREAS - TYPICAL

QV 1

LI 4

STREET
(CRAPE MYRTLE VARIETY: NATCHEZ)

6 UNIT TYPICAL SEE SHEET L-9

4 UNIT TYPICAL SEE SHEET L-11

PE 3

PE 2

20' LANDSCAPE BUFFER

15" HDPE
INV. EL. = 18.69

15 L.F. 15" HDPE PIPE

15" HDPE
INV. EL. = 18.13

EXISTING UPLAND TREES AND UNDERSTORY VEGETATION TO REMAIN; CREATE MULCH LINE AGAINST SOD AREAS - TYPICAL

0' 15' 30' 60' 90'
SCALE: 1" = 30'-0"

Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa

Cox Road
Cocoa, FL

SHEET TITLE
Site Landscape Plan

DATE 06-02-25

DESIGN S.H.

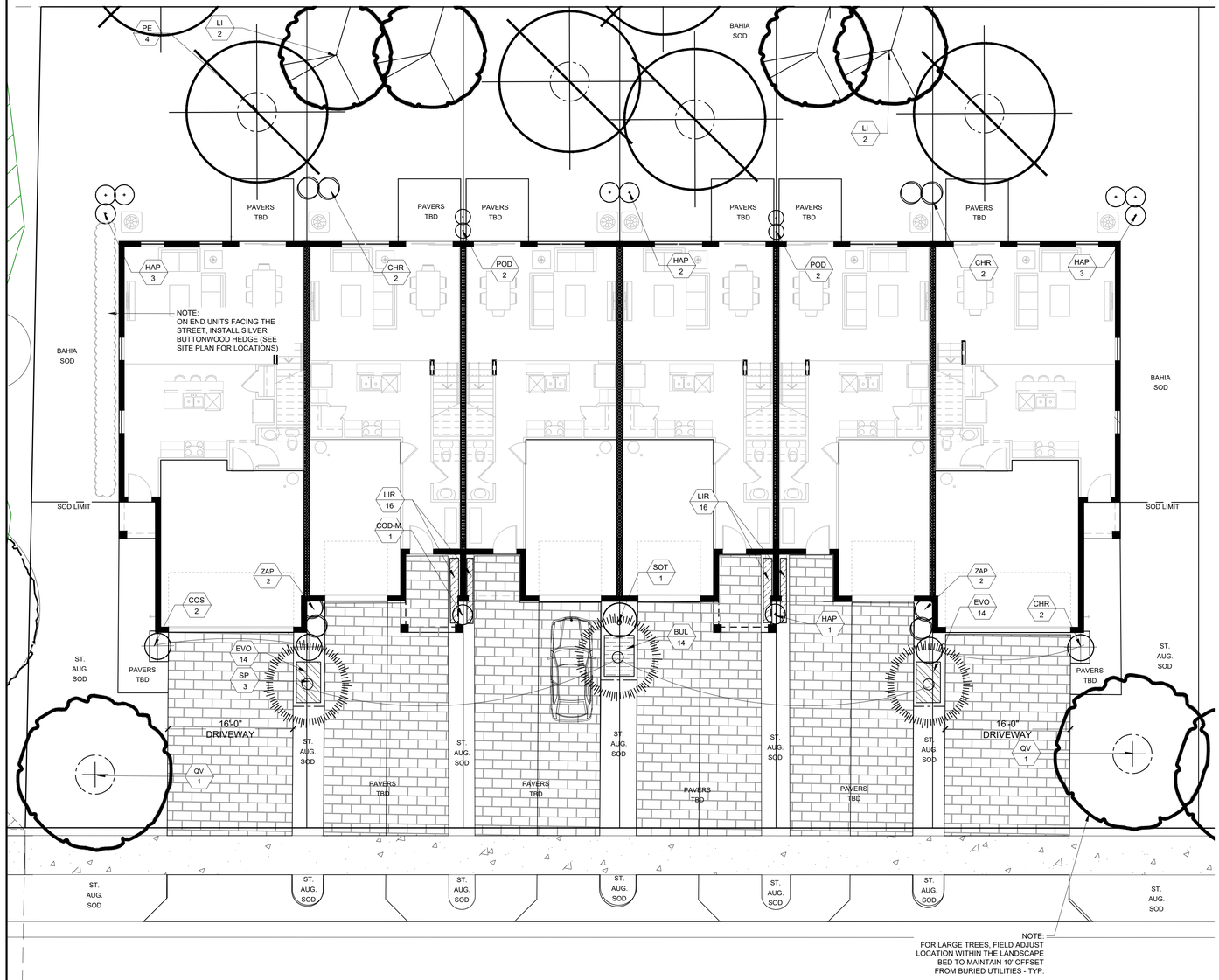
DRAWN M.M.

SCALE 1" = 30' - 0"

REVISIONS
1 09-15-25 RESPONSE TO COMMENT
2 01-07-26 RESPONSE TO COMMENT
3 04-17-26 RESPONSE TO CITY MEETING

SEAL
SUSAN HALL LANDSCAPE ARCHITECT #6667 STATE OF FLORIDA
04-17-26

SHEET L-8 OF 15



6 Unit Townhome - Plantlist

PLANT MATERIAL

TREES & PALMS

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	MINIMUM SPECIFICATIONS	SPACING	NATIVE	WATER WISE	MITIGATION (INCHES)
4	LI	*Lagerstroemia indica*	Crape Myrtle	45g	8'ht., 3" caliper, Multi.; Muskogee, Natchez, or Tuskegee'; Refer to street tree plan for variety type*	As shown		✓	12
4	PE	*Pinus elliottii 'Densa'*	Slash Pine 'Densa'	30G	9' ht. x 3'spd., 3" caliper	As shown	✓	✓	12
2	QV	*Quercus virginiana*	Live Oak	65g	12" ht. x 6'spd., 3" caliper	As shown	✓	✓	6
3	SP	*Sabal palmetto*	Cabbage Palm	FG	12' clear trunk height	As shown	✓	✓	

Important Note: The caliper inches, heights, and spreads provided are minimum specifications. A larger container size may be required to meet minimum specifications.

Total: 30

SHRUBS & GROUNDCOVERS

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	MINIMUM SPECIFICATIONS	SPACING	NATIVE	WATER WISE
14	BUL	*Bulbine frutescens 'Hallmark'*	Bulbine 'Hallmark'	1g	12" ht. x 8"spd.	12" oc		✓
6	CHR	*Chrysobalanus icaco 'Red Tip'*	Red Tip Cocoplum	3g	18"ht. x 18"spd.	36" oc	✓	✓
2	COS	*Conocarpus erectus 'Sericeus'*	Silver Buttonwood	3g	18"ht. x 18"spd.	36" oc	✓	✓
1	COD-M	*Codiaeum variegatum 'Magnificent'*	Croton 'Magnificent'	3g	18"ht. x 18"spd.	As shown		✓
28	EVO	*Evolvulus glomeratus 'Blue My Mind'*	Blue Daze 'Blue My Mind'	1g	4"ht. x 8"spd.	12" oc		✓
9	HAP	*Hamelia patens*	Firebush	3g	18"ht. x 18"spd.	36" oc	✓	✓
32	LIR	*Liriope muscari 'Super Blue'*	Liriope 'Super Blue'	1g	12"ht. x 8"spd.	12" oc		✓
1	SOT	*Sophora tomentosa*	Necklace Pod	3g	18"ht. x 18"spd.	As shown	✓	✓
4	POD	*Podocarpus macrophyllus 'Maki'*	Podocarpus 'Maki'	3g	20"ht x 12" spd.	24" oc		✓
4	ZAP	*Zamia pumila*	Florida Coontie	3g	12"ht. x 16"spd.	30" oc	✓	✓

Important Note: The heights and spreads provided are minimum specifications. A larger container size may be required to meet minimum specifications.

MISCELLANEOUS LANDSCAPE ITEMS

5425	SF	Sod: Bahia 'Argentine'; Landscape Contractor to field-verify amount needed; An additional 15% has been added for shrinkage, cuts and wastes.*
2275	SF	Sod: St. Augustine 'Floratam'; Landscape Contractor to field-verify amount needed; An additional 15% has been added for shrinkage, cuts and wastes.*
5	CY	Planting Mix- 33% Clean Sharp Sand, 33% Florida Peat, 33% Well-rotted Wood Chips/Compost
6	CY	Mulch - 'Coco Brown' Mulch from Florida Mulch

Bracing, Guying, Staking & Fertilizing is to be included in the unit price for installed plant material;

*We strive to be as accurate as possible with sod measurements, however, changing field conditions will affect the final sod amount required. Please be aware that our sod calculations are not exact and additional sod could be required. **Additional sod will be the owner's responsibility and added to the final contract amount**.

0' 4' 8' 16' 24'

SCALE: 1/8" = 1'-0"

Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa

Cox Road
Cocoa, FL

SHEET TITLE
Typical 6-Unit Townhome Landscape Plan

DATE 06-02-25

DESIGN S.H.

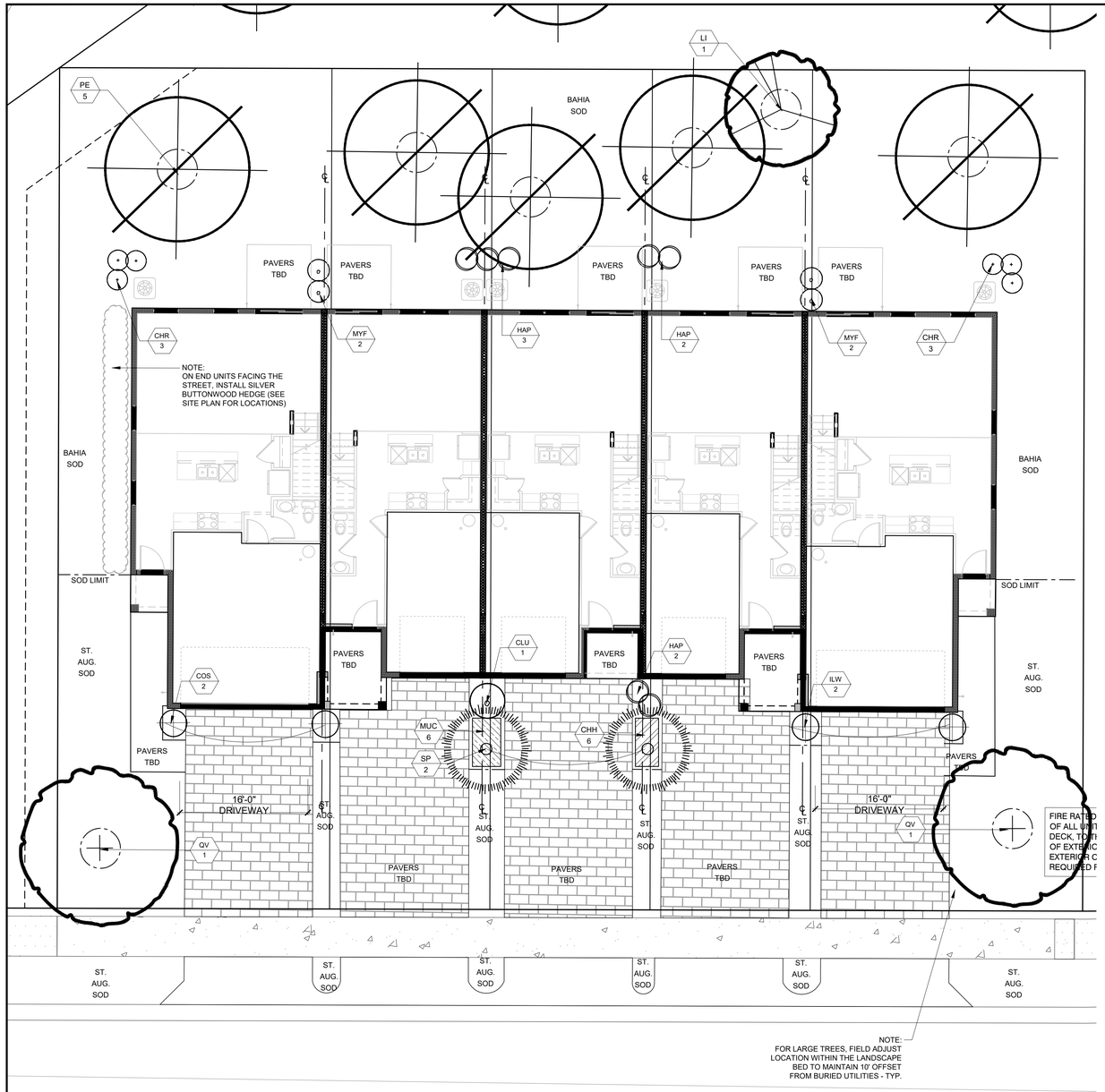
DRAWN M.M.

SCALE 1/8" = 1' - 0"

REVISIONS
1 09-15-25 RESPONSE TO COMMENT

SEAL
SUSAN HALL LANDSCAPE ARCHITECT #6666 STATE OF FLORIDA
04-17-26

SHEET L-9 OF 15



5 Unit Townhome - Plantlist

PLANT MATERIAL

TREES & PALMS

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	MINIMUM SPECIFICATIONS	SPACING	NATIVE	WATER WISE	MITIGATION (INCHES)
1	LI	*Lagerstroemia indica*	Crape Myrtle	45g	8'ht., 3" caliper, Multi.; Muskogee, Natchez, or Tuskegee'. Refer to street tree plan for variety type*	As shown		✓	3
5	PE	*Pinus elliottii 'Densa'*	Slash Pine 'Densa'	30G	9' ht. x 3'spd., 3" caliper	As shown	✓	✓	15
2	QV	*Quercus virginiana*	Live Oak	65g	12" ht. x 6'spd., 3" caliper	As shown	✓	✓	6
2	SP	*Sabal palmetto*	Cabbage Palm	FG	12' clear trunk height	As shown	✓	✓	
								Total:	**24**

Important Note: The heights and spreads provided are minimum specifications. A larger container size may be required to meet minimum specifications.

SHRUBS & GROUNDCOVERS

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	MINIMUM SPECIFICATIONS	SPACING	NATIVE	WATER WISE
6	CHH	*Chrysobalanus icaco 'Horizontal'*	Horizontal Cocoplum	3g	10"th. X 18"spd.	24"oc	✓	✓
6	CHR	*Chrysobalanus icaco 'Red Tip'*	Red Tip Cocoplum	3g	18"ht. x 18"spd.	36" oc	✓	✓
1	CLU	*Clusia guttifera*	Small Leaf Clusia	7g	3ht. bush	As shown	✓	✓
4	MYF	*Myrcianthes fragrans*	Simpson's Stopper	3g	18"ht. x 18"spd.	36" oc	✓	✓
2	COS	*Conocarpus erectus 'Sericeus'*	Silver Buttonwood	3g	18"ht. x 18"spd.	36" oc	✓	✓
7	HAP	*Hamelia patens*	Firebush	3g	18"ht. x 18"spd.	36" oc	✓	✓
2	ILW	*Ilex vomitoria 'Will Fleming'*	Ilex 'Will Fleming'	15g	4'ht.	As shown	✓	✓
6	MUC	*Muhlenbergia capillaris*	Pink Muhly Grass	3g	18"ht. x 18"spd.	36" oc	✓	✓

Important Note: The heights and spreads provided are minimum specifications. A larger container size may be required to meet minimum specifications.

MISCELLANEOUS LANDSCAPE ITEMS

4700	SF	Sod: Bahia 'Argentine'; Landscape Contractor to field-verify amount needed; An additional 15% has been added for shrinkage, cuts and wastes.*
1950	SF	Sod: St. Augustine 'Floratam'; Landscape Contractor to field-verify amount needed; An additional 15% has been added for shrinkage, cuts and wastes.*
5	CY	Planting Mix- 33% Clean Sharp Sand, 33% Florida Peat, 33% Well-rotted Wood Chips/Compost
5	CY	Mulch - 'Coco Brown' Mulch from Florida Mulch

Bracing, Guying, Staking & Fertilizing is to be included in the unit price for installed plant material;

*We strive to be as accurate as possible with sod measurements, however, changing field conditions will affect the final sod amount required. Please be aware that our sod calculations are not exact and additional sod could be required. **Additional sod will be the owner's responsibility and added to the final contract amount**

0' 4' 8' 16' 24'

SCALE: 1/8" = 1'-0"

Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa

Cox Road
Cocoa, FL

SHEET TITLE
Typical 5-Unit Townhome Landscape Plan

DATE 06-02-25

DESIGN S.H.

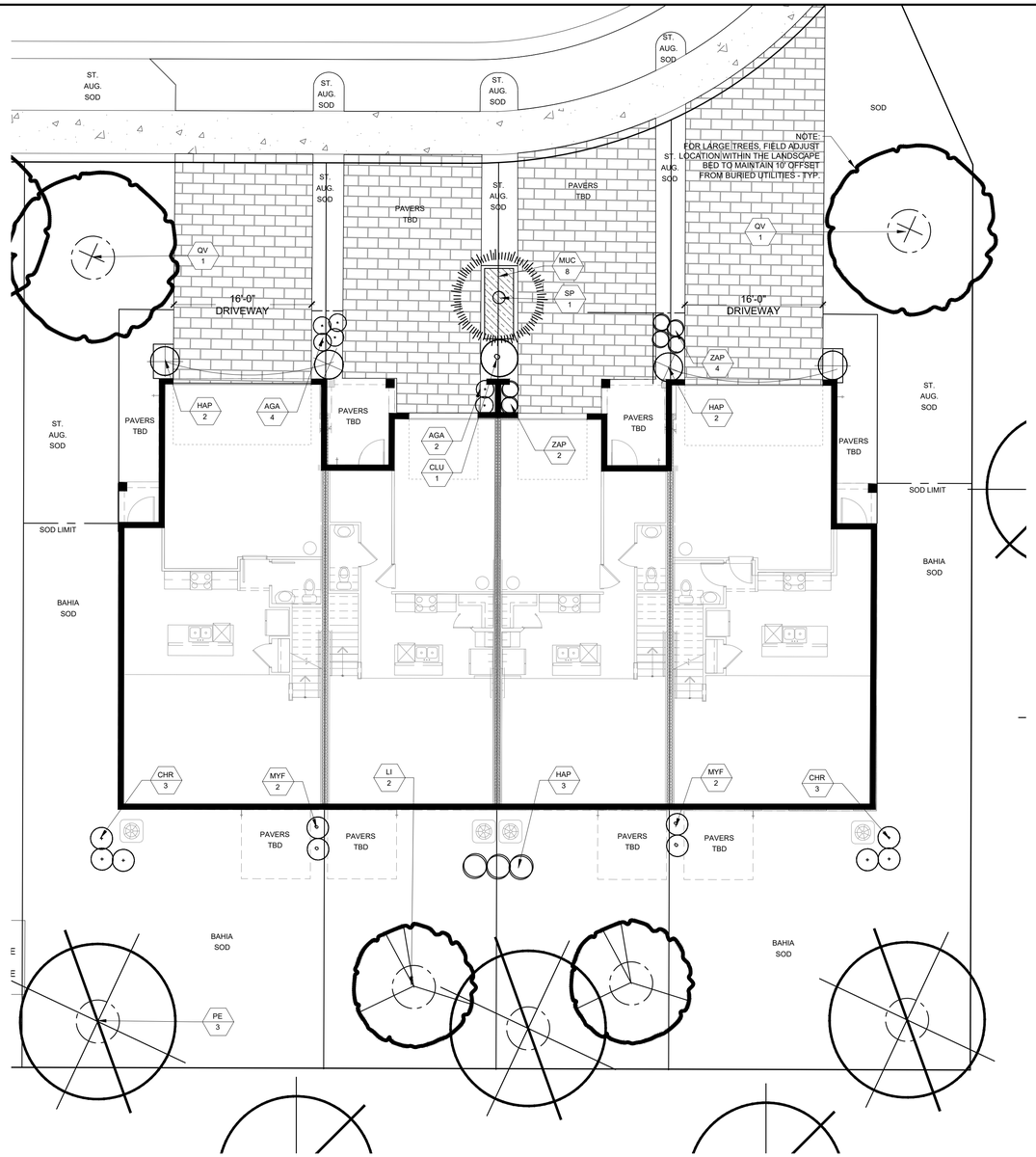
DRAWN M.M.

SCALE 1/8" = 1' - 0"

REVISIONS
1 09-15-25 RESPONSE TO COMMENT

SEAL
SUSAN HALL REGISTERED LANDSCAPE ARCHITECT FLORIDA
04-17-26

SHEET L-10 OF 15



4 Unit Townhome - Plantlist

PLANT MATERIAL

TREES & PALMS

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	MINIMUM SPECIFICATIONS	SPACING	NATIVE	WATER WISE	MITIGATION (INCHES)
2	LI	*Lagerstroemia indica*	Crape Myrtle	45g	8'ht., 3" caliper, Multi ; Muskogee, Natchez, or Tuskegee'; Refer to street tree plan for variety type*	As shown		✓	6
3	PE	*Pinus elliottii 'Densa'*	Slash Pine 'Densa'	30G	9' ht. x 3'spd., 3" caliper	As shown	✓	✓	9
2	QV	*Quercus virginiana*	Live Oak	65g	12" ht. x 5'spd., 3" caliper	As shown	✓	✓	6
1	SP	*Sabal palmetto*	Cabbage Palm	FG	12' clear trunk height	As shown	✓	✓	
								Total:	**21**

Important Note: The heights and spreads provided are minimum specifications. A larger container size may be required to meet minimum specifications.

SHRUBS & GROUNDCOVERS

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	MINIMUM SPECIFICATIONS	SPACING	NATIVE	WATER WISE
6	AGA	*Agapanthus africanus*	Lily of the Nile	1g	12"ht. x 12"spd.	18" oc		✓
6	CHR	*Chrysobalanus icaco 'Red Tip'*	Red Tip Cocoplum	3g	18"ht. x 18"spd.	36" oc	✓	✓
1	CLU	*Clusia guttifera*	Small Leaf Clusia	7g	3'ht. bush	As shown	✓	✓
4	MYF	*Myrcianthes fragrans*	Simpson's Stopper	3g	18"ht. x 18"spd.	36" oc	✓	✓
7	HAP	*Hamelia patens*	Firebush	3g	18"ht. x 18"spd.	36" oc	✓	✓
8	MUC	*Muhlenbergia capillaris*	Pink Muhly Grass	3g	18"ht. x 18"spd.	36" oc	✓	✓
6	ZAP	*Zamia pumila*	Florida Coontie	3g	12"ht. x 16"spd.	30" oc	✓	✓

Important Note: The heights and spreads provided are minimum specifications. A larger container size may be required to meet minimum specifications.

MISCELLANEOUS LANDSCAPE ITEMS

4400	SF	Sod: Bahia 'Argentine'; Landscape Contractor to field-verify amount needed; An additional 15% has been added for shrinkage, cuts and wastes.*
2050	SF	Sod: St. Augustine 'Floratam'; Landscape Contractor to field-verify amount needed; An additional 15% has been added for shrinkage, cuts and wastes.*
4	CY	Planting Mix- 33% Clean Sharp Sand, 33% Florida Peat, 33% Well-rotted Wood Chips/Compost
4	CY	Mulch - 'Coco Brown' Mulch from Florida Mulch

Bracing, Guying, Staking & Fertilizing is to be included in the unit price for installed plant material;

*We strive to be as accurate as possible with sod measurements, however, changing field conditions will affect the final sod amount required. Please be aware that our sod calculations are not exact and additional sod could be required. **Additional sod will be the owner's responsibility and added to the final contract amount**

0' 4' 8' 16' 24'

SCALE: 1/8" = 1'-0"

Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa

Cox Road
Cocoa, FL

SHEET TITLE
Typical 4-Unit Townhome Landscape Plan

DATE 06-02-25

DESIGN S.H.

DRAWN M.M.

SCALE 1/8" = 1' - 0"

REVISIONS
1 09-15-25 RESPONSE TO COMMENT

SEAL
SUSAN HALL LANDSCAPE ARCHITECT #6670 STATE OF FLORIDA
04-17-26

L-11 SHEET | 15 OF

Sanctuary at Cocoa - Total Plantlist

PLANT MATERIAL

TOTAL QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	MINIMUM SPECIFICATIONS	SPACING	SITE LANDSCAPE L-4	SITE LANDSCAPE L-5	SITE LANDSCAPE L-6	SITE LANDSCAPE L-7	SITE LANDSCAPE L-8	TOWNHOME 6-UNIT L-9 x (36)	TOWNHOME 5-UNIT L-10 x (5)	TOWNHOME 4-UNIT L-11 x (2)	NATIVE	WATER WISE	MITIGATION (INCHES)
TREES & PALMS																	
49	AR	*Acer rubrum 'Florida Flame'*	Red Maple 'Florida Flame'	100g	14' ht. x 6'spd., 4" caliper / 3"DBH	As shown	15	18	16			0	0	0	✓	✓	147
4	DR	*Delonix regia*	Royal Poinciana	100g	14' ht. x 7'spd., 4" caliper / 3"DBH	As shown	2		2			0	0	0		✓	12
174	LI	*Lagerstroemia indica*	Crape Myrtle	45g	8'ht., 4" caliper / 3"DBH, Multi.; Muskogee, Natchez, or Tuskegee'; Refer to street tree plan for variety type*	As shown	4	2	9	2	4	144	5	4		✓	522
223	PE	*Pinus elliottii 'Densa'*	Slash Pine 'Densa'	FG	12' ht. x 5'spd., 4" caliper / 3"DBH	As shown	17	12		6	13	144	25	6	✓	✓	669
117	QV	*Quercus virginiana*	Live Oak	100g	14' ht. x 7'spd., 4" caliper / 3"DBH	As shown	8	8	8	6	1	72	10	4	✓	✓	351
260	SP	*Sabal palmetto*	Cabbage Palm	FG	12' clear trunk height, 12" caliper	As shown	47	12	73	8		108	10	2	✓	✓	3120
11	WB-L	*Wodyetia bifurcata*	Foxtail Palm	FG	9' Greywood height, Florida Fancy, matched, 12" cal.; Stout trunk; Submit Photo for approval	As shown			11			0	0	0		✓	132
																	4953

Important Note: The caliper inches, heights, and spreads provided are minimum specifications. A larger container size may be required to meet minimum specifications.

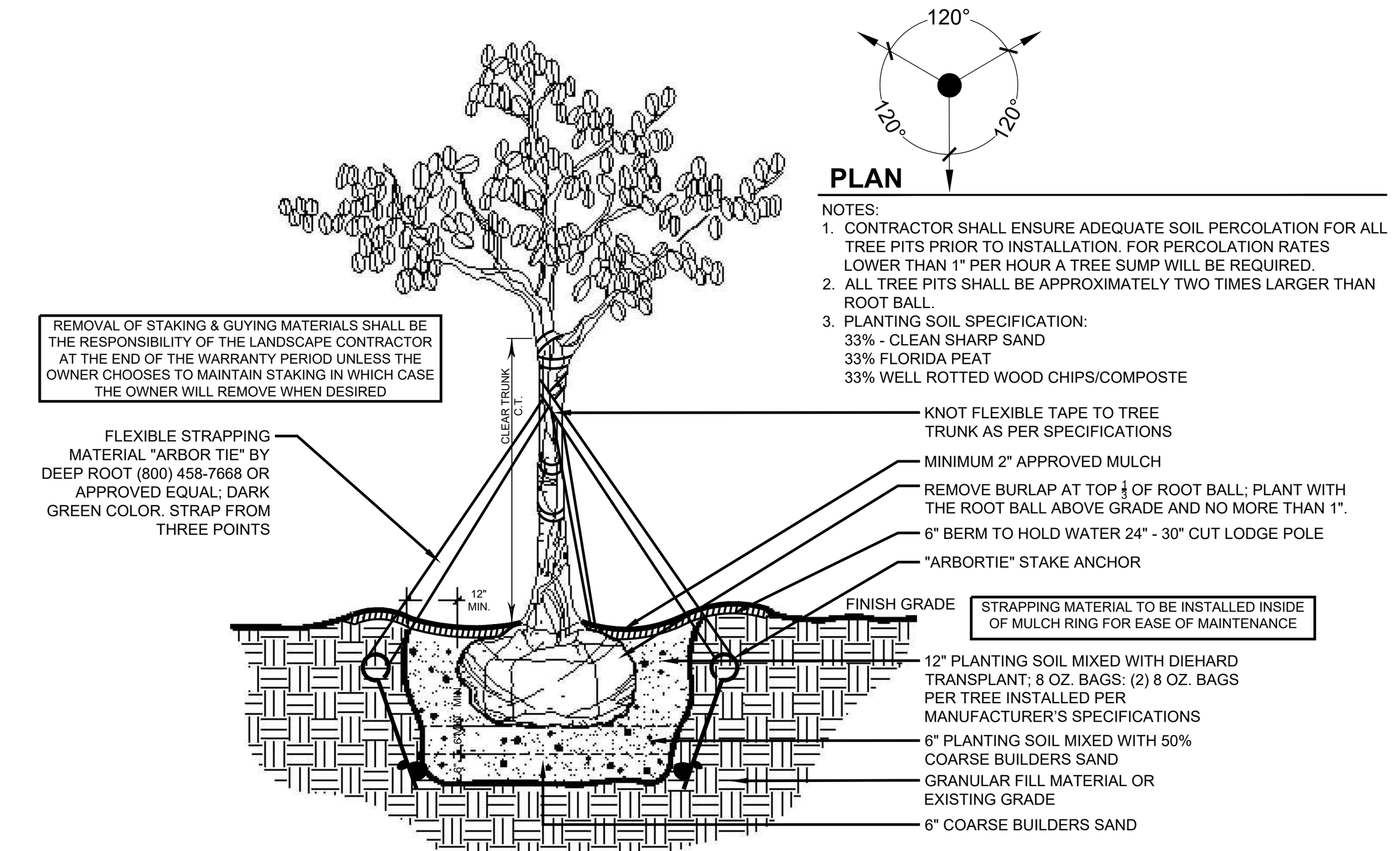
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	MINIMUM SPECIFICATIONS	SPACING	SITE LANDSCAPE L-4	SITE LANDSCAPE L-5	SITE LANDSCAPE L-6	SITE LANDSCAPE L-7	SITE LANDSCAPE L-8	TOWNHOME 6-UNIT L-9 x (36)	TOWNHOME 5-UNIT L-10 x (5)	TOWNHOME 4-UNIT L-11 x (2)	NATIVE	WATER WISE
SHRUBS & GROUNDCOVERS																
12	AGA	*Agapanthus africanus*	Lily of the Nile	1g	12"ht. x 12"spd.	18" oc						0	0	12		✓
504	BUL	*Bulbine frutescens 'Hallmark'*	Bulbine 'Hallmark'	1g	12" ht. x 8"spd.	12" oc						504	0	0		✓
60	CAT	*Catharanthus roseus*	Cora Vinca	1g	8"ht. x 8"spd.	12" oc			60			0	0	0		✓
30	CHH	*Chrysobalanus icaco 'Horizontal'*	Horizontal Cocoplum	3g	10"th. X 18"spd.	24"oc						0	30	0	✓	✓
310	CHR	*Chrysobalanus icaco 'Red Tip'*	Red Tip Cocoplum	3g	18"ht. x 18"spd.	36" oc			52			216	30	12	✓	✓
102	CLU	*Clusia guttifera*	Small Leaf Clusia	7G	3'ht. bush	As shown			95			0	5	2	✓	✓
28	MYF	*Myrcianthes fragrans*	Simpson's Stopper	3g	18"ht. x 18"spd.	36" oc						0	20	8	✓	✓
499	COS	*Conocarpus erectus 'Sericeus'*	Silver Buttonwood	3g	18"ht. x 18"spd.	36" oc	110	22	263	22		72	10	0	✓	✓
75	COD-M	*Codiaeum variegatum 'Magnificent'*	Croton 'Magnificent'	3g	18"ht. x 18"spd.	As shown			39			36	0	0		✓
0	COD-P	*Codiaeum variegatum 'Petra'*	Croton 'Petra'	3g	18"ht. x 18"spd.	As shown						0	0	0		✓
80	DIV	*Dietes vegata*	White African Iris	1g	14"ht. x 12"spd.	30" oc			80			0	0	0		✓
1008	EVO	*Evolvulus glomeratus 'Blue My Mind'*	Blue Daze 'Blue My Mind'	1g	4"ht. x 8"spd.	12" oc						1008	0	0		✓
373	HAP	*Hamelia patens*	Firebush	3g	18"ht. x 18"spd.	36" oc						324	35	14		✓
29	HIB-D	*Hibiscus chinensis*	Hibiscus 'Double Peach'	3g	18"ht. x 18"spd.	36" oc			29			0	0	0		✓
26	HIB-P	*Hibiscus chinensis*	Hibiscus 'Seminole Pink'	3g	18"ht. x 18"spd.	36" oc			26			0	0	0		✓
22	HIB-Y	*Hibiscus chinensis*	Hibiscus 'Yellow'	3g	18"ht. x 18"spd.	36" oc			22			0	0	0		✓
265	IVS	*Ilex vomitoria 'Stokes Dwarf'*	Ilex 'Stokes Dwarf'	3g	12"ht. x 12"spd.	24" oc			265			0	0	0	✓	✓
10	ILW	*Ilex vomitoria 'Will Fleming'*	Ilex 'Will Fleming'	15g	4'ht.	As shown						0	10	0	✓	✓
1272	LIR	*Liriope muscari 'Super Blue'*	Liriope 'Super Blue'	1g	12"ht. x 8"spd.	12" oc			120			1152	0	0		✓
231	MUC	*Muhlenbergia capillaris*	Pink Muhly Grass	3g	18"ht. x 18"spd.	36" oc			185			0	30	16	✓	✓
36	SOT	*Sophora tomentosa*	Necklace Pod	3g	18"ht. x 18"spd.	As shown						36	0	0		✓
144	POD	*Podocarpus macrophyllus 'Maki'*	Podocarpus 'Maki'	3g	20"ht x 12" spd.	24" oc						144	0	0		✓
421	RHI	*Rhaphiolepis indicia*	Indian Hawthorn	3g	12"ht. x 12"spd.	24" oc			421			0	0	0	✓	✓
76	SCT	*Schefflera arboricola 'Trinette'*	Variegated Arboricola 'Trinette'	3g	18"ht. x 18"spd.	36" oc			76			0	0	0		✓
156	ZAP	*Zamia pumila*	Florida Coontie	3g	12"ht. x 16"spd.	30" oc						144	0	12	✓	✓

Important Note: The heights and spreads provided are minimum specifications. A larger container size may be required to meet minimum specifications.

MISCELLANEOUS LANDSCAPE ITEMS		
59000	SF	St. Aug Sod (Use at Amenity areas & front yards as denoted): St. Augustine 'Floratam', Landscape Contractor to field-verify amount needed; An additional 15% has been added for shrinkage, cuts and wastes.*
565,000	SF	Sod: Bahia (Use to sod pond banks and behind lots as denoted), Landscape Contractor to field-verify amount needed; An additional 15% has been added for shrinkage, cuts and wastes.*
400	CY	Planting Mix- 33% Clean Sharp Sand, 33% Florida Peat, 33% Well-rotted Wood Chips/Compost
350	CY	Mulch - 'Coco Brown' Mulch from Florida Mulch

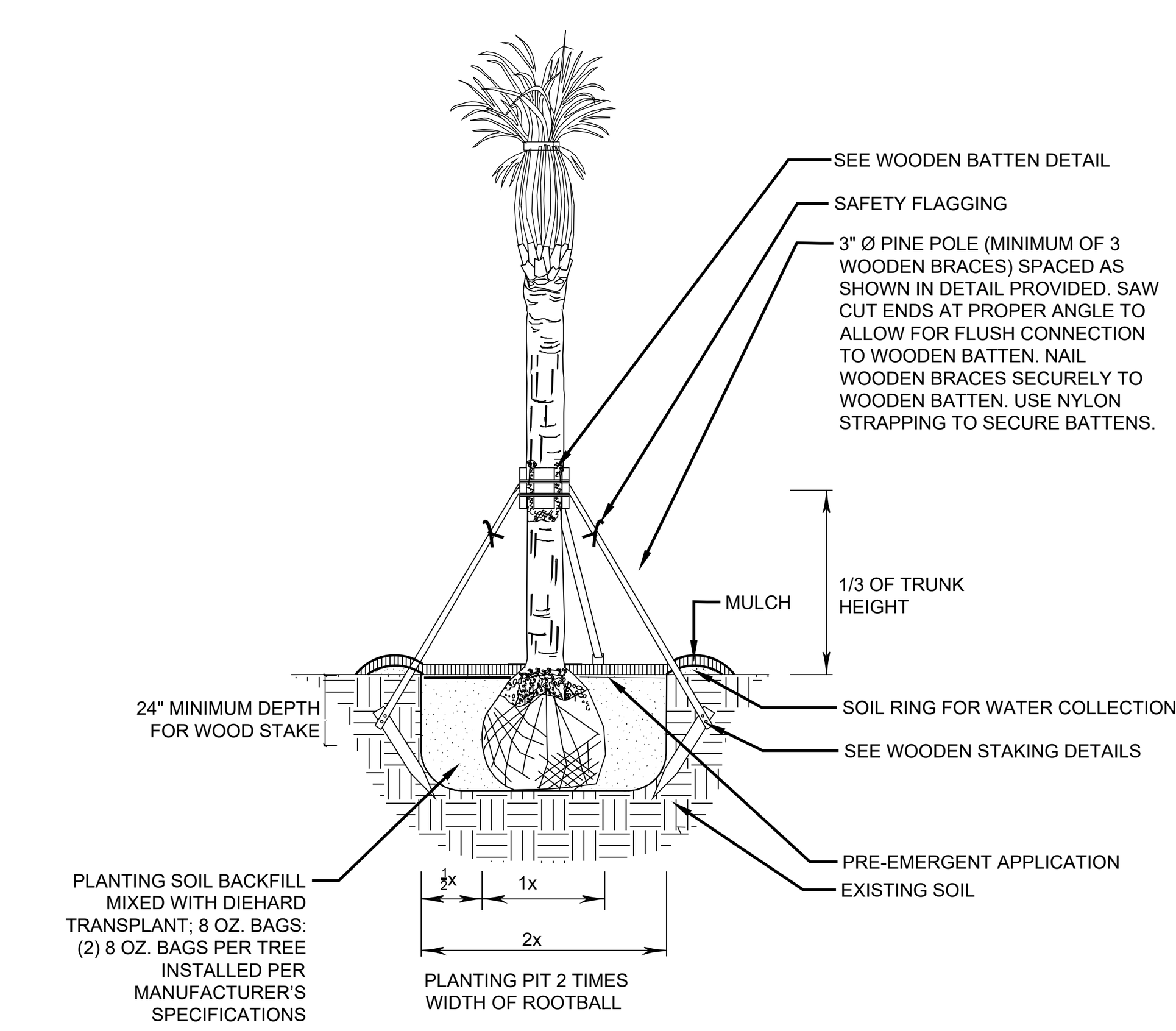
Bracing, Guying, Staking & Fertilizing is to be included in the unit price for installed plant material;

*We strive to be as accurate as possible with sod measurements, however, changing field conditions will affect the final sod amount required. Please be aware that our sod calculations are not exact and additional sod could be required. **Additional sod will be the owner's responsibility and added to the final contract amount**.



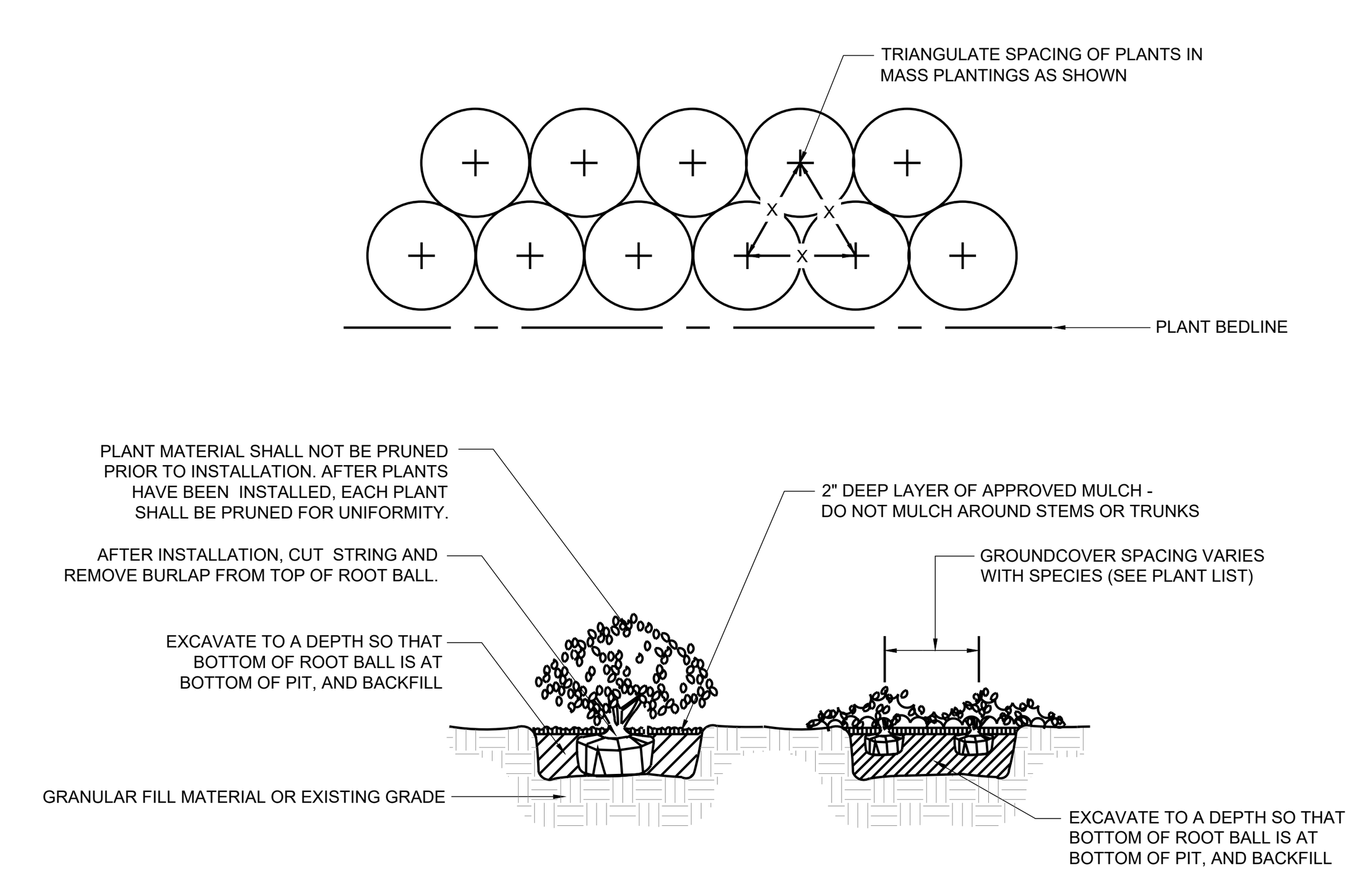
TREE PLANTING & GUYING DETAIL

N.T.S.



PALM PLANTING DETAIL

N.T.S.



SHRUB & GROUNDCOVER PLANTING DETAIL

N.T.S.

Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa
Cox Road
Cocoa, FL

SHEET TITLE
Site Landscape Plant List & Details

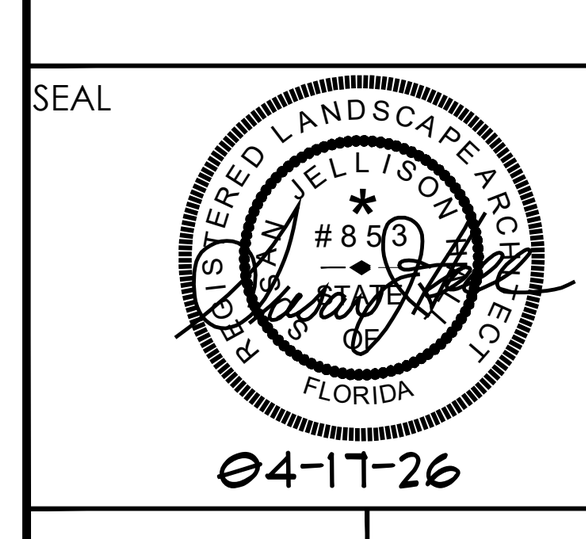
DATE 06-02-25

DESIGN S.H.

DRAWN M.M.

SCALE NTS

REVISIONS
1. 09-15-25 RESPONSE TO COMMENT
2. 01-07-26 RESPONSE TO COMMENT

SEAL


SHEET L-12 OF 15

LANDSCAPE SPECIFICATIONS:

1.00 GENERAL

1.01 The Contractor is reminded that the General Conditions and / or Special Conditions of this contract govern the work of this section of the Specifications whether attached hereto or not. Subcontractors undertaking to perform work under this Section shall be made fully aware of these documents and of their responsibilities and obligations thereunder. In the event of any discrepancies between the drawings and specifications and the following 'Scope of Work', the latter shall prevail.

2.00 SCOPE OF WORK

2.01 The work of this Section shall include all labor, materials, equipment, appliances, and accessories necessary for the complete performance of all excavation, grading, planting and backfill work in accordance with these Specifications and the Contract Drawing. Without restricting the generality of the foregoing, the items listed below and similar items shown on the Contract Drawings shall constitute the work of this Section:

A. Finish grading and final site preparation of all areas to be landscaped.
B. Furnishing and incorporating fertilizer and other soil amendments.
C. Furnishing plant materials and grass materials and installing same.
D. Furnishing and placing 'Planting Mixture' and other miscellaneous items to complete the work.
E. Replacement of unsatisfactory plant material.
F. Clean-up.

3.00 SITE PREPARATION

3.01 The Contractor shall provide finish grading and final preparation of all areas to be landscaped to within 2" of finish grade. This will require raking and pulverizing of all areas in order to crumble dirt, clogs and / or debris. The Landscape Contractor shall be responsible for finish grading, which is the top 2" of the site.

4.00 MATERIALS

4.01 Plant materials shall be furnished by the Landscape Contractor and as indicated on the plans. All plant materials shall meet or exceed the following standards.

A. Plant species and sizes shall conform with plant list. Nomenclature shall conform to Standardized plant names, in accordance with the latest edition of the Florida Department of Agriculture's Grades and Standards for Nursery Plants.
B. All plants shall be nursery grown or as stipulated herein and shall comply with all required inspections, grading standards and plant regulations as set forth in the Florida Department of Agriculture 'Grades and Standards for Nursery Plants' , including revisions. Ensure that plant materials are shipped with tags stating the botanical and common name of the plant.
C. The minimum grade for all trees, palms, shrubs, and groundcovers shall be Florida No. 1 and shall meet or exceed the size and quality standards of the American Association of Nursery Stock, sponsored by the American Association of Nurserymen, latest addition, unless otherwise indicated and all plants shall be sound, healthy and vigorous, well-branched and densely foliated when in leaf. They shall have healthy, well developed root systems and shall be free of disease and insect pests, eggs or larvae. Florida Fancy material shall be provided where plant list specifies 'specimen'.
D. The determining measurements for trees shall be the height and spread, and shall be measured from the top of the plant to the root crown, not to include the immediate terminal growth. Their width shall be measured across the normal spread of the branches. Both measurements shall be made with the plants in their normal position.
E. Plants larger in size than those specified may be used with approval of the Landscape Architect at no additional cost to the Owner. If the use of the larger plants is approved, the ball of earth or spread of roots shall be increased proportionately.
F. Container grown plants the same quality as balled and burlapped plants may be substituted in lieu thereof. Plants grown in containers shall be delivered and remain in the containers in a shady location until planted. Plants in containers shall be watered prior to transportation and shall be kept moist until planted. The container must be removed prior to planting, with care as not to injure the roots.
G. Grass materials shall consist of the following:

1. Sod: Solid sod shall be as indicated on the drawings. Sod must be strongly rooted and free of pernicious weeds. Mow to a height not to exceed 1 1/2" before lifting. Lifts shall have a uniform thickness of 1 inch to 1 1/2 inches. Sod containing nutgrass, lippia water sedge, dollar weed, or other common turfweed species (if applicable), will not be accepted.
2. Sodding installation:
   a) Sodding shall be done as soon as practical following finish grading. The day before sod installation, the contractor shall rake 50# Milorganite per 1000 sf of area to receive sod. Ground shall be leveled with the back of a rake and sod laid with joints closely butted so that no voids are visible, keeping surface of sod flush with the adjoining seeded areas and or pavements. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod strips; do not overlap. Hand tamp to ensure contact with subgrade, and water thoroughly with a fine spray immediately after laying.
   b) After sod is in place, it shall be top dressed with sufficient sharp, clean 60% sand/40% muck soil mix to fill all voids remaining and thoroughly watered to wash the top dressing into the sodded surface.
   c) All sod areas shall then be rolled using a vibrating #1500 sod roller if deemed necessary by the Landscape Architect, following installation.
   d) It is the Landscape Contractor's responsibility to keep new sod properly watered until completion of the contract. All watering shall meet specifications according to 'Grades and Standards' Section 983.

H. Substitutions in plant species or size will be made only with prior written permission of the Landscape Architect.
I. If, in the opinion of the Landscape Architect, materials and/or work do not conform with the plans and specifications, it may be rejected and upon rejection, must be removed immediately from the site by the Contractor and replaced.
J. The Contractor shall be responsible for the certification and inspection of plant material that may be required by local, state, or federal authorities and shall bear the cost of the same, if any.

4.02 Materials used to install the job shall meet or exceed the following standards:

A. Planting mix to be used for planting shall be: 1/3 coarse sand, 1/3 Florida peat,1/3 well rotted pine chips or compost. 70% sand / 30% muck shall be used in planters or areas with poor drainage.
B. Fertilizers: Fertilizer shall be delivered mixed as specified in standard bags, sealed, and showing weight by analysis and name of manufacturer. Fertilizer shall be stored in weatherproof storage and in such a manner that its effectiveness will not be impaired.
C. Mulch: Mulch shall be 'Coco Brown' mulch from Florida Mulch or approved equal.
D. Water: All water required for the execution of the work shall be supplied at the site by the Owner.

5.00 INSTALLATION

5.01 The Planting operations used to install the job shall meet or exceed the following standards:

A. Excavation of Plant Pits: Plant pit excavations shall be roughly cylindrical in shape, with their side approximately vertical. Pit shall be excavated so that bottom of pit is same depth as root ball. Plants shall be centered in the hole, with the trunk location as shown in the plans. Holes for balled and burlapped plants shall be large enough to allow 12" minimum (depending on root ball size) of back fill around the sides of the root ball, and 12" of back fill beneath the root ball. In all cases the diameter of the plant hole shall be twice the diameter of the root ball. Where excess material has been excavated from the plant hole, the excavated material may be used to backfill to the proper level. Mix existing excavated material in 50% / 50% ratio with new planting soil mix. The Contractor, in excavation for plantings shall take care not to damage underground utilities or other sub-surface obstructions, and shall be held liable for their repair, if damaged.
B. Setting Plants: All trees shall be set so, that when settled, the top of the root ball will be flush with the surrounding area of the finish grade or slightly above finish grade. Each plant shall be planted in planting soil mix in the center of the pit. Shrubs shall be set flush with the surrounding finish grade of the planting area. The back fill shall be made with prepared planting in mixture as specified herein and shall be firmly rodded and watered, so that no air-pockets remain. The quantity of water applied immediately upon planting shall be sufficient to thoroughly moisten all of the backfilled earth. Plants shall be kept in a moistened condition the duration of the planting.
C. Staking and Guying: All trees shall be staked or guyed as shown in the details and according to the following specifications.

1. Use wide plastic, rubber or other flexible strapping materials to support the tree to stakes or ground anchors that will give as the tree moves in any direction up to 30 degrees. Use strapping material 'Arbor Tie' by Deep Root (800) 458-7668 dark green color, or approved equal. Do not use rope or wire through a hose. Use guy chords, hose or any other thin bracing or anchorage material which has a minimum 12" [300 mm] length of high visibility flagging tape secured to guys, midway between the tree and stakes for safety.
2. Stake trees larger than 1" [25 mm] diameter and smaller than 2" [50 mm] diameter with a 2" by 2" [50 by 50 mm] stake, set at least 2' [0/6 m] in ground and extending to the crown of the plant. Firmly fasten the plant to the stake with flexible strapping materials as noted above.
3. TREES OF 2 TO 3 ½" [50 MM TO 90 MM] CALIPER: Stake all trees, other than palm trees, larger than 2" [50 mm] caliper and smaller than 3 ½" [90 mm] caliper with two 2" by 4" [50 by 100 mm] stakes, 8' [2.4 m] long, set 2' [0.6 m] in the ground. Place the tree midway between the stakes and hold it firmly in place by flexible strapping materials as noted above.
4. LARGE TREES: Guy all trees, other than palm trees, larger than 3 ½" [90 mm] caliper, from at least three points, with flexible strapping materials as noted above. Anchor flexible strapping to 2" by 4" by 24" [50 by 100 by 600 mm] stakes, driven into the ground such that the top of the stake is at least 3" [75 mm] below the finished ground.
5. SPECIAL REQUIREMENTS FOR PALM TREES: Brace palms which are to be staked with three 2" by 4" [50 by 100 mm] wood braces, toe-nailed to cleats which are securely banded at two points to the palm, at a point one third the height of the trunk. Pad the trunk with five layers of bubble wrap under the cleats. Place braces approximately 120 degrees apart and secure them underground by 2" by 4" by 12" [50 by 100 by 300 mm] stake pads. Paint wood flat dark green exterior paint, two coats.
6. TREE PROTECTION AND ROOT BARRIERS: Install tree barriers when called for in the Contract Documents or by the Landscape Architect to protect existing trees from damage during project construction. Place barricades at the drip line of the tree foliage or as far from the base of the tree trunk as possible. Barricades shall be able to withstand bumps by heavy equipment and trucks. Maintain barricades in good condition. When called for in the Contract Documents, install root barriers or fabrics in accordance with the details shown.

D. Pruning: All broken or damaged roots or branches shall be cut smoothly and the tops of all trees shall be pruned in a manner complying with standard horticultural practice. At the time pruning is completed, all remaining wood shall be alive.
E. Mulching: Within one week after planting, mulch material shall be uniformly applied to a minimum loose thickness of 2 inches, over the entire area of the backfilled hole or bed. The mulch shall be maintained continuously in place until the time of final inspection, and must be a minimum of 2 inches thick to be accepted. Mulch shall not be placed against stems or trunks.
F. Fertilizing: Feeding of all trees and specimen shrubs shall be done with a slow release granular 12-6-8 with complete minors turf and ornamental fertilizer, as per manufacturer's instructions. Contractor shall submit and label to the Landscape Architect for approval prior to application.

6.00 MAINTENANCE

6.01 Maintenance and hand watering of all trees, shrubs and groundcover by the Landscape Contractor shall terminate upon final acceptance of such work, but shall not discharge the Landscape Contractor from his responsibility to honor the guarantee period. Maintenance prior to final acceptance shall include the removal of all dead or dying twigs and branches, the weeding, watering and normal pruning of plant material.

7.00 GUARANTEE

7.01 The Landscape Contractor shall guarantee and maintain all trees and palms for a period of one year. All shrubs, and groundcovers for a period of 180 days, and all sod for a period of 90 days. The Landscape Contractor shall replace at the direction of the Landscape Architect all trees, shrubs, or groundcovers deemed by the Landscape Architect to be unacceptable due to death or damage; Acts of God, Owner negligence, and Vandalism excepted.

1. Acts of God are natural hazards and events outside of human control that include but are not limited to: earthquakes, flash floods, fire caused by lightning, sustained winds in excess of 75mph, and freezing temperatures below 32 degrees for more than 4 hours.

7.02 The guarantee period shall begin upon final acceptance of the job and completion of final punch lists, as determined by the landscape architect.

7.03 New material used to replace material unacceptable to the Landscape Architect, shall be guaranteed for a similar period from date of installation.

7.04 New material used to replace material unacceptable to the Landscape Architect, shall be replaced with the grown-in size. Grown in size will be determined by the adjacent like plants in Florida #1 grade condition. This may require installing a larger container size than originally planted.

8.00 FINAL INSPECTION AND ACCEPTANCE

8.01 The Landscape Contractor shall advise the Landscape Architect in writing at the end of the guarantee period that the project is ready for final inspection. Only upon notification to the Landscape Architect by the Landscape Contractor in writing and subsequent inspection attended by the Landscape Contractor shall the requirements of the guarantee be met.

9.00 CLEAN-UP

9.01 Upon completion of all work under this section, the Landscape Contractor shall clear the site of all debris, superfluous material and all equipment to the satisfaction of the Landscape Architect

9.02 End

TREE DIAMETER NOTE:

1. TREES TO BE MEASURED 4.5 FEET ABOVE FINISHED GRADE PER CODE: APPENDIX A - ARTICLE XIII - SUPPLEMENTARY DISTRICT REGULATIONSSEC. 22. - LANDSCAPE REQUIREMENTS.
TREE: A WOODY OR FIBROUS PERENNIAL PLANT WITH AN UPRIGHT TRUNK WHICH NORMALLY GROWS, OR IS CAPABLE OF GROWING, TO AN OVERALL HEIGHT OF A MINIMUM HEIGHT OF FIFTEEN (15) FEET IN THE CENTRAL COASTAL AREA OF FLORIDA, AND HAVING A TRUNK DIAMETER OF SIX (6) INCHES OR GREATER AS MEASURED DIAMETER AT BREAST HEIGHT (D.B.H.) OR FOUR AND ONE-HALF (4½) FEET ABOVE ACTUAL GRADE. FOR PURPOSES OF SUBSECTION (E), PALM TREES SHALL BE CONSIDERED A TREE ONLY TO THE EXTENT THAT IT HAS A TRUNK DIAMETER OF TWELVE (12) INCHES OR GREATER AS MEASURED AT BREAST HEIGHT (D.B.H.) AND IS A PALM TREE SPECIES WHICH NORMALLY GROWS, OR IS CAPABLE OF GROWING, TO AN OVERALL HEIGHT OF A MINIMUM OF FIFTEEN (15) FEET OR GREATER IN THE CENTRAL COASTAL AREA OF FLORIDA.

IRRIGATION NOTE:

1. AN AUTOMATIC IRRIGATION SYSTEM WITH AUTOMATIC TIMER AND RAIN SENSOR WILL BE INSTALLED.

Susan Hall, ASLA
LANDSCAPE ARCHITECTURE
LC26000357
244 MCLEOD STREET
MERRITT ISLAND, FL 32953
OFFICE: (321) 449-0790
CELL: (305) 796-2574
www.hall-la.com

Sanctuary at Cocoa
Cox Road
Cocoa, FL

SHEET TITLE
Landscape Specifications

DATE 06-02-25
DESIGN S.H.
DRAWN M.M.
SCALE NTS

REVISIONS
1 09-15-25 RESPONSE TO COMMENT
2 01-07-26 RESPONSE TO COMMENT

SEAL
SUSAN HALL LANDSCAPE ARCHITECT #6666 STATE OF FLORIDA
04-17-26

SHEET L-13 OF 15

First American Title Insurance Company
PO Box 776123
Chicago, IL 60677-6123
Phone: (727)549-3200
Fax: (866)265-4386

PROPERTY INFORMATION REPORT FOR THE FILING
OF A SUBDIVISION PLAT IN
BREVARD County, Florida

FATIC File No.: 111156945

A search of the Public Records of BREVARD County, Florida, through March 16, 2026 at 8:00 a.m. reveals the following with respect to the legal description of the property set out on the subdivision plat of SANCTUARY AT COCOA (not yet recorded), said legal description attached hereto as Exhibit "A", and made a part hereof:

A. The last deed of record was dated February 18, 2022 and recorded February 24, 2022 in Official Records Book 9424, Page 2754, Public Records of BREVARD County, Florida.

B. The record title holder is Legacy Villas at Cocoa, LLC, a Florida limited liability company .

C. The name(s) of the record title holder IS NOT SHOWN as owner(s) on the unrecorded plat of SANCTUARY AT COCOA .

D. Unsatisfied mortgages or liens encumbering said property are as follows:

1. Mortgage from Legacy Villas at Cocoa, LLC, a Florida limited liability company in favor of City National Bank of Florida, recorded in Official Records Book 9424, Page 2758, as modified by Mortgage Modification Agreement recorded April 1, 2025 in Official Records Book 10298, Page 2146.

2. Assignment of Rents and Leases from Legacy Villas at Cocoa, LLC, a Florida limited liability company to City National Bank of Florida recorded in Official Records Book 9424, Page 2795.

3. Financing Statement from Legacy Villas at Cocoa, LLC to City National Bank of Florida recorded in Official Records Book 9424, Page 2804, as amended by UCC-3 Financing Statement Amendment recorded April 1, 2025 in Official Records Book 10298, Page 2152.

E. Underlying rights of way, easements or plats affecting said property are as follows:

NONE

F. Other information regarding said property includes:

NONE

G. 2025 Ad valorem taxes on said property are paid for Tax Parcel I. D. Number 2407259, 2407260, and 2407261.

PROPERTY INFORMATION REPORT FOR THE FILING OF A SUBDIVISION PLAT IN BREVARD County, Florida

This property information report is made for the purpose of furnishing the information required for the filing of the above referenced subdivision plat in accordance with the provisions of Chapter 177.041 of the Florida Statutes and the requirements of the Land Development Code. This search of a minimum of 30 years has been prepared expressly for the appropriate governing body as defined by Chapter 177.071 FS and it is not to be relied upon by any other group or person for any other purpose. This report is not an opinion of title, title insurance policy, warranty of title, or any other assurance as to the status of title and shall not be used for the purpose of issuing title insurance. Pursuant to s. 627.7843, Florida Statutes, the maximum liability of the issuer of this property information report for errors or omissions in this property information report is limited to the amount paid for this property information report, and is further limited to the person(s) expressly identified in the property information report as the recipients of the property information report.

First American Title Insurance Company



By:_____

Authorized Signatory

Exhibit "A"

THOSE CERTAIN PARCELS OF LAND DESCRIBED IN OFFICIAL RECORDS BOOK 9424, PAGE 2754, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA LYING IN SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA AND RUN N89°15'10"E, ALONG THE SOUTH LINE OF SAID SECTION 24, A DISTANCE OF 33.00 FEET TO THE EAST RIGHT-OF-WAY LINE OF COX ROAD, (A VARIABLE WIDTH PUBLIC RIGHT-OF-WAY), AND THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED; THENCE CONTINUE N89°15'10"E, ALONG THE SOUTH LINE OF SAID SECTION 24, A DISTANCE OF 2610.55 FEET TO THE SOUTHEAST CORNER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24; THENCE N00°19'58"E, ALONG THE EAST LINE OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24, A DISTANCE OF 1332.14 FEET TO THE NORTHEAST CORNER OF THE SOUTH ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24; THENCE S89°08'00"W, ALONG THE NORTH LINE OF SAID SOUTH ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24, A DISTANCE OF 1323.49 FEET TO THE SOUTHEAST CORNER OF THE SOUTH ONE-QUARTER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24; THENCE N00°15'41"E A DISTANCE OF 332.34 FEET TO THE NORTHEAST CORNER OF SAID SOUTH ONE-QUARTER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24; THENCE S89°06'13"W, ALONG THE NORTH LINE OF SAID SOUTH ONE-QUARTER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 24, A DISTANCE OF 1290.91 FEET TO THE EAST RIGHT-OF-WAY LINE OF SAID COX ROAD; THENCE S00°11'23"W, ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 1658.29 FEET TO THE POINT OF BEGINNING.

SANCTUARY AT COCOA TOWNHOMES

LOT CLOSURES

Submitted To:
City of Cocoa

Prepared For:
The Viera Company

Prepared By:
B.S.E. Consultants, Inc. an LJA Company

312 South Harbor City Boulevard, Suite #4
Melbourne, Florida 32901
(321) 725-3674 phone
(321) 723-1159 fax

April 22, 2026
B.S.E. File # 11748

North: 1468963.97' East: 724395.67'

Segment #1 : Line

Course: N00°11'23"E Length: 1658.29'
North: 1470622.25' East: 724401.16'

Segment #2 : Line

Course: N89°06'13"E Length: 1290.91'
North: 1470642.45' East: 725691.91'

Segment #3 : Line

Course: S00°15'41"W Length: 332.34'
North: 1470310.11' East: 725690.40'

Segment #4 : Line

Course: N89°08'00"E Length: 1323.49'
North: 1470330.13' East: 727013.74'

Segment #5 : Line

Course: S00°19'58"W Length: 1332.14'
North: 1468998.01' East: 727006.00'

Segment #6 : Line

Course: S89°15'10"W Length: 2610.55'
North: 1468963.97' East: 724395.67'

Perimeter: 8547.71' Area: 89.54acres
Error Closure: 0.00 Course: S05°56'01"E
Error North: -0.004 East: 0.000

Precision 1: 8547720000.00

Impact and Mitigation Analysis Sanctuary at Cocoa

I. Project Description

The Sanctuary at Cocoa project is for the construction of a multifamily townhome community and associated infrastructure. As part of the construction of this project, primary impacts of 1.4 acres and secondary impacts of 0.57 acres are proposed to jurisdictional wetlands. To offset losses, mitigation is to be done on site and includes 1.25 acres of wetland enhancement and 44.08 acres of wetland preservation. UMAM impact sheets were completed and have been approved by the St. Johns River Water Management District (SJRWMD). Scoring sheets are enclosed.

II. Site Description and Impact Summary

The Sanctuary at Cocoa Project is ±89.54-acres, located on the East side of Cox Road, S of SR-524, and N of Lake Drive, City of Cocoa, Brevard County, Florida. It consists of three (3) parcels identified by the Brevard County Property Appraisers as Parcel Identification Numbers (PINs) 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510 within Section 24, Township 35 S, Range 24 E. The proposed Sanctuary at Cocoa project is for the construction of a multifamily townhome community and associated infrastructure.

The subject property generally resides in an urban area with the exception of Cocoa Conservation Area to the north. Land uses within a 1 mile radius consist of residential, commercial and industrial properties. Lands uses immediately adjacent to the subject property include Cocoa Conservation Area-Mud Lake, Watson Site Development, Inc., Cocoa Seventh-day Adventist Church to the north followed by SR-524, residential and commercial businesses.

To the east is Hooper Road, single family homes, a portion of a wetland associated with Mud Lake, Unitarian Universal Congregation Center, and Range Road. The west side of the subject property is bordered by Cox Road followed by an industrial area. The southern property boundary is adjacent to single family homes and further south is a reservoir and Fenner Road.

Habitats on the subject property include native uplands, one (1) non isolated wetland slough hydrologically connected to Mud Lake and other surface waters (OSW) of which include two (2) ditches and a pond.

Onsite uplands consist of live oak & cabbage palm hammock, pine flatwoods and an area of oak/pine successional forest. Upland habitats are of moderate to high quality with degradation factors being fringe impacts from adjacent development, historical use of the subject property in row crops and suppression of the natural fire regime. All three (3) habitat types appear to be somewhat successional or secondary growth systems allowed to recruit naturally once the use of row crops on the subject property ceased. Variations in habitat types are likely based on soil and topographic differences with some areas yielding more "high pine" and xeric species. Transitioning toward the wetland slough are more temperate or mesic oak and palm hammock communities. Upland FLUCCS/CLC Classifications = 423 FLUCCS/ 141 CLC: Oak/Pine Successional Hardwood Forest (±15.89 ac), 427 FLUCCS/ 183111 CLC: Live Oak Hammock/Cabbage Palm (±18.6 ac), and 411 FLUCCS/13 CLC: Pine Flatwoods (±4.83 ac).

The subject property is predominately wetlands, consisting of 52% of the site's total acreage. The main body of the wetland is a moderate to high quality slough system that consists of both forested and non-forested (herbaceous/shrub) components. It is crossed by a natural creek that originates from Mud Lake to the NNE transversing through the subject property in several directions. The forested area contains various hardwoods such as maples, bays and cypress with a midstory of obligate and facultative wetland shrubs and understory of ferns. The interior non-forested wetland habitat transitions to more shrubby species such as elderberry.

The portion of the wetland in which impacts are proposed differs with regards to location, community structure and hydrology from the main body of the wetland, having a lowered ecological value. The impact areas, as demonstrated in the engineering plans, are along the southern wetland fringe, where the shape of the wetland is best described as two (2) fingerlike extensions that branch off the main slough and terminate at the southern property boundary. This configuration has resulted in the isolation of ~20% of the onsite uplands. Therefore, the proposed 1.4 acres of wetland impacts are to these fingerlike extensions for the purpose of accessing these isolated areas of upland.

A formal state wetland determination (FWD) was completed as well as a Federal preliminary jurisdictional determination (PJD). Wetland FLUCCS/CLC Classifications = FLUCCS 617/CLC 22: Mixed Freshwater Forested Wetland and FLUCCS 641/CLC 213: Freshwater Marsh.

Other surface waters include two (2) ditches and a pond. The ditches are located within the northern and southern property quadrants. A reservoir/pond is present within the SE corner and appears to be hydrologically linked to the wetland slough. Other Surface Water Classifications = 524 FLUCCS/32 CLC: Artificial Pond (±2.0ac) and 510 FLUCCS/CLC 422: Ditches (±1.49 ac). Fill impacts are proposed to both ditches, resulting in the placement of 1.49 acres of fill into OSW's. No impacts are proposed to the pond. See Appendix A, Figure 3 of the enclosed EA for Existing Habitat/CLC Map.

As part of site review and project planning listed species surveys were conducted and the site was assessed for all species with a consultation area covering the subject property (wood stork, Everglade's snail kite, caracara, bald eagle, indigo snake, scrub-jay). Listed species surveys indicated no species of listed flora or fauna dens, nests, burrows or roosting areas. Furthermore, no site characteristics/habitat areas were present on or adjacent that would warrant additional survey or Federal consultation. Please see the enclosed EA for listed species survey methodology.

III. Environmental Considerations and Impact Statement

Per the City of Cocoa Comprehensive Plan Policy 12.1.6.15.D (2): *Wetlands and wetland functions shall be protected and conserved by restricting direct and indirect development impacts. New development and redevelopment having impact on the net wetland functions shall be permitted only if the activity conforms to City's mitigation requirements listed in this policy and meets at least one of the following criteria:*

Criteria Number 2 - Access to uplands - property may cross wetland areas, provided that: (a) No other access to such property is practical; (b) Such limited access will not adversely affect any of the primary functions of the wetlands to be preserved on-site, (c) The location of and construction methods employed for such access would result in minimal environmental impact of the wetlands to be preserved on-site.

The subject property contains a large non isolated wetland, encompassing approximately 52% of the total site acreage. Current site zoning allows for development of 10 units per acre, equaling 461 units. Due to the property's ecological features, the applicant has reduced this footprint by approximately 54% to 249 units, proposing impacts to 1.4 acres of wetlands within areas of the lowest ecological value. Based on the configuration of the onsite wetland there are two (2) areas of uplands that cannot be accessed due to two (2) fingerlike wetland

extensions to the south that extend outside of the main portion of the wetland. The presence of these two (2) wetland extensions results in the isolation or inability to access ~20% of the available uplands. Therefore, to access these isolated upland areas minor impacts are proposed to the 2 wetland extensions, located on the fringe of the slough.

For best site utilization, of which considers ecological value and significance of the wetland system as a whole, the site plan was designed to avoid the main body of the wetland with minimal impacts proposed within the far southern reaches for upland utilization. Area of proposed impacts are within the portions of the wetland having the lowest ecological value being adjacent to existing areas of development. Impacting a small portion of the wetland fringe will allow for access to isolated upland areas and will not cause significant impacts to hydrology, wildlife corridors, listed species denning, nesting or roosting areas or overall offsite connectivity. The majority of the wetland slough, specifically the interior areas being of highest ecological value, shall remain. As the main body of the wetland will not be impacted, wildlife corridors and support shall be maintained as well as wetland function with regards to flood protection and nutrient sink for the surrounding areas. The hydrological connection to Big Mud Lake also shall not be affected. Furthermore, as previously mentioned, the proposed impacts are within an area of the wetland having the lowest ecological value, with more notable disruption or degradation to the community structure and hydrology from historical land uses and fringe affects associated with adjacent areas of development. Within the impact areas there is also a decrease of wetland canopy species as community structure is transitioning into more of an upland oak/pine hammock with vegetation consisting of oaks, ferns, Brazilian pepper, willow, leaf litter, cabbage palms and pines (SW impact quadrant). Furthermore, there is a moderate amount of ditching through the impact areas and connections have been historically cut to the south due to development, with this fringe area appearing to receive the least amount of water.

To compensate for this loss of wetlands, mitigation shall be done via onsite enhancement and preservation. Utilizing UMAM to determine functional loss, SJRWMD approved UMAM impact scoring results in the need for 0.98 units of lift (0.94 direct and 0.04 indirect/secondary impacts). As mitigation, enhancement is to be done within 1.25 acres of wetland in the SW quadrant, resulting in 0.05 Units of Lift, and Preservation of the remaining 44.08 acres, providing 1.76 units of lift, for a total of 1.81 Units of Lift. Therefore, the proposed mitigation plan will fully offset proposed losses and further shall provide 0.83 units of lift in excess of the requirement.

Attachment 1

Environmental Assessment
Sanctuary at Cocoa

Aquatic RESEARCH FL.com



ENVIRONMENTAL CONSULTING

WETLANDS , PROTECTED SPECIES, & PERMITTING

Environmental Assessment

Sanctuary at Cocoa
Eastside of Cox Road, S of SR-524, and N of Lake Drive
City of Cocoa, Brevard County, Florida
PINs: :24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510
Section 24, Township 35 S, Range 24 E

Prepared For:

Meritage Homes of Florida, Inc
1395 University Drive, Suite 300 |
Jupiter, FL 33458

Prepared By:

Aquatic RESEARCH FL.com



ENVIRONMENTAL CONSULTING

WETLANDS, PROTECTED SPECIES, & PERMITTING

July 2025
Revised December 2025

Table of Contents

1.0 Introduction and Site Description 3

2.0 Vegetation, Habitat Description, and Listed Flora Survey Results 4

2.1 Upland Habitat 6
2.2 Wetland Habitat 7
2.3 Other Surface Waters 8

3.0 Wildlife Evaluation and Listed Fauna Survey 9

3.1 US Fish and Wildlife Service (USFWS) Consultation Areas and Documented Occurrences of Listed Species 9
3.2 Listed Fauna with a General Wildlife Survey Methods and Results 10
3.2.1 Gopher Tortoise (Gopherus Polyphemus) 12
3.3 Conservation Lands 16

4.0 Permit and Local Government Review 17

4.1 St. Johns River Water Management District (SJRWMD) Permit Review 18
4.2 Federal (Army Corps of Engineers) Review 18
4.3. Local Government Review 19

5.0 Soils 19

6.0 Summary 19

7.0 Transect Data 21

Appendix A
Figure 1: Location Map
Figure 2: Site Map
Figure 3: Agency Reported Land Use Map
Figure 4: General Wildlife Survey including Listed Flora & Fauna Transect Map
Figure 5: Existing Habitat/FLUCCS-CLC Map
Figure 6: Conservation Land(s) Map
Figure 7: Soils(s) Map

Appendix B
Site Photographs

Appendix C
SJRWMD Wetland Formal Determination
ACOE Preliminary Jurisdictional Determination

Appendix D
Standard Eastern Indigo Snake Protection Measures
Eastern Indigo Snake Programmatic Effect Determination Key

1.0 Introduction and Site Description

An environmental assessment (EA) was conducted by the qualified biologists with Aquatic Research, Monitoring, Equipment, & Deployment, LLC (Aquatic Research FL) on June 11, 2025 and in October of 2024. The subject property was reviewed in accordance with the City of Cocoa Land Development Regulations. Therefore, this EA includes survey for species of special concern, threatened, or endangered along with site/habitat characteristics conducive to support such species. As part of the assessment for listed species, a Florida Fish and Wildlife Conservation Commission (FFWCC) compliant 15% habitat survey for gopher tortoise *(Gopherus polyphemus)* burrows was also conducted. Furthermore, the site was assessed for the presence of state or federal jurisdictional wetlands, native upland habitat areas, environmentally significant lands, and adjacent conservation lands of significance.

The subject property is ±89.54-acres, located Eastside of Cox Road, S of SR-524, and N of Lake Drive, City of Cocoa, Brevard County, Florida. It consists of three (3) parcels identified by the Brevard County Property Appraisers as Parcel Identification Numbers (PINs) 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510 within Section 24, Township 35 S, Range 24 E. Please see Appendix A, Figure 1 for site location.

The subject property generally resides in an urban area with the exception of Cocoa Conservation Area to the north. Land uses within a 2 mile radius generally consist of a mixture of residential, commercial and industrial properties. Lands uses immediately adjacent to the subject property include Cocoa Conservation Area-Mud Lake, Watson Site Development, Inc., Cocoa Seventh-day Adventist Church to the north followed by SR-524, residential and commercial businesses of which include Smiles Dental Design, Cocoa Pines community, Junny Rios Martinez Park, and Cocoa North subdivision. To the east is Hooper Road, single family homes, a portion of a wetland associated with Mud Lake, Unitarian Universal Congregation Center, and Range Road. The west side of the subject property is bordered by Cox Road followed by an industrial area. Services within the industrial area include but are not limited to Diamondback Airboats, Dittmer Air and Heat, Larry's Total Auto Care, Beyel Brothers, D&D Manufacturing, A Big Tow Company, BTM Coaches, and Innovative Pool Finishes, followed by a Walmart Distribution Center and associated preserve area. The southern property boundary is adjacent single family homes, further south is a reservoir and Fenner Road. Please see Appendix A, Figure 2 for the vicinity site map.

A Site visit was conducted on June 11, 2025, and in October 2024, by Aquatic Research FL's team of qualified biologists. Based on the findings of the assessment the subject property consists of **native uplands and one (1) state and federal jurisdictional non isolated wetland slough, hydrologically connected to Mud Lake and other surface waters (OSW) of which include two (2) ditches and a pond.**

The subject property contains moderate to high quality native uplands, specifically three (3) categories of forested uplands that include live oak-cabbage palm, pine flatwoods and oak/pine successional forest. As the City of Cocoa would not appear to have a requirement for upland preservation in their Land Development Code (LDR) **no specific native preservation area should be required** as part of site development approval.

The subject property in 2009 received an approved Individual Environmental Resource Permit (ERP), Permit Number 4-009-102344-1 that expired in 2014. This permit was for the development of a subdivision with 1.8 acres of wetland impacts. Mitigation for impacts was provided via a combination of onsite and offsite mitigation that included the enhancement and preservation of the remaining acreage of onsite wetlands as well as the purchase of credits from a mitigation bank. This permit was never executed.

A wetland delineation was completed by Aquatic Research FL and subsequently an **approved state formal wetland determination (FWD-102344-2) and Federal preliminary jurisdictional determination (PJD – SAJ-2025-00660) were issued.** See Appendix C for state and federal jurisdictional determinations.

No listed flora species were observed within the limits of the subject property.

A Florida Fish and Wildlife Conservation Commission (FFWCC) compliant 15% minimum gopher tortoise (*Gopherus polyphemus*) survey was conducted. No potentially occupied gopher tortoise burrows were observed. As the subject property is predominantly forested habitats, both wetland and various categories of forested uplands with a nearly closed canopy, habitat is not ideal for gopher tortoises. Wildlife transects indicated no other listed species dens, nests, burrows, or roosting areas.

All new applications for subdivision plats and site plans require a city tree removal permit so consideration may be given to protection of trees. As a condition of granting a tree removal permit, the applicant shall be required to replace trees with replacement trees mimicking species removed. Replacement trees are determined using the city tree replacement table.

2.0 Vegetation, Habitat Description, and Listed Flora Survey Results

As part of the assessment conducted on the subject property, vegetation and habitat types were reviewed. This was accomplished utilizing a multi-faceted approach, first reviewing recent and historic aerials, and comparing visible topographic signatures to available agency recorded data. Agency reported data such as Florida Land Use Cover Classification System (FLUCCS) and

Cooperative Land Use Cover (CLC) assigned classifications were researched. This dataset (2012-2022) is a compilation of the Land Use/Land Cover datasets created by the 5 Water Management Districts in Florida based on imagery. See Appendix A, Figure 3 for Agency Reported FLUCCS codes. Furthermore, for the assessment of state and federal listed flora, databases such as Florida Natural Areas Inventory (FNAI) and the U.S. Fish and Wildlife Information for Planning and Consultation (IPAC) were consulted to obtain information regarding listed plants with the potential to occur on the subject property. After a comprehensive review of the above-mentioned data and aerials, transects were established based on expected variations in habitats. Locations and size of habitat types as indicated in this report are based on the combination of desktop review, field truthing and permit data.

Thirty-six (36) transects were established to perform the habitat assessment and listed flora species survey. The survey conducted covered ±17.27 acres (±19%) of the ±89.54-acre subject property. See Appendix A, Figure 4 for locations of survey transects.

Total Acreage of Project Area	±89.54
Total Acreage of Property Surveyed	±17.27
Total Percent of Acreage Surveyed	19%

Table 2.0.A: Approximate acreage of subject property and acres surveyed.

Florida Natural Inventory Areas (FNAI) Biodiversity Index				
U.S. Fish and Wildlife Service (USFWS) Endangered Species List Information for Planning and Consultation (IPAC)				
Plant Species	**Common Name**	***Federal Status**	**State Listing**	**Observation(s)**
Calopogon multiflorus	many-flowered grass-pink	N	E	None Observed
Carex chapmannii	Chapman's sedge	N	T	None Observed
Centrosema arenicola	sand butterfly pea	N	E	None Observed
Chamaesyce cumulicola	sand-dune spurge	N	E	None Observed
Coleataenia abscissa	cutthroatgrass	N	E	None Observed
Conradina brevifolia	short-leaved rosemary	E	E	None Observed
Conradina grandiflora	large-flowered rosemary	N	T	None Observed
Dicerandra immaculata	Lakela's mint	E	E	None Observed
Lechea cernua	nodding pinweed	N	T	None Observed
Lechea divaricata	pine pinweed	N	E	None Observed
Linum carteri var. smallii	Small's flax	N	E	None Observed
Nemastylis floridana	celestial lily	N	E	None Observed
Nolina atopocarpa	Florida beargrass	N	T	None Observed
Polygala lewtonii	Lewton's polygala	N	E	None Observed

Table 2.0.B: Listed flora species endemic to this region based on IPAC and FNAI.

2.1 Upland Habitat

The subject property contains native upland habitat, specifically live oak & cabbage palm hammock, pine flatwoods and an area of oak/pine successional forest. Upland habitats are of moderate to high quality with degradation factors being fringe impacts from adjacent development, historical use of the subject property in row crops and suppression of the natural fire regime.

All three (3) habitat types appear to be somewhat successional or secondary growth systems allowed to recruit naturally once the use of row crops on the subject property ceased. Variations in habitat types are likely based on soil and topographic differences with some areas yielding more "high pine" and xeric species, transitioning toward the wetland slough to the more temperate or mesic oak and palm hammock communities. See Appendix A, Figure 5 for observed upland areas.

Existing Upland Habitat FLUCCS/CLC Classifications Observed are as Follows:

423 FLUCCS/ 141 CLC: Oak/Pine Successional Hardwood Forest (±15.89 ac)

Closed-canopied forest dominated by fast growing hardwoods such as laurel oak, water oak, and/or sweetgum, often with remnant pines. These forests are either invaded natural habitat (i.e., mesic flatwoods, sandhill, upland pine, upland mixed woodland) due to lengthy fire-suppression or old fields that have succeeded to forest (FNAI).

Representative Vegetation:
Slash pine trees – native
Live & laurel oak trees *(Quercus spp)* – native
Cabbage palms *(Sabal palmetto)* – native
Beautyberry *(Callicarpa americana)* – native
Wild coffee *(Psychotria nervosa)* – native
Muscadine grape vine *(Vitis rotundifolia)* – native

427 FLUCCS/ 183111 CLC: Live Oak Hammock/Cabbage Palm (±18.6 ac)

This is a native habitat classification. This habitat type is often referred to as upland temperate hammock and is a forest community in which live oak is either pure or predominant. This class is further characterized by a closed canopy of hardwood species, primarily live oak trees, and cabbage palms, that are naturally protected from fire by position on the landscape. This community type as observed on the subject property as well as generally throughout Florda has been impacted by human activity, primarily clearing for agriculture and urbanization. The canopy closure must be 25% or more with at least 67% or

more dominance by the combination of Live Oak and Cabbage Palm for inclusion in this class. (SFWMD)

Representative Vegetation Northern Quadrant:
Live & laurel oak trees *(Quercus spp)* – native
Cabbage palms *(Sabal palmetto)* – native
Beautyberry *(Callicarpa americana)* – native
Wild Coffee *(Psychotria nervosa)* – native

411 FLUCCS/13 CLC: Pine Flatwoods (±4.83 ac)
These forests are quite common throughout much of Northern and Central Florida. Originally, longleaf pines were common on drier sites while slash pines, which are less fire-resistant, were confined to moister sites; wildfire being the contributing factor in this distribution. However, fire control and artificial reforestation have extended the range of slash pine into former longleaf sites. The pine flatwoods class is dominated by either slash pine, longleaf pine or both and less frequently pond pine. The common flatwoods understory species include saw palmetto, wax myrtle, gallberry and a wide variety of herbs and brush.

Representative Vegetation:
Slash pine trees – native
Saw palmetto *(Serenoa repens)* – native

2.2 Wetland Habitat

A wetland consists of two (2) of the following three components 1. Hydric (wetland) soils, 2. 80% or greater coverage of wetland vegetation, and 3. Indicators of hydrology (hydric indicators). One (1) forested state and Federal jurisdictional wetland was observed on the subject property. See Appendix A, Figure 5 for location of observed wetland.

The subject property contains a moderate to high quality wetland slough system that consists of both forested and non-forested (herbaceous/shrub) components. This wetland slough additionally is crossed by a natural creek that originates from Mud Lake to the NNE transversing through the subject property in several directions. The onsite portion of the slough is a forested fringe that transitions into a non-forested vegetated system. The forested area contains various hardwoods such as maples, bays and cypress as well as a thin Brazilian pepper fringe. Understory is obligate and facultative wetland shrubs with mainly ferns as ground cover. The more interior non-forested vegetated habitat contains more shrubby species such as elderberry.

A state formal wetland determination (FWD) was completed as well as a Federal preliminary jurisdictional determination (PJD). Both documents can be found in Appendix C.

Wetland function is scored utilizing the Unified Mitigation Assessment Method (UMAM). UMAM which takes into account factors such as location and landscape support, water environment (hydrology), and wildlife support. The onsite wetland was scored by SJRWMD receiving a score of 0.67. The subject property is partially bordered by development receiving a moderate location and landscape support score. The wetland itself has experienced some hydrological isolation from the adjacent waterbodies and reduction of the historical slough system, but overall community structure and hydrological conditions still remain moderate to optimal. Wildlife corridors have experienced some reduction but remain capable of supporting small to large mammals as well as listed species, also representative of a moderate to optimal condition.

Existing Wetland Habitat FLUCCS/CLC Classifications Observed are as Follows:

FLUCCS 617/CLC 22: Mixed Freshwater Forested Wetland (±46.7 acres)
FLUCCS 641/CLC 213: Freshwater Marsh

Representative Vegetation:
Red maple trees *(Acer rubrum)* – native
Swamp bay trees *(Persea palustris)* – native
Bald cypress trees *(Taxodium distichum)* – native
Laurel oak trees *(Quercus laurifolia)* – native
Swamp shield fern *(Cyclosorus interruptus)* – native
Elderberry *(Sambucus nigra)* – native

2.3 Other Surface Waters

This category includes rivers, creeks, canals and other linear water bodies.

The subject property contains two (2) ditches and a pond. The ditches are located within the northern and southern property quadrants. A reservoir/pond is present within the SE corner and appears to be hydrologically linked to the wetland slough. See Appendix A, Figure 5 for locations of OSW's.

524 FLUCCS/32 CLC: Artificial Pond (±2.0 ac)

510 FLUCCS/CLC 422: Ditches (±1.49 ac)

3.0 Wildlife Evaluation and Listed Fauna Survey

As was done with regards to analysis of vegetation and habitat types, a similar approach was taken with regards to evaluation of onsite fauna, with the focus being the presence of listed species. Prior to conducting the site field work, regulatory databases such as U.S. Fish and Wildlife Information Planning, and Conservation System (IPAC), Florida Natural Areas Inventory (FNAI), FNAI Biodiversity Matrix, and Florida Department of Environmental Protection (FDEP) maps direct, were consulted with regards to any known, documented, or likely occurrences of listed species. Special note was taken with regards to listings of lands being within consultation areas for specific species, as well as any recorded documentations of listed species within or directly adjacent to the subject property. Habitat types on, adjacent, and within the general area or region were also closely reviewed to determine potential locations with increased likelihood of the occurrence of listed species.

3.1 US Fish and Wildlife Service (USFWS) Consultation Areas and Documented Occurrences of Listed Species

Based on databases review it was determined that the entire project area lies within the U.S. Fish and Wildlife Service (USFWS) Section 7 Consultation area for the Florida scrub-jay *(Aphelocoma coerulescens)*, crested caracara *(Caracara cheriway)*, and the Everglades snail kite *(Rostrhamus sociabilis)*. Furthermore, the subject property is within the Core Foraging Area (CFA) for the wood stork, with a wood stork colony documented approximately 4,000 feet to the South. A bald eagle nest is additionally indicated as being 4,000 feet SSW. Lastly, all properties with uplands are required to be considered for the presence and protection of the federally protected Eastern Indigo Snake. The potential affects a project may have this snake is determined using the Eastern Indigo Snake Programmatic Effect Determination Key (Appendix D).

To require further action such as initiation of formal consultation or survey a development site must also contain or be in direct proximity to suitable habitat or known areas of occupation for that species. The scrub-jay utilizes scrub habitats or areas immediately adjacent to scrub and the crested caracara open pasture type lands. As the subject property does not contain nor is it in proximity to scrub, utilization by the scrub jay is highly unlikely. Furthermore, no open or pasture type lands are present on the subject property, also making utilization of the subject property for caracara nesting highly unlikely. The bald eagle has a protection radius of 660 feet, making the nest documented at a distance of 4,000 ft far outside the necessary protection radius. With regards to wood stork, the nesting colony is also considered outside of any required protection radius and onsite habitats are not appropriate for wood stork foraging due to density of the canopy and shrub cover. The Everglades Snail Kite favors marsh wetlands with a

preference for species such as saw grass, willow and cattails. The subject property could provide foraging opportunities, but nesting would seem unlikely. Lastly, with regards to the Eastern Indigo Snake due to the lack of tortoise burrows, no xeric habitats, minimal refugia and the intent to implement the Standard Protection Measures for the Eastern Indigo Snake, the Programmatic Key would indicate a Not Likely to Adversely Affect Determination (NLAA). With an outcome of "no effect" or "NLAA" as outlined in the key, the requirements of section 7 of the Act are fulfilled for the eastern indigo snake and no further action is required. Please see Section 3.2.2 Eastern Indigo Snake Assessment of Project Effects and Protection Measures of this report for full key and description of protection measures to be implemented.

Therefore, based on the USFWS determination keys for these species the subject property does not contain nor is within the protection radii of documented nests or suitable habitat areas. Therefore, no survey or further consultation should be required.

3.2 Listed Fauna with a General Wildlife Survey Methods and Results

During the field assessment pedestrian transects were made throughout the subject property to observe for the presence of any state or federal listed fauna species as well as wildlife in general. These included observations of individual animals as well as dens, burrows, rooting areas, or nests. Multiple linear transects were completed across representative portions of all habitat areas. Distances between transects varied in the field depending on terrain, with larger distances between open areas with low lying vegetation, smaller in areas with dense vegetation or suspected listed species occupation.

Thirty-six (36) transects were established to perform the listed fauna species survey. The survey conducted covered ±17.27 acres (±19%) of the ±89.54-acre project area. See Appendix A, Figure 4, for survey transect locations.

Total Acreage of Subject Property	±89.54
Total Acreage Surveyed	±17.27
Total Percent of Acreage Surveyed	19%

Table 3.2. A: Acreage of subject property and acres surveyed.

The wildlife population was documented in the field by visual observation of individual animals as well as, tracks, scat, dens, foraging and nesting. A Florida Fish & Wildlife Conservation Commission (FFWCC) compliant 15% minimum habitat survey for gopher tortoise burrows was also conducted. No gopher tortoise burrows were located. Utilizing the FFWCC formula for estimating gopher tortoise population during a partial survey, the site has the potential to contain 0 burrows and 0 gopher tortoises.

No other state or federal listed fauna species burrows, nests, dens, or roosting areas were observed on site. See tables below for the list of potential protected fauna species and species observations (listed and non-listed).

Florida Natural Inventory Areas (FNAI) Biodiversity Index
U.S. Fish and Wildlife Service (USFWS) Endangered Species List Information for Planning and Consultation (IPAC)

Species	Common Name	Federal Status	State Listing	Observation(s)
Mammal				**Presence**
Felis concolor coryi	Florida panther puma	E	E	None Observed
Bird				**Presence**
Antigone canadensis pratensis	Florida sandhill crane	N	T	None Observed
Athene cunicularia floridana	Florida burrowing owl	N	T	None Observed
Laterallus jamaicensis plancus audobonii	Eastern black rail	T	T	None Observed
Grus americana	whooping crane	E	E	None Observed
Grus canadensis	sandhill crane	E	E	None Observed
Mycteria americana	wood stork	T	T	None Observed
Rostrhamus sociabillis plumbeus	Everglades snail kite	T	T	None Observed
Reptile				**Presence**
Drymarchon corais couperi	Eastern indigo snake	T	T	None Observed
Gopherus polyphemus	gopher tortoise	C	T	None Observed
Lampropeltis extenuata	short-tailed snake	N	T	None Observed
Neoseps reynoldsi	sand skink	N	T	None Observed
Insect				**Presence**
Danaus plexippus	Monarch butterfly	C	NA	None Observed
Species that Warrant Special Attention			**Breeding Season**	**Presence**
Aimophila aestivalis	Bachman's sparrow	BCC	N/A	None Observed
Ardea herodias occidentalis	great blue heron	BCC	January 1 to December 31	None Observed
Centronyx henslowii	Henslow's sparrow	BCC	Breeds elsewhere	None Observed
Chaetura pelagica	chimney swift	BCC	March 15 to August 25	None Observed
Cistothorus palustris griseus	Worthington's marsh wren	BCC	April 10 to August 31	None Observed

Elanoides forficatus	swallow-tailed kite	BCC	March 10 to June 30	None Observed
Falco sparverius paulus	American kestrel	BCC	April1 to August 31	None Observed
Haliaeetus leucocephalus	**bald eagle**	**BCC**	**April 15 to August 31**	**Known Nest ~4,000 ft SE**
Melanerpes erythrocephalus	red-headed woodpecker	BCC	May 10 to September 10	None Observed
Passerina ciris	painted bunting	BCC	April 25 to August 15	None Observed
Rallus elegans	king rail	BCC	N/A	None Observed
Rynchops niger	black skimmer	BCC	May 20 to September 15	None Observed
Serophaga discolor	prairie warbler	BCC	May 1 to July 31	None Observed
Sternula antillarum antillarun	least tern	BCC	May 1 to July 31	None Observed

Table 3.2.B List of potential protected species and observations.

Non-Listed Species Observation(s)		
Type	**Species**	**Common Name**
Reptiles	None Observed	N/A
Mammals	Mammal burrows	N/A
	Sciurus carolinensis	Grey squirrel
Fish	Active ecosystems observed	
Aves	*Cyanocitta cristata*	Blue jay

Table 3.2.C List of potential non protected species and any observations.

3.2.1 Gopher Tortoise (Gopherus Polyphemus)

The gopher tortoise *(Gopherus Polyphemus)* is state listed for protection as a threatened species. The Florida Fish and Wildlife Conservation Commission (FFWCC) is the agency responsible for the protection of the gopher tortoise in Florida. The gopher tortoise is a moderate-sized, terrestrial turtle, averaging 9–11 inches in length when fully grown, though it can reach lengths of up to 15 inches. The life of a gopher tortoise revolves around its burrow(s) where gopher tortoises spend up to 80% of their time. Gopher tortoises prefer well-drained, sandy soils found in habitats such as longleaf pine sandhills, xeric oak hammocks, scrub, pine flatwoods, dry prairies, and coastal dunes. They are also found in a variety of disturbed habitats. Suitable gopher tortoise habitat contains well-drained sandy soils for digging burrows and nesting, abundant herbaceous plants for forage, and open, sunny areas with sparse canopy for nesting and basking.

Information gathered during this assessment indicated that the subject property contained marginally suitable habitat for the gopher tortoise. On June 12,2025 an FFWCC compliant 15% minimum habitat survey for gopher tortoise (*Gopherus polyphemus*) burrows was conducted. The survey was conducted in accordance with the applicable regulatory guidance document. See Section 3.2.2 below for survey methodology and FFWCC formula for estimating tortoise populations during a partial survey.

Twenty-two (22) transects were established to perform the 15% minimum gopher tortoise habitat assessment. 46.7 acres of onsite wetland and 3.49 acres of other surface water (ditches and pond) were subtracted from the determination of suitable gopher tortoise habitat. The survey conducted covered ±7.65 acres of suitable habitat on the subject property. See Appendix A Figure 4 for survey transect locations. See Appendix A, Figure 4 for survey transects.

Total Acreage of Gopher Tortoise Suitable Habitat	±39.3
Total Acreage of Gopher Tortoise Suitable Habitat Surveyed	±7.65
Total Percent of Gopher Tortoise Suitable Habitat Surveyed	19%

Table 3.2.1 A: Acreage of suitable habitat and acres surveyed.

Gopher tortoise surveys are valid for a period of 90 days for the purposes of regulatory submission.

3.2.1.1 Gopher Tortoise Survey Methodology

Survey protocol is based on burrow survey methodology from the Florida Fish and Wildlife Conservation Commission Gopher Tortoise Permitting Guidelines, April 2008, Revised April 2023 Appendix 4 Burrow Survey Methods (Minimum of 15%). The project area is initially evaluated to determine the total acreage of suitable gopher tortoise habitat. This evaluation is done via review of documents and databases to assess the potential onsite features such as aerial signatures, soils maps, and agency reported FLUCCS/habitat mapping. Belt transects are then evenly distributed across all areas that have been deemed suitable habitat within the project's impact areas, to achieve a minimum of 15% coverage. The maximum transect dimensions are not to exceed 250 meters (820 feet) long and 16 meters (52 feet) wide. Survey is then conducted throughout each established transect, covering 100% of the area within these transects. Generally, one (1) or more individuals are utilized during the field survey as recommended by the protocol stated above. The width between each observer ranges from one (1) meter to no more than ten (10) meters apart, depending on the density of the habitat. When using more than one (1) individual each observer is stationed parallel to each other, spaced so that 100% of the area between each

individual can be observed. When using two (2) people, one (1) person serves as the navigator who uses a compass and a GPS to navigate and record all burrows observed within the transect. When using three (3) people, the middle person serves as the navigator and records all burrows found by the observation team. The edges of each transect are marked with flagging tape to ensure complete coverage if necessary, due to topography and/or vegetative density.

Any burrows noted during the survey are recorded with a hand-held GPS and are also flagged in the field with high visibility flagging tape. Field notes are taken depicting the status of each burrow (i.e., potentially occupied or abandoned). According to the Gopher Tortoise Permitting Guidelines a potentially occupied burrow classification "combines the active and inactive categories and therefore includes burrows with obvious sign of use and those with minimal or no obvious sign of use." An abandoned burrow "appears unused and dilapidated." The classification of potentially occupied and abandoned burrows along with GPS locations of each burrow are depicted on an enclosed aerial. Additionally, for each belt transect raw data is reported in tabular format indicating transect dimensions, number of burrows and activity class, as well as total number of tortoises per acre. Once the survey is complete, the total onsite gopher tortoise population can be estimated by first calculating tortoises per acre and then applying that number to determine the total onsite population.

No potentially occupied gopher tortoise burrows were observed.
Tortoises per acre is calculated as follows:

<u>Total Potentially Occupied Burrows (0)</u>
Total Acres within Survey Area (7.65 acres) X 0.50 = (0) Tortoises per Acre

Tortoise population is then estimated as follows:

Tortoises per Acre (0) X Acres of Potential Gopher Tortoise Habitat (39.3 acres) = Estimated Tortoise Population (0 tortoises or 0 burrows)

3.2.2 Eastern Indigo Snake (Drymarchon corais) and Florida Pine Snake (Pituophis melanoleucus) Assessment of Project Effects and Protection Measures.

The Eastern indigo snake is listed as threatened by both USFWS and FFWCC. The Florida pine snake is listed as state threatened by FFWCC. Both the Eastern indigo snake and FL pine snake utilize a variety of habitat types to complete their life cycle. Pine flatwoods, scrub areas, hydric pine flatwoods, wet and dry prairies, agricultural fields, coastal hardwood hammocks,

mangrove areas and even human altered areas can be considered habitat for this species (USFWS 1999).

During the gopher tortoise survey observations were made for the presence of the eastern indigo snake and Florida pine snake. This included visual sightings, skin sheds and tracks. As the subject property contained no gopher tortoise burrows the focus areas were potential refugia of which included dead logs, mammal holes, root clusters and similar. No eastern indigo or pine snakes, tracks, or skin sheds were observed and limited refugia was noted.

As the subject property is proposed for development and contains wetlands and surface waters that are federally jurisdictional, impacts to federal species with a consultation area or critical habitat that falls within the limits of a subject property must be reviewed. As discussed in Section 3.1 US Fish and Wildlife Service (USFWS) Consultation Areas of this report several species met this criterion, specifically the Audubon Crested Caracara, FL Scrub-Jay, Everglades Snail Kite, Wood Stork and Eastern Indigo Snake.

Based on the USFWS determination keys for these species the subject property does not contain nor is it in suitable proximity to suitable habitat or documented nesting areas for the caracara, scrub jay, snail kite and wood stork and therefore no survey or further consultation should be required. However, as no critical habitat exists for the Eastern Indigo Snake to further assess project related impacts, the Army Corps of Engineers Eastern Indigo Snake Programmatic Effect Determination Key must be utilized. This key is used only in the review of permit applications for effects determinations within the North and South Florida Ecological Services Field Offices Geographic Areas of Responsibility (GAR). In an effort to reduce correspondence in effect determinations and responses, USFWS provided an Eastern Indigo Snake Effect Determination Key, for use by the ACOE. If the use of this key results in a Corps' determination of "no effect" for a particular project, USFWS supports this determination. Additionally, if the use of this Key results in a determination of NLAA, the Service concurs with this determination and no additional correspondence will be necessary.

Key as related to the subject property is as follows:

A. Project is not located in open water or salt marsh..... **go to B**
   Project is located solely in open water or salt marsh ....."no effect"
B. Permit will be conditioned for use of the Service's Standard Protection Measures For The Eastern Indigo Snake during site preparation and project construction .....…….... **go to C**

Permit will not be conditioned as above for the eastern indigo snake, or it is not known whether an applicant intends to use these measures and consultation with the Service is requested .....may affect

C. There are gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activities .....**go to D**
There are no gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activities ..... "NLAA"

D. The project will impact less than 25 acres of xeric habitat supporting less than 25 active and inactive gopher tortoise burrows ..... **go to E**
The project will impact more than 25 acres of xeric habitat or more than 25 active and inactive gopher tortoise burrows and consultation with the Service is requested ……"may affect"

E. Any permit will be conditioned such that all gopher tortoise burrows, active or inactive, will be evacuated prior to site manipulation in the vicinity of the burrow. If an indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity. Any permit will also be conditioned such that holes, cavities, and snake refugia other than gopher tortoise burrows will be inspected each morning before planned site manipulation of a particular area, and, if occupied by an indigo snake, no work will commence until the snake has vacated the vicinity of proposed work..... **"NLAA "**
Permit will not be conditioned as outlined above and consultation with the Service is requested.....may effect

With an outcome of "no effect" or "NLAA" as outlined in this key, the requirements of section 7 of the Endangered Species Act are fulfilled for the eastern indigo snake and no further action is required.

As indicated in the above key the project contains no gopher tortoise burrows, no xeric habitat and limited refugia. Furthermore, the Standard Eastern Indigo Snake Protection Measures shall be applied. Therefore, the project would receive a “Not Likely Effect” NLAA Determination. No further coordination with USFWS should be required.

3.3 Conservation Lands

As part of the assessment, agency databases were searched for conservation lands located within or adjacent to the subject property. Based on the database review, Cocoa Conservation Area is located along the north subject property and is considered a highly valuable ecological area. See Appendix A, Figure 6 for location of the conservation land(s).

4.0 Permit and Local Government Review

As part of the assessment, local land development codes were reviewed with regards to environmental requirements and agency databases were searched for permits associated with the subject property.

Listed below are permits associated with the subject property. See Appendix C for associated permit documents.

Type of Permit	Application Number	Permit Number	Final Action Date	Status	Issuing Agency	Project Description
Preliminary Jurisdictinal Determination (PJD)	N/A	SAJ-2025-00660	6/27/2025	Active	ACOE	Department of the Army permit will be required for regulated work in all areas which may be waters of the United States, as indicated in this preliminary JD.
Formal Wetland Determination	N/A	102344-2	6/16/2025	Active	SFWMD	A Formal Wetland Determination (FWD) does not authorize construction on the subject property. This FWD is binding for a period of five (5) years from the issuance date provided physical conditions on the property do not change so as to alter the wetland boundaries during that period.
ERP	102344	102344	4/14/2009	4/14/2014	SJRWMD	Santa Barbara Preserve (The Three Amigos Investments, LLC). To construct a 519-lot single-family subdivision with associated roadways, utilities, & drainage. 43.732-Acre Conservation Easement In the event that the permittee does not successfully record the Conservation ***Easement over the mitigation parcel and donate the parcel, less the southeast corner, which the City does not wish to take ownership of, to the City of Cocoa for management, the permittee must obtain a permit modification to provide alternative mitigation for the wetland impacts.***

ERP	16735	16735	8/8/1995	8/8/2000	SJRWMD	Golden Sanctuary Subdivision (M and M Investment Group Inc). To construct 95 single family detached homes, 7 fourplexis, and aclf, nursing home, assisted living and commercial bldgs
ERP	204234	200205		Pending	SJRWMD	Mud Lake West Cocoa Drainage Improvement

Table 4.0: Brief Summary of Permits Found for the Subject Property.

4.1 St. Johns River Water Management District (SJRWMD) Permit Review

As part of the assessment agency databases were searched for associated environmental permits that cover the subject property. As indicated above a review of the St. Johns River Water Management District (SJRWMD) epermitting online database indicates one (1) approved wetland formal determination, two expired (2) Environmental Resource Permits (ERP) in association with the subject property and one (1) pending specific to the drainage improvements associated with Mud Lake and a portion of the onsite wetland slough.

The SJRWMD wetland formal determination was approved in April 2025 and can be found in Appendix C.

The next most recent and relevant permit, for the Santa Barbara Preserve Project was issued in 2009 and expired in 2014. It is indicated as Permit Number 4-009-102344. Permit indicated 39.137 acres of the site were wetlands with 37.361 acres wetlands to be preserved and placed under conservation easement, 1.776 acres of wetlands to be impacted, 1.463 acres of upland buffer preserve were also proposed with a pond tract in the SE corner of 4.905 acres excluded from the development area. Review of the SJRWMD epermitting file as relates to this permit would indicate that it has expired and only portions of the required mitigation plan appear to have been fulfilled. This would appear to solely include purchase of the required mitigation credits and legal approval of the Conservation Easement for recording. However, no documentation was found regarding recordation of this Easement, completion of onsite wetland enhancement or transfer of ownership to the City of Cocoa.

4.2 Federal (Army Corps of Engineers) Review

Based on proximity to the Mud Lake and apparent connectivity of the onsite wetland slough, the subject property falls under the jurisdiction of the Army Corps of Engineers (Federally jurisdictional). A preliminary jurisdiction determination (PJD) was conducted and approved by the ACOE in June 2025. See Appendix C for ACOE PJD.

4.3. Local Government Review

Any wetlands addressed by a FDEP or SJRWMD permit will be exempt from the county's mitigation standards provided that the FDEP or SJRWMD permit conditions result in "no net loss" of wetlands. No net loss therefore includes additional mitigation for wetlands of all sizes as well as those isolated systems under 0.5 acres that require no state or federal mitigation. An applicant proposing to alter any wetland must provide the natural resources management department with a copy of the FDEP or SJRWMD permit conditions and if necessary, a copy of staff comments.

With regards to tree protection*, protected tree* means, with the exception of nonnative invasive or undesirable plants, a tree having dbh of six (6) inches or greater or a palm 12 inches or greater. Where replacement tree(s) are required, the appropriate number of trees shall be planted as provided in the LDR Tree Replacement Standards minus any replacement credit(s) for preserved trees. Trees removed within the building envelope (structure and seven and one-half (7 ½) feet around the perimeter) shall not be required to be replaced. The replacement trees shall have a minimum d.b.h., depending upon the diameter of the tree removed, as also described in the LDR Tree Replacement Standards.

5.0 Soils

Based on a review of the Soil Survey Geographic and the Web Soil Survey Databases hydric (wetland) and non-hydric (upland) soil type exists on the site. No soil borings or geotechnical analysis was conducted as part of this assessment. See Appendix A, Figure 6 for depiction of onsite soil mapping unit.

Soil type is as follows:

Basinger sand, 0 to 2 percent slopes (hydric) – 7
Myakka sand, 0 to 2 percent slopes (non-hydric) – 36
Terra Celia muck, frequently flooded (hydric) – 64
Tomoka muck, frequently ponded, 0 to 1 percent slopes (hydric) – 67
Valkaria sand (hydric) – 70
Anclote sand (hydric) – 91

6.0 Summary

On June 12, 2025 and in October 2024, Aquatic Research FL conducted an environmental assessment on a ±89.54-acres subject property located Eastside of Cox Road, S of SR-524, and N

of Lake Drive, City of Cocoa, Brevard County, Florida. It consists of three (3) parcels identified by the County Property Appraisers as Parcel Identification Numbers (PINs) 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510 within Section 24, Township 35 S, Range 24 E.

Native upland habitat is present on the subject property. However, it would appear that the City of Cocoa has no specific requirement for native upland preservation.

One non isolated state and federal jurisdictional wetland slough is located on the subject property. A state formal wetland determination and federal preliminary jurisdictional determination have been conducted and approved, resulting in 46.7 acres of wetland and 3.49 acres of other surface waters (ditches and a pond). Permitting is in process with City of Cocoa, SJRWMD and ACOE.

Site development will require a tree removal permit with a replacement per the landscape standards and utilizing the tree replacement credit reduction table.

No listed flora species were observed within the limits of the subject property.

A 15% tortoise (*Gopherus polyphemus*) survey was conducted. No gopher tortoise burrows were observed.

No additional listed species dens, nests, burrows, or roosting areas were observed on the subject property.

7.0 Transect Data

Transect ID#	Width (ft)	Length (ft)	Acreage	Listed Species Observed
1	**20**	**850**	0.39	None Observed
2	**20**	**850**	0.39	None Observed
3	**20**	**650**	0.30	None Observed
4	**20**	**650**	0.30	None Observed
5	**20**	**650**	0.30	None Observed
6	**20**	**650**	0.30	None Observed
7	**20**	**650**	0.30	None Observed
8	**20**	**650**	0.30	None Observed
9	**20**	**850**	0.39	None Observed
10	**20**	**850**	0.39	None Observed
11	**20**	**850**	0.39	None Observed
12	**20**	**850**	0.39	None Observed
13	**20**	**850**	0.39	None Observed
14	**20**	**850**	0.39	None Observed
15	**20**	**850**	0.39	None Observed
16	**20**	**850**	0.39	None Observed
17	**20**	**850**	0.39	None Observed
18	**20**	**850**	0.39	None Observed
19	**20**	**850**	0.39	None Observed
20	**20**	**850**	0.39	None Observed
21	**20**	**850**	0.39	None Observed
22	**20**	**850**	0.39	None Observed
23	**20**	**650**	0.30	None Observed
24	**20**	**650**	0.30	None Observed
25	**20**	**650**	0.30	None Observed
26	**20**	**650**	0.30	None Observed
27	**20**	**850**	0.39	None Observed
28	**20**	**850**	0.39	None Observed
29	**20**	**850**	0.39	None Observed
30	**50**	**850**	0.98	None Observed
31	**50**	**850**	0.98	None Observed
32	**50**	**850**	0.98	None Observed
33	**50**	**850**	0.98	None Observed
34	**50**	**850**	0.98	None Observed
35	**50**	**850**	0.98	None Observed
36	**50**	**850**	0.98	None Observed

Appendix A

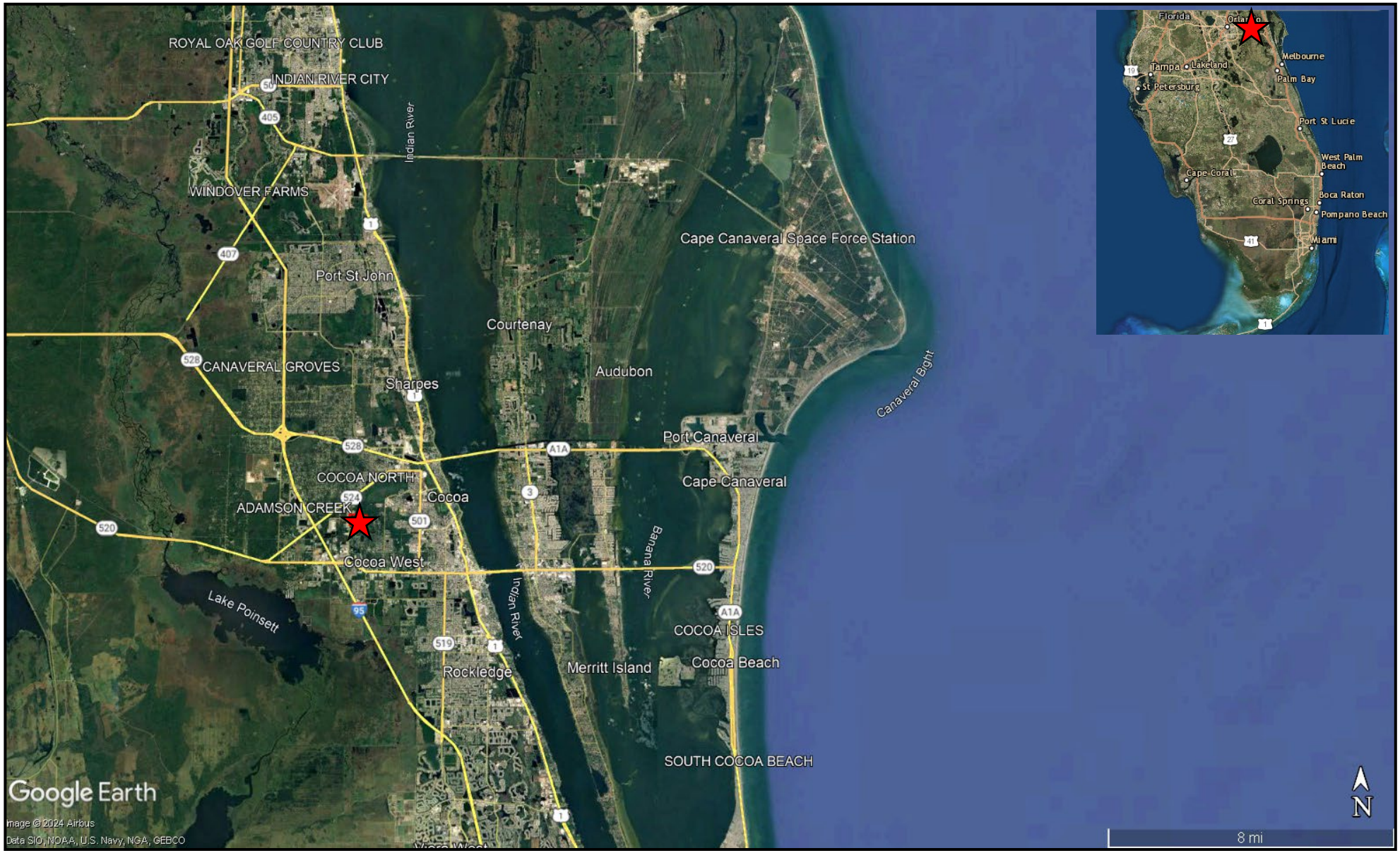
Site Maps

Aquatic RESEARCH FL.com



ENVIRONMENTAL CONSULTING

WETLANDS , PROTECTED SPECIES, & PERMITTING





Environmental Consulting

Wetlands,
Protected Species,
& Permitting

Aquatic ResearchFL.com

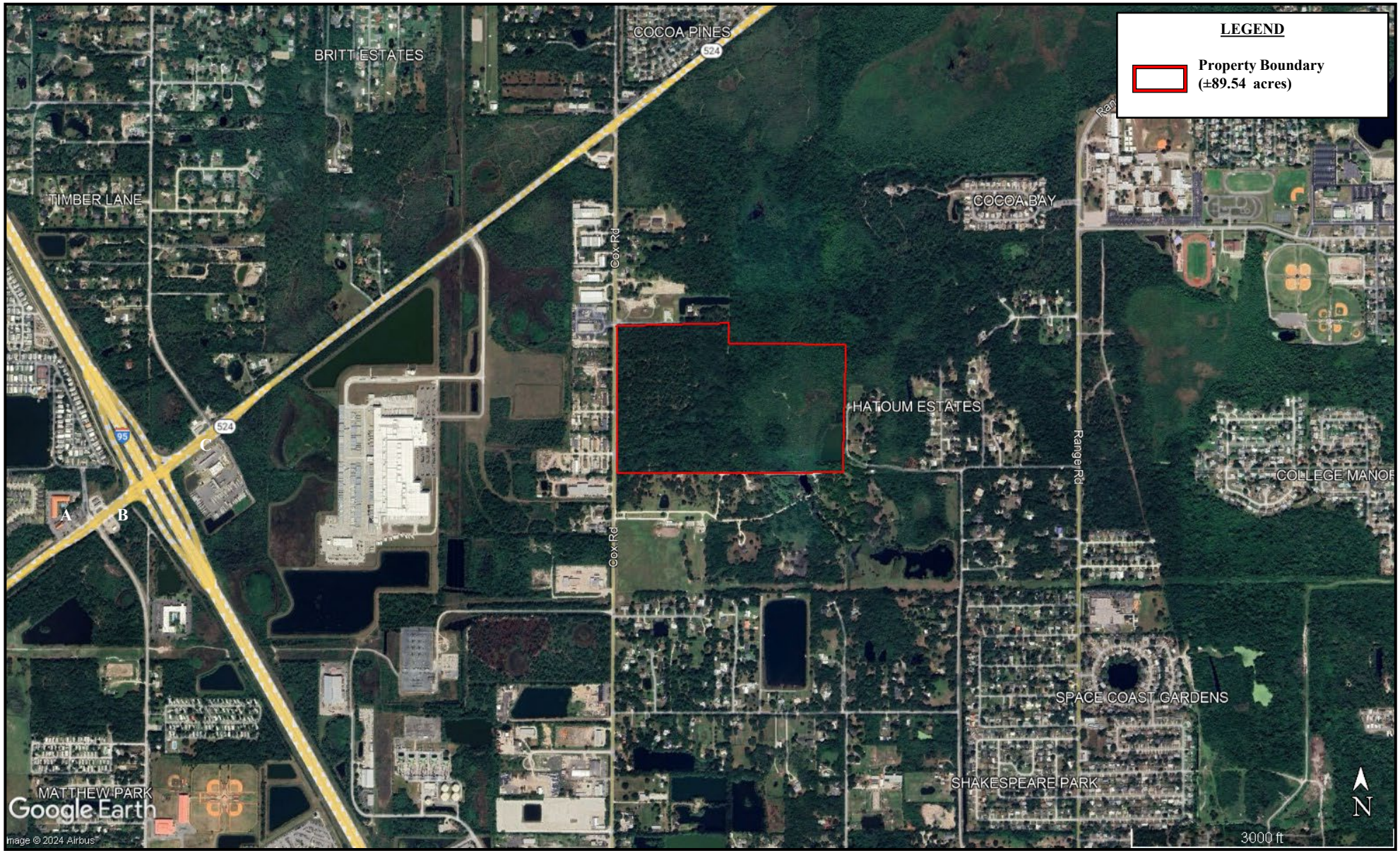
Location Map

Sanctuary at Cocoa Townhomes
Eastside of Cox Road, S of SR-524, and N of Lake Drive
City of Cocoa, Brevard County, Florida
PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510
Section 24, Township 35 S, Range 24 E

Figure 1

N

Image: Google Earth 2022





Environmental Consulting

Wetlands,
Protected Species,
& Permitting

Aquatic ResearchFL.com

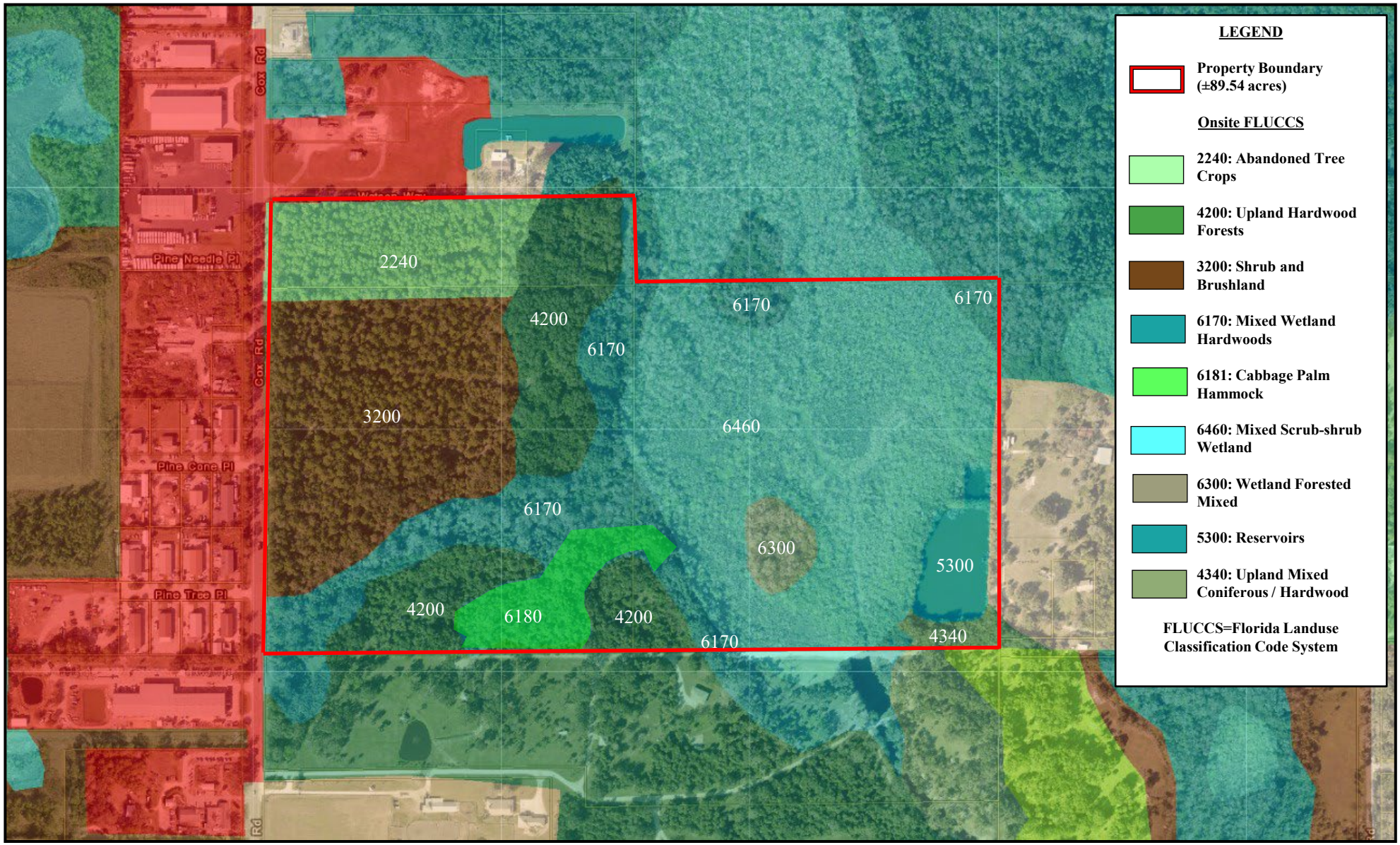
Site Map

Sanctuary at Cocoa Townhomes
Eastside of Cox Road, S of SR-524, and N of Lake Drive
City of Cocoa, Brevard County, Florida
PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510
Section 24, Township 35 S, Range 24 E

Figure 2

N

Image: Google Earth /2022





Environmental Consulting

Wetlands, Protected Species, & Permitting

Aquatic ResearchFL.com

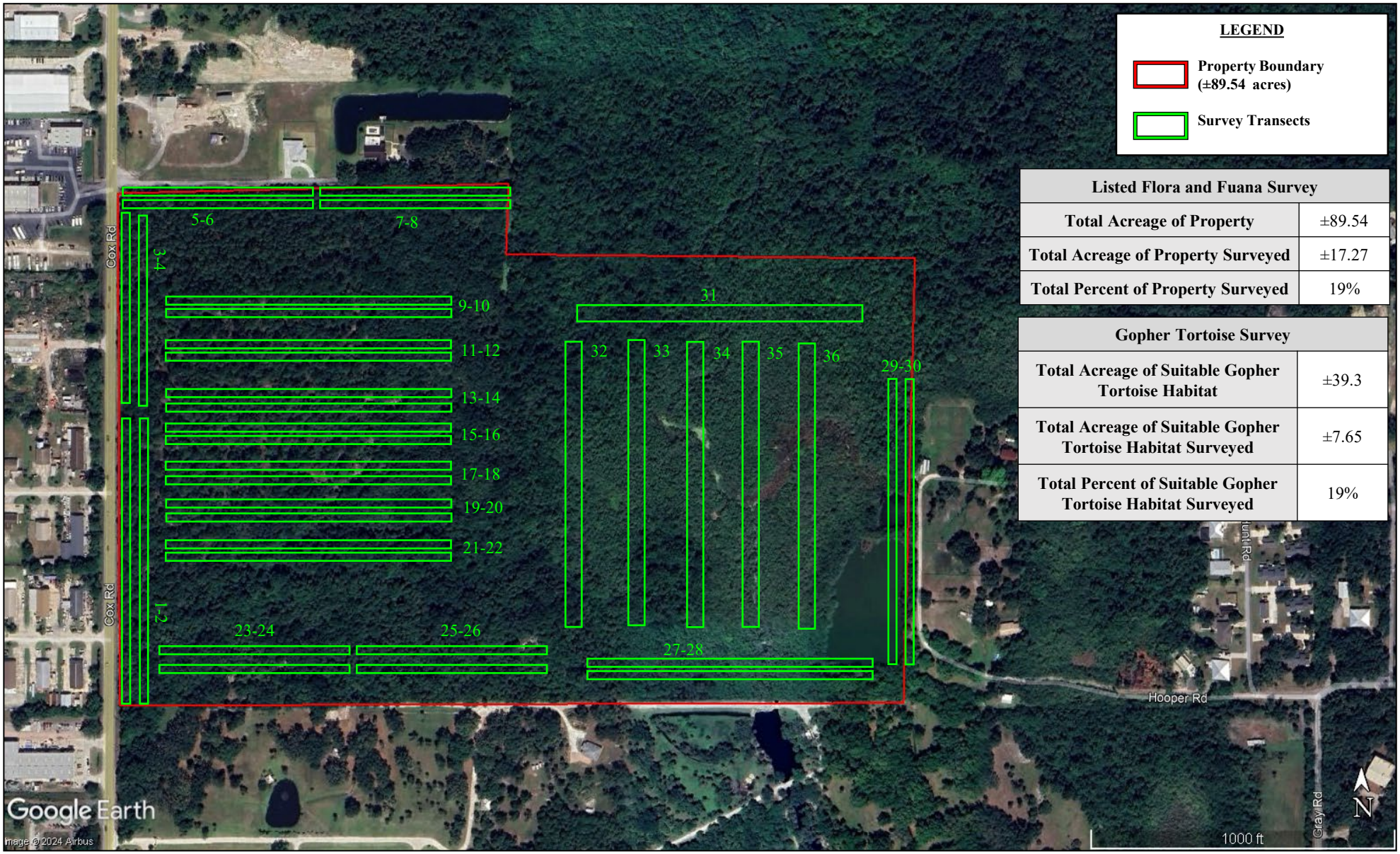
Agency Reported Land Use Map

Sanctuary at Cocoa Townhomes
Eastside of Cox Road, S of SR-524, and N of Lake Drive
City of Cocoa, Brevard County, Florida
PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510
Section 24, Township 35 S, Range 24 E

Figure 3

Image: Florida Department of Environmental Protection
Data: Florida Land Cover Classification System Definitions for the Cooperative Land Cover Map v2.3

N





Environmental Consulting

Wetlands, Protected Species, & Permitting

Aquatic ResearchFL.com

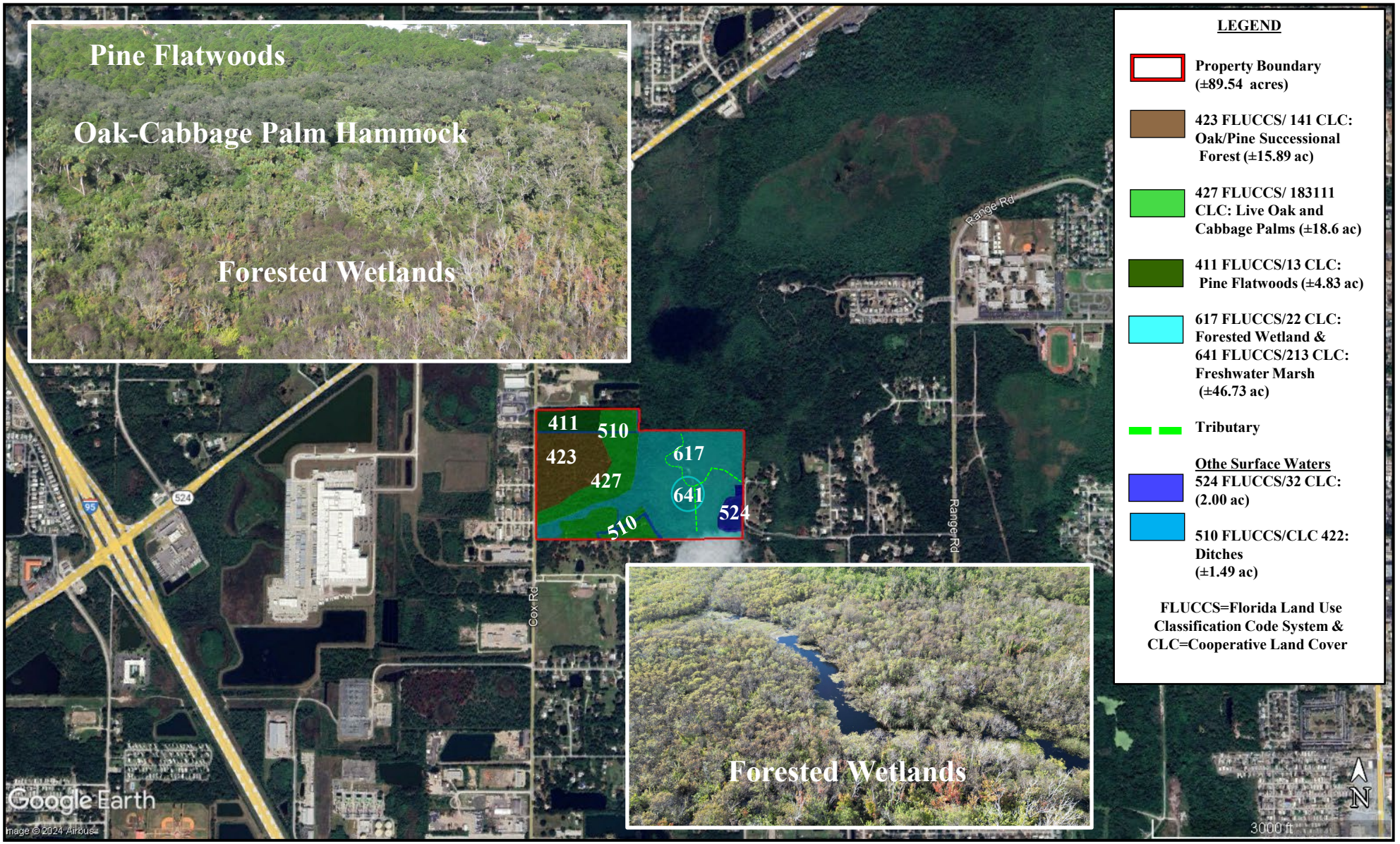
Listed Flora & Fauna and General Wildlife Survey with a 15% Minimum Gopher Tortoise Survey Transect Map

Sanctuary at Cocoa Townhomes
Eastside of Cox Road, S of SR-524, and N of Lake Drive
City of Cocoa, Brevard County, Florida
PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510
Section 24, Township 35 S, Range 24 E

Figure 4

Image: Google Earth 2022
Data: Aquatic Research Monitoring, Equipment, & Deployment LLC

N





Environmental Consulting

Wetlands, Protected Species, & Permitting

Aquatic ResearchFL.com

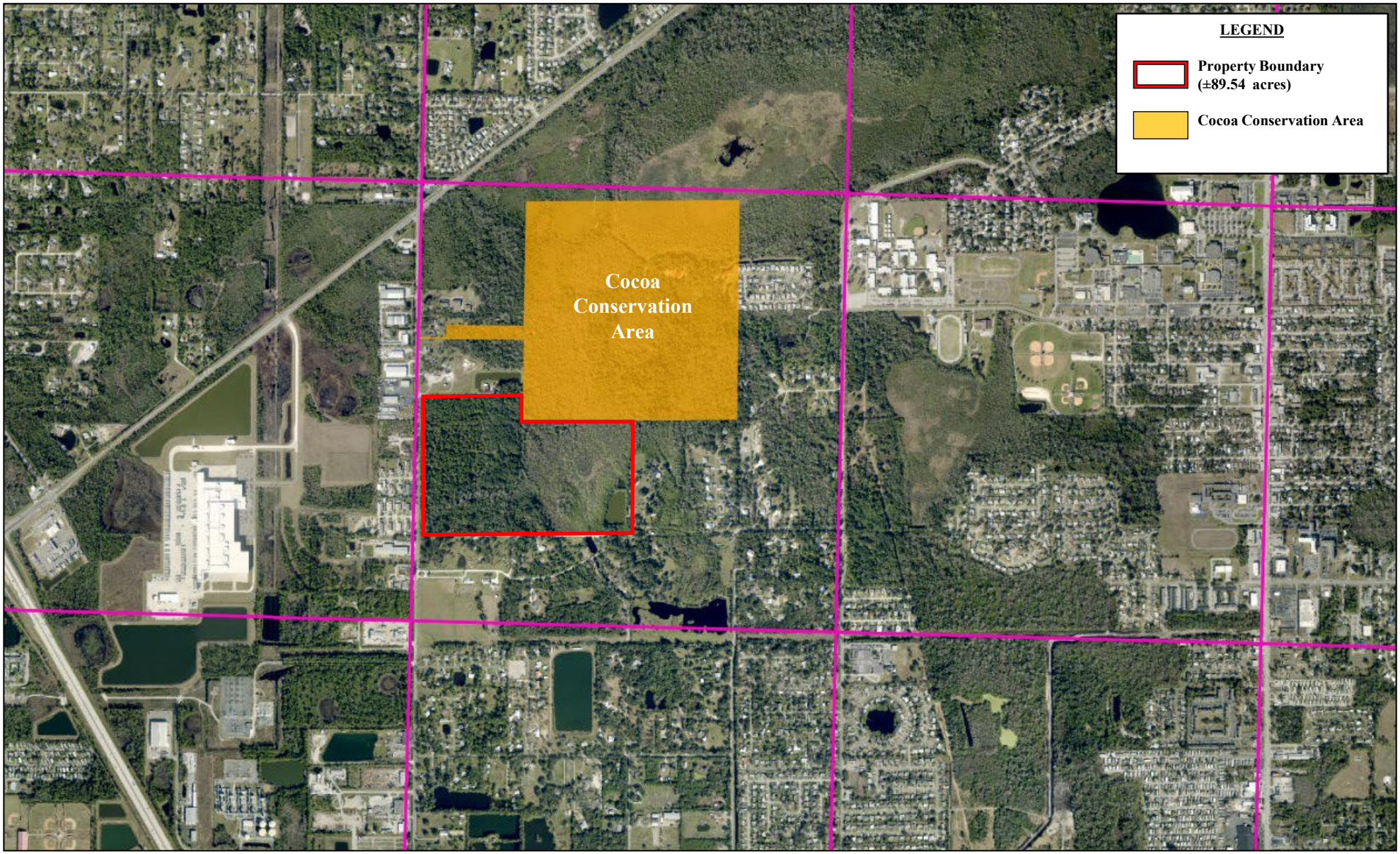
Existing Habitat/FLUCCS Map

Sanctuary at Cocoa Townhomes
Eastside of Cox Road, S of SR-524, and N of Lake Drive
City of Cocoa, Brevard County, Florida
PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510
Section 24, Township 35 S, Range 24 E

Figure 5

Image: Google Earth 2022
Data: Aquatic Research Monitoring, Equipment, & Deployment LLC

N





Environmental Consulting

Wetlands,
Protected Species,
& Permitting

Aquatic ResearchFL.com

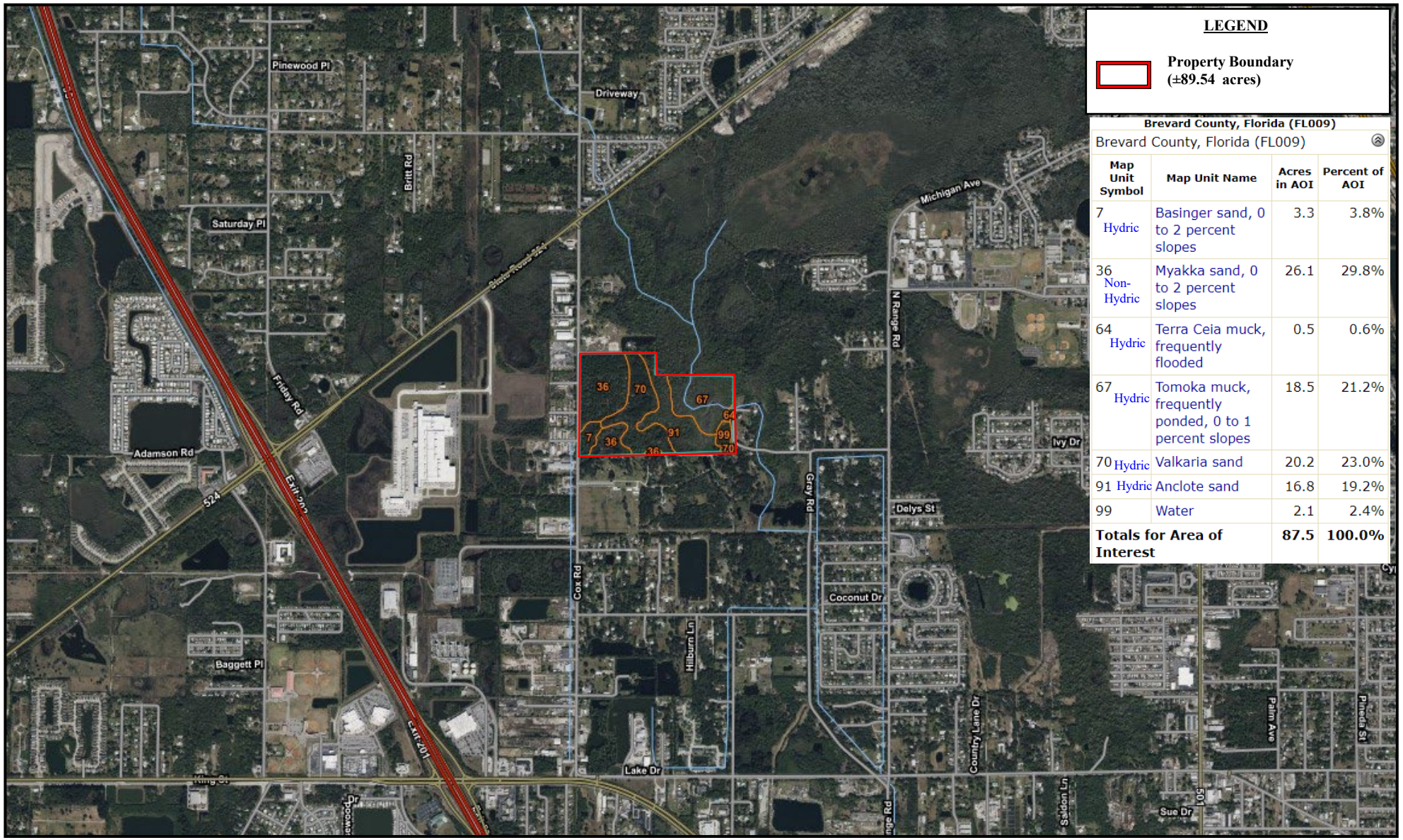
Conservation Lands Map

Sanctuary at Cocoa Townhomes
Eastside of Cox Road, S of SR-524, and N of Lake Drive
City of Cocoa, Brevard County, Florida
PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510
Section 24, Township 35 S, Range 24 E

Figure 6

Image: Google Earth 2022
Data: Florida's Natural Inventory Areas

N





Environmental Consulting

Wetlands,
Protected Species,
& Permitting

Aquatic ResearchFL.com

Soil(s) Map

Sanctuary at Cocoa Townhomes
Eastside of Cox Road, S of SR-524, and N of Lake Drive
City of Cocoa, Brevard County, Florida
PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510
Section 24, Township 35 S, Range 24 E

Figure 7

Image: USDA
Data: WSS & SSURGO Soil Survey

N

Appendix B

Site Photographs

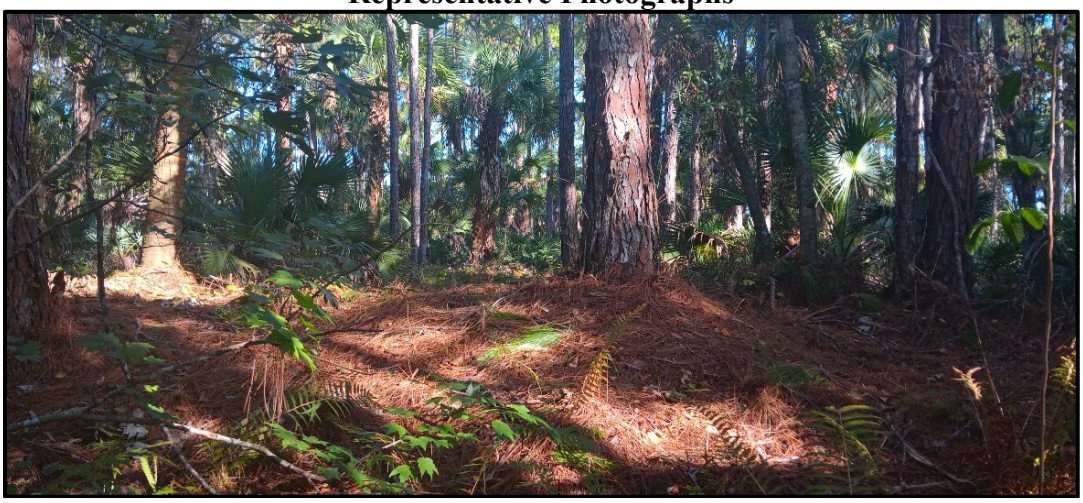
Aquatic RESEARCH FL.com



ENVIRONMENTAL CONSULTING

WETLANDS , PROTECTED SPECIES, & PERMITTING

Representative Photographs







Appendix C

Wetland Determination Documents

Aquatic RESEARCH FL.com



ENVIRONMENTAL CONSULTING

WETLANDS , PROTECTED SPECIES, & PERMITTING

St. Johns River
Water Management District
Michael A. Register, P.E., Executive Director

4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • 386-329-4500 • www.sjrwmd.com

June 16, 2025

Tomas Cabrerizo – *Sent via email:* nvedrani@cfhgroup.com
Legacy Villas at Cocoa LLC
3850 Bird Rd Ste 700
Miami, FL 33146-1507

Re: Notice of Issuance of Formal Wetland Determination (FWD) No. 102344-2

Dear Mr. Cabrerizo:

Enclosed is the FWD issued by the District. Please refer to the attached Notice of Rights to determine any legal rights you may have concerning the District's agency action.

The District will not publish a notice in the newspaper advising the public that it has issued your FWD. If you wish to have certainty that the period for filing a challenge to the District's agency action is closed, you may publish, at your own expense, a notice in a newspaper of general circulation. (Chapter 120, Florida Statutes). A FWD does not authorize construction on the subject property.

If you have any questions concerning this FWD, please contact Jeff Prather at (321) 676-6609 or JPrather@sjrwmd.com.

Sincerely,

Jeffrey Prather, Division Director
Environmental Resource Regulation

Enclosures: Formal Wetland Determination
Stamped Approved Certified Survey
Notice of Rights

GOVERNING BOARD

Rob Bradley, CHAIR FLEMING ISLAND
Maryam H. Ghyabi-White, VICE CHAIR ORMOND BEACH
J. Chris Peterson, SECRETARY WINTER PARK
Ron Howse, TREASURER COCOA
Ryan Atwood MOUNT DORA
Doug Bournique VERO BEACH
Douglas Burnett ST. AUGUSTINE
Cole Oliver MERRITT ISLAND
Janet Price FERNANDINA BEACH

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
FORMAL WETLAND DETERMINATION AUTHORIZATION

PETITION NO: 102344-2 **DATE ISSUED:** June 16, 2025

PROPERTY NAME: Sanctuary at Cocoa

DETERMINATION STATEMENT:

Formal Wetland Determination Authorization Statement: The formal determination of the landward extent of wetlands and other surface waters as determined by the District and as depicted on the one-sheet certified survey received as approved by the District on June 11, 2025, for the 89.654-acre property known as Sanctuary at Cocoa, located in Section 24 Township 24S, Range 35E, Brevard County. A Formal Wetland Determination (FWD) does not authorize construction on the subject property.

LOCATION:
SECTION(S): 24 TOWNSHIP(S): 24S RANGE(S): 35E

Brevard County

ISSUED TO:

Legacy Villas at Cocoa LLC
3850 Bird Rd Ste 700
Miami, FL 33146-1507

This document and the enclosed survey serve as the FWD issued by the District. As required by the FWD, the District must be notified within 30 days of sale or transfer of this property. This FWD may be transferred after the receipt of written notification of transfer of ownership or control of the real property.

This FWD is binding for a period of five (5) years from the issuance date provided physical conditions on the property do not change so as to alter the wetland boundaries during that period. The District's Governing Board may revoke the FWD upon finding that the petitioner has submitted inaccurate information to the District.

AUTHORIZED BY: St. Johns River Water Management District



By: _____
Thomas Evans
Supervising Regulatory Scientist

Notice of Rights

1. A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed (received) either by delivery at the office of the District Clerk at District Headquarters, P. O. Box 1429, Palatka Florida 32178-1429 (4049 Reid St., Palatka, FL 32177) or by e-mail with the District Clerk at Clerk@sjrwmd.com, within twenty-six (26) days of the District depositing the notice of District decision in the mail (for those persons to whom the District mails actual notice), within twenty-one (21) days of the District emailing the notice of District decision (for those persons to whom the District emails actual notice), or within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Chapter 28-106, Florida Administrative Code. The District will not accept a petition sent by facsimile (fax), as explained in paragraph no. 4 below.

2. Please be advised that if you wish to dispute this District decision, mediation may be available and that choosing mediation does not affect your right to an administrative hearing. If you wish to request mediation, you must do so in a timely-filed petition. If all parties, including the District, agree to the details of the mediation procedure, in writing, within 10 days after the time period stated in the announcement for election of an administrative remedy under Sections 120.569 and 120.57, Florida Statutes, the time limitations imposed by Sections 120.569 and 120.57, Florida Statutes, shall be tolled to allow mediation of the disputed District decision. The mediation must be concluded within 60 days of the date of the parties' written agreement, or such other timeframe agreed to by the parties in writing. Any mediation agreement must include provisions for selecting a mediator, a statement that each party shall be responsible for paying its pro-rata share of the costs and fees associated with mediation, and the mediating parties' understanding regarding the confidentiality of discussions and documents introduced during mediation. If mediation results in settlement of the administrative dispute, the District will enter a final order consistent with the settlement agreement. If mediation terminates without settlement of the dispute, the District will notify all the parties in writing that the administrative hearing process under Sections 120.569 and 120.57, Florida Statutes, is resumed. Even if a party chooses not to engage in formal mediation, or if formal mediation does not result in a settlement agreement, the District will remain willing to engage in informal settlement discussions.

3. A person whose substantial interests are or may be affected has the right to an informal administrative hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes, where no material facts are in dispute. A petition for an informal hearing must also comply with the requirements set forth in Rule 28-106.301, Florida Administrative Code.

4. A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Palatka, Florida during the District's regular business hours. The District's regular business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Petitions received by the District Clerk after the District's regular business hours shall be deemed filed as of 8:00 a.m. on the District's next regular business day. The District's acceptance of petitions filed by e-mail is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation (issued pursuant to Rule 28-101.001, Florida Administrative Code), which is available for viewing at *www.sjrwmd.com*. These conditions include, but are not limited to, the petition being in the form of a PDF or TIFF file and being capable of being stored and printed by the District. Further, pursuant to the District's Statement of Agency Organization and Operation, attempting to file a petition by facsimile is prohibited and shall not constitute filing.

5. Failure to file a petition for an administrative hearing within the requisite timeframe shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, Florida Administrative Code).

6. The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40C-1.1007, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District's final action may be different from the position taken by it in this notice. A person whose substantial interests are or may be affected by the District's final action has the right to become a party to the proceeding, in accordance with the requirements set forth above.

7. Pursuant to Section 120.68, Florida Statutes, a party to the proceeding before the District who is adversely affected by final District action may seek review of the action in the District Court of Appeal by filing a notice of appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, within 30 days of the rendering of the final District action.

8. A District action is considered rendered, as referred to in paragraph no. 7 above, after it is signed on behalf of the District and filed by the District Clerk.

9. Failure to observe the relevant timeframes for filing a petition for judicial review as described in paragraph no. 7 above will result in waiver of that right to review.

NOR.Decision.DOC.001
Revised 12.7.11

Notice of Rights

Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing Notice of Rights has been sent to the permittee:

Legacy Villas at Cocoa LLC
3850 Bird Rd Ste 700
Miami, FL 33146-1507

This 16th day of June 2025.



Jeffrey Prather, Division Director

Permit Number: 102344-2

NOTICING INFORMATION

Please be advised that the St. Johns River Water Management District will not publish a notice in the newspaper advising the public that it has issued a formal wetland determination.

Newspaper publication, using the District's notice form, notifies members of the public of their right to challenge the issuance of the formal wetland determination. If proper notice is given by newspaper publication, then there is a 21-day time limit for someone to file a petition for an administrative hearing to challenge the issuance of the formal wetland determination.

To close the point of entry for filing a petition, you may publish (at your own expense) a one-time notice of the District's decision in a newspaper of general circulation within the affected area as defined in Section 50.011 of the Florida Statutes. If you do not publish a newspaper notice to close the point of entry, the time to challenge the issuance of your formal wetland determination will not expire.

A copy of the notice form and a partial list of newspapers of general circulation are attached for your convenience. However, you are not limited to those listed newspapers. If you choose to close the point of entry and the notice is published, the newspaper will return to you an affidavit of publication. In that event, it is important that you either submit a scanned copy of the affidavit by emailing it to *compliancesupport@sjrwmd.com* (preferred method) **or** send a copy of the original affidavit to:

Office of Business and Administrative Services
4049 Reid Street
Palatka, FL 32177

If you have any questions, please contact the Office of Business and Administrative Services at (386) 329-4570.

NOTICE OF AGENCY ACTION TAKEN BY THE
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

Notice is given that the following formal wetland determination was issued on _____:

(Name and address of petitioner:)_____ formal wetland determination #_____. The property subject to this determination is located in _____County, Section _____, Township _____ South, Range _____ East. This determination authorizes the delineation of the landward extent of wetlands and other surface waters as determined by the District on the _____ acres known as _____.

A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code (F.A.C.), the petition must be filed (received) either by delivery at the office of the District Clerk at District Headquarters, P.O. Box 1429, Palatka FL 32178-1429 (4049 Reid St, Palatka, FL 32177) or by e-mail with the District Clerk at Clerk@sjrwmd.com, within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes (F.S.), and Chapter 28-106, F.A.C. The District will not accept a petition sent by facsimile (fax). Mediation pursuant to Section 120.573, F.S., may be available and choosing mediation does not affect your right to an administrative hearing.

A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Palatka, Florida during the District's regular business hours. The District's regular business hours are 8 a.m. – 5 p.m., excluding weekends and District holidays. Petitions received by the District Clerk after the District's regular business hours shall be deemed filed as of 8 a.m. on the District's next regular business day. The District's acceptance of petitions filed by e-mail is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation (issued pursuant to Rule 28-101.001, Florida Administrative Code), which is available for viewing at www.sjrwmd.com. These conditions include, but are not limited to, the petition being in the form of a PDF or TIFF file and being capable of being stored and printed by the District. Further, pursuant to the District's Statement of Agency Organization and Operation, attempting to file a petition by facsimile (fax) is prohibited and shall not constitute filing.

The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40C-1.1007, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District's final action may be different from the position taken by it in this notice. **Failure to file a petition for an administrative hearing within the requisite time frame shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, F.A.C.).**

If you wish to do so, please visit http://www.sjrwmd.com/nor_dec/ to read the complete Notice of Rights to determine any legal rights you may have concerning the District's decision(s) on the formal wetland determination described above. You can also request the Notice of Rights by contacting the Director of Business and Administrative Services, 4049 Reid St., Palatka, FL 32177-2529, tele. no. (386)329-4570.

NEWSPAPER ADVERTISING

ALACHUA
Legal Advertising
The Gainesville Sun
2700 SW 13th Street
Gainesville, FL 32608
866-858-9652 (Option 3)

BAKER
Baker County Press, Legal Advertising
P. O. Box 598
Maclenny, FL 32063
904-259-2400/ fax 904-259-6502

BRAFORD
Bradford County Telegraph, Legal Advertising
P. O. Drawer A
Starke, FL 32901
904-964-6305/ fax 904-964-8628

BREVARD
Florida Today, Legal Advertising
P. O. Box 419000
Melbourne, FL 32941-9000
321-242-3832/ fax 321-242-6618

CLAY
Clay Today, Legal Advertising
1560 Kinsley Ave., Suite 1
Orange Park, FL 32073
904-264-3200/ fax 904-264-3285

DUVAL
Daily Record, Legal Advertising
P. O. Box 1769
Jacksonville, FL 32201
904-356-2466 / fax 904-353-2628

FLAGLER
Flagler Tribune, c/o News Journal
P. O. Box 2831
Daytona Beach, FL 32120-2831
386- 681-2322

INDIAN RIVER
Treasure Coast News
760 NW Enterprise Dr.
Port St. Lucie, FL 34986
772-283-5252

LAKE
Daily Commercial, Legal Advertising
P. O. Drawer 490007
Leesburg, FL 34749
352-365-8235/fax 352-365-1951

MARION
Ocala Star Banner, Legal Advertising
2121 SW 19th Avenue Road
Ocala, FL 34474
352-867-4010/fax 352-867-4126

NASSAU
News-Leader, Legal Advertising
P. O. Box 766
Fernandina Beach, FL 32035
904-261-3696/fax 904-261-3698

OKEECHOBEE
Okeechobee News, Legal Advertising
P. O. Box 639
Okeechobee, FL 34973-0639
863-763-3134/fax 863-763-5901

ORANGE
Sentinel Communications, Legal Advertising
633 N. Orange Avenue
Orlando, FL 32801
407-420-5160/ fax 407-420-5011

OSCEOLA
Little Sentinel, Legal Advertising
633 N. Orange Avenue
Orlando, FL 32801
407-420-5160/ fax 407-420-5011

PUTNAM
Palatka Daily News, Legal Advertising
P. O. Box 777
Palatka, FL 32178
386-312-5200/ fax 386-312-5209

ST. JOHNS
St. Augustine Record, Legal Advertising
P. O. Box 1630
St. Augustine, FL 32085
904-819-3439

SEMINOLE
Sanford Herald, Legal Advertising
300 North French Avenue
Sanford, FL 32771
407-323-9408

VOLUSIA
News Journal Corporation, Legal Advertising
P. O. Box 2831
Daytona Beach, FL 32120-2831
(386) 681-2322

NOTES:

1. SPECIFIC PURPOSE SURVEY FOR FORMAL WETLAND DETERMINATION LOCATIONS WITHIN A PARCEL OF LAND IN SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA.
2. SPECIFIC PURPOSE SURVEY FOR DEFINING LIMITS OF WETLANDS ONLY.
3. IMPROVEMENTS, WHETHER ABOVEGROUND OR UNDERGROUND, ARE NOT LOCATED OR SHOWN ON THIS SURVEY.
4. BEARING REFERENCE: ASSUMED BEARING OF N89°08'33"E ON THE WEST LINE OF THE SOUTHWEST ONE-QUARTER OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA.
5. THIS SPECIFIC PURPOSE SURVEY IS SUBJECT TO EASEMENTS, RESTRICTIONS, RESERVATIONS AND RIGHTS-OF-WAY OF RECORD.
6. THIS SPECIFIC PURPOSE SURVEY IS SUBJECT TO ANY FACTS THAT MAY BE REVEALED BY A COMPLETE AND ACCURATE TITLE SEARCH AND/OR ABSTRACT.
7. THIS SPECIFIC PURPOSE SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER UNLESS ELECTRONICALLY SIGNED AND SEALED IN ACCORDANCE WITH FLORIDA STATUTES CHAPTER 472.025.
8. THIS SPECIFIC PURPOSE SURVEY MEETS THE STANDARDS OF PRACTICE FOR SURVEYS AS REQUIRED BY FLORIDA STATUTES CHAPTER 472 AND THE STANDARDS OF PRACTICE FOR SURVEYS AS REQUIRED BY CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE.
9. DATE OF LAST FIELD WORK: 03/28/2025
10. PROPERTY BOUNDARY INFORMATION SHOWN IS TAKEN FROM A BOUNDARY & TOPOGRAPHIC SURVEY OF THIS PROPERTY PERFORMED AND PREPARED BY THIS COMPANY, DRAWING NUMBER 11748_100_003, DRAWING DATE 03/31/2025, LAST REVISED 04/01/2025.
11. WETLAND LOCATIONS SHOWN AND NOTED HEREON ARE BASED UPON INFORMATION PROVIDED BY OTHERS.

DESCRIPTION FROM EXHIBIT "A" IN THAT CERTAIN SPECIAL WARRANTY DEED RECORDED IN OFFICIAL RECORDS BOOK 9424, PAGE 2754, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA:

PARCEL 1:

THE SOUTH QUARTER (S 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA, EXCEPT ROAD RIGHT-OF-WAY.

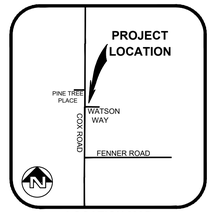
PARCEL 2:

THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, LESS THE WEST 33 FEET FOR COX ROAD RIGHT-OF-WAY.

ALSO DESCRIBED AS:

A PARCEL OF LAND BEING THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA, LESS AND EXCEPT THE RIGHT OF WAY OF COX ROAD, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A BRASS DISK (NO IDENTIFICATION) WHICH MONUMENTS THE SOUTHWEST CORNER OF SAID SECTION 24, AND RUN N. 89°14'57" E., ALONG THE SOUTH LINE OF SAID SECTION, A DISTANCE OF 33.00 FEET TO A POINT ON THE EAST RIGHT OF WAY LINE OF COX ROAD, THE POINT OF BEGINNING; THENCE CONTINUE N. 89°14'57" E., ALONG SAID SOUTH LINE, A DISTANCE OF 2610.50 FEET TO A 4" X 4" CONCRETE MONUMENT (NO IDENTIFICATION), WHICH MARKS THE SOUTH 1/4 CORNER OF SAID SECTION; THENCE N. 00°20'16" E., ALONG THE EAST LINE OF THE SOUTHWEST 1/4, A DISTANCE OF 1332.14 FEET TO THE NORTH-EAST CORNER OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4; THENCE S. 89°07'58" W., ALONG THE NORTH LINE OF SAID SOUTH 1/2 OF THE SOUTHWEST 1/4, A DISTANCE OF 2614.10 FEET TO A POINT ON THE EAST RIGHT OF WAY LINE OF COX ROAD (A 66 FOOT WIDE RIGHT OF WAY); THENCE S. 00°11'14" W., ALONG SAID EAST RIGHT OF WAY LINE A DISTANCE OF 1326.77 FEET TO THE POINT OF BEGINNING.



LOCATION MAP
N.T.S.

Point Table		
Point #	Northing	Easting
2	1470263.89	725609.74
3	1470237.69	725596.58
4	1470204.24	725589.58
5	1470167.93	725613.77
6	1470112.64	725605.19
7	1470066.12	725619.10
8	1470026.48	725605.34
9	1469971.94	725609.30
10	1469929.06	725625.11
11	1469892.34	725626.47
12	1469880.00	725626.50
13	1469838.53	725613.71
14	1469795.24	725604.14
15	1469728.32	725591.73
16	1469694.41	725545.16
17	1469624.20	725511.51
18	1469620.81	725460.39
19	1469607.66	725418.61
20	1469575.55	725352.74
21	1469576.56	725302.25
22	1469567.04	725265.61
23	1469548.01	725205.84
24	1469574.86	725171.08
25	1469536.95	725122.25
26	1469545.94	725055.04
27	1469536.76	725013.57
28	1469519.60	724958.62

Point Table		
Point #	Northing	Easting
29	1469522.80	724923.87
30	1469506.76	724903.01
31	1469484.92	724893.40
32	1469470.68	724852.27
33	1469431.40	724857.81
34	1469396.43	724811.24
35	1469374.24	724808.69
36	1469357.80	724770.15
37	1469327.89	724706.84
38	1469299.49	724674.41
39	1469296.14	724644.20
40	1469272.06	724584.76
41	1469221.45	724555.25
42	1469213.00	724503.49
43	1469183.11	724454.35
44	1469190.71	724396.42
45	1468963.97	724395.67
46	1468966.79	724612.10
47	1469037.97	724612.82
48	1469110.26	724582.13
49	1469151.35	724588.50
50	1469175.75	724616.76
51	1469206.34	724645.95
52	1469187.17	724698.08
53	1469214.10	724710.57
54	1469208.72	724752.06
55	1469236.77	724778.72

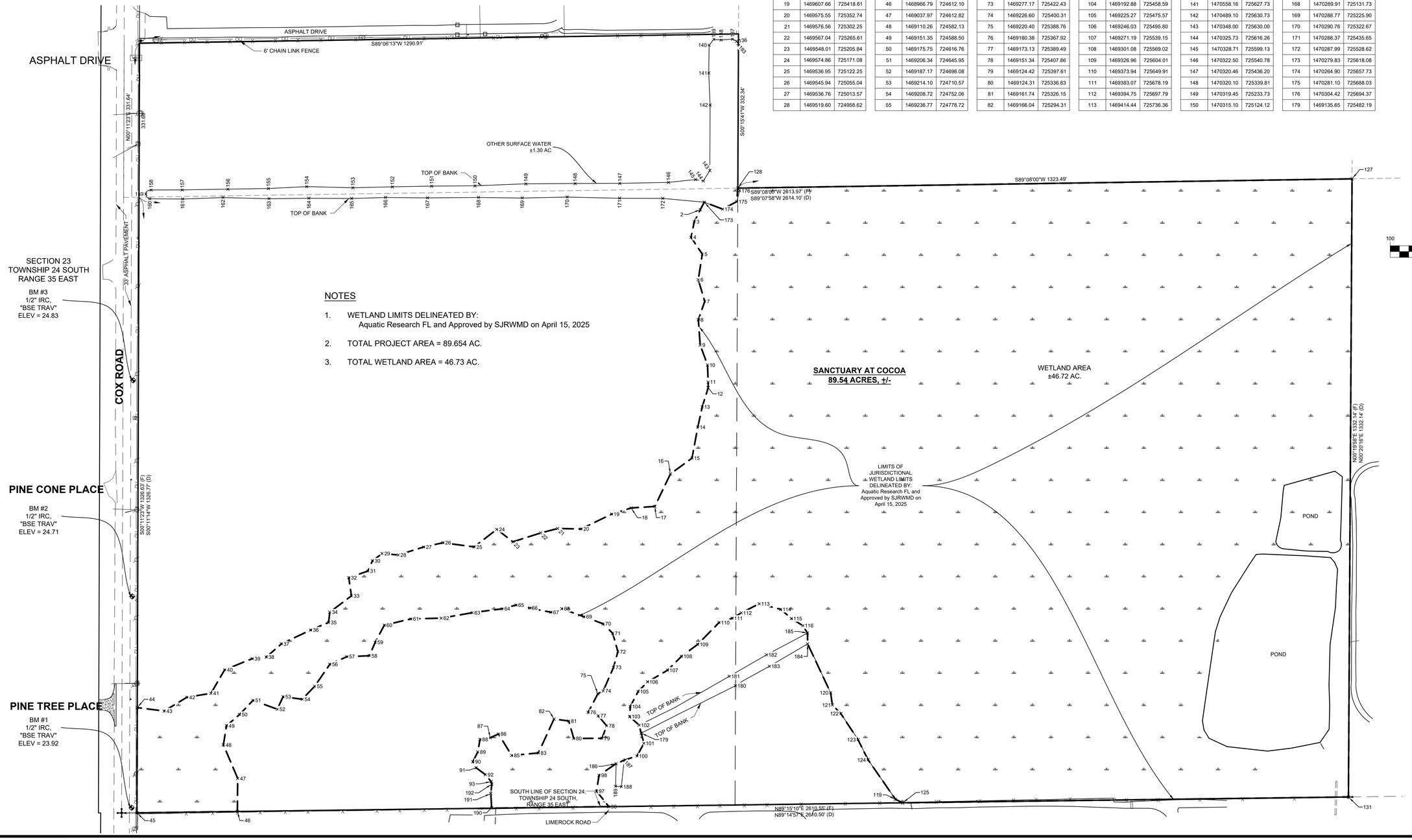
Point Table		
Point #	Northing	Easting
56	1469284.10	724811.44
57	1469300.50	724848.07
58	1469302.41	724896.28
59	1469331.17	724909.09
60	1469368.26	724928.65
61	1469381.84	724985.87
62	1469383.42	725051.15
63	1469395.14	725118.00
64	1469403.64	725182.62
65	1469411.68	725212.52
66	1469405.21	725241.81
67	1469396.18	725287.80
68	1469403.87	725311.27
69	1469386.49	725358.87
70	1469371.30	725400.06
71	1469350.98	725420.68
72	1469311.38	725431.99
73	1469277.17	725422.43
74	1469226.60	725400.31
75	1469220.40	725388.76
76	1469180.38	725367.92
77	1469173.13	725389.49
78	1469151.34	725407.86
79	1469124.42	725397.61
80	1469124.31	725336.83
81	1469161.74	725326.15
82	1469166.04	725294.31

Point Table		
Point #	Northing	Easting
83	1469092.90	725260.69
85	1469087.49	725203.17
86	1469133.83	725174.74
87	1469125.81	725156.75
88	1469122.15	725134.90
89	1469095.23	725130.12
90	1469074.12	725119.54
91	1469061.03	725126.33
92	1469046.16	725146.60
93	1469031.28	725158.86
96	1468977.23	725412.56
97	1469010.60	725385.93
98	1469044.80	725391.31
100	1469086.40	725473.26
101	1469113.67	725487.98
102	1469152.93	725477.64
103	1469171.42	725457.34
104	1469192.88	725458.59
105	1469225.27	725475.57
106	1469246.03	725495.80
107	1469271.19	725539.15
108	1469301.08	725569.02
109	1469326.96	725604.01
110	1469373.94	725649.91
111	1469383.07	725678.19
112	1469394.75	725697.79
113	1469414.44	725736.36

Point Table		
Point #	Northing	Easting
114	1469402.52	725782.68
115	1469382.57	725805.87
116	1469367.34	725830.64
119	1468992.94	726030.14
120	1469222.39	725890.39
121	1469196.22	725893.99
122	1469177.69	725912.36
123	1469121.78	725949.44
124	1469078.18	725971.05
125	1468985.49	726045.58
127	1470330.13	727013.73
128	1470310.12	725690.40
131	1468998.02	727006.00
137	1470631.37	725678.94
138	1470629.42	725654.42
139	1470630.87	725638.62
140	1470618.33	725628.49
141	1470558.16	725627.73
142	1470489.10	725630.73
143	1470348.00	725630.00
144	1470325.73	725616.26
145	1470328.71	725599.13
146	1470322.50	725540.78
147	1470320.46	725436.20
148	1470320.10	725339.81
149	1470319.45	725233.73
150	1470315.10	725124.12

Point Table		
Point #	Northing	Easting
151	1470314.43	725030.77
152	1470313.01	724946.07
153	1470311.06	724861.15
154	1470313.49	724761.59
155	1470309.26	724679.04
156	1470307.90	724591.73
157	1470306.33	724493.25
158	1470306.08	724426.23
159	1470297.52	724414.83
160	1470287.17	724423.26
161	1470286.67	724494.19
162	1470289.84	724581.13
163	1470287.34	724680.19
164	1470288.30	724766.20
165	1470287.82	724858.40
166	1470289.99	724931.27
167	1470289.17	725021.85
168	1470289.91	725131.73
169	1470288.77	725225.90
170	1470290.76	725322.67
171	1470288.37	725435.65
172	1470287.99	725528.62
173	1470279.83	725618.08
174	1470264.90	725657.73
175	1470281.10	725688.03
176	1470304.42	725694.37
179	1469135.65	725482.19

Point Table		
Point #	Northing	Easting
180	1469237.78	725685.41
181	1469258.17	725671.99
182	1469304.50	725752.12
183	1469279.79	725758.40
184	1469327.89	725840.82
185	1469351.32	725840.45
186	1469069.81	725428.16
187	1469077.33	725445.28
188	1469020.18	725439.53
189	1469020.80	725426.95
190	1468974.54	725159.92
191	1469005.47	725158.10
192	1469025.80	725160.28
193	1470619.18	725691.81



NOTES

1. WETLAND LIMITS DELINEATED BY:
   Aquatic Research FL and Approved by SJRWMD on April 15, 2025
2. TOTAL PROJECT AREA = 89.654 AC.
3. TOTAL WETLAND AREA = 46.73 AC.

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DIR	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
ELEV/EL	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NH	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

1		
2		
3		
4		
5		
6	SJRWMD COMMENTS	06/09/25
7	SJRWMD COMMENTS	05/28/25
8	CLIENT COMMENTS	05/16/25
9	SJRWMD COMMENTS	05/15/25
DATE:		05/02/2025
DESIGN/DRAWN:		LEH / TBS

PROJECT TITLE

SANCTUARY AT COCOA

SHEET TITLE

SPECIFIC PURPOSE SURVEY FOR FORMAL JURISDICTIONAL DETERMINATION

PROJECT NO.
11748

DRAWING NO.
11748_100_005_WETLAND

SHEET
1 of 1

H:\Projects Folder\11748\Drawings\11748_100\11748_100_005_WETLAND.dwg, June 9, 2025 3:23:41 PM, fs

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

June 27, 2025

Regulatory Division
Cocoa Section
SAJ-2025-00660 (JD-ALD)
PRELIMINARY JD

Jeff Alexander
Meritage Homes of Florida, Inc.
1395 University Blvd Suite 300
Jupiter, FL 33458
Sent via email: jeff.alexander@merigatehomes.com

Dear Mr. Alexander:

Reference is made to your request for a preliminary jurisdictional determination (preliminary JD). Based on information submitted to the U.S. Army Corps of Engineers (Corps) we have preliminarily determined there may be waters of the United States, including wetlands/we have indicated the approximate location(s) of waters of the United States or wetlands) on your parcel located south of Watson Way and east of Cox Rd in Section 24, Township 35 South, Range 24 East, Cocoa, Brevard County, Florida, Latitude 28.37684, Longitude -80.783909 Two copies of the preliminary JD form in support of our preliminary JD are enclosed. Please carefully read the preliminary JD form, then sign and return one of the copies to us at the letterhead address within 30 days from the date of this letter.

Please be advised a Department of the Army permit **will be required** for regulated work in all areas which may be waters of the United States, as indicated in this preliminary JD. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands, which would be affected in any way by the permitted activity on the site, as if they are jurisdictional waters of the United States.

Should you desire an official Corps determination that jurisdictional “waters of the United States,” or “navigable waters of the United States,” or both, are either present or absent on a particular site, the Corps will issue an approved JD when requested.

You are cautioned that work performed in areas which may be waters of the United States, as indicated in the preliminary JD, without a Department of the Army permit could subject you to enforcement action. Receipt of a permit from the Florida Department of Environmental Protection or the Water Management District does not obviate the requirement for obtaining a Department of the Army permit for such work prior to commencing work.

This preliminary JD has been conducted to identify the potential for Clean Water Act and/or Rivers and Harbors Act jurisdiction for the particular site identified in this request. This preliminary JD may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are U.S. Department of Agriculture (USDA) program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

The Corps' Jacksonville District Regulatory Division is committed to improving service to our customers. We strive to perform our duty in a friendly and timely manner while working to preserve our environment. We invite you to take a few minutes to visit https://regulatory.ops.usace.army.mil/customer-service-survey/ and complete our automated Customer Service Survey. Your input is appreciated – favorable or otherwise.

Thank you for your cooperation with our permit program. If you have any questions concerning this matter please contact Alexi Depp by mail at the letterhead address, by electronic mail at alexi.l.depp@usace.army.mil, or by telephone at 321-666-1244.

Sincerely,

Alexi Depp
Digitally signed by DEPP.ALEXI.L.1637860964
Date: 2025.06.27 12:15:31 -04'00'

Alexi Depp
Project Manager, Cocoa Section

Enclosures
Notice of Administrative Appeal Options and Process and Request for Appeal Form ENG6249 Form
Map of resources on site

cc:
Jennifer Acevedo (Aquatic Research Monitoring Equipment and Deployment LLC)
acevedojmr@gmail.com

U.S. Army Corps of Engineers (USACE)

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

For use of this form, see Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, and Section 103 of the Marine Protection, Research, and Sanctuaries Act; the proponent agency is CECW-COR.

Form Approved -
OMB No. 0710-0003
Expires 2027-10-31

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority The authorities for requesting this information are Sections 9, 10, 13, and 14, Rivers and Harbors Act of March 3, 1899; Section 404, Clean Water Act; and Section 103 Marine Protection Research and Sanctuaries Act of 1972.

Principal Purpose This information serves as notification to affected parties regarding the USACE administrative appeal options and process, as well as to facilitate requests for appeal of USACE decisions with which they disagree.

Routine Uses Routine uses will include: (a) To serve as notification to affected parties of the Corps administrative appeal options and process and to facilitate requests for appeal of Corps decisions with which they disagree. (b) Records may be referred to the Department of Justice for possible criminal prosecution. (c) Records may be referred to other Federal, State, and local agencies for evaluation and enforcement purposes.

Disclosure Disclosure of this information is voluntary on your part. However, failure of individual to provide requested information could result in inability to determine all pertinent information regarding a Department of the Army permit matter.

The Agency Disclosure Notice (ADN)

The Public reporting burden for this collection of information, 0710-0003, is estimated to average 1 hour per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PURPOSE: This form is used to facilitate the initiation of the administrative appeals process. The appeals process allows an affected party to pursue an administrative appeal of certain Corps of Engineers decisions with which they disagree.

Upon release, this form will also be available on the Corps website https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/

Applicant: Jeff Alexander (Meritage Homes)	File Number: SAJ-2025-00660	Date:

Documents Attached (*select all that apply*):		Form Reference Section:
☐	INITIAL PROFFERED PERMIT (*Standard Permit or Letter of Permission*)	A
☐	PROFFERED PERMIT (*Standard Permit or Letter of Permission*)	B
☐	PERMIT DENIAL WITHOUT PREJUDICE	C
☐	PERMIT DENIAL WITH PREJUDICE	D
☐	APPROVED JURISDICTIONAL DETERMINATION	E
☒	PRELIMINARY JURISDICTIONAL DETERMINATION	F

SECTION I

The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/appeals/ or Corps regulations at 33 CFR Part 331.

A: **INITIAL PROFFERED PERMIT**: *You may accept or object to the permit*

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: *You may accept or appeal the permit*

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C. PERMIT DENIAL WITHOUT PREJUDICE: *Not appealable*

You received a permit denial without prejudice because a required Federal, state, and/or local authorization and/or certification has been denied for activities which also require a Department of the Army permit before final action has been taken on the Army permit application. The permit denial without prejudice is not appealable. There is no prejudice to the right of the applicant to reinstate processing of the Army permit application if subsequent approval is received from the appropriate Federal, state, and/or local agency on a previously denied authorization and/or certification.

D: PERMIT DENIAL WITH PREJUDICE: *You may appeal the permit denial*

You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: APPROVED JURISDICTIONAL DETERMINATION: *You may accept or appeal the approved JD or provide new information for reconsideration*

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety and waive all rights to appeal the approved JD.

- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

- RECONSIDERATION: You may request that the district engineer reconsider the approved JD by submitting new information or data to the district engineer within 60 days of the date of this notice. The district will determine whether the information submitted qualifies as new information or data that justifies reconsideration of the approved JD. A reconsideration request does not initiate the appeal process. You may submit a request for appeal to the division engineer to preserve your appeal rights while the district is determining whether the submitted information qualifies for a reconsideration.

F: PRELIMINARY JURISDICTIONAL DETERMINATION: *Not appealable*

You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision you may contact:		If you have questions regarding the appeal process, or to submit your request for appeal, you may contact:	
Name:	Project Manager as noted in the letter.	Name:	Jonathan Swartz
Street Address, City, State:	Project Manager as noted in the letter.	Street Address, City, State:	USACE South Atlantic Division 60 Forsyth Street SW Atlanta, Georgia 30303-8801
Phone:	Project Manager as noted in the letter.	Phone:	912-710-1798
Email:	Project Manager as noted in the letter.	Email:	Jonathan.M.Swartz@usace.army.mil

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT	
REASONS FOR APPEAL OR OBJECTIONS: (*Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. Use additional pages as necessary. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.*)	
ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.	
RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation and will have the opportunity to participate in all site investigations.	
Email address of appellant and/or agent	Telephone number
Signature of appellant or agent	Date

U.S. Army Corps of Engineers (USACE)

PRELIMINARY JURISDICTIONAL DETERMINATION (PJD)

For use of this form, see Sec 404 CWA, Sec 10 RHA, Sec 103 MPRSA; the proponent agency is CECW-COR.

Form Approved - OMB No. 0710-0024 Expires 2027-09-30

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

Principal Purpose This form is used by USACE staff in evaluating your request to determine whether there are any aquatic resources within the review area that may be subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice or FOIA request as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in any resulting jurisdictional determination (JD), which may be made available to the public on the District's website and/or on the Headquarters USACE website.

Disclosure Submission of requested information is voluntary; however, if information is not provided, the request for a JD cannot be evaluated nor can a PJD be issued.

The Agency Disclosure Notice (ADN)

The public reporting burden for this collection of information, 0710-0024, is estimated to average 25 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

SECTION I - BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD:

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Jeff Alexander
Meritage Homes of Florida, Inc.
1395 University Blvd Suite 300
Jupiter, FL 33458

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

Jacksonville Distric- Cocoa Office, SAJ-2025-00660 Legacy Villa at Cocoa

D. PROJECT LOCATION AND BACKGROUND INFORMATION:

(*USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES*)

State: Florida County/Parish/Borough: Brevard City: Cocoa

Center coordinates of site (*lat/long in degree decimal format*): Latitude: 28.37684 ° Longitude: -80.78390 °

Universal Transverse Mercator:

Name of nearest waterbody: Big Mud Lake

E. REVIEW PERFORMED FOR SITE EVALUATION (*CHECK ALL THAT APPLY*):

☒ Office (*Desk*) Determination. Date:

☒ Field Determination

Date(s): 25 April 2025

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

	Site Number	Latitude (*decimal degrees*)	Longitude (*decimal degrees*)	Estimated amount of aquatic resource in review area (*acreage and linear feet, if applicable*)	Type of aquatic resource (*i.e., wetland vs. non-wetland waters*)	Geographic authority to which the aquatic resource "may be" subject (*i.e., Section 404 or Section 10/404*)

	Site Number	Latitude (*decimal degrees*)	Longitude (*decimal degrees*)	Estimated amount of aquatic resource in review area (*acreage and linear feet, if applicable*)	Type of aquatic resource (*i.e., wetland vs. non-wetland waters*)	Geographic authority to which the aquatic resource "may be" subject (*i.e., Section 404 or Section 10/404*)
	Wetland 1	28.377035684093306	-80.783273496385599	46.7 Acres	Wetland	Section 404
	Ditch 1	28.378320108840012	-80.784899002395566	1.30 Acres	Non-wetland waters	Section 404
	Ditch 2	28.375414189496812	-80.784101779716080	0.19 Acres	Non-wetland waters	Section 404
	Pond	28.375341312745599	-80.780384858417830	2 Acres	Non-wetland waters	Section 404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD or no JD whatsoever, which do not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the USACE has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD or reliance on no JD whatsoever; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of USACE permit authorization based on a PJD or no JD whatsoever constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the USACE will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

F. SUPPORTING DATA. Data reviewed for PJD (*check all that apply)*

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:

Map: _____

☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.

☐ Office concurs with data sheets/delineation report.

☐ Office does not concur with data sheets/delineation report.

Rationale: _____

☐ Data sheets prepared by the USACE:

_____

☐ Corps navigable waters' study:

_____

☐ U.S. Geological Survey Hydrologic Atlas:

☐ USGS NHD data.

☐ USGS 8 and 12 digit HUC maps.

☐ U.S. Geological Survey map(s). Cite scale & quad name:

☐ USDA Natural Resources Conservation Service Soil Survey.

Citation:

☒ National Wetlands Inventory map(s).

Cite Name:

☐ State/Local Wetland Inventory map(s):

☐ FEMA/FIRM maps:

☐ 100-year Floodplain Elevation is: _____. (National Geodectic Vertical Datum of 1929)

☒ Photographs: ☐ Aerial (*Name & Date*):

or ☐ Other (*Name & Date*):

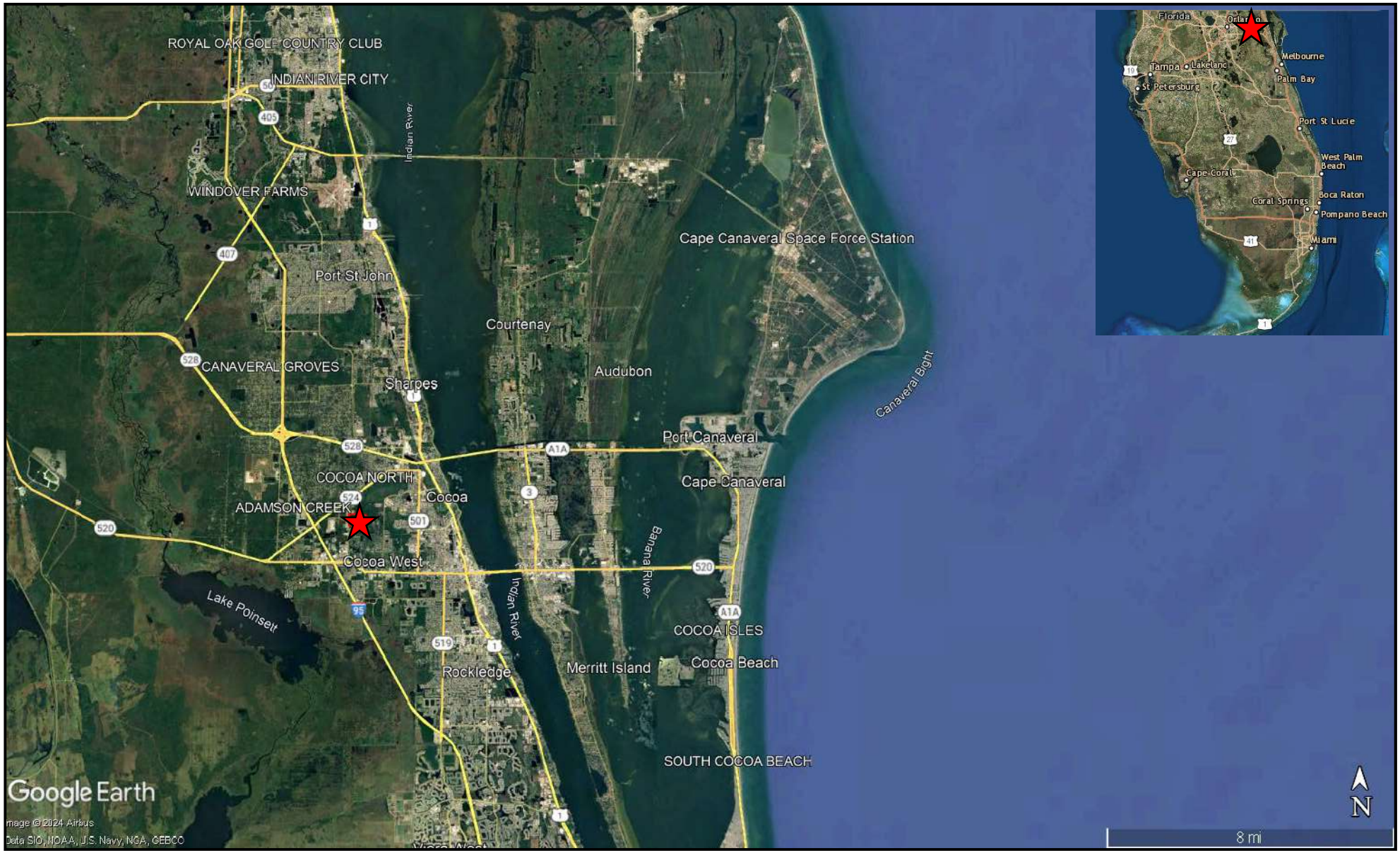
☐ Previous determination(s). File no. and date of response letter:

☐ Other information (*please specify*):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the USACE and should not be relied upon for later jurisdictional determinations.

Name of Regulatory Staff Member Completing PJD	Date	Signature of Regulatory Staff Member Completing PJD
Alexi Depp	2025-06-27	Alexi Depp Digitally signed by DEPP.ALEXI.L.1637860964 Date: 2025.06.27 12:12:56 -04'00'
Name of Person Requesting PJD	Date	Signatureof Person Requesting PJD *(REQUIRED, unless obtaining the Signature is Impracticable*
Jeff Alexander (Vice President of Land Development)	2025-06-30	VICE PRESIDENT OF LAND

[1] Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.



ENVIRONMENTAL CONSULTING DEPARTMENT

Aquatic RESEARCH Monitoring, Equipment, & Deployment, LLC.

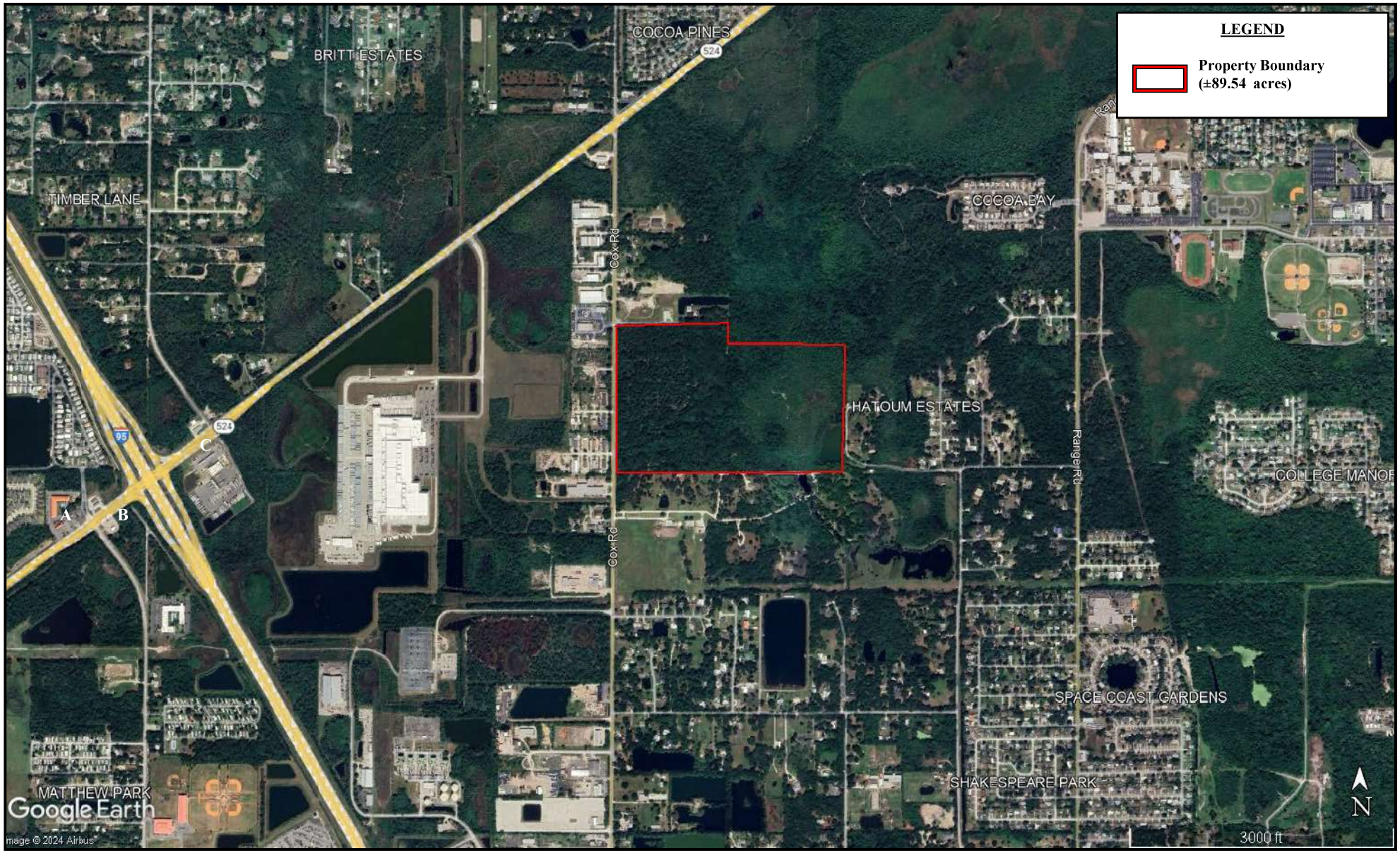
Location Map

Eastside of Cox Road, S of SR-524, and N of Lake Drive
City of Cocoa, Indian River County, Florida
PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510
Section 24, Township 35 S, Range 24 E

Figure 1

Image: Google Earth 2022

N



ENVIRONMENTAL CONSULTING DEPARTMENT

Aquatic RESEARCH Monitoring, Equipment, & Deployment, LLC.

Site Map

Eastside of Cox Road, S of SR-524, and N of Lake Drive
City of Cocoa, Indian River County, Florida
PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510
Section 24, Township 35 S, Range 24 E

Figure 2

Image: Google Earth /2022

N



ENVIRONMENTAL CONSULTING DEPARTMENT

Aquatic RESEARCH Monitoring, Equipment, & Deployment, LLC.

Jurisdictional Wetland and Waters Map

Eastside of Cox Road, S of SR-524, and N of Lake Drive
City of Cocoa, Indian River County, Florida
PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510
Section 24, Township 35 S, Range 24 E

Figure 3

Image: Google Earth 2022
WETLAND: Aquatic Research Monitoring, Equipment, & Deployment LLC

N

Appendix D

Standard Eastern Indigo Snake Protection Measures

Eastern Indigo Snake Programmatic Effect Determination Key

Aquatic RESEARCH FL.com



ENVIRONMENTAL CONSULTING

WETLANDS , PROTECTED SPECIES, & PERMITTING

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
U.S. Fish and Wildlife Service

March 23, 2021

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida and Georgia for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: jaxregs@fws.gov; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: panamacity@fws.gov; Georgia Field Office: gaesassistance@fws.gov). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or approval from the USFWS is needed and the applicant may move forward with the project.

If the applicant decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or approval from the USFWS that the plan is adequate must be obtained. At least 30 days prior to any clearing/land alteration activities, the applicant shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

POSTER INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11 x 17in or larger paper and laminated, is attached):

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat.

These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida and Georgia. Although they have a preference for uplands, they also utilize some wetlands and agricultural areas and often move seasonally between upland and lowland habitats, particularly in the northern portions of its range (North Florida and Georgia). Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Reliance on xeric sandhill habitats throughout the northern portion of the range in northern Florida and Georgia is due to the dependence on gopher tortoise burrows for shelter during winter. Breeding occurs during October through February. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION UNDER FEDERAL AND STATE LAW: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. Taking of eastern indigo snakes is prohibited by the Endangered Species Act without a permit is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of $25,000 for civil violations and up to $50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

IF YOU SEE A <u>LIVE</u> EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes. Â
- Immediately notify supervisor or the applicants designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicants designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office: (904) 731-3336
Panama City Field Office: (850) 769-0552
South Florida Field Office: (772) 562-3909
Georgia Field Office: (706) 613-9493

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.

2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5 x 11in paper and then properly folded, is attached). Â Photos of eastern indigo snakes may be accessed on USFWS and/or FWC or GADNR websites.

3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

DURING CONSTRUCTION ACTIVITIES

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).

2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.

3. Periodically during construction activities, the applicants designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

POST CONSTRUCTION ACTIVITIES

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.

United States Department of the Interior
U. S. FISH AND WILDLIFE SERVICE
7915 BAYMEADOWS WAY, SUITE 200
JACKSONVILLE, FLORIDA 32256-7517

IN REPLY REFER TO:
August 13, 2013

Colonel Alan M. Dodd, District Engineer
Department of the Army
Jacksonville District Corps of Engineers
P.O Box 4970
Jacksonville, Florida 32232-0019
(Attn: Mr. David S. Hobbie)

RE: Update Addendum to USFWS Concurrence Letter to U.S. Army Corps of Engineers Regarding Use of the Attached Eastern Indigo Snake Programmatic Effect Determination Key

Dear Colonel Dodd:

This letter is to amend the January 25, 2010, letter to the U.S. Army Corps of Engineers regarding the use of the attached eastern indigo snake programmatic effect determination key (key). It supersedes the update addendum issued January 5, 2012.

We have evaluated the original programmatic concurrence and find it suitable and appropriate to extend its use to the remainder of Florida covered by the Panama City Ecological Services Office.

On Page 2

The following replaces the last paragraph above the signatures:

"Thank you for your continued cooperation in the effort to conserve fish and wildlife resources. Any questions or comments should be directed to Annie Dziergowski (North Florida ESO) at 904-731-3089, Harold Mitchell (Panama City ESO) at 850-769-0552, or Victoria Foster (South Florida ESO) at 772-469-4269."

On Page 3

The following replaces both paragraphs under "Scope of the key":

"This key should be used only in the review of permit applications for effects determinations for the eastern indigo snake within the State of Florida, and not for other listed species or for aquatic resources such as Essential Fish Habitat (EFH)."

On Page 4

The following replaces the first paragraph under Conservation Measures:

"The Service routinely concurs with the Corps' "not likely to adversely affect" (NLAA) determination for individual project effects to the eastern indigo snake when assurances are given that

our *Standard Protection Measures for the Eastern Indigo Snake* (Service 2013) located at: http://www.fws.gov/northflorida/IndigoSnakes/indigo-snakes.htm will be used during project site preparation and project construction. There is no designated critical habitat for the eastern indigo snake."

On Page 4 and Page 5 (Couplet D)

The following replaces D. under Conservation Measures:

D. The project will impact less than 25 acres of xeric habitat (scrub, sandhill, or scrubby flatwoods) or less than 25 active and inactive gopher tortoise burrows.....*go to* E

The project will impact more than 25 acres of xeric habitat (scrub, sandhill, or scrubby flatwoods) or more than 25 active and inactive gopher tortoise burrows and consultation with the Service is requested[2].....*"may affect"*

On Page 5

The following replaces footnote #3:

"[3]If excavating potentially occupied burrows, active or inactive, individuals must first obtain state authorization via a FWC Authorized Gopher Tortoise Agent permit. The excavation method selected should also minimize the potential for injury of an indigo snake. Applicants should follow the excavation guidance provided within the most current Gopher Tortoise Permitting Guidelines found at http://myfwc.com/gophertortoise ."

Thank you for making these amendments concerning the Eastern Indigo Snake Key. If you have any questions, please contact Jodie Smithem of my staff at the address on the letterhead, by email at jodie_smithem@fws.gov, or by calling (904)731-3134.

Sincerely,

Dawn Jennings
Acting Field Supervisor

cc:
Panama City Ecological Services Field Office, Panama City, FL
South Florida Ecological Services Field Office, Vero Beach, FL

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960

January 25, 2010

David S. Hobbie
Chief, Regulatory Division
U.S. Army Corps of Engineers
Post Office Box 4970
Jacksonville, Florida 32232-0019

Service Federal Activity Code: 41420-2009-FA-0642
Service Consultation Code: 41420-2009-I-0467
41910-2010-I-0045
Subject: North and South Florida Ecological Services Field Offices Programmatic Concurrence for Use of Original Eastern Indigo Snake Key(s) Until Further Notice

Dear Mr. Hobbie:

The U.S. Fish and Wildlife Service's (Service) South and North Florida Ecological Services Field Offices (FO), through consultation with the U.S. Army Corps of Engineers Jacksonville District (Corps), propose revision to both Programmatic concurrence letters/keys for the federally threatened Eastern Indigo Snake (*Drymarchon corais couperi*), (indigo snake), and now provide one key for both FO's. The original programmatic key was issued by the South Florida FO on November 9, 2007. The North Florida FO issued a revised version of the original key on September 18, 2008. Both keys were similar in content, but reflected differences in geographic work areas between the two Field Offices. The enclosed key satisfies each office's responsibilities under the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C.1531 *et seq.*).

Footnote number 3 in the original keys indicated "A member of the excavation team should be authorized for Incidental Take during excavation through either a section 10(a)(1)(A) permit issued by the Service or an incidental take permit issued by the Florida Fish and Wildlife Conservation Commission (FWC)." We have removed this reference to a Service issued Section 10(a)(1)(A) permit, as one is not necessary for this activity. We also referenced the FWC's revised April 2009 Gopher Tortoise Permitting Guidelines with a link to their website for updated excavation guidance, and have provided a website link to our Standard Protection Measures. All other conditions and criteria apply.

We believe the implementation of the attached key achieves our mutual goal for all users to make consistent effect determinations regarding this species. The use of this key for review of projects

TAKE PRIDE® IN AMERICA

located in all referenced counties in our respective geographic work areas leads the Service to concur with the Corps' determination of "may affect, not likely to adversely affect" (MANLAA) for the Eastern indigo snake. The biological rationale for the determinations is contained within the referenced documents and is submitted in accordance with section 7 of the Act.

Should circumstances change or new information become available regarding the eastern indigo snake or implementation of the key, the determinations may be reconsidered as deemed necessary.

Thank you for your continued cooperation in the effort to conserve fish and wildlife resources. Any questions or comments should be directed to either Allen Webb (Vero Beach) at 772-562-3909, extension 246, or Jay Herrington (Jacksonville) at 904-731-3326.

Sincerely,

Paul Souza
Field Supervisor
South Florida Ecological Services Office

David L. Hankla
Field Supervisor
North Florida Ecological Services Office

Enclosure

cc: electronic only
FWC, Tallahassee, Florida (Dr. Elsa Haubold)
Service, Jacksonville, Florida (Jay Herrington)
Service, Vero Beach, Florida (Sandra Sneckenberger)

Eastern Indigo Snake Programmatic Effect Determination Key

Scope of the key

This key should be used only in the review of permit applications for effects determinations within the North and South Florida Ecological Services Field Offices Geographic Areas of Responsibility (GAR), and not for other listed species or for aquatic resources such as Essential Fish Habitat (EFH). Counties within the **North** Florida GAR include Alachua, Baker, Bradford, Brevard, Citrus, Clay, Columbia, Dixie, Duval, Flagler, Gilchrist, Hamilton, Hernando, Hillsborough, Lafayette, Lake, Levy, Madison, Manatee, Marion, Nassau, Orange, Pasco, Pinellas, Putnam, St. Johns, Seminole, Sumter, Suwannee, Taylor, Union, and Volusia.

Counties in the **South** Florida GAR include Broward, Charlotte, Collier, De Soto, Glades, Hardee, Hendry, Highlands, Lee, Indian River, Martin, Miami-Dade, Monroe, Okeechobee, Osceola, Palm Beach, Polk, Sarasota, St. Lucie.

Habitat

Over most of its range, the eastern indigo snake frequents several habitat types, including pine flatwoods, scrubby flatwoods, high pine, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats (Service 1999). Eastern indigo snakes appear to need a mosaic of habitats to complete their life cycle. Wherever the eastern indigo snake occurs in xeric habitats, it is closely associated with the gopher tortoise *(Gopherus polyphemus),* the burrows of which provide shelter from winter cold and summer desiccation (Speake et al. 1978; Layne and Steiner 1996). Interspersion of tortoise-inhabited uplands and wetlands improves habitat quality for this species (Landers and Speake 1980; Auffenberg and Franz 1982).

In south Florida, agricultural sites, such as sugar cane fields, created in former wetland areas are occupied by eastern indigo snakes (Enge pers. comm. 2007). Formerly, indigo snakes would have only occupied higher elevation sites within the wetlands. The introduction of agriculture and its associated canal systems has resulted in an increase in rodents and other species of snakes that are prey for eastern indigo snakes. The result is that indigos occur at higher densities in these areas than they did historically.

Even though thermal stress may not be a limiting factor throughout the year in south Florida, indigo snakes still seek and use underground refugia. On the sandy central ridge of central Florida, eastern indigos use gopher tortoise burrows more (62 percent) than other underground refugia (Layne and Steiner 1996). Other underground refugia used include armadillo (*Dasypus novemcinctus*) burrows near citrus groves, cotton rat (*Sigmodon hispidus*) burrows, and land crab (*Cardisoma guanhumi*) burrows in coastal areas (Service 2006). Natural ground holes, hollows at the base of trees or shrubs, ground litter, trash piles, and crevices of rock-lined ditch walls are also used (Layne and Steiner 1996). These refugia are used most frequently where tortoise burrows are not available, principally in low-lying areas off the central and coastal ridges. In extreme south Florida (the Everglades and Florida Keys), indigo snakes are found in tropical

hardwood hammocks, pine rocklands, freshwater marshes, abandoned agricultural land, coastal prairie, mangrove swamps, and human-altered habitats (Steiner et al. 1983). It is suspected that they prefer hammocks and pine forests, because most observations occur in these habitats disproportionately to their presence in the landscape (Steiner et al. 1983). Hammocks may be important breeding areas as juveniles are typically found there. The eastern indigo snake is a snake-eater so the presence of other snake species may be a good indicator of habitat quality.

Conservation Measures

The Service routinely concurs with the Corps' "not likely to adversely affect" (NLAA) determination for individual project effects to the eastern indigo snake when assurances are given that our *Standard Protection Measures for the Eastern Indigo Snake* (Service 2004) located at: http://www.fws.gov/northflorida/IndigoSnakes/indigo-snakes will be used during project site preparation and project construction. There is no designated critical habitat for the eastern indigo snake.

In an effort to reduce correspondence in effect determinations and responses, the Service is providing an Eastern Indigo Snake Effect Determination Key, similar in utility to the West Indian Manatee Effect Determination Key and the Wood Stork Effect Determination Keys presently being utilized by the Corps. If the use of this key results in a Corps' determination of "no effect" for a particular project, the Service supports this determination. If the use of this Key results in a determination of NLAA, the Service concurs with this determination and no additional correspondence will be necessary[1]. This key is subject to revisitation as the Corps and Service deem necessary.

A. Project is not located in open water or salt marsh.....*go to* B

   Project is located solely in open water or salt marsh.....*"no effect"*

B. Permit will be conditioned for use of the Service's *Standard Protection Measures For The Eastern Indigo Snake* during site preparation and project construction.....*go to* C

   Permit will not be conditioned as above for the eastern indigo snake, or it is not known whether an applicant intends to use these measures and consultation with the Service is requested[2] .....*"may affect"*

C. There are gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activities .....*go to* D

   There are no gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activities .....*"NLAA"*

D. The project will impact less than 25 acres of xeric habitat supporting less than 25 active and inactive gopher tortoise burrows.....*go to* E

The project will impact more than 25 acres of xeric habitat or more than 25 active and inactive gopher tortoise burrows and consultation with the Service is requested[2]..... *"may affect"*

E. Any permit will be conditioned such that all gopher tortoise burrows, active or inactive, will be evacuated prior to site manipulation in the vicinity of the burrow[3]. If an indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity. Any permit will also be conditioned such that holes, cavities, and snake refugia other than gopher tortoise burrows will be inspected each morning before planned site manipulation of a particular area, and, if occupied by an indigo snake, no work will commence until the snake has vacated the vicinity of proposed work..... *"NLAA"*

Permit will not be conditioned as outlined above and consultation with the Service is requested[2] ..... *"may affect"*

---

[1]With an outcome of "no effect" or "NLAA" as outlined in this key, the requirements of section 7 of the Act are fulfilled for the eastern indigo snake and no further action is required.

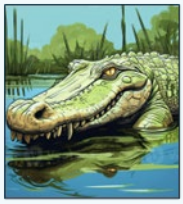
[2]Consultation may be concluded informally or formally depending on project impacts.

[3] If burrow excavation is utilized, it should be performed by experienced personnel. The method used should minimize the potential for injury of an indigo snake. Applicants should follow the excavation guidance provided within the Florida Fish and Wildlife Conservation Commission's revised April 2009 Gopher Tortoise Permitting Guidelines located at **http://myfwc.com/License/Permits_ProtectedWildlife.htm#gophertortoise**. A member of the excavation team should be authorized for Incidental Take during excavation through an incidental take permit issued by the Florida Fish and Wildlife Conservation Commission.

Attachment 2

UMAM
Uniformed Mitigation Assessment Method

Aquatic RESEARCH FL.com



ENVIRONMENTAL CONSULTING

WETLANDS , PROTECTED SPECIES, & PERMITTING

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
Sanctuary at Cocoa Townhomes Eastside of Cox Rd, S of SR-524, and N of Lake Dr City of Cocoa, Brevard County, Florida PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510 Section 24, Township 35 S, Range 24 E		Wetland 1: **Forested Wetland & Freshwater Marsh**

FLUCCs code:	Further classification (optional):	Impact or Mitigation Site?	Assessment Area Size:
617/641	N/A	Impact	46.7

Basin/Watershed Name/Number:	Affected Waterbody (Class):	Special Classification (i.e.OFW, AP, other local/state/federal designat
WBID: 3056, Mud Lake Outlet	3F	N/A

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands:

Non isolated wetland slough located in the eastern portion of the subject property which is hydrologically connected to Mud Lake. This wetland slough additionally has a natural creek that appears to originate from Mud Lake within the Cocoa Conservation Area, transversing through the subject property, branching off into several directions. As the subject property is bordered by development on 3 sides of varying intensity the overall location and landscape support is moderate. The wetland itself has experienced some hydrological isolation from the adjacent waterbodies and reduction of the historic slough system,

Assessment area description:

The main body of the wetland is a moderate to high quality slough system that consists of both forested and non-forested (herbaceous/shrub) components. The portion of the wetland in which impacts are proposed differs with regards to location, community structure and hydrology from the main body of the wetland, having a lowered ecological value. More notable disruption or degradation to the community structure and hydrology from historical land uses and fringe affects associated with adjacent areas of development. Decrease of wetland canopy species vegetation consisting of oaks, ferns, Brazilian pepper, willow, leaf litter, cabbage palms and pines (SW impact quadrant). Ditching through the impact areas and connections have been historically cut to the south due to development, fringe appearing to receive the least amount of water.

Significant nearby features:	Uniqueness (considering the relative rarity in relation to the regional landscape):
Mud Lake within the Cocoa Conservation Area	Onsite wetlands consist of forested wetland & freshwater marsh these habitat types are not unique to the region.
Functions:	Mitigation for previous permit/other historic use:
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found): Small, medium large mammals. Amphibians, reptiles, owls and hawks within the forested portion.	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area): Utilization by raptors and wading birds is possible within interior areas of main wetland body. Canopy is very dense, potentially limiting nesting opportunities. Main degradation factor is lack of fire and/or management

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Wildlife utilization observed scat, mammal burrows, rooting, and tracks. Observations included small mammals burrows, mammal tracks, amphibians, and hog rutting.

Additional relevant factors:

Wildlife corridors have experienced some reduction but remain capable of supporting wildlife.

Assessment conducted by:	Assessment date(s):
April S. Ostrom, Professional Wetland Scientist (2885)	6/11/2025

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Sanctuary at Cocoa Townhomes Eastside of Cox Rd, S of SR-524, and N of Lake Dr City of Cocoa, Brevard County, Florida PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510 Section 24, Township 35 S, Range 24 E		Wetland 1: Forested Wetland Southern Quadrant
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact Direct (1.4 ac)	A.S. Ostrom (PWS 2885)	9/18/2025

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	7	0	Non isolated wetland slough located in the eastern portion of the subject property which is hydrologically connected to Mud Lake. This wetland slough additionally has a natural creek that appears to originate from Mud Lake within the Cocoa Conservation Area, that traverses thru the subject property, branching off into several directions. As the subject property is partially bordered by development the overall location and landscape support is moderate. The assessment quadrant includes the 2 wetland fingerlike extensions that are outside of the main body of the wetland, terminating at the southern property boundary. Adjacent land use includes Cox Rd to and commercial development to the west. Residential development is to the south and east. There is partial development along the NW property boundary with remaining northern border being natural lands and Mud Creek Conservation Area. Impact Quadrant is best described as a hydrological extension of the main wetland body that transitions into upland at its terminus. This portion is of the lowest value with degraded or transitional hydrology as compared to the main body, Brazilian pepper along the fringes and development to the south.
.500(6)(b)Water Environment (n/a for uplands)	6	0	The wetland itself has experienced some hydrological isolation from the adjacent waterbodies and reduction of the historical slough system. No fire regime. Impact area, southern fringe, hydrology most impacted and appears restricted versus other portions of the wetland. Light penetration poor. Moderate amount of ditching through impact area and near wetland fringe carrying water from Mud Creek. Hydrologic connections have been historically cut to the south due to development. Property was historically agricultural consisting of rows and furrows further disrupting hydrology. Southern fringe receiving least amount of water.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	7	0	Within the impact areas community structure varies from other portions of the slough. Decrease of wetland canopy species as community structure transitioning more into an upland oak hammock. Vegetation consists of oaks, ferns, pepper, willow, leaf litter and cabbage palms with pines within the SW impact quadrant. Community structure has experienced some degradation due to fringe impacts from historical land uses and adjacent development. Impacts areas would appear to be transitional , still maintaining wetland function but to a lower degree than the interior portions. Overall aerial coverage of exotics 20% - 25% along the fringe including the impact quadrant. More interior portions of the wetland slough are high ecological quality forested habitat containing various hardwoods such as maples, bays and cypress with an understory of obligate and facultative wetland shrubs and mainly ferns as ground cover. Moving into the center of the slough there is a transition into a non-forested vegetated system that contains more shrubby species such as elderberry.

Score = sum of above scores/30 (if uplands, divide by 20)		
current or w/o pres	with	
0.67	0	

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

For impact assessment areas
FL = delta x acres = 0.67 X 1.4 acre = 0.94

Delta = [with-current]
0.67

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
N/A

Form 62-345.900(2), F.A.C. [effective date 02-04-2004]

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Sanctuary at Cocoa Townhomes Eastside of Cox Rd, S of SR-524, and N of Lake Dr City of Cocoa, Brevard County, Florida PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510 Section 24, Township 35 S, Range 24 E		Wetland 1: Forested Wetland & Freshwater Marsh
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact Secondary (0.57 ac)	A.S. Ostrom (PWS 2885)	9/18/2025

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	7	6	Post development area of secondary impacts to be buffered by remaining wetland, native vegetation as well as the surrounding development uses of parking and residential structures. This would result in a small decline in location and landscape support from the current condition.
.500(6)(b)Water Environment (n/a for uplands)	6	6	Site development should not impact hydrology as water management system will be designed to treat all water prior to entering system with no affect on hydrology. Potential improvements to water entering the wetland due to state and federal nutrient standards for new site development.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	7	6	All remaining wetland and buffer areas shall be maintained free from exotic vegetation. Site currently not being maintained. Minor vegetative impacts from loss of buffering.

Score = sum of above scores/30 (if uplands, divide by 20)	current or w/o pres	with
	0.67	0.6

Delta = [with-current]
0.07

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = 0.07 X 0.57 acres = **0.04**

For mitigation assessment areas
N/A

Form 62-345.900(2), F.A.C. [effective date 02-04-2004]

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Sanctuary at Cocoa Townhomes Eastside of Cox Rd, S of SR-524, and N of Lake Dr City of Cocoa, Brevard County, Florida PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510 Section 24, Township 35 S, Range 24 E		Wetland 1: Forested Wetland SW Quadrant - Enhancement
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Enhancement (1.25 ac)	A.S. Ostrom (PWS 2885)	9/18/2025

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	w/o pres or current	with	
.500(6)(a) Location and Landscape Support	7	8	The enhancement area is a 1.25 acre portion of wetland in the SW property corner. Adjacent land use includes Cox Rd to and commercial development to the west. Residendital development is to the south and east. There is partial development along the NW property boundary with remaining northern border being natural lands and Mud Creek Conservation Area. Enhancement Quadrant is best described as a hydrological extension of the main wetland body that transitions into upland at its terminus. To be placed under conservation area with perpertual managment.
.500(6)(b)Water Environment (n/a for uplands)	6	6	The wetland itself has experienced some hydrological isolation from the adjacent waterbodies and reduction of the historical slough system. No fire regime. Impact area, southern fringe, hydrology most impacted and appears restricted versus other portions of the wetland. Light penetration poor. Moderate amount of ditching through impact area and near wetland fringe carrying water from Mud Creek. Hydrologic connections have been historically cut to the south due to development. Property was historically agricultural consisting of rows and furrows further disrupting hydrology. Southern fringe receiving least amount of water.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	7	8	Within the enhancement area community structure varies from other portions of the slough. Decrease of wetland canopy species as community structure transitioning more into an upland oak hammock. Vegetation consists of oaks, ferns, pepper, willow, leaf litter and cabbage palms with pines within the SW impact quadrant. Community structure has experienced some degradation due to fringe impacts from historical land uses and adjacent development. Impacts areas would appear to be transitional , still maintaining wetland function but to a lower degree than the interior portions. Overall aerial coverage of exotics 20% - 25% along the fringe including the impact quadrant. This portion is of the lowest value with Brazilian pepper along the fringes as well as air potatoe and other invasive exotic scattered throughout. Enhacement to include exotic removal and perputal maintenence.

Score = sum of above scores/30 (if uplands, divide by 20)		
current or w/o pres	with	
0.67	0.73	

Delta = [with-current]
0.06

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) = 1.14
Risk factor = 1.5

For impact assessment areas
FL = delta x acres =

For mitigation assessment areas
RFG = delta/(t-factor x risk) = 0.06/1.71 = .04. 1.25acres X.04 = **0.05**

Form 62-345.900(2), F.A.C. [effective date 02-04-2004]

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Sanctuary at Cocoa Townhomes Eastside of Cox Rd, S of SR-524, and N of Lake Dr City of Cocoa, Brevard County, Florida PINs: 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510 Section 24, Township 35 S, Range 24 E		Wetland 1: Forested Wetland SW Quadrant - Preservation
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Preservation (44.08 ac)	A.S. Ostrom (PWS 2885)	9/18/2025

Scoring Guidance	**Optimal (10)**	**Moderate(7)**	**Minimal (4)**	**Not Present (0)**
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support w/o pres or current: 7 with: 8	All remaining onsite wetlands to be placed under preservation. Adjacent land use includes Cox Rd to and commercial development to the west. Residential development is to the south and east. There is partial development along the NW property boundary with remaining northern border being natural lands and Mud Creek Conservation Area. To be placed under conservation area with perpetual management.	
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current: 6 with: 6	The wetland itself has experienced some hydrological isolation from the adjacent waterbodies and reduction of the historical slough system. No fire regime. Hydrologic connections have been historically cut to the south due to development. Property was historically agricultural consisting of rows and furrows further disrupting hydrology. Hydrology sufficient to support wetland function	
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current: 7 with: 8	The main body of the wetland is a moderate to high quality slough system that consists of both forested and non-forested (herbaceous/shrub) components. Wetland is connected to Mud Lake and Cocoa Conservation Area. As part of preservation exotic vegetation to be removed and maintenance to be done in perpetuity.	

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.67	0.73

If preservation as mitigation,
Preservation adjustment factor = 0.7
Adjusted mitigation delta = 0.042

For impact assessment areas
FL = delta x acres =

Delta = [with-current]
0.06

If mitigation
Time lag (t-factor) = 1.14
Risk factor = 1.0

For mitigation assessment areas
RFG = delta/(t-factor x risk) = 0.042/1.14 = .04 X 44.08acre s= **1.76**

Form 62-345.900(2), F.A.C. [effective date 02-04-2004]

SANCTUARY AT COCOA TOWNHOMES

POTABLE WATER SYSTEM FLOW CALCULATIONS

SUBMITTED TO:

City of Cocoa Utilities Department
600 School Street
Cocoa, FL 32922

PREPARED FOR:

Meritage Homes
1395 University Blvd., Ste 300
Jupiter, FL 33458

PREPARED BY:

B.S.E. Consultants, Inc.
312 South Harbor City Boulevard, Suite 4
Melbourne, FL 32901

July 2025

B.S.E. File #11748

HASSAN KAMAL LICENSE No. 41951 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Hassan Kamal
Date: 2025.09.02 15:05:37 -04'00'

Sanctuary at Cocoa Townhomes
Potable Water System Flow Calculations
Table of Contents

REPORT

Report..... Pages 1 – 2

APPENDICIES

Hydrant Data .....A

Overall Potable Water Plan .....B

Scenario 1 – Phase 1 Fire Flow C

- Node Schematic
- Fire Flow (Junction) Report
- Pipe Flow Report
- Reservoir Report
- Pump Report and Curve

Scenario 2 – Phase 2 Fire Flow .....D

- Node Schematic
- Fire Flow (Junction) Report
- Pipe Flow Report
- Reservoir Report
- Pump Report and Curve

SANCTUARY AT COCOA TOWNHOMES
POTABLE WATER SYSTEM FLOW CALCULATIONS

Introduction

This report confirms the adequacy of the potable water and fire protection system for the Sanctuary at Cocoa Townhomes project. The project is more specifically located on the east side of Cox Road, south of SR 524 and north of SR 520.

Project Description

Sanctuary at Cocoa is a two-phase residential development consisting of a total of 249 townhomes. Phase 1 consists of 182 units and an amenity center, and phase 2 consists of 67 units. The proposed water mains will make two connections to the existing 20-inch DIP water main along Cox Road.

Fire flows for the project were calculated based on the largest unit area. The units are separated by a two-hour rated fire wall. Therefore the largest unit area is 2,238 square feet. Building construction type is VB, which gives a fire flow demand of 1,500 gpm.

The project utilized an average daily flow (ADF) rate of 265 gpd per unit and a maximum day demand factor of 1.5.

Table 1

Sanctuary at Cocoa	Number of Units	Average Daily Flow per Unit (gpd)	Average Daily Flow (gpd)	Average Daily Flow (gpm)	Maximum Daily Flow (gpm)	Fire Hydrant Residual Pressure (psi)
Phase 1	182 units 1 Amenity	265 500	48,230 + 500	33.84	50.24	52
Phase 2	67 units	265	17,755	12.33	18.49	47
Total	249 units	--	66,485	46.17	68.73	--

Design

The point of connection to the City's potable water system was modeled based on the fire flow data (dated May 16, 2025) provided by the City, refer to Appendix A. Below is a table summarizing the connection information that was used.

Location	Node Type	Elevation (feet)	Pressure (psi)
0336 and 0687	Pump with Reservoir	0 gpm @ 147.84 ft 1,110 gpm @ 143.22 ft 5,892 gpm @ 46.2 ft	0 gpm @ 64 psi 1,110 gpm @ 62 psi 5,892 gpm @ 20 psi

Based on potable water system pressures provided by the City of Cocoa Utilities Department, fire flows and maximum daily demands were modeled by means of a steady state analysis utilizing WaterCAD software.

The junctions representing the fire hydrant flow demands have been highlighted in the Fire Flow (Junction) Report section of the report for ease of review. When analyzing the scenarios, the maximum pipe velocities, inclusive of fire flows, were found to be within acceptable ranges while pressures exceed the minimum 20 psi requirement at fire hydrant locations.

Alternate Pipe Sizing Analysis

Alternative water main sizes were considered and analyzed to ensure the system proposed and reflected in the model and construction plans provides adequate fire flow protection with the smallest diameter water main(s) possible. The alternative scenarios resulted in residual pressures below 20 psi during fire flow conditions and were deemed unacceptable. Based upon the various analysis completed, the line sizes proposed were deemed to be the smallest possible that would meet domestic, and fire flow demands while providing a reasonable factor of safety to maintain a residual pressure of 20 psi or higher.

APPENDIX A
HYDRANT DATA

REQ. DATE: 05/15/25 05/15/25 11:32:12
CREW: WFO - HYDRANT HYD
EXT. ADDR.: REF NBR: 0
SCHED START: 05/15/25 SCHED COMPLETION:
GEN. LOC.: COCOA COMP DATE: 05/15/25
REQ DEPT: Utilities Department PRIORITY: High
REQUESTOR: MELINDA KEESEE ORIGIN: INTERNAL
REQ USER: COCOMMK AUTH USER:COCOMMK WRK TYPE:ROUTINE
HYDRANTS 0336 & 0687 @ COX ROAD, COCOA

ENTER REFERENCE/ACCT NO.? YES Y

PRIMARY CONTACT INFORMATION
MELINDA KEESEE ( ) ( ) ( ) ( )

HYDRANTS 0336 & 0687 @ COX ROAD, COCOA
CATEGORY: UT WFO MAINTENANCE OPS UTTD
TASK: HYDRANT FLOW/FLUSH FHFL READY
DEPT: Utilities Department UT
SCHED START: 05/15/25 SCHED COMPLETION: 05/15/25
CREW: WFO - HYDRANT HYD

Residual hydrant flow
0336 and 0687

START DATE: ____/____/____ COMPLETION DATE: ____/____/____
START TIME: ____:____:____ COMPLETION TIME: ____:____:____
UNIT OF PRODUCTION: _____ QUANTITY: _____.____

--------LABOR--------				---EQUIPMENT--		---------- MATERIAL ----------		
DATE	EMPLOYEE	HRS	OT	NUMBER	HRS	ITEM	QTY	COST
5/16/25	F. Rivera	1		Trk 392	1			
5/16/25	M. Lewis	1		Trk 391	1			

City of Cocoa, Florida Utilities Department
Water Field Operations Division
351 Shearer Blvd. I Cocoa, FL 32922
Phone: (321) 433-8700 I Fax: (321) 433-8708

RECORDED FIRE HYDRANT FLOW INFORMATION

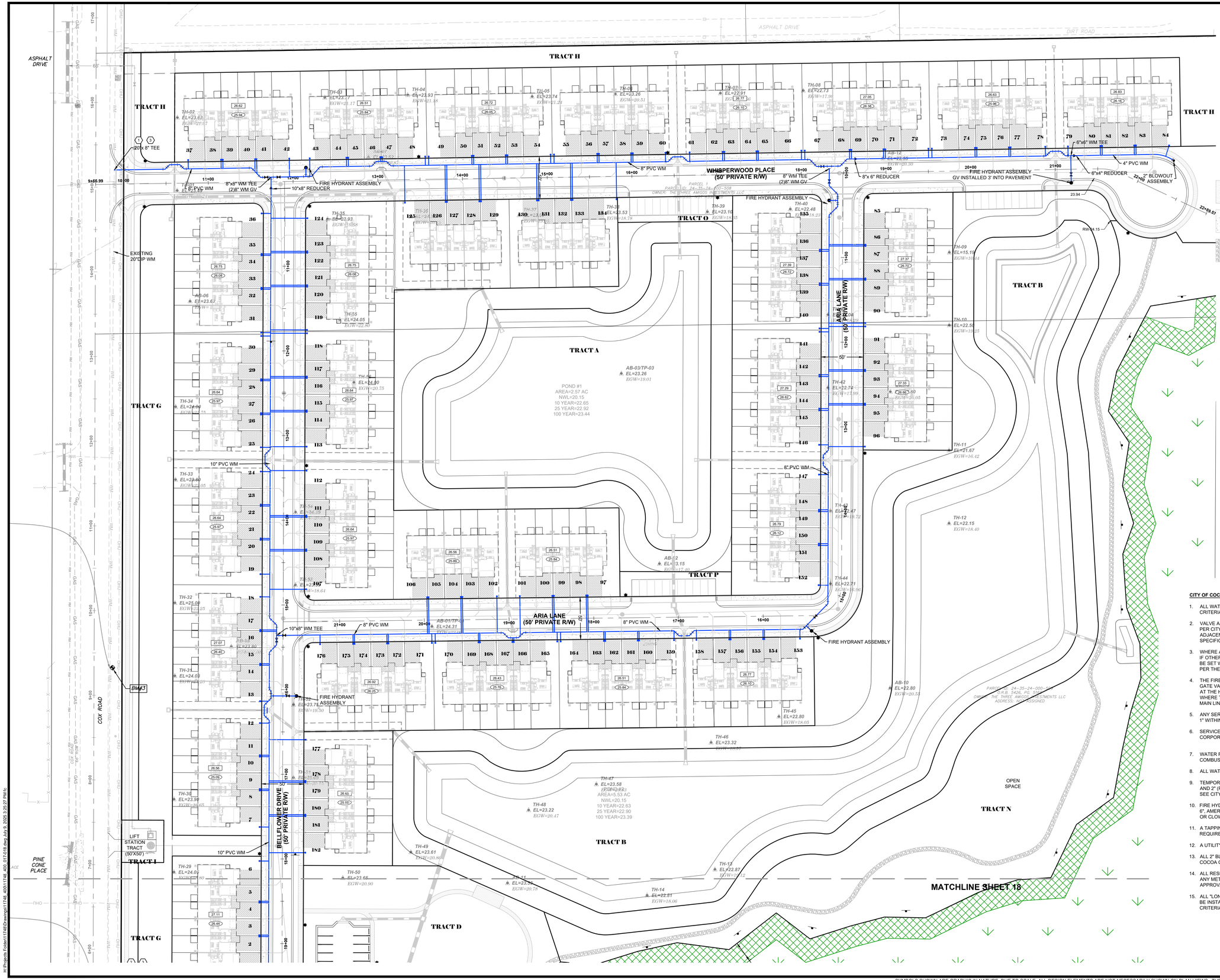
Hydrant Number Flowed:	0336	0687
Hydrant Location:	Cox Rd	Cox Rd
Recorded Static Pressure:	64 PSI	64 PSI
Recorded Residual Pressure:	62 PSI	62 PSI
Recorded Flow:	42 / 1090 PSI/GPM	44 / 1110 PSI/GPM
Residual Taken From Hydrant:	0687	0336

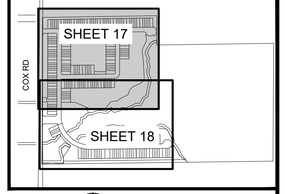
Date of Recording: 5/16/25 Completed By: F. Rivera, M. Lewis

Flow recorded from 2.5" nozzle unless otherwise specified.

IMPORTANT NOTE: The above information is supplied for use in calculation of available fire flow. The information is an instantaneous recording and does not reflect flow and pressure variations in the City of Cocoa potable water system. A minimum of a 5 PSI safety factor will be required for approval by the City. A larger safety factor may be required due to the location of the proposed project. Should you have any questions, please call the City of Cocoa, Utilities Engineering Division at (321) 433-8704.

APPENDIX B
OVERALL POTABLE WATER PLAN





KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOMEBUILDER SIDEWALK AREAS
- NATURE TRAIL
- PRESERVED WETLAND LIMITS
- SURFACE WATER
- WETLAND BUFFER
- STREET LIGHT

UTILITY CONNECTION NOTES

1. CONNECT TO EXISTING 20" DIP WATER MAIN WITH 20"x8" TAPPING SADDLE AND 8" VALVE ASSEMBLY
2. CONNECT TO EXISTING 20" DIP WATER MAIN WITH 20"x10" TAPPING SADDLE AND 10" VALVE ASSEMBLY
3. CONNECTION SHALL FULLY RESTORE R/W WITHIN 21 DAYS OF MAKING CONNECTION TO EXISTING WATER MAIN

FIRE HYDRANT AND POTABLE WATER SERVICE SCHEDULE

	PHASE 1	PHASE 2	TOTAL
NUMBER OF HYDRANTS	6	3	9
NUMBER OF SERVICES	187*	63	250

*186 RESIDENTIAL SERVICES AND 1 FOR AMENITY CENTER

CITY OF COCOA GENERAL NOTES:

1. ALL WATER MAIN CONSTRUCTION SHALL BE PER CITY OF COCOA CRITERIA (APRIL 2020 - LATEST EDITION).
2. VALVE AND TEE LOCATIONS ARE SHOWN FOR GRAPHIC CLARITY ONLY. PER CITY OF COCOA CRITERIA, ALL VALVES SHALL BE LOCATED ADJACENT TO TEES (WITHIN 2') WHEREVER POSSIBLE, UNLESS SPECIFICALLY LOCATED OTHERWISE.
3. WHERE APPLICABLE ALL BLOWOFFS TO BE PLACED AT PROPERTY LINE. IF OTHER FACILITIES CONFLICT (I.E. STORM DRAINAGE) BLOWOFFS TO BE SET WITHIN 3' OF PROPERTY LINE. ALL BLOWOFFS SHALL BE BRASS PER THE CITY OF COCOA CRITERIA.
4. THE FIRE HYDRANT ASSEMBLIES SHALL CONSIST OF A HYDRANT TEE, GATE VALVE, AND FIRE HYDRANT. THE GATE VALVE IS TO BE PLACED AT THE HYDRANT TEE. THIS NOTE ALSO APPLIES TO THOSE LOCATIONS WHERE THE HYDRANT IS LOCATED ACROSS THE STREET FROM THE MAIN LINE.
5. ANY SERVICE LINE LONGER THAN 60 FEET IN LENGTH WILL NEED TO BE 1" WITHIN A CASING. ALL OTHER SERVICE LINES SHALL BE 3/4".
6. SERVICE LINE SHALL CONSIST OF A BRONZE SERVICE SADDLE, CORPORATION STOP, TYPE "K" COPPER, AND CURB STOP.
7. WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLE MATERIALS BEING BROUGHT ON SITE.
8. ALL WATER MAINS SHALL BE SWABBED PER CITY OF COCOA CRITERIA.
9. TEMPORARY BLOWOFF TO CONSIST OF GATE VALVE, 20 LF OF MJ DIP, AND 2" (PIPE SIZE 2"-10") OR 4" (PIPE SIZE 12" AND LARGER) BLOWOFF. SEE CITY OF COCOA DETAIL SHEET 42.
10. FIRE HYDRANTS SHALL BE AMERICAN FLOW CONTROL MODEL #B-84-B; 6". AMERICAN DARLING 5 1/4", MUELLER SUPER CENTURION 250 5 1/4" OR CLOW MEDALLION 5 1/4".
11. A TAPPING CONTRACTOR ACCEPTABLE TO THE CITY OF COCOA IS REQUIRED FOR TAPS.
12. A UTILITY CONTRACTOR IS REQUIRED FOR WATER MAIN INSTALLATION.
13. ALL 2" BLOWOFFS SHALL BE CONSTRUCTED OF BRASS PER CITY OF COCOA CRITERIA.
14. ALL RESIDENTIAL WATER METERS ARE PROPOSED AS 3/4" METERS. ANY METERS SIZED ABOVE 1" WILL REQUIRE THE SUBMITTAL AND APPROVAL OF METER SIZING CALCULATIONS.
15. ALL "LONG SIDE" WATER SERVICES, REGARDLESS OF THE SIZE, SHALL BE INSTALLED IN A CASING IN ACCORDANCE WITH CITY OF COCOA CRITERIA.

BENCHMARK (BM) TABLE

NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

50 0 25 50
(IN FEET)
VERTICAL DATUM: NAVD88

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905
SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151
HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
MASTER POTABLE WATER PLAN

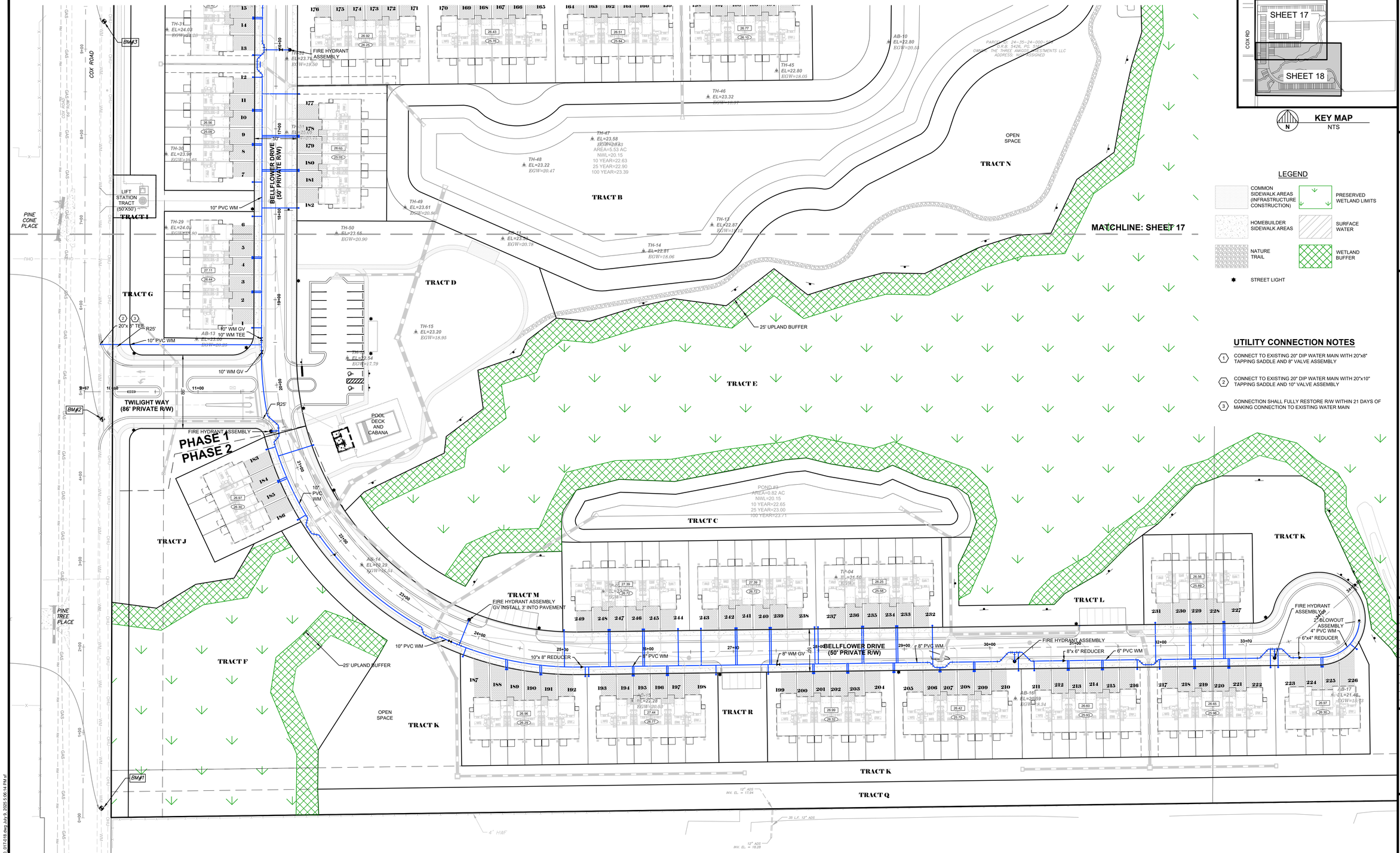
PROJECT NO.
11748

DRAWING NO.
11748_400_017

SHEET
17 of 52

H:\Projects Folder\11748\Drawings\11748_400\11748_400_017-018.dwg July 9, 2025 3:25:27 PM\fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



N

KEY MAP
NTS

LEGEND

- COMMON SIDEWALK AREAS (INFRASTRUCTURE CONSTRUCTION)
- HOMEBUILDER SIDEWALK AREAS
- NATURE TRAIL
- PRESERVED WETLAND LIMITS
- SURFACE WATER
- WETLAND BUFFER
- STREET LIGHT

UTILITY CONNECTION NOTES

1. CONNECT TO EXISTING 20" DIP WATER MAIN WITH 20"x8" TAPPING SADDLE AND 8" VALVE ASSEMBLY
2. CONNECT TO EXISTING 20" DIP WATER MAIN WITH 20"x10" TAPPING SADDLE AND 10" VALVE ASSEMBLY
3. CONNECTION SHALL FULLY RESTORE R/W WITHIN 21 DAYS OF MAKING CONNECTION TO EXISTING WATER MAIN

50 0 25 50
(IN FEET)
VERTICAL DATUM: NAVD88

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE

SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE

MASTER POTABLE WATER PLAN

PROJECT NO. 11748

DRAWING NO. 11748_400_018

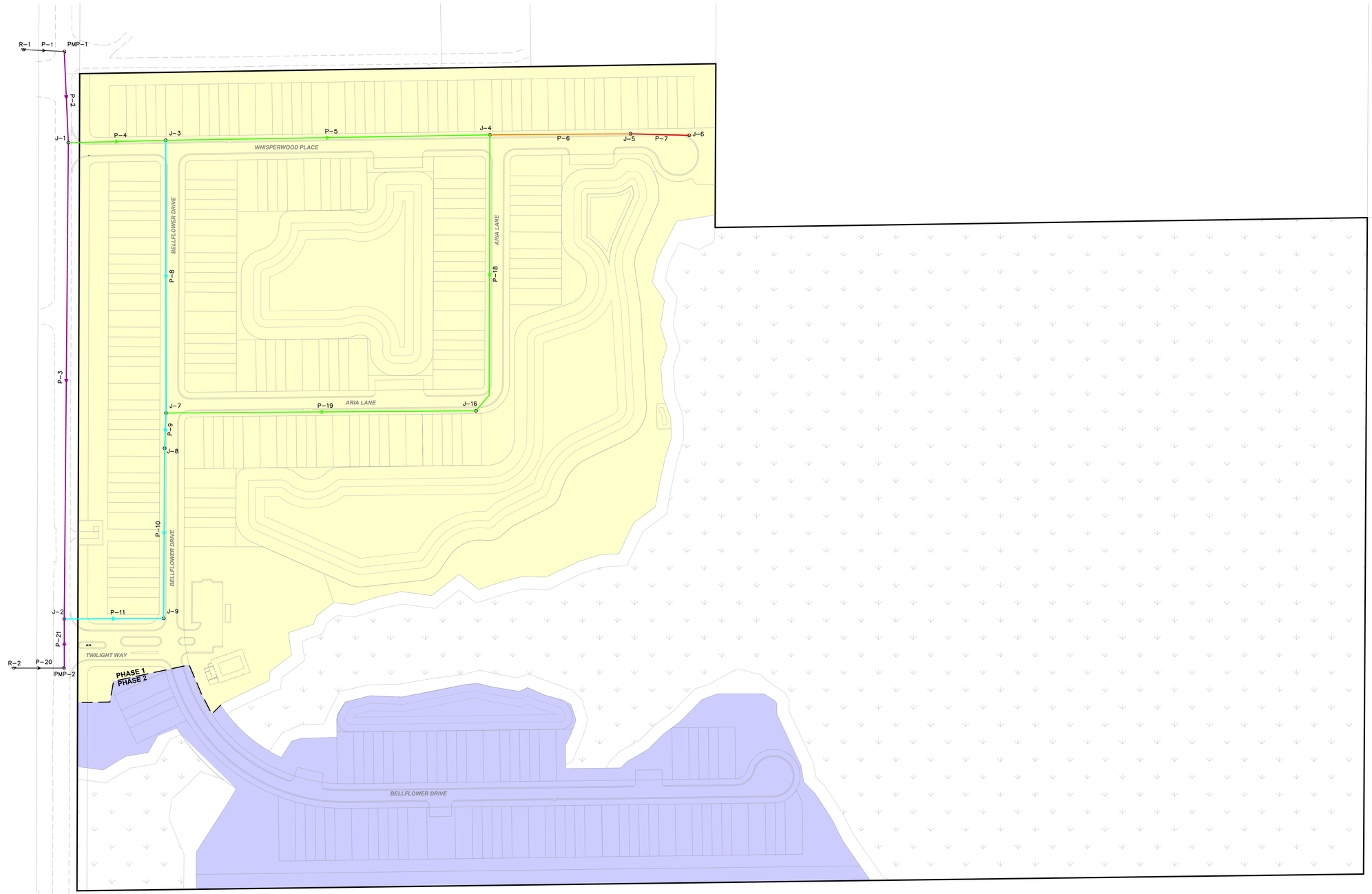
SHEET 18 of 52

H:\Projects Folder\11748\Dr\awings\11748_400\11748_400_017-018.dwg, July 9, 2025, 5:06:14 PM, kf

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

APPENDIX C
SCENARIO 1 – PHASE 1 FIRE FLOW

Node Schematic



PHASING LEGEND

- PHASE 1
- PHASE 2

LEGEND

- 4" WATERMAIN
- 6" WATERMAIN
- 8" WATERMAIN
- 10" WATERMAIN
- 12" WATERMAIN
- 16" WATERMAIN
- 20" WATERMAIN
- 24" WATERMAIN

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

100 0 50 100
(IN FEET)
VERTICAL DATUM:

DATE:	07/09/2025
DESIGN/DRAWN:	SF/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
WATER NODE EXHIBIT PHASE 1

PROJECT NO.
11748

DRAWING NO.
11748_200_012

SHEET
1 of 1

H:\Projects Folder\11748\Drawings\11748_200\11748_200_012.dwg,July 9, 2025,4:04:17 PM,fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

Fire Flow (Junction) Report

FlexTable: Junction Table

Label	Demand Collection	Demand (gpm)	Elevation (ft)	Hydraulic Grade (ft)	Pressure (psi)
J-1	<Collection: 0 items>	0	0.00	145.45	63
J-2	<Collection: 0 items>	0	0.00	145.45	63
J-3	<Collection: 1 items>	50	0.00	143.64	62
J-4	<Collection: 1 items>	500	0.00	136.54	59
J-5	<Collection: 1 items>	1,000	0.00	120.30	52
J-6	<Collection: 0 items>	0	0.00	120.30	52
J-7	<Collection: 0 items>	0	0.00	143.70	62
J-8	<Collection: 0 items>	0	0.00	143.90	62
J-9	<Collection: 0 items>	0	0.00	144.88	63
J-10	<Collection: 0 items>	(N/A)	0.00	(N/A)	(N/A)
J-11	<Collection: 0 items>	(N/A)	0.00	(N/A)	(N/A)
J-12	<Collection: 0 items>	(N/A)	0.00	(N/A)	(N/A)
J-13	<Collection: 0 items>	(N/A)	0.00	(N/A)	(N/A)
J-14	<Collection: 0 items>	(N/A)	0.00	(N/A)	(N/A)
J-15	<Collection: 0 items>	(N/A)	0.00	(N/A)	(N/A)
J-16	<Collection: 0 items>	0	0.00	139.94	61
J-17	<Collection: 0 items>	(N/A)	0.00	(N/A)	(N/A)

Pipe Flow Report

FlexTable: Pipe Table

Label	Start Node	Stop Node	Diameter (in)	Material	Length (Scaled) (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
P-1	R-1	PMP-1	120.0	PVC	82	150.0	774	0.02
P-2	PMP-1	J-1	20.0	Ductile Iron	185	130.0	774	0.79
P-3	J-1	J-2	20.0	Ductile Iron	967	130.0	-19	0.02
P-4	J-1	J-3	8.0	PVC	198	150.0	793	5.06
P-5	J-3	J-4	8.0	PVC	658	150.0	869	5.55
P-6	J-4	J-5	6.0	PVC	285	150.0	1,000	11.35
P-7	J-5	J-6	4.0	PVC	119	150.0	0	0.00
P-8	J-3	J-7	10.0	PVC	553	150.0	-126	0.52
P-9	J-7	J-8	10.0	PVC	72	150.0	-757	3.09
P-10	J-8	J-9	10.0	PVC	345	150.0	-757	3.09
P-11	J-9	J-2	10.0	PVC	202	150.0	-757	3.09
P-12	J-9	J-10	10.0	PVC	103	150.0	(N/A)	(N/A)
P-13	J-10	J-11	10.0	PVC	344	150.0	(N/A)	(N/A)
P-14	J-11	J-12	10.0	PVC	144	150.0	(N/A)	(N/A)
P-15	J-12	J-13	8.0	PVC	507	150.0	(N/A)	(N/A)
P-16	J-13	J-14	8.0	PVC	55	150.0	(N/A)	(N/A)
P-18	J-4	J-16	8.0	PVC	570	150.0	-631	4.03
P-19	J-16	J-7	8.0	PVC	629	150.0	-631	4.03
P-20	R-2	PMP-2	120.0	PVC	102	150.0	776	0.02
P-21	PMP-2	J-2	20.0	Ductile Iron	100	130.0	776	0.79
P-17(1)	J-14	J-17	6.0	PVC	233	150.0	(N/A)	(N/A)
P-17(2)	J-17	J-15	4.0	PVC	133	150.0	(N/A)	(N/A)

RESERVOIR REPORT

FlexTable: Reservoir Table

Label	Elevation (ft)	Zone	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	0.00	<None>	774	0.00
R-2	0.00	<None>	776	0.00

PUMP REPORT AND CURVE

FlexTable: Pump Table

Label	Elevation (ft)	Pump Definition	Status (Initial)	Pump Head (ft)	Flow (Total) (gpm)	Pressure (Discharge) (psi)
PMP-1	0.00	Pump Definition - 1	On	145.47	774	63
PMP-2	0.00	Pump Definition - 1	On	145.46	776	63

Pump Definition Detailed Report: Pump Definition - 1

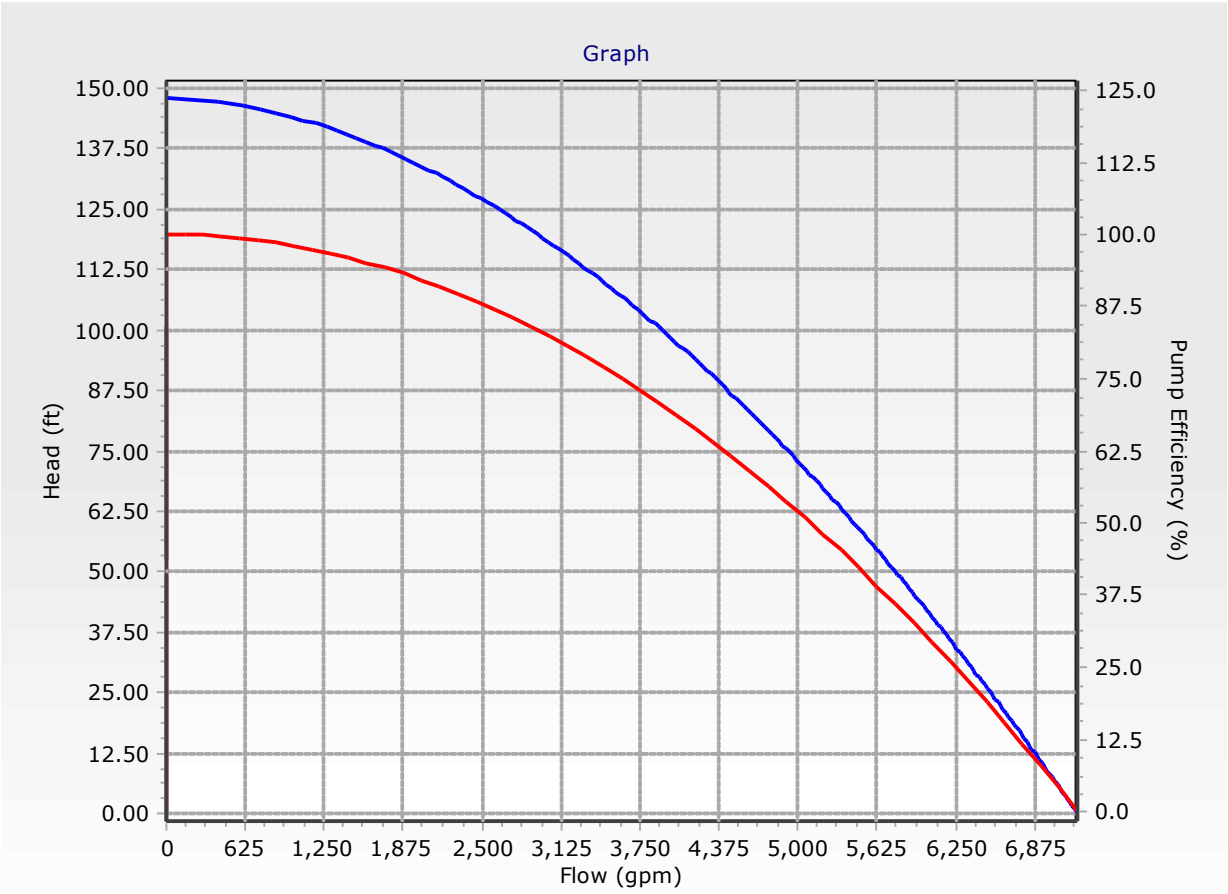
Element Details			
ID	67	Notes	
Label	Pump Definition - 1		

Pump Definition Type			
Pump Definition Type	Standard (3 Point)	Design Head	143.22 ft
Shutoff Flow	0 gpm	Maximum Operating Flow	5,892 gpm
Shutoff Head	147.84 ft	Maximum Operating Head	46.20 ft
Design Flow	1,110 gpm		

Pump Efficiency Type			
Pump Efficiency Type	Best Efficiency Point	Motor Efficiency	100.0 %
BEP Efficiency	100.0 %	Is Variable Speed Drive?	False
BEP Flow	0 gpm		

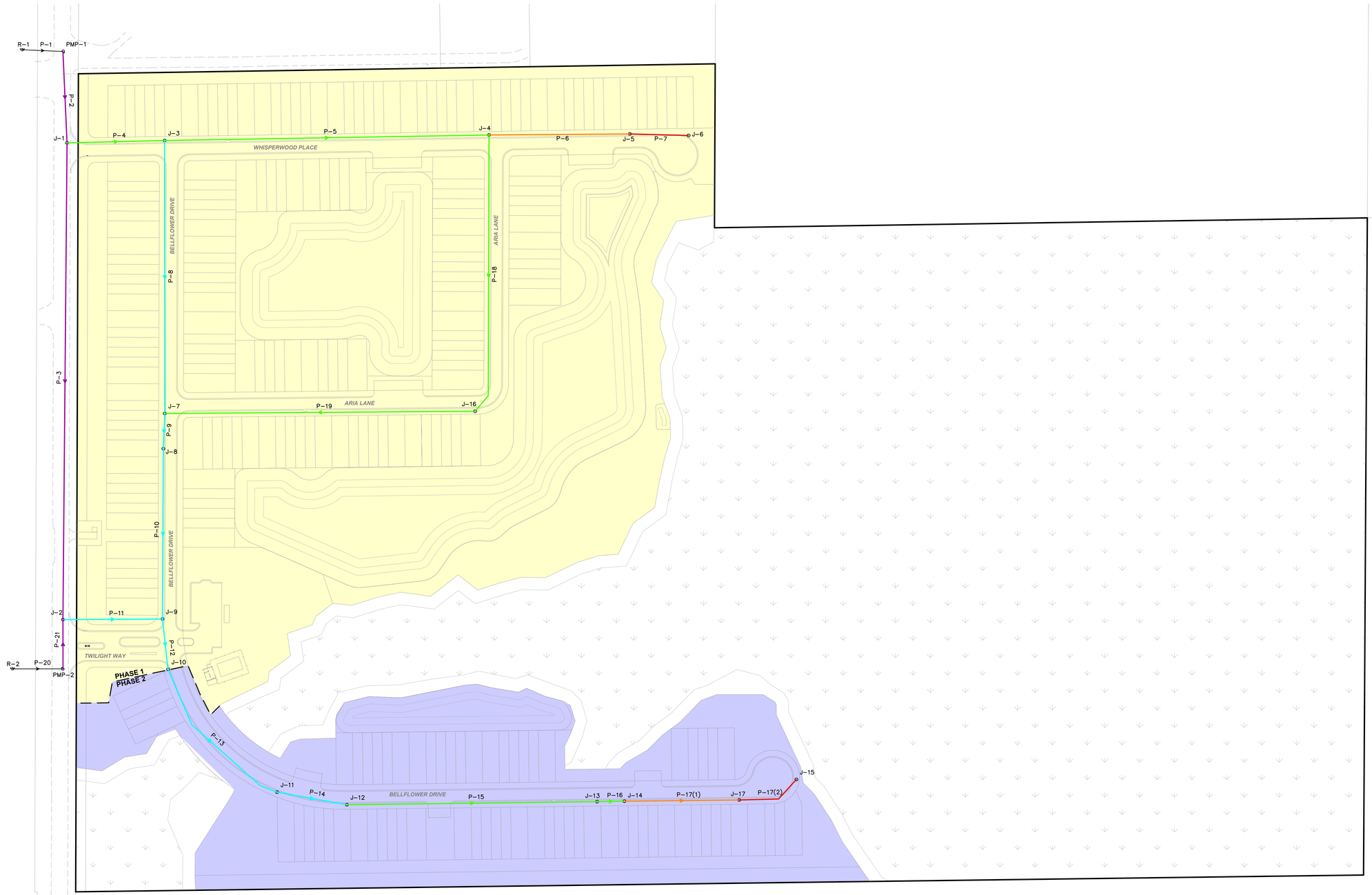
Transient (Physical)			
Inertia (Pump and Motor)	0.000 lb·ft²	Specific Speed	SI=25, US=1280
Speed (Full)	0 rpm	Reverse Spin Allowed?	True

Pump Definition Detailed Report: Pump Definition - 1



APPENDIX D
SCENARIO 2 – PHASE 2 FIRE FLOW

Node Schematic



PHASING LEGEND

- PHASE 1
- PHASE 2

LEGEND

- 4" WATERMAIN
- 6" WATERMAIN
- 8" WATERMAIN
- 10" WATERMAIN
- 12" WATERMAIN
- 16" WATERMAIN
- 20" WATERMAIN
- 24" WATERMAIN

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

100 0 50 100
(IN FEET)
VERTICAL DATUM:

DATE:	07/09/2025
DESIGN/DRAWN:	SF/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
WATER NODE EXHIBIT PHASE 2

PROJECT NO.
11748

DRAWING NO.
11748_200_012

SHEET
1 of 1

H:\Projects Folder\11748\Drawings\11748_200\11748_200_012.dwg July 9, 2025 4:04:06 PM fc

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

Fire Flow (Junction) Report

FlexTable: Junction Table

Label	Demand Collection	Demand (gpm)	Elevation (ft)	Hydraulic Grade (ft)	Pressure (psi)
J-1	<Collection: 0 items>	0	0.00	145.55	63
J-2	<Collection: 0 items>	0	0.00	145.52	63
J-3	<Collection: 0 items>	0	0.00	145.03	63
J-4	<Collection: 0 items>	0	0.00	144.92	63
J-5	<Collection: 0 items>	0	0.00	144.92	63
J-6	<Collection: 0 items>	0	0.00	144.92	63
J-7	<Collection: 0 items>	0	0.00	144.73	63
J-8	<Collection: 0 items>	0	0.00	144.66	63
J-9	<Collection: 0 items>	0	0.00	144.36	62
J-10	<Collection: 1 items>	18	0.00	143.31	62
J-11	<Collection: 0 items>	0	0.00	139.86	61
J-12	<Collection: 0 items>	0	0.00	138.42	60
J-13	<Collection: 1 items>	500	0.00	123.36	53
J-14	<Collection: 0 items>	0	0.00	122.58	53
J-15	<Collection: 0 items>	0	0.00	109.34	47
J-16	<Collection: 0 items>	0	0.00	144.83	63
J-17	<Collection: 1 items>	1,000	0.00	109.34	47

Pipe Flow Report

FlexTable: Pipe Table

Label	Start Node	Stop Node	Diameter (in)	Material	Length (Scaled) (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
P-1	R-1	PMP-1	120.0	PVC	82	150.0	756	0.02
P-2	PMP-1	J-1	20.0	Ductile Iron	185	130.0	756	0.77
P-3	J-1	J-2	20.0	Ductile Iron	967	130.0	351	0.36
P-4	J-1	J-3	8.0	PVC	198	150.0	405	2.58
P-5	J-3	J-4	8.0	PVC	658	150.0	91	0.58
P-6	J-4	J-5	6.0	PVC	285	150.0	0	0.00
P-7	J-5	J-6	4.0	PVC	119	150.0	0	0.00
P-8	J-3	J-7	10.0	PVC	553	150.0	314	1.28
P-9	J-7	J-8	10.0	PVC	72	150.0	405	1.65
P-10	J-8	J-9	10.0	PVC	345	150.0	405	1.65
P-11	J-9	J-2	10.0	PVC	202	150.0	-1,114	4.55
P-12	J-9	J-10	10.0	PVC	103	150.0	1,518	6.20
P-13	J-10	J-11	10.0	PVC	344	150.0	1,500	6.13
P-14	J-11	J-12	10.0	PVC	144	150.0	1,500	6.13
P-15	J-12	J-13	8.0	PVC	507	150.0	1,500	9.57
P-16	J-13	J-14	8.0	PVC	55	150.0	1,000	6.38
P-18	J-4	J-16	8.0	PVC	570	150.0	91	0.58
P-19	J-16	J-7	8.0	PVC	629	150.0	91	0.58
P-20	R-2	PMP-2	120.0	PVC	102	150.0	763	0.02
P-21	PMP-2	J-2	20.0	Ductile Iron	100	130.0	763	0.78
P-17(1)	J-14	J-17	6.0	PVC	233	150.0	1,000	11.35
P-17(2)	J-17	J-15	4.0	PVC	133	150.0	0	0.00

RESERVOIR REPORT

FlexTable: Reservoir Table

Label	Elevation (ft)	Zone	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	0.00	<None>	756	0.00
R-2	0.00	<None>	763	0.00

PUMP REPORT AND CURVE

FlexTable: Pump Table

Label	Elevation (ft)	Pump Definition	Status (Initial)	Pump Head (ft)	Flow (Total) (gpm)	Pressure (Discharge) (psi)
PMP-1	0.00	Pump Definition - 1	On	145.57	756	63
PMP-2	0.00	Pump Definition - 1	On	145.53	763	63

Pump Definition Detailed Report: Pump Definition - 1

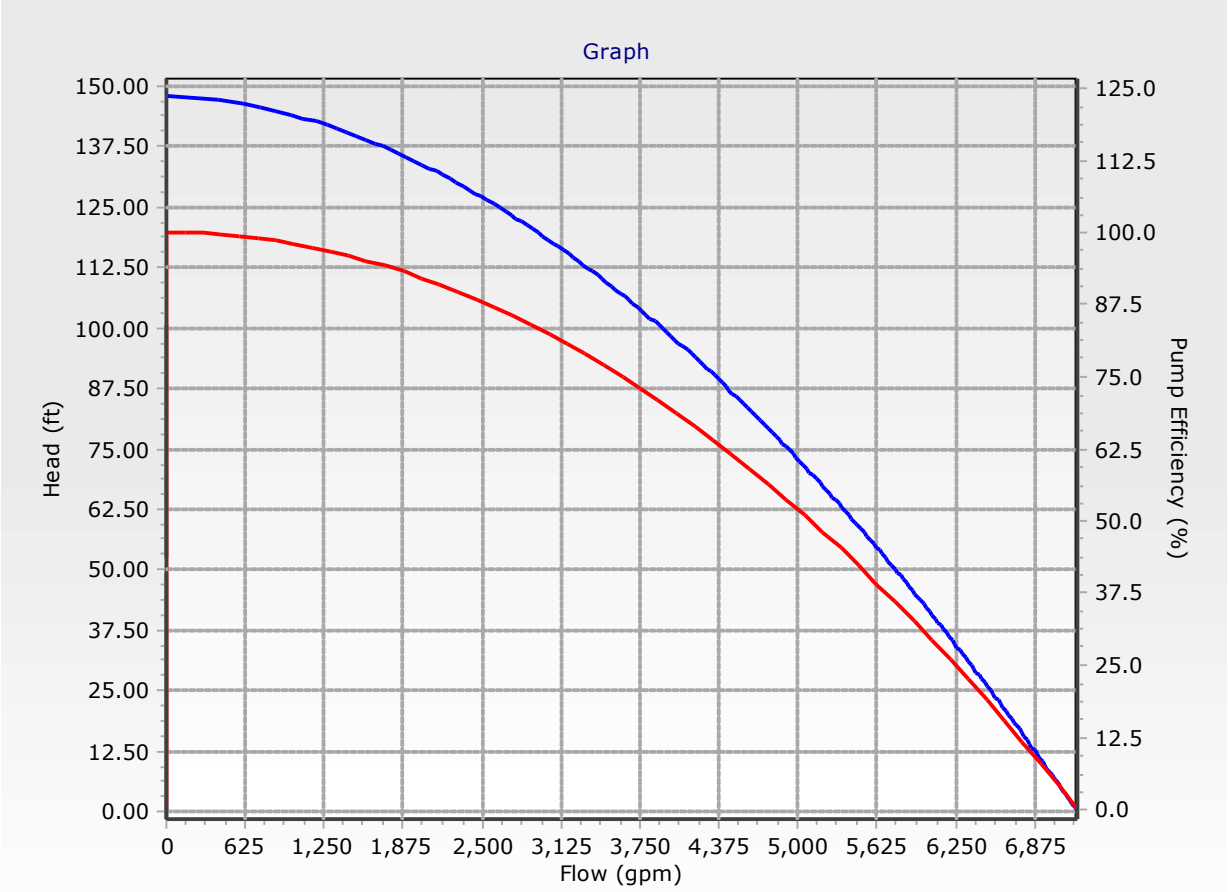
Element Details			
ID	67	Notes	
Label	Pump Definition - 1		

Pump Definition Type			
Pump Definition Type	Standard (3 Point)	Design Head	143.22 ft
Shutoff Flow	0 gpm	Maximum Operating Flow	5,892 gpm
Shutoff Head	147.84 ft	Maximum Operating Head	46.20 ft
Design Flow	1,110 gpm		

Pump Efficiency Type			
Pump Efficiency Type	Best Efficiency Point	Motor Efficiency	100.0 %
BEP Efficiency	100.0 %	Is Variable Speed Drive?	False
BEP Flow	0 gpm		

Transient (Physical)			
Inertia (Pump and Motor)	0.000 lb·ft²	Specific Speed	SI=25, US=1280
Speed (Full)	0 rpm	Reverse Spin Allowed?	True

Pump Definition Detailed Report: Pump Definition - 1



STORMWATER MANAGEMENT DESIGN REPORT
SANCTUARY AT COCOA TOWNHOMES
MUD-200 BASIN

SUBMITTED TO:

St. Johns River Water Management District
525 Community College Parkway
Palm Bay, FL 32909

And

Stormwater Division
155 N. Wilson Avenue
Cocoa, FL 32922

PREPARED FOR:

Meritage Homes
1395 University Blvd., Suite 300
Jupiter, FL 33458

PREPARED BY:

B.S.E. Consultants, Inc.
312 South Harbor City Boulevard, Suite 4
Melbourne, FL 32901

July 2025
B.S.E. File #11748

HASSAN KAMAL LICENSE No. 41951 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Hassan Kamal
Date: 2025.08.06 13:00:48 -04'00'

Stormwater Management Design Report
Sanctuary At Cocoa Townhomes – Cocoa, Florida
Stormwater Management Calculations

Table of Contents

REPORT

Project Location ..... Page 1
Project Description ..... Page 1
Pre-Development Drainage ..... Page 1
Post-Development Drainage ..... Page 2
Summary ..... Page 3

APPENDICES

Drainage Basin Exhibits ..... A
- Location Map A-1
- Overall Mass Grading and Drainage Plan A-2
- Storm Sewer Basin Exhibit A-3
- Control Structure Exhibit A-5
- Water Quality Calculations for Control Structure Impoundment A-6

Drainage Basin Runoff Coefficient C Values ..... B
Overland Flow / Buffer WinTR-55 Current Data Description B-1
ICPR Storm Water Modeling C
- ICPR Curve Number C-1
- ICPR Imperious C-2
- ICPR Manual Basin C-3

ICPR Node Max Conditions w/ Times C-4

ICPR Pipe Max Conditions w/ Times.....C-5

ICPR Drop Structure Link C-6

ICPR 360 Hr. Recovery Summary.....C-7

Lake Stage Summary - 10Y, 25Y, and 100Y Maximum.....C-8

25Y24H Pre and Post Development Discharge Rates C-9

Excerpts from West Cocoa Watershed Evaluation – Engineering Report, dated April 2014 Unabridged.....D

Geotechnical Report ..... E

Subsurface Soil Exploration and Geotechnical Engineering Evaluation, Cox Road, dated June 23, 2022 .....E-1

Sanctuary At Cocoa Townhouses
MUD-200 Basin
Stormwater Management Design Report

Project Location

Sanctuary At Cocoa Townhouses is a proposed single-family/townhome development fronting on the east right of way of Cox Road and approximately 0.42 mile south of FL State Road 524. The subdivision consists of 249 single-family townhome units, an amenity area, and three (3) wet detention lakes, in part of the Northwest Quarter and part of the Southwest Quarter, Section 24, all located in Township 24 South, Range 35 East, City of Cocoa, Brevard County, Florida.

Project Description

The purpose of this report is to provide the details for the design for the drainage improvements (i.e. storm sewer and inlet structures) to serve the proposed residential subdivision and roadway improvements that would serve the ultimate transportation needs of the subdivision. All work of this Design is consistent with Best Engineering Methodology established and previously approved in the City of Cocoa Comprehensive Plan 2010-2020, and the appropriate sections of the SJRWMD criteria.

This subdivision is designed to drain to the east into wetlands, known as MUD-200 Basin, as identified in West Cocoa Watershed Evaluation – Engineering Report, dated April 2014. St. Johns River Marsh. The West Cocoa Watershed is classified as an open drainage basin which ultimately discharges into the St. Johns River via a series of separate swales, ditches, canals, storm sewer systems, culverts and stormwater ponds. The proposed design of all subdivision maintains the previously approved West Cocoa Watershed tail water stages of Control Structure MUD-100 which discharges in the said wetland adjacent to the project. Stormwater Plans and calculations are included as supporting information within this report.

The project area was subdivided into individual drainage basins in order to more accurately model the proposed storm sewer system. Refer to the Storm Sewer Drainage Basin Exhibit in *Appendix A – Drainage Basin Boundary Map and Storm Sewer network*. Drainages Basins are tabulated in *Appendix B – Runoff Coefficient Calculations*.

This project was previously permitted as Santa Barbara Preserve Permit number 4-039-102344, with an approved development area of 45.82 acres and pre-development discharge rates of 44.25 cfs for the 10 year/24-hour event and 61.15 cfs for the 25 year/24-hour event (1.33 cfs/acre) and a normal water level of 21.5 ft NGVD (20.1 NAVD)

Pre-Development Drainage

The Sanctuary at Cocoa Townhomes' stormwater facilities are designed and permitted to limit post-development discharge at or below pre-development levels. This project shall limit the disturbed area to 41.9 ± acres, of which 38.01 acres is collected via the 'on-site' stormwater system.

Using TR-55, the site was classified as brush, weeds, grass mix with tree cover, Group D soils over upland area adjacent to wetland. A weighted Curve Number of 83 was used to reflect pre-development conditions. Twenty-four (24) hour rainfall values are presented below.

Rainfall Depth by Rainfall Return Period

1-Yr (in)	2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)
5	5.6	6.75	7.9	9.5	10.25	13.0

Time of Concentration of the existing conditions was calculated at 0.808 hours.

Refer to *Appendix B – Overland Flow / Buffer WinTR-55 Current Data Description*. A 25-Yr/24-hour Peak Discharge of 47.84 cfs was calculated. This is consistent with previously approved pre-development discharge values for previous permits for this project.

Post-Development Drainage

The ICPR Model used in this project development is consistent with the previous ICPR Model submitted and approved "West Cocoa Watershed Evaluation – Engineering Report".

Control water levels were established utilizing the detailed geotechnical report and the estimates for the normal wet season water level and set at elevation 20.15 NAVD. This elevation is consistent with the determination of the Aardman Geotechnical Report, the previously permitted project parameters as well as establishing control water levels consistent with perimeter elevations of the preserved wetland areas so as to not cause any drawdown effects of the wetland areas. Water quality treatment volumes were determined based upon the available storage and treatment values and overflow weir elevations were established to meet water quality/detention requirements.

The Sanctuary at Cocoa Townhomes' storm sewer is designed to convey the runoff generated by the 10-year 24-hour storm event. The three (3) lakes are integrated with piping and a single control structure that hydrodynamically equalize the water levels within the entire surface watershed. This *dynamic model* is set up to calculate every 15 minutes for 120 hours. The many roadway intakes in the development had maximum stage occurring from 12.1 hours to 19.8 ± hours. The final sub-basin areas and runoff coefficients, and interconnecting piping sizes/grades were used to determine the 'real time' stage 10-year, 24-hour storm event and

corresponding water elevations below each roadway intake at the respective maximum stage. A summary of the *"Flow Calculations for Depth at Roadway Intake Gutter"* located in *Appendix B* also provides the spread elevation at the respective inlets from a 25-year, 24-hour storm event.

Appendix B – Drainage Basin Runoff Coefficient C Values and FDOT Inlet Capacity/Spread Calculations contains the calculations for the runoff coefficient "C" for each sub basin area delineated on the Storm Sewer Drainage Basin Map. Dynamic "C" values are calculated based on area of respective catchment and a combined or prorated 'C' value based on impervious development and a 'C' value based pervious development of each sub basin to be developed.

For pervious areas, calculations conservatively assume a midpoint C value for clay soils, although sandy soils are present.

Per FDOT and Brevard County criteria, roadway curb inlets are designed so that its hydraulic capacity (in sag condition) is not exceeded such that roadway spread does not exceed 7 feet for a 4-inch-per-hour rainfall intensity. Roadway Inlet Type 4 capacity calculations are included with the drainage basin table in Appendix B.

Curb inlets are designed so that inlet capacity (in sag condition) is such that roadway spread does not exceed 7 feet from the edge of pavement per (8.5 ft. from the face of curb) for a 4-inch-per-hour rainfall intensity. Inlet capacity calculations are included with the drainage basin table in Appendix B.

Appendix C – A *dynamic* hydraulic modeling confirms that the proposed storm sewer system is adequately sized. Refer to *Appendix C – Lake Storm Sewer Interconnection, Flows, Levels, Sizing Calculations (ICPR Summary Reports)* for the hydraulic calculations, schematics, and reports generated utilizing ICPR 4.08.03 (dated 06/20/2024) software.

Appendix D – Contains Excerpts from Master Drainage Plans and Calculations Confirming Consistency with the Approved Master Plan.

For reference, *Appendix E* – Geotechnical Report – Ardaman & Associates, Inc. Geotechnical Engineering Evaluation, dated June 23, 2022.

The storm sewer network design was in an effort to focus on the hydraulic gradient line with respect to the gutter elevation at each intake (node), the output of the report has been set with the following:

- Each node's initial stage is set at the Normal Water Elevation by the immediate downstream lake.

- Warning Stage at the respective node is set at the gutter elevation, or if a ditch intake's top elevation. This elevation would be the maximum elevation for the 10 Yr./ 24 Hr. within the sub-basin.
- The low stage limit of the respective intake is set at the lowest invert elevation of the intake or junction box.

- Alert Stage at the respective node is set upper stage limit of inlet is set at the gutter elevation, i.e., stormwater would be inundating areas or spread of the paved street area, +0.14 ft. above gutter elevation.
- The area of each intake is set at the software's default minimum area = 0.001 acre.
- Intake Loss Coefficients
    - FHWA Culvert Code
    - Entrance Loss Coefficient
    - Exit Loss Coefficient
- Because of the interconnecting piping and control structures between multiple lakes and up gradient subdivisions and commercial developments, all piping flow directions shall be permitted to flow in both directions.
- Each stormwater piping segment's upstream and downstream invert are entered as designed, i.e., drop manholes.
- Create 10 Yr./24 Hr. Node Hydrograph, duration 120 hours for the entire 38.01± acre basin.

The respective node hydrograph will show the hydraulic gradient with respect to its gutter elevation. A plot of each intake hydrograph is enclosed for your information and reference. Minor intake hydraulic head losses as defined by the FHWA were applied to each intake (node). This application of minor intake head loss complies with the 0.0 ft. hydraulic gradient below at all proposed storm sewer intakes for "Local Street Pipe Systems".

Summary

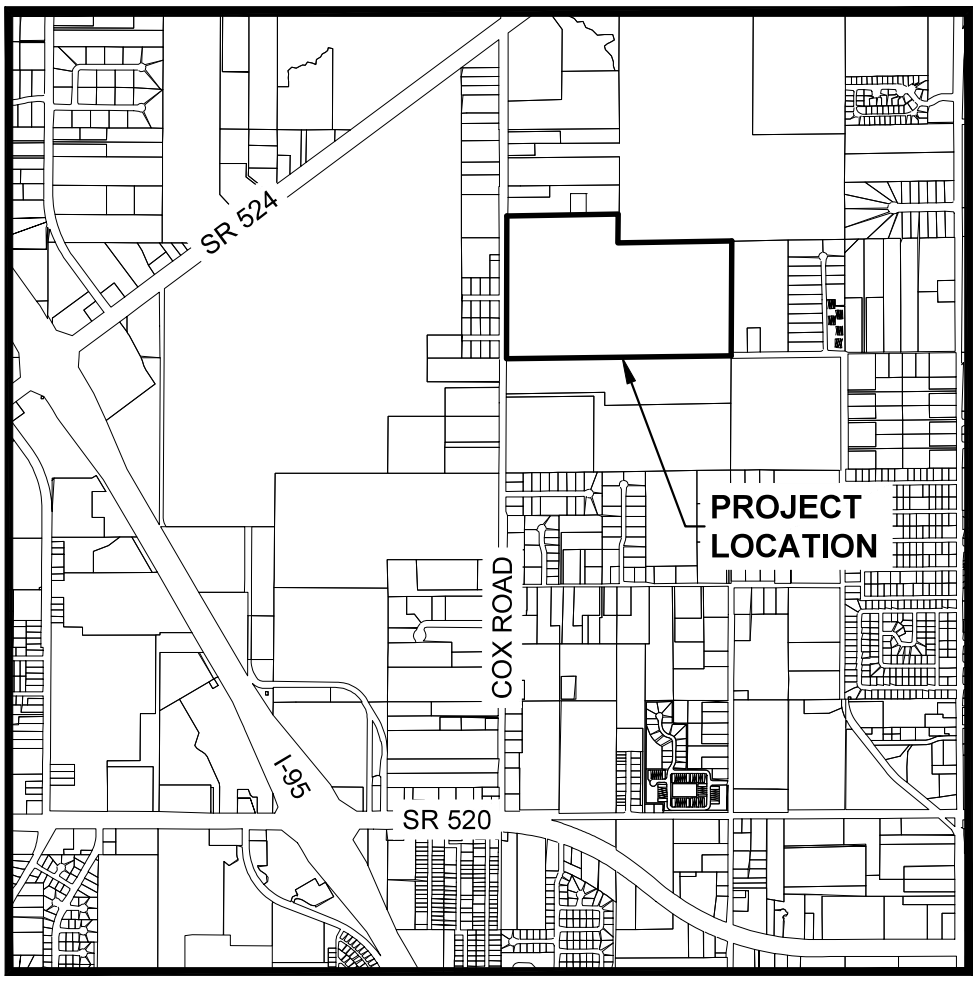
The design and modeling of the hydraulic gradient and storm sewer sizing conforms to the City of Cocoa and SJRWMD Criteria. The system, as designed, is dictated by the calculating simultaneous dynamic downstream 10Yr-24Hr tailwater elevation, hydrologic condition of the onsite stormwater lakes, control structure discharge elevation, and energy and water gradients in each roadway intake as described herein this report. As stated earlier in this report, the Tailwater Elevations based on the MUD-100 tailwater wetland elevations were used to confirm that the energy and water gradients meet the 0.0 ft. differential below the respective proposed roadway storm sewer intakes.

	10-Yr (cfs)	25-Yr (cfs)	100-Yr (cfs)
Pre-Development	38.77	47.84	67.49
Post-Development	8.25	9.18	10.76

Design discharges of Control Structure are less than the Pre-Development Runoff on the 10-Yr, 25-Yr, and 100-Yr. The minimum of 50% storage at 360 Hour Recovery occurs about 26 hours and 15 minutes after the event.

Note: All elevations referenced in this report are NAVD88.

APPENDIX A
DRAINAGE BASIN EXHIBITS



N

LOCATION MAP

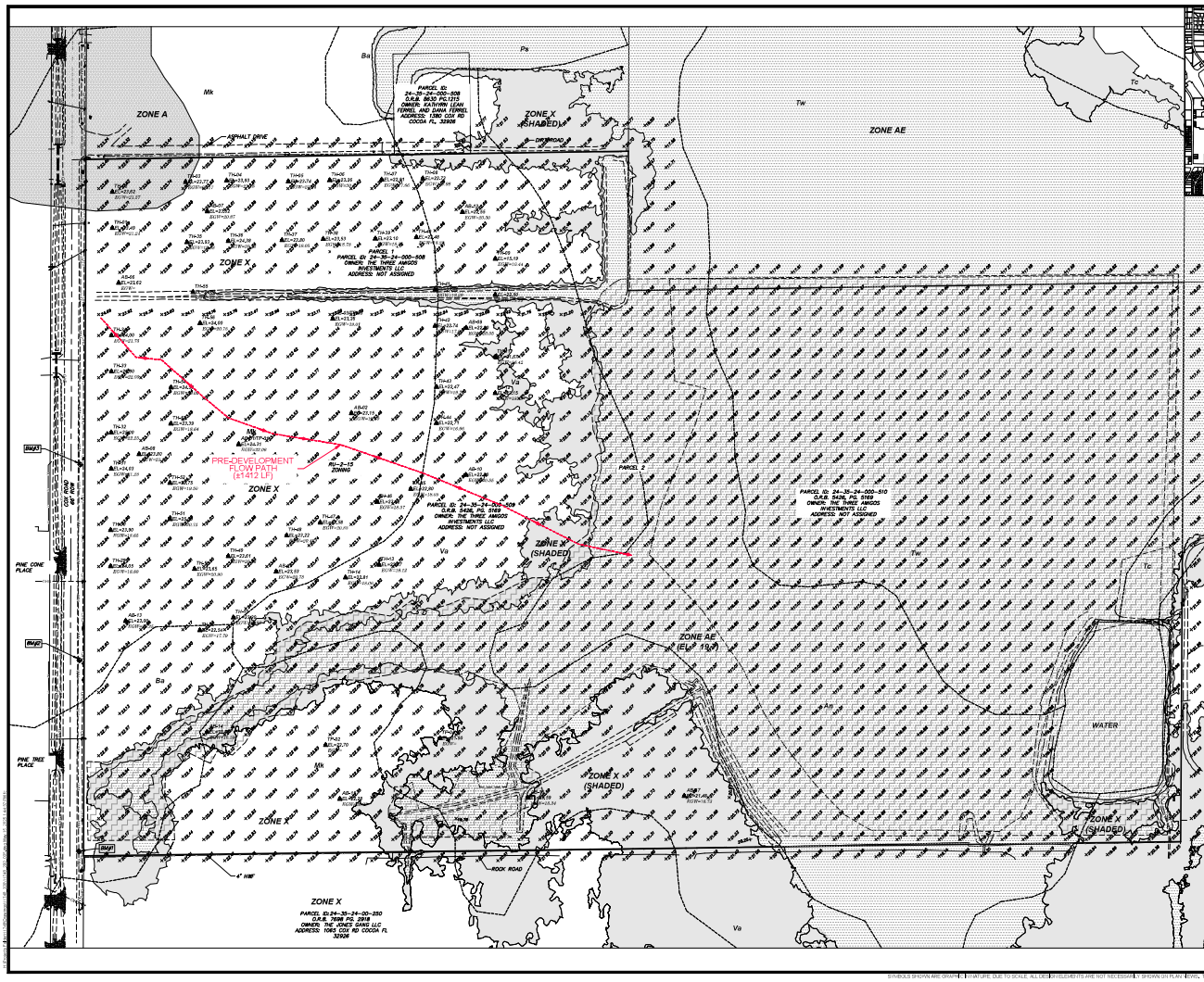
NTS

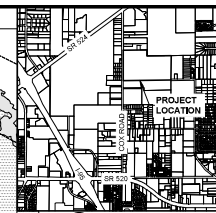
SANCTUARY AT COCOA TOWNHOMES

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

DATE: 5/1/25
DESIGN/DRAWN: HAK/WFV
DRAWING# 11748_200_004
PROJECT# 11748
SHEET 1 OF 1

H:\Projects Folder\11748\Drawings\11748_200\11748_200_004.dwg May 1, 2025 2:05:16 PM wv





LOCATION MAP

NTS

GEOTECHNICAL DATA PRESENTED UPON THESE PLANS ARE PER ARCHMAN & ASSOCIATES INC. REPORT #2C-7-2026 DATED JUNE 29, 2022. ALL SITE DEVELOPMENT ACTIVITIES SHALL INCORPORATE THE REQUIREMENTS AND RECOMMENDATIONS OF THAT REPORT, INCLUSIVE OF THE DIRECTIONS OUTLINED IN THE NOTES ON SHEET 11 OF THESE PLANS.

BENCHMARK (BM) TABLE		
NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.21
BM#3	1/2" IRC "BSE TRAV"	24.40

LEGEND

- BORING ID
- EL=25.99 MEASURED GROUNDWATER ELEVATION
- ESTIMATED NORMAL SEASONAL HIGH GROUNDWATER LEVEL
- EXISTING WETLAND
- WETLAND LIMITS PER CLIENT-PROVIDED ZONE FILE
- FLOOD ZONE
- Pw SOIL TYPE DESIGNATION
- SOIL TYPE BOUNDARY

SOIL TYPE LEGEND

Bb	Beverage sand
Ma	Myrtle sand
Pv	Pomello sand
Tc	Terra Ceia muck
Tw	Tomoka Muck, undrained
Va	Valkaria sand
An	Anclote sand

FEMA FLOOD ZONE

- ZONE A - SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100 YEAR FLOOD - NO BASE FLOOD ELEVATIONS DETERMINED.
- ZONE AE - SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100 YEAR FLOOD - BASE FLOOD ELEVATIONS AS LABELED
- ZONE X (SHADED) - 500 YEAR FLOODPLAIN
- ZONE X (UNSHADED) - OUTSIDE 500 YEAR FLOODPLAIN

NOTE: LIMITS OF EXISTING 100 YEAR FLOODPLAIN AREAS ARE BASED UPON DATA OBTAINED FROM THE FOLLOWING FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS:

BREVARD COUNTY VAP NUMBER 12009C0425 G
BREVARD COUNTY VAP NUMBER 12009C0225 H
MAPS REVISED MARCH 17, 2014 AND JAN. 29, 2021

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
212 SOUTH WASHINGTON AVE. SUITE 4
TITUSVILLE, FLORIDA 32780
PHONE: (321) 264-9574 FAX: (321) 264-9580
Certified Member of Professional Engineers Business Association of Florida and Land Surveyors Certified Member of Land Surveyors Business Association of Florida and Land Surveyors

SCOTT W. GLASS, P.E., & P.L.S.
STATE OF FLORIDA, Fla. 33959 No. 4151

HASSAN K. KAWAL, P.E.
STATE OF FLORIDA, Fla. 47951

100 0 50 100
(IN FEET)
VERTICAL DATUM: NAVD88

DATE:	2/12/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

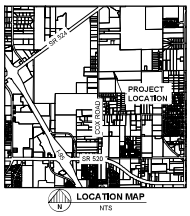
SHEET TITLE
PRE-DEVELOPMENT DRAINAGE EXHIBIT

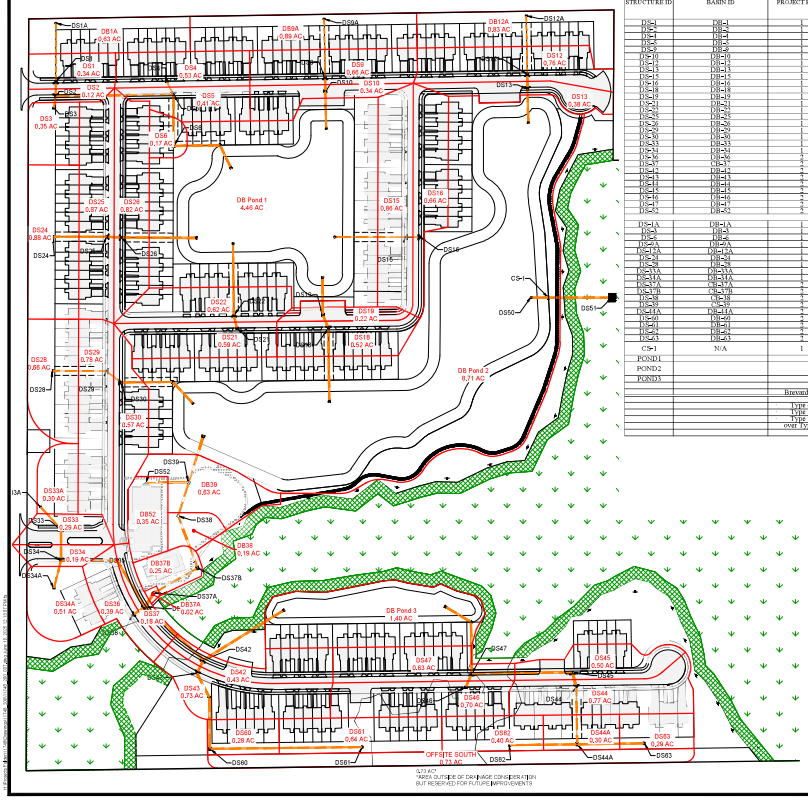
PROJECT NO.
11748

DRAWING NO.
11748_200_005

SHEET
1 of 1

SYMBOLS SHOWN ARE GRAPHIC INFORMATION. DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.





June 4, 2025 — BSE #11748

SANCTUARY COCOA, FL

Flow Calculations for at Roadway Intake Gutter:

SANCTUARY AT COCOA TOWNHOMES

Design Stage Elevation of Hydraulic Analysis — **Depth of Stormwater at Inlet Structure**

Rational Formula: Q = CiA

Where: Q = Flow (cfs)

A = Drainage Area (Acres)

C = Rational Coefficient, C

1 ac-in/hr = 1 cfs

i = Rainfall Intensity = 4.0 in/hr (per FDOT Drainage Manual, Sec. 3.9)

Stormwater Software Model - ICPR Model

Flow Calculations for FDOT Storm Sewer/Inlet Capacity/Spread Determination

STRUCTURE ID	BASIN ID	PROJECT PHASE	PAVEMENT CROSS SLOPE (ft./ft.)	PERVIOUS AREA (C=0.15)	IMPERVIOUS AREA (C=0.98)	BASIN AREA (Acres)	RATIONAL COEFFICIENT, C	Inlet Flow Q=CIA where I= 4 in/hr. (in/hr)	Structure Type	Rational Coefficient with Imp Area = 0.98 and Perv Area = 0.15	Top of Structure Elev. (Ft.)	Gutter DoE = Elev of Top +ID of Intake (Ft.)	Gutter Elev. (Ft.)	10 Yr.-24 Hour Storm Event HGL Peak Elev. for 10 Yr./24 Hr. at Intake	10YR 24HR DoE = Gutter Elev. + HGL (Ft.)	25YR 24HR DoE = Gutter Elev. + HGL (Ft.)	25Y-24 Hour Storm Event HGL Peak Elev. for 25 Yr./24 Hr. at Intake
DS-1	DB-1	1	0.02	0.15	0.19	0.34	0.63	0.83	TYPE 4	0.87	24.16	0.38	23.78	24.98	0.80	25.42	0.36
DS-2	DB-2	1	0.02	0.05	0.07	0.13	0.63	0.80	TYPE 4	0.87	24.16	0.38	23.78	24.98	0.80	25.42	0.36
DS-3	DB-3	1	0.02	0.16	0.37	0.55	0.73	1.59	TYPE V	0.87	24.16	0.00	23.78	25.65	1.13	25.92	0.66
DS-4	DB-4	1	0.02	0.05	0.26	0.33	0.81	1.07	TYPE 4	0.84	24.16	0.38	23.78	25.65	1.13	25.10	0.68
DS-5	DB-5	1	0.02	0.21	0.45	0.66	0.68	1.88	TYPE 4	0.86	24.16	0.38	23.78	25.65	1.42	25.83	0.68
DS-10	DB-10	1	0.02	0.09	0.55	0.64	0.76	1.93	TYPE G	0.88	24.16	0.00	23.78	25.65	1.13	25.93	0.85
DS-13	DB-13	1	0.02	0.03	0.33	0.36	0.73	1.05	TYPE 4	0.87	24.16	0.38	23.78	25.64	1.14	25.91	0.87
DS-15	DB-15	1	0.02	0.11	0.35	0.46	0.74	1.12	TYPE 4	0.87	24.16	0.38	23.78	25.64	1.14	25.91	0.87
DS-15	DB-15	1	0.02	0.28	0.58	0.86	0.71	2.44	TYPE 4	0.86	24.00	0.38	23.62	25.65	0.97	25.93	0.69
DS-16	DB-16	1	0.02	0.30	0.46	0.76	0.73	1.92	TYPE 4	0.87	24.00	0.38	23.62	25.65	0.97	25.93	0.69
DS-18	DB-18	1	0.02	0.17	0.35	0.52	0.71	1.47	TYPE 4	0.86	24.16	0.38	23.78	25.64	1.14	25.92	0.86
DS-19	DB-19	1	0.02	0.06	0.16	0.22	0.75	0.66	TYPE G	0.88	24.16	0.00	23.78	25.64	1.14	25.92	0.86
DS-21	DB-21	1	0.02	0.17	0.42	0.59	0.74	1.75	TYPE V	0.87	23.78	0.00	23.78	25.65	1.13	25.93	0.85
DS-23	DB-23	1	0.02	0.22	0.40	0.62	0.69	1.70	TYPE 4	0.85	24.16	0.38	23.78	25.65	1.13	25.92	0.86
DS-25	DB-25	1	0.02	0.26	0.61	0.87	0.73	2.55	TYPE 4	0.87	24.38	0.38	24.00	25.65	1.35	25.93	1.07
DS-26	DB-26	1	0.02	0.26	0.56	0.82	0.72	2.35	TYPE 4	0.86	24.38	0.38	24.00	25.65	1.35	25.93	1.07
DS-29	DB-29	1	0.02	0.25	0.53	0.78	0.71	2.23	TYPE 4	0.86	24.16	0.38	23.78	25.64	1.14	25.91	0.87
DS-30	DB-30	1	0.02	0.23	0.34	0.57	0.65	1.47	TYPE 4	0.83	24.16	0.38	23.78	25.64	1.14	25.91	0.87
DS-33	DB-33	1	0.02	0.15	0.14	0.29	0.55	0.64	TYPE 4	0.79	24.46	0.38	24.08	25.65	1.43	25.92	1.16
DS-34	DB-34	1	0.02	0.05	0.14	0.19	0.76	0.58	TYPE 4	0.88	24.24	0.38	23.86	25.65	1.21	25.92	0.93
DS-36	DB-36	2	0.02	0.19	0.20	0.39	0.58	0.90	TYPE 4	0.80	24.43	0.38	24.05	25.65	1.40	25.92	1.13
DS-37	DB-37	2	0.02	0.07	0.11	0.18	0.66	0.47	TYPE 4	0.84	24.43	0.38	24.05	25.64	1.41	25.92	1.14
DS-42	DB-42	2	0.02	0.13	0.30	0.43	0.73	1.25	TYPE 4	0.87	24.38	0.38	24.00	25.65	1.35	25.92	1.08
DS-43	DB-43	2	0.02	0.13	0.30	0.43	0.66	1.03	TYPE 4	0.79	24.38	0.38	24.00	25.65	1.35	25.92	1.08
DS-44	DB-44	2	0.02	0.25	0.34	0.59	0.58	1.36	TYPE 4	0.81	24.16	0.38	23.78	25.06	0.92	25.68	0.10
DS-45	DB-45	2	0.02	0.33	0.53	0.86	0.62	2.02	TYPE 4	0.85	24.16	0.38	23.78	25.65	0.97	25.93	0.69
DS-46	DB-46	2	0.02	0.17	0.50	0.70	0.70	1.95	TYPE V	0.85	23.78	0.00	23.78	25.66	0.93	25.93	0.38
DS-47	DB-47	2	0.02	0.25	0.46	0.73	0.69	1.95	TYPE 4	0.85	24.16	0.38	23.78	25.65	1.13	25.91	0.87
DS-52	DB-52	2	0.02	0.10	0.23	0.35	0.63	0.94	TYPE 4	0.87	23.88	0.38	23.50	25.64	0.86	25.91	0.59
							Non-Roadway Inlets										
DS-1A	DB-1A	1	0.02	0.48	0.15	0.63	0.87	0.88	TYPE C	0.70	24.94	0.00	24.94	25.13	1.91	25.85	1.09
DS-2A	DB-2A	1	0.02	0.08	0.07	0.15	0.52	0.44	TYPE D	0.68	25.08	0.00	25.08	25.71	3.37	25.93	1.81
DS-2	DB-2	1	0.02	0.11	0.06	0.17	0.44	0.30	TYPE D	0.54	25.00	0.00	25.00	25.93	2.48	25.93	2.17
DS-3A	DB-3A	1	0.02	0.64	0.75	0.89	0.38	1.56	TYPE C	0.71	25.10	0.00	25.10	25.16	1.94	25.90	1.20
DS-12A	DB-12A	1	0.02	0.64	0.20	0.84	0.35	1.17	TYPE C	0.70	24.16	0.00	24.16	25.65	3.33	25.93	1.23
DS-24	DB-24	1	0.02	0.72	0.16	0.88	0.30	1.08	TYPE D	0.68	24.97	0.00	24.97	25.65	0.91	25.93	4.04
DS-28	DB-28	1	0.02	0.53	0.13	0.66	0.51	0.83	TYPE D	0.68	23.56	0.00	23.56	25.64	0.92	25.93	0.65
DS-31A	DB-31A	1	0.02	0.33	0.07	0.50	0.34	0.41	TYPE C	0.70	26.11	0.00	26.11	25.65	3.46	25.93	3.19
DS-31A	DB-31A	1	0.02	0.15	0.06	0.21	0.25	0.31	TYPE C	0.65	25.99	0.00	25.99	25.65	3.33	25.93	3.05
DS-37A	DB-37A	2	0.02	0.02	0.00	0.02	0.15	0.01	TYPE G	0.61	24.00	0.00	24.00	25.64	1.36	25.91	1.09
DS-37B	DB-37B	2	0.02	0.03	0.11	0.15	0.52	0.57	TYPE G	0.79	24.00	0.00	24.00	25.64	1.36	25.91	1.09
DS-38	DB-38	2	0.02	0.18	0.01	0.19	0.19	0.15	TYPE G	0.63	23.50	0.00	23.50	25.64	0.86	25.91	0.59
DS-39	DB-39	2	0.02	0.59	0.04	0.63	0.20	0.51	TYPE G	0.63	24.24	0.00	24.24	25.64	0.61	25.91	0.34
DS-41A	DB-41A	2	0.02	0.21	0.09	0.30	0.40	0.40	TYPE G	0.72	24.93	0.00	24.93	25.08	1.85	25.71	1.25
DS-60	DB-60	2	0.02	0.23	0.07	0.28	0.36	0.40	TYPE G	0.70	24.33	0.00	24.33	25.52	2.80	25.92	1.40
DS-61	DB-61	2	0.02	0.49	0.15	0.64	0.34	0.88	TYPE D	0.70	24.93	0.00	24.93	25.65	2.28	25.92	2.01
DS-62	DB-62	2	0.02	0.32	0.11	0.45	0.38	0.61	TYPE D	0.71	24.93	0.00	24.93	25.10	1.83	25.71	1.30
DS-63	DB-63	2	0.02	0.22	0.07	0.29	0.35	0.41	TYPE D	0.70	24.98	0.00	24.98	25.09	1.89	25.72	1.26
									TYPE R2					25.40		25.65	
CS-1	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	GRATE		20.38			22.80		22.95	
POND1				1.89	2.57	4.46								23.52		23.82	
POND2				4.20	4.51	8.71								22.50		22.80	
POND3				0.70	0.70	1.40								22.62		23.01	
		Total		18.39	19.62	38.01											

Rainfall Coefficient	
Type C inlet	2.60
Type E inlet	2.60
Type 2 inlet over Type 2	3.50

Brevard Co.	2% Cross Slope

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING
3152 Post Meadow Blvd, Suite 4, Melbourne, FL 32940
PHONE (321) 254-0174 FAX (321) 254-0189
Certificate of Authorization Number 28,855
Certificate of Authorization Number LB 8055
www.bse-consultants.com

SCOTT M. SLAUGHTER, P.E., P.S.M.
STATE OF FLORIDA No. 73995 No. 6151

HASSAN A. HANNA, P.E.
STATE OF FLORIDA No. 47951

(IN FEET)
VERTICAL DATUM: NAVD88

DATE: 06/04/2025
DESIGN/DRAWN: HAK/TBS

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
POST - DEVELOPMENT DRAINAGE BASIN MAP

PROJECT NO. 11748

DRAWING NO. 11748_200_007

SHEET 1 of 1

SYMBOLS SHOWN ARE GRAPHICAL REPRESENTATIONS AND ARE NOT NECESSARILY TO SCALE. ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATIONS AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

11748

Stormwater Calculations

Land use	IMPERVIOUS COVERAGE		
	AC.	% IMPERVIOUS	IMPER.. ACRES
Development area	31.94	75%	23.96
Preserved Wetland area	0.00	70%	0.00
Upland Buffers & Misc. open space	0.00	5%	0.00
Lake area (incl. Maint. areas)	6.07	80%	4.86
SUBTOTAL -BASIN	38.01		28.81
Weighted impervious cover =	76%		

REQUIRED WATER QUALITY TREATMENT VOLUME

1" OVER BASIN AREA = 3.17 AC -FT

OR

2.5" TIMES PERCENT IMPERVIOUS (less lake area)

4.99 AC -FT

B. SET THE ELEVATION OF THE CONTROL STRUCTURE

CONTROL WATER LEVEL = BLEEDER ELEV = 20.15

Wetland & Lake area (ac.) @ N.W.L. = 6.07
8.92

STORAGE VOL. @ N.W.L. = 0.00 AC -FT

STORAGE VOLUME @ ELEV. 20.15 0.00 AC- FT

REQUIRED TREAT. VOLUME 4.99 (AC-FT)

STAGE-STORAGE CALCULATIONS ARE AS FOLLOWS:

STAGE	STORAGE	(AC-FT)
20.15	0.00	
21.15	7.50	
22.15	14.99	
23.15	22.49	
24.15	29.98	

BASED UPON STORAGE PROVIDED, SET OVERFLOW ELEVATION AT 20.82

C. CALCULATE PERM. POOL VOLUME PROVIDED

NO LITTORAL ZONE PLANTING IS PROPOSED, THERFORE PROVIDE FOR A
21 DAY RESIDENCE TIME.

WET SEASON RAINFALL =	30 INCHES	153 DAY RAINY SEASON
RUNOFF COEFFICIENT =	0.76	(0.95 * IMPERV., 0.15 * PERV)

MIN. PERMANENT POOL VOL. = $\frac{\text{BASIN AREA* RUNOFF COEFFICIENT (30 IN) (21/153)}}{\text{12 IN/FT.}}$

PERM. POOL VOL. REQUIRED=	9.87	AC -FT	
Pond area @ NWL (ac)	6.07		Elev= 20.15
Pond area @ 3' Below NWL =	5.18		Elev= 17.15
Pond area @12' Below NWL =	2.49		Elev= 8.15
PERM. POOL VOL. Provided=	51.36	AC -FT	

Minimum Permanent Pool Volume is Provided

D. CALCULATE BLEEDDOWN STRUCTURE SIZE

Use circular orifice, Q = CA* (2gh)^0.5

Average Head , h =	0.33	ft.
½ of the treatment Volume, Q, =	1.01	cfs
Solve for required area =		
A=Q/C*(2gh)^0.5=	0.36	sq. ft.
Required Orifice Diameter=	8.15	inches

Therefore, use a 8 In. Diameter orifice

Use a rectangular weir Q=3.13L(H)*1.5

L=Weir length
H=Depth of Water over Weir crest
=(H1+H2)/2
h1= initial stage
h2=stage when half the treatment volume has been released

h2=	0.33
h1=	0.67

h=	0.50
Q=	1.01
L=	**0.91**

E. CALCULATE MEAN POND DEPTH

MEAN POND DEPTH IS CALCULATED BY DIVIDING THE POOL VOLUME AT ORIFICE INVERT BY THE AREA OF THE POND AT THE ORIFICE INVERT.

MEAN POND DEPTH =	51.36	DIVIDED BY	6.07
	8.46 ft.		

Since calculated pond depth is between 2 - 8, pond depth is OK

F. CURVE NUMBER & TIME OF CONCENTRATION VALUES

LAND USE DESCRIPTION	AC.	CURVE NUMBER	PRODUCT
Development area	31.94	87.00	2778.78
Preserved Wetland area	0.00	85.00	0.00
Upland Buffers & Misc. open space	0.00	60.00	0.00
Lake area (incl. Maint. areas)	6.07	90.00	546.30
SUBTOTAL -BASIN	38.01		3325.08

WEIGHTED CURVE NUMBER =	87.48	
TIME OF CONCENTRATION(HRS) = 2*√(area in sq. miles) =	0.49	
MINUTES		29.2

APPENDIX B
DRAINAGE BASIN RUNOFF COEFFICIENT C VALUES

APPENDIX B-1
OVERLAND FLOW / BUFFER WINTR-55 CURRENT DATA DESCRIPTION

WinTR-55 Current Data Description

--- Identification Data ---

User: GMoughler
Project: Cox Road
SubTitle: Sanctuary at Cocoa Townhomes
State: Florida
County: Brevard MSE5
Filename: H:\Projects Folder\11748\Engineering\Stormwater Management\Report\newfile.w55

Date: 6/6/2025
Units: English
Areal Units: Acres

--- Sub-Area Data ---

Name	Description	Reach	Area(ac)	RCN	Tc
Upland		Reach 1	41.9	83	.808

Total area: 41.90 (ac)

--- Storm Data --

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
5.6	6.75	7.9	9.5	10.25	13.0	5.0

Storm Data Source: User-provided custom storm data
Rainfall Distribution Type: Historical Storm
Dimensionless Unit Hydrograph: <standard>

Cox Road
Sanctuary at Cocoa Townhomes
Brevard MSE5 County, Florida

Storm Data

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
5.6	6.75	7.9	9.5	10.25	13.0	5.0

Storm Data Source: User-provided custom storm data
Rainfall Distribution Type: Historical Storm
Dimensionless Unit Hydrograph: <standard>

Cox Road
Sanctuary at Cocoa Townhomes
Brevard MSE5 County, Florida

Watershed Peak Table

Sub-Area or Reach Identifier	Peak Flow by Rainfall Return Period 2-Yr (cfs)	5-Yr (cfs)	10-Yr (cfs)	25-Yr (cfs)	50-Yr (cfs)	100-Yr (cfs)	1-Yr (cfs)
SUBAREAS							
Upland	25.62	32.21	38.78	47.85	52.09	67.53	22.18
REACHES							
Reach 1	25.62	32.21	38.78	47.85	52.09	67.53	22.18
Down	25.61	32.19	38.77	47.84	52.07	67.49	22.16
OUTLET	25.61	32.19	38.77	47.84	52.07	67.49	22.16

Cox Road
Sanctuary at Cocoa Townhomes
Brevard MSE5 County, Florida

Hydrograph Peak/Peak Time Table

Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period						
	2-Yr (cfs) (hr)	5-Yr (cfs) (hr)	10-Yr (cfs) (hr)	25-Yr (cfs) (hr)	50-Yr (cfs) (hr)	100-Yr (cfs) (hr)	1-Yr (cfs) (hr)
SUBAREAS							
Upland	25.62 13.10	32.21 13.10	38.78 13.11	47.85 13.07	52.09 13.07	67.53 13.09	22.18 13.14
REACHES							
Reach 1	25.62 13.10	32.21 13.10	38.78 13.11	47.85 13.07	52.09 13.07	67.53 13.09	22.18 13.14
Down	25.61 13.36	32.19 13.30	38.77 13.31	47.84 13.33	52.07 13.32	67.49 13.30	22.16 13.35
OUTLET	25.61	32.19	38.77	47.84	52.07	67.49	22.16

Cox Road
Sanctuary at Cocoa Townhomes
Brevard MSE5 County, Florida

Structure Output Table

Reach Identifier / Structure Identifier	Peak Flow (PF), Storage Volume (SV), Stage (STG) by Rainfall Return Period 2-Yr	5-Yr	10-Yr	25-Yr	50-Yr	100-Yr	1-Yr

Cox Road
Sanctuary at Cocoa Townhomes
Brevard MSE5 County, Florida

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
Upland	41.90	0.808	83	Reach 1	

Total Area: 41.90 (ac)

Cox Road
Sanctuary at Cocoa Townhomes
Brevard MSE5 County, Florida

Reach Summary Table

Reach Identifier	Receiving Reach Identifier	Reach Length (ft)	Routing Method
Reach 1	Outlet	2100	CHANNEL

Cox Road
Sanctuary at Cocoa Townhomes
Brevard MSE5 County, Florida

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
Upland							
SHALLOW	2100	0.0020	0.050				0.808
					Time of Concentration		.808

Cox Road
Sanctuary at Cocoa Townhomes
Brevard MSE5 County, Florida

Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number
Upland	Brush - brush, weed, grass mix (poor)	D	41.9	83
	Total Area / Weighted Curve Number		41.9	83

Cox Road
Sanctuary at Cocoa Townhomes
Brevard MSE5 County, Florida

Reach Channel Rating Details

Reach Identifier	Reach Length (ft)	Reach Manning's n	Friction Slope (ft/ft)	Bottom Width (ft)	Side Slope
Reach 1	2100	0.025	0.002	1000	95 :1

Reach Identifier	Stage (ft)	Flow (cfs)	End Area (sq ft)	Top Width (ft)	Friction Slope (ft/ft)
Reach 1	0.0	0.000	0	1000	0.002
	0.5	851.510	523.8	1095	
	1.0	2753.701	1095	1190	
	2.0	9098.398	2380	1380	
	5.0	47588.237	7375	1950	
	10.0	184661.196	19500	2900	
	20.0	811833.431	58000	4800	

Cox Road
Sanctuary at Cocoa Townhomes
Brevard MSE5 County, Florida

Structure Description - User Entered

Reach Identifier	Surface Area @ Crest (ac)	Height Above Crest (ft)	Surface Area @ Ht Above (ac)	Pipe Diameter (in)	Head on Pipe (ft)	Weir Length (ft)

Cox Road
Sanctuary at Cocoa Townhomes
Brevard MSE5 County, Florida

Structure Rating Details - Computed

APPENDIX C
ICPR STORM WATER MODELING

APPENDIX C-1
ICPR CURVE NUMBER

Curve Number: CN [Set]

Land Cover Zone	Soil Zone	Curve Number [dec]
DEV-MED	B/D	65.0
LAKE	B/D	100.0
OPEN	B/D	75.0
PAVEMENT R/W	B/D	98.0

Impervious: IMP [Set]

Land Cover Zone	% Impervious	% DCIA	% Direct	Ia/S [dec]	Ia Impervious [in]	Ia Pervious [in]
DEV-MED	65.00	52.00	0.00	0.00	0.000	0.000
LAKE	100.00	100.00	0.00	0.00	0.000	0.000
OPEN	15.00	0.00	0.00	0.00	0.000	0.000
PAVEMENT R/W	98.00	33.00	0.00	0.00	0.000	0.000

Manual Basin: CB-1

Scenario: Scenario1
Node: DS1
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3400 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1900	PAVEMENT R/W	B/D	
0.1500	OPEN	B/D	

Comment:

Manual Basin: CB-10

Scenario: Scenario1
Node: DS10
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

APPENDIX C-2
ICPR IMPERIOUS

Curve Number: CN [Set]

Land Cover Zone	Soil Zone	Curve Number [dec]
DEV-MED	B/D	65.0
LAKE	B/D	100.0
OPEN	B/D	75.0
PAVEMENT R/W	B/D	98.0

Impervious: IMP [Set]

Land Cover Zone	% Impervious	% DCIA	% Direct	Ia/S [dec]	Ia Impervious [in]	Ia Pervious [in]
DEV-MED	65.00	52.00	0.00	0.00	0.000	0.000
LAKE	100.00	100.00	0.00	0.00	0.000	0.000
OPEN	15.00	0.00	0.00	0.00	0.000	0.000
PAVEMENT R/W	98.00	33.00	0.00	0.00	0.000	0.000

Manual Basin: CB-1

Scenario: Scenario1
Node: DS1
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3400 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1900	PAVEMENT R/W	B/D	
0.1500	OPEN	B/D	

Comment:

Manual Basin: CB-10

Scenario: Scenario1
Node: DS10
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

APPENDIX C-3
ICPR MANUAL BASIN

Curve Number: CN [Set]

Land Cover Zone	Soil Zone	Curve Number [dec]
DEV-MED	B/D	65.0
LAKE	B/D	100.0
OPEN	B/D	75.0
PAVEMENT R/W	B/D	98.0

Impervious: IMP [Set]

Land Cover Zone	% Impervious	% DCIA	% Direct	Ia/S [dec]	Ia Impervious [in]	Ia Pervious [in]
DEV-MED	65.00	52.00	0.00	0.00	0.000	0.000
LAKE	100.00	100.00	0.00	0.00	0.000	0.000
OPEN	15.00	0.00	0.00	0.00	0.000	0.000
PAVEMENT R/W	98.00	33.00	0.00	0.00	0.000	0.000

Manual Basin: CB-1

Scenario: Scenario1
Node: DS1
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3400 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1900	PAVEMENT R/W	B/D	
0.1500	OPEN	B/D	

Comment:

Manual Basin: CB-10

Scenario: Scenario1
Node: DS10
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 0.3400 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.2500	PAVEMENT R/W	B/D	
0.0900	OPEN	B/D	

Comment:

Manual Basin: CB-12

Scenario: Scenario1
Node: DS12
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7600 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.5300	PAVEMENT R/W	B/D	
0.2300	OPEN	B/D	

Comment:

Manual Basin: CB-12A

Scenario: Scenario1
Node: DS12A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.8400 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.2000	PAVEMENT R/W	B/D	
0.6400	OPEN	B/D	

Comment:

Manual Basin: CB-13

Scenario: Scenario1
Node: DS13
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3800 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.2700	PAVEMENT R/W	B/D	
0.1100	OPEN	B/D	

Comment:

Manual Basin: CB-15

Scenario: Scenario1
Node: DS15
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.8600 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.5800	PAVEMENT R/W	B/D	
0.2800	OPEN	B/D	

Comment:

Manual Basin: CB-16

Scenario: Scenario1
Node: DS16
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6600 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.4600	PAVEMENT R/W	B/D	
0.2000	OPEN	B/D	

Comment:

Manual Basin: CB-18

Scenario: Scenario1
Node: DS18
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5200 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.3500	PAVEMENT R/W	B/D	
0.1700	OPEN	B/D	

Comment:

Manual Basin: CB-19

Scenario: Scenario1
Node: DS19
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2200 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1600	PAVEMENT R/W	B/D	
0.0600	OPEN	B/D	

Comment:

Manual Basin: CB-1A

Scenario: Scenario1

Node: DS-1A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6300 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1500	PAVEMENT R/W	B/D	
0.4800	OPEN	B/D	

Comment:

Manual Basin: CB-2

Scenario: Scenario1
Node: DS2
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1200 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0700	PAVEMENT R/W	B/D	
0.0500	OPEN	B/D	

Comment:

Manual Basin: CB-21

Scenario: Scenario1
Node: DS21
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5900 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.4200	PAVEMENT R/W	B/D	

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1700	OPEN	B/D	

Comment:

Manual Basin: CB-22

Scenario: Scenario1
Node: DS22
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6200 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.4000	PAVEMENT R/W	B/D	
0.2200	OPEN	B/D	

Comment:

Manual Basin: CB-24

Scenario: Scenario1
Node: DS24
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.8800 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1600	PAVEMENT R/W	B/D	
0.7200	OPEN	B/D	

Comment:

Manual Basin: CB-25

Scenario: Scenario1
Node: DS25

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.8700 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.6100	PAVEMENT R/W	B/D	
0.2600	OPEN	B/D	

Comment:

Manual Basin: CB-26

Scenario: Scenario1
Node: DS26
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.8200 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.5600	PAVEMENT R/W	B/D	
0.2600	OPEN	B/D	

Comment:

Manual Basin: CB-28

Scenario: Scenario1
Node: DS28
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6600 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1300	PAVEMENT R/W	B/D	
0.5300	OPEN	B/D	

Comment:

Manual Basin: CB-29

Scenario: Scenario1
Node: DS29
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7800 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.5300	PAVEMENT R/W	B/D	
0.2500	OPEN	B/D	

Comment:

Manual Basin: CB-3

Scenario: Scenario1
Node: DS3
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3500 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0700	PAVEMENT R/W	B/D	
0.2800	OPEN	B/D	

Comment:

Manual Basin: CB-30

Scenario: Scenario1
Node: DS30
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5700 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.3400	PAVEMENT R/W	B/D	
0.2300	OPEN	B/D	

Comment:

Manual Basin: CB-33

Scenario: Scenario1
Node: DS33
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2900 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1400	PAVEMENT R/W	B/D	
0.1500	OPEN	B/D	

Comment:

Manual Basin: CB-33A

Scenario: Scenario1
Node: DS33A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3000 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0700	PAVEMENT R/W	B/D	
0.2300	OPEN	B/D	

Comment:

Manual Basin: CB-34

Scenario: Scenario1
Node: DS34
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1900 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1400	PAVEMENT R/W	B/D	
0.0500	OPEN	B/D	

Comment:

Manual Basin: CB-34A

Scenario: Scenario1
Node: DS34A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5100 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0600	PAVEMENT R/W	B/D	
0.4500	OPEN	B/D	

Comment:

Manual Basin: CB-36

Scenario: Scenario1
Node: DS36
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3900 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.2000	PAVEMENT R/W	B/D	
0.1900	OPEN	B/D	

Comment:

Manual Basin: CB-37

Scenario: Scenario1
Node: DS37
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1800 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1100	PAVEMENT R/W	B/D	
0.0700	OPEN	B/D	

Comment:

Manual Basin: CB-37A

Scenario: Scenario1
Node: DS37A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.0201 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0001	PAVEMENT R/W	B/D	
0.0200	OPEN	B/D	

Comment:

Manual Basin: CB-37B

Scenario: Scenario1

Node: DS37B
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2500 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1100	PAVEMENT R/W	B/D	
0.1400	OPEN	B/D	

Comment:

Manual Basin: CB-38

Scenario: Scenario1
Node: DS38
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1900 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0100	PAVEMENT R/W	B/D	
0.1800	OPEN	B/D	

Comment:

Manual Basin: CB-39

Scenario: Scenario1
Node: DS39
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6300 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0400	PAVEMENT R/W	B/D	

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.5900	OPEN	B/D	

Comment:

Manual Basin: CB-4

Scenario: Scenario1
Node: DS4
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5300 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.3700	PAVEMENT R/W	B/D	
0.1600	OPEN	B/D	

Comment:

Manual Basin: CB-42

Scenario: Scenario1
Node: DS42
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.4300 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.3000	PAVEMENT R/W	B/D	
0.1300	OPEN	B/D	

Comment:

Manual Basin: CB-43

Scenario: Scenario1
Node: DS43

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7300 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.3600	PAVEMENT R/W	B/D	
0.3700	OPEN	B/D	

Comment:

Manual Basin: CB-44

Scenario: Scenario1
Node: DS44
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7700 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.5400	PAVEMENT R/W	B/D	
0.2300	OPEN	B/D	

Comment:

Manual Basin: CB-44A

Scenario: Scenario1
Node: DS44A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3000 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0900	PAVEMENT R/W	B/D	
0.2100	OPEN	B/D	

Comment:

Manual Basin: CB-45

Scenario: Scenario1
Node: DS45
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5000 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.3300	PAVEMENT R/W	B/D	
0.1700	OPEN	B/D	

Comment:

Manual Basin: CB-46

Scenario: Scenario1
Node: DS46
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7000 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.4600	PAVEMENT R/W	B/D	
0.2400	OPEN	B/D	

Comment:

Manual Basin: CB-47

Scenario: Scenario1
Node: DS47
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6300 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.4100	PAVEMENT R/W	B/D	
0.2200	OPEN	B/D	

Comment:

Manual Basin: CB-5

Scenario: Scenario1
Node: DS5
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.4100 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.2600	PAVEMENT R/W	B/D	
0.1500	OPEN	B/D	

Comment:

Manual Basin: CB-52

Scenario: Scenario1
Node: DS52
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3500 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.2500	PAVEMENT R/W	B/D	
0.1000	OPEN	B/D	

Comment:

Manual Basin: CB-6

Scenario: Scenario1
Node: DS6
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1700 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0600	PAVEMENT R/W	B/D	
0.1100	OPEN	B/D	

Comment:

Manual Basin: CB-60

Scenario: Scenario1
Node: DS60
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2800 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0700	PAVEMENT R/W	B/D	
0.2100	OPEN	B/D	

Comment:

Manual Basin: CB-61

Scenario: Scenario1
Node: DS61
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6400 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1500	PAVEMENT R/W	B/D	
0.4900	OPEN	B/D	

Comment:

Manual Basin: CB-62

Scenario: Scenario1
Node: DS62
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.4000 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1100	PAVEMENT R/W	B/D	
0.2900	OPEN	B/D	

Comment:

Manual Basin: CB-63

Scenario: Scenario1
Node: DS63
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2900 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.0700	PAVEMENT R/W	B/D	
0.2200	OPEN	B/D	

Comment:

Manual Basin: CB-9

Scenario: Scenario1

Node: DS9
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6600 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.4500	PAVEMENT R/W	B/D	
0.2100	OPEN	B/D	

Comment:

Manual Basin: CB-9A

Scenario: Scenario1
Node: DS9A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.8900 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.2500	PAVEMENT R/W	B/D	
0.6400	OPEN	B/D	

Comment:

Manual Basin: POND 1

Scenario: Scenario1
Node: POND 1
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 4.4600 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
2.5700	LAKE	B/D	

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
1.8900	OPEN	B/D	

Comment:

Manual Basin: POND2

Scenario: Scenario1
Node: POND2
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 8.7100 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
4.2000	PAVEMENT R/W	B/D	
4.5100	LAKE	B/D	

Comment:

Manual Basin: POND3

Scenario: Scenario1
Node: POND3
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.4000 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.7000	LAKE	B/D	
0.7000	OPEN	B/D	

Comment:

Node: CS-1

Scenario: Scenario1
Type: Stage/Area

Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.15 ft
Alert Stage: 24.15 ft

Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
CS-1	010Y24H	23.15	24.15	22.58	0.0005	4.80	4.80	100	19.9067	12.0867	19.8283	19.9067
CS-1	025Y24H	23.15	24.15	22.81	0.0006	6.42	6.42	100	18.6489	12.1203	17.6805	18.6857
CS-1	100Y24H	23.15	24.15	23.19	0.0005	9.34	9.34	100	16.9123	12.1213	16.8831	16.8681

APPENDIX C-4
ICPR NODE MAX CONDITIONS W/ TIMES

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
1.8900	OPEN	B/D	

Comment:

Manual Basin: POND2

Scenario: Scenario1
Node: POND2
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 8.7100 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
4.2000	PAVEMENT R/W	B/D	
4.5100	LAKE	B/D	

Comment:

Manual Basin: POND3

Scenario: Scenario1
Node: POND3
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.4000 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.7000	LAKE	B/D	
0.7000	OPEN	B/D	

Comment:

Node: CS-1

Scenario: Scenario1
Type: Stage/Area

Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.15 ft
Alert Stage: 24.15 ft

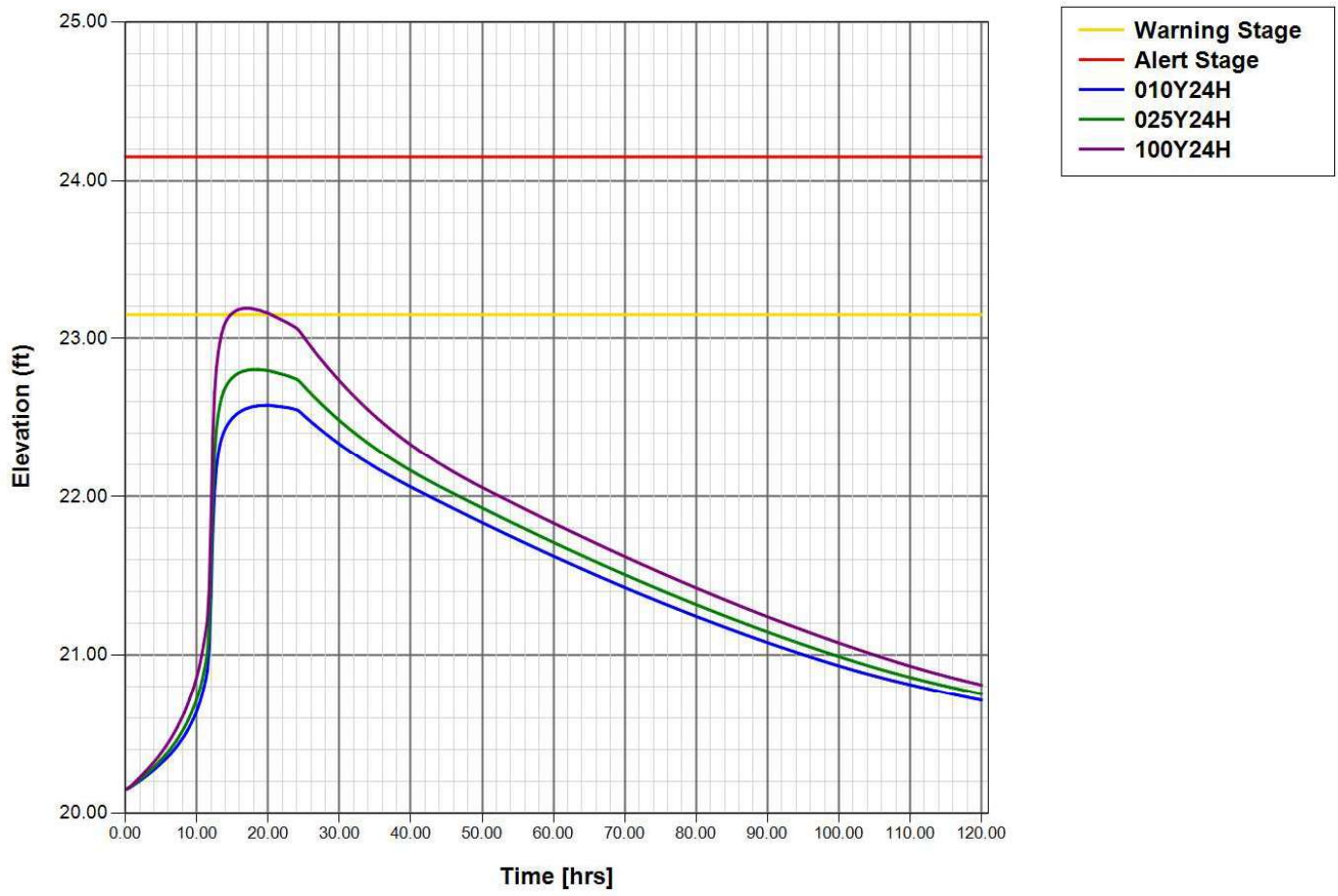
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
CS-1	010Y24H	23.15	24.15	22.58	0.0005	4.80	4.80	100	19.9067	12.0867	19.8283	19.9067
CS-1	025Y24H	23.15	24.15	22.81	0.0006	6.42	6.42	100	18.6489	12.1203	17.6805	18.6857
CS-1	100Y24H	23.15	24.15	23.19	0.0005	9.34	9.34	100	16.9123	12.1213	16.8831	16.8681

Node Stage w/Warning and Alert Stage: CS-1 [Scenario1]



Node: DS-1A

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.94 ft
Alert Stage: 25.08 ft

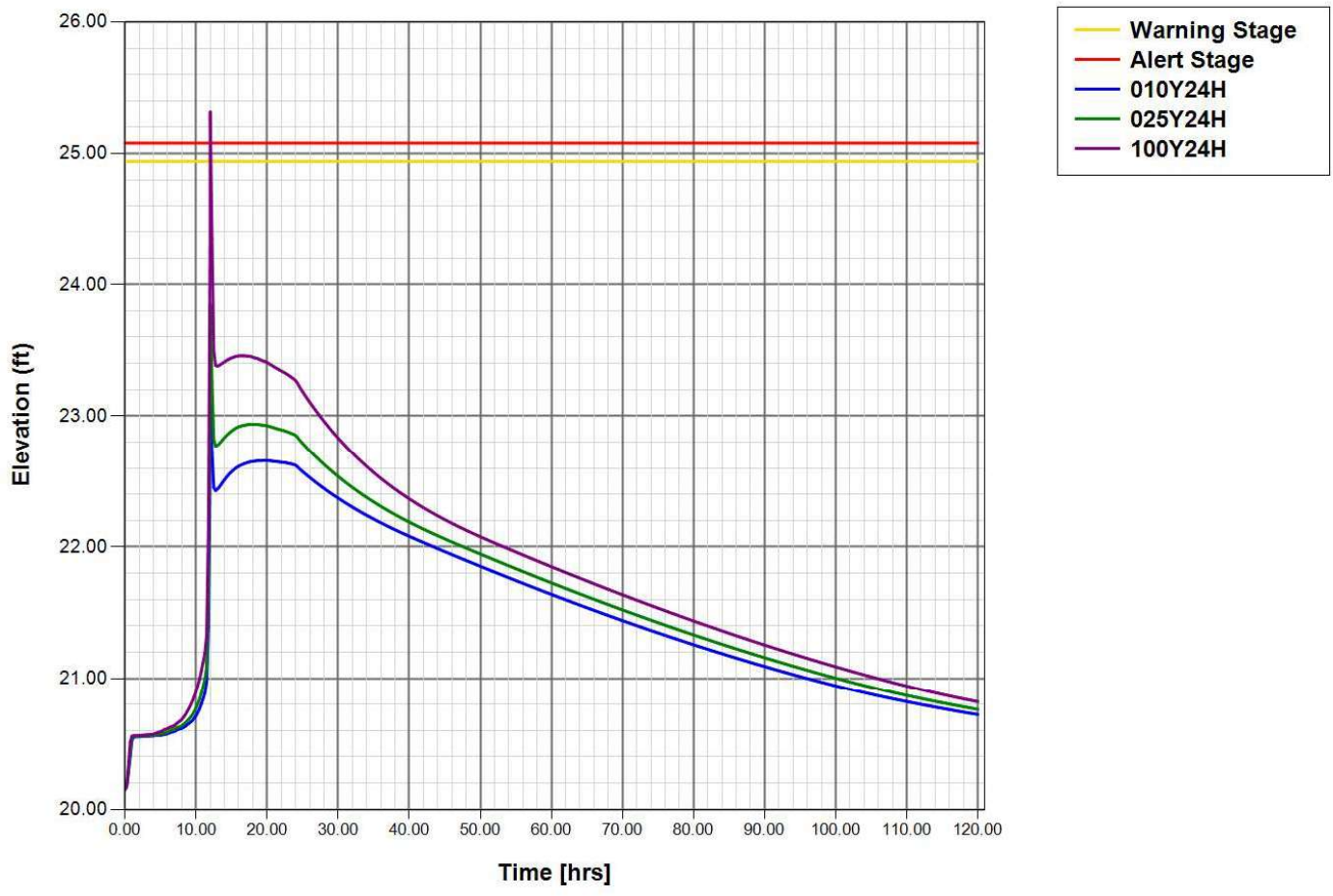
Stage [ft]	Area [ac]	Area [ft2]
8.15	0.0010	44
20.15	0.0010	44
24.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS-1A	010Y24H	24.94	25.08	23.13	0.0010	2.89	2.79	122	12.1135	12.0155	12.0666	12.0867
DS-1A	025Y24H	24.94	25.08	23.85	0.0010	3.39	3.27	122	12.1123	12.0451	12.0666	12.0885
DS-1A	100Y24H	24.94	25.08	25.32	0.0010	4.29	4.12	122	12.1125	12.0502	12.0584	12.0921

Node Stage w/Warning and Alert Stage: DS-1A [Scenario1]



Node: DS1

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.78 ft
Alert Stage: 23.92 ft

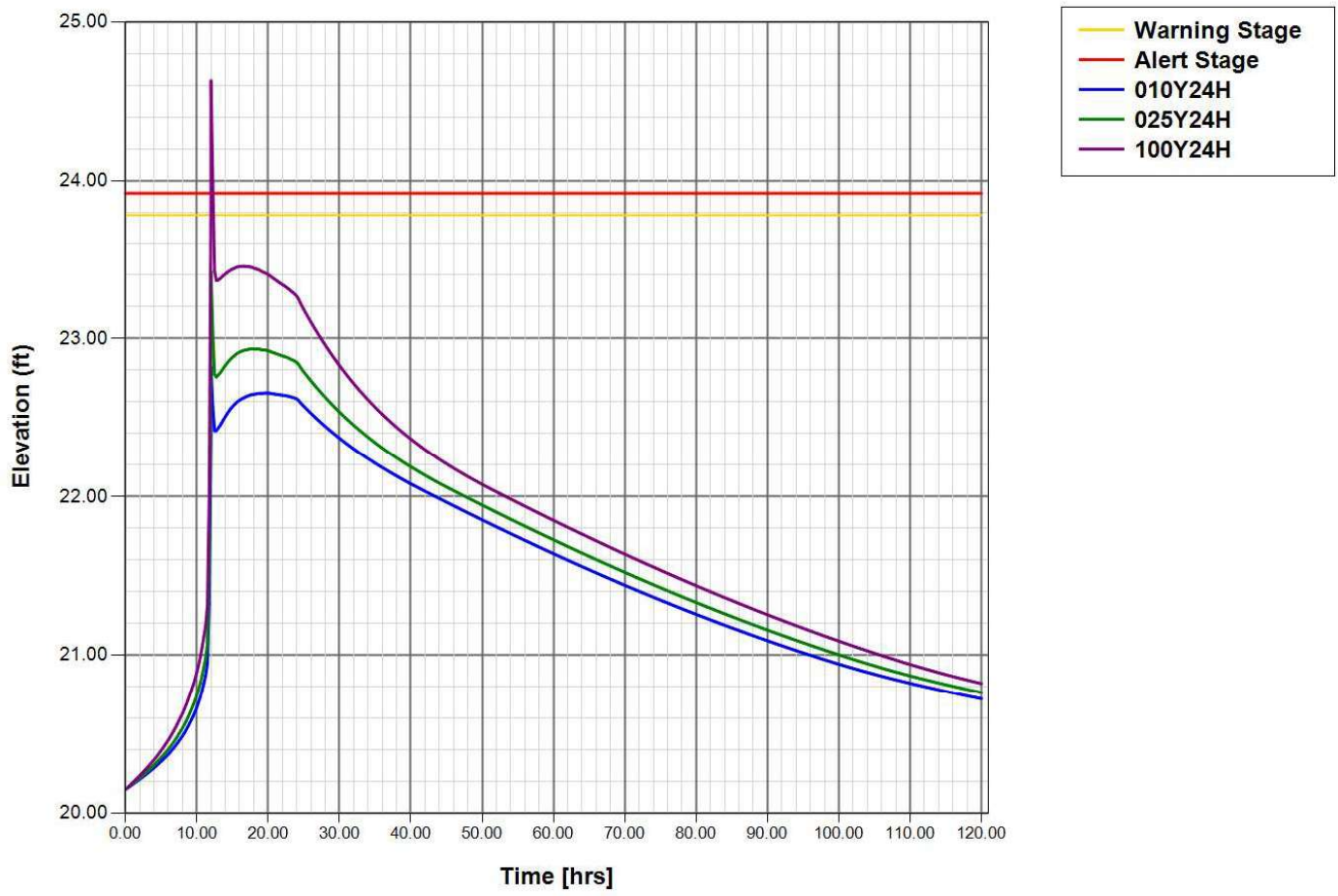
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS1	010Y24H	23.78	23.92	22.82	0.0009	4.47	4.39	167	12.1212	12.0652	12.0751	12.0889
DS1	025Y24H	23.78	23.92	23.42	0.0009	5.20	5.11	166	12.1200	12.0698	12.0757	12.0917
DS1	100Y24H	23.78	23.92	24.63	0.0009	6.53	6.41	166	12.1191	12.0851	12.0770	12.0954

Node Stage w/Warning and Alert Stage: DS1 [Scenario1]



Node: DS10

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.78 ft
Alert Stage: 23.92 ft

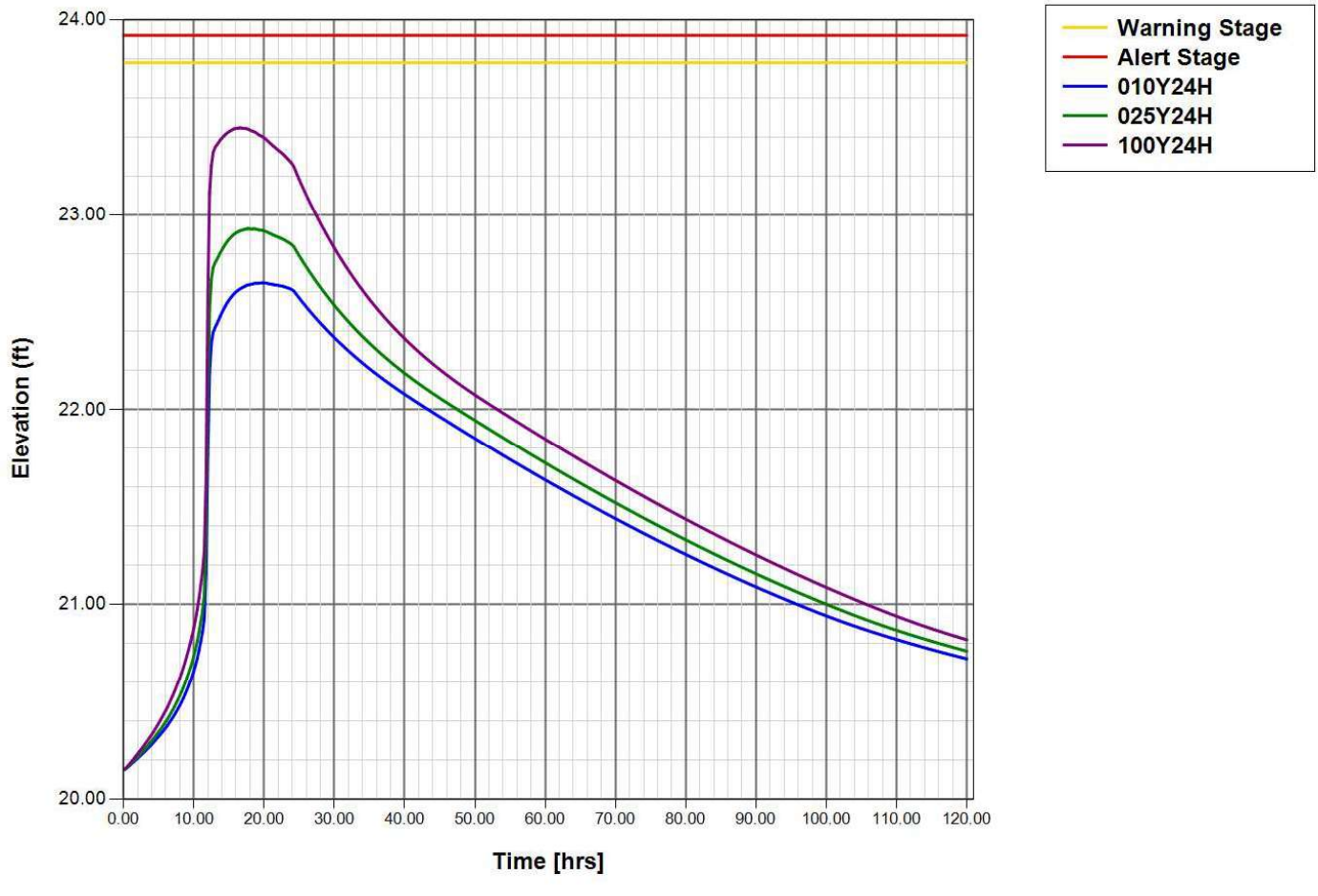
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS10	010Y24H	23.78	23.92	22.65	0.0007	9.06	8.99	116	19.7206	12.0765	12.0739	12.0753
DS10	025Y24H	23.78	23.92	22.93	0.0007	10.50	10.42	116	17.7039	12.0866	12.0749	12.0761
DS10	100Y24H	23.78	23.92	23.45	0.0006	13.10	13.01	116	16.6129	12.0851	12.0753	12.0782

Node Stage w/Warning and Alert Stage: DS10 [Scenario1]



Node: DS12

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.78 ft
Alert Stage: 23.92 ft

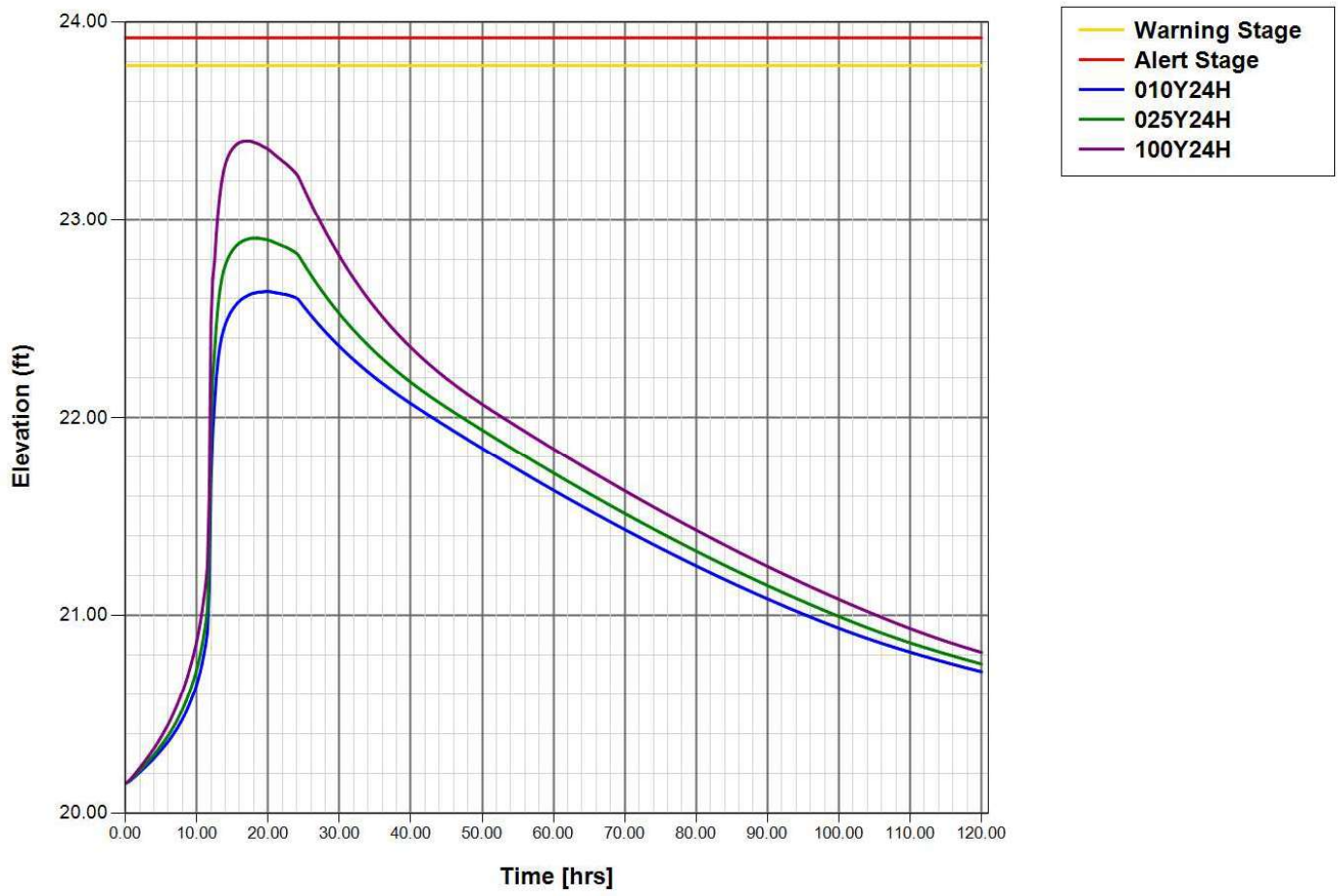
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS12	010Y24H	23.78	23.92	22.64	0.0009	7.73	7.68	114	19.7796	12.7098	12.0664	12.0677
DS12	025Y24H	23.78	23.92	22.91	0.0010	8.91	8.85	114	18.6189	12.8926	12.0668	12.0708
DS12	100Y24H	23.78	23.92	23.40	0.0010	11.15	11.08	114	16.7999	13.1529	12.0677	12.0728

Node Stage w/Warning and Alert Stage: DS12 [Scenario1]



Node: DS12A

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.96 ft
Alert Stage: 25.10 ft

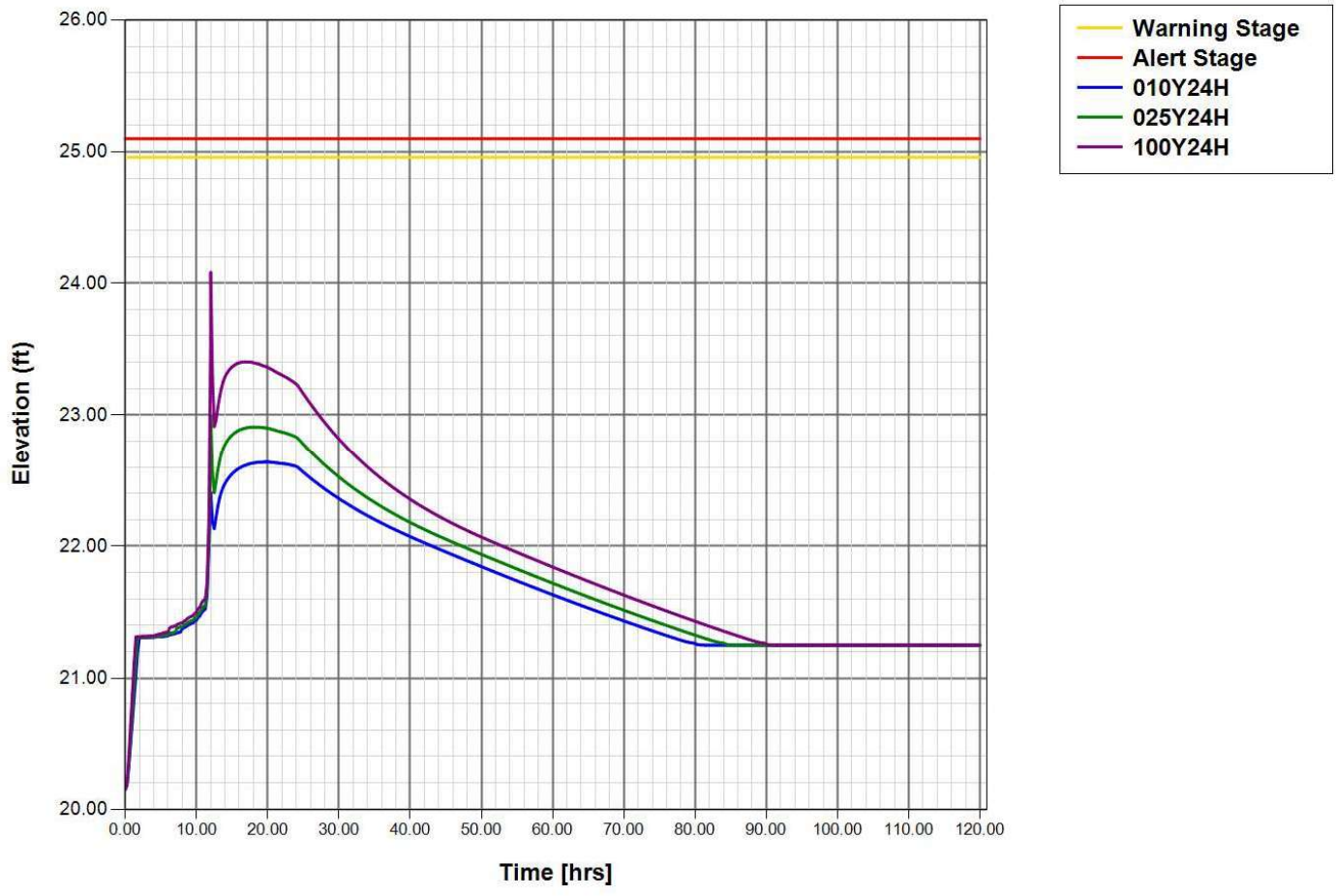
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS12A	010Y24H	24.96	25.10	22.64	-0.0005	3.85	3.85	100	19.7403	12.1585	12.0666	12.0690
DS12A	025Y24H	24.96	25.10	22.99	-0.0007	4.52	4.45	100	12.0974	12.1373	12.0666	12.0782
DS12A	100Y24H	24.96	25.10	24.08	0.0009	5.72	5.64	100	12.0943	11.8781	12.0584	12.0801

Node Stage w/Warning and Alert Stage: DS12A [Scenario1]



Node: DS13

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.16 ft
Alert Stage: 24.30 ft

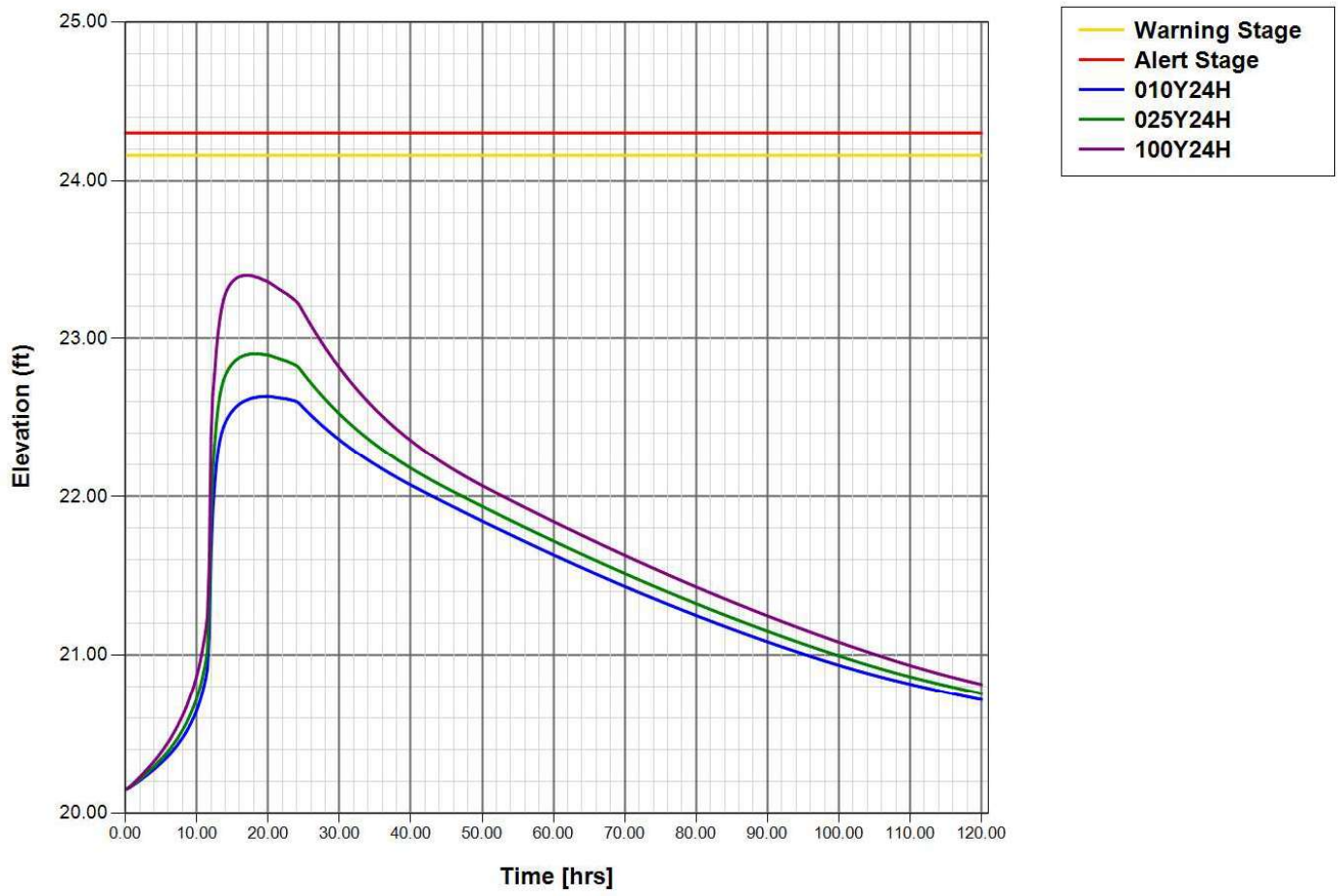
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS13	010Y24H	24.16	24.30	22.64	0.0010	9.62	9.57	100	19.8402	12.8207	12.0666	12.0675
DS13	025Y24H	24.16	24.30	22.90	0.0010	11.09	11.03	100	18.6342	12.8927	12.0677	12.0700
DS13	100Y24H	24.16	24.30	23.40	0.0010	13.85	13.78	100	16.8078	13.2403	12.0688	12.0716

Node Stage w/Warning and Alert Stage: DS13 [Scenario1]



Node: DS15

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.62 ft
Alert Stage: 23.76 ft

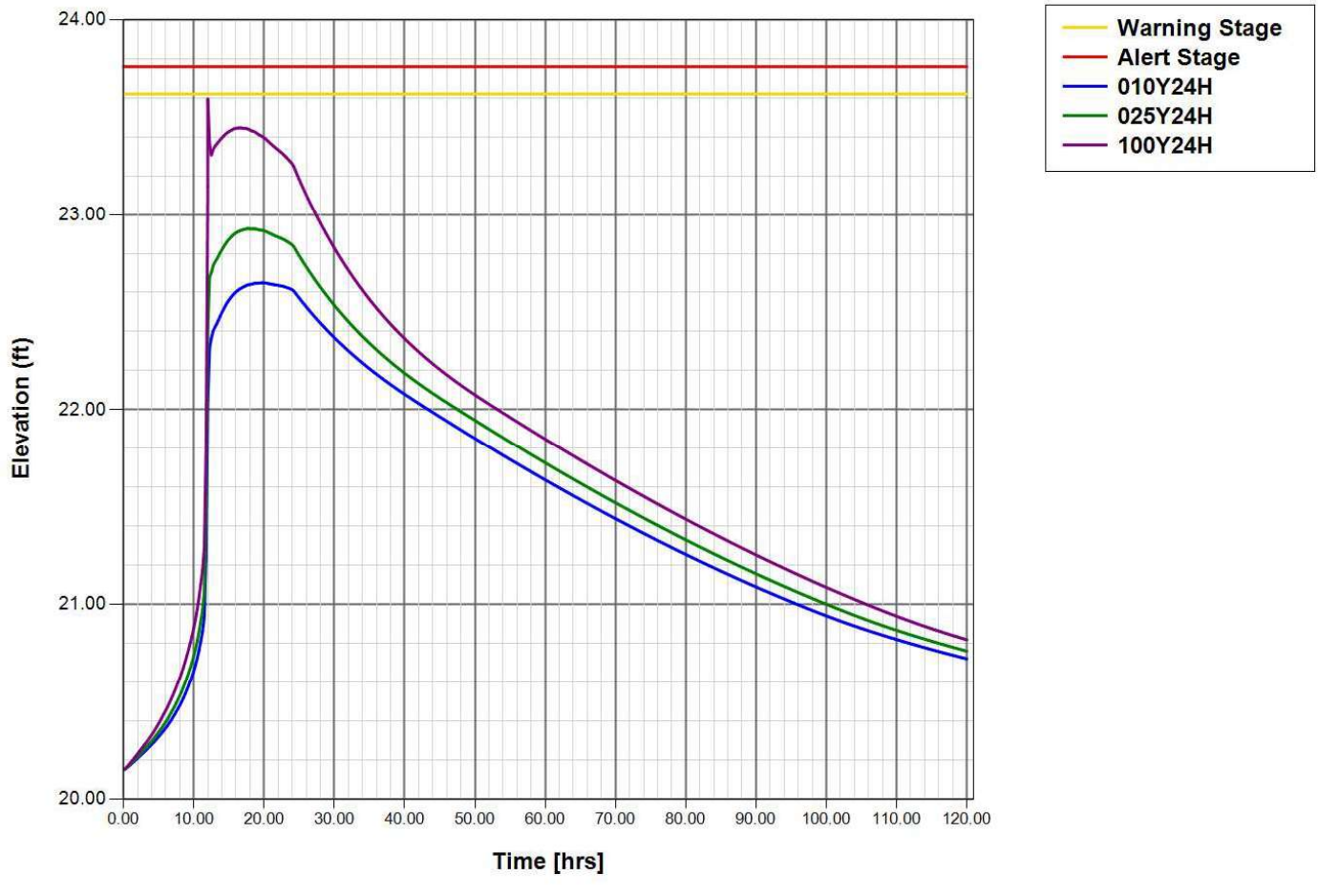
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS15	010Y24H	23.62	23.76	22.65	-0.0010	7.67	7.59	121	19.6948	4.1593	12.0662	12.0680
DS15	025Y24H	23.62	23.76	22.93	-0.0010	8.83	8.75	121	17.7172	3.7204	12.0663	12.0687
DS15	100Y24H	23.62	23.76	23.59	-0.0010	10.94	10.84	121	12.1119	3.1485	12.0666	12.0701

Node Stage w/Warning and Alert Stage: DS15 [Scenario1]



Node: DS16

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.78 ft
Alert Stage: 23.82 ft

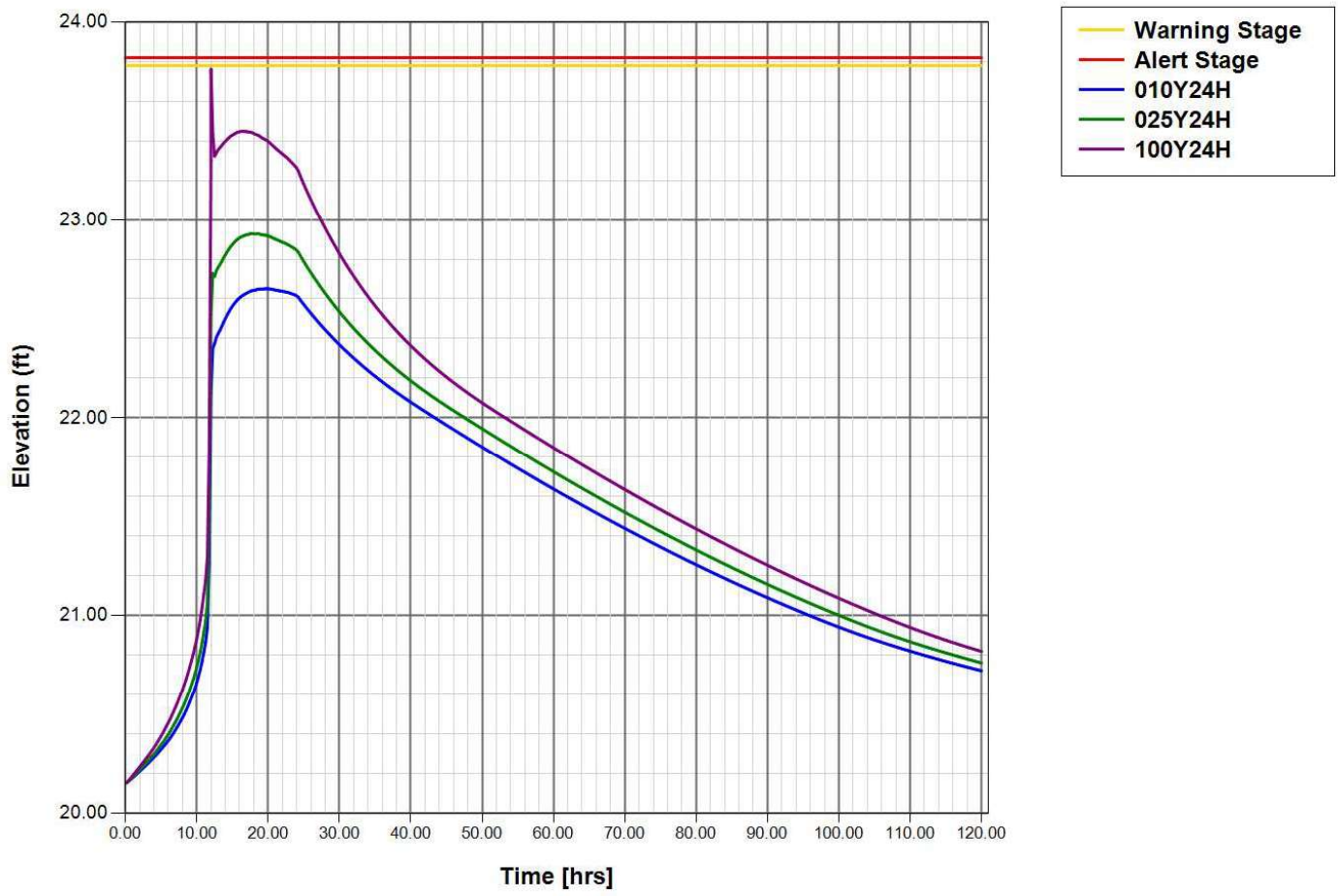
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS16	010Y24H	23.78	23.82	22.65	0.0006	3.37	3.30	108	19.7528	11.8796	12.0583	12.0701
DS16	025Y24H	23.78	23.82	22.93	0.0006	3.88	3.80	108	17.7168	11.8703	12.0583	12.0710
DS16	100Y24H	23.78	23.82	23.76	0.0006	4.81	4.70	108	12.1068	11.8110	12.0583	12.0728

Node Stage w/Warning and Alert Stage: DS16 [Scenario1]



Node: DS18

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.06 ft
Alert Stage: 24.16 ft

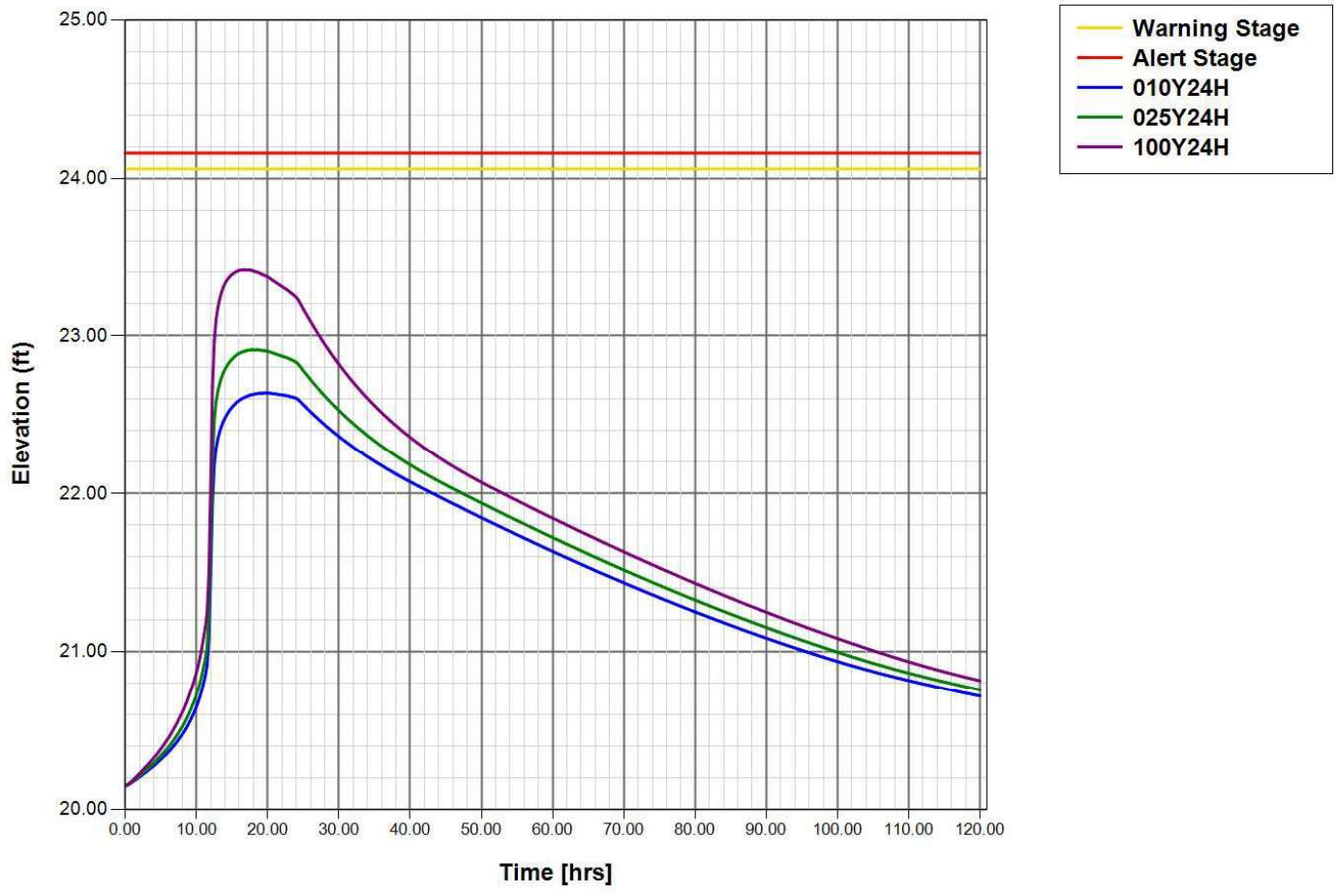
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS18	010Y24H	24.06	24.16	22.64	0.0010	10.23	10.19	143	19.8120	53.9535	12.2089	12.2166
DS18	025Y24H	24.06	24.16	22.91	0.0010	11.33	11.28	143	17.7617	48.5157	12.2133	12.2203
DS18	100Y24H	24.06	24.16	23.42	0.0010	13.14	13.09	143	16.7115	76.0404	12.2276	12.2367

Node Stage w/Warning and Alert Stage: DS18 [Scenario1]



Node: DS19

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 19.50 ft
Alert Stage: 19.64 ft

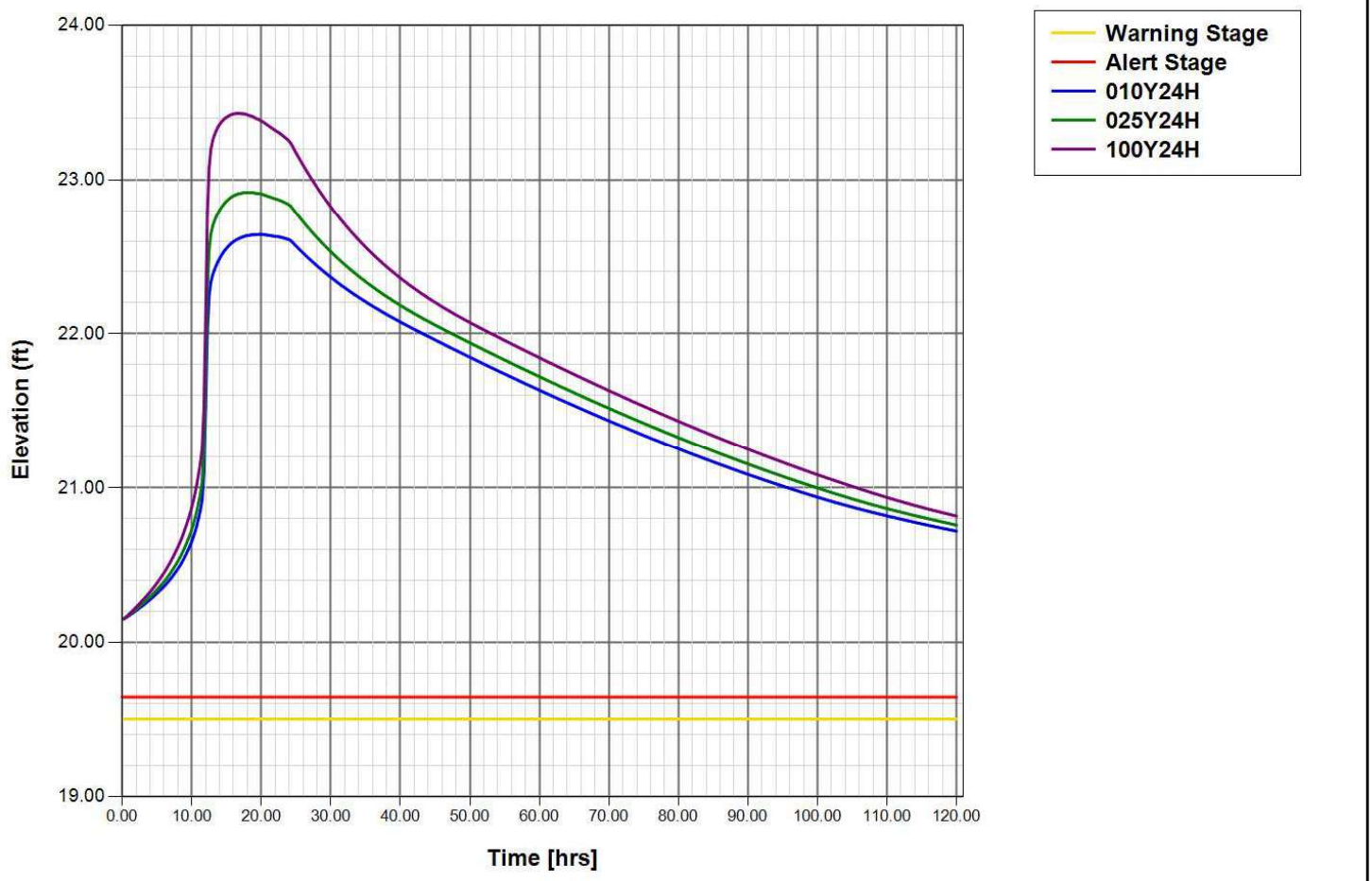
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS19	010Y24H	19.50	19.64	22.64	0.0010	8.73	8.71	133	19.8211	86.9949	12.3642	12.3696
DS19	025Y24H	19.50	19.64	22.92	0.0010	9.68	9.65	133	17.6967	31.3277	12.3894	12.3939
DS19	100Y24H	19.50	19.64	23.43	-0.0010	11.30	11.27	133	16.6758	47.5219	12.4337	12.4365

Node Stage w/Warning and Alert Stage: DS19 [Scenario1]



Node: DS2

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.16 ft
Alert Stage: 24.30 ft

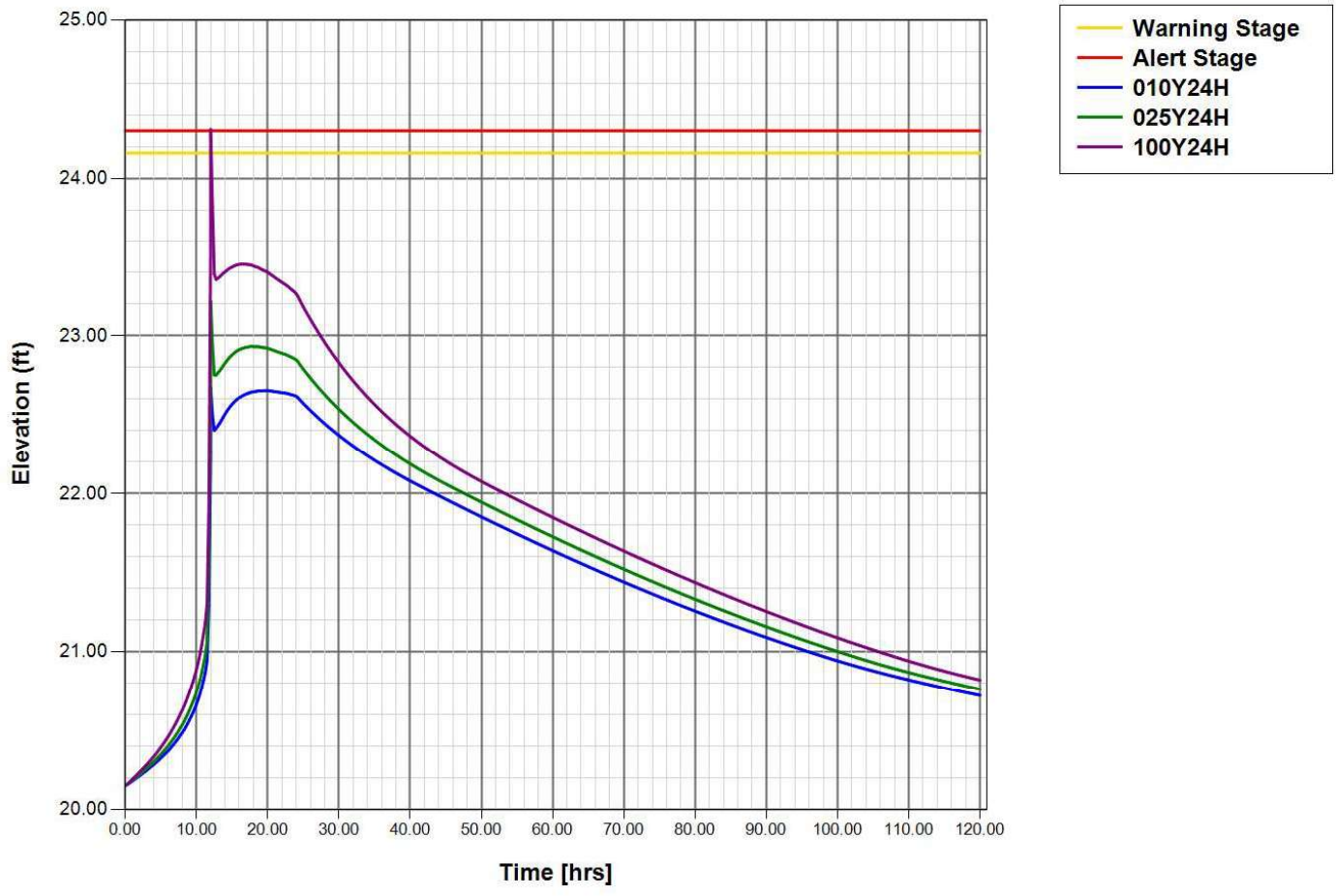
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS2	010Y24H	24.16	24.30	22.67	0.0008	6.49	6.42	168	12.1281	12.0652	12.0870	12.0952
DS2	025Y24H	24.16	24.30	23.22	-0.0010	7.56	7.49	168	12.1254	13.0970	12.0893	12.0978
DS2	100Y24H	24.16	24.30	24.31	0.0009	9.48	9.40	168	12.1233	13.2456	12.0921	12.1039

Node Stage w/Warning and Alert Stage: DS2 [Scenario1]



Node: DS21

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.78 ft
Alert Stage: 23.92 ft

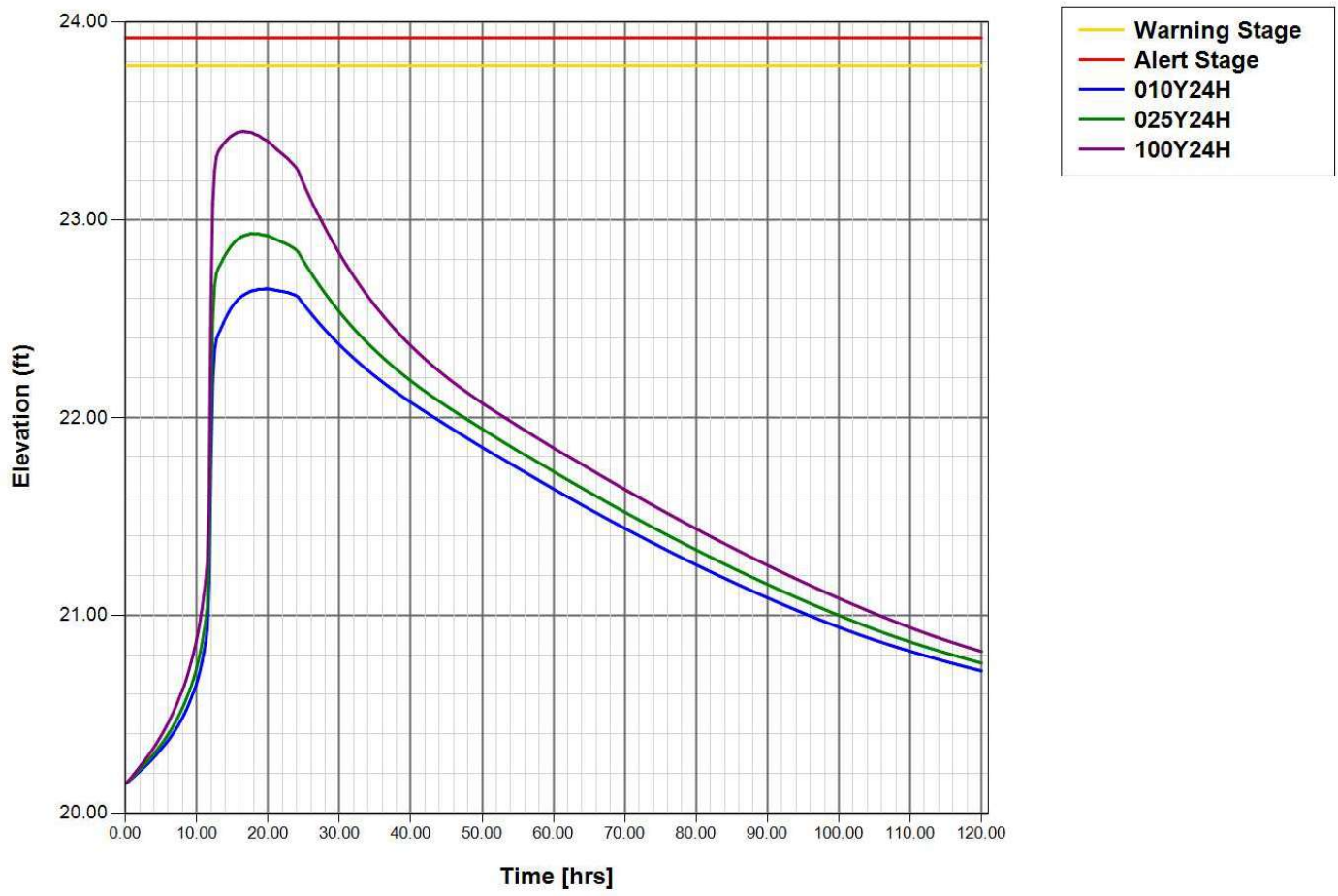
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS21	010Y24H	23.78	23.92	22.65	0.0006	3.02	2.95	100	19.7330	12.0765	12.0583	12.0631
DS21	025Y24H	23.78	23.92	22.93	0.0006	3.48	3.40	100	17.7037	12.0866	12.0583	12.0635
DS21	100Y24H	23.78	23.92	23.45	0.0005	4.31	4.21	100	16.5791	12.0851	12.0583	12.0644

Node Stage w/Warning and Alert Stage: DS21 [Scenario1]



Node: DS22

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.78 ft
Alert Stage: 23.92 ft

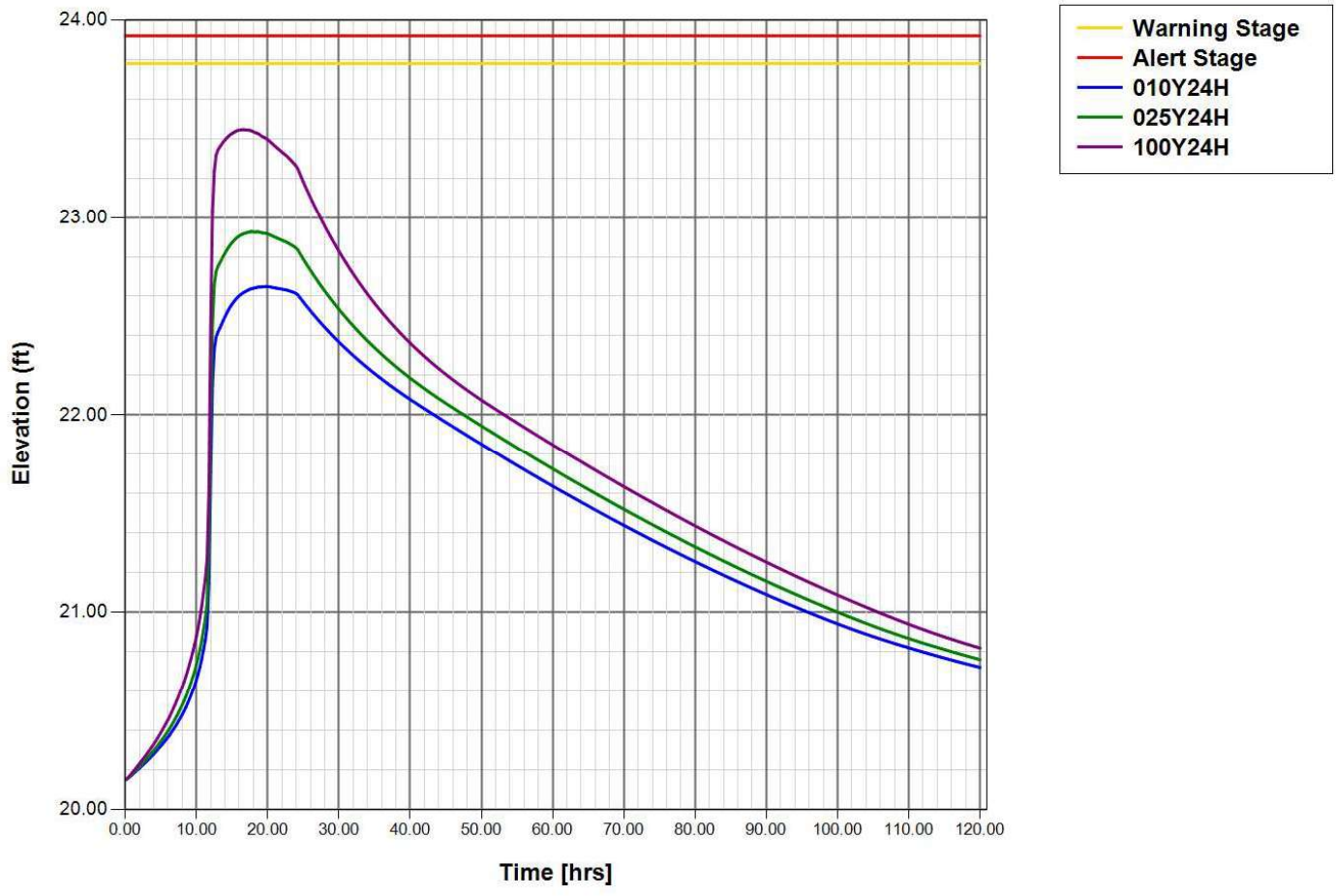
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS22	010Y24H	23.78	23.92	22.65	0.0006	6.08	6.01	100	19.7541	12.0765	12.0613	12.0627
DS22	025Y24H	23.78	23.92	22.93	0.0006	7.01	6.93	100	17.7032	12.0866	12.0608	12.0629
DS22	100Y24H	23.78	23.92	23.45	0.0006	8.69	8.59	100	16.6195	12.0851	12.0606	12.0638

Node Stage w/Warning and Alert Stage: DS22 [Scenario1]



Node: DS24

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.97 ft
Alert Stage: 25.11 ft

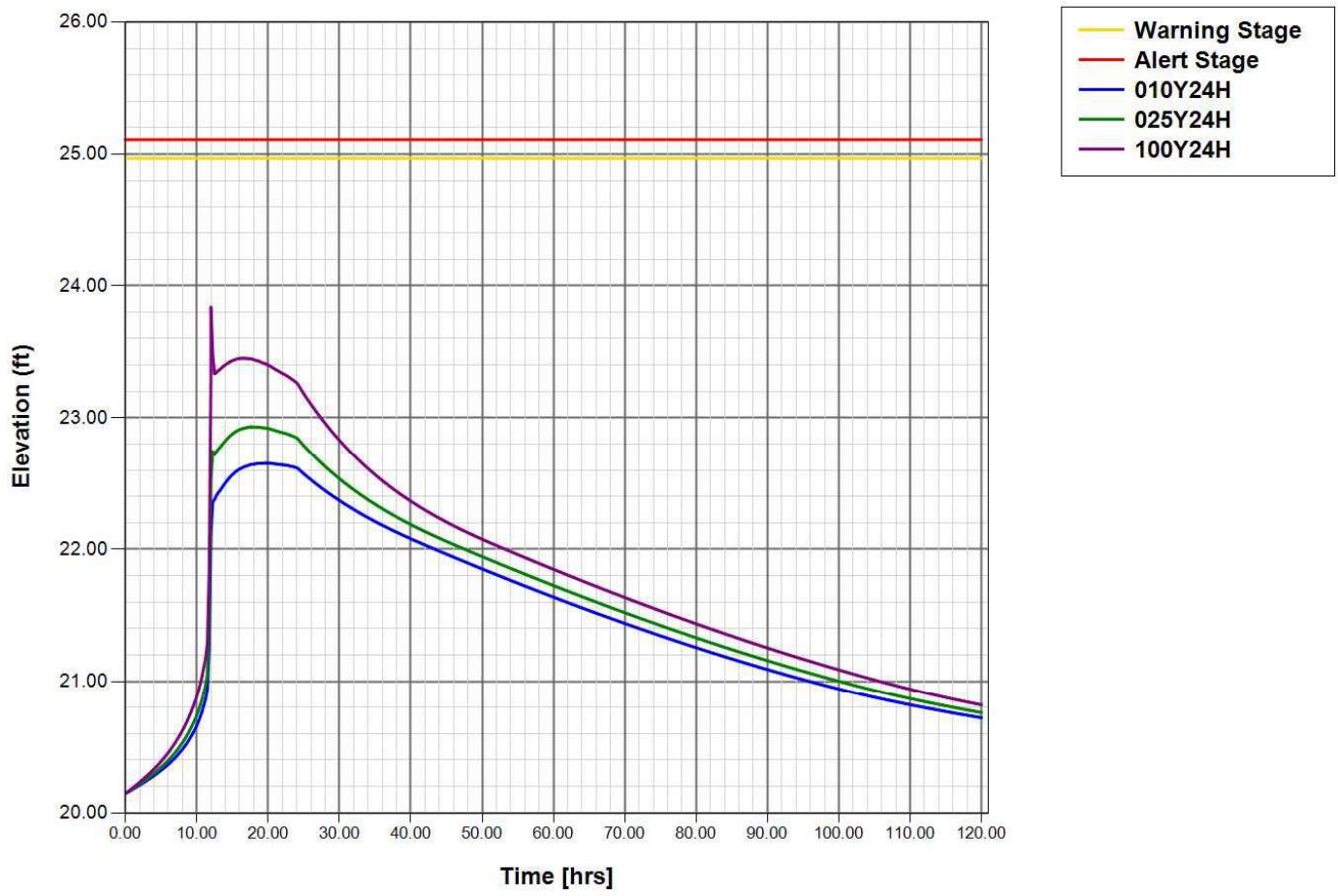
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS24	010Y24H	24.97	25.11	22.65	0.0006	3.98	3.91	118	19.7162	12.0156	12.0666	12.0739
DS24	025Y24H	24.97	25.11	22.93	0.0006	4.68	4.60	118	17.6690	11.8703	12.0666	12.0743
DS24	100Y24H	24.97	25.11	23.84	0.0007	5.95	5.85	118	12.1043	11.8110	12.0666	12.0751

Node Stage w/Warning and Alert Stage: DS24 [Scenario1]



Node: DS25

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.00 ft
Alert Stage: 24.17 ft

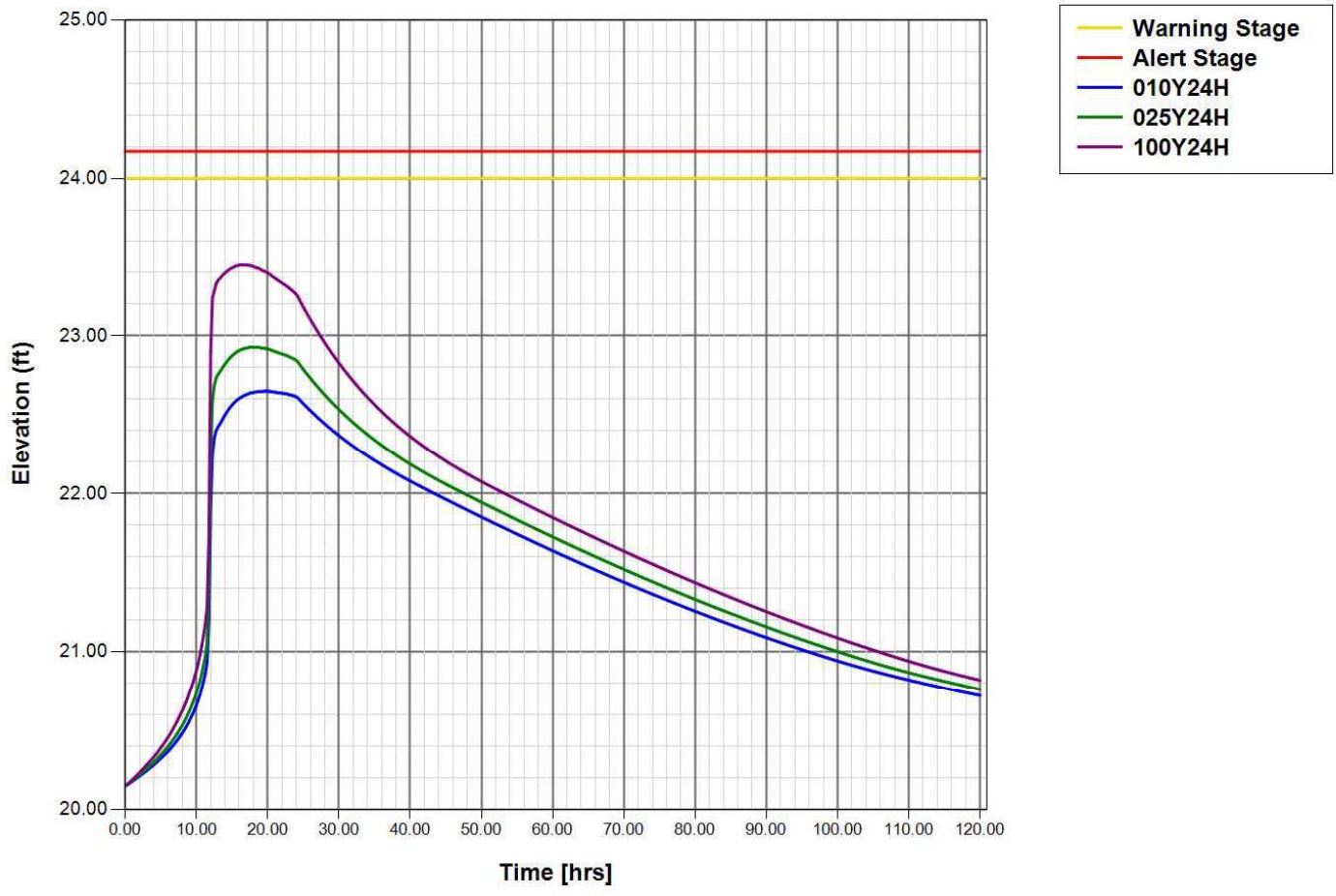
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS25	010Y24H	24.00	24.17	22.65	0.0006	8.35	8.28	100	19.7130	12.0765	12.0666	12.0690
DS25	025Y24H	24.00	24.17	22.93	0.0006	9.71	9.63	100	17.6739	13.4702	12.0666	12.0692
DS25	100Y24H	24.00	24.17	23.45	0.0006	12.17	12.08	100	16.6219	13.4181	12.0666	12.0700

Node Stage w/Warning and Alert Stage: DS25 [Scenario1]



Node: DS26

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.00 ft
Alert Stage: 24.14 ft

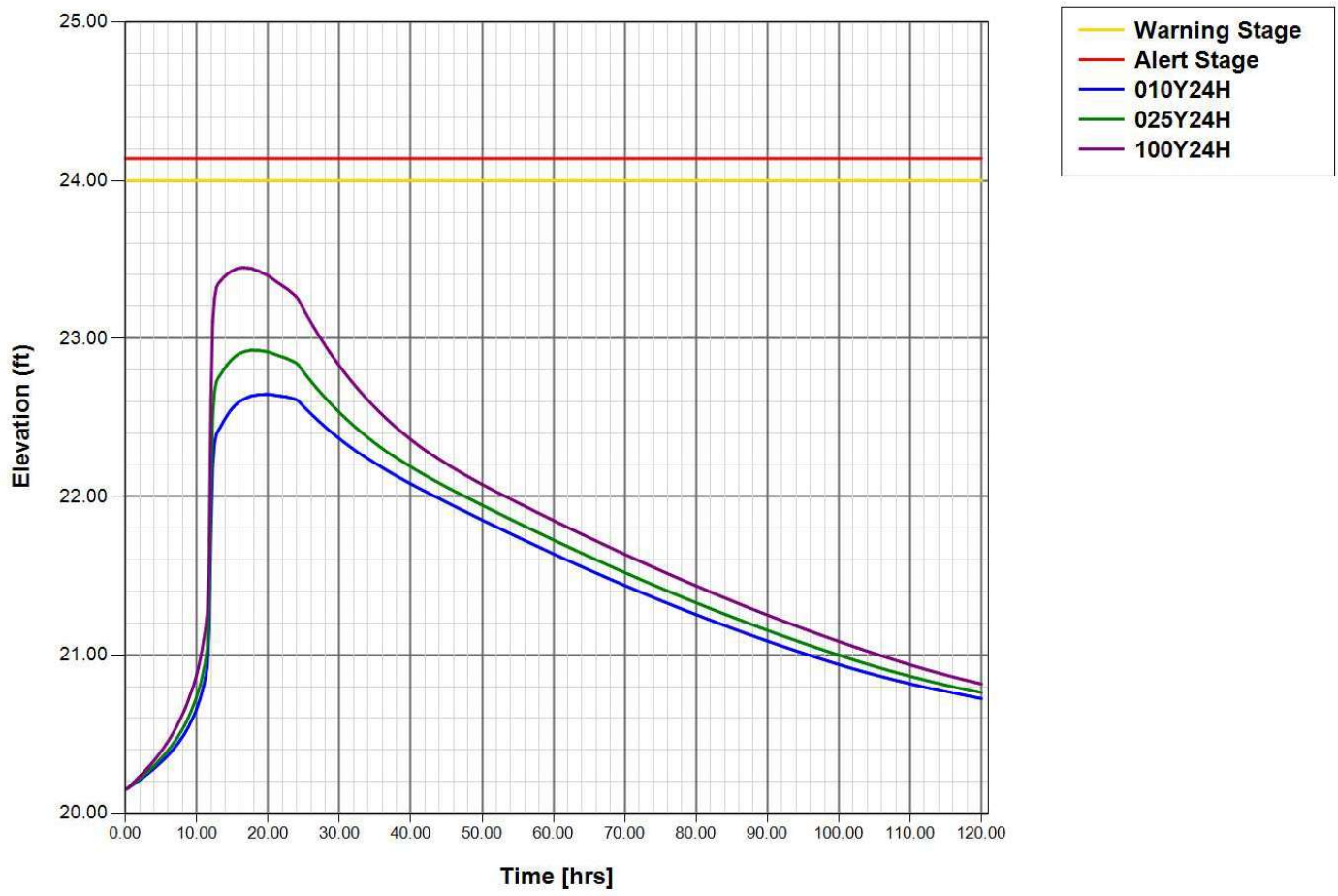
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS26	010Y24H	24.00	24.14	22.65	0.0006	12.45	12.38	100	19.8187	12.0765	12.0666	12.0675
DS26	025Y24H	24.00	24.14	22.93	-0.0009	14.43	14.35	100	17.6934	13.4702	12.0666	12.0676
DS26	100Y24H	24.00	24.14	23.45	-0.0007	18.03	17.93	100	16.6520	13.4181	12.0666	12.0679

Node Stage w/Warning and Alert Stage: DS26 [Scenario1]



Node: DS28

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 25.56 ft
Alert Stage: 25.70 ft

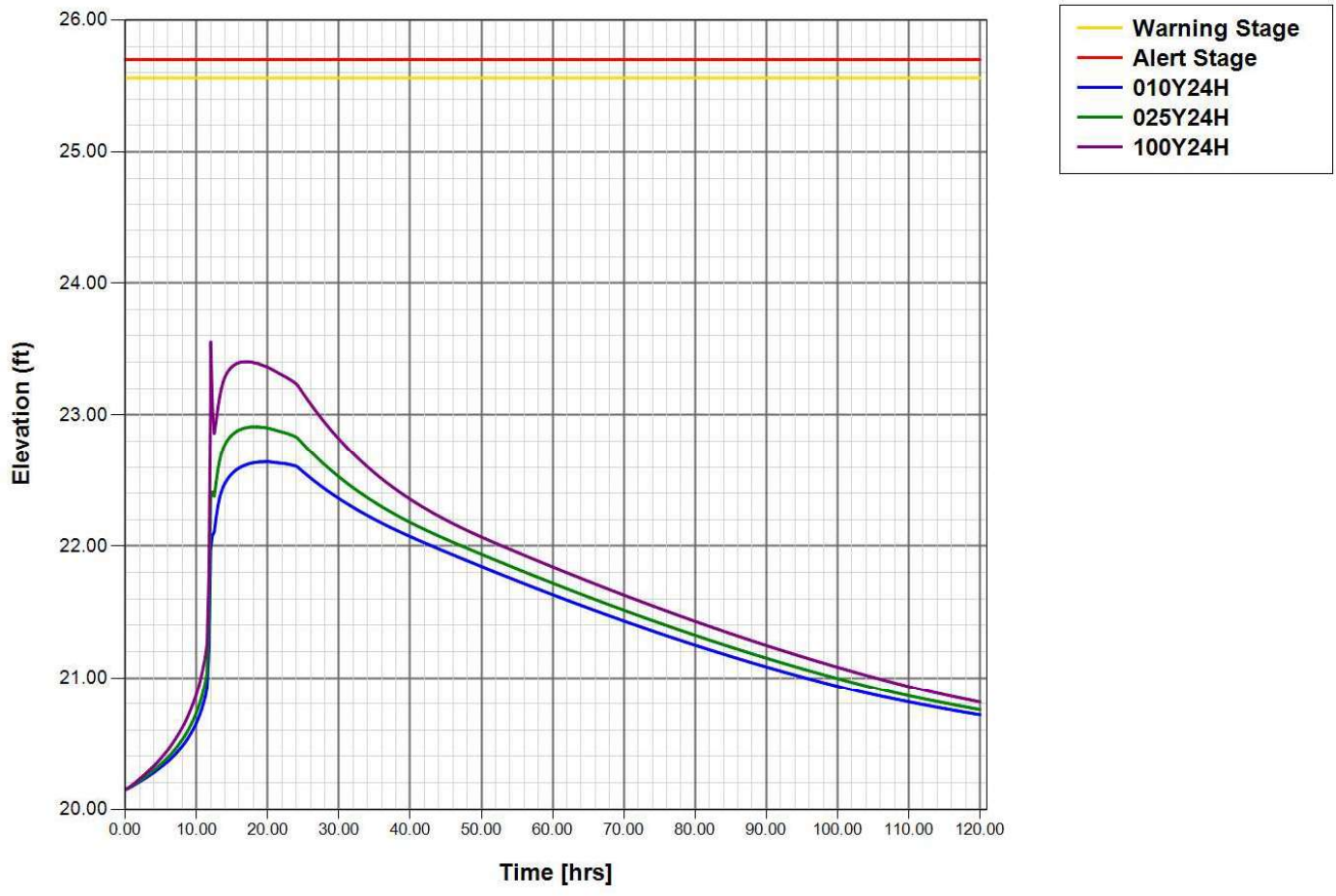
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS28	010Y24H	25.56	25.70	22.64	0.0006	3.00	2.94	100	19.7729	11.8796	12.0666	12.0779
DS28	025Y24H	25.56	25.70	22.91	0.0006	3.52	3.46	100	18.5901	11.8703	12.0666	12.0784
DS28	100Y24H	25.56	25.70	23.55	0.0006	4.47	4.40	100	12.0972	11.8478	12.0666	12.0798

Node Stage w/Warning and Alert Stage: DS28 [Scenario1]



Node: DS29

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.78 ft
Alert Stage: 23.92 ft

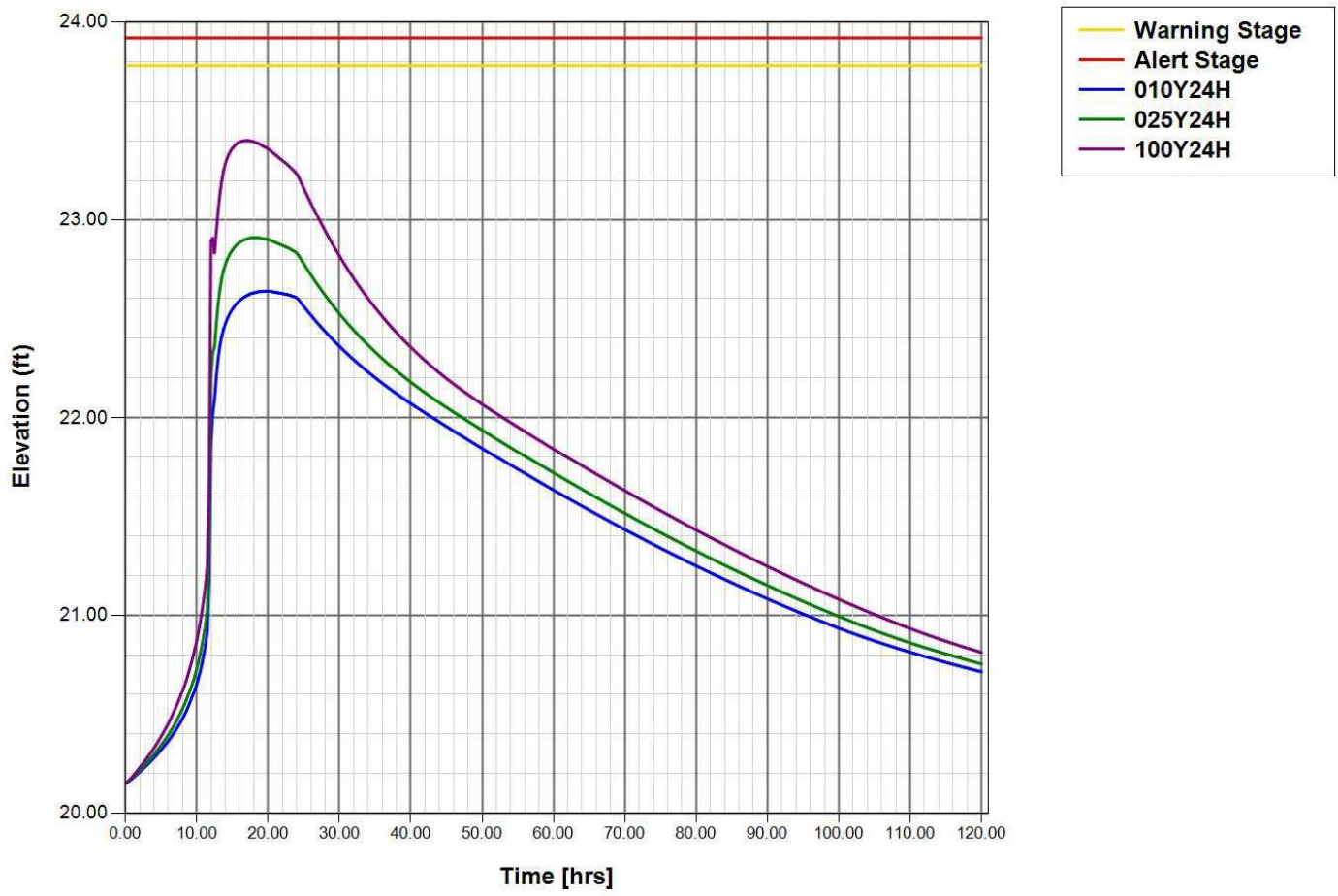
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS29	010Y24H	23.78	23.92	22.64	0.0005	6.91	6.85	100	19.9756	11.8796	12.0666	12.0713
DS29	025Y24H	23.78	23.92	22.91	0.0005	8.02	7.96	100	18.5909	11.8703	12.0666	12.0722
DS29	100Y24H	23.78	23.92	23.40	0.0008	10.05	9.97	100	17.0256	13.4199	12.0666	12.0742

Node Stage w/Warning and Alert Stage: DS29 [Scenario1]



Node: DS3

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 25.08 ft
Alert Stage: 25.22 ft

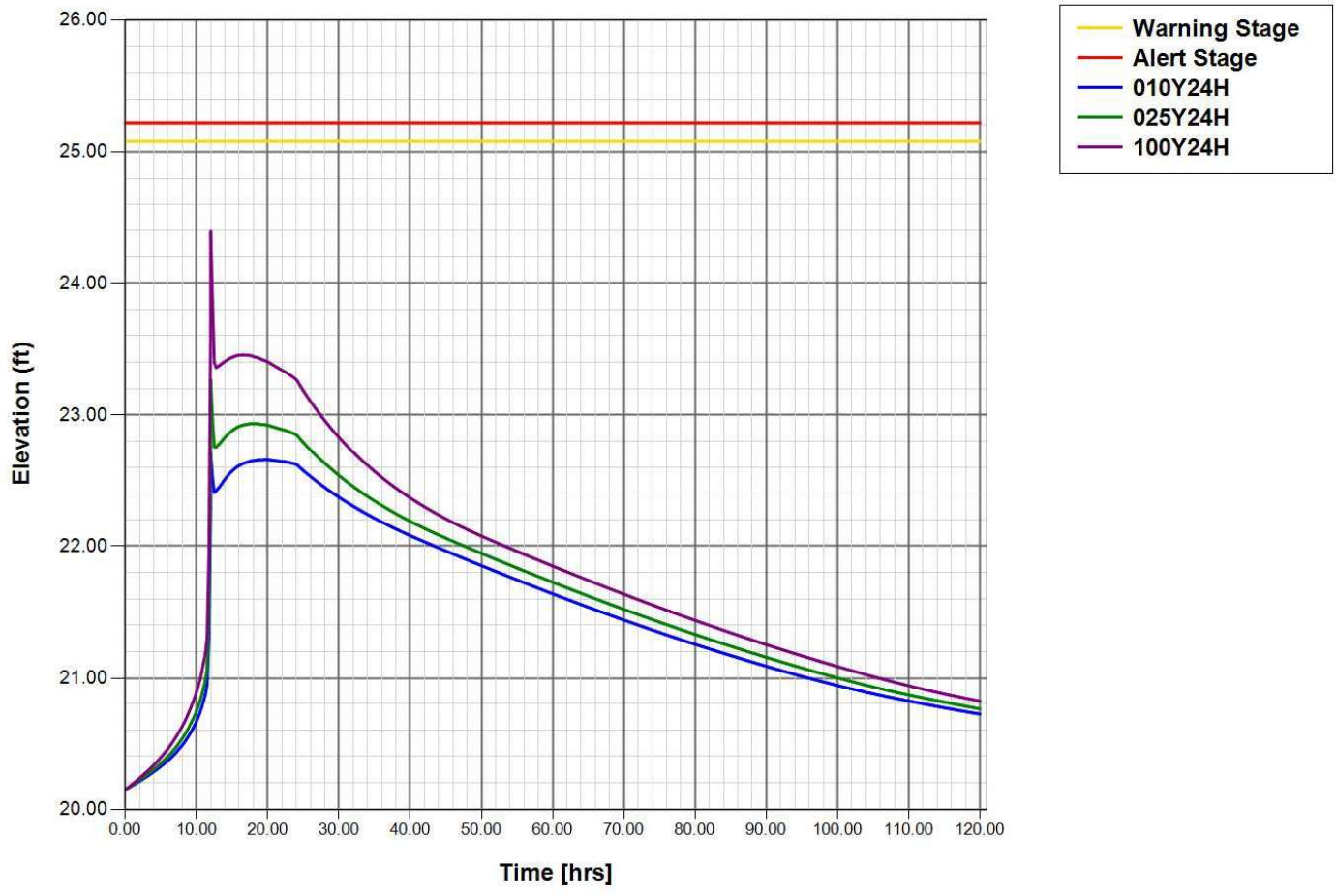
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS3	010Y24H	25.08	25.22	22.71	0.0008	1.59	1.51	100	12.1261	12.0652	12.0666	12.0924
DS3	025Y24H	25.08	25.22	23.27	0.0009	1.87	1.77	100	12.1237	12.0698	12.0666	12.0965
DS3	100Y24H	25.08	25.22	24.39	0.0009	2.37	2.24	100	12.1222	12.0851	12.0666	12.1001

Node Stage w/Warning and Alert Stage: DS3 [Scenario1]



Node: DS30

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.16 ft
Alert Stage: 24.30 ft

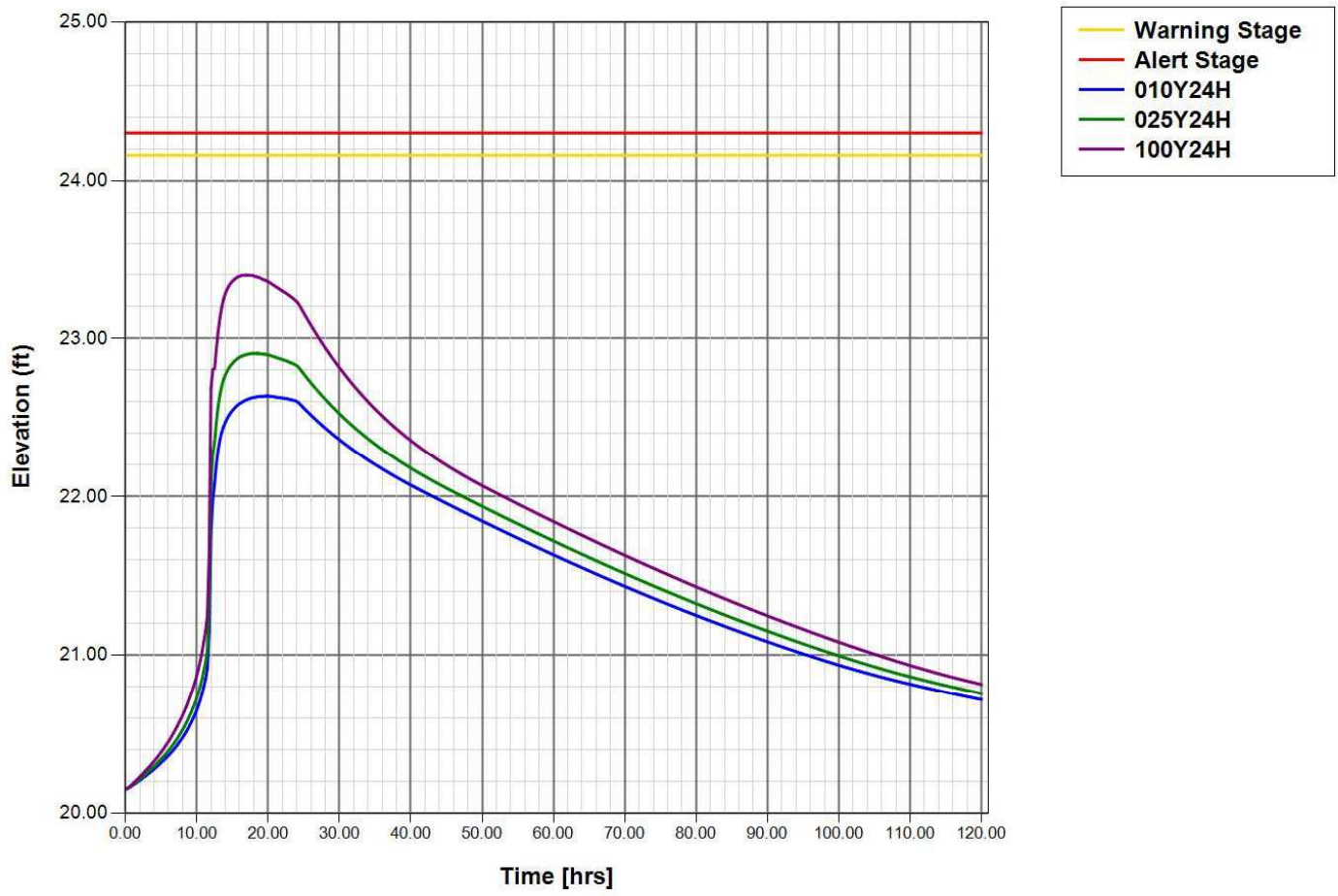
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS30	010Y24H	24.16	24.30	22.64	0.0005	9.69	9.64	100	19.7438	12.0652	12.0675	12.0704
DS30	025Y24H	24.16	24.30	22.91	0.0005	11.24	11.19	100	18.6019	11.8531	12.0676	12.0712
DS30	100Y24H	24.16	24.30	23.40	-0.0006	14.06	13.99	100	17.0258	13.4199	12.0686	12.0732

Node Stage w/Warning and Alert Stage: DS30 [Scenario1]



Node: DS31

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.15 ft
Alert Stage: 24.50 ft

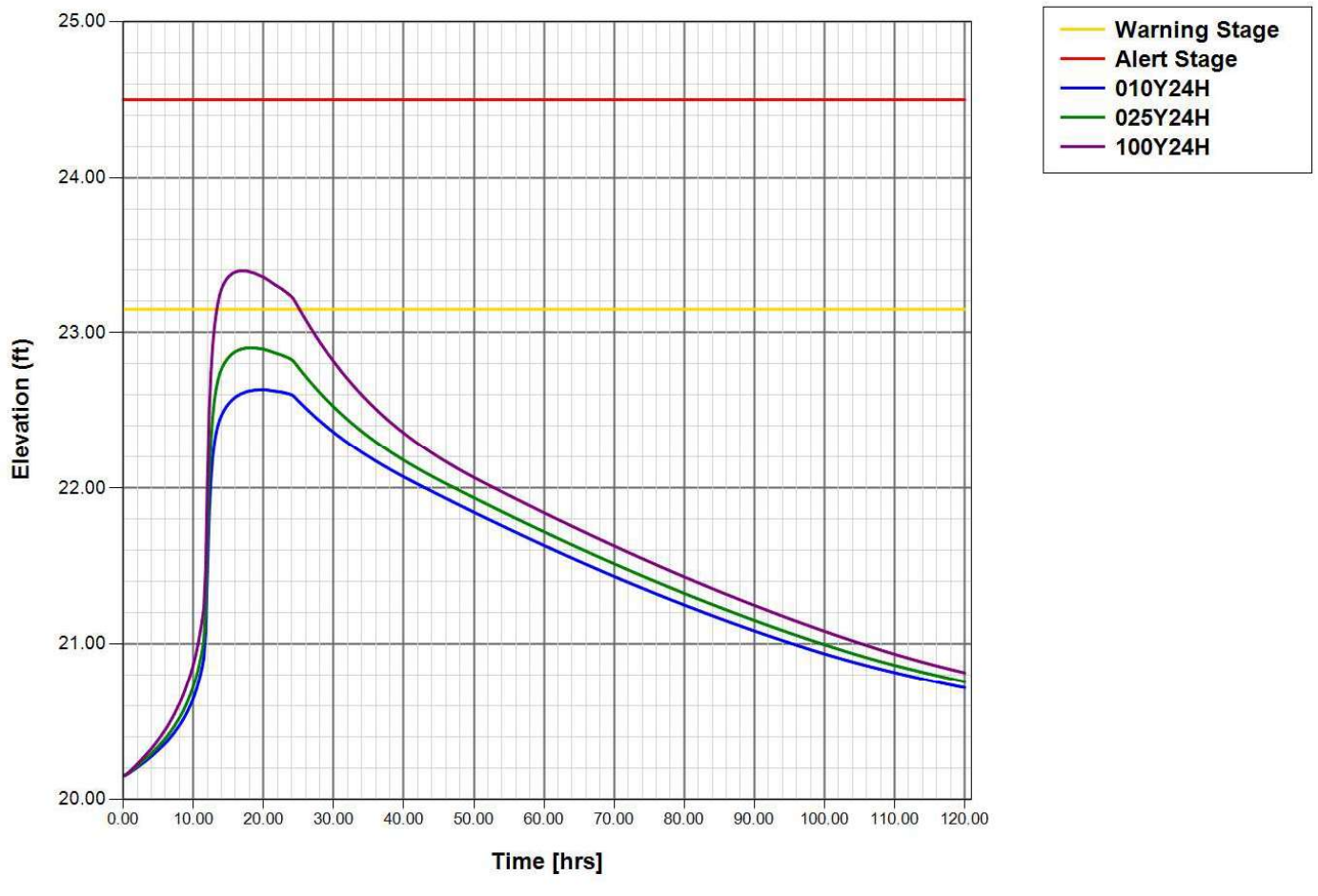
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS31	010Y24H	23.15	24.50	22.64	0.0005	9.64	9.59	100	19.7961	12.0765	12.0704	12.0711
DS31	025Y24H	23.15	24.50	22.90	0.0005	11.19	11.13	100	18.5897	12.0866	12.0712	12.0718
DS31	100Y24H	23.15	24.50	23.40	0.0004	13.99	13.92	100	16.9077	12.0851	12.0732	12.0740

Node Stage w/Warning and Alert Stage: DS31 [Scenario1]



Node: DS33

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.08 ft
Alert Stage: 24.22 ft

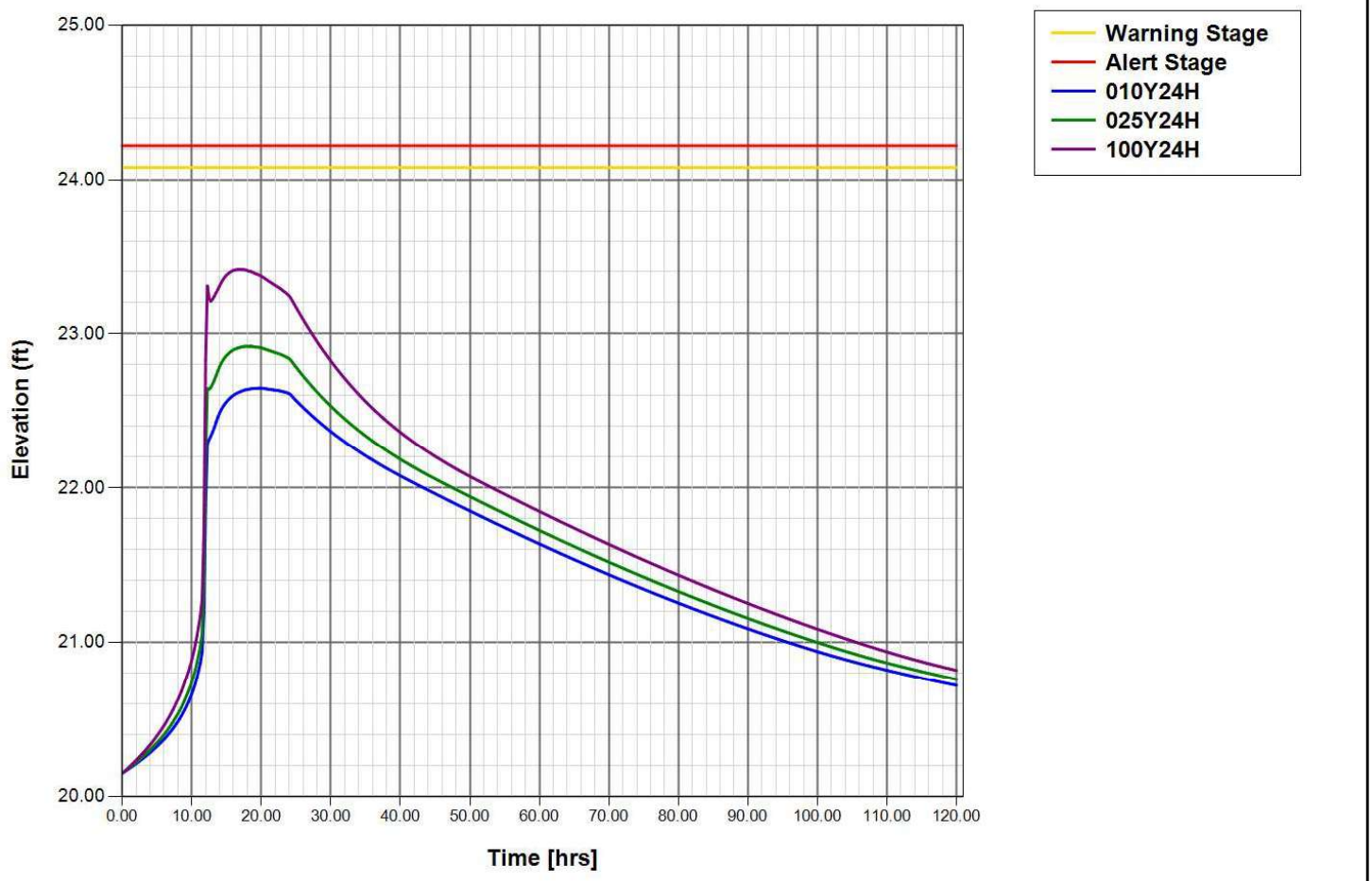
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS33	010Y24H	24.08	24.22	22.65	0.0007	2.70	2.63	100	19.7215	12.0765	12.0694	12.0781
DS33	025Y24H	24.08	24.22	22.92	0.0007	3.16	3.07	100	18.5804	12.0866	12.0696	12.0791
DS33	100Y24H	24.08	24.22	23.42	0.0006	3.97	3.87	100	16.7813	12.0851	12.0728	12.0820

Node Stage w/Warning and Alert Stage: DS33 [Scenario1]



Node: DS33A

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 26.11 ft
Alert Stage: 26.25 ft

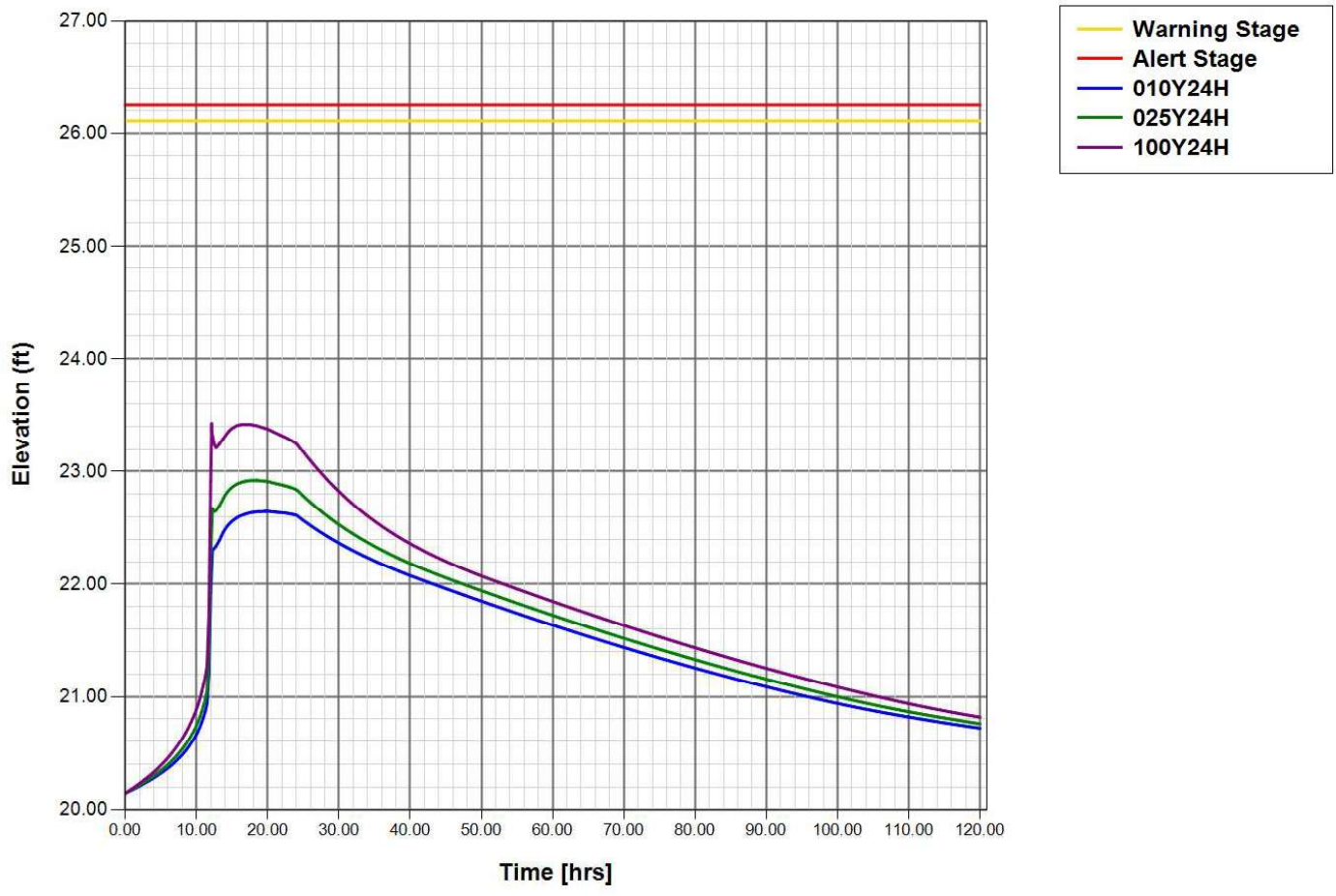
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS33A	010Y24H	26.11	26.25	22.65	0.0007	1.37	1.30	100	19.7221	12.0765	12.0666	12.0797
DS33A	025Y24H	26.11	26.25	22.92	0.0007	1.61	1.52	100	18.5807	12.0866	12.0666	12.0816
DS33A	100Y24H	26.11	26.25	23.43	0.0006	2.04	1.94	100	12.1422	12.0851	12.0584	12.0842

Node Stage w/Warning and Alert Stage: DS33A [Scenario1]



Node: DS34

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.08 ft
Alert Stage: 24.22 ft

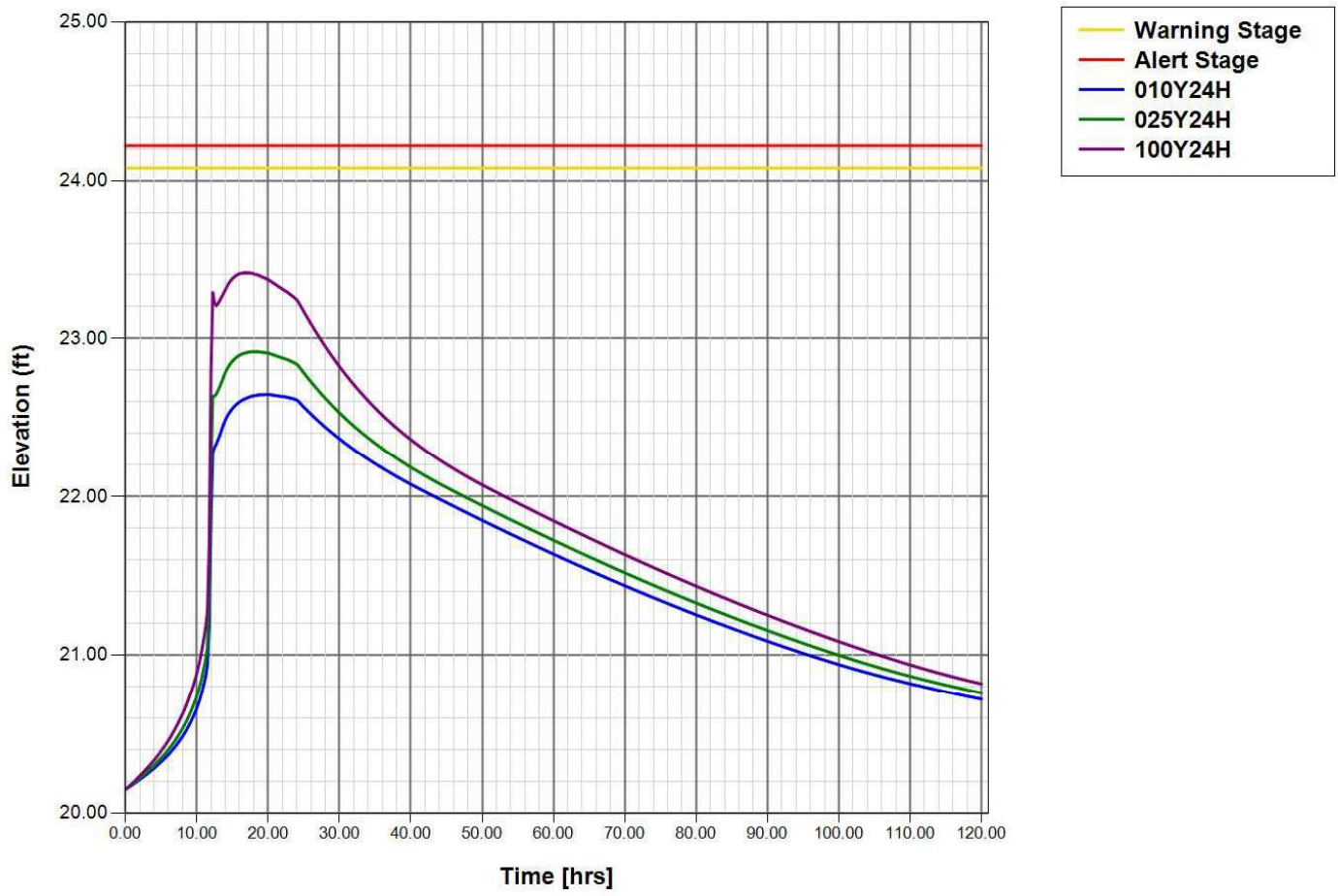
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS34	010Y24H	24.08	24.22	22.65	-0.0008	5.80	5.72	100	19.7214	12.8687	12.0741	12.0779
DS34	025Y24H	24.08	24.22	22.92	0.0007	6.78	6.69	100	18.5996	12.0866	12.0749	12.0774
DS34	100Y24H	24.08	24.22	23.41	0.0009	8.56	8.46	100	16.8158	13.2667	12.0750	12.0800

Node Stage w/Warning and Alert Stage: DS34 [Scenario1]



Node: DS34A

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 25.97 ft
Alert Stage: 26.11 ft

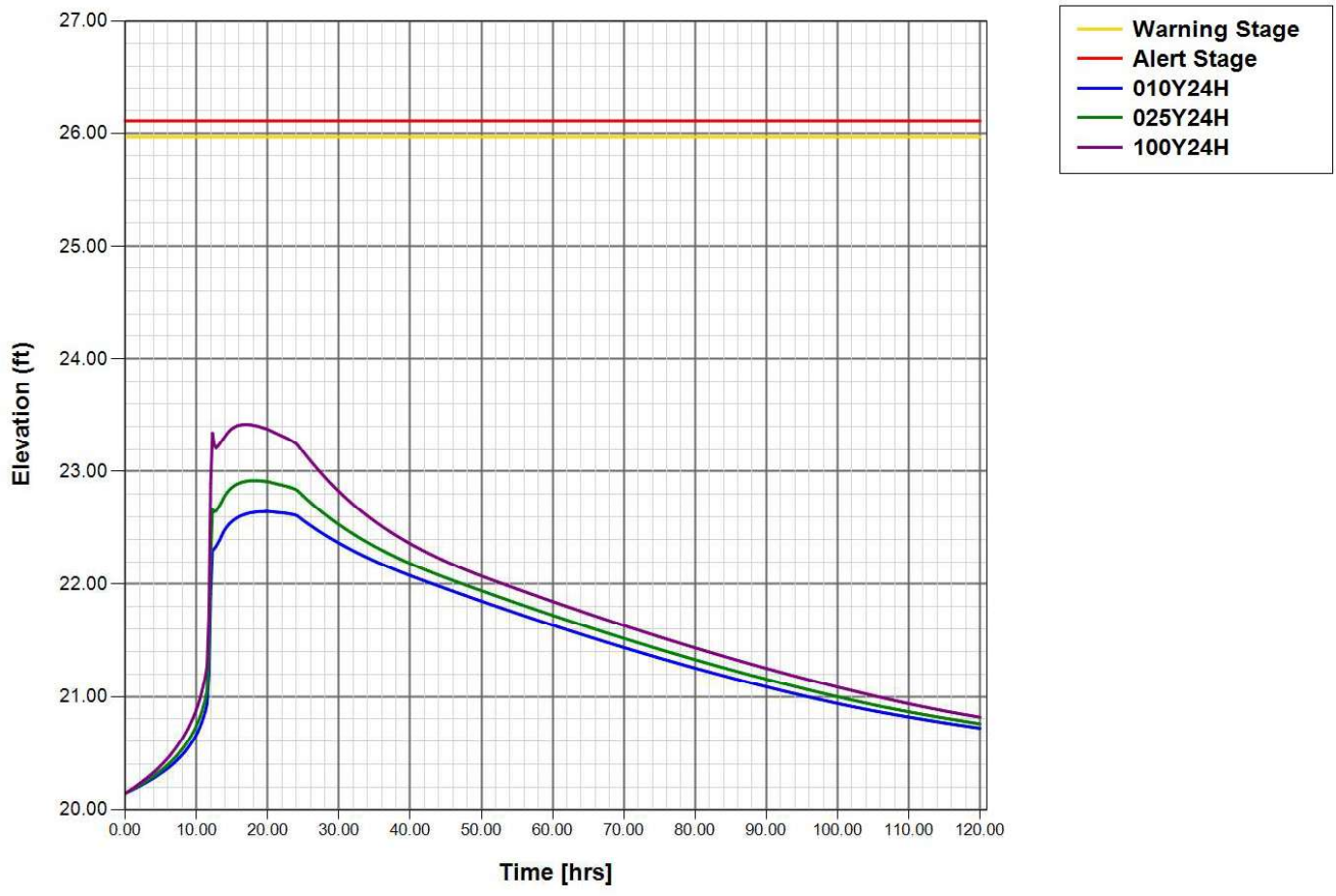
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS34A	010Y24H	25.97	26.11	22.65	0.0007	2.27	2.19	100	19.7202	12.0765	12.0666	12.0753
DS34A	025Y24H	25.97	26.11	22.92	0.0007	2.68	2.59	100	18.5822	12.0866	12.0666	12.0753
DS34A	100Y24H	25.97	26.11	23.42	0.0006	3.41	3.30	100	16.7501	12.0851	12.0666	12.0756

Node Stage w/Warning and Alert Stage: DS34A [Scenario1]



Node: DS35

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.88 ft
Alert Stage: 24.98 ft

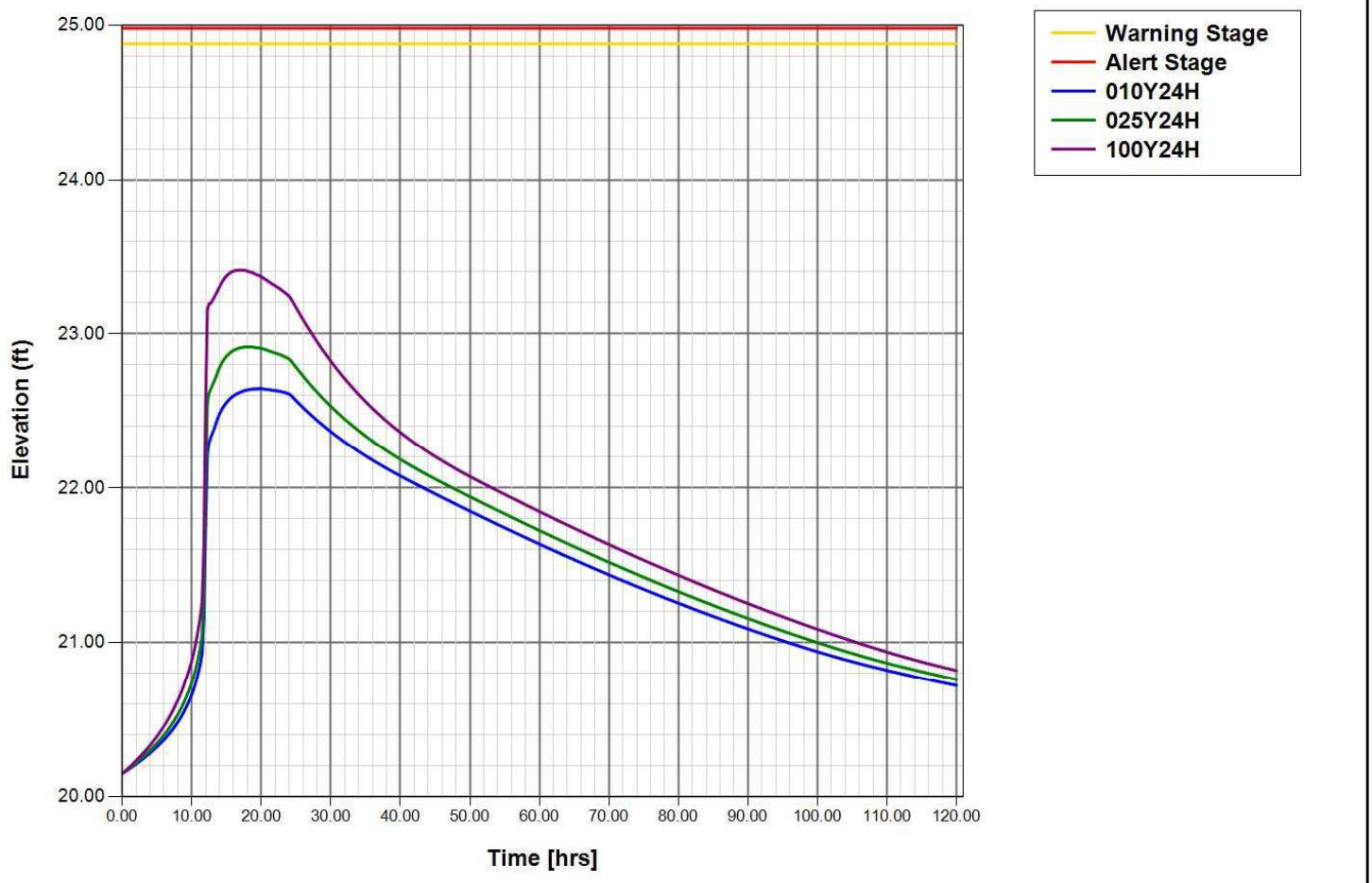
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment: F

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS35	010Y24H	24.88	24.98	22.65	0.0007	5.72	5.67	100	19.7925	12.0781	12.0779	12.0781
DS35	025Y24H	24.88	24.98	22.92	0.0007	6.69	6.61	100	18.5833	12.0866	12.0774	12.0797
DS35	100Y24H	24.88	24.98	23.41	-0.0007	8.46	8.36	100	16.7896	13.4904	12.0800	12.0825

Node Stage w/Warning and Alert Stage: DS35 [Scenario1]



Node: DS36

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.05 ft
Alert Stage: 24.19 ft

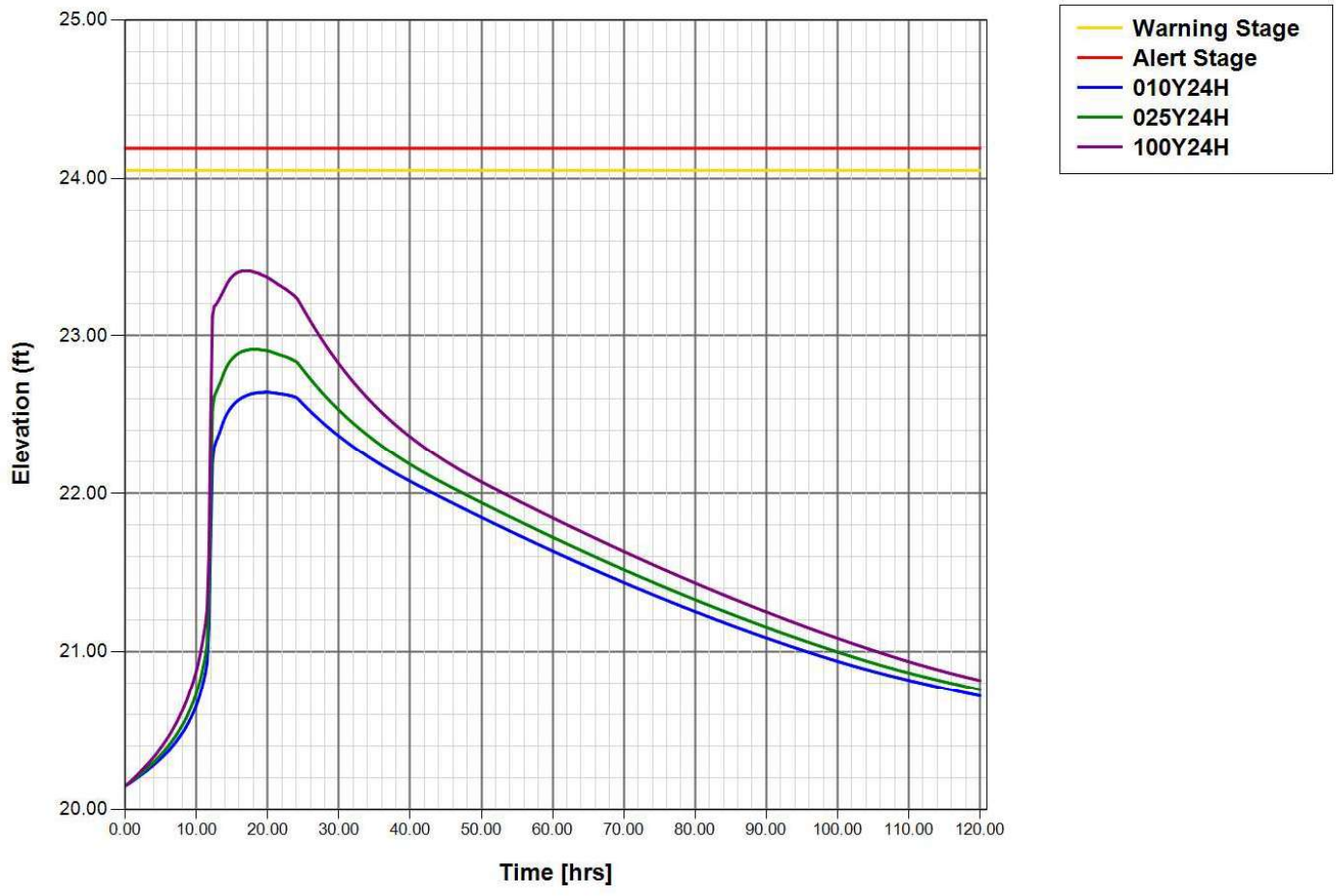
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS36	010Y24H	24.05	24.19	22.65	0.0008	1.91	1.89	100	19.7214	11.8789	12.0583	12.2155
DS36	025Y24H	24.05	24.19	22.92	0.0008	2.21	2.13	100	18.6029	12.3585	12.0584	12.0668
DS36	100Y24H	24.05	24.19	23.41	0.0008	2.77	2.66	100	16.8108	11.7735	12.0584	12.0669

Node Stage w/Warning and Alert Stage: DS36 [Scenario1]



Node: DS37

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.05 ft
Alert Stage: 24.19 ft

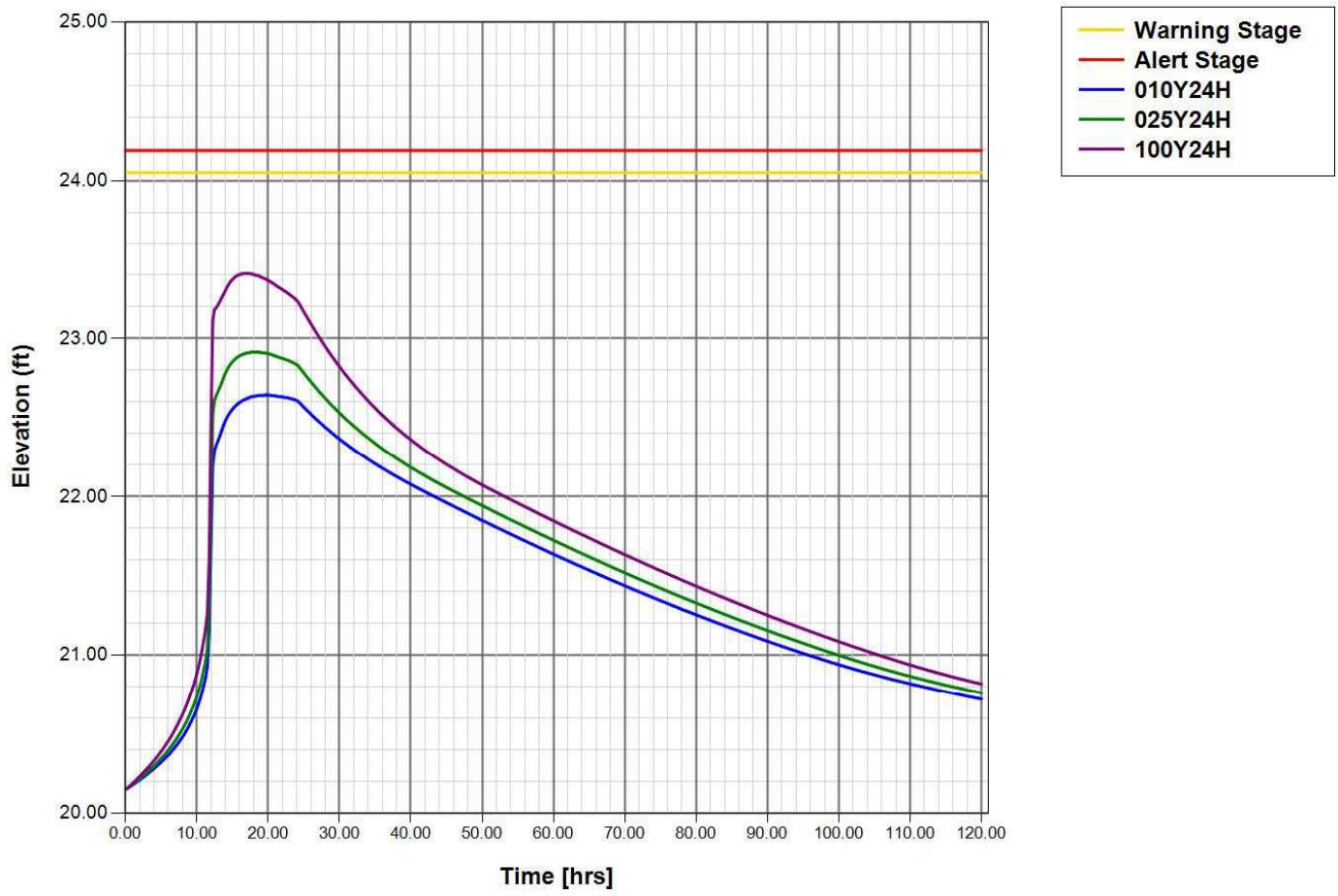
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS37	010Y24H	24.05	24.19	22.64	-0.0011	17.63	17.19	100	19.7345	13.3839	12.2155	12.1748
DS37	025Y24H	24.05	24.19	22.91	0.0011	19.03	18.80	100	18.5976	9.7608	12.2736	12.1774
DS37	100Y24H	24.05	24.19	23.41	-0.0012	21.79	21.75	100	16.7387	14.1078	12.1936	12.1938

Node Stage w/Warning and Alert Stage: DS37 [Scenario1]



Node: DS37A

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.00 ft
Alert Stage: 24.14 ft

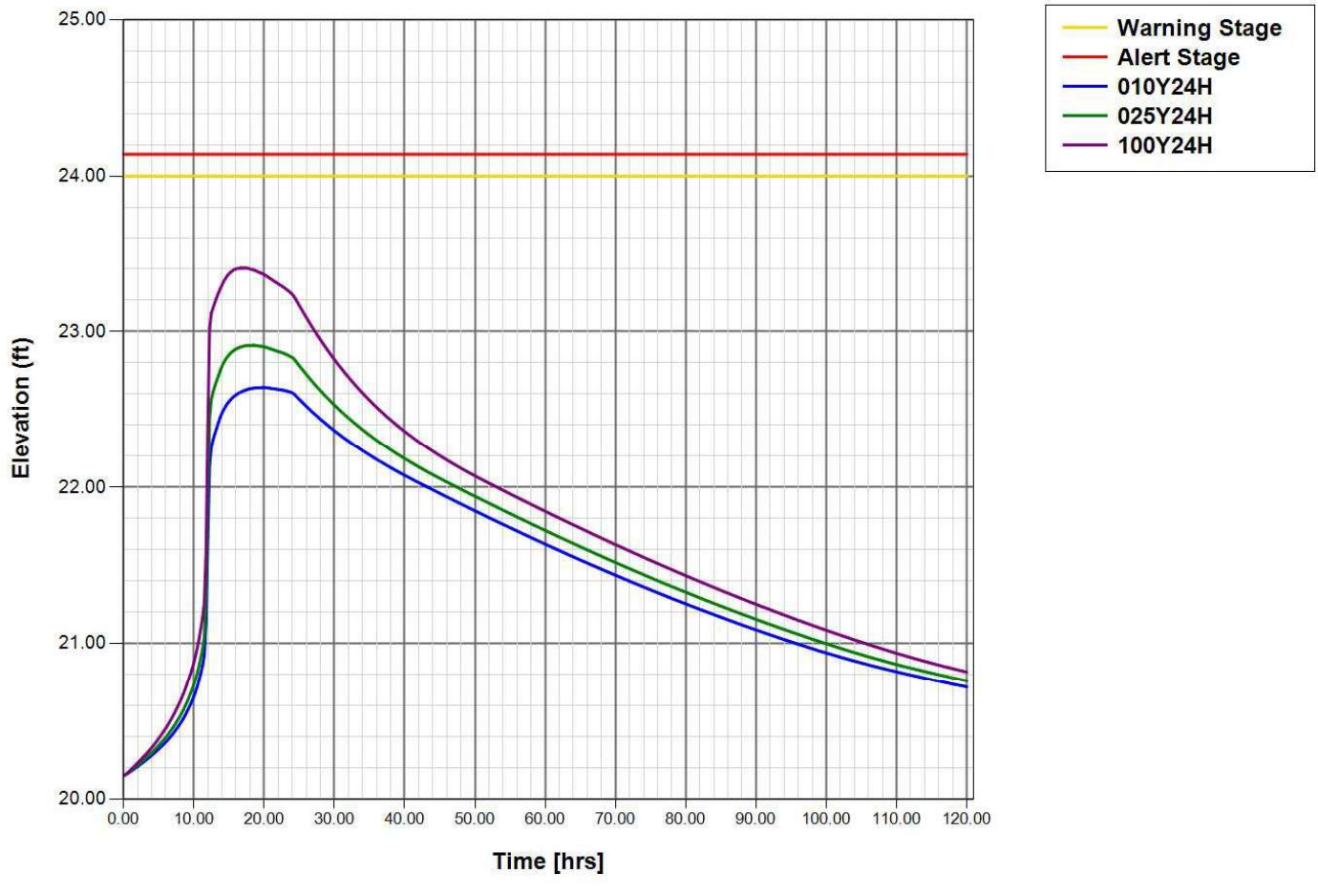
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS37A	010Y24H	24.00	24.14	22.64	-0.0014	17.26	17.09	100	19.7703	16.4388	12.1748	12.1750
DS37A	025Y24H	24.00	24.14	22.91	-0.0013	18.88	18.84	100	18.6001	9.7241	12.1763	12.1786
DS37A	100Y24H	24.00	24.14	23.41	-0.0015	21.85	21.81	100	16.8169	9.4614	12.1937	12.1948

Node Stage w/Warning and Alert Stage: DS37A [Scenario1]



Node: DS37B

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.00 ft
Alert Stage: 24.14 ft

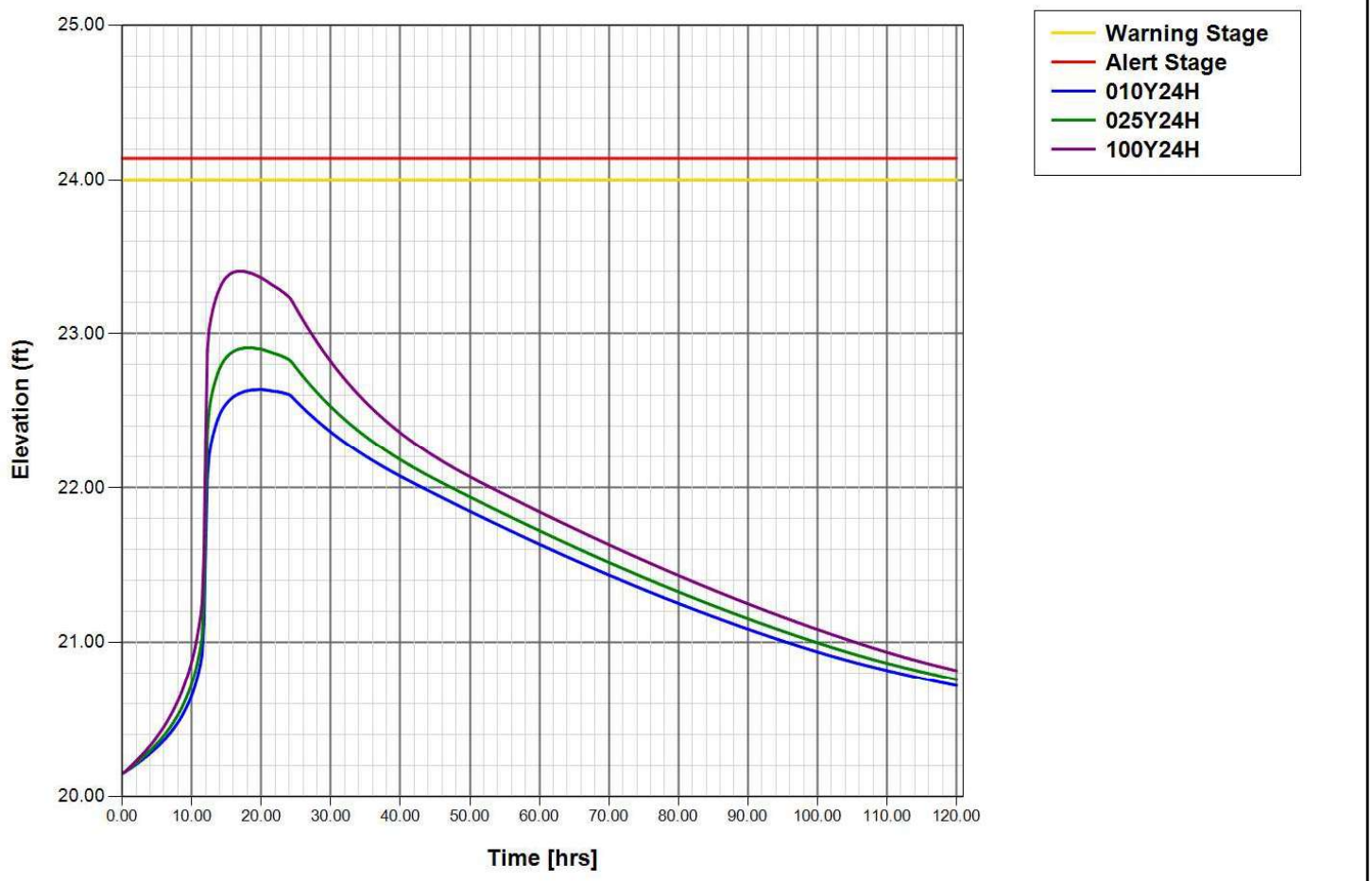
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS37B	010Y24H	24.00	24.14	22.64	0.0014	18.06	17.98	100	19.8271	16.4388	12.1750	12.1627
DS37B	025Y24H	24.00	24.14	22.91	0.0014	19.98	19.94	100	18.6340	10.0151	12.1668	12.1668
DS37B	100Y24H	24.00	24.14	23.40	0.0015	23.21	23.16	100	16.8581	9.4614	12.1692	12.1706

Node Stage w/Warning and Alert Stage: DS37B [Scenario1]



Node: DS38

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.50 ft
Alert Stage: 23.64 ft

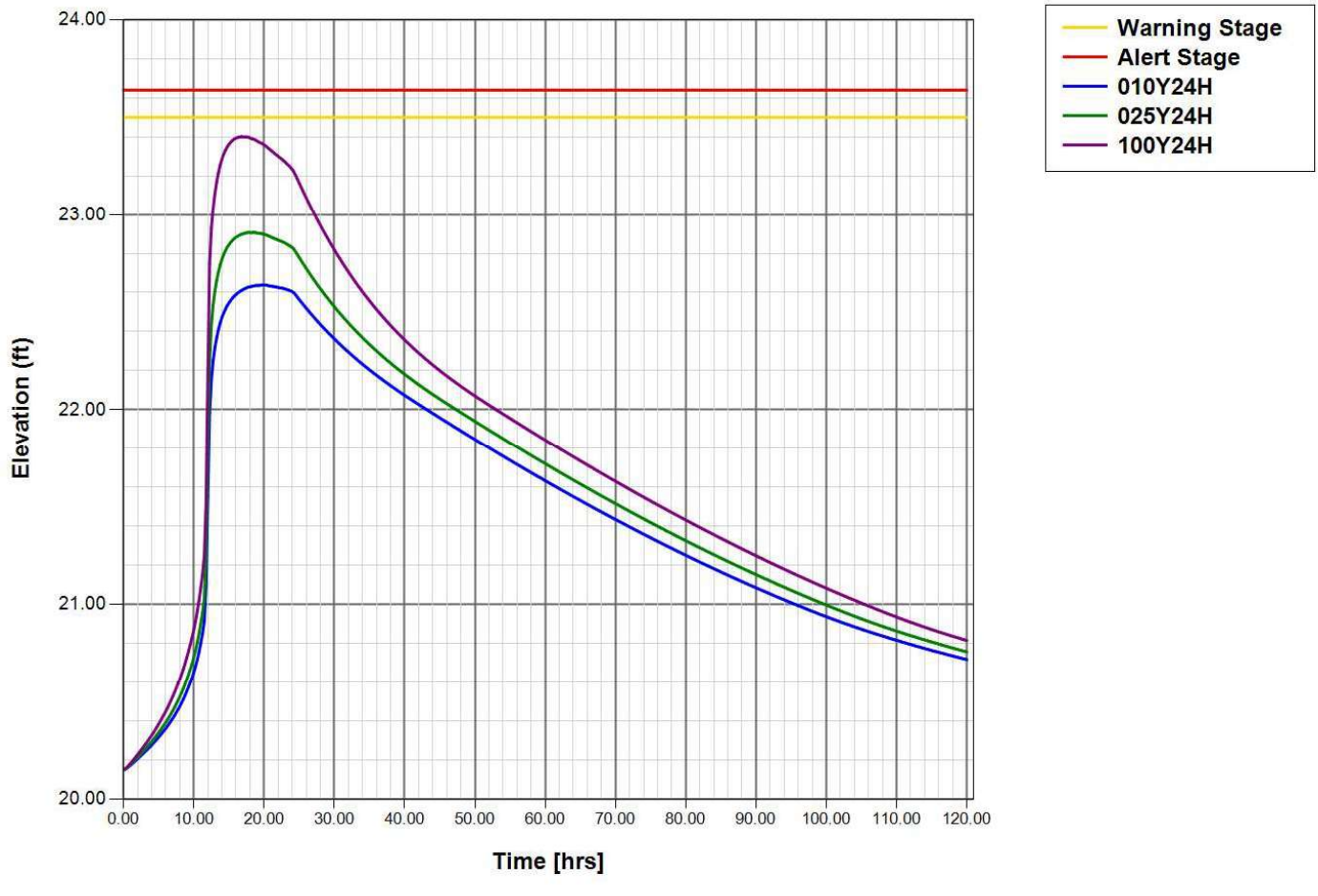
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS38	010Y24H	23.50	23.64	22.64	0.0013	18.69	18.65	100	19.7930	17.6951	12.1618	12.1621
DS38	025Y24H	23.50	23.64	22.91	-0.0013	20.78	20.74	100	18.6001	24.1603	12.1467	12.1476
DS38	100Y24H	23.50	23.64	23.40	-0.0013	24.24	24.19	100	16.8783	24.2961	12.1371	12.1387

Node Stage w/Warning and Alert Stage: DS38 [Scenario1]



Node: DS39

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.25 ft
Alert Stage: 23.39 ft

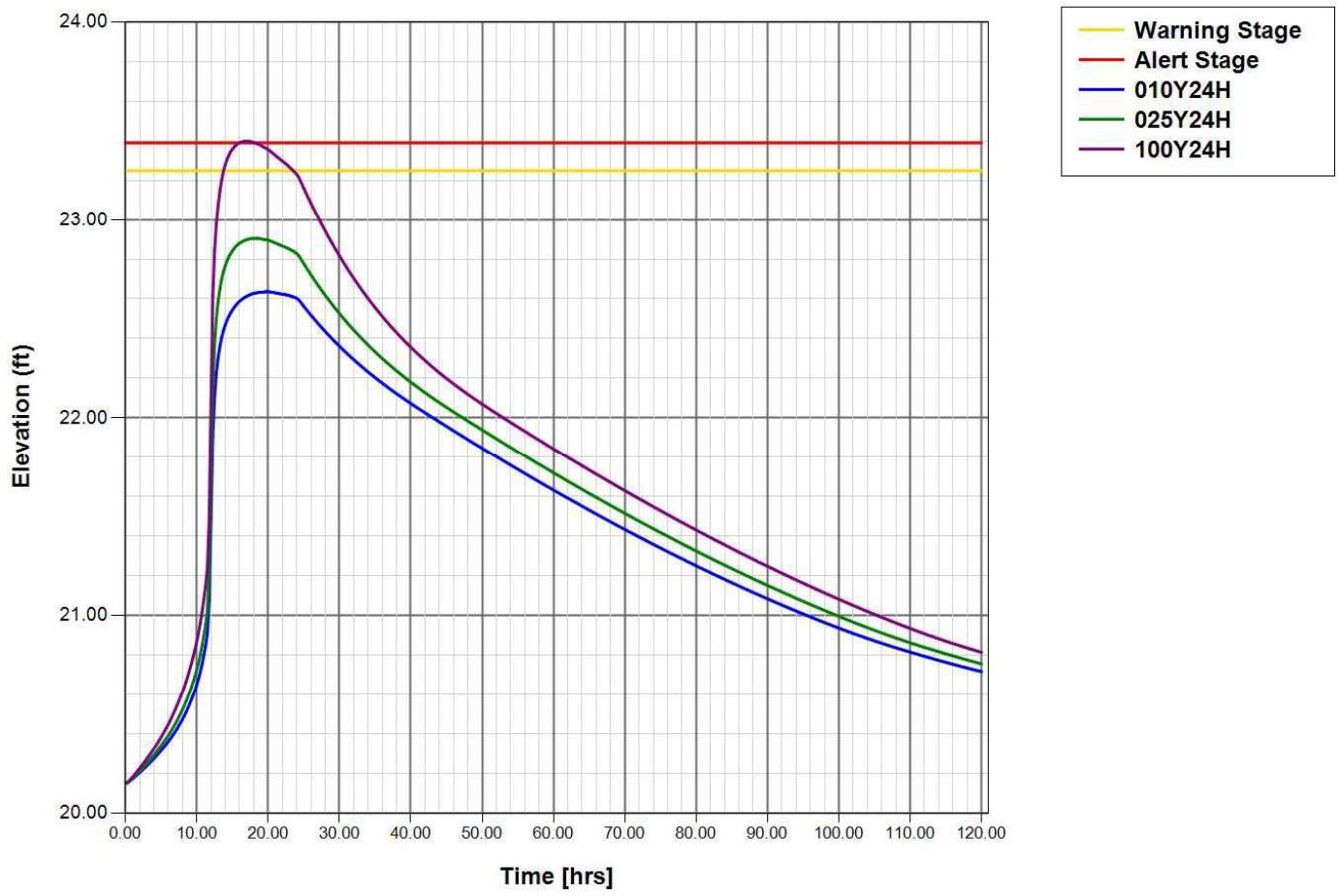
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS39	010Y24H	23.25	23.39	22.64	-0.0012	22.79	22.74	100	19.8271	10.1509	12.1231	12.1179
DS39	025Y24H	23.25	23.39	22.91	-0.0012	25.58	25.52	100	18.6340	9.7336	12.1105	12.1112
DS39	100Y24H	23.25	23.39	23.40	-0.0012	30.49	30.43	100	16.8581	8.6674	12.1028	12.1036

Node Stage w/Warning and Alert Stage: DS39 [Scenario1]



Node: DS4

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.78 ft
Alert Stage: 23.92 ft

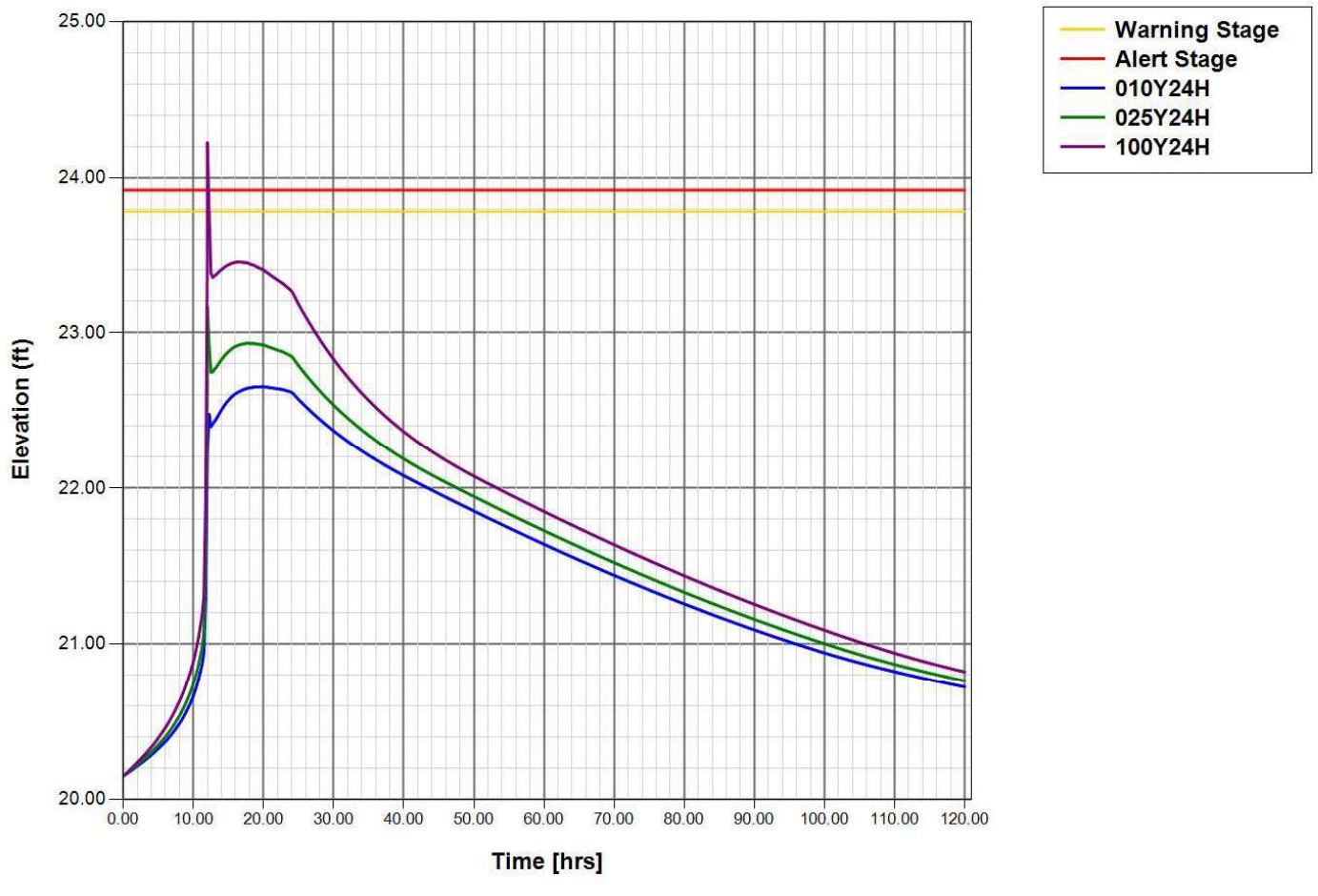
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS4	010Y24H	23.78	23.92	22.65	0.0008	2.71	2.61	109	19.6565	12.0652	12.0583	12.0746
DS4	025Y24H	23.78	23.92	23.17	0.0008	3.12	3.00	109	12.1253	12.0698	12.0583	12.0757
DS4	100Y24H	23.78	23.92	24.22	0.0008	3.86	3.70	109	12.1226	12.0851	12.0583	12.0770

Node Stage w/Warning and Alert Stage: DS4 [Scenario1]



Node: DS42

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.00 ft
Alert Stage: 24.14 ft

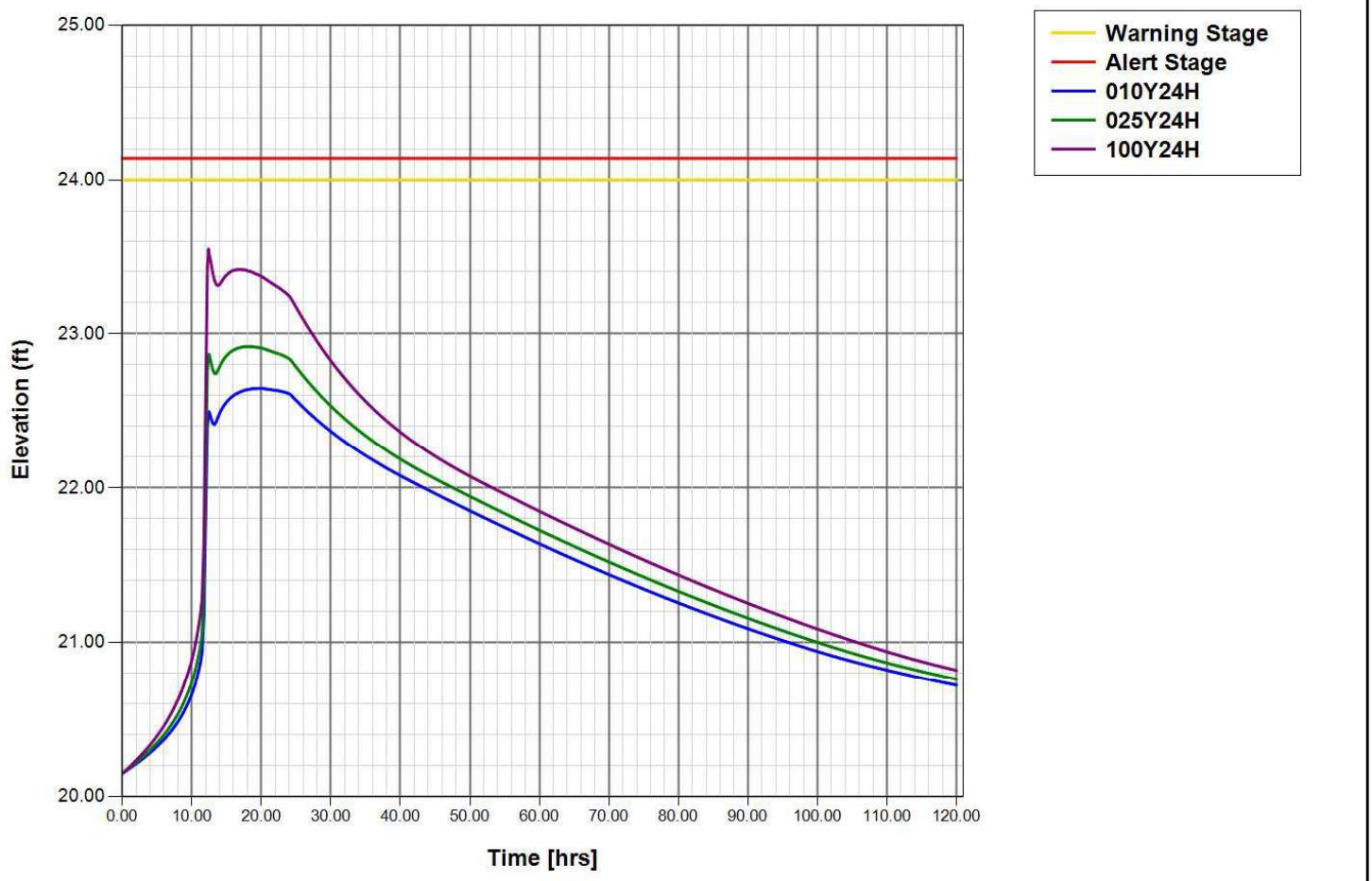
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS42	010Y24H	24.00	24.14	22.65	0.0010	11.35	11.17	100	19.7364	12.1146	12.3688	12.3571
DS42	025Y24H	24.00	24.14	22.92	0.0010	12.45	12.30	100	18.5947	12.1374	12.4191	12.3893
DS42	100Y24H	24.00	24.14	23.55	-0.0010	14.30	14.17	100	12.4139	13.7196	12.4757	12.4297

Node Stage w/Warning and Alert Stage: DS42 [Scenario1]



Node: DS43

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.28 ft
Alert Stage: 24.38 ft

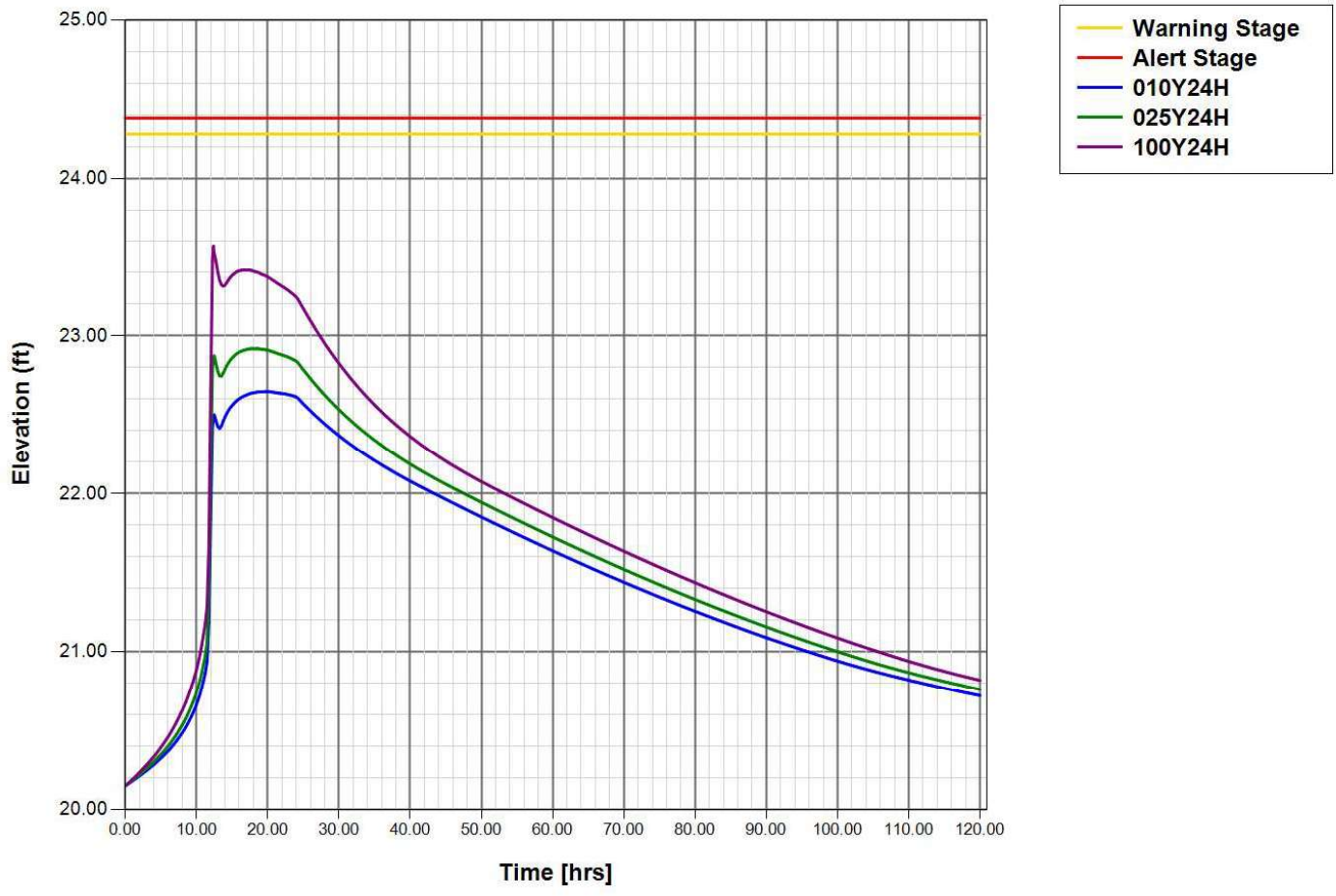
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS43	010Y24H	24.28	24.38	22.65	-0.0010	7.51	7.42	100	19.7236	12.9197	12.0675	12.0680
DS43	025Y24H	24.28	24.38	22.92	0.0010	8.77	8.67	100	18.5991	11.4216	12.0666	12.0681
DS43	100Y24H	24.28	24.38	23.57	-0.0010	11.07	10.95	100	12.3935	11.2368	12.0666	12.0688

Node Stage w/Warning and Alert Stage: DS43 [Scenario1]



Node: DS43A

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 25.32 ft
Alert Stage: 25.46 ft

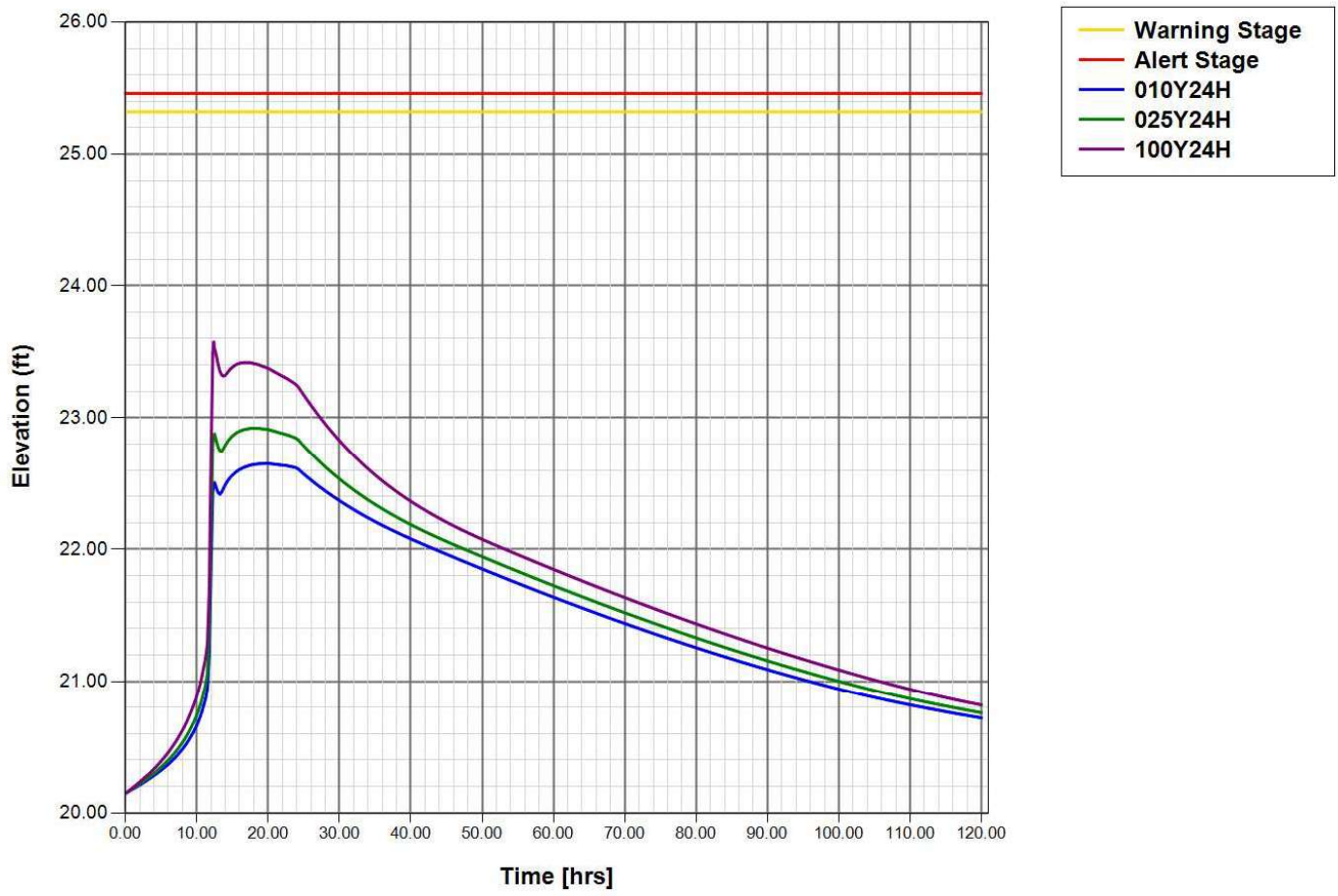
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS43A	010Y24H	25.32	25.46	22.65	0.0010	4.04	3.96	100	19.7242	12.4770	12.0692	12.0781
DS43A	025Y24H	25.32	25.46	22.92	-0.0010	4.75	4.65	100	18.6012	12.5514	12.0694	12.0712
DS43A	100Y24H	25.32	25.46	23.57	-0.0010	6.03	5.91	100	12.3890	11.5963	12.0702	12.0727

Node Stage w/Warning and Alert Stage: DS43A [Scenario1]



Node: DS44

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.78 ft
Alert Stage: 23.92 ft

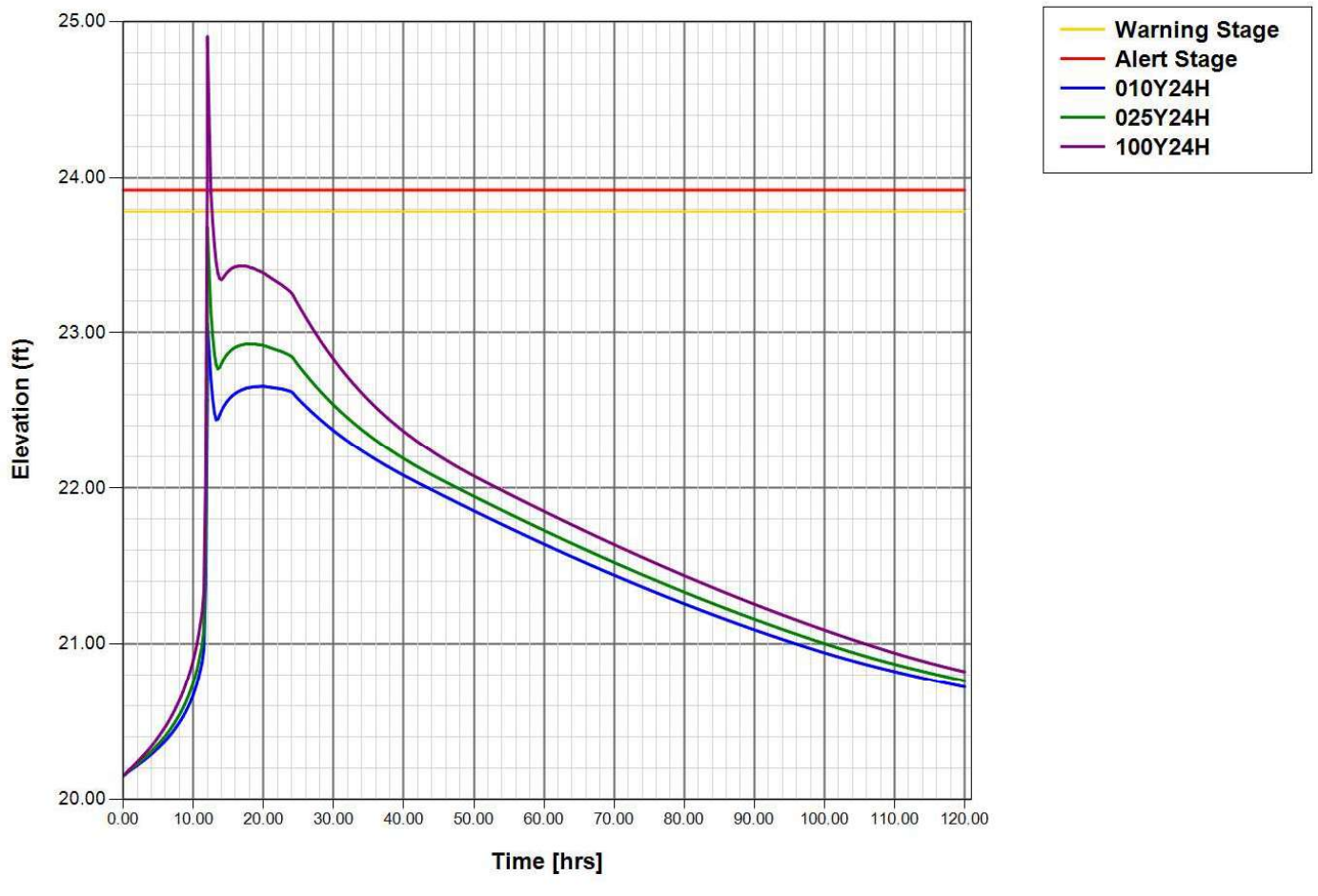
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS44	010Y24H	23.78	23.92	23.06	-0.0010	8.19	8.10	100	12.1283	12.6365	12.0783	12.0870
DS44	025Y24H	23.78	23.92	23.68	0.0010	9.50	9.40	100	12.1245	12.8210	12.0820	12.0893
DS44	100Y24H	23.78	23.92	24.90	-0.0010	11.87	11.75	100	12.1205	13.0365	12.0833	12.0936

Node Stage w/Warning and Alert Stage: DS44 [Scenario1]



Node: DS44A

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.93 ft
Alert Stage: 25.07 ft

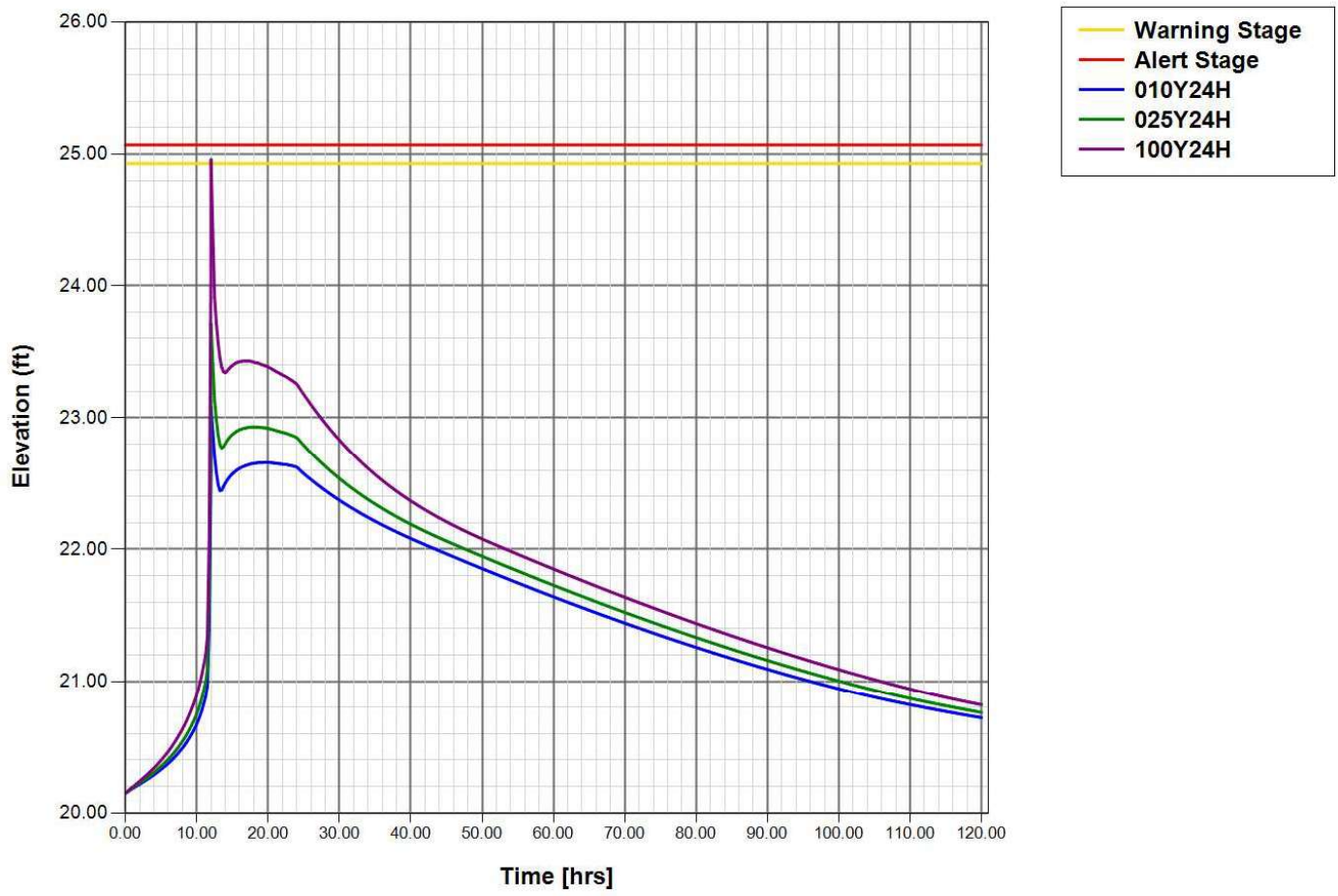
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS44A	010Y24H	24.93	25.07	23.08	0.0010	4.38	4.31	100	12.1277	11.7172	12.0875	12.0983
DS44A	025Y24H	24.93	25.07	23.71	0.0010	5.12	5.04	100	12.1243	11.6359	12.0893	12.1042
DS44A	100Y24H	24.93	25.07	24.96	0.0010	6.46	6.38	100	12.1201	11.5952	12.0910	12.1107

Node Stage w/Warning and Alert Stage: DS44A [Scenario1]



Node: DS45

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.78 ft
Alert Stage: 23.92 ft

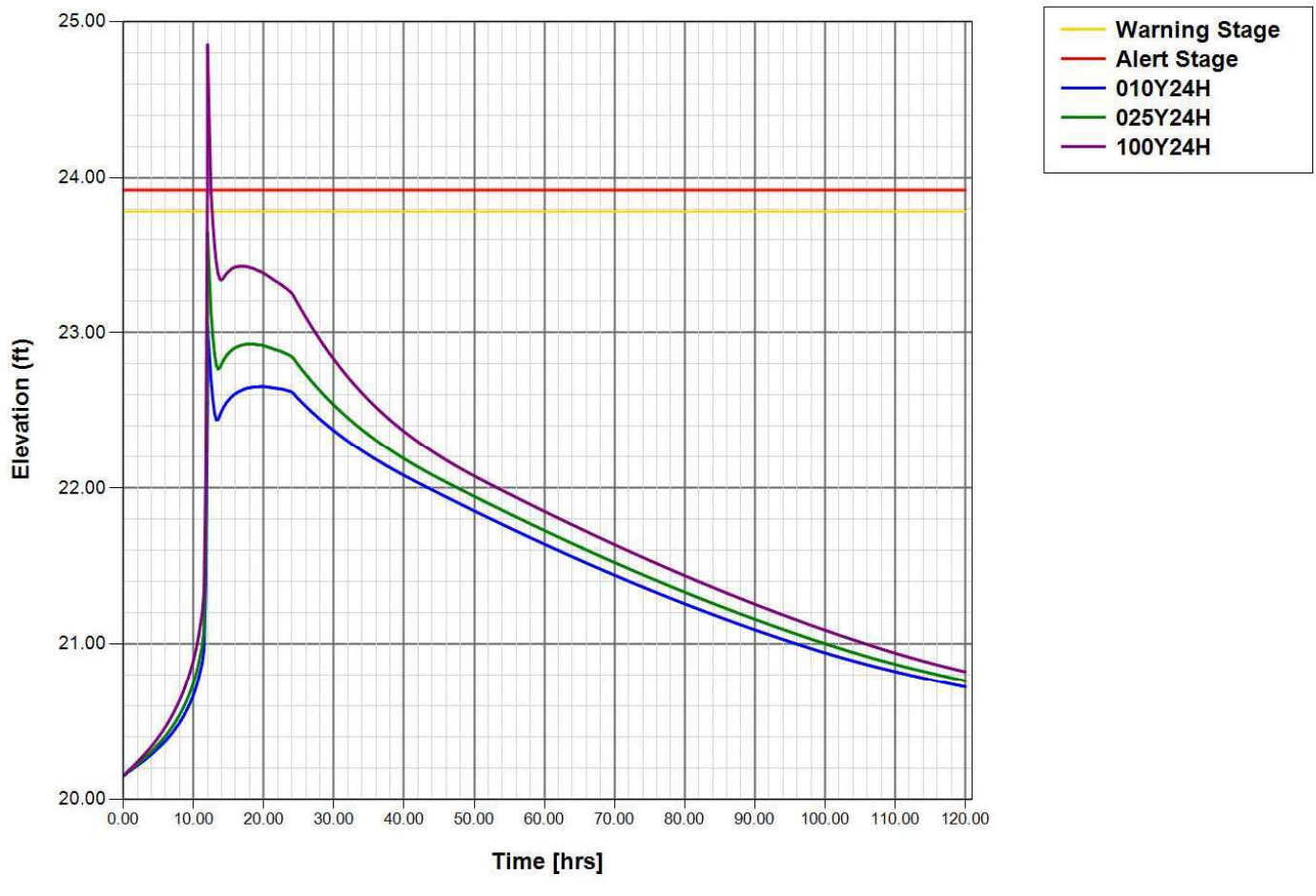
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS45	010Y24H	23.78	23.92	23.03	0.0010	10.61	10.52	100	12.1291	13.0575	12.0783	12.0852
DS45	025Y24H	23.78	23.92	23.64	0.0010	12.29	12.18	100	12.1253	13.2534	12.0820	12.0874
DS45	100Y24H	23.78	23.92	24.85	0.0010	15.32	15.19	100	12.1211	13.6625	12.0833	12.0911

Node Stage w/Warning and Alert Stage: DS45 [Scenario1]



Node: DS46

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.78 ft
Alert Stage: 23.92 ft

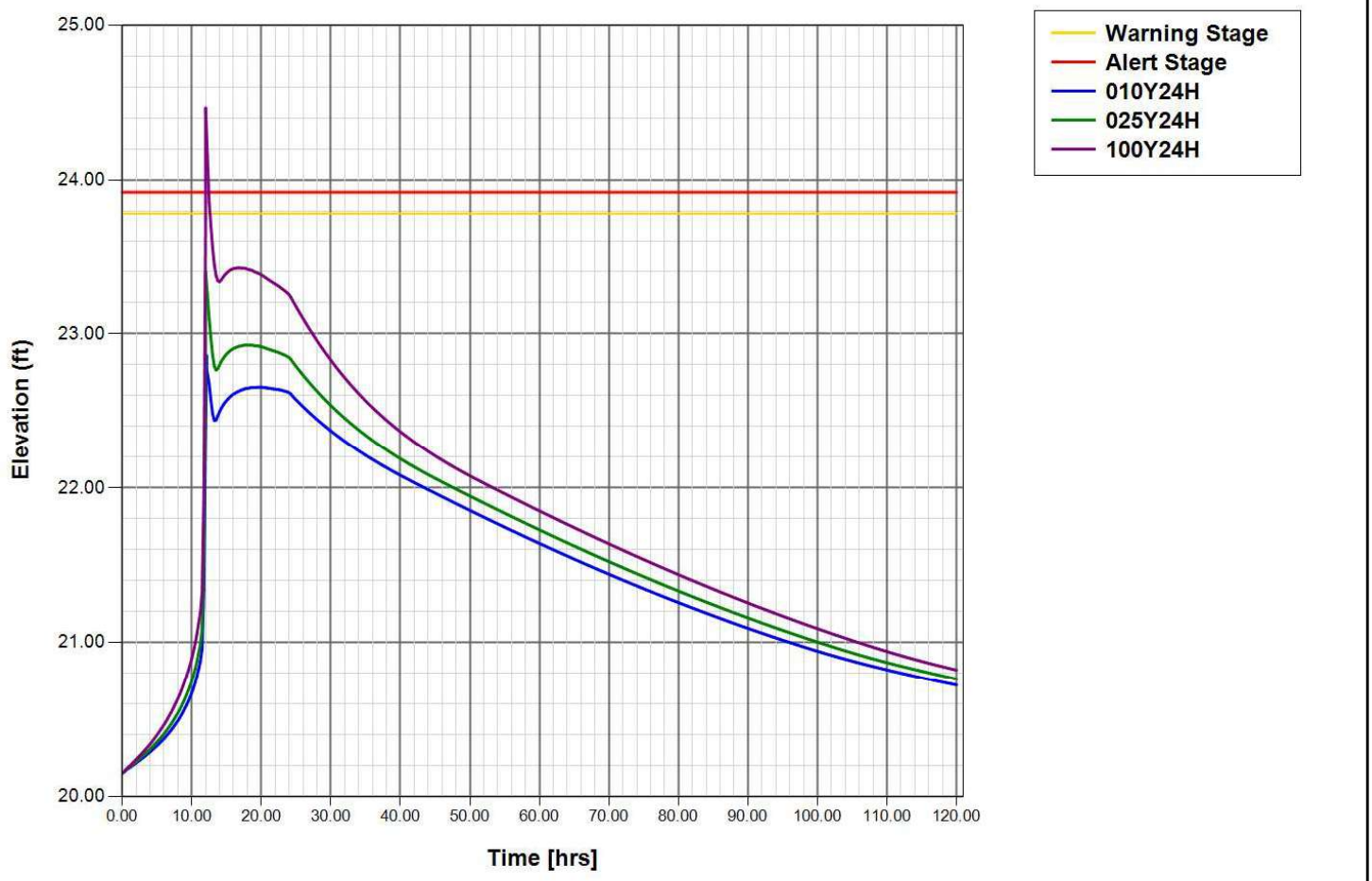
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS46	010Y24H	23.78	23.92	22.86	-0.0010	3.54	3.43	100	12.1417	0.2114	12.0583	12.0692
DS46	025Y24H	23.78	23.92	23.40	0.0009	4.09	3.96	100	12.1344	12.0866	12.0584	12.0700
DS46	100Y24H	23.78	23.92	24.46	0.0009	5.07	4.90	100	12.1284	12.0851	12.0584	12.0723

Node Stage w/Warning and Alert Stage: DS46 [Scenario1]



Node: DS47

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.78 ft
Alert Stage: 23.92 ft

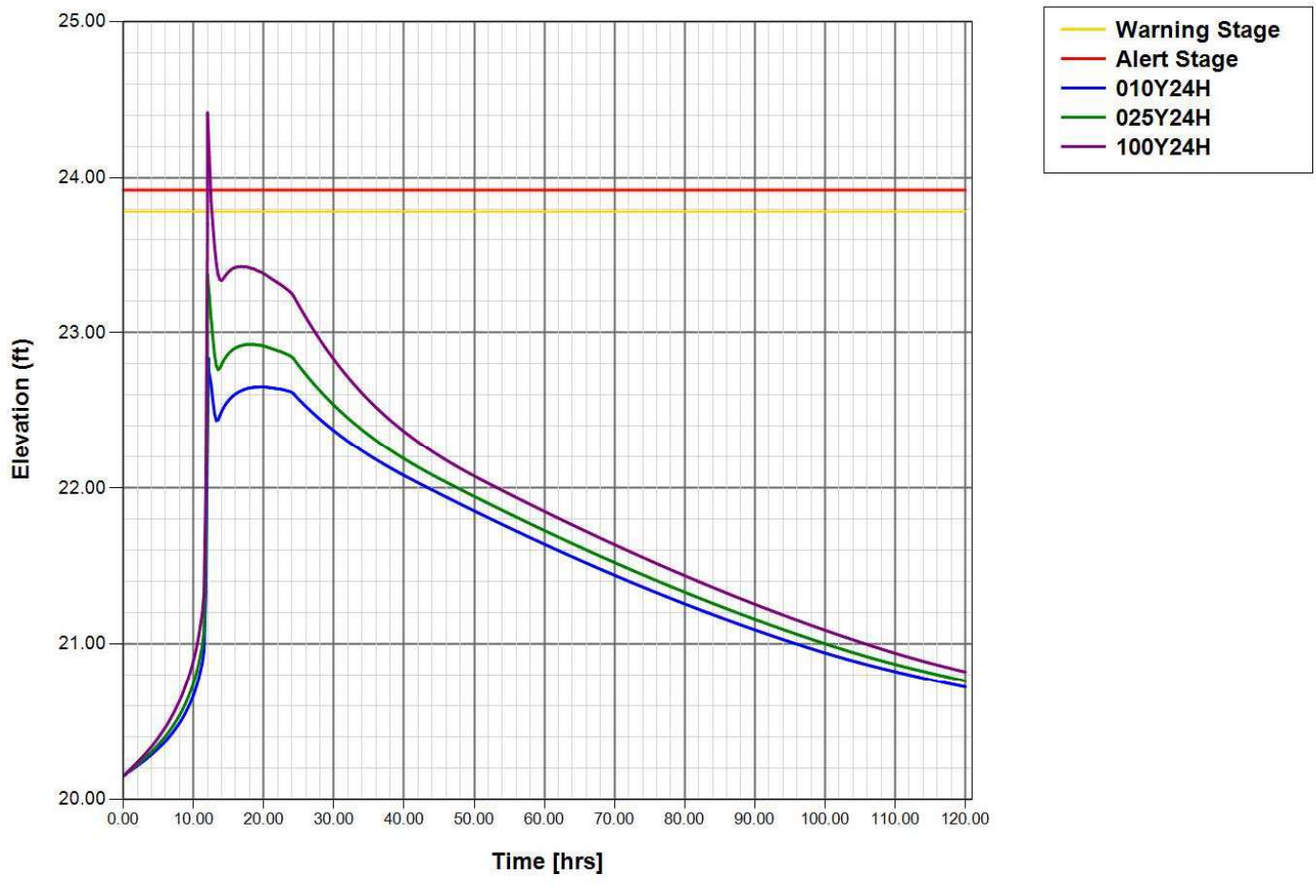
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS47	010Y24H	23.78	23.92	22.84	-0.0010	17.11	17.02	100	12.1450	13.2267	12.0760	12.0790
DS47	025Y24H	23.78	23.92	23.37	-0.0010	19.77	19.67	100	12.1386	9.8989	12.0774	12.0809
DS47	100Y24H	23.78	23.92	24.42	0.0010	24.59	24.45	100	12.1303	0.1592	12.0817	12.0840

Node Stage w/Warning and Alert Stage: DS47 [Scenario1]



Node: DS48

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.90 ft
Alert Stage: 24.00 ft

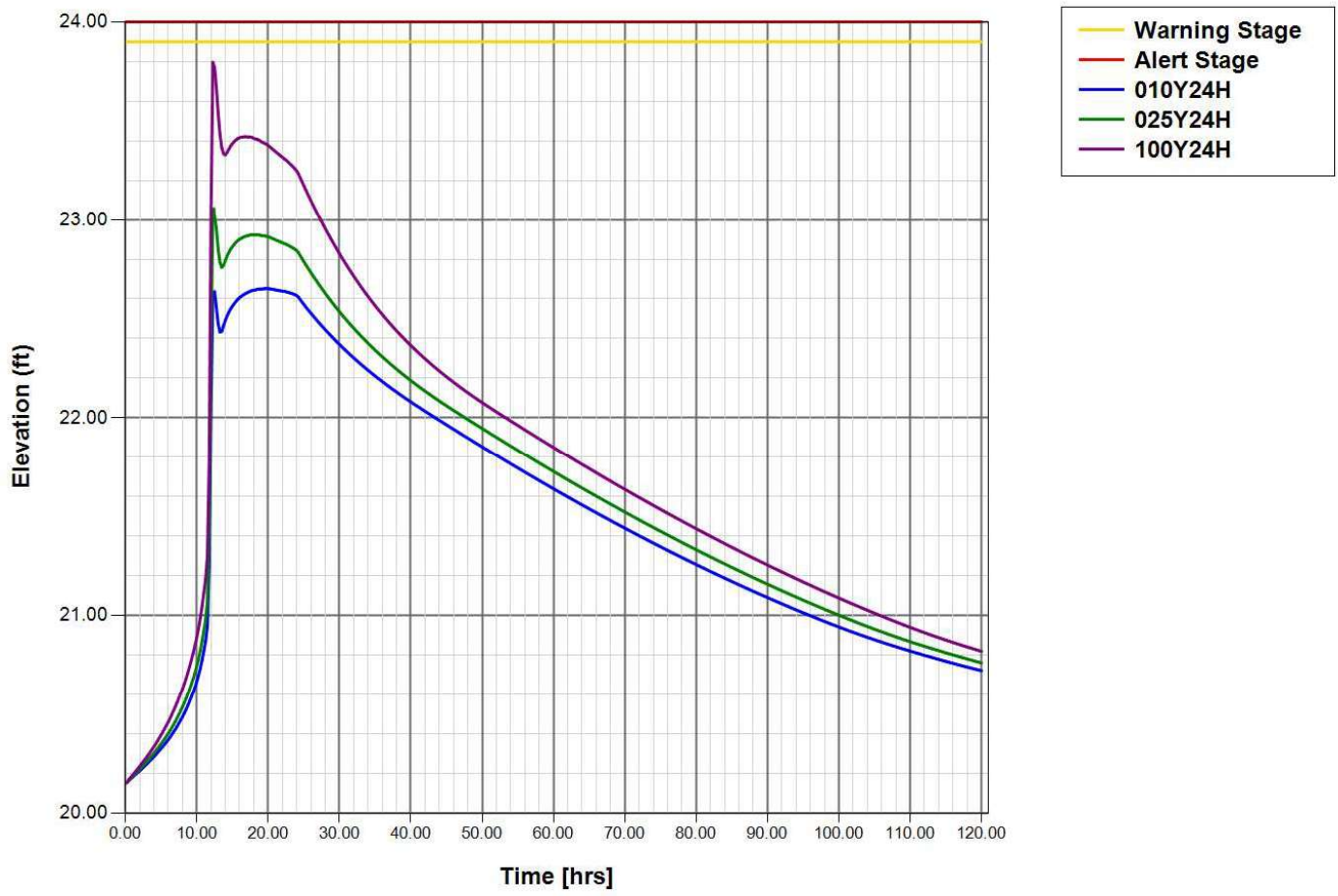
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS48	010Y24H	23.90	24.00	22.65	-0.0010	17.02	16.93	100	19.6052	0.1297	12.0790	12.0803
DS48	025Y24H	23.90	24.00	23.06	-0.0010	19.67	19.56	100	12.4014	0.1606	12.0809	12.0823
DS48	100Y24H	23.90	24.00	23.80	-0.0010	24.45	24.33	100	12.3798	0.1367	12.0840	12.0857

Node Stage w/Warning and Alert Stage: DS48 [Scenario1]



Node: DS5

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.78 ft
Alert Stage: 23.92 ft

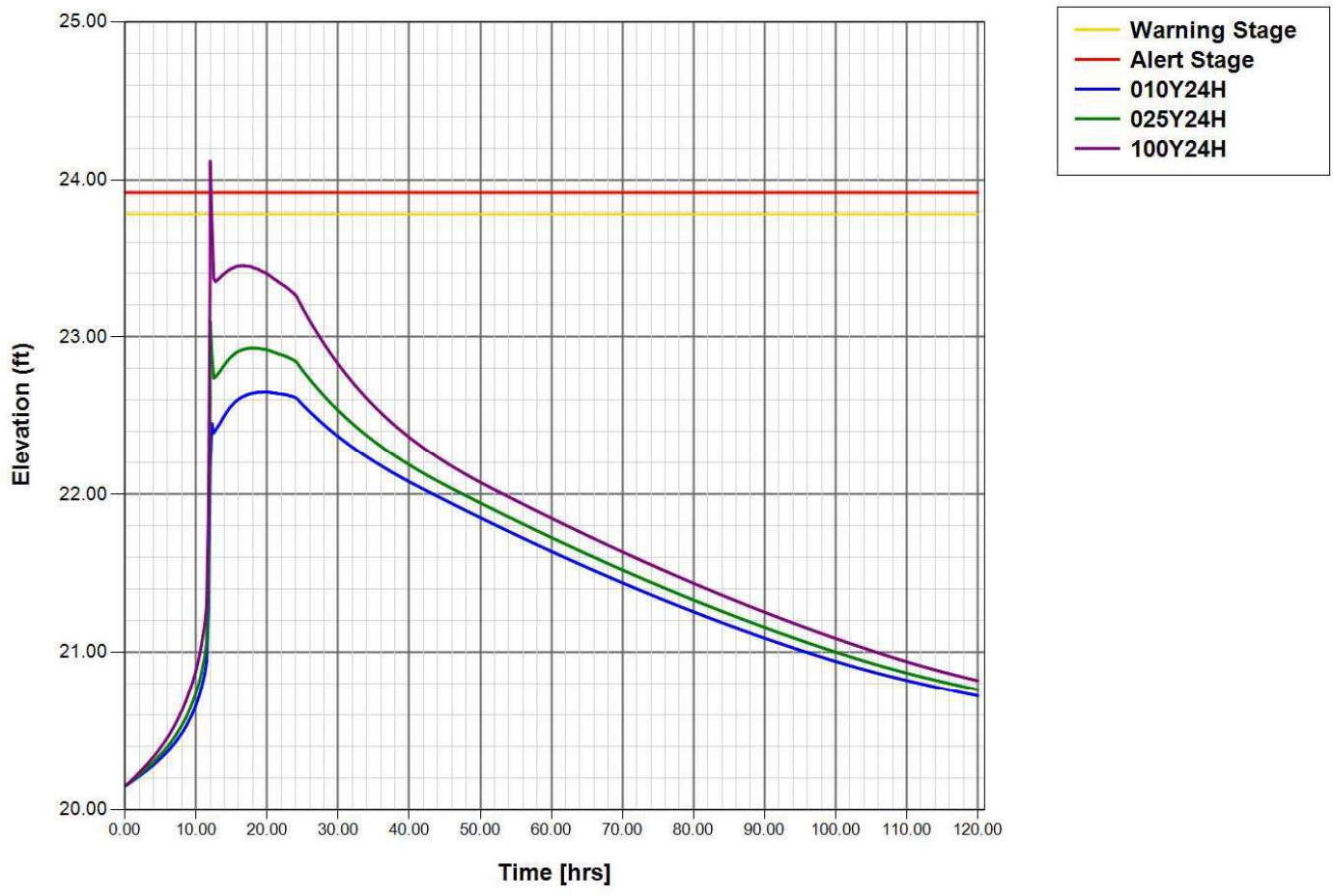
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS5	010Y24H	23.78	23.92	22.65	0.0008	11.07	11.00	114	19.7194	12.0652	12.0833	12.0864
DS5	025Y24H	23.78	23.92	23.10	0.0009	12.82	12.74	114	12.1293	13.0970	12.0840	12.0893
DS5	100Y24H	23.78	23.92	24.12	-0.0009	15.98	15.88	114	12.1253	13.2456	12.0871	12.0936

Node Stage w/Warning and Alert Stage: DS5 [Scenario1]



Node: DS51

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 20.28 ft
Alert Stage: 20.38 ft

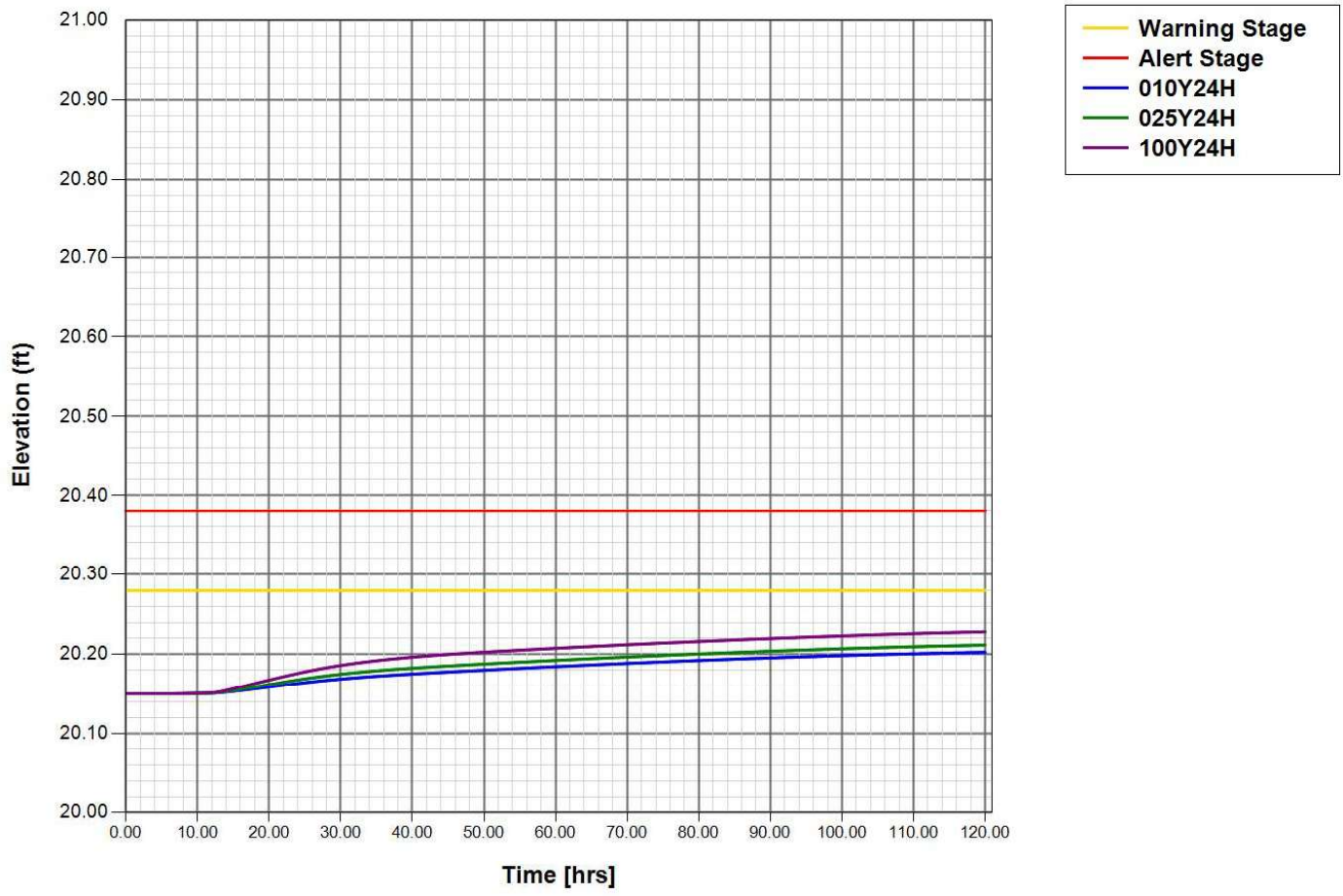
Stage [ft]	Area [ac]	Area [ft2]
19.64	350.6500	15274314
18.64	274.0200	11936311
16.64	125.1200	5450227
15.64	48.5600	2115274
14.64	7.7700	338461

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS51	010Y24H	20.28	20.38	20.20	0.0000	4.80	0.00	15274314	120.0001	12.4372	19.9067	0.0000
DS51	025Y24H	20.28	20.38	20.21	0.0000	6.42	0.00	15274314	120.0000	12.4439	18.6857	0.0000
DS51	100Y24H	20.28	20.38	20.23	0.0000	9.34	0.00	15274314	120.0002	12.5367	16.8681	0.0000

Node Stage w/Warning and Alert Stage: DS51 [Scenario1]



Node: DS52

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.50 ft
Alert Stage: 23.64 ft

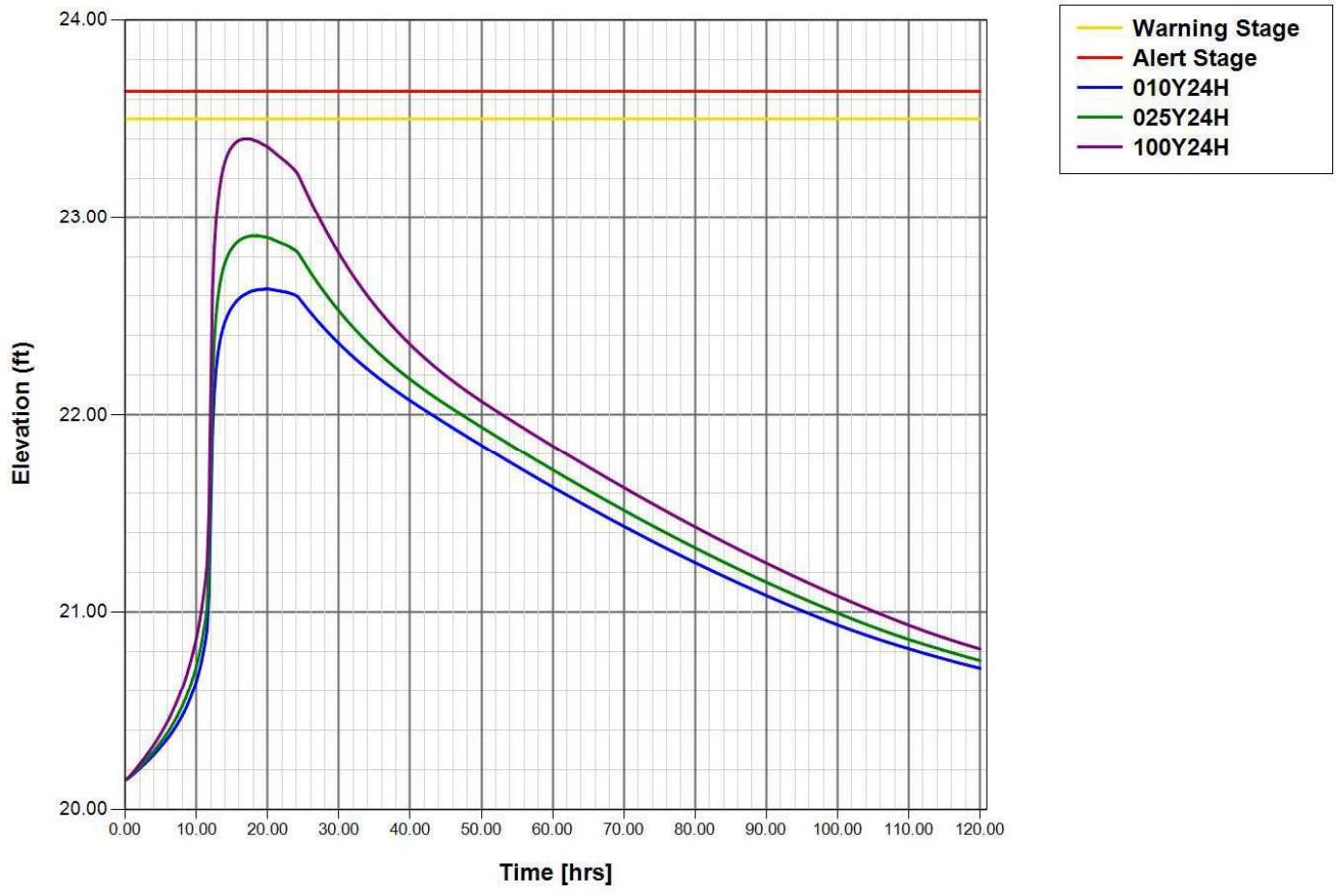
Stage [ft]	Area [ac]	Area [ft2]
8.15	0.0010	44
20.15	0.0010	44
24.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS52	010Y24H	23.50	23.64	22.64	0.0009	1.79	1.74	100	19.8827	12.3474	12.0583	12.0597
DS52	025Y24H	23.50	23.64	22.91	0.0007	2.06	2.00	100	18.6064	12.4268	12.0583	12.0597
DS52	100Y24H	23.50	23.64	23.40	0.0009	2.56	2.48	100	16.8747	12.5449	12.0583	12.0600

Node Stage w/Warning and Alert Stage: DS52 [Scenario1]



Node: DS6

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 25.00 ft
Alert Stage: 25.14 ft

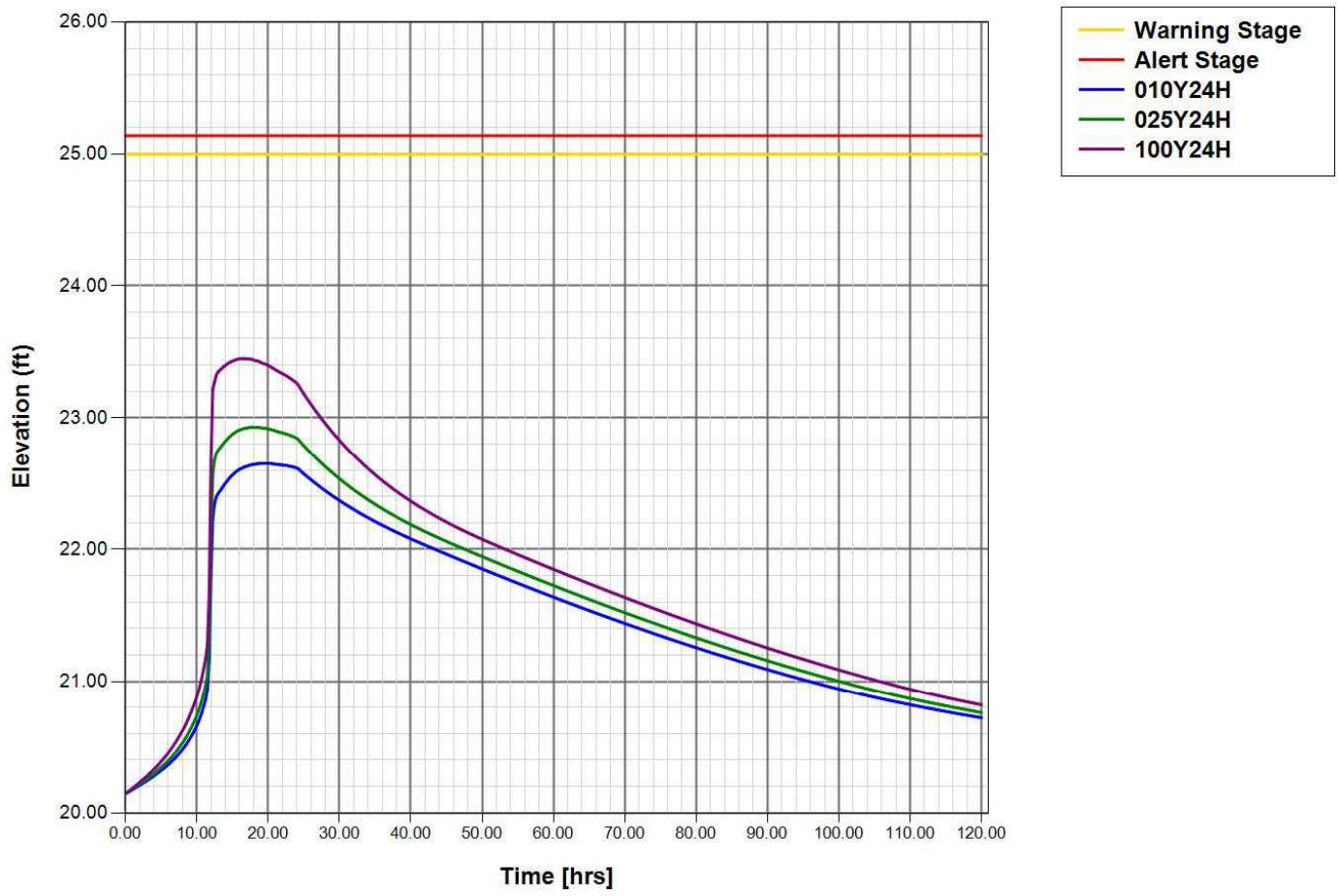
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS6	010Y24H	25.00	25.14	22.65	0.0008	11.79	11.72	100	19.7186	10.4357	12.0845	12.0862
DS6	025Y24H	25.00	25.14	22.93	0.0008	13.67	13.59	100	17.6946	12.0866	12.0866	12.0888
DS6	100Y24H	25.00	25.14	23.45	0.0008	17.04	16.95	100	16.6646	14.6121	12.0910	12.0930

Node Stage w/Warning and Alert Stage: DS6 [Scenario1]



Node: DS60

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 25.32 ft
Alert Stage: 25.50 ft

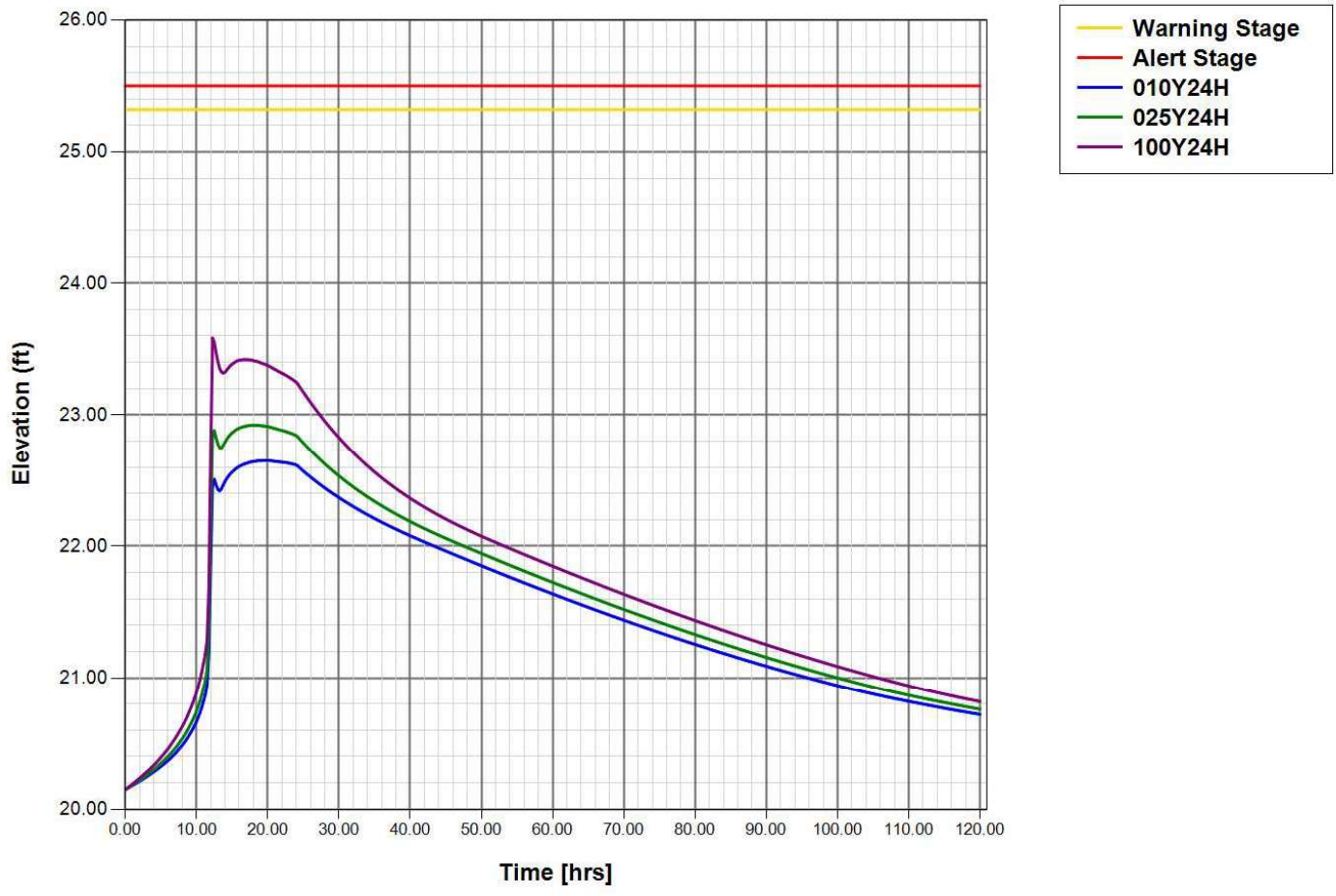
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS60	010Y24H	25.32	25.50	22.65	0.0009	4.13	4.04	100	19.7241	11.6467	12.0671	12.0692
DS60	025Y24H	25.32	25.50	22.92	0.0009	4.85	4.75	100	18.6012	12.0866	12.0668	12.0694
DS60	100Y24H	25.32	25.50	23.58	0.0010	6.15	6.03	100	12.3791	12.5136	12.0668	12.0702

Node Stage w/Warning and Alert Stage: DS60 [Scenario1]



Node: DS61

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.93 ft
Alert Stage: 25.07 ft

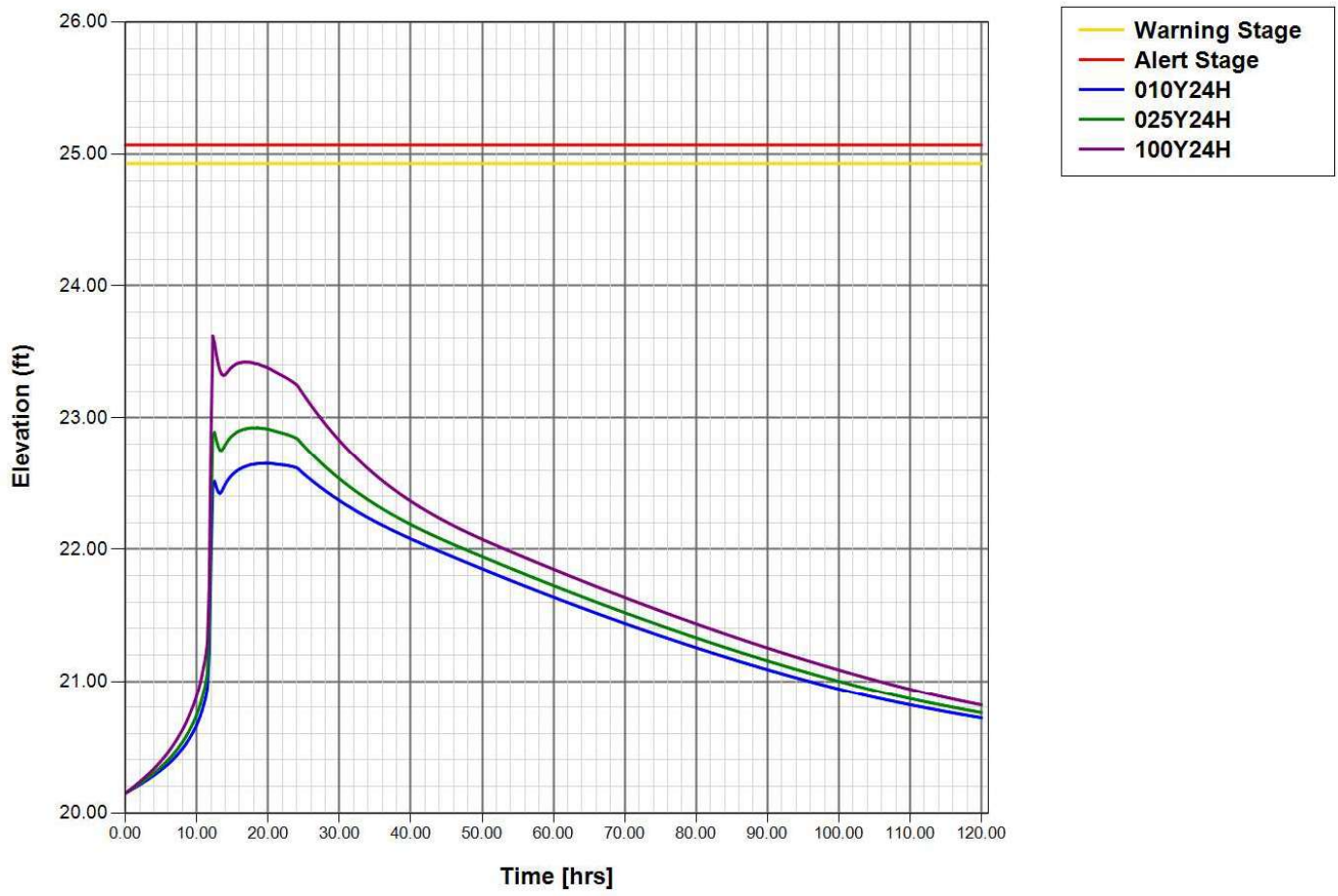
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS61	010Y24H	24.93	25.07	22.65	0.0008	2.93	2.84	100	19.7204	12.0765	12.0666	12.0684
DS61	025Y24H	24.93	25.07	22.92	0.0008	3.44	3.34	100	18.5812	12.0866	12.0666	12.0685
DS61	100Y24H	24.93	25.07	23.62	0.0007	4.36	4.24	100	12.3600	12.0851	12.0584	12.0685

Node Stage w/Warning and Alert Stage: DS61 [Scenario1]



Node: DS62

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.93 ft
Alert Stage: 25.17 ft

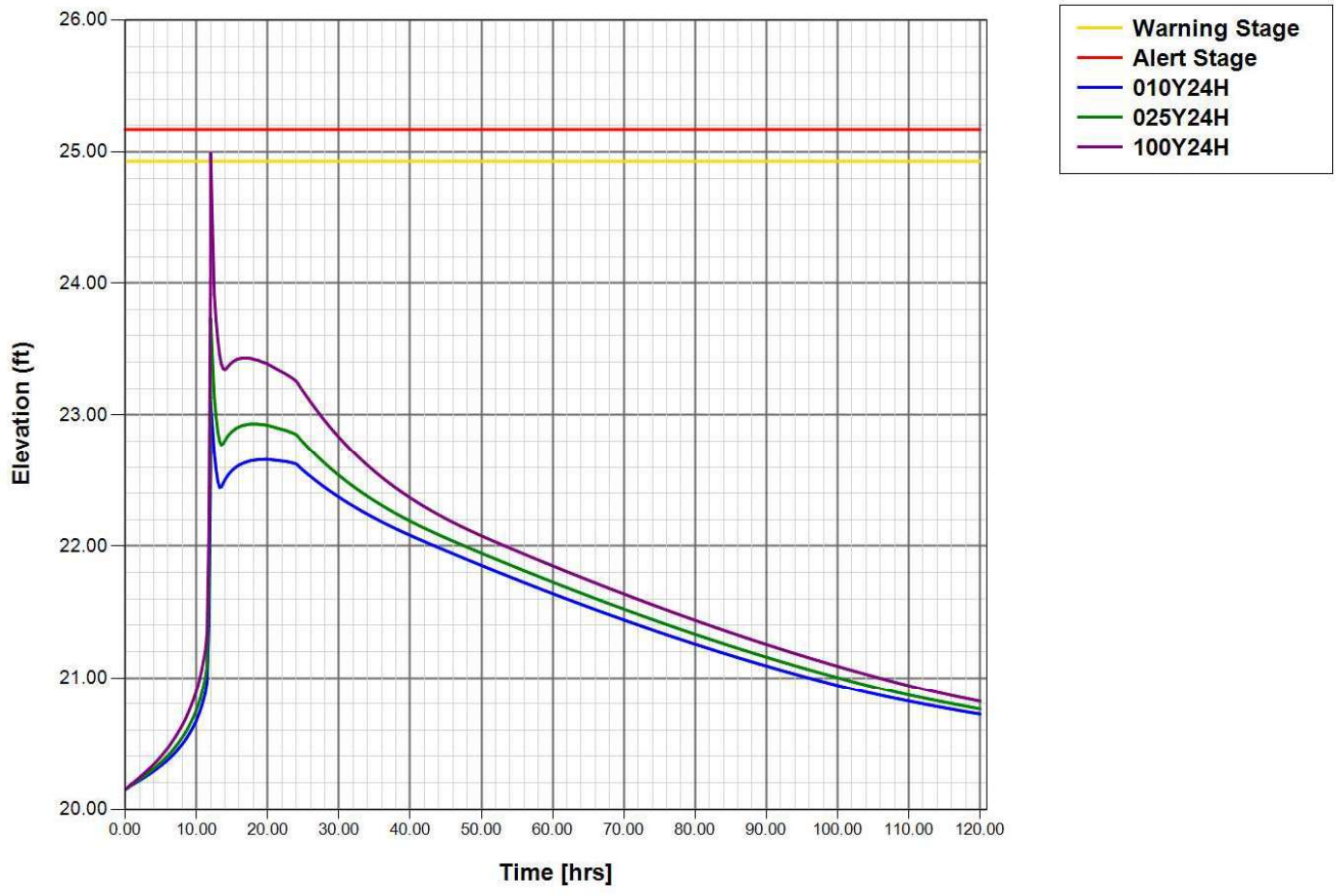
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS62	010Y24H	24.93	25.17	23.10	0.0010	1.85	1.75	100	12.1270	12.0652	12.0666	12.0944
DS62	025Y24H	24.93	25.17	23.73	0.0010	2.17	2.05	100	12.1234	12.0698	12.0666	12.0963
DS62	100Y24H	24.93	25.17	24.99	0.0010	2.74	2.59	100	12.1197	12.0851	12.0584	12.0999

Node Stage w/Warning and Alert Stage: DS62 [Scenario1]



Node: DS63

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.98 ft
Alert Stage: 25.12 ft

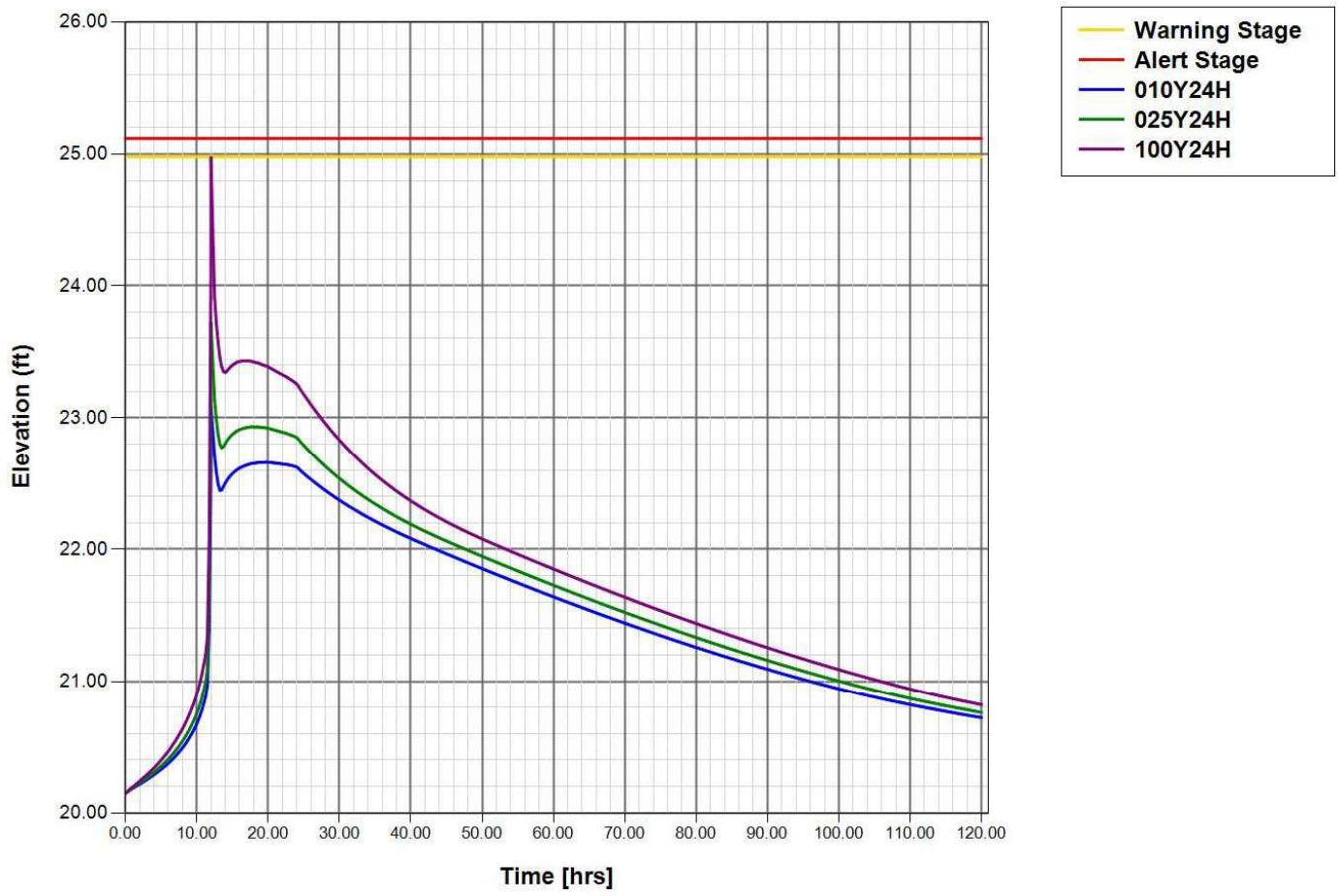
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS63	010Y24H	24.98	25.12	23.09	0.0010	1.33	1.25	100	12.1270	12.0652	12.0666	12.1062
DS63	025Y24H	24.98	25.12	23.72	0.0010	1.56	1.46	100	12.1232	12.0698	12.0666	12.1103
DS63	100Y24H	24.98	25.12	24.98	0.0010	1.98	1.86	100	12.1199	12.0851	12.0584	12.1213

Node Stage w/Warning and Alert Stage: DS63 [Scenario1]



Node: DS7

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 24.20 ft
Alert Stage: 24.34 ft

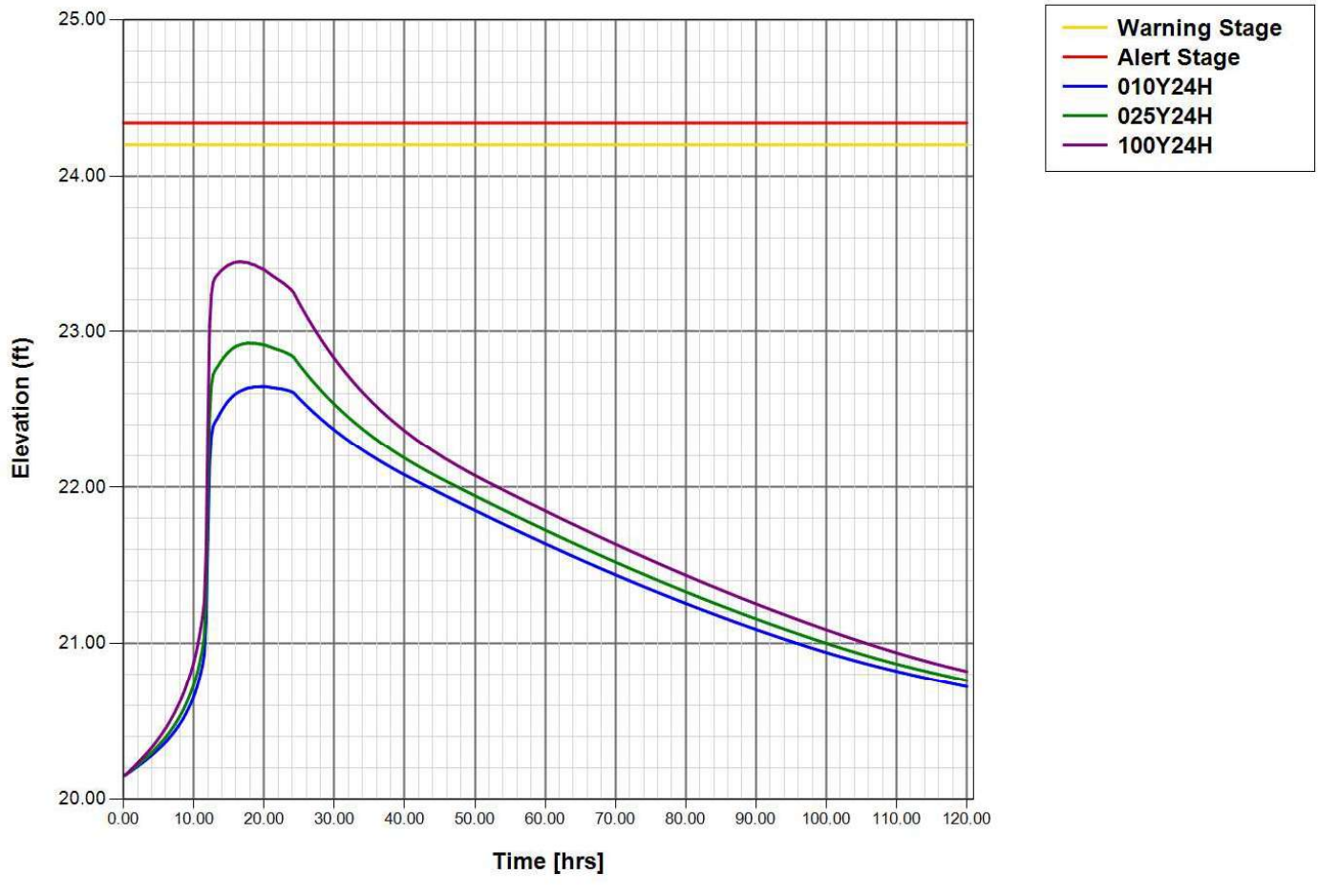
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS7	010Y24H	24.20	24.34	22.65	-0.0009	11.72	11.65	100	19.7196	13.4002	12.0862	12.0872
DS7	025Y24H	24.20	24.34	22.93	-0.0010	13.59	13.51	100	17.7014	13.4705	12.0888	12.0897
DS7	100Y24H	24.20	24.34	23.45	-0.0010	16.95	16.86	100	16.6308	14.6121	12.0930	12.0943

Node Stage w/Warning and Alert Stage: DS7 [Scenario1]



Node: DS9

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.78 ft
Alert Stage: 23.92 ft

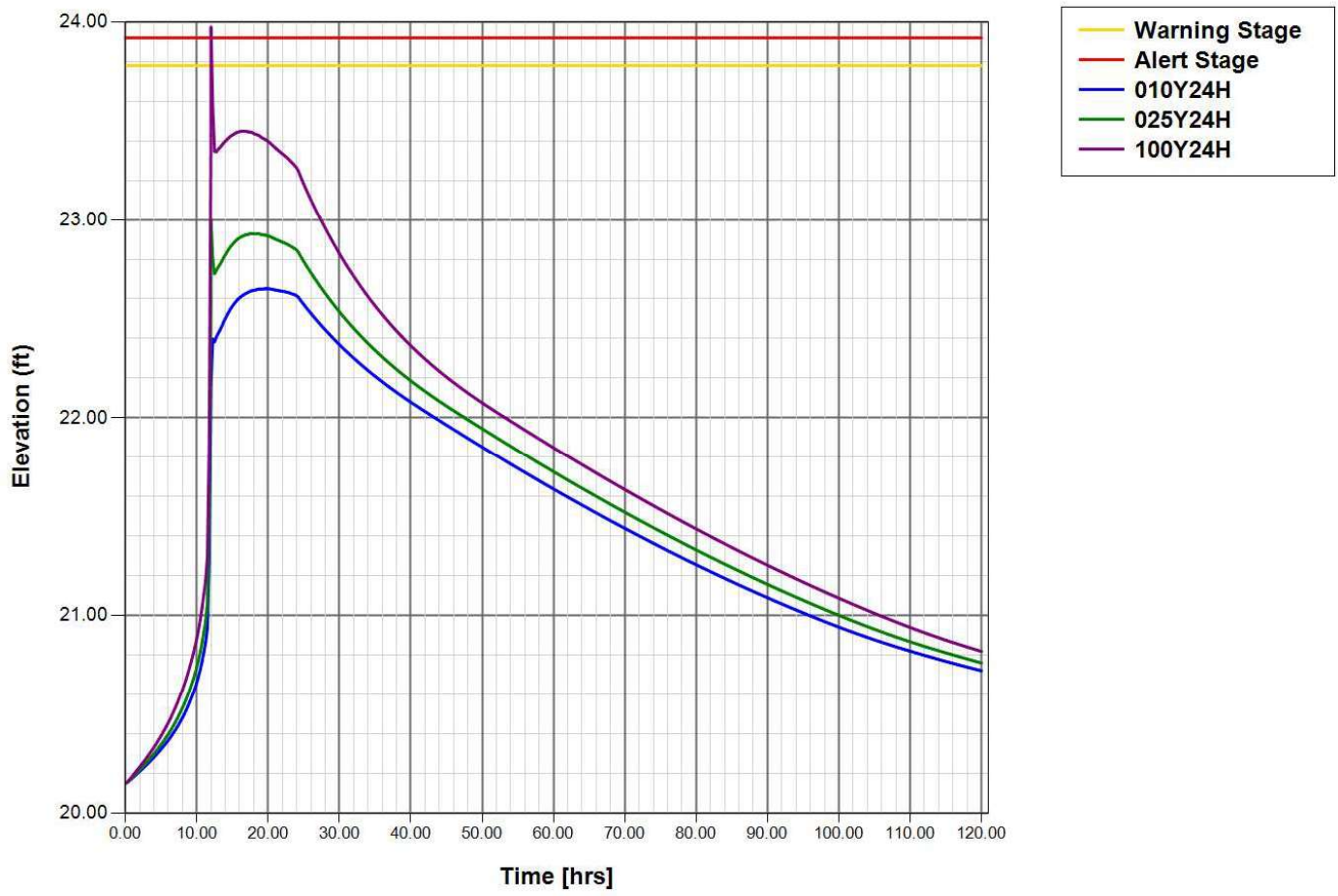
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0020	87
20.15	0.0020	87
8.15	0.0020	87

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS9	010Y24H	23.78	23.92	22.65	0.0007	7.39	7.32	181	19.6993	12.0516	12.0720	12.0768
DS9	025Y24H	23.78	23.92	23.00	0.0007	8.58	8.49	181	12.1177	12.0698	12.0718	12.0780
DS9	100Y24H	23.78	23.92	23.97	0.0007	10.73	10.63	181	12.1119	11.8110	12.0750	12.0807

Node Stage w/Warning and Alert Stage: DS9 [Scenario1]



Node: DS9A

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 25.10 ft
Alert Stage: 25.24 ft

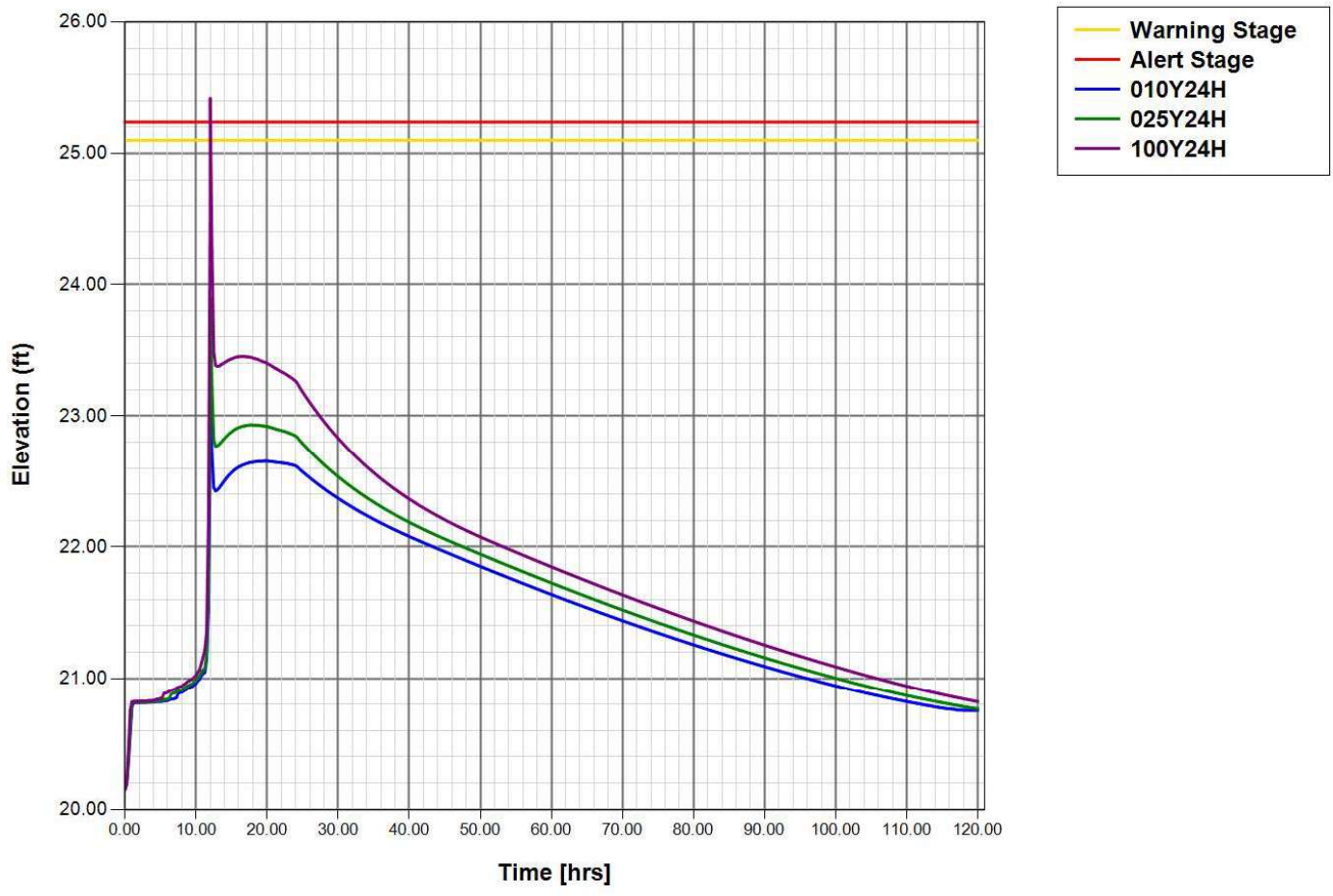
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.0010	44
20.15	0.0010	44
8.15	0.0010	44

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
DS9A	010Y24H	25.10	25.24	23.16	0.0010	4.13	4.04	122	12.1029	12.0097	12.0666	12.0816
DS9A	025Y24H	25.10	25.24	23.90	0.0010	4.83	4.73	121	12.1012	11.8703	12.0666	12.0833
DS9A	100Y24H	25.10	25.24	25.42	0.0010	6.10	5.96	121	12.0997	11.9319	12.0584	12.0861

Node Stage w/Warning and Alert Stage: DS9A [Scenario1]



Node: POND 1

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.15 ft
Alert Stage: 24.15 ft

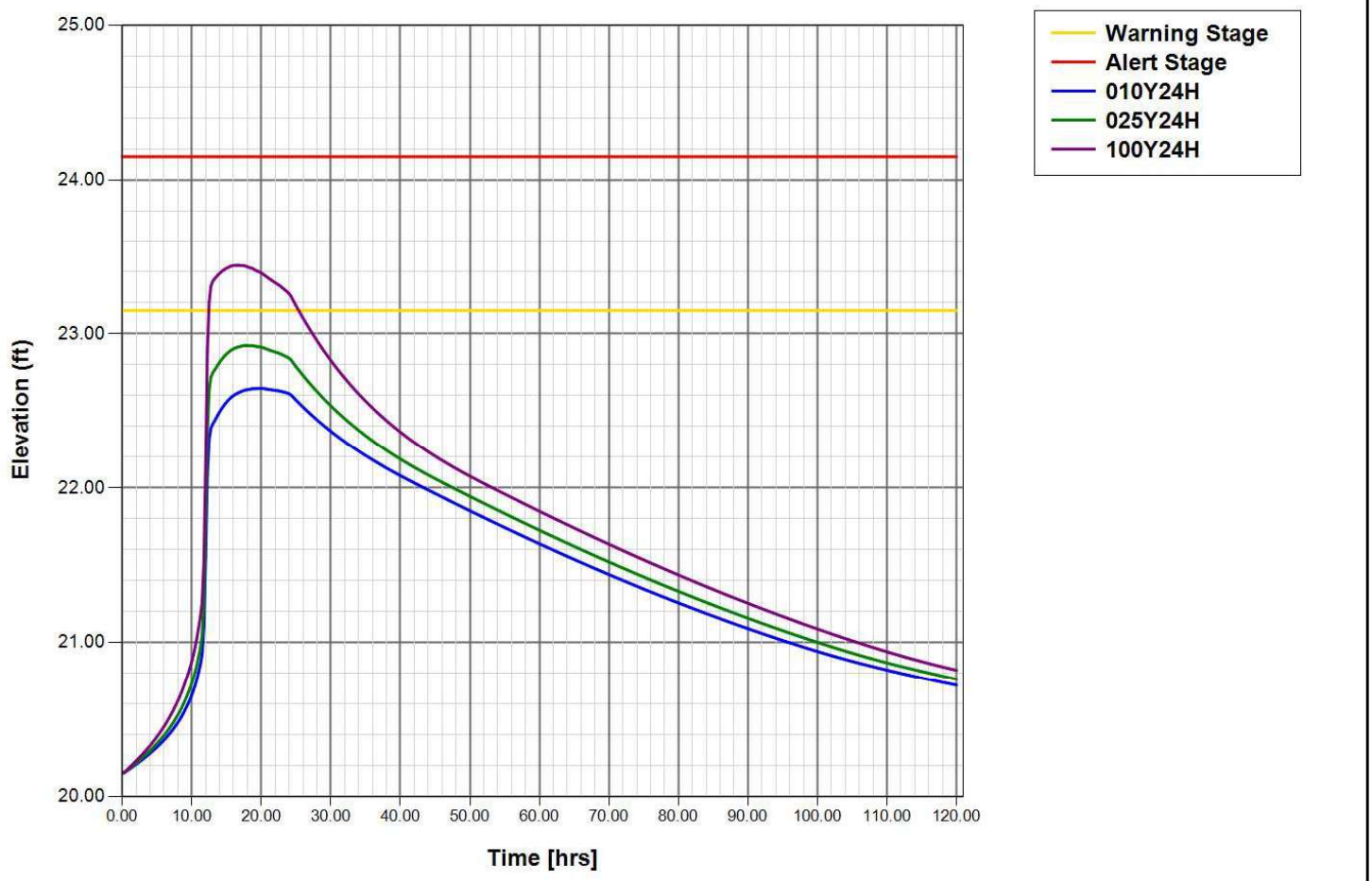
Stage [ft]	Area [ac]	Area [ft2]
24.15	2.5700	111949
20.15	1.7800	77537
8.15	0.8800	38333

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
POND 1	010Y24H	23.15	24.15	22.65	0.0007	68.72	8.25	99036	19.7556	12.0867	12.0675	12.4230
POND 1	025Y24H	23.15	24.15	22.92	0.0008	79.46	9.18	101424	17.7103	12.1203	12.0681	12.4471
POND 1	100Y24H	23.15	24.15	23.44	0.0007	98.94	10.76	105888	16.6372	12.1213	12.0692	12.4860

Node Stage w/Warning and Alert Stage: POND 1 [Scenario1]



Node: POND2

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.15 ft
Alert Stage: 24.15 ft

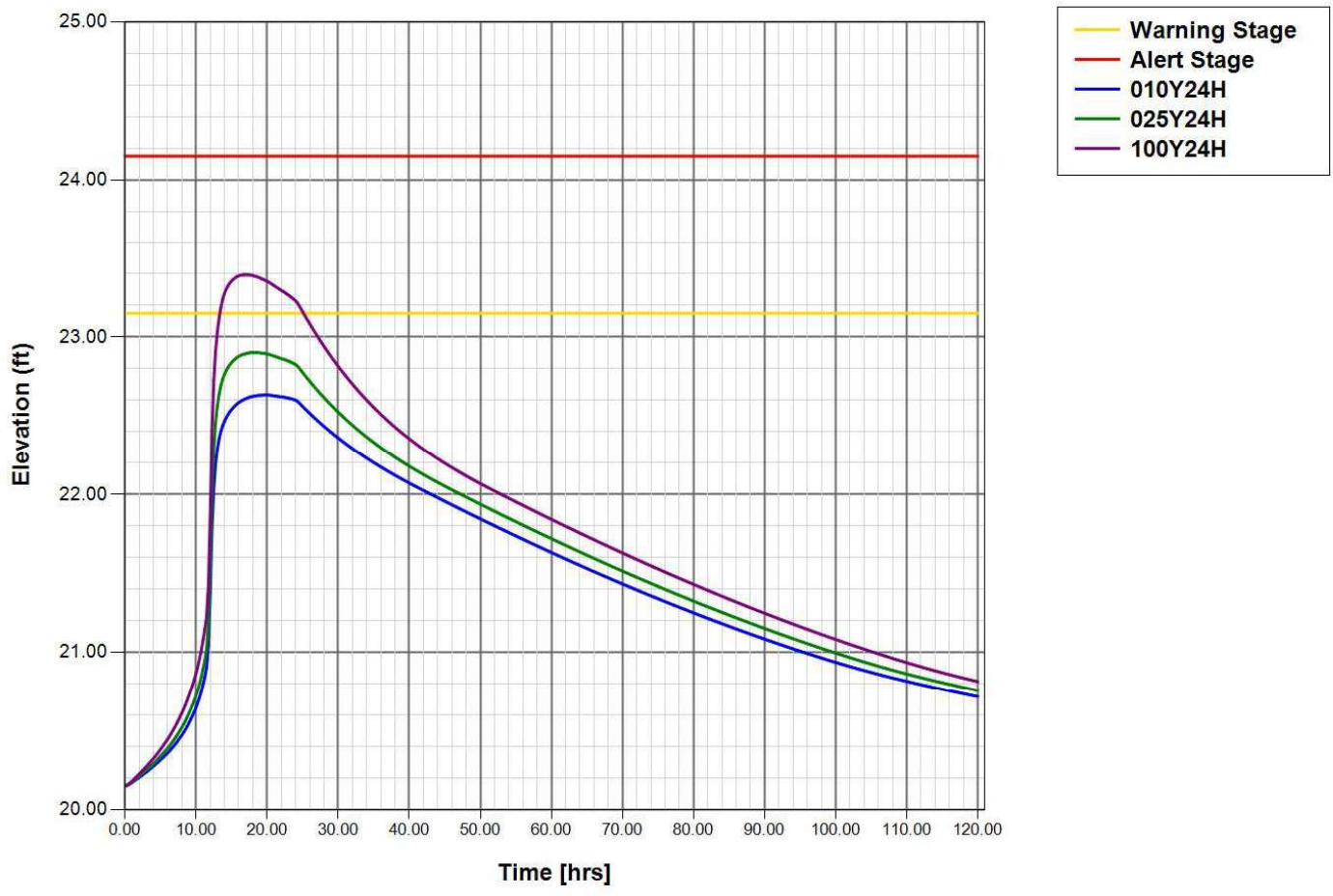
Stage [ft]	Area [ac]	Area [ft2]
24.15	5.5300	240887
20.15	3.8100	165964
8.15	1.6000	69696

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
POND2	010Y24H	23.15	24.15	22.63	0.0005	98.30	4.80	212495	19.8475	12.0867	12.0748	19.8283
POND2	025Y24H	23.15	24.15	22.90	0.0006	111.74	6.42	217528	18.6448	12.1203	12.0749	17.6805
POND2	100Y24H	23.15	24.15	23.39	0.0005	135.92	9.34	226755	16.8846	12.1213	12.0728	16.8831

Node Stage w/Warning and Alert Stage: POND2 [Scenario1]



Node: POND3

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 20.15 ft
Warning Stage: 23.15 ft
Alert Stage: 24.15 ft

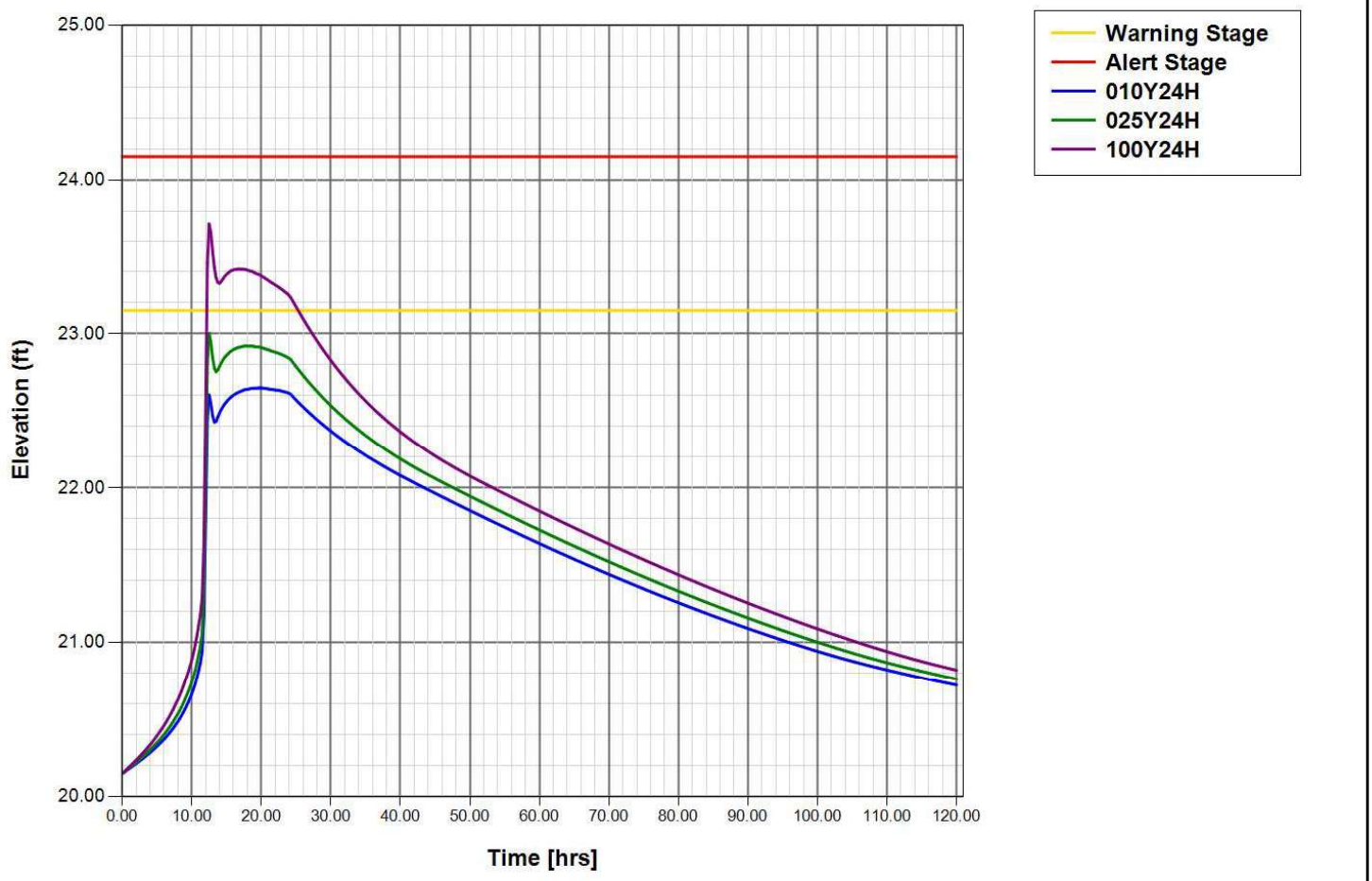
Stage [ft]	Area [ac]	Area [ft2]
24.15	0.8200	35719
20.15	0.4800	20909
8.15	0.0200	871

Comment:

Node Max Conditions w/ Times [Scenario1]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
POND3	010Y24H	23.15	24.15	22.65	0.0009	25.76	7.67	30171	19.7238	12.0867	12.0550	12.5269
POND3	025Y24H	23.15	24.15	23.00	0.0010	30.65	8.55	31474	12.5072	12.0866	12.0583	12.5516
POND3	100Y24H	23.15	24.15	23.71	0.0009	39.71	10.11	34095	12.5320	12.1129	12.0616	12.6860

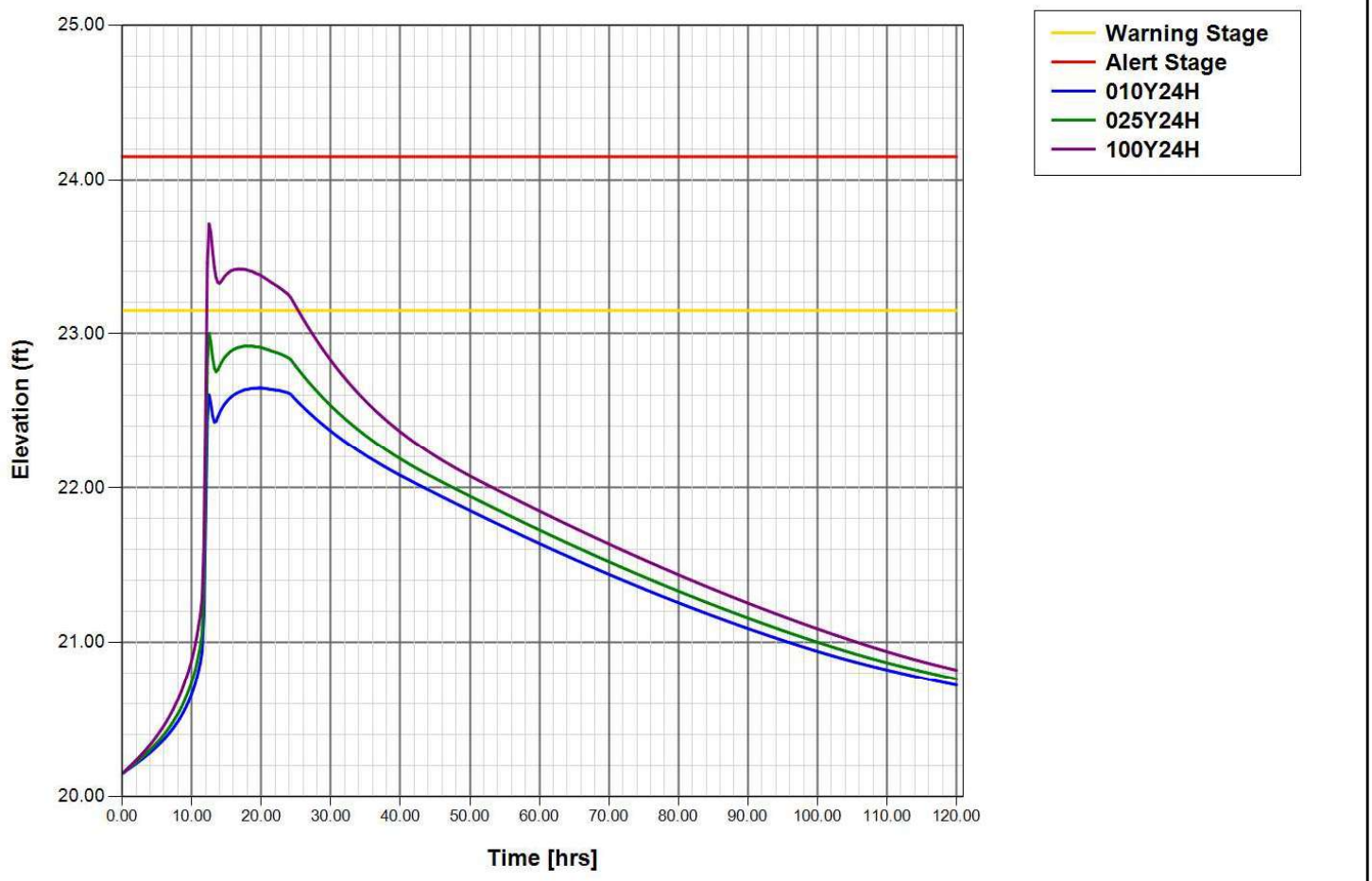
Node Stage w/Warning and Alert Stage: POND3 [Scenario1]



Pipe Link: PIPE 1-2		Upstream		Downstream	
Scenario:	Scenario1	Invert:	18.20 ft	Invert:	18.00 ft
From Node:	DS1	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	33.01 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

APPENDIX C-5
ICPR PIPE MAX CONDITIONS W/ TIMES

Node Stage w/Warning and Alert Stage: POND3 [Scenario1]



Pipe Link: PIPE 1-2		Upstream		Downstream	
Scenario:	Scenario1	Invert:	18.20 ft	Invert:	18.00 ft
From Node:	DS1	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	33.01 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 1-2	010Y24H	4.39	0.00	0.41	2.48	2.48	12.0889	0.0000	12.8714	12.0889	12.0889
PIPE 1-2	025Y24H	5.11	0.00	-0.50	2.89	2.89	12.0917	0.0000	13.4698	12.0917	12.0917
PIPE 1-2	100Y24H	6.41	0.00	0.50	3.63	3.63	12.0954	0.0000	13.4125	12.0954	12.0954

Pipe Link: PIPE 10-POND 1		Upstream		Downstream	
Scenario:	Scenario1	Invert:	15.00 ft	Invert:	15.00 ft
From Node:	DS10	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	POND 1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	73.80 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 10-POND 1	010Y24H	8.99	0.00	-0.08	2.86	2.86	12.0753	0.0000	14.1275	12.0753	12.0753
PIPE 10-POND 1	025Y24H	10.42	0.00	-0.08	3.32	3.32	12.0761	0.0000	15.8504	12.0761	12.0761
PIPE	100Y24H	13.01	0.00	-0.10	4.14	4.14	12.0782	0.0000	15.7763	12.0782	12.0782

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
10-POND 1											

Pipe Link: PIPE 12-13		Upstream		Downstream	
Scenario:	Scenario1	Invert:	17.00 ft	Invert:	17.00 ft
From Node:	DS12	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS13	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	38.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 12-13	010Y24H	7.68	0.00	-1.89	2.42	0.97	12.0677	0.0000	12.8603	12.0677	12.0677
PIPE 12-13	025Y24H	8.85	0.00	-1.70	2.79	1.12	12.0708	0.0000	13.0990	12.0708	12.0708
PIPE 12-13	100Y24H	11.08	0.00	-1.77	3.50	1.40	12.0728	0.0000	13.0646	12.0728	12.0728

Pipe Link: PIPE 12A-12		Upstream		Downstream	
Scenario:	Scenario1	Invert:	21.25 ft	Invert:	18.00 ft
From Node:	DS12A	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS12	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	128.50 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 12A-12	010Y24H	3.85	0.00	0.06	3.16	3.14	12.0690	0.0000	13.4111	12.0735	12.0690
PIPE 12A-12	025Y24H	4.45	0.00	0.05	3.63	3.63	12.0782	0.0000	13.0983	12.0782	12.0782
PIPE 12A-12	100Y24H	5.64	0.00	0.05	4.59	4.59	12.0801	0.0000	13.2502	12.0801	12.0801

Pipe Link: PIPE 13-POND2		Upstream		Downstream	
Scenario:	Scenario1	Invert:	15.50 ft	Invert:	15.15 ft
From Node:	DS13	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	POND2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	76.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow	Min Flow	Min/Max	Max Us	Max Ds	Time to	Time to	Time to	Time to	Time to

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 13-POND2	010Y24H	9.57	0.00	-0.47	3.05	3.05	12.0675	0.0000	13.4112	12.0675	12.0675
PIPE 13-POND2	025Y24H	11.03	0.00	-0.60	3.51	3.51	12.0700	0.0000	13.4758	12.0700	12.0700
PIPE 13-POND2	100Y24H	13.78	0.00	0.51	4.39	4.39	12.0716	0.0000	13.4160	12.0716	12.0716

Pipe Link: PIPE 15-16		Upstream		Downstream	
Scenario:	Scenario1	Invert:	19.00 ft	Invert:	19.00 ft
From Node:	DS16	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS15	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	33.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 15-16	010Y24H	3.30	0.00	0.19	1.87	1.87	12.0701	0.0513	4.1518	12.0701	12.0701
PIPE 15-16	025Y24H	3.80	0.00	0.20	2.15	2.15	12.0710	0.0488	3.7200	12.0710	12.0710
PIPE 15-16	100Y24H	4.70	0.00	0.24	2.66	2.66	12.0728	0.0449	3.1464	12.0728	12.0728

Pipe Link: PIPE 18-17		Upstream		Downstream	
Scenario:	Scenario1	Invert:	18.00 ft	Invert:	17.00 ft

From Node:	DS28	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS29	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	118.50 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 18-17	010Y24H	2.94	0.00	-0.13	1.67	1.67	12.0779	0.0799	12.8704	12.0779	12.0779
PIPE 18-17	025Y24H	3.46	0.00	-0.19	1.96	1.96	12.0784	0.0760	13.4623	12.0784	12.0784
PIPE 18-17	100Y24H	4.40	0.00	0.24	2.49	2.49	12.0798	0.0709	13.4192	12.0798	12.0798

Pipe Link: PIPE 18-19		Upstream		Downstream	
Scenario:	Scenario1	Invert:	18.00 ft	Invert:	19.00 ft
From Node:	DS19	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS18	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	43.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 18-19	010Y24H	8.71	0.00	2.07	1.77	1.77	12.3696	29.5806	28.4640	12.3696	12.3696
PIPE 18-19	025Y24H	9.65	0.00	-2.08	1.97	1.97	12.3939	0.1075	32.9372	12.3939	12.3939
PIPE 18-19	100Y24H	11.27	0.00	-2.10	2.30	2.30	12.4365	37.9773	37.9773	12.4365	12.4365

Pipe Link: PIPE 19-POND 1		Upstream		Downstream	
Scenario:	Scenario1	Invert:	15.00 ft	Invert:	17.00 ft
From Node:	POND 1	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS19	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	72.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 19-POND 1	010Y24H	8.25	-0.01	1.42	1.68	1.68	12.4230	0.2697	31.9093	12.4230	12.4230
PIPE 19-POND 1	025Y24H	9.18	-0.01	1.38	1.87	1.87	12.4471	0.2540	37.6512	12.4471	12.4471
PIPE 19-POND 1	100Y24H	10.76	-0.01	1.38	2.19	2.19	12.4860	0.2498	46.1768	12.4860	12.4860

Pipe Link: PIPE 1A-1		Upstream		Downstream	
Scenario:	Scenario1	Invert:	20.50 ft	Invert:	20.00 ft
From Node:	DS-1A	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	128.52 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 1A-1	010Y24H	2.79	0.00	-0.04	2.28	2.28	12.0867	0.0000	13.3543	12.0867	12.0867
PIPE 1A-1	025Y24H	3.27	0.00	0.05	2.66	2.66	12.0885	0.0000	13.4698	12.0885	12.0885
PIPE 1A-1	100Y24H	4.12	0.00	0.05	3.36	3.36	12.0921	0.0000	17.6346	12.0921	12.0921

Pipe Link: PIPE 2-5		Upstream		Downstream	
Scenario:	Scenario1	Invert:	18.00 ft	Invert:	17.00 ft
From Node:	DS2	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS5	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	260.05 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 2-5	010Y24H	6.42	0.00	1.07	1.31	1.31	12.0952	0.0965	12.8713	12.0952	12.0952
PIPE 2-5	025Y24H	7.49	0.00	-1.20	1.53	1.53	12.0978	0.1036	13.0986	12.0978	12.0978
PIPE 2-5	100Y24H	9.40	0.00	1.23	1.92	1.92	12.1039	0.0857	13.2601	12.1039	12.1039

Pipe Link: PIPE 21-22		Upstream		Downstream	
Scenario:	Scenario1	Invert:	17.00 ft	Invert:	17.00 ft
From Node:	DS21	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS22	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	33.67 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 21-22	010Y24H	2.95	0.00	-0.10	1.67	1.67	12.0631	0.0000	12.8689	12.0631	12.0631
PIPE 21-22	025Y24H	3.40	0.00	0.10	1.92	1.92	12.0635	0.0000	13.1006	12.0635	12.0635
PIPE 21-22	100Y24H	4.21	0.00	0.17	2.38	2.38	12.0644	0.0000	13.4157	12.0644	12.0644

Pipe Link: PIPE 22-POND1		Upstream		Downstream	
Scenario:	Scenario1	Invert:	17.00 ft	Invert:	15.00 ft
From Node:	DS22	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	POND 1	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	158.51 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 22-POND1	010Y24H	6.01	0.00	-0.09	1.91	1.91	12.0627	0.0000	13.5133	12.0627	12.0627
PIPE 22-POND1	025Y24H	6.93	0.00	-0.08	2.21	2.21	12.0629	0.0000	14.0602	12.0629	12.0629
PIPE 22-POND1	100Y24H	8.59	0.00	-0.12	2.74	2.74	12.0638	0.0000	13.4157	12.0638	12.0638

Pipe Link: PIPE 24-25		Upstream		Downstream	
Scenario:	Scenario1	Invert:	19.00 ft	Invert:	18.00 ft
From Node:	DS24	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS25	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	118.50 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 24-25	010Y24H	3.91	0.00	0.17	2.21	2.21	12.0739	0.0621	13.4121	12.0739	12.0739
PIPE 24-25	025Y24H	4.60	0.00	-0.26	2.60	2.60	12.0743	0.0578	13.4698	12.0743	12.0743
PIPE 24-25	100Y24H	5.85	0.00	0.12	3.31	3.31	12.0751	0.0592	13.4192	12.0751	12.0751

Pipe Link: PIPE 25-26		Upstream		Downstream	
Scenario:	Scenario1	Invert:	17.50 ft	Invert:	17.50 ft
From Node:	DS25	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS26	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	33.04 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 25-26	010Y24H	8.28	0.00	-0.80	2.64	2.64	12.0690	0.0000	13.4121	12.0690	12.0690
PIPE 25-26	025Y24H	9.63	0.00	1.09	3.07	3.07	12.0692	0.0000	13.4698	12.0692	12.0692
PIPE 25-26	100Y24H	12.08	0.00	-0.86	3.84	3.84	12.0700	0.0000	13.4187	12.0700	12.0700

Pipe Link: PIPE 26-POND1	Upstream	Downstream

Scenario:	Scenario1	Invert:	17.50 ft	Invert:	15.00 ft
From Node:	DS26	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	POND 1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	167.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 26-POND1	010Y24H	12.38	0.00	0.65	2.52	2.52	12.0675	0.0000	13.4121	12.0675	12.0675
PIPE 26-POND1	025Y24H	14.35	0.00	0.95	2.92	2.92	12.0676	0.0000	13.4699	12.0676	12.0676
PIPE 26-POND1	100Y24H	17.93	0.00	0.51	3.65	3.65	12.0679	0.0000	13.4192	12.0679	12.0679

Pipe Link: PIPE 29-30		Upstream		Downstream	
Scenario:	Scenario1	Invert:	17.00 ft	Invert:	16.75 ft
From Node:	DS29	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS30	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	41.47 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 29-30	010Y24H	6.85	0.00	-0.57	2.18	2.18	12.0713	0.0000	13.4157	12.0713	12.0713
PIPE 29-30	025Y24H	7.96	0.00	0.74	2.53	2.53	12.0722	0.0000	13.4623	12.0722	12.0722
PIPE 29-30	100Y24H	9.97	0.00	-0.87	3.17	3.17	12.0742	0.0000	13.4192	12.0742	12.0742

Pipe Link: PIPE 3-2		Upstream		Downstream	
Scenario:	Scenario1	Invert:	18.75 ft	Invert:	18.50 ft
From Node:	DS3	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	26.14 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 3-2	010Y24H	1.51	0.00	-0.29	1.23	1.23	12.0924	0.1120	12.8705	12.0924	12.0924
PIPE 3-2	025Y24H	1.77	0.00	-0.33	1.44	1.44	12.0965	0.1075	13.0988	12.0965	12.0965
PIPE 3-2	100Y24H	2.24	0.00	-0.34	1.82	1.82	12.1001	0.0968	13.2648	12.1001	12.1001

Pipe Link: PIPE 30-31		Upstream		Downstream	
Scenario:	Scenario1	Invert:	16.75 ft	Invert:	16.50 ft
From Node:	DS30	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS31	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	113.51 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 30-31	010Y24H	9.64	0.00	0.46	3.07	3.07	12.0704	0.0000	13.4113	12.0704	12.0704
PIPE 30-31	025Y24H	11.19	0.00	0.50	3.56	3.56	12.0712	0.0000	13.4628	12.0712	12.0712
PIPE 30-31	100Y24H	13.99	0.00	0.36	4.45	4.45	12.0732	0.0000	14.2148	12.0732	12.0732

Pipe Link: PIPE 31-POND2		Upstream		Downstream	
Scenario:	Scenario1	Invert:	16.50 ft	Invert:	15.00 ft
From Node:	DS31	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	POND2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	66.61 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 31-POND2	010Y24H	9.59	0.00	-0.53	1.95	1.95	12.0711	0.0000	13.4113	12.0711	12.0711
PIPE 31-POND2	025Y24H	11.13	0.00	-0.66	2.27	2.27	12.0718	0.0000	13.4628	12.0718	12.0718
PIPE 31-POND2	100Y24H	13.92	0.00	-0.43	2.84	2.84	12.0740	0.0000	13.4203	12.0740	12.0740

Pipe Link: PIPE 33-34		Upstream		Downstream	
Scenario:	Scenario1	Invert:	18.00 ft	Invert:	17.75 ft
From Node:	DS33	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS34	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	69.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 33-34	010Y24H	2.63	0.00	-0.73	0.84	0.84	12.0781	62.5340	12.8686	12.0781	12.0781
PIPE 33-34	025Y24H	3.07	0.00	0.67	0.98	0.98	12.0791	45.9389	12.5949	12.0791	12.0791
PIPE 33-34	100Y24H	3.87	0.00	0.80	1.23	1.23	12.0820	42.1379	12.6519	12.0820	12.0820

Pipe Link: PIPE 33A-33	Upstream	Downstream

			Upstream		Downstream
Scenario:	Scenario1	Invert:	19.00 ft	Invert:	18.00 ft
From Node:	DS33A	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS33	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	66.91 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 33A-33	010Y24H	1.30	0.00	-0.17	1.06	1.06	12.0797	100.9186	12.8678	12.0797	12.0797
PIPE 33A-33	025Y24H	1.52	0.00	-0.12	1.24	1.24	12.0816	117.2691	12.8901	12.0816	12.0816
PIPE 33A-33	100Y24H	1.94	0.00	0.13	1.58	1.58	12.0842	111.8120	13.4187	12.0842	12.0842

Pipe Link: PIPE 34-35			Upstream		Downstream
Scenario:	Scenario1	Invert:	17.75 ft	Invert:	17.50 ft
From Node:	DS34	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS35	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	124.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 34-35	010Y24H	5.72	0.00	0.67	1.82	1.82	12.0779	115.7919	12.8744	12.0779	12.0779
PIPE 34-35	025Y24H	6.69	0.00	0.60	2.13	2.13	12.0774	30.1497	13.1786	12.0774	12.0774
PIPE 34-35	100Y24H	8.46	0.00	0.73	2.69	2.69	12.0800	57.3004	13.4256	12.0800	12.0800

Pipe Link: PIPE 34A-34		Upstream		Downstream	
Scenario:	Scenario1	Invert:	18.00 ft	Invert:	17.75 ft
From Node:	DS34A	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS34	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	63.19 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 34A-34	010Y24H	2.19	0.00	-0.40	1.24	1.24	12.0753	31.7787	12.8686	12.0753	12.0753
PIPE 34A-34	025Y24H	2.59	0.00	0.24	1.46	1.46	12.0753	36.1818	12.8901	12.0753	12.0753
PIPE 34A-34	100Y24H	3.30	0.00	-0.38	1.87	1.87	12.0756	45.5335	13.4187	12.0756	12.0756

Pipe Link: Pipe 35-37	Upstream	Downstream

Scenario:	Scenario1	Invert:	17.50 ft	Invert:	16.75 ft
From Node:	DS35	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS37	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	119.63 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Material: 24" RCP

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
Pipe 35-37	010Y24H	5.67	-0.16	-1.41	1.16	1.16	12.0781	49.3153	12.7418	12.0781	12.0781
Pipe 35-37	025Y24H	6.61	-0.14	-1.25	1.35	1.35	12.0797	69.5122	11.4901	12.0797	12.0797
Pipe 35-37	100Y24H	8.36	-0.23	-1.46	1.70	1.70	12.0825	36.8480	13.1631	12.0825	12.0825

Pipe Link: PIPE 36-37		Upstream		Downstream	
Scenario:	Scenario1	Invert:	16.75 ft	Invert:	16.75 ft
From Node:	DS36	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS37	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	33.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 36-37	010Y24H	1.89	-0.14	1.29	0.60	0.60	12.2155	54.0679	11.7450	12.2155	12.2155
PIPE 36-37	025Y24H	2.13	-0.14	1.36	0.68	0.68	12.0668	54.2134	11.7026	12.0668	12.0668
PIPE 36-37	100Y24H	2.66	-0.21	1.19	0.85	0.85	12.0669	36.8480	12.3473	12.0669	12.0669

Pipe Link: PIPE 37-37A		Upstream		Downstream	
Scenario:	Scenario1	Invert:	16.75 ft	Invert:	16.50 ft
From Node:	DS37	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS37A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	37.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 37-37A	010Y24H	17.19	-0.54	4.42	1.79	1.79	12.1748	74.1704	13.3838	12.1748	12.1748
PIPE 37-37A	025Y24H	18.80	-0.36	4.33	1.95	1.95	12.1774	98.3642	13.6454	12.1774	12.1774
PIPE 37-37A	100Y24H	21.75	-0.42	4.50	2.26	2.26	12.1938	90.3000	14.1640	12.1938	12.1938

Pipe Link: PIPE 37A-37B	Upstream	Downstream

Scenario:	Scenario1	Invert:	15.00 ft	Invert:	15.00 ft
From Node:	DS37A	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS37B	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	111.04 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 37A-37B	010Y24H	17.09	-0.64	3.63	1.78	1.78	12.1750	89.0048	16.6745	12.1750	12.1750
PIPE 37A-37B	025Y24H	18.84	-0.44	3.56	1.96	1.96	12.1786	86.1833	9.7241	12.1786	12.1786
PIPE 37A-37B	100Y24H	21.81	-0.71	3.78	2.27	2.27	12.1948	101.7793	9.4614	12.1948	12.1948

Pipe Link: PIPE 37B-38		Upstream		Downstream	
Scenario:	Scenario1	Invert:	15.00 ft	Invert:	15.00 ft
From Node:	DS37B	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS38	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	122.42 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 37B-38	010Y24H	17.98	-0.25	-3.65	1.87	1.87	12.1627	83.5104	14.2868	12.1627	12.1627
PIPE 37B-38	025Y24H	19.94	-0.34	3.53	2.07	2.07	12.1668	109.1262	19.8276	12.1668	12.1668
PIPE 37B-38	100Y24H	23.16	-0.43	3.55	2.41	2.41	12.1706	106.6345	21.4505	12.1706	12.1706

Pipe Link: PIPE 38-39		Upstream		Downstream	
Scenario:	Scenario1	Invert:	15.00 ft	Invert:	15.00 ft
From Node:	DS38	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS39	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	77.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 38-39	010Y24H	18.65	-0.18	3.87	1.94	1.94	12.1621	97.3357	14.2868	12.1621	12.1621
PIPE 38-39	025Y24H	20.74	-0.20	4.12	2.16	2.16	12.1476	98.8907	13.5824	12.1476	12.1476
PIPE 38-39	100Y24H	24.19	-0.24	3.93	2.51	2.51	12.1387	103.9297	14.2645	12.1387	12.1387

Pipe Link: PIPE 39-POND2	Upstream	Downstream

Scenario:	Scenario1	Invert:	15.00 ft	Invert:	15.00 ft
From Node:	DS39	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	POND2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	109.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 39-POND2	010Y24H	22.74	-0.05	2.54	2.36	2.36	12.1179	110.4737	10.6180	12.1179	12.1179
PIPE 39-POND2	025Y24H	25.52	0.00	-2.67	2.65	2.65	12.1112	94.0075	9.8673	12.1112	12.1112
PIPE 39-POND2	100Y24H	30.43	0.00	-2.50	3.16	3.16	12.1036	97.0184	8.7611	12.1036	12.1036

Pipe Link: PIPE 4-5		Upstream		Downstream	
Scenario:	Scenario1	Invert:	19.00 ft	Invert:	18.80 ft
From Node:	DS4	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS5	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	36.29 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 4-5	010Y24H	2.61	0.00	0.44	1.48	1.48	12.0746	0.0000	12.8713	12.0746	12.0746
PIPE 4-5	025Y24H	3.00	0.00	-0.48	1.70	1.70	12.0757	0.0000	13.0997	12.0757	12.0757
PIPE 4-5	100Y24H	3.70	0.00	0.50	2.10	2.10	12.0770	0.0000	13.2530	12.0770	12.0770

Pipe Link: PIPE 42-37		Upstream		Downstream	
Scenario:	Scenario1	Invert:	15.00 ft	Invert:	15.00 ft
From Node:	DS42	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS37	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	191.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 42-37	010Y24H	11.17	-0.01	1.17	2.28	2.28	12.3571	0.1886	19.7354	12.3571	12.3571
PIPE 42-37	025Y24H	12.30	-0.01	1.20	2.51	2.51	12.3893	0.2003	22.2224	12.3893	12.3893
PIPE 42-37	100Y24H	14.17	-0.01	1.16	2.89	2.89	12.4297	0.1911	9.0606	12.4297	12.4297

Pipe Link: PIPE 42-43		Upstream		Downstream	
Scenario:	Scenario1	Invert:	17.00 ft	Invert:	17.00 ft
From Node:	DS42	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS43	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	33.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 42-43	010Y24H	0.03	-7.42	-2.04	-1.51	-1.51	107.9066	12.0680	11.5064	12.0680	12.0680
PIPE 42-43	025Y24H	0.03	-8.67	-2.22	-1.77	-1.77	100.3172	12.0681	11.4520	12.0681	12.0681
PIPE 42-43	100Y24H	0.03	-10.95	-2.03	-2.23	-2.23	105.8185	12.0688	13.2623	12.0688	12.0688

Pipe Link: PIPE 43A-43		Upstream		Downstream	
Scenario:	Scenario1	Invert:	17.10 ft	Invert:	17.00 ft
From Node:	DS43A	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS43	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	59.39 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 43A-43	010Y24H	3.96	0.00	-1.79	0.81	0.81	12.0781	0.1222	11.6150	12.0781	12.0781
PIPE 43A-43	025Y24H	4.65	0.00	1.80	0.95	0.95	12.0712	11.4223	11.6823	12.0712	12.0712
PIPE 43A-43	100Y24H	5.91	0.00	1.76	1.20	1.20	12.0727	10.7744	12.5944	12.0727	12.0727

Pipe Link: PIPE 44-45		Upstream		Downstream	
Scenario:	Scenario1	Invert:	17.00 ft	Invert:	17.00 ft
From Node:	DS44	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS45	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	34.06 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 44-45	010Y24H	8.10	0.00	2.89	1.60	0.64	12.0870	0.0780	11.6555	12.0870	12.0870
PIPE 44-45	025Y24H	9.40	-0.05	2.93	1.86	0.74	12.0893	0.1443	12.6344	12.0893	12.0893
PIPE 44-45	100Y24H	11.75	0.00	2.95	2.32	0.93	12.0936	0.1178	12.6918	12.0936	12.0936

Pipe Link: PIPE 44A-44	Upstream	Downstream

		Upstream		Downstream	
Scenario:	Scenario1	Invert:	17.25 ft	Invert:	17.00 ft
From Node:	DS44A	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS44	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	126.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 44A-44	010Y24H	4.31	0.00	1.48	0.88	0.88	12.0983	0.0799	11.6556	12.0983	12.0983
PIPE 44A-44	025Y24H	5.04	0.00	-1.48	1.03	1.03	12.1042	0.1501	11.5757	12.1042	12.1042
PIPE 44A-44	100Y24H	6.38	0.00	1.45	1.30	1.30	12.1107	0.0847	12.6834	12.1107	12.1107

Pipe Link: PIPE 45-47		Upstream		Downstream	
Scenario:	Scenario1	Invert:	17.00 ft	Invert:	16.75 ft
From Node:	DS45	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS47	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	222.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 45-47	010Y24H	10.52	-0.03	1.15	2.14	2.14	12.0852	0.2118	13.2850	12.0852	12.0852
PIPE 45-47	025Y24H	12.18	0.00	1.10	2.48	2.48	12.0874	0.0977	13.5824	12.0874	12.0874
PIPE 45-47	100Y24H	15.19	-0.04	-1.16	3.10	3.10	12.0911	0.1797	14.2923	12.0911	12.0911

Pipe Link: PIPE 46-47		Upstream		Downstream	
Scenario:	Scenario1	Invert:	16.75 ft	Invert:	16.75 ft
From Node:	DS46	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS47	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.65 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 46-47	010Y24H	3.43	-0.16	0.86	1.09	1.09	12.0692	0.2118	12.5269	12.0692	12.0692
PIPE 46-47	025Y24H	3.96	-0.07	0.82	1.26	1.26	12.0700	0.2336	12.5949	12.0700	12.0700
PIPE 46-47	100Y24H	4.90	-0.14	0.73	1.56	1.56	12.0723	0.1797	11.5390	12.0723	12.0723

Pipe Link: PIPE 47-48	Upstream	Downstream

Scenario:	Scenario1	Invert:	16.75 ft	Invert:	16.50 ft
From Node:	DS47	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS48	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	113.50 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 47-48	010Y24H	17.02	-0.01	-1.58	3.47	3.47	12.0790	0.1059	10.1966	12.0790	12.0790
PIPE 47-48	025Y24H	19.67	0.00	1.67	4.01	4.01	12.0809	0.0965	9.3891	12.0809	12.0809
PIPE 47-48	100Y24H	24.45	0.00	1.55	4.98	4.98	12.0840	0.0889	15.7286	12.0840	12.0840

Pipe Link: PIPE 48-POND3		Upstream		Downstream	
Scenario:	Scenario1	Invert:	16.50 ft	Invert:	15.00 ft
From Node:	DS48	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	POND3	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	68.27 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 48-POND3	010Y24H	16.93	0.00	1.19	3.45	3.45	12.0803	0.1052	10.1805	12.0803	12.0803
PIPE 48-POND3	025Y24H	19.56	-0.01	1.24	3.98	3.98	12.0823	0.1443	9.7562	12.0823	12.0823
PIPE 48-POND3	100Y24H	24.33	0.00	-1.23	4.96	4.96	12.0857	0.0914	15.7286	12.0857	12.0857

Pipe Link: PIPE 5-6		Upstream		Downstream	
Scenario:	Scenario1	Invert:	17.00 ft	Invert:	16.50 ft
From Node:	DS5	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS6	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	113.52 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 5-6	010Y24H	11.00	0.00	0.71	3.50	3.50	12.0864	0.0000	10.4356	12.0864	12.0864
PIPE 5-6	025Y24H	12.74	0.00	0.66	4.06	4.06	12.0893	0.0000	9.8989	12.0893	12.0893
PIPE 5-6	100Y24H	15.88	0.00	0.67	5.06	5.06	12.0936	0.0000	10.0591	12.0936	12.0936

Pipe Link: Pipe 53-39		Upstream		Downstream	
Scenario:	Scenario1	Invert:	18.00 ft	Invert:	17.75 ft
From Node:	DS52	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS39	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	94.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
Pipe 53-39	010Y24H	1.74	-0.16	0.93	0.55	0.55	12.0597	36.3522	12.4074	12.0597	12.0597
Pipe 53-39	025Y24H	2.00	-0.17	0.93	0.64	0.64	12.0597	58.6531	12.4290	12.0597	12.0597
Pipe 53-39	100Y24H	2.48	-0.19	1.02	0.79	0.79	12.0600	56.6101	12.4594	12.0600	12.0600

Pipe Link: PIPE 6-7		Upstream		Downstream	
Scenario:	Scenario1	Invert:	16.00 ft	Invert:	15.75 ft
From Node:	DS6	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS7	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	102.99 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow	Max Us Velocity	Max Ds Velocity	Time to Max Flow	Time to Min Flow	Time to Min/Max	Time to Max Us	Time to Max Ds

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 6-7	010Y24H	11.72	0.00	-1.55	2.39	2.39	12.0862	0.0000	13.4121	12.0862	12.0862
PIPE 6-7	025Y24H	13.59	0.00	1.58	2.77	2.77	12.0888	0.0000	13.4652	12.0888	12.0888
PIPE 6-7	100Y24H	16.95	0.00	-1.49	3.45	3.45	12.0930	0.0000	14.2126	12.0930	12.0930

Pipe Link: PIPE 60-43A		Upstream		Downstream	
Scenario:	Scenario1	Invert:	17.20 ft	Invert:	17.10 ft
From Node:	DS60	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS43A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	114.05 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 60-43A	010Y24H	4.04	0.00	-1.44	0.82	0.82	12.0692	0.1068	11.5888	12.0692	12.0692
PIPE 60-43A	025Y24H	4.75	0.00	1.40	0.97	0.97	12.0694	61.7774	11.5788	12.0694	12.0694
PIPE 60-43A	100Y24H	6.03	0.00	-1.50	1.23	1.23	12.0702	11.3839	11.5062	12.0702	12.0702

Pipe Link: PIPE 61-60		Upstream		Downstream	
Scenario:	Scenario1	Invert:	17.20 ft	Invert:	17.50 ft
From Node:	DS61	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS60	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	335.98 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 61-60	010Y24H	2.84	0.00	0.46	0.91	0.91	12.0684	112.7393	12.7430	12.0684	12.0684
PIPE 61-60	025Y24H	3.34	0.00	0.40	1.06	1.06	12.0685	0.0000	11.4912	12.0685	12.0685
PIPE 61-60	100Y24H	4.24	0.00	0.45	1.35	1.35	12.0685	100.9525	13.2424	12.0685	12.0685

Pipe Link: PIPE 62-44A		Upstream		Downstream	
Scenario:	Scenario1	Invert:	18.00 ft	Invert:	17.25 ft
From Node:	DS62	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS44A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	148.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 62-44A	010Y24H	1.75	0.00	-0.77	0.56	0.56	12.0944	0.1197	12.4896	12.0944	12.0944
PIPE 62-44A	025Y24H	2.05	0.00	-0.76	0.65	0.65	12.0963	0.1136	12.5323	12.0963	12.0963
PIPE 62-44A	100Y24H	2.59	0.00	-0.78	0.82	0.82	12.0999	0.1051	12.6166	12.0999	12.0999

Pipe Link: PIPE 63-44A		Upstream		Downstream	
Scenario:	Scenario1	Invert:	18.00 ft	Invert:	17.25 ft
From Node:	DS63	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS44A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	149.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 63-44A	010Y24H	1.25	0.00	0.79	0.40	0.40	12.1062	0.1149	12.3368	12.1062	12.1062
PIPE 63-44A	025Y24H	1.46	0.00	-0.72	0.47	0.47	12.1103	0.1529	12.5912	12.1103	12.1103
PIPE 63-44A	100Y24H	1.86	0.00	0.75	0.59	0.59	12.1213	0.1015	12.5520	12.1213	12.1213

Pipe Link: PIPE 7-POND 1		Upstream		Downstream	
Scenario:	Scenario1	Invert:	15.75 ft	Invert:	15.00 ft

From Node:	DS7	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	POND 1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	57.01 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 7-POND 1	010Y24H	11.65	0.00	-1.35	2.37	2.37	12.0872	0.0000	13.4126	12.0872	12.0872
PIPE 7-POND 1	025Y24H	13.51	0.00	-1.41	2.75	2.75	12.0897	0.0000	13.4652	12.0897	12.0897
PIPE 7-POND 1	100Y24H	16.86	0.00	-1.35	3.43	3.43	12.0943	0.0000	14.2538	12.0943	12.0943

Pipe Link: PIPE 9-10		Upstream		Downstream	
Scenario:	Scenario1	Invert:	19.20 ft	Invert:	19.00 ft
From Node:	DS9	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	41.50 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 9-10	010Y24H	7.32	0.00	-0.06	4.14	4.14	12.0768	0.0000	9.5694	12.0768	12.0768
PIPE 9-10	025Y24H	8.49	0.00	-0.06	4.81	4.81	12.0780	0.0000	14.7180	12.0780	12.0780
PIPE 9-10	100Y24H	10.63	0.00	0.06	6.01	6.01	12.0807	0.0000	20.1829	12.0807	12.0807

Pipe Link: PIPE 9A-9		Upstream		Downstream	
Scenario:	Scenario1	Invert:	20.75 ft	Invert:	20.00 ft
From Node:	DS9A	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS9	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	128.50 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE 9A-9	010Y24H	4.04	0.00	-0.03	3.29	3.29	12.0816	0.0000	15.9920	12.0816	12.0816
PIPE 9A-9	025Y24H	4.73	0.00	-0.03	3.85	3.85	12.0833	0.0000	17.0995	12.0833	12.0833
PIPE 9A-9	100Y24H	5.96	0.00	-0.02	4.86	4.86	12.0861	0.0000	19.9074	12.0861	12.0861

Pipe Link: PIPE POND 1-15		Upstream		Downstream	
Scenario:	Scenario1	Invert:	19.00 ft	Invert:	15.00 ft
From Node:	DS15	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	POND 1	Geometry: Circular		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft

Length:	158.00 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE POND 1-15	010Y24H	7.59	0.00	-1.59	4.30	2.67	12.0680	0.0000	4.1536	12.0680	12.0680
PIPE POND 1-15	025Y24H	8.75	0.00	-1.68	4.95	3.07	12.0687	0.0000	3.7200	12.0687	12.0687
PIPE POND 1-15	100Y24H	10.84	0.00	-2.02	6.13	3.81	12.0701	0.0000	3.1464	12.0701	12.0701

Pipe Link: PIPE POND-42		Upstream		Downstream	
Scenario:	Scenario1	Invert:	15.00 ft	Invert:	15.00 ft
From Node:	POND3	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS42	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	209.32 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PIPE POND-42	010Y24H	7.67	-2.41	-0.92	1.56	1.56	12.5269	12.0139	11.4586	12.5269	12.5269
PIPE POND-42	025Y24H	8.55	-3.57	-0.96	1.74	1.74	12.5516	12.0193	11.4519	12.5516	12.5516
PIPE POND-42	100Y24H	10.11	-5.89	-0.92	2.06	2.06	12.6860	12.0292	11.0610	12.6860	12.6860

Pipe Link: POND2-CS1		Upstream		Downstream	
Scenario:	Scenario1	Invert:	15.00 ft	Invert:	15.00 ft
From Node:	POND2	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	CS-1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	39.72 ft	Op Table:		Op Table:	
FHWA Code:	1	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
POND2-CS 1	010Y24H	4.80	0.00	0.24	1.53	1.53	19.8283	0.0000	113.6195	19.8283	19.8283
POND2-CS 1	025Y24H	6.42	0.00	0.15	2.04	2.04	17.6805	0.0000	119.4872	17.6805	17.6805
POND2-CS 1	100Y24H	9.34	0.00	-0.10	2.97	2.97	16.8831	0.0000	115.7181	16.8831	16.8831

Drop Structure Link: CS-1	Upstream Pipe	Downstream Pipe

Scenario:	Scenario1	Invert:	17.88 ft	Invert:	17.88 ft
From Node:	CS-1	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS51	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Pipe Flow Direction:	Both	Bottom Clip			
Solution:	Combine	Default:	0.00 ft	Default:	0.00 ft
Increments:	0	Op Table:		Op Table:	
Pipe Count:	1	Ref Node:		Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0000	Manning's N:	0.0000
Length:	140.59 ft	Top Clip			
FHWA Code:	1	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component			
Weir:	1	Bottom Clip	
Weir Count:	1	Default:	0.00 ft
Weir Flow Direction:	Both	Op Table:	
Damping:	0.0000 ft	Ref Node:	
Weir Type:	Sharp Crested Vertical	Top Clip	
Geometry Type:	Circular	Default:	0.00 ft
Invert:	20.15 ft	Op Table:	
Control Elevation:	20.15 ft	Ref Node:	
Max Depth:	0.67 ft	Discharge Coefficients	
		Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component			
Weir:	2	Bottom Clip	
Weir Count:	2	Default:	0.00 ft
Weir Flow Direction:	Both	Op Table:	
Damping:	0.0000 ft	Ref Node:	
Weir Type:	Sharp Crested Vertical	Top Clip	
Geometry Type:	Rectangular	Default:	0.00 ft
Invert:	22.00 ft	Op Table:	
Control Elevation:	22.00 ft	Ref Node:	
Max Depth:	0.75 ft	Discharge Coefficients	
Max Width:	0.83 ft	Weir Default:	3.200
Fillet:	0.00 ft	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

APPENDIX C-6
ICPR DROP STRUCTURE LINK

Scenario:	Scenario1	Invert:	17.88 ft	Invert:	17.88 ft
From Node:	CS-1	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	DS51	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Pipe Flow Direction:	Both	Bottom Clip			
Solution:	Combine	Default:	0.00 ft	Default:	0.00 ft
Increments:	0	Op Table:		Op Table:	
Pipe Count:	1	Ref Node:		Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0000	Manning's N:	0.0000
Length:	140.59 ft	Top Clip			
FHWA Code:	1	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component			
Weir:	1	Bottom Clip	
Weir Count:	1	Default:	0.00 ft
Weir Flow Direction:	Both	Op Table:	
Damping:	0.0000 ft	Ref Node:	
Weir Type:	Sharp Crested Vertical	Top Clip	
Geometry Type:	Circular	Default:	0.00 ft
Invert:	20.15 ft	Op Table:	
Control Elevation:	20.15 ft	Ref Node:	
Max Depth:	0.67 ft	Discharge Coefficients	
		Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component			
Weir:	2	Bottom Clip	
Weir Count:	2	Default:	0.00 ft
Weir Flow Direction:	Both	Op Table:	
Damping:	0.0000 ft	Ref Node:	
Weir Type:	Sharp Crested Vertical	Top Clip	
Geometry Type:	Rectangular	Default:	0.00 ft
Invert:	22.00 ft	Op Table:	
Control Elevation:	22.00 ft	Ref Node:	
Max Depth:	0.75 ft	Discharge Coefficients	
Max Width:	0.83 ft	Weir Default:	3.200
Fillet:	0.00 ft	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	3	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	**Top Clip**	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	22.75 ft	Ref Node:	
Control Elevation:	22.75 ft	**Discharge Coefficients**	
Max Depth:	0.45 ft	Weir Default:	3.200
Max Width:	1.25 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	4	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	**Top Clip**	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	23.20 ft	Ref Node:	
Control Elevation:	23.20 ft	**Discharge Coefficients**	
Max Depth:	999.00 ft	Weir Default:	3.200
Max Width:	6.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Link Min/Max Conditions with Times [Scenario1]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
CS-1 - Pipe	010Y24H	4.80	0.00	0.00	0.00	0.00	19.9067	0.0000	15.6457	0.0000	0.0000
CS-1 - Weir: 1	010Y24H	2.46	0.00	0.00	6.96	6.96	19.9067	0.0000	119.9505	19.9067	19.9067
CS-1 - Weir: 2	010Y24H	2.34	0.00	0.00	2.44	2.44	19.9067	0.0000	16.7637	19.9067	19.9067
CS-1 - Weir: 3	010Y24H	0.00	0.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
CS-1 - Weir: 4	010Y24H	0.00	0.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000
CS-1 - Pipe	025Y24H	6.42	0.00	0.00	0.00	0.00	18.6857	0.0000	12.4442	0.0000	0.0000
CS-1 - Weir: 1	025Y24H	2.58	0.00	0.00	7.33	7.33	18.6038	0.0000	105.6869	18.6038	18.6038
CS-1 - Weir: 2	025Y24H	3.78	0.00	0.00	3.04	3.04	18.6038	0.0000	14.2745	18.6038	18.6038
CS-1 - Weir: 3	025Y24H	0.05	0.00	0.00	0.75	0.75	18.6038	0.0000	18.0595	18.6038	18.6038
CS-1 - Weir: 4	025Y24H	0.00	0.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000
CS-1 - Pipe	100Y24H	9.34	0.00	0.00	0.00	0.00	16.8681	0.0000	12.3207	0.0000	0.0000
CS-1 - Weir: 1	100Y24H	2.76	0.00	0.00	7.84	7.84	16.6020	0.0000	115.5468	16.6020	16.6020
CS-1 - Weir: 2	100Y24H	5.41	0.00	0.00	4.34	4.34	16.8296	0.0000	12.6069	16.8296	16.8296
CS-1 - Weir: 3	100Y24H	1.17	0.00	0.00	2.12	2.12	16.8296	0.0000	13.0659	17.0461	17.0461
CS-1 - Weir: 4	100Y24H	0.00	0.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000

APPENDIX C-7
ICPR 360 HR. RECOVERY SUMMARY

360 Hour Recovery

Total Pond 1, 2, & 3 Storage

11748

June 10. 2025

Pond 1			Pond 2			Pond 3			Pond Summary	
Stage (ft)	Area (ac)	Storage Volume (cf)	Stage (ft)	Area (ac)	Storage Volume (cf)	Stage (ft)	Area (ac)	Storage Volume (cf)	Stage (ft)	Storage Volume (cf)
20.15	1.78	0	20.15	3.81	0	20.15	0.48	0	20.15	0
24.15	2.57	378972	24.15	5.53	813701	24.15	0.82	113256	24.15	1305929

50% x 1305929 = 652964.5 cf

Relative Time	Pond 1			Pond 2			Pond 3			Pond Summary		Percentage of Useage Storage Volume
	Stage (ft)	Area (sf)	Storage Volume (cf)	Stage (ft)	Area (sf)	Storage Volume (cf)	Stage (ft)	Area (sf)	Storage Volume (cf)	Stage (ft)	Storage Volume (cf)	
0	20.15	77554	0	20.15	165975	0	20.15	20916	0	0.00	0	0.0%
4	20.30	78799	78802	20.29	168613	23421	20.30	21471	3179	4.00	105,402	8.1%
8	20.53	80785	80788	20.52	172893	62690	20.53	22333	8217	8.00	151,696	11.6%
12	21.77	91303	91452	21.55	192227	250740	22.04	27931	46160	12.00	388,352	29.7%
16	22.90	101203	101236	22.88	217062	522843	22.90	31090	71508	16.00	695,587	53.3%
20	22.91	101305	101328	22.89	217364	525172	22.91	31140	71837	20.00	698,337	53.5%
24	22.84	100696	100714	22.83	216106	511986	22.84	30884	69671	24.00	682,371	52.3%
28	22.63	98856	98863	22.62	212179	467018	22.63	30091	63249	28.00	629,129	48.2%
32	22.45	97338	97343	22.44	208895	429224	22.45	29438	57907	32.00	584,474	44.8%
36	22.31	96100	96104	22.30	206215	400102	22.31	28906	53808	36.00	550,014	42.1%
40	22.19	95067	95070	22.18	203978	375500	22.19	28461	50365	40.00	520,935	39.9%
44	22.08	94178	94181	22.08	202050	355142	22.08	28078	47279	44.00	496,602	38.0%
48	21.99	93375	93377	21.98	200305	335144	21.99	27732	44756	48.00	473,278	36.2%
52	21.90	92598	92601	21.89	198616	317192	21.90	27398	42275	52.00	452,068	34.6%
56	21.81	91840	91842	21.80	196966	299425	21.81	27071	39829	56.00	431,096	33.0%
60	21.72	91099	91102	21.72	195356	283643	21.73	26752	37658	60.00	412,403	31.6%
64	21.64	90378	90380	21.63	193787	266222	21.64	26442	35282	64.00	391,884	30.0%
68	21.56	89677	89679	21.55	192262	250765	21.56	26140	33174	68.00	373,618	28.6%
72	21.48	88995	88997	21.47	190781	235458	21.48	25846	31097	72.00	355,551	27.2%
76	21.40	88335	88337	21.40	189346	222074	21.40	25562	29049	76.00	339,460	26.0%
80	21.33	87698	87700	21.32	187959	207050	21.33	25288	27260	80.00	322,011	24.7%

84	21.26	87083	87084	21.25	186621	193927	21.26	25023	25496	84.00	306,507	23.5%
88	21.19	86490	86492	21.18	185333	180923	21.19	24767	23755	88.00	291,170	22.3%
92	21.12	85922	85924	21.12	184098	169784	21.12	24523	22038	92.00	277,746	21.3%
96	21.06	85378	85381	21.05	182916	157000	21.06	24289	20568	96.00	262,949	20.1%
100	21.00	84860	84863	20.99	181790	146060	21.00	24065	19117	100.00	250,040	19.1%
104	20.94	84369	84372	20.94	180724	136945	20.94	23854	17684	104.00	239,001	18.3%
108	20.89	83920	83923	20.89	179749	127917	20.89	23660	16493	108.00	228,333	17.5%
112	20.84	83513	83516	20.84	178866	118969	20.84	23485	15318	112.00	217,804	16.7%
116	20.80	83140	83143	20.80	178058	111810	20.80	23324	14378	116.00	209,331	16.0%
120	20.76	82792	82794	20.75	177302	102983	20.76	23174	13447	120.00	199,224	15.3%
124	20.72	82470	82472	20.72	176603	97634	20.72	23035	12526	124.00	192,632	14.8%
128	20.69	82175	82177	20.68	175962	90613	20.69	22908	11832	128.00	184,622	14.1%
132	20.66	81905	81907	20.65	175379	85338	20.66	22792	11146	132.00	178,391	13.7%
136	20.63	81660	81662	20.62	174847	80093	20.63	22686	10464	136.00	172,219	13.2%
140	20.60	81437	81438	20.60	174363	76576	20.60	22590	9789	140.00	167,802	12.8%
144	20.58	81233	81235	20.57	173921	71378	20.58	22502	9335	144.00	161,948	12.4%
148	20.56	81047	81049	20.55	173519	67898	20.56	22422	8884	148.00	157,832	12.1%
152	20.54	80877	80879	20.53	173150	64433	20.54	22349	8437	152.00	153,749	11.8%
156	20.52	80722	80723	20.52	172813	62675	20.52	22281	7991	156.00	151,390	11.6%
160	20.50	80578	80580	20.50	172504	59233	20.50	22220	7549	160.00	147,362	11.3%
164	20.49	80446	80448	20.48	172219	55802	20.49	22163	7323	164.00	143,573	11.0%
168	20.47	80325	80327	20.47	171956	54069	20.47	22110	6884	168.00	141,280	10.8%
172	20.46	80213	80214	20.46	171713	52341	20.46	22062	6662	172.00	139,217	10.7%
176	20.45	80108	80110	20.44	171488	48932	20.45	22017	6440	176.00	135,482	10.4%
180	20.44	80012	80013	20.43	171278	47215	20.44	21975	6219	180.00	133,447	10.2%
184	20.43	79922	79923	20.42	171084	45503	20.43	21937	5999	184.00	131,425	10.1%
188	20.42	79838	79839	20.41	170903	43794	20.42	21900	5780	188.00	129,413	9.9%
192	20.41	79760	79761	20.40	170734	42088	20.41	21867	5562	192.00	127,411	9.8%
196	20.40	79686	79688	20.40	170576	42069	20.40	21835	5344	196.00	127,101	9.7%
200	20.39	79618	79619	20.39	170427	40368	20.39	21805	5127	200.00	125,114	9.6%
204	20.38	79553	79555	20.38	170288	38670	20.38	21778	4910	204.00	123,135	9.4%
208	20.38	79493	79494	20.37	170157	36974	20.38	21752	4907	208.00	121,375	9.3%
212	20.37	79435	79437	20.37	170034	36961	20.37	21727	4691	212.00	121,089	9.3%
216	20.36	79382	79383	20.36	169918	35269	20.36	21704	4475	216.00	119,127	9.1%
220	20.36	79331	79332	20.35	169808	33578	20.36	21682	4473	220.00	117,383	9.0%
224	20.35	79283	79284	20.35	169704	33568	20.35	21661	4258	224.00	117,109	9.0%

228	20.35	79237	79239	20.34	169606	31880	20.35	21641	4256	228.00	115,375	8.8%
232	20.34	79194	79195	20.34	169513	31871	20.34	21623	4041	232.00	115,107	8.8%
236	20.34	79153	79155	20.33	169425	30186	20.34	21605	4039	236.00	113,380	8.7%
240	20.33	79114	79116	20.33	169341	30178	20.33	21589	3825	240.00	113,120	8.7%
244	20.33	79078	79079	20.33	169262	30171	20.33	21573	3824	244.00	113,074	8.7%
248	20.32	79042	79044	20.32	169186	28489	20.32	21557	3610	248.00	111,143	8.5%
252	20.32	79009	79010	20.32	169114	28482	20.32	21543	3609	252.00	111,101	8.5%
256	20.32	78977	78978	20.31	169045	26801	20.32	21529	3608	256.00	109,387	8.4%
260	20.31	78947	78947	20.31	168980	26796	20.31	21516	3395	260.00	109,138	8.4%
264	20.31	78917	78919	20.31	168917	26791	20.31	21504	3394	264.00	109,104	8.4%
268	20.31	78889	78891	20.30	168857	25112	20.31	21492	3393	268.00	107,396	8.2%
272	20.30	78863	78864	20.30	168799	25108	20.30	21480	3180	272.00	107,152	8.2%
276	20.30	78838	78838	20.30	168744	25104	20.30	21469	3179	276.00	107,121	8.2%
280	20.30	78813	78814	20.29	168691	23426	20.30	21458	3178	280.00	105,419	8.1%
284	20.29	78790	78790	20.29	168641	23423	20.29	21448	2965	284.00	105,178	8.1%
288	20.29	78767	78768	20.29	168592	23420	20.29	21439	2965	288.00	105,152	8.1%
292	20.29	78745	78746	20.29	168545	23416	20.29	21429	2964	292.00	105,126	8.0%
296	20.29	78725	78726	20.28	168500	21741	20.29	21420	2964	296.00	103,430	7.9%
300	20.28	78705	78706	20.28	168457	21738	20.28	21412	2751	300.00	103,195	7.9%
304	20.28	78685	78687	20.28	168416	21735	20.28	21403	2751	304.00	103,173	7.9%
308	20.28	78667	78668	20.28	168376	21733	20.28	21395	2750	308.00	103,151	7.9%
312	20.28	78649	78650	20.28	168338	21730	20.28	21388	2750	312.00	103,130	7.9%
316	20.28	78632	78633	20.27	168301	20056	20.28	21380	2749	316.00	101,439	7.8%
320	20.27	78616	78616	20.27	168266	20054	20.27	21373	2537	320.00	101,208	7.7%
324	20.27	78600	78601	20.27	168231	20052	20.27	21366	2537	324.00	101,190	7.7%
328	20.27	78585	78585	20.27	168198	20050	20.27	21360	2537	328.00	101,172	7.7%
332	20.27	78570	78570	20.27	168166	20048	20.27	21353	2536	332.00	101,154	7.7%
336	20.27	78555	78556	20.27	168136	20047	20.27	21347	2536	336.00	101,138	7.7%
340	20.27	78541	78542	20.26	168106	18374	20.26	21341	2324	340.00	99,240	7.6%
344	20.26	78528	78529	20.26	168077	18373	20.26	21335	2324	344.00	99,226	7.6%
348	20.26	78515	78516	20.26	168049	18371	20.26	21330	2324	348.00	99,211	7.6%
352	20.26	78503	78503	20.26	168022	18370	20.26	21324	2323	352.00	99,196	7.6%
356	20.26	78491	78491	20.26	167996	18368	20.26	21319	2323	356.00	99,182	7.6%
360	20.26	78479	78480	20.26	167971	18367	20.26	21314	2323	360.00	99,170	7.6%

APPENDIX C-8
LAKE STAGE SUMMARY - 10Y, 25Y, AND 100Y MAXIMUM

Lake Stage Summary

BSE #11748

Event	10Y24H	25Y24H	100Y24H
Pond 1	22.65 ft.	22.92 ft.	23.44 ft.
Pond 2	22.63 ft.	22.90 ft.	23.39 ft.
Pond 3	22.65 ft.	23.00 ft.	23.71 ft.

Lake Stage Summary

BSE #11748

Event	10Y24H	25Y24H	100Y24H
Pond 1	22.65 ft.	22.92 ft.	23.44 ft.
Pond 2	22.63 ft.	22.90 ft.	23.39 ft.
Pond 3	22.65 ft.	23.00 ft.	23.71 ft.

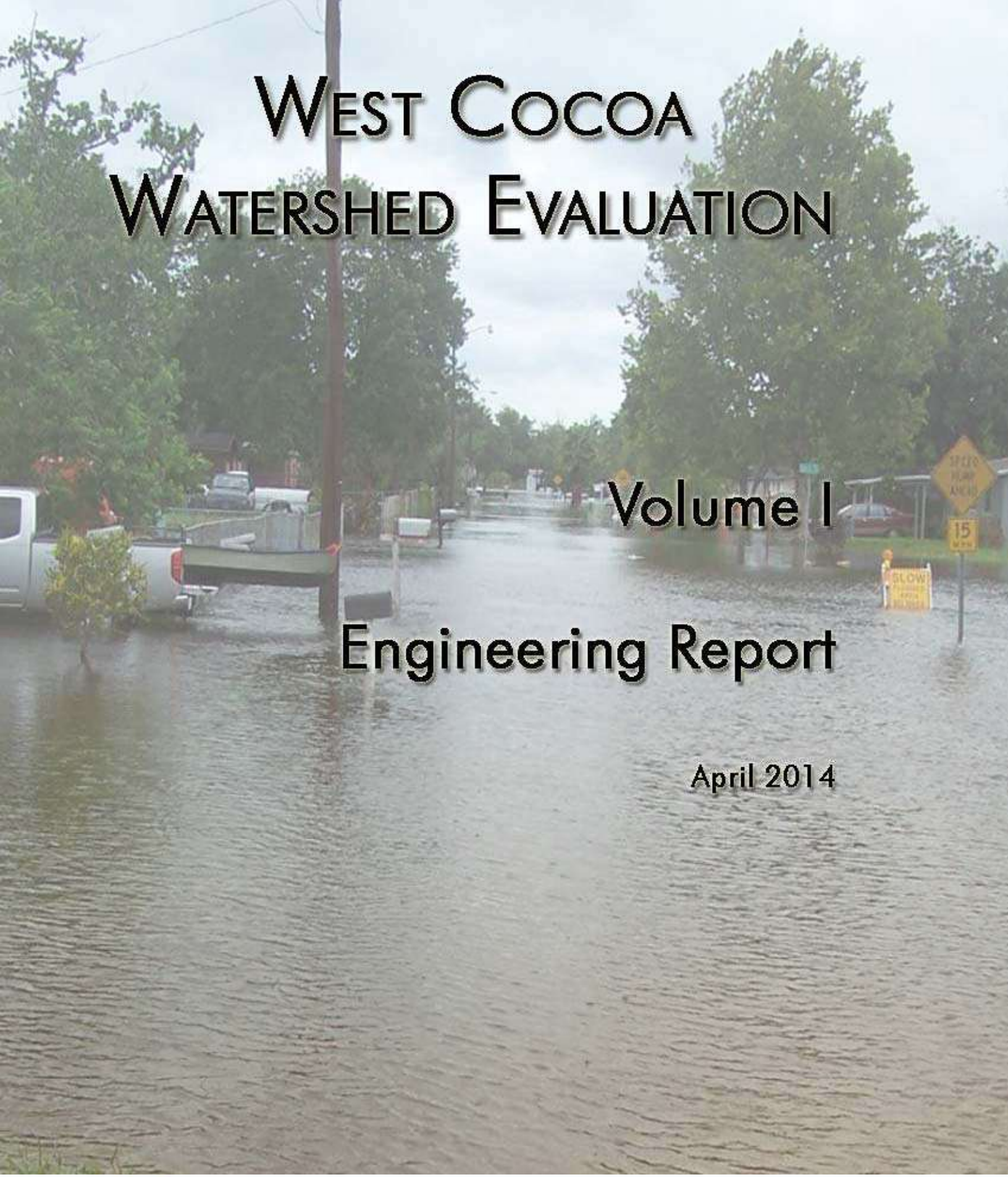
APPENDIX C-9
25Y24H PRE AND POST DEVELOPMENT DISCHARGE

25Y24H Pre and Post Development Discharge

10Y, 25Y, and 100Y Maximum

Event	10Y24H	25Y24H	100Y24H
Pre-Development Peak Discharge (cfs)	38.77	47.84	67.49
Post-Development Peak Discharge (cfs)	8.25	9.18	10.76

APPENDIX D
EXCERPTS FROM WEST COCOA WATERSHED EVALUATION – ENGINEERING REPORT, DATED APRIL 2014 UNABRIDGED



West Cocoa Watershed Evaluation

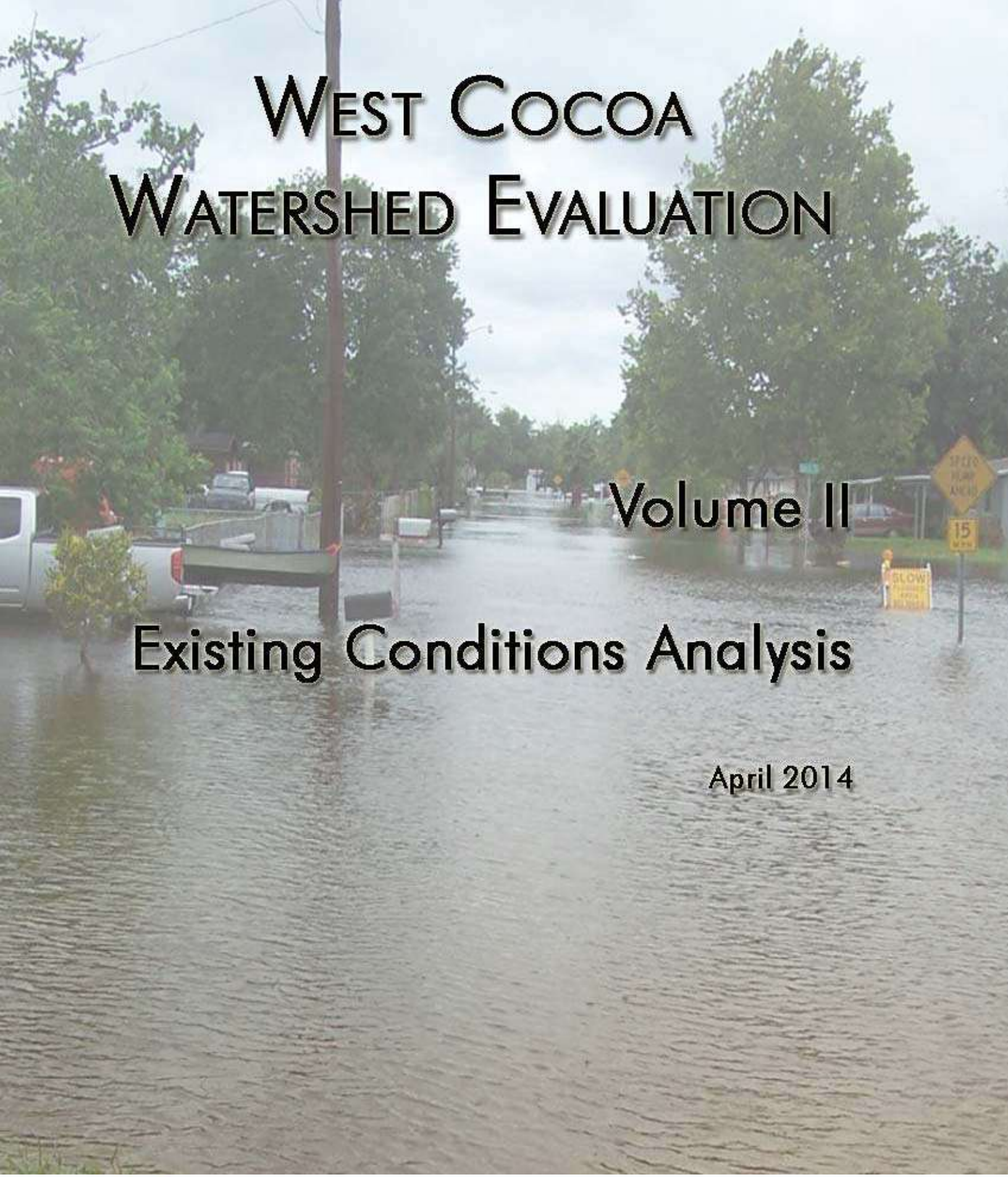
Volume I

Engineering Report

April 2014

Brevard County Natural Resources Management

Pegasus Engineering



West Cocoa Watershed Evaluation

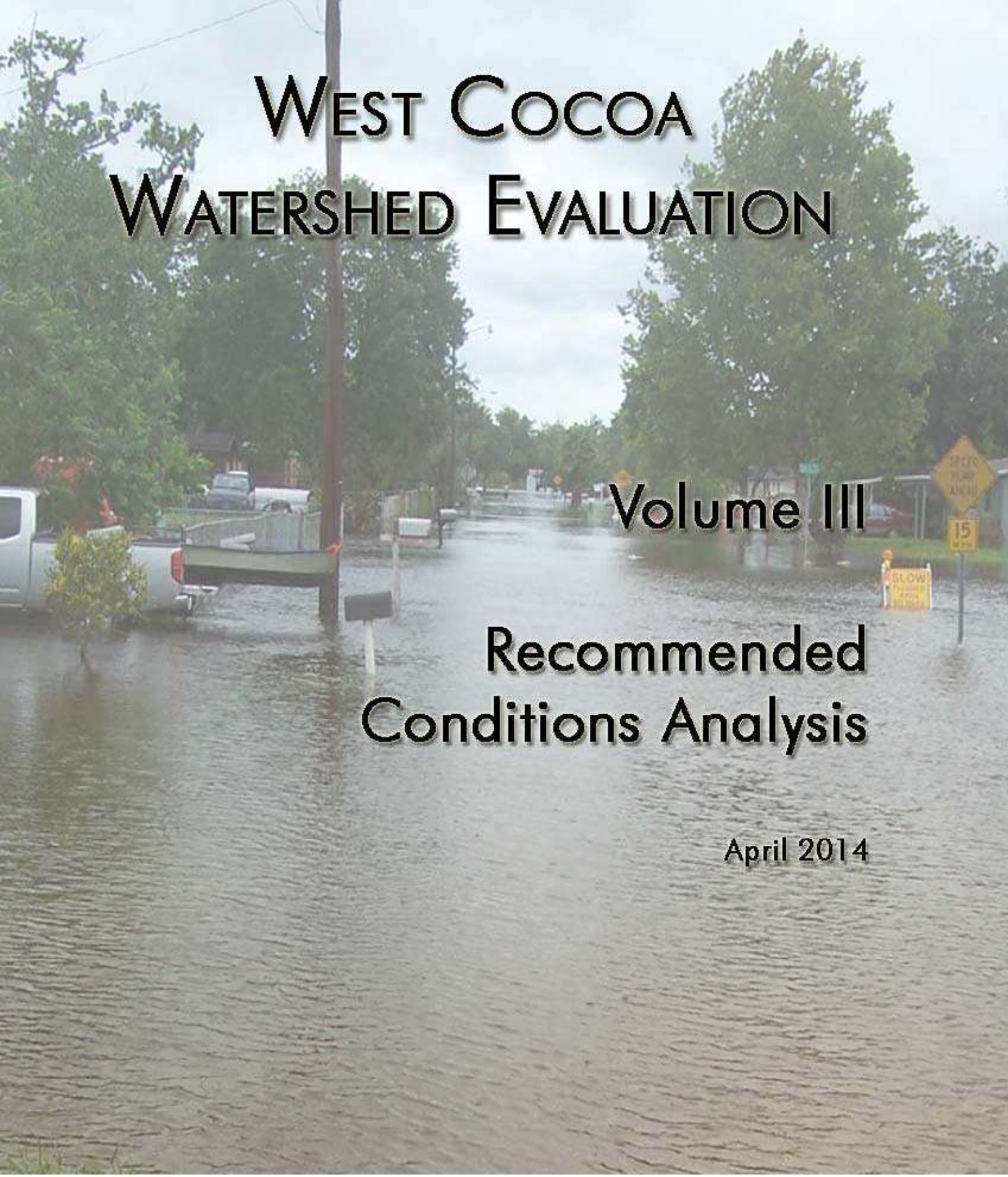
Volume II

Existing Conditions Analysis

April 2014

Brevard County Natural Resources Management

Pegasus Engineering



West Cocoa Watershed Evaluation

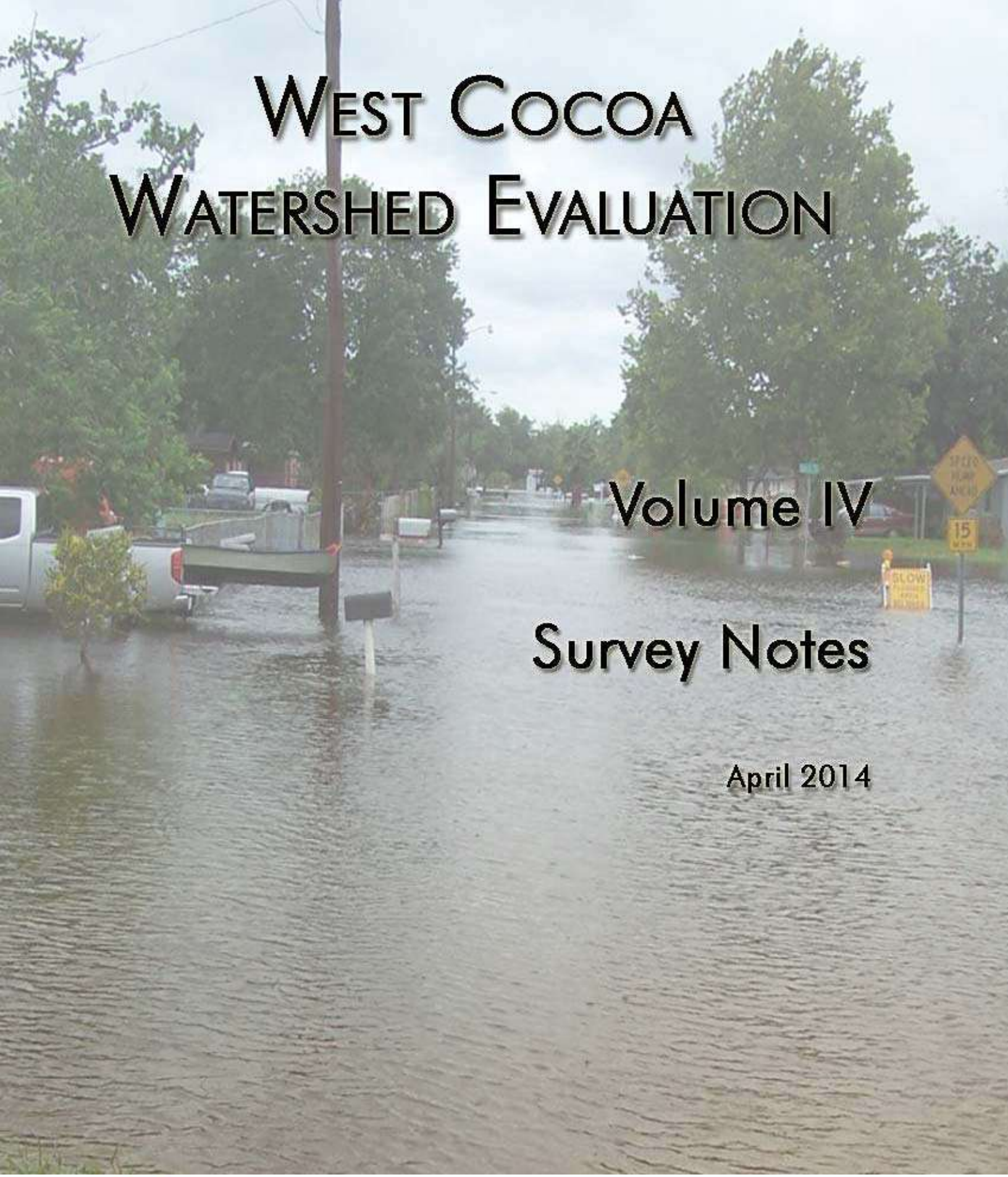
Volume III

Recommended Conditions Analysis

April 2014

Brevard County Natural Resources Management

Pegasus Engineering



West Cocoa Watershed Evaluation

Volume IV

Survey Notes

April 2014

Brevard County Natural Resources Management

Pegasus Engineering

Table 2-3
Comparison of Selected Flood Stages

Location	Published BFE (ft, NGVD)	ICPR Node Name	Predicted 100-year Flood Stage (ft, NGVD)	Difference (feet)
Clear Lake	27.00	MUD-110	27.14	0.14
Mud Lake	22.00	MUD-100	22.01	0.01
Wetland System downstream of Mud Lake	21.00	MUD-200	21.92	0.92
Little Mud Lake	23.00	LMUD-100	22.36	-0.64
Wetland System downstream of Little Mud Lake	21.00	LAK-360N	20.79	-0.21

As can be seen from the comparison, four (4) of the Zone "AE" areas correlate well (within 8-inches) to the predicted flood stages while the wetland system downstream of Mud Lake is roughly a 1 foot difference (predicted higher than published). As previously stated in Section 1.7.3, the base flood elevations on the FIRMs are rounded to whole-foot elevations. Given the change in land use the past 20 years, the overall comparison provides a good benchmark to the predicted flood stages.

2.5.2 Tropical Storm "Fay"

During Tropical Storm "Fay", Brevard County staff took numerous photographs of flooded conditions and noted high water marks that were later surveyed. This information, unlike the Flood Insurance Rate Maps, allowed Pegasus Engineering to calibrate the West Cocoa study area ICPR model based on current land use, existing drainage conveyance systems, and measured flood stages and rainfall.

In order to calibrate the Pegasus Engineering existing conditions ICPR model, the following information was obtained associated with Tropical Storm "Fay". In addition, refer to the Tropical Storm "Fay" photographs located at the end of Section 2 that provide a visual documentation of the extensive historical flooding.

- ✓ St. Johns River stage / time data (developed by Jones Edmunds & Associates, Inc.)
- ✓ Hourly rainfall data from nearby gage
- ✓ Approximate elevations associated with measured high water marks

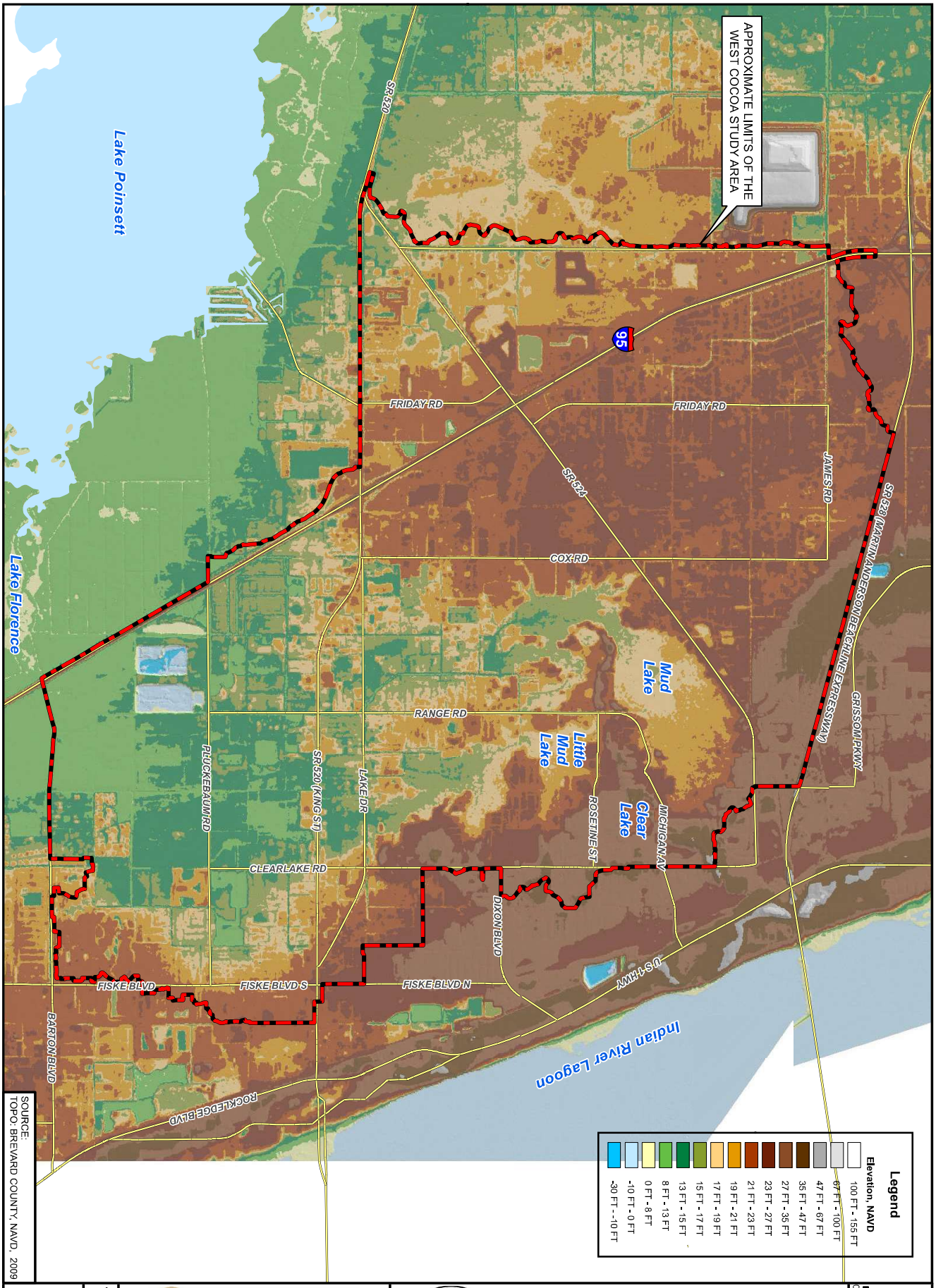


FIGURE 1-5

JOB NO.: BRC-003
DATE: APRIL 2014

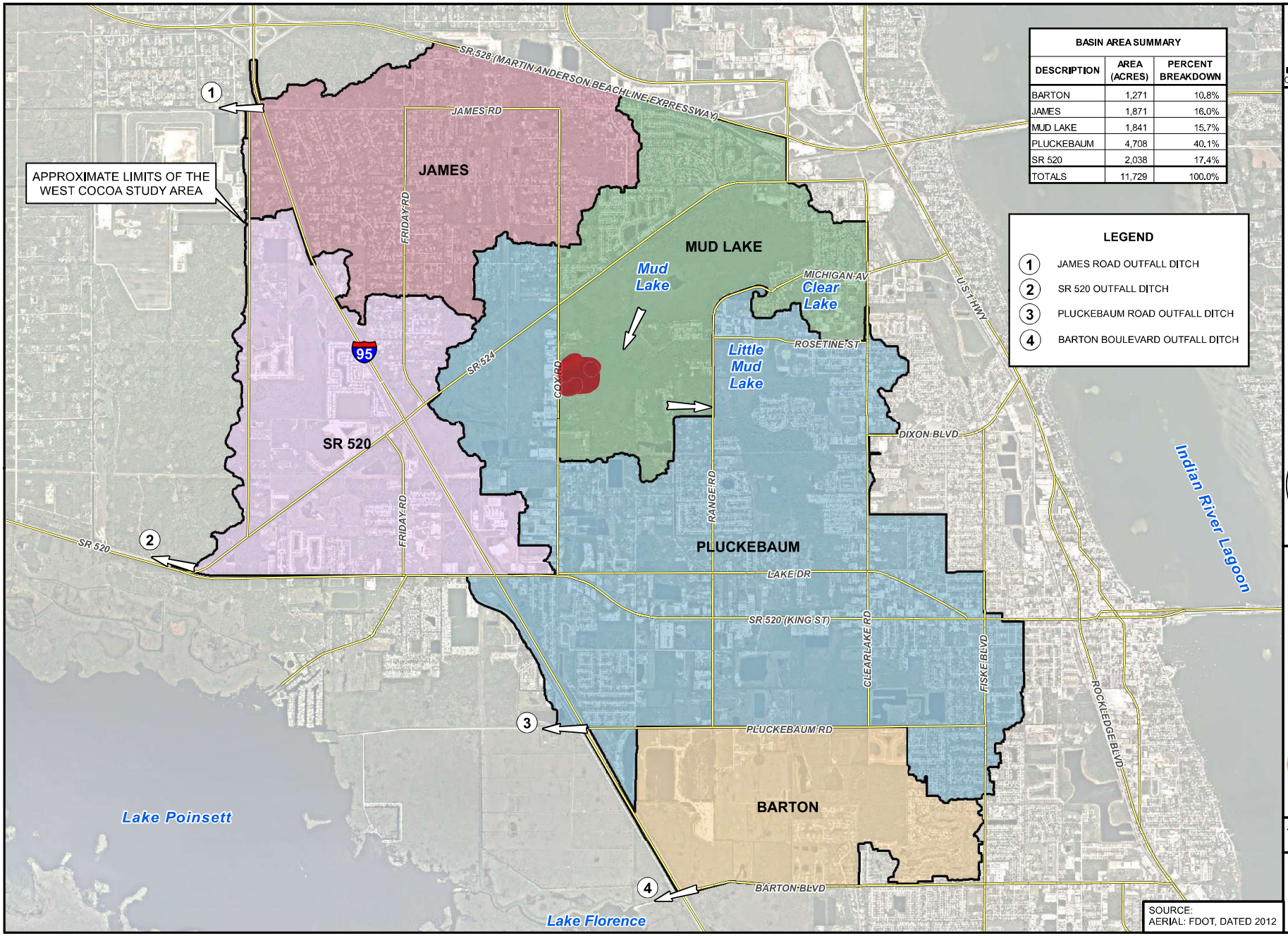
Pegasus ENGINEERING
301 WEST STATE ROAD 434, SUITE 309
WINTER SPRINGS, FL 32708
TEL: 407-992-9160 • FAX: 407-358-5155
WEB: WWW.PEGASUSENGINEERING.NET

SEAL OF BREVARD COUNTY FLORIDA

OVERALL WATERSHED LiDAR MAP

WEST COCOA WATERSHED EVALUATION

SCALE: 1" = 3000'
0
3000



BASIN AREA SUMMARY		
DESCRIPTION	AREA (ACRES)	PERCENT BREAKDOWN
BARTON	1,271	10.8%
JAMES	1,871	16.0%
MUD LAKE	1,841	15.7%
PLUCKEBAUM	4,708	40.1%
SR 520	2,038	17.4%
TOTALS	11,729	100.0%

LEGEND

1. JAMES ROAD OUTFALL DITCH
2. SR 520 OUTFALL DITCH
3. PLUCKEBAUM ROAD OUTFALL DITCH
4. BARTON BOULEVARD OUTFALL DITCH

SOURCE:
AERIAL: FDOT, DATED 2012

SCALE: 1" = 3000'
0 3,000

PRIMARY DRAINAGE BASINS

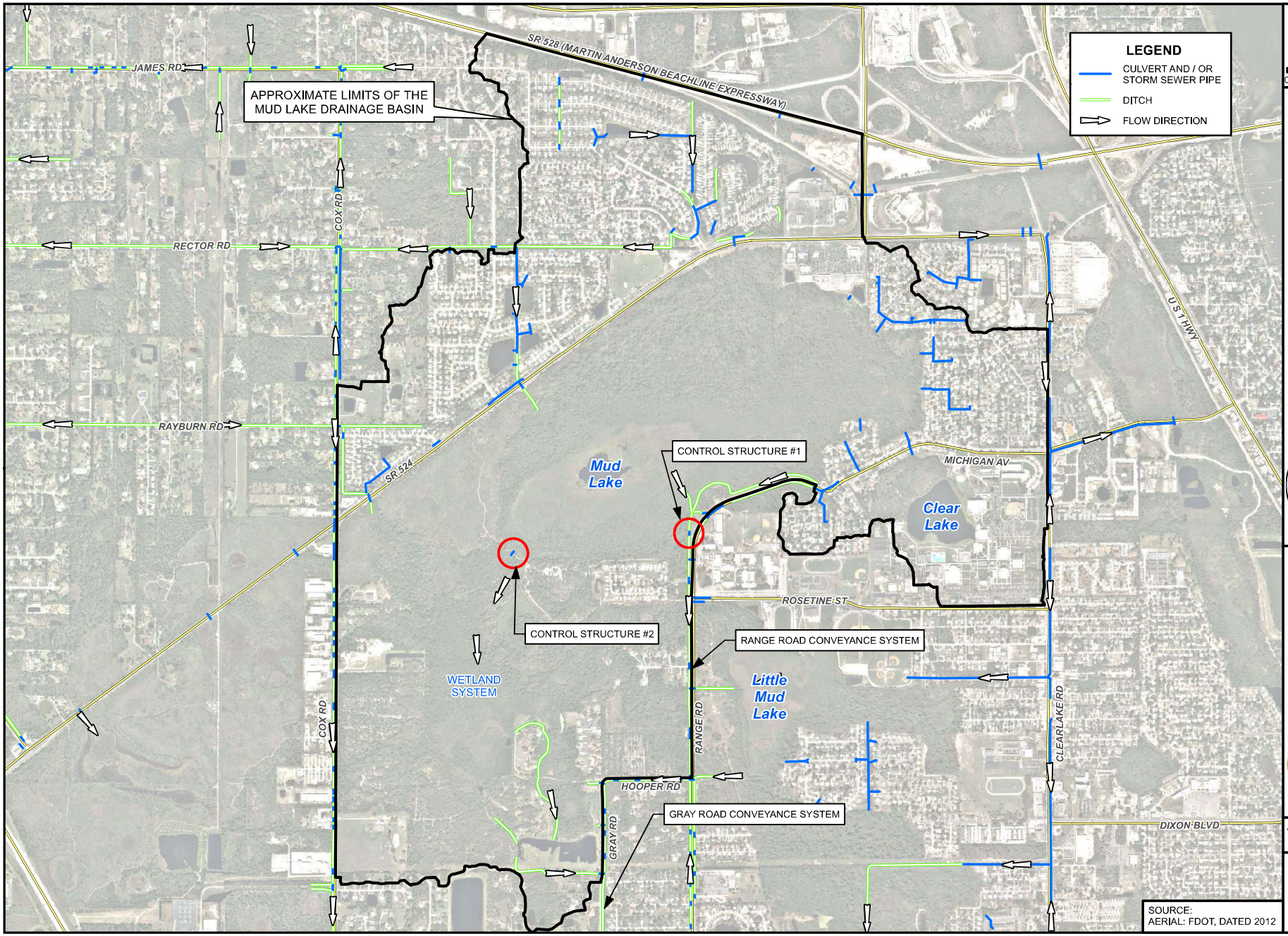
WEST COCOA WATERSHED EVALUATION

Pegasus ENGINEERING
301 WEST STATE ROAD 434, SUITE 309
WINTER SPRINGS, FL. 32708
TEL: 407-992-9160 • FAX: 407-358-5155
WEB: WWW.PEGASUSENGINEERING.NET

JOB NO.: BRC-003
DATE: APRIL 2014

FIGURE

1-7



MUD LAKE DRAINAGE BASIN

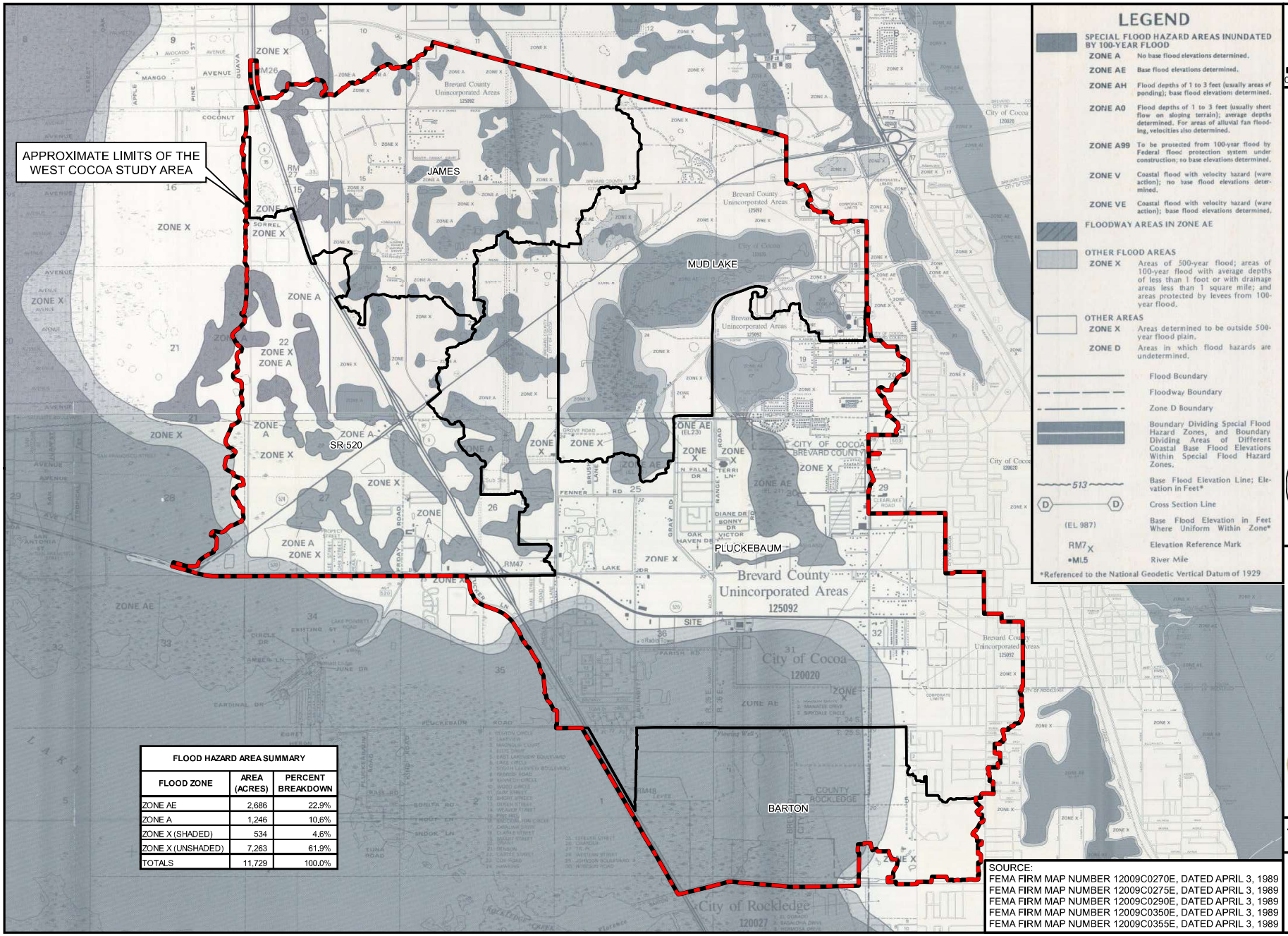
WEST COCOA WATERSHED EVALUATION

Pegasus ENGINEERING
301 WEST STATE ROAD 434, SUITE 309
WINTER SPRINGS, FL. 32708
TEL: 407-992-9160 • FAX: 407-358-5155
WEB: WWW.PEGASUSENGINEERING.NET

JOB NO.: BRC-003
DATE: APRIL 2014

FIGURE

1-8B



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- ZONE A — No base flood elevations determined.
- ZONE AE — Base flood elevations determined.
- ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE A99 — To be protected from 100-year flood by Federal flood protection system under construction; no base elevations determined.
- ZONE V — Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- ZONE VE — Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

- ZONE X — Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

- ZONE X — Areas determined to be outside 500-year flood plain.
- ZONE D — Areas in which flood hazards are undetermined.

Flood Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

513 — Base Flood Elevation Line; Elevation in Feet*

D — D — Cross Section Line

(EL 987) — Base Flood Elevation in Feet Where Uniform Within Zone*

RM7 X — Elevation Reference Mark

•M1.5 — River Mile

*Referenced to the National Geodetic Vertical Datum of 1929

SCALE: 1" = 3000'

0 3,000

FLOOD HAZARD AREA SUMMARY		
FLOOD ZONE	AREA (ACRES)	PERCENT BREAKDOWN
ZONE AE	2,686	22.9%
ZONE A	1,246	10.6%
ZONE X (SHADED)	534	4.6%
ZONE X (UNSHADED)	7,263	61.9%
TOTALS	11,729	100.0%

SOURCE:
FEMA FIRM MAP NUMBER 12009C0270E, DATED APRIL 3, 1989
FEMA FIRM MAP NUMBER 12009C0275E, DATED APRIL 3, 1989
FEMA FIRM MAP NUMBER 12009C0290E, DATED APRIL 3, 1989
FEMA FIRM MAP NUMBER 12009C0350E, DATED APRIL 3, 1989
FEMA FIRM MAP NUMBER 12009C0355E, DATED APRIL 3, 1989

FEMA FLOOD MAP

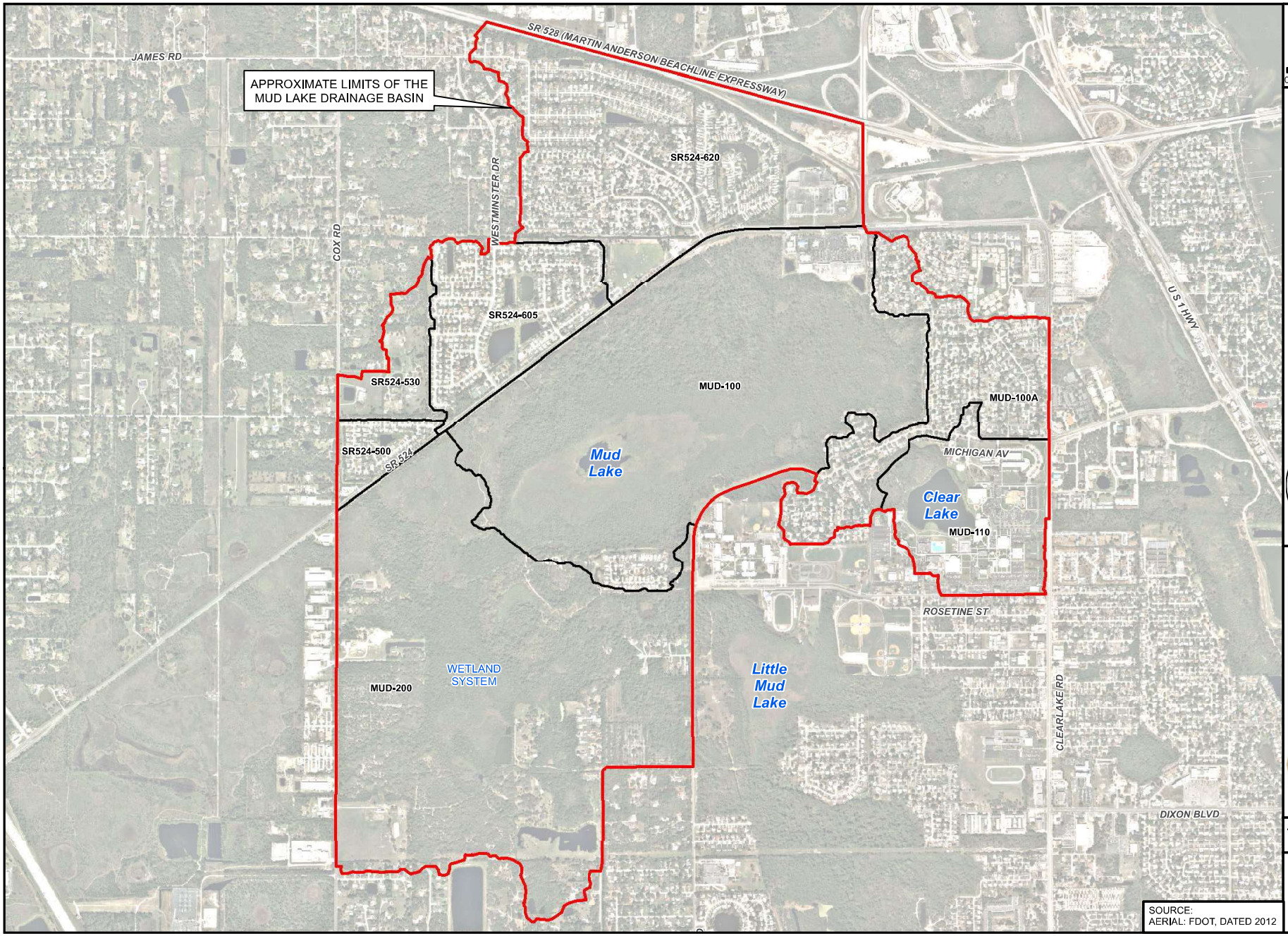
WEST COCOA WATERSHED EVALUATION

Pegasus ENGINEERING
301 WEST STATE ROAD 434, SUITE 309
WINTER SPRINGS, FL 32708
TEL: 407-992-9160 • FAX: 407-358-5155
WEB: WWW.PEGASUSENGINEERING.NET

JOB NO.: BRC-003
DATE: APRIL 2014

FIGURE

1-9



MUD LAKE DRAINAGE SUB-BASINS

WEST COCOA WATERSHED EVALUATION

Pegasus ENGINEERING
301 WEST STATE ROAD 434, SUITE 309
WINTER SPRINGS, FL. 32708
TEL: 407-992-9160 • FAX: 407-358-5155
WEB: WWW.PEGASUSENGINEERING.NET

JOB NO,: BRC-003
DATE: APRIL 2014

FIGURE

2-4

Table 2-3
Comparison of Selected Flood Stages

Location	Published BFE (ft, NGVD)	ICPR Node Name	Predicted 100-year Flood Stage (ft, NGVD)	Difference (feet)
Clear Lake	27.00	MUD-110	27.14	0.14
Mud Lake	22.00	MUD-100	22.01	0.01
Wetland System downstream of Mud Lake	21.00	MUD-200	21.92	0.92
Little Mud Lake	23.00	LMUD-100	22.36	-0.64
Wetland System downstream of Little Mud Lake	21.00	LAK-360N	20.79	-0.21

As can be seen from the comparison, four (4) of the Zone "AE" areas correlate well (within 8-inches) to the predicted flood stages while the wetland system downstream of Mud Lake is roughly a 1 foot difference (predicted higher than published). As previously stated in Section 1.7.3, the base flood elevations on the FIRMs are rounded to whole-foot elevations. Given the change in land use the past 20 years, the overall comparison provides a good benchmark to the predicted flood stages.

2.5.2 Tropical Storm "Fay"

During Tropical Storm "Fay", Brevard County staff took numerous photographs of flooded conditions and noted high water marks that were later surveyed. This information, unlike the Flood Insurance Rate Maps, allowed Pegasus Engineering to calibrate the West Cocoa study area ICPR model based on current land use, existing drainage conveyance systems, and measured flood stages and rainfall.

In order to calibrate the Pegasus Engineering existing conditions ICPR model, the following information was obtained associated with Tropical Storm "Fay". In addition, refer to the Tropical Storm "Fay" photographs located at the end of Section 2 that provide a visual documentation of the extensive historical flooding.

- ✓ St. Johns River stage / time data (developed by Jones Edmunds & Associates, Inc.)
- ✓ Hourly rainfall data from nearby gage
- ✓ Approximate elevations associated with measured high water marks

```
       Group: MUD                     Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh323                 Peaking Factor: 323.0
         Rainfall File:                 Storm Duration(hrs): 0.00
   Rainfall Amount(in): 0.000             Time of Conc(min): 38.00
            Area(ac): 118.130               Time Shift(hrs): 0.00
        Curve Number: 73.00           Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


-------------------------------------------------------------------------------------------------
        Name: MUD-200                  Node: MUD-200              Status: Onsite
       Group: MUD                     Type: SCS Unit Hydrograph CN

       Unit Hydrograph: GAMMA                 Peaking Factor: 200.0
         Rainfall File:                 Storm Duration(hrs): 0.00
   Rainfall Amount(in): 0.000             Time of Conc(min): 107.00
            Area(ac): 582.900               Time Shift(hrs): 0.00
        Curve Number: 86.00           Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


-------------------------------------------------------------------------------------------------
        Name: PAR-100                  Node: PAR-100              Status: Onsite
       Group: PLUCKEBAUM              Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh256                 Peaking Factor: 256.0
         Rainfall File:                 Storm Duration(hrs): 0.00
   Rainfall Amount(in): 0.000             Time of Conc(min): 79.00
            Area(ac): 105.400               Time Shift(hrs): 0.00
        Curve Number: 84.00           Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


-------------------------------------------------------------------------------------------------
        Name: PLB-130S                 Node: PLB-130S             Status: Onsite
       Group: PLUCKEBAUM              Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh256                 Peaking Factor: 256.0
         Rainfall File:                 Storm Duration(hrs): 0.00
   Rainfall Amount(in): 0.000             Time of Conc(min): 45.00
            Area(ac): 54.960                Time Shift(hrs): 0.00
        Curve Number: 87.00           Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


-------------------------------------------------------------------------------------------------
        Name: PLB-140                  Node: PLB-140              Status: Onsite
       Group: PLUCKEBAUM              Type: SCS Unit Hydrograph CN

       Unit Hydrograph: GAMMA                 Peaking Factor: 200.0
         Rainfall File:                 Storm Duration(hrs): 0.00
   Rainfall Amount(in): 0.000             Time of Conc(min): 44.00
            Area(ac): 14.750                Time Shift(hrs): 0.00
        Curve Number: 98.00           Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


-------------------------------------------------------------------------------------------------
        Name: PLB-150                  Node: PLB-150              Status: Onsite
       Group: PLUCKEBAUM              Type: SCS Unit Hydrograph CN

       Unit Hydrograph: GAMMA                 Peaking Factor: 200.0
         Rainfall File:                 Storm Duration(hrs): 0.00
   Rainfall Amount(in): 0.000             Time of Conc(min): 51.00
            Area(ac): 65.740                Time Shift(hrs): 0.00
        Curve Number: 88.00           Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


-------------------------------------------------------------------------------------------------
        Name: PLB-160                  Node: PLB-160              Status: Onsite
       Group: PLUCKEBAUM              Type: SCS Unit Hydrograph CN

       Unit Hydrograph: GAMMA                 Peaking Factor: 200.0
         Rainfall File:                 Storm Duration(hrs): 0.00
   Rainfall Amount(in): 0.000             Time of Conc(min): 68.00
            Area(ac): 63.560                Time Shift(hrs): 0.00
```

Existing Structural Flooding within the West Cocoa Study Area

Project Name: **West Cocoa Watershed Investigation**
Project Number: **BRC-003**
Date: **April 2014**

Structural Flooding following the 10-yr, 24-hr storm event: **15 residences**
Structural Flooding following the 25-yr, 24-hr storm event: **44 residences**
Structural Flooding following the 100-yr, 24-hr storm event: **202 residences**

Node	Existing Conditions Peak Stage (ft, NAVD)			Street Number	Street Name	Finish Floor Elevation (ft, NAVD)	Depth of Flooding under Existing Conditions (ft)		
	10-Year, 24-Hour Storm Event	25-Year, 24-Hour Storm Event	100-Year, 24-Hour Storm Event				10-Year, 24-Hour Storm Event	25-Year, 24-Hour Storm Event	100-Year, 24-Hour Storm Event
LAK-340	18.61	18.93	19.41	309	Woods Lake Drive	20.00	1.39	1.07	0.59
GRA-110	18.16	18.57	19.82	2511	Marlowe Place	20.42	2.26	1.85	0.60
SR524-605	23.77	24.02	24.69	3817	Parapet Drive	25.30	1.53	1.28	0.61
SR524-605	23.77	24.02	24.69	3832	Parapet Drive	25.30	1.53	1.28	0.61
RAN-270E	19.19	19.45	19.81	2489	Bonny Drive	20.42	1.23	0.97	0.61
COX-810	24.07	24.43	24.83	2251	Archer Court	25.44	1.37	1.01	0.61
BUR-140	16.36	16.78	17.24	3848	Catalina Drive	17.85	1.49	1.07	0.61
SR524-605	23.77	24.02	24.69	3805	Stonemont Drive	25.31	1.54	1.29	0.62
SR524-605	23.77	24.02	24.69	3850	Stonemont Drive	25.31	1.54	1.29	0.62
SR524-605	23.77	24.02	24.69	3807	Parapet Drive	25.32	1.55	1.30	0.63
BUR-140	16.36	16.78	17.24	3721	Brockington Circle	17.87	1.51	1.09	0.63
BUR-140	16.36	16.78	17.24	3787	Brockington Circle	17.87	1.51	1.09	0.63
LAK-340N	18.70	18.98	19.43	2441	Dianne Drive	20.07	1.37	1.09	0.64
BUR-140	16.36	16.78	17.24	393	Western Avenue	17.88	1.52	1.10	0.64
MUD-200	19.45	19.94	20.56	1100	Gary Hunt Road	21.20	1.75	1.26	0.64
SR524-605	23.77	24.02	24.69	3808	Parapet Drive	25.34	1.57	1.32	0.65
GRA-110	18.16	18.57	19.82	2586	Stratford Drive	20.47	2.31	1.90	0.65
BUR-140	16.36	16.78	17.24	3711	Catalina Drive	17.89	1.53	1.11	0.65
COX-810	24.07	24.43	24.83	2244	Archer Court	25.49	1.42	1.06	0.66
BUR-140	16.36	16.78	17.24	3788	Brockington Circle	17.90	1.54	1.12	0.66
BUR-310	18.86	19.29	19.83	308/310	Sundial Court	20.49	1.63	1.20	0.66
LAK-340	18.61	18.93	19.41	306	Woods Lake Drive	20.09	1.48	1.16	0.68
BUR-140	16.36	16.78	17.24	3694	Catalina Drive	17.92	1.56	1.14	0.68
SR524-605	23.77	24.02	24.69	3810	Stonemont Drive	25.38	1.61	1.36	0.69
LAK-340	18.61	18.93	19.41	353	Country Lane Drive	20.10	1.49	1.17	0.69
LAK-340	18.61	18.93	19.41	355	Country Lane Drive	20.10	1.49	1.17	0.69
GRA-110	18.16	18.57	19.82	651	Bacon Street	20.51	2.35	1.94	0.69
SR524-605	23.77	24.02	24.69	3819	Stonemont Drive	25.39	1.62	1.37	0.70
GRA-120	18.82	19.17	19.88	2527	N. Palm Drive	20.58	1.76	1.41	0.70
BUR-140	16.36	16.78	17.24	3611	Catalina Drive	17.94	1.58	1.16	0.70
LAK-390	18.68	18.95	19.37	317	Cherry Laurel Avenue	20.08	1.40	1.13	0.71
LAK-340N	18.70	18.98	19.43	2450	Mercury Drive	20.14	1.44	1.16	0.71
BUR-140	16.36	16.78	17.24	3707	Brockington Circle	17.95	1.59	1.17	0.71
BUR-140	16.36	16.78	17.24	3713	Brockington Circle	17.95	1.59	1.17	0.71
RAN-250	18.31	18.55	19.64	2530A	Oak Haven Lane	20.35	2.04	1.80	0.71
PLB-190B	16.56	17.96	19.09	1800	SR 520 (West King Street)	19.80	3.24	1.84	0.71
SR524-605	23.77	24.02	24.69	3810	Parapet Drive	25.41	1.64	1.39	0.72
SR524-605	23.77	24.02	24.69	3813	Parapet Drive	25.41	1.64	1.39	0.72
SR524-605	23.77	24.02	24.69	3856	Stonemont Drive	25.41	1.64	1.39	0.72
LAK-340N	18.70	18.98	19.43	2454	Mercury Drive	20.16	1.46	1.18	0.73
LAK-340N	18.70	18.98	19.43	2456	Mercury Drive	20.16	1.46	1.18	0.73
LAK-340N	18.70	18.98	19.43	2465	Victor Road	20.16	1.46	1.18	0.73
LAK-340	18.61	18.93	19.41	393	Country Lane Drive	20.14	1.53	1.21	0.73
LAK-340	18.61	18.93	19.41	395	Country Lane Drive	20.14	1.53	1.21	0.73
SR524-605	23.77	24.02	24.69	3805	Parapet Drive	25.42	1.65	1.40	0.73
RAN-270E	19.19	19.45	19.81	2492	Bonny Drive	20.55	1.36	1.10	0.74
RAN-270E	19.19	19.45	19.81	2481	Victor Road	20.55	1.36	1.10	0.74
COX-810	24.07	24.43	24.83	2242	Archer Court	25.57	1.50	1.14	0.74
BUR-140	16.36	16.78	17.24	3782	Brockington Circle	17.98	1.62	1.20	0.74
BUR-140	16.36	16.78	17.24	321	Western Avenue	17.98	1.62	1.20	0.74
RAN-270E	19.19	19.45	19.81	2480	Victor Road	20.56	1.37	1.11	0.75
LAK-340N	18.70	18.98	19.43	2452	Victor Road	20.19	1.49	1.21	0.76
LAK-340	18.61	18.93	19.41	320	Country Lane Drive	20.17	1.56	1.24	0.76
LAK-340	18.61	18.93	19.41	322	Country Lane Drive	20.17	1.56	1.24	0.76
SR524-605	23.77	24.02	24.69	3806	Parapet Drive	25.46	1.69	1.44	0.77
SR524-605	23.77	24.02	24.69	2239	Westminster Drive	25.46	1.69	1.44	0.77
BUR-140	16.36	16.78	17.24	357	Western Avenue	18.01	1.65	1.23	0.77
BUR-140	16.36	16.78	17.24	3836	Catalina Drive	18.02	1.66	1.24	0.78
LAK-340	18.61	18.93	19.41	363	Country Lane Drive	20.19	1.58	1.26	0.78
LAK-340	18.61	18.93	19.41	365	Country Lane Drive	20.19	1.58	1.26	0.78
GRA-120	18.82	19.17	19.88	2536	Cocoanut Drive	20.66	1.84	1.49	0.78
RAN-170	17.51	17.96	19.09	125	Griffin Drive	19.87	2.36	1.91	0.78
BUR-140	16.36	16.78	17.24	3756	Brockington Circle	18.03	1.67	1.25	0.79
GRA-120	18.82	19.17	19.88	2510	Date Drive	20.67	1.85	1.50	0.79
GRA-100	18.02	18.44	19.72	2555	Oak Haven Lane	20.51	2.49	2.07	0.79
SR524-605	23.77	24.02	24.69	2240	Norwood Court	25.49	1.72	1.47	0.80
COX-140	22.14	22.43	22.57	600	Cox Road	23.37	1.23	0.94	0.80

Group: MUD Warn Stage(ft): 22.000
Type: Stage/Area

AREA AT STAGE 15.5 FT WAS EXTRAPOLATED

Stage(ft)	Area(ac)
15.500	5.0000
18.000	12.8700
19.000	102.5000
20.000	219.2200
21.000	314.4400
22.000	364.5900

Name: MUD-110 Base Flow(cfs): 0.000 Init Stage(ft): 22.000
Group: MUD Warn Stage(ft): 27.000
Type: Stage/Area

INITIAL STAGE AND AREA (EL. 23 FT, NAVD) WAS ESTIMATED BASED ON THE AERIAL TOPOGRAPHIC MAP.
STAGE-STORAGE RELATIONSHIP FOR ELEVATIONS 24-27 FT, NAVD WAS MEASURED USING THE 1-FT LIDAR TOPOGRAPHY.

Stage(ft)	Area(ac)
22.000	13.0000
23.000	14.5000
24.000	17.1500
25.000	19.0000
26.000	21.1600
27.000	23.4500

Name: MUD-200 Base Flow(cfs): 0.000 Init Stage(ft): 16.070
Group: MUD Warn Stage(ft): 19.000
Type: Stage/Area

Stage(ft)	Area(ac)
16.000	7.7700
17.000	48.5600
18.000	125.1200
20.000	274.0200
21.000	350.6500

Name: PAR-100 Base Flow(cfs): 0.000 Init Stage(ft): 11.500
Group: PLUCKEBAUM Warn Stage(ft): 18.000
Type: Stage/Area

STAGE AT ELEVATION 11 FT WAS EXTRAPOLATED BASED ON THE 1-FT TOPO

Stage(ft)	Area(ac)
11.000	5.0000
13.000	5.9600
15.000	7.4400
16.000	8.4500
17.000	14.4400
18.000	28.8500

Name: PLB-100 Base Flow(cfs): 0.000 Init Stage(ft): 11.100
Group: PLUCKEBAUM Warn Stage(ft): 15.000
Type: Stage/Area

Stage(ft)	Area(ac)
6.500	0.0100
10.000	0.1000
11.000	5.0200
13.000	6.0600
14.000	7.4700
15.000	8.7500
16.000	11.5000

Name: PLB-110 Base Flow(cfs): 0.000 Init Stage(ft): 11.100
Group: PLUCKEBAUM Warn Stage(ft): 17.000
Type: Stage/Area

WEST COCOA WATERSHED EVALUATION
EXISTING CONDITIONS ICPR MODEL
NODE MAXIMUM CONDITIONS REPORT
APRIL 2014

ALL ELEVATIONS SHOWN ARE REFERENCED TO THE NAVD 88 VERTICAL DATUM

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
LAK-430	PLUCKEBAUM	100-24	17.62	19.35	19.00	0.0008	121131	12.33	42.60	12.27	40.64
LMUD-100	PLUCKEBAUM	010-24	21.30	20.25	20.00	0.0007	3632260	13.08	445.43	14.74	78.52
LMUD-100	PLUCKEBAUM	025-24	18.75	20.70	20.00	0.0008	4089714	13.08	617.56	18.66	159.22
LMUD-100	PLUCKEBAUM	100-24	16.09	21.00	20.00	0.0008	4394576	13.08	922.69	16.03	393.35
MUD-100	MUD	010-24	17.06	19.64	22.00	0.0003	7718800	12.66	864.90	16.38	381.93
MUD-100	MUD	025-24	22.39	20.03	22.00	0.0004	9669960	12.83	1205.35	15.51	534.55
MUD-100	MUD	100-24	21.78	20.65	22.00	0.0004	12254269	12.67	1594.53	16.46	719.69
MUD-110	MUD	010-24	17.02	23.97	27.00	0.0004	743788	12.33	223.51	16.89	18.47
MUD-110	MUD	025-24	16.22	24.61	27.00	0.0007	796347	12.33	315.52	16.17	28.74
MUD-110	MUD	100-24	16.42	25.78	27.00	0.0010	900719	12.33	479.32	16.42	39.42
MUD-200	MUD	010-24	23.50	19.45	19.00	0.0003	10151639	14.08	891.57	19.04	354.67
MUD-200	MUD	025-24	23.07	19.94	19.00	0.0003	11753165	14.25	1212.34	16.54	425.12
MUD-200	MUD	100-24	22.27	20.56	19.00	0.0003	13802272	14.03	1695.49	21.70	631.32
PAR-100	PLUCKEBAUM	010-24	16.85	16.84	18.00	0.0008	612679	12.83	160.93	17.58	41.52
PAR-100	PLUCKEBAUM	025-24	17.94	17.58	18.00	0.0009	1019287	12.75	204.01	18.44	52.65
PAR-100	PLUCKEBAUM	100-24	18.70	18.49	18.00	0.0009	1591059	12.75	260.00	19.01	109.78
PLB-100	PLUCKEBAUM	010-24	336.00	15.44	15.00	0.0007	493587	13.87	421.60	13.96	421.36
PLB-100	PLUCKEBAUM	025-24	335.98	15.94	15.00	0.0008	555127	13.28	527.22	13.35	526.62
PLB-100	PLUCKEBAUM	100-24	335.99	16.54	15.00	0.0005	628522	13.11	712.84	13.17	712.19
PLB-110	PLUCKEBAUM	010-24	335.99	15.43	17.00	-0.0050	6844	19.25	235.66	19.25	235.67
PLB-110	PLUCKEBAUM	025-24	336.00	15.93	17.00	-0.0050	7030	23.29	277.26	23.29	277.26
PLB-110	PLUCKEBAUM	100-24	336.00	16.52	17.00	0.0116	4331	24.56	335.87	24.57	335.89
PLB-120	PLUCKEBAUM	010-24	335.99	15.44	15.00	0.0014	37094	19.26	235.62	19.25	235.66
PLB-120	PLUCKEBAUM	025-24	336.00	15.94	15.00	0.0012	40137	23.27	277.23	23.29	277.26
PLB-120	PLUCKEBAUM	100-24	336.00	16.54	15.00	0.0013	49744	24.53	335.78	24.56	335.87
PLB-130	PLUCKEBAUM	010-24	335.99	15.44	16.00	0.0007	156187	19.06	235.58	19.26	235.62
PLB-130	PLUCKEBAUM	025-24	336.00	15.94	16.00	0.0008	184548	23.00	277.21	23.27	277.23
PLB-130	PLUCKEBAUM	100-24	336.00	16.54	16.00	0.0005	221304	24.29	335.74	24.53	335.78
PLB-130S	PLUCKEBAUM	010-24	28.42	10.96	14.00	0.0002	622007	12.42	106.80	0.00	0.00
PLB-130S	PLUCKEBAUM	025-24	28.42	11.58	14.00	0.0004	632192	12.42	140.40	0.00	0.00
PLB-130S	PLUCKEBAUM	100-24	336.00	13.12	14.00	0.0005	678000	12.42	198.72	0.00	0.00
PLB-140	PLUCKEBAUM	010-24	336.00	15.44	16.00	0.0007	203216	24.00	194.64	25.00	195.47
PLB-140	PLUCKEBAUM	025-24	336.00	15.94	16.00	0.0008	251556	30.09	223.37	29.21	225.97
PLB-140	PLUCKEBAUM	100-24	336.00	16.54	16.00	0.0006	392993	24.11	277.26	25.32	277.19
PLB-150	PLUCKEBAUM	010-24	23.58	15.89	17.00	0.0006	74407	24.00	193.23	24.25	193.35
PLB-150	PLUCKEBAUM	025-24	24.20	16.32	17.00	0.0007	183941	30.33	222.57	30.09	223.37
PLB-150	PLUCKEBAUM	100-24	24.69	16.97	17.00	0.0005	397440	24.00	276.63	26.39	275.76
PLB-160	PLUCKEBAUM	010-24	24.03	16.17	16.00	0.0006	1647384	20.22	198.38	26.68	191.72
PLB-160	PLUCKEBAUM	025-24	25.53	16.69	16.00	0.0007	2274123	18.21	252.59	30.33	222.57
PLB-160	PLUCKEBAUM	100-24	26.15	17.55	16.00	0.0005	3293132	15.81	383.68	27.35	274.17

ALL ELEVATIONS SHOWN ARE REFERENCED TO THE NAVD 88 VERTICAL DATUM

Flow Max(cfs):	58.00	100.35	43.98	411.94	8.63
Runoff Volume(in):	5.727	5.835	5.727	5.613	5.727
Runoff Volume(ft3):	794600	1042164	545493	8032228	107061

Name:	LAK-410	LAK-430	LMUD-100	MUD-100	MUD-100A
Group:	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	MUD	MUD
Simulation:	010-24	010-24	010-24	010-24	010-24
Node:	LAK-410	LAK-430	LMUD-100	MUD-100	MUD-100
Type:	SCS	SCS	SCS	SCS	SCS
Unit Hydrograph:	GAMMA	Uh256	Uh256	GAMMA	Uh323
Peaking Factor:	200.0	256.0	256.0	200.0	323.0
Spec Time Inc(min):	5.73	5.20	13.07	18.93	6.53
Comp Time Inc(min):	5.00	5.00	5.00	5.00	5.00
Rain File:	Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	7.500	7.500	7.500	7.500	7.500
Duration(hrs):	24.00	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite	Onsite
TC(min):	43.00	39.00	98.00	142.00	49.00
Time Shift(hrs):	0.00	0.00	0.00	0.00	0.00
Area(ac):	86.990	10.950	461.390	514.110	137.320
Vol of Unit Hyd(in):	1.000	1.000	1.000	1.000	1.001
Curve Num:	85.000	86.000	77.000	90.000	70.000
DCIA(%):	0.000	0.000	0.000	0.000	0.000
Time Max(hrs):	12.50	12.33	13.08	13.75	12.50
Flow Max(cfs):	154.27	22.70	431.68	417.16	206.56
Runoff Volume(in):	5.713	5.840	4.815	6.312	4.035
Runoff Volume(ft3):	1803994	232121	8064504	11780296	2011502

Name:	MUD-110	MUD-200	PAR-100	PLB-130S	PLB-140
Group:	MUD	MUD	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM
Simulation:	010-24	010-24	010-24	010-24	010-24
Node:	MUD-110	MUD-200	PAR-100	PLB-130S	PLB-140
Type:	SCS	SCS	SCS	SCS	SCS
Unit Hydrograph:	Uh323	GAMMA	Uh256	Uh256	GAMMA
Peaking Factor:	323.0	200.0	256.0	256.0	200.0
Spec Time Inc(min):	5.07	14.27	10.53	6.00	5.87
Comp Time Inc(min):	5.00	5.00	5.00	5.00	5.00
Rain File:	Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	7.500	7.500	7.500	7.500	7.500
Duration(hrs):	24.00	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite	Onsite
TC(min):	38.00	107.00	79.00	45.00	44.00
Time Shift(hrs):	0.00	0.00	0.00	0.00	0.00
Area(ac):	118.130	582.900	105.400	54.960	14.750
Vol of Unit Hyd(in):	1.000	1.000	1.000	1.000	1.000
Curve Num:	73.000	86.000	84.000	87.000	98.000
DCIA(%):	0.000	0.000	0.000	0.000	0.000
Time Max(hrs):	12.33	13.25	12.83	12.42	12.42
Flow Max(cfs):	223.52	546.16	134.46	106.80	29.98
Runoff Volume(in):	4.371	5.844	5.611	5.961	7.238
Runoff Volume(ft3):	1874354	12366460	2146956	1189257	387517

Name:	PLB-150	PLB-160	PLB-190	PLB-190A	PLB-190B
Group:	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM
Simulation:	010-24	010-24	010-24	010-24	010-24
Node:	PLB-150	PLB-160	PLB-190	PLB-190A	PLB-190B
Type:	SCS	SCS	SCS	SCS	SCS
Unit Hydrograph:	GAMMA	GAMMA	GAMMA	GAMMA	GAMMA
Peaking Factor:	200.0	200.0	200.0	200.0	200.0
Spec Time Inc(min):	6.80	9.07	10.13	9.33	11.07
Comp Time Inc(min):	5.00	5.00	5.00	5.00	5.00
Rain File:	Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	7.500	7.500	7.500	7.500	7.500
Duration(hrs):	24.00	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite	Onsite
TC(min):	51.00	68.00	76.00	70.00	83.00
Time Shift(hrs):	0.00	0.00	0.00	0.00	0.00
Area(ac):	65.740	63.560	124.950	230.290	128.640
Vol of Unit Hyd(in):	1.000	1.000	1.000	1.000	1.000
Curve Num:	88.000	84.000	84.000	93.000	91.000
DCIA(%):	0.000	0.000	0.000	0.000	0.000
Time Max(hrs):	12.50	12.75	12.83	12.75	12.92
Flow Max(cfs):	109.26	80.38	145.60	328.02	157.96
Runoff Volume(in):	6.066	5.611	5.615	6.661	6.427
Runoff Volume(ft3):	1447655	1294582	2546991	5568615	3001105

Name:	PLB-300	PLB-320	PLB-350	RAN-130	RAN-130W
Group:	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM
Simulation:	010-24	010-24	010-24	010-24	010-24
Node:	PLB-300	PLB-320	PLB-350	RAN-130	RAN-130W

ALL ELEVATIONS SHOWN ARE REFERENCED TO THE NAVD 88 VERTICAL DATUM

Flow Max(cfs):	77.02	132.32	58.34	551.02	11.45
Runoff Volume(in):	7.662	7.775	7.661	7.538	7.661
Runoff Volume(ft3):	1062982	1388673	729736	10788211	143222

Name:	LAK-410	LAK-430	LMUD-100	MUD-100	MUD-100A
Group:	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	MUD	MUD
Simulation:	025-24	025-24	025-24	025-24	025-24
Node:	LAK-410	LAK-430	LMUD-100	MUD-100	MUD-100
Type:	SCS	SCS	SCS	SCS	SCS
Unit Hydrograph:	GAMMA	Uh256	Uh256	GAMMA	Uh323
Peaking Factor:	200.0	256.0	256.0	200.0	323.0
Spec Time Inc(min):	5.73	5.20	13.07	18.93	6.53
Comp Time Inc(min):	5.00	5.00	5.00	5.00	5.00
Rain File:	Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	9.500	9.500	9.500	9.500	9.500
Duration(hrs):	24.00	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite	Onsite
TC(min):	43.00	39.00	98.00	142.00	49.00
Time Shift(hrs):	0.00	0.00	0.00	0.00	0.00
Area(ac):	86.990	10.950	461.390	514.110	137.320
Vol of Unit Hyd(in):	1.000	1.000	1.000	1.000	1.001
Curve Num:	85.000	86.000	77.000	90.000	70.000
DCIA(%):	0.000	0.000	0.000	0.000	0.000
Time Max(hrs):	12.42	12.33	13.08	13.67	12.50
Flow Max(cfs):	204.58	29.97	599.67	544.41	297.15
Runoff Volume(in):	7.643	7.781	6.662	8.284	5.774
Runoff Volume(ft3):	2413304	309299	11158289	15459018	2878315

Name:	MUD-110	MUD-200	PAR-100	PLB-130S	PLB-140
Group:	MUD	MUD	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM
Simulation:	025-24	025-24	025-24	025-24	025-24
Node:	MUD-110	MUD-200	PAR-100	PLB-130S	PLB-140
Type:	SCS	SCS	SCS	SCS	SCS
Unit Hydrograph:	Uh323	GAMMA	Uh256	Uh256	GAMMA
Peaking Factor:	323.0	200.0	256.0	256.0	200.0
Spec Time Inc(min):	5.07	14.27	10.53	6.00	5.87
Comp Time Inc(min):	5.00	5.00	5.00	5.00	5.00
Rain File:	Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	9.500	9.500	9.500	9.500	9.500
Duration(hrs):	24.00	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite	Onsite
TC(min):	38.00	107.00	79.00	45.00	44.00
Time Shift(hrs):	0.00	0.00	0.00	0.00	0.00
Area(ac):	118.130	582.900	105.400	54.960	14.750
Vol of Unit Hyd(in):	1.000	1.000	1.000	1.000	1.000
Curve Num:	73.000	86.000	84.000	87.000	98.000
DCIA(%):	0.000	0.000	0.000	0.000	0.000
Time Max(hrs):	12.33	13.25	12.83	12.42	12.42
Flow Max(cfs):	315.52	724.39	179.72	140.41	38.03
Runoff Volume(in):	6.162	7.788	7.537	7.912	9.230
Runoff Volume(ft3):	2642195	16478180	2883611	1578516	494204

Name:	PLB-150	PLB-160	PLB-190	PLB-190A	PLB-190B
Group:	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM
Simulation:	025-24	025-24	025-24	025-24	025-24
Node:	PLB-150	PLB-160	PLB-190	PLB-190A	PLB-190B
Type:	SCS	SCS	SCS	SCS	SCS
Unit Hydrograph:	GAMMA	GAMMA	GAMMA	GAMMA	GAMMA
Peaking Factor:	200.0	200.0	200.0	200.0	200.0
Spec Time Inc(min):	6.80	9.07	10.13	9.33	11.07
Comp Time Inc(min):	5.00	5.00	5.00	5.00	5.00
Rain File:	Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	9.500	9.500	9.500	9.500	9.500
Duration(hrs):	24.00	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite	Onsite
TC(min):	51.00	68.00	76.00	70.00	83.00
Time Shift(hrs):	0.00	0.00	0.00	0.00	0.00
Area(ac):	65.740	63.560	124.950	230.290	128.640
Vol of Unit Hyd(in):	1.000	1.000	1.000	1.000	1.000
Curve Num:	88.000	84.000	84.000	93.000	91.000
DCIA(%):	0.000	0.000	0.000	0.000	0.000
Time Max(hrs):	12.50	12.75	12.83	12.75	12.92
Flow Max(cfs):	143.10	107.34	194.60	421.69	204.71
Runoff Volume(in):	8.021	7.536	7.542	8.646	8.403
Runoff Volume(ft3):	1914119	1738774	3420903	7227628	3923707

Name:	PLB-300	PLB-320	PLB-350	RAN-130	RAN-130W
Group:	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM
Simulation:	025-24	025-24	025-24	025-24	025-24
Node:	PLB-300	PLB-320	PLB-350	RAN-130	RAN-130W

ALL ELEVATIONS SHOWN ARE REFERENCED TO THE NAVD 88 VERTICAL DATUM

Flow Max(cfs):	110.11	188.12	83.29	793.71	16.35
Runoff Volume(in):	11.090	11.208	11.089	10.957	11.089
Runoff Volume(ft3):	1538579	2001748	1056234	15680314	207302

Name:	LAK-410	LAK-430	LMUD-100	MUD-100	MUD-100A
Group:	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	MUD	MUD
Simulation:	100-24	100-24	100-24	100-24	100-24
Node:	LAK-410	LAK-430	LMUD-100	MUD-100	MUD-100
Type:	SCS	SCS	SCS	SCS	SCS
Unit Hydrograph:	GAMMA	Uh256	Uh256	GAMMA	Uh323
Peaking Factor:	200.0	256.0	256.0	200.0	323.0
Spec Time Inc(min):	5.73	5.20	13.07	18.93	6.53
Comp Time Inc(min):	5.00	5.00	5.00	5.00	5.00
Rain File:	Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	13.000	13.000	13.000	13.000	13.000
Duration(hrs):	24.00	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite	Onsite
TC(min):	43.00	39.00	98.00	142.00	49.00
Time Shift(hrs):	0.00	0.00	0.00	0.00	0.00
Area(ac):	86.990	10.950	461.390	514.110	137.320
Vol of Unit Hyd(in):	1.000	1.000	1.000	1.000	1.001
Curve Num:	85.000	86.000	77.000	90.000	70.000
DCIA(%):	0.000	0.000	0.000	0.000	0.000
Time Max(hrs):	12.42	12.33	13.08	13.67	12.50
Flow Max(cfs):	292.09	42.60	897.61	765.91	460.23
Runoff Volume(in):	11.062	11.217	9.990	11.753	8.970
Runoff Volume(ft3):	3493059	445849	16731289	21933413	4471118

Name:	MUD-110	MUD-200	PAR-100	PLB-130S	PLB-140
Group:	MUD	MUD	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM
Simulation:	100-24	100-24	100-24	100-24	100-24
Node:	MUD-110	MUD-200	PAR-100	PLB-130S	PLB-140
Type:	SCS	SCS	SCS	SCS	SCS
Unit Hydrograph:	Uh323	GAMMA	Uh256	Uh256	GAMMA
Peaking Factor:	323.0	200.0	256.0	256.0	200.0
Spec Time Inc(min):	5.07	14.27	10.53	6.00	5.87
Comp Time Inc(min):	5.00	5.00	5.00	5.00	5.00
Rain File:	Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	13.000	13.000	13.000	13.000	13.000
Duration(hrs):	24.00	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite	Onsite
TC(min):	38.00	107.00	79.00	45.00	44.00
Time Shift(hrs):	0.00	0.00	0.00	0.00	0.00
Area(ac):	118.130	582.900	105.400	54.960	14.750
Vol of Unit Hyd(in):	1.000	1.000	1.000	1.000	1.000
Curve Num:	73.000	86.000	84.000	87.000	98.000
DCIA(%):	0.000	0.000	0.000	0.000	0.000
Time Max(hrs):	12.33	13.25	12.83	12.42	12.42
Flow Max(cfs):	479.32	1034.96	258.62	198.72	52.10
Runoff Volume(in):	9.422	11.226	10.955	11.359	12.718
Runoff Volume(ft3):	4040235	23753020	4191234	2266210	680948

Name:	PLB-150	PLB-160	PLB-190	PLB-190A	PLB-190B
Group:	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM
Simulation:	100-24	100-24	100-24	100-24	100-24
Node:	PLB-150	PLB-160	PLB-190	PLB-190A	PLB-190B
Type:	SCS	SCS	SCS	SCS	SCS
Unit Hydrograph:	GAMMA	GAMMA	GAMMA	GAMMA	GAMMA
Peaking Factor:	200.0	200.0	200.0	200.0	200.0
Spec Time Inc(min):	6.80	9.07	10.13	9.33	11.07
Comp Time Inc(min):	5.00	5.00	5.00	5.00	5.00
Rain File:	Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	13.000	13.000	13.000	13.000	13.000
Duration(hrs):	24.00	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite	Onsite
TC(min):	51.00	68.00	76.00	70.00	83.00
Time Shift(hrs):	0.00	0.00	0.00	0.00	0.00
Area(ac):	65.740	63.560	124.950	230.290	128.640
Vol of Unit Hyd(in):	1.000	1.000	1.000	1.000	1.000
Curve Num:	88.000	84.000	84.000	93.000	91.000
DCIA(%):	0.000	0.000	0.000	0.000	0.000
Time Max(hrs):	12.50	12.75	12.83	12.75	12.92
Flow Max(cfs):	201.81	154.33	280.05	584.50	285.90
Runoff Volume(in):	11.470	10.954	10.962	12.129	11.876
Runoff Volume(ft3):	2737077	2527251	4972171	10139083	5545728

Name:	PLB-300	PLB-320	PLB-350	RAN-130	RAN-130W
Group:	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM	PLUCKEBAUM
Simulation:	100-24	100-24	100-24	100-24	100-24
Node:	PLB-300	PLB-320	PLB-350	RAN-130	RAN-130W

20.000	4.1900

Name: LMUD-100 Base Flow(cfs): 0.000 Init Stage(ft): 16.390
Group: PLUCKEBAUM Warn Stage(ft): 20.000
Type: Stage/Area

AREA AT INITIAL STAGE WAS APPROXIMATED

Stage(ft)	Area(ac)
16.390	15.0000
19.000	25.4600
20.000	77.6400
21.000	100.9200

Name: MUD-100 Base Flow(cfs): 0.000 Init Stage(ft): 16.070
Group: MUD Warn Stage(ft): 22.000
Type: Stage/Area

AREA AT STAGE 15.5 FT WAS EXTRAPOLATED

Stage(ft)	Area(ac)
15.500	5.0000
18.000	12.8700
19.000	102.5000
20.000	219.2200
21.000	314.4400
22.000	364.5900

Name: MUD-110 Base Flow(cfs): 0.000 Init Stage(ft): 22.000
Group: MUD Warn Stage(ft): 27.000
Type: Stage/Area

INITIAL STAGE AND AREA (EL. 22 FT, NAVD) WAS ESTIMATED BASED ON THE AERIAL TOPOGRAPHIC MAP.
STAGE-STORAGE RELATIONSHIP FOR ELEVATIONS 24-27 FT, NAVD WAS MEASURED USING THE 1-FT LIDAR TOPOGRAPHY.

Stage(ft)	Area(ac)
22.000	13.0000
23.000	14.5000
24.000	17.1500
25.000	19.0000
26.000	21.1600
27.000	23.4500

Name: MUD-200 Base Flow(cfs): 0.000 Init Stage(ft): 16.070
Group: MUD Warn Stage(ft): 19.000
Type: Stage/Area

Stage(ft)	Area(ac)
16.000	7.7700
17.000	48.5600
18.000	125.1200
20.000	274.0200
21.000	350.6500

Name: PAR-100 Base Flow(cfs): 0.000 Init Stage(ft): 11.780
Group: PLUCKEBAUM Warn Stage(ft): 18.000
Type: Stage/Area

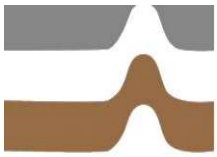
STAGE AT ELEVATION 12 FT WAS EXTRAPOLATED BASED ON THE 1-FT TOPO

Stage(ft)	Area(ac)
11.000	5.0000
13.000	5.9600
15.000	7.4400
16.000	8.4500
17.000	14.4400
18.000	28.8500

Name: PLB-100 Base Flow(cfs): 0.000 Init Stage(ft): 11.100
Group: PLUCKEBAUM Warn Stage(ft): 15.000
Type: Stage/Area

APPENDIX E
GEOTECHNICAL REPORT – SUBSURFACE EXPLORATION

Subsurface Soil Exploration and
Geotechnical Engineering Evaluation
Legacy Cocoa Apartments
Cox Road
Cocoa, Florida



Ardaman & Associates, Inc.

CORPORATE HEADQUARTERS

8008 S. Orange Avenue, Orlando, FL 32809 - Phone: (407) 855-3860 Fax: (407) 859-8121

Branch Office Locations

Florida: Bartow, Cocoa, Fort Myers, Miami, Orlando, Port St. Lucie, Sarasota, Tallahassee, Tampa, West Palm Beach
Louisiana: Baton Rouge, Monroe, New Orleans, Shreveport

MEMBERS:

ASTM International
American Concrete Institute
Geoprofessional Business Association
Society of American Military Engineers
American Council of Engineering Companies

Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

June 23, 2022
File No. 22-23-5228

Legacy Residential Group
3850 Bird Road Suite 800
Miami, Florida 33146

Attention: Mr. Alexander Moya

Subject: Proposal for Subsurface Soil Exploration and
Geotechnical Engineering Evaluation
Legacy Cocoa Apartments
Cox Road
Cocoa, Florida

Dear Mr. Moya:

As requested, we have completed a shallow subsurface soil exploration for the subject project. The purposes of performing this exploration were to evaluate the general subsurface conditions within the building and parking/drive areas and to provide recommendations for site preparation, foundation support, and pavement design. In addition, we have explored the soil and groundwater conditions within the proposed wet stormwater detention ponds and we have estimated the normal seasonal high groundwater level at the boring locations. This report documents our findings and presents our engineering recommendations.

SITE LOCATION AND SITE DESCRIPTION

The site for the proposed development is located east of the intersection of Cox Road and Pine Tree Place in Cocoa, Brevard County, Florida (Section 24, Township 24 South, Range 35 East). The general site location is shown superimposed on the Sharpes, Florida USGS quadrangle map presented on Figure 1.

The project site is currently grassed, densely wooded, and vegetated with thick brush. No structures currently exist on the project site. Paths were mowed on the site to provide drill rig access to the boring locations.

PROPOSED CONSTRUCTION AND GRADING

It is our understanding that the proposed development includes ten one-story and 17 two-story apartment buildings, a one-story clubhouse building, asphalt paved parking/drive areas, and two wet stormwater detention ponds. For the purposes of our analysis, we have assumed the maximum loading conditions for the one-story buildings to be on the order of 1 to 2 kips per linear foot for continuous wall foundations and 20 to 30 kips for individual column foundations. We have assumed the maximum loading conditions for the two-story buildings to be on the order of 2 to 3 kips per linear foot for continuous wall foundations and 80 to 90 kips for individual column foundations. Floor loads are assumed to be less than 100 pounds per square foot for all structures. Grading plans are not complete at this time, therefore we have assumed that 1 to 2 feet of fill is required to raise the building and parking/drive areas to final elevations. If actual building loads or fill height exceed our assumptions, then the recommendations in this report may

not be valid. We understand that the stormwater run-off is to be retained on-site by means of two wet stormwater detention ponds on the central and south portion of the project site.

REVIEW OF SOIL SURVEY MAPS

Based on the 1974 Soil Survey for Brevard County, Florida, as prepared by the U.S. Department of Agriculture Soil Conservation Service, the project site is located in areas mapped as the "Anclote sand", "Myakka sand", and "Valkaria sand" soil series. A description of these soil types, as obtained from the Soil Survey, is provided below.

Anclote sand (An):

"Anclote sand" is a nearly level, very poorly drained sandy soil in broad areas in marshy depressions in the flatwoods, in brood areas on flood plains, and in poorly defined drainageways. A representative profile consists of sand to a depth of 72 inches. In most years, the water table is within a depth of 10 inches for more than 6 months. In dry seasons it is deeper, but seldom below a depth of 40 inches. The soil is occasionally flooded 2 to 7 days following heavy rains.

Myakka sand (Mk):

"Myakka sand" is a nearly level, poorly drained sandy soil in broad areas in the flatwoods and in areas between sand ridges and sloughs and ponds. A representative profile of the soil consists of 22 inches of dark gray to gray sand followed by 13 inches of dark brown, weakly cemented sand. Below that is gray sand to a depth of 63 inches. In most years, the water table is within a depth of 10 inches for 1 to 4 months and between 10 and 40 inches for more than 6 months. In dry seasons it is below a depth of 40 inches. The soil is flooded for 2 to 7 days in 1 to 5 years.

Valkaria sand (Va):

"Valkaria sand" is a nearly level, poorly drained sandy soil in grassy sloughs, low palm hammocks, and in broad low areas. A representative soil profile would consist of sand to about 41 inches, underlain by mottled sand to a depth of 80 inches. This soil is frequently flooded for periods of 2 to 7 days following heavy rains. The water table is within a depth of 10 inches for 2 to 6 months of most years. In dry periods it is within a depth of 30 inches most of the time.

FIELD EXPLORATION PROGRAM

SPT and Auger Borings

Initially, the proposed field exploration program included performing 56 Standard Penetration Test (SPT) borings and 17 auger borings. However, the south portion of the site, including the locations of Borings TH-17 through TH-28 and AB-4 through AB-5, was not able to be accessed by truck or mudbug-mounted drilling equipment during this portion of the site investigation due to the encountered terrain. To perform these borings in the future, access will need to be provided by the client to this portion of the site.

The SPT borings conducted during this phase of the project were performed north of the area discussed above within the proposed "footprints" of the buildings. The borings were advanced to a depth of 15 and 20 feet below the ground surface using the methodology outlined in ASTM D-1586. A summary of this field procedure is included in Appendix I. Split-spoon soil samples recovered during performance of the borings were visually classified in the field and representative portions of the samples were transported to our laboratory in sealed sample jars.

The auger borings were performed in the proposed parking/drive and stormwater detention pond areas. They were drilled using a truck-mounted, 4-inch diameter, continuous flight auger or a 3-inch diameter, hand-held bucket auger to depths of 5 and 15 feet below the ground surface. A summary of the auger boring procedure is included in Appendix I. Representative soil samples were recovered from the auger borings and transported to our laboratory for further analysis.

The groundwater level at each of the boring locations was measured during drilling. Upon completion, the borings were backfilled with soil cuttings.

Permeability Test Sampling

Four test pits (TP-1 through TP-4) were excavated by hand to a depth of one foot below existing ground surface within proposed pond areas. One 3-inch diameter Shelby-tube sample was obtained in a vertical orientation in the bottom of each excavation. The Shelby-tube samples were capped and transported to our laboratory for soil permeability testing.

Test Locations

The approximate locations of the borings and test pits are schematically illustrated on a site plan shown on Figure 2. These locations were determined in the field by estimating distances from existing site features and should be considered accurate only to the degree implied by the method of measurement used.

LABORATORY PROGRAM

Representative soil samples obtained during our field sampling operation were packaged and transferred to our laboratory for further visual examination and classification. The soil samples were visually classified in general accordance with the Unified Soil Classification System (ASTM D-2488). The resulting soil descriptions are shown on the soil boring profiles presented in Appendix II.

In addition, we conducted six percent fines analyses (ASTM D1140), two organic content tests (ASTM D2974-87), and two natural moisture content tests (ASTM D2216) on selected soil samples obtained from the borings. The results of these tests are presented adjacent to the sample depth on the boring profiles in Appendix II.

Constant-head permeability tests were performed on the Shelby-tube samples obtained from the test pits excavated on the site. The results of the laboratory permeability tests are tabulated in the “Detention Ponds” section of this report.

GENERAL SUBSURFACE CONDITIONS

General Soil Profile

The results of the field exploration and laboratory programs are graphically summarized on the soil boring profiles presented in Appendix II. The stratification of the boring profiles represents our interpretation of the field boring logs and the results of laboratory examinations of the recovered samples. The stratification lines represent the approximate boundary between soil types. The actual transitions may be more gradual than implied.

The soils encountered in the SPT borings consisted of very loose to medium dense fine sand (Unified Soil Classification SP) and fine sand with silt (SP-SM) to a depth of approximately 10.5

feet below existing ground surface. This soil was underlain by very loose to medium dense fine sand (SP), fine sand with silt (SP-SM), silty fine sand (SM), and clayey fine sand (SC), to the termination depth of the deepest borings, 20 feet below existing ground surface. We note that partially cemented sand and shell and soil with a high shell content, designated with “and shell” in Appendix II, were encountered in Borings TH-1 through TH-6 and TH-30 through TH-34 at depths ranging from approximately 17.5 to 20 feet below existing ground surface.

The auger borings encountered fine sand (SP) and fine sand with silt (SP-SM) to the termination depth of the deepest borings, 15 feet below the existing ground surface. These soil profiles are outlined in general terms only. Please refer to Appendix II for soil profile details.

Groundwater Level

The groundwater level was measured in the boreholes on the day drilled. As shown in Appendix II, groundwater was encountered at depths that ranged from approximately 3.8 to 7.5 feet below the existing ground surface on the date indicated. Fluctuations in groundwater levels should be anticipated throughout the year primarily due to seasonal variations in rainfall and other factors that may vary from the time the borings were conducted.

NORMAL SEASONAL HIGH GROUNDWATER LEVEL

The normal seasonal high groundwater level each year is the level in the August-September period at the end of the rainy season during a year of normal (average) rainfall. The water table elevations associated with a higher than normal rainfall and in the extreme case, flood, would be higher to much higher than the normal seasonal high groundwater level. The normal high water levels would more approximate the normal seasonal high groundwater levels.

The seasonal high groundwater level is affected by a number of factors. The drainage characteristics of the soils, the land surface elevation, relief points such as drainage ditches, lakes, rivers, swamp areas, etc., and distance to relief points are some of the more important factors influencing the seasonal high groundwater level.

In addition to evaluating the conditions above, we have reviewed annual precipitation data available from the Melbourne Office of the National Weather Service. Based on this data, the annual rainfall to date in Brevard County is approximately 13.4, which is approximately 2.2 inches higher than normal for this time of year.

Based on our interpretation of the site conditions using our boring logs, we estimate the normal seasonal high groundwater level at the boring locations to be approximately 1½ to 2 feet above the groundwater levels measured at the time of our field exploration.

ENGINEERING EVALUATION AND RECOMMENDATIONS

General

The results of our exploration indicate that, with proper site preparation as recommended in this report, the existing soils encountered within the proposed building areas are suitable for supporting the proposed buildings on a conventional shallow foundation system. Spread footings should provide an adequate support system for both the one-story and two-story structures. The encountered soils are also suitable for support of the proposed parking/drive areas.

The following are our recommendations for overall site preparation, foundation support, and pavement construction which we feel are best suited for the proposed facility and existing soil conditions. The recommendations are made as a guide for the design engineer and/or architect, parts of which should be incorporated into the project's specifications.

Stripping and Grubbing

The "footprints" of the proposed building and the parking/drive areas, plus a minimum margin of 5 feet, should be stripped of all surface vegetation, stumps, debris, organic topsoil or other deleterious materials, as encountered. Buried utilities should be removed or plugged to eliminate conduits into which surrounding soils could erode.

After stripping, the site should be grubbed or root-raked such that roots with a diameter greater than ½ inch, stumps, or small roots in a dense state, are completely removed. The actual depth(s) of stripping and grubbing must be determined by visual observation and judgment during the earthwork operation.

Proof-rolling

We recommend proof-rolling the cleared surface to locate any unforeseen soft areas or unsuitable surface or near-surface soils, to increase the density of the upper soils, and to prepare the existing surface for the addition of the fill soils (as required). Proof-rolling of the building areas should consist of at least 10 passes of a compactor capable of achieving the density requirements described in the next paragraph. Each pass should overlap the preceding pass by 30 percent to achieve complete coverage. If deemed necessary, in areas that continue to "yield", remove all deleterious material and replace with clean, compacted sand backfill. The proof-rolling should occur after cutting and before filling. The number of passes can be reduced to three within the proposed parking/drive areas.

A density equivalent to or greater than 95 percent of the modified Proctor (ASTM D-1557) maximum dry density value for a depth of 2 feet in the building areas and 1 foot in the parking/drive areas must be achieved beneath the stripped and grubbed ground surface. Additional passes and/or overexcavation and recompaction may be required if these minimum density requirements are not achieved. The soil moisture should be adjusted as necessary during compaction.

Suitable Fill Material and the Compaction of Fill Soils

All fill soil should be free of organic materials, such as roots and vegetation. We recommend using fill with less than 12 percent by dry weight of material passing the U.S. Standard No. 200 sieve size. The fine sand and fine sand with silt (Strata Nos. 1 and 2 as shown in Appendix II) are suitable for use as fill soil and, with proper moisture control, should densify using conventional compaction methods. Soils with more than 12 percent passing the No. 200 sieve can be used in some applications but will be more difficult to compact due to their inherent nature to retain soil moisture.

We note that partially cemented sand and shell soils and soils containing high shell content, identified with the term “and shell” in Appendix II, were encountered in Borings TH-1 through TH-6 and TH-30 through TH-34 at depths ranging from approximately 17.5 to 20 feet below existing ground surface. These soils are possibly coquina-type soils. Partially cemented soils can be problematic for several reasons. First, partially cemented soils can be difficult to excavate or penetrate, often requiring special equipment; especially in confined excavations such as utility trenches, footings, etc. Excavated partially cemented soils are often boulder-size chunks of

cemented soils which are not easily broken down for re-use as structural fill. In addition, when pulverized into fragments that can be compacted to an adequately dense matrix, the in-place soil often fails the relative compaction test because the laboratory test continues to pulverize the soil into smaller particles resulting in a denser laboratory matrix than that which occurs in the field. Alternative acceptance criteria may need to be used for partially cemented soils used as fill. This criteria would need to be developed on a site specific basis after observing the contractor's earthwork methodology and the nature and condition of the compacted partially cemented soils.

All structural fill should be placed in level lifts not to exceed 12 inches in uncompacted thickness. Each lift should be compacted to at least 95 percent of the modified Proctor (ASTM D-1557) maximum dry density value. The filling and compaction operations should continue in lifts until the desired elevation(s) is achieved. If hand-held compaction equipment is used, the lift thickness should be reduced to no more than 6 inches.

Our fill soil recommendations do not apply to the stormwater pond vicinities as the pond designer should recommend types of fill, if any, in the stormwater pond vicinities to be compatible with the pond design.

Foundation Support by Spread Footings and Foundation Compaction Criteria

Excavate the foundations to the proposed bottom of footing elevations and, thereafter, verify the in-place compaction for a depth of 2 feet below the footing bottoms. If necessary, compact the soils at the bottom of the excavations to at least 95 percent of the modified Proctor maximum dry density (ASTM D-1557) for a depth of 2 feet below the footing bottoms. Based on the existing soil conditions and, assuming the above outlined stripping and proof-rolling and compaction criteria are implemented, an allowable soil bearing pressure of 2,500 pounds per square foot (psf) may be used in the foundation design for the one and two-story buildings. This bearing pressure should result in foundation settlement within tolerable limits (i.e., 1 inch or less).

All bearing wall foundations should be a minimum of 18 inches wide and column foundations 24 inches wide. A minimum soil cover of 18 inches should be maintained from the bottom of the foundations to the adjacent finished grades.

Floor Slab Moisture Reducer and Slab Compaction Requirements

Compaction beneath all floor slabs should be verified for a depth of 12 inches and meet the 95 percent criteria (modified Proctor, ASTM D-1557).

Precautions should be taken during the slab construction to reduce moisture entry from the underlying subgrade soils. Moisture entry can be reduced by installing a membrane between the subgrade soils and floor slab. Care should be exercised when placing the reinforcing steel (or mesh) and slab concrete such that the membrane is not punctured. We note that the membrane alone does not prevent moisture from occurring beneath or on top of the slab.

If interior columns are isolated from the floor slab, an expansion joint should be provided around the columns and sealed with a water-proof sealant.

Dewatering

If the control of groundwater is required to achieve the necessary stripping, excavation, proof-rolling, filling, compaction, and any other earthwork, sitework, and/or foundation subgrade preparation operations required for the project, the actual method(s) of dewatering should be

determined by the contractor. Dewatering should be performed to lower the groundwater level to depths that are adequately below excavations and compaction surfaces. Adequate groundwater level depths below excavations and compaction surfaces vary depending on soil type and construction method and are usually 2 feet or more. Dewatering solely with sump pumps may not achieve the desired results.

Typical Asphaltic Concrete Surface Pavement Section

Site Preparation

All areas to be paved should be prepared as previously outlined. Prior to pavement base installation, the subgrade soil compaction should be verified for a depth of 12 inches (i.e.; compacted to at least 95 percent of the modified Proctor (ASTM D-1557, AASHTO T-180) maximum dry density value).

Limerock or Cemented Coquina Base

A limerock or cemented coquina base course 6 inches thick overlying an 8-inch thick stabilized subbase can be used provided that grading and drainage plans preclude periodic saturation of the base material. The periodic saturation of a limerock/coquina base material could lead to premature pavement distress. A minimum clearance of 18 inches must be maintained between the bottom of the limerock/coquina base and the seasonal high groundwater table.

The limerock or cemented coquina should have a minimum Limerock Bearing Ratio (LBR) value of 100 and should be compacted to at least 98 percent of the modified Proctor (ASTM D-1557, AASHTO T-180) maximum density value. For truck parking and drive areas, the base thickness should be a minimum of 8 inches.

An 8-inch thick subbase having a minimum Limerock Bearing Ratio (LBR) value of 40 must be achieved beneath the limerock or cemented coquina base. The natural soils may have to be stabilized with suitable clayey soil in order to achieve the required LBR value. The stabilized subbase must be compacted to at least 98 percent of the modified Proctor maximum dry density (ASTM D-1557, AASHTO T-180).

Recycled Concrete Aggregate Base (Optional)

Recycled concrete aggregate base supported by a free-draining subgrade may be used. Six inches of recycled concrete aggregate base should be used in automobile parking areas and 8 inches of recycled concrete aggregate base should be used in truck parking and drive areas. A minimum clearance of 12 inches should be maintained between the bottom of the recycled concrete aggregate base and the seasonal high groundwater table.

The recycled concrete aggregate base should have a minimum Limerock Bearing Ratio (LBR) value of 150 and should be compacted to at least 98 percent of the modified Proctor maximum dry density (ASTM D-1557, AASHTO T-180). The recycled concrete aggregated should meet gradation requirements according to Section 911-3.4 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition. Other requirements for recycled concrete aggregate base are outlined in Section 334 in the Florida Department of Transportation, Standards for Road and Bridge Construction, latest edition. The subgrade beneath the recycled concrete aggregate base should consist of free draining sand compacted to at least 98 percent of the modified Proctor maximum dry density (ASTM D-1557, AASHTO T-180).

We note that if the contractor's means and methods include stabilizing soils beneath the recycled concrete aggregate base, then the stabilizing material should be coarse material (e.g; gravel). Low permeability soils (e.g; silt and/or clay) should not be used as stabilizing material beneath recycled concrete aggregate base.

Wearing Surface

A minimum 1½-inch layer of Type SP-9.5 or SP-12.5 asphaltic concrete should be used for a wearing surface in automobile parking areas. For truck parking and drive areas, 2 inches of Type SP-9.5 or SP-12.5 asphaltic concrete should be used.

Specific requirements for the Type-SP asphaltic concrete wearing surface are outlined in Section 334 in the Florida Department of Transportation, Standard Specifications for Road and Bridge Construction, latest edition. Equivalent Type S asphaltic concrete may be substituted for Type SP-9.5 or SP-12.5; however, we recommend a minimum Marshall stability of 2,200 pounds if Type S is used.

The latest specifications of Florida Department of Transportation shall govern the placement of the base and asphaltic concrete wearing surface. The above minimum requirements will satisfactorily support Traffic Level A*. If a heavier traffic pattern is anticipated, the design section should be increased accordingly.

Detention Ponds

We understand that two wet stormwater detention ponds are planned for the central and south portion of the site. For this study, soil conditions were explored in the proposed central pond area with three auger borings (AB-1 through AB-3) to a depth of 15 feet. Auger Borings AB-4 and AB-5, located within the stormwater pond in the south portion of the site, were not able to be accessed by truck or mudbug-mounted drilling equipment during this study.

The fine sand and fine sand with silt (Strata Nos. 1 and 2 in Appendix II) encountered in Borings AB-1 through AB-3 are generally considered to be relatively permeable. The results of the constant-head laboratory permeability tests are presented in the following table.

Test Location	Sample Depth (feet)	Measured Permeability (inches/hour)
TP-1/AB-1	1 to 1.5	10
TP-2	1 to 1.5	14
TP-3/AB-3	1 to 1.5	21
TP-4	1 to 1.5	20

It is noted that a suitable factor of safety should be used with the permeability values presented in the table above. In addition, for the type of soil tested, a transformation ratio of 1 horizontal to 1 vertical is appropriate (i.e.; the estimated ratio of horizontal to vertical permeability).

* Reference: "Flexible Pavement Design Manual", Florida Department of Transportation. (Latest Edition)

QUALITY ASSURANCE

We recommend establishing a comprehensive quality assurance program to verify that all site preparation and foundation and pavement construction is conducted in accordance with the appropriate plans and specifications. Materials testing and inspection services should be provided by Ardaman & Associates.

As a minimum, an on-site engineering technician should monitor all stripping and grubbing to verify that all deleterious materials have been removed and should observe the proof-rolling operation to verify that the appropriate number of passes are applied to the subgrade. In-situ density tests should be conducted during filling activities and below all footings, floor slabs and pavement areas to verify that the required densities have been achieved. In-situ density values should be compared to laboratory Proctor moisture-density results for each of the different natural and fill soils encountered.

Additionally for the pavements, Limerock Bearing Ratio tests should be performed. The base course(s) should be tested for density and thickness. We recommend that Ardaman & Associates be retained to review the asphalt pavement mix design proposed for use on the project prior to pavement placement. During asphalt pavement construction, samples of the asphaltic concrete should be obtained and tested in the laboratory to verify compliance with the mix design, including testing Marshall Stability (Type S asphalt), flow, asphalt content, and aggregate gradation. We also recommend full-time monitoring/testing in the batch plant and on the site during pavement placement. The asphaltic concrete thickness should be verified in the field.

Finally, we recommend inspecting and testing the construction materials for the foundations and other structural components.

IN-PLACE DENSITY TESTING FREQUENCY

In Central Florida, earthwork testing is typically performed on an on-call basis when the contractor has completed a portion of the work. The test result from a specific location is only representative of a larger area if the contractor has used consistent means and methods and the soils are practically uniform throughout. The frequency of testing can be increased and full-time construction inspection can be provided to account for variations. We recommend that the following minimum testing frequencies be utilized.

In proposed parking areas, a minimum frequency of one in-place density test for each 5,000 square feet of area (minimum of four test locations per area) should be used. The existing, natural ground should be tested to a depth of 12 inches at the prescribed frequency. Each 12-inch lift of fill, as well as the stabilized subgrade (where applicable) and base should be tested at this frequency. Utility backfill should be tested at a minimum frequency of one in-place density test for each 12-inch lift for each 200 linear feet of pipe. Additional tests should be performed in backfill for manholes, inlets, etc.

In proposed structural areas, the minimum frequency of in-place density testing should be one test for each 2,500 square feet of structural area (minimum of four test locations per building). In-place density testing should be performed at this minimum frequency for a depth of 2 feet below natural ground and for every 1-foot lift of fill placed in the structural area. In addition, density tests should be performed in each column footing for a depth of 2 feet below the bearing surface. For continuous or wall footings, density tests should be performed at a minimum frequency of one test for every 50 linear feet of footing, and for a depth of 2 feet below the bearing surface.

Representative samples of the various natural ground and fill soils, as well as stabilized subgrade (where applicable) and base materials, should be obtained and transported to our laboratory for Proctor compaction tests. These tests will determine the maximum dry density and optimum moisture content for the materials tested and will be used in conjunction with the results of the in-place density tests to determine the degree of compaction achieved.

CLOSURE

The analyses and recommendations submitted herein are based on the data obtained from the soil borings and test pits presented on Figure 2 and in Appendix II, and on the assumed loading conditions. This report does not reflect any variations which may occur adjacent to or between the borings and test pits. The nature and extent of the variations between the borings and test pits may not become evident until during construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations presented in this report after performing on-site observations during the construction period and noting the characteristics of the variations. This study does not include an evaluation of the environmental (ecological or hazardous/toxic material related) condition of the site and subsurface.

This report has been prepared for the exclusive use of Legacy Residential in accordance with generally accepted geotechnical engineering practices. In the event any changes occur in the design, nature, or location of the proposed facility, we should review the applicability of conclusions and recommendations in this report. We recommend a general review of final design and specifications by our office to verify that earthwork and foundation recommendations are properly interpreted and implemented in the design specifications. Ardaman & Associates should attend the pre-bid and preconstruction meetings to verify that the bidders/contractor understand the recommendations contained in this report.

We are pleased to be of assistance to you on this phase of the project. When we may be of further service to you or should you have any questions, please contact us.

Very truly yours,
ARDAMAN & ASSOCIATES, INC.
Certificate of Authorization No. 5950

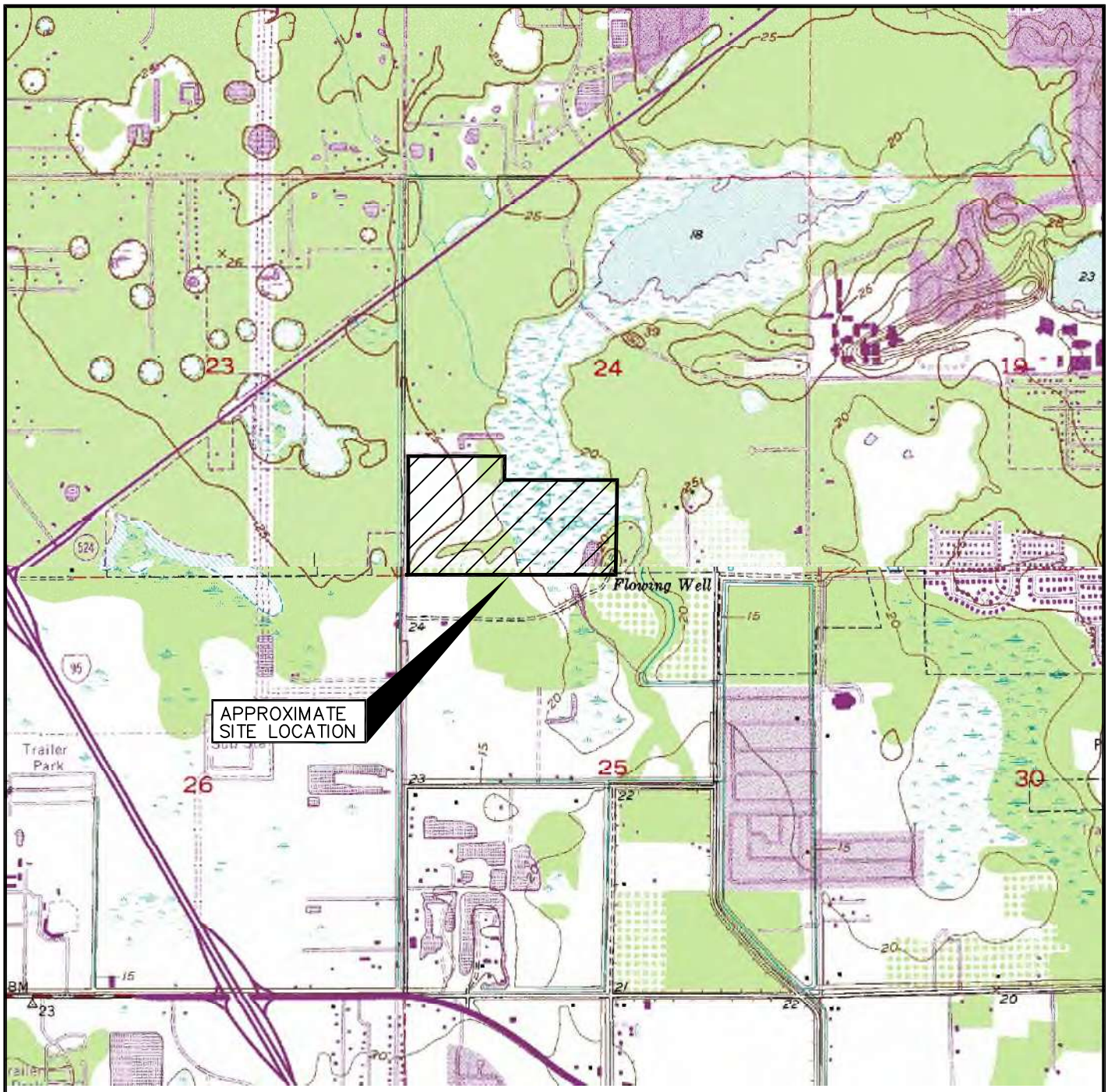
Janie C. Ross
Assistant Project Engineer

JASON PARKER MANNING LICENSE No. 53265 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jason P. Manning, P.E. 6/23/22
Branch Manager
Florida License No. 53265

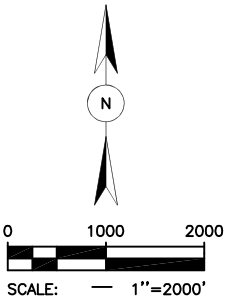
JCR/JPM/dk

CC: Mr. Brian Daigle - MBV Engineering, Inc.



SECTION 24
TOWNSHIP 24 SOUTH
RANGE 35 EAST

OBTAINED FROM U.S.G.S. QUAD MAP: SHARPES, FLORIDA





QUADRANGLE LOCATION

SITE LOCATION MAP

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

SUBSURFACE SOIL EXPLORATION AND
GEOTECHNICAL ENGINEERING EVALUATION
LEGACY COCOA APARTMENTS
COCOA, FLORIDA

DRAWN BY: TAT	CHECKED BY:	DATE: 4/28/22
FILE NO. 22-5228	APPROVED BY:	FIGURE: 1

C:\CAD working files\22-0000 CAD FOLDER\22-5228\22522801.dwg 4/28/2022 11:10:37 AM, tom.taylor



LEGEND

- TH STANDARD PENETRATION TEST (SPT) BORING LOCATION
- AB AUGER BORING LOCATION
- TP TEST PIT LOCATION

BORING LOCATION PLAN

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

SUBSURFACE SOIL EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION
LEGACY COCOA APARTMENTS
COCOA, FLORIDA

DRAWN BY: TT	CHECKED BY:	DATE: 4/28/22
FILE NO. 22-5228	APPROVED BY:	FIGURE: 2

APPENDIX I

Standard Penetration Test and Auger Boring Procedures

STANDARD PENETRATION TEST

The standard penetration test is a widely accepted test method of *in situ* testing of foundation soils (ASTM D 1586). A 2-foot long, 2-inch O.D. split-barrel sampler attached to the end of a string of drilling rods is driven 18 inches into the ground by successive blows of a 140-pound hammer freely dropping 30 inches. The number of blows needed for each 6 inches of penetration is recorded. The sum of the blows required for penetration of the second and third 6-inch increments of penetration constitutes the test result or N-value. After the test, the sampler is extracted from the ground and opened to allow visual examination and classification of the retained soil sample. The N-value has been empirically correlated with various soil properties allowing a conservative estimate of the behavior of soils under load.

The tests are usually performed at 5-foot intervals. However, more frequent or continuous testing is done by our firm through depths where a more accurate definition of the soils is required. The test holes are advanced to the test elevations by rotary drilling with a cutting bit, using circulating fluid to remove the cuttings and hold the fine grains in suspension. The circulating fluid, which is a bentonitic drilling mud, is also used to keep the hole open below the water table by maintaining an excess hydrostatic pressure inside the hole. In some soil deposits, particularly highly pervious ones, NX-size flush-coupled casing must be driven to just above the testing depth to keep the hole open and/or prevent the loss of circulating fluid.

Representative split-spoon samples from the soils at every 5 feet of drilled depth and from every different stratum are brought to our laboratory in air-tight jars for further evaluation and testing, if necessary. Samples not used in testing are stored for 30 days prior to being discarded. After completion of a test boring, the hole is kept open until a steady state groundwater level is recorded. The hole is then sealed, if necessary, and backfilled.

AUGER BORINGS

Auger borings are used when a relatively large, continuous sampling of soil strata close to ground surface is desired. A 4-inch diameter, continuous flite, helical auger with a cutting head at its end is screwed into the ground in 5-foot sections. It is powered by the rotating action of the Kelly bar of a rotary drill rig. The sample is recovered by withdrawing the auger out of the ground without rotating it. The soil sample so obtained, is classified and representative samples put in bags or jars and brought back to the laboratory for classification testing.

APPENDIX II

Soil Boring Profiles

LEGEND

SOIL DESCRIPTIONS

1. FINE SAND (SP)
2. FINE SAND WITH SILT (SP–SM)
3. SILTY FINE SAND (SM)
4. PARTIALLY CEMENTED SAND AND SHELL
5. CLAYEY FINE SAND (SC)

COLORS

A. LIGHT BROWN TO BROWN
B. GRAYISH–BROWN
C. LIGHT GRAY TO GRAY
D. DARK GRAY OR DARK BROWN

TH	STANDARD PENETRATION TEST (SPT) BORING
AB	AUGER BORING
N	STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
▽	GROUNDWATER LEVEL MEASURED ON DATE DRILLED
GNE	GROUNDWATER NOT ENCOUNTERED ON DATE DRILLED
NM	NATURAL MOISTURE CONTENT IN PERCENT (ASTM D–2216)
–200	PERCENT PASSING NO. 200 SIEVE SIZE (PERCENT FINES)(ASTM D–1140)
OC	ORGANIC CONTENT IN PERCENT (ASTM D–2974)
SP,SP–SM SM,SC,CH	UNIFIED SOIL CLASSIFICATION SYSTEM

ENGINEERING CLASSIFICATION

I COHESIONLESS SOILS

DESCRIPTION	BLOW COUNT "N"
VERY LOOSE	0 TO 4
LOOSE	4 TO 10
MEDIUM DENSE	10 TO 30
DENSE	30 TO 50
VERY DENSE	>50

II COHESIVE SOILS

DESCRIPTION	UNCONFINED COMPRESSIVE STRENGTH, QU, TSF	BLOW COUNT "N"
VERY SOFT	<1/4	0 TO 2
SOFT	1/4 TO 1/2	2 TO 4
MEDIUM STIFF	1/2 TO 1	4 TO 8
STIFF	1 TO 2	8 TO 15
VERY STIFF	2 TO 4	15 TO 30
HARD	>4	>30

WHILE THE BORINGS ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT THEIR RESPECTIVE LOCATIONS AND FOR THEIR RESPECTIVE VERTICAL REACHES, LOCAL VARIATIONS CHARACTERISTIC OF THE SUBSURFACE MATERIALS OF THE REGION ARE ANTICIPATED AND MAY BE ENCOUNTERED. THE BORING LOGS AND RELATED INFORMATION ARE BASED ON THE DRILLER'S LOGS AND VISUAL EXAMINATION OF SELECTED SAMPLES IN THE LABORATORY. THE DELINEATION BETWEEN SOIL TYPES SHOWN ON THE LOGS IS APPROXIMATE AND THE DESCRIPTION REPRESENTS OUR INTERPRETATION OF SUBSURFACE CONDITIONS AT THE DESIGNATED BORING LOCATIONS ON THE PARTICULAR DATE DRILLED.

GROUNDWATER ELEVATIONS SHOWN ON THE BORING LOGS REPRESENT GROUNDWATER SURFACES ENCOUNTERED ON THE DATES SHOWN. FLUCTUATIONS IN WATER TABLE LEVELS SHOULD BE ANTICIPATED THROUGHOUT THE YEAR. ABSENCE OF WATER SURFACE DATA ON CERTAIN BORINGS IMPLIES THAT NO GROUNDWATER DATA IS AVAILABLE, BUT DOES NOT NECESSARILY MEAN THAT GROUNDWATER WILL NOT BE ENCOUNTERED AT THESE LOCATIONS OR WITHIN THE VERTICAL REACHES OF THESE BORINGS IN THE FUTURE.

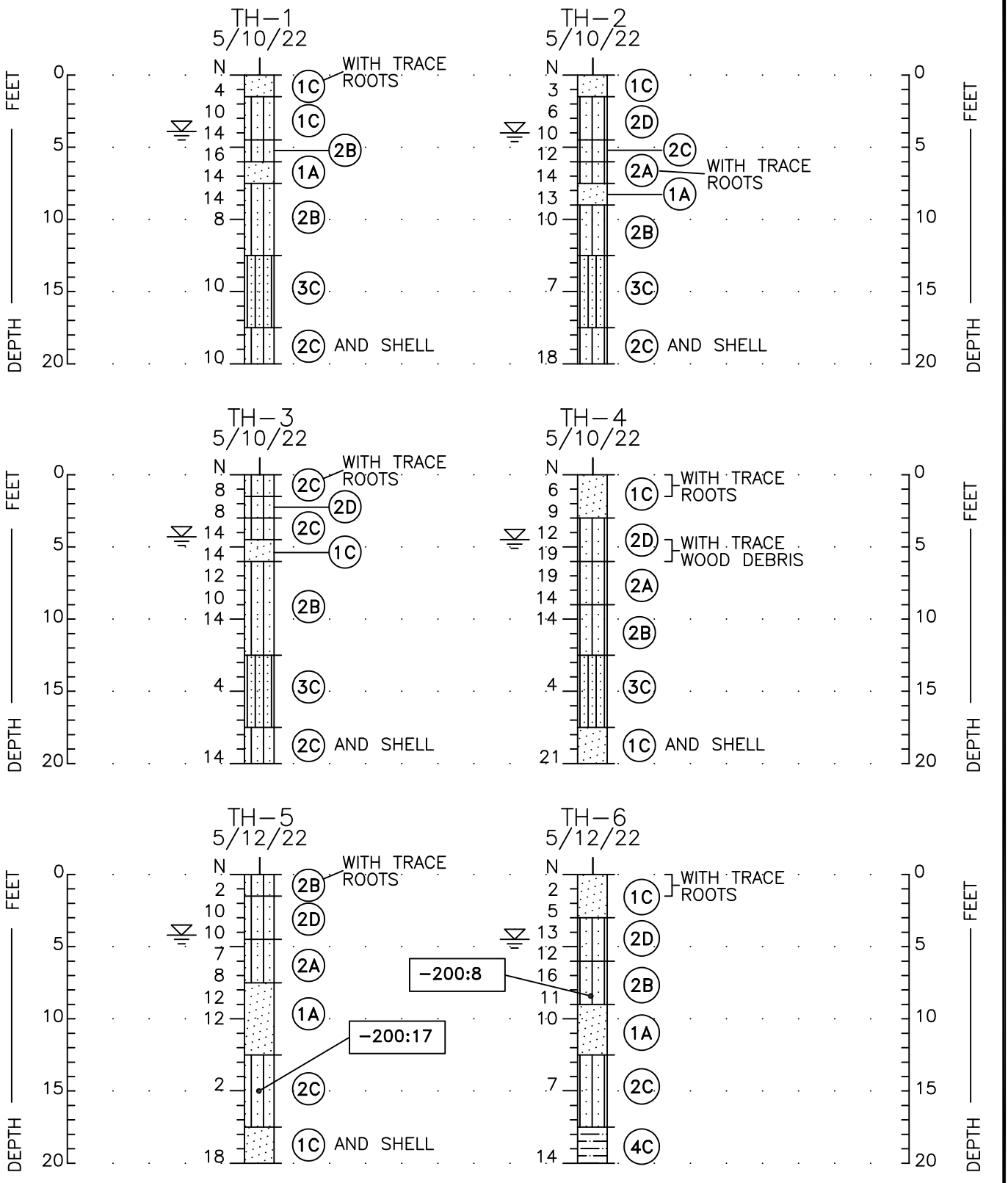
SOIL PROFILES LEGEND

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

SUBSURFACE SOIL EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION
LEGACY COCOA APARTMENTS
COCOA, FLORIDA

DRAWN BY: TAT	CHECKED BY:	DATE: 6/6/22
FILE NO. 22–5228	APPROVED BY:	FIGURE:

C:\CAD working files\22-0000 CAD FOLDER\22-5228\22522801.dwg 6/22/2022 5:55:10 PM, tom.taylor



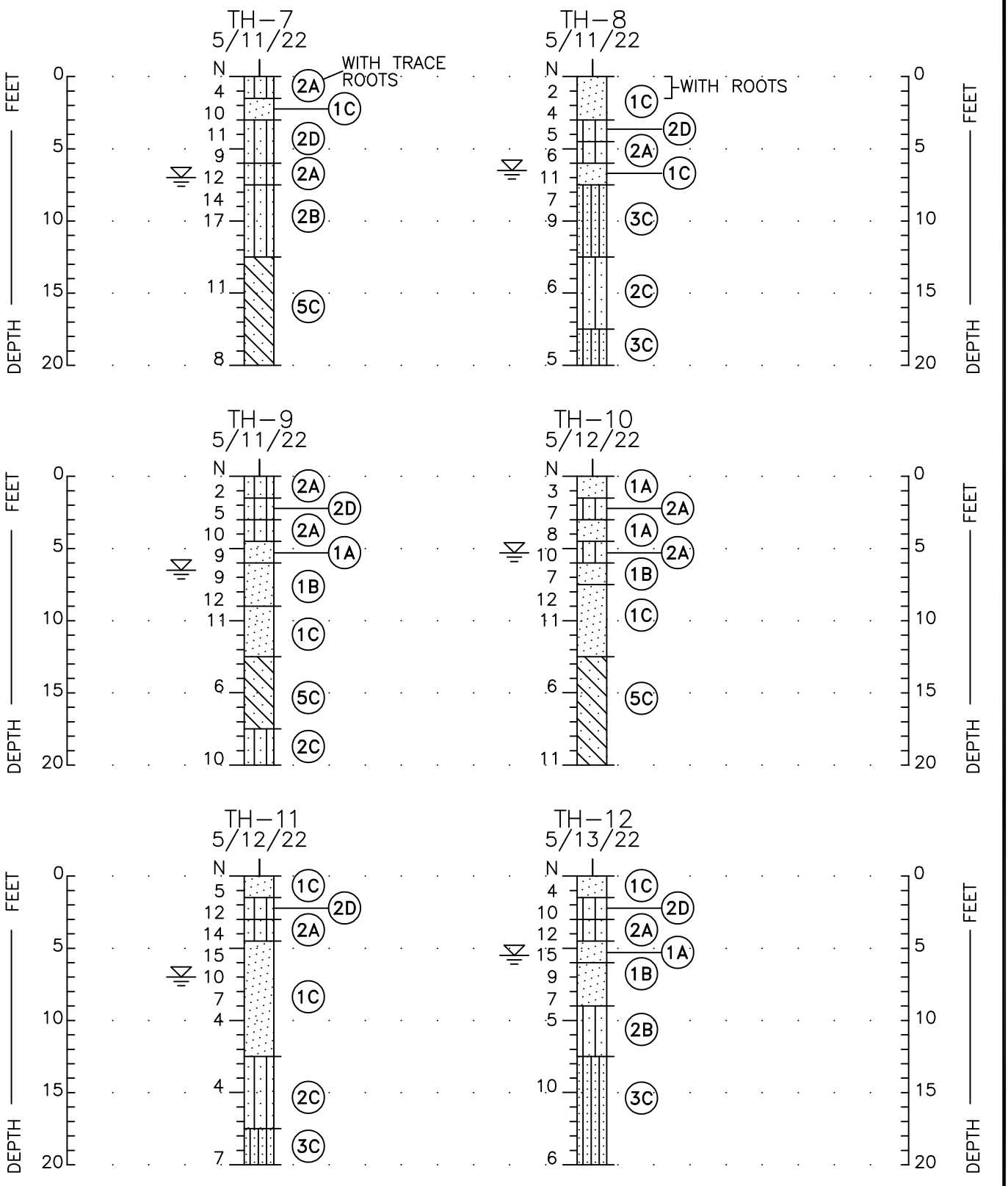
SOIL BORING PROFILES

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

SUBSURFACE SOIL EXPLORATION AND
GEOTECHNICAL ENGINEERING EVALUATION
LEGACY COCOA APARTMENTS
COCOA, FLORIDA

DRAWN BY: TAT	CHECKED BY:	DATE: 6/6/22
FILE NO. 22-5228	APPROVED BY:	FIGURE:

C:\CAD working files\22-0000 CAD FOLDER\22-5228\22522801.dwg 6/10/2022 3:22:49 PM, tam.taylor



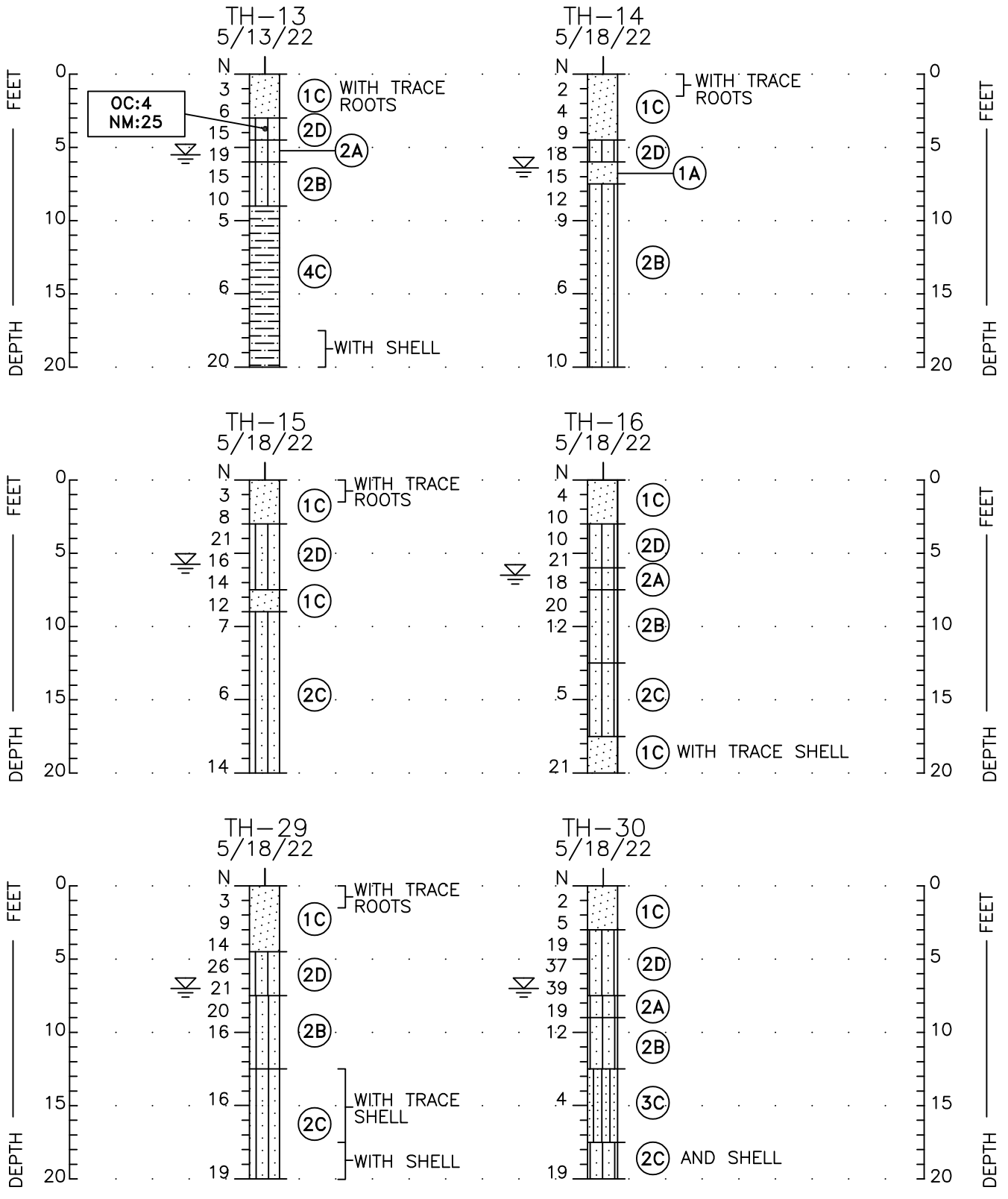
SOIL BORING PROFILES

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

SUBSURFACE SOIL EXPLORATION AND
GEOTECHNICAL ENGINEERING EVALUATION
LEGACY COCOA APARTMENTS
COCOA, FLORIDA

DRAWN BY: TAT	CHECKED BY:	DATE: 6/6/22
FILE NO. 22-5228	APPROVED BY:	FIGURE:

C:\CAD working files\22-0000 CAD FOLDER\22-5228\22522801.dwg 6/10/2022 3:22:34 PM, tam.taylor



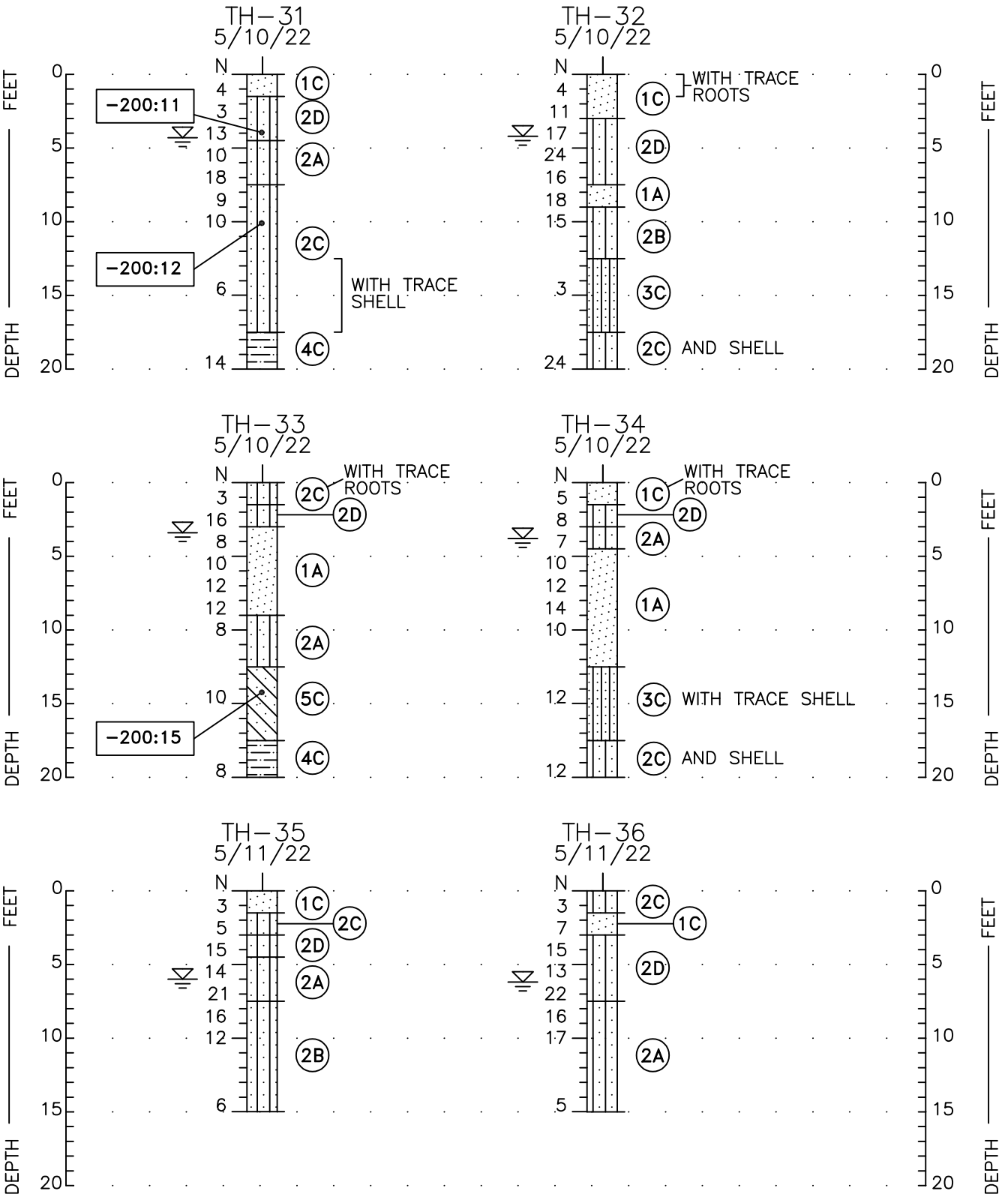
SOIL BORING PROFILES

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

SUBSURFACE SOIL EXPLORATION AND
GEOTECHNICAL ENGINEERING EVALUATION
LEGACY COCOA APARTMENTS
COCOA, FLORIDA

DRAWN BY: TAT	CHECKED BY:	DATE: 6/6/22
FILE NO. 22-5228	APPROVED BY:	FIGURE:

C:\CAD working files\22-0000 CAD FOLDER\22-5228\22522801.dwg 6/10/2022 3:22:20 PM, tam.taylor



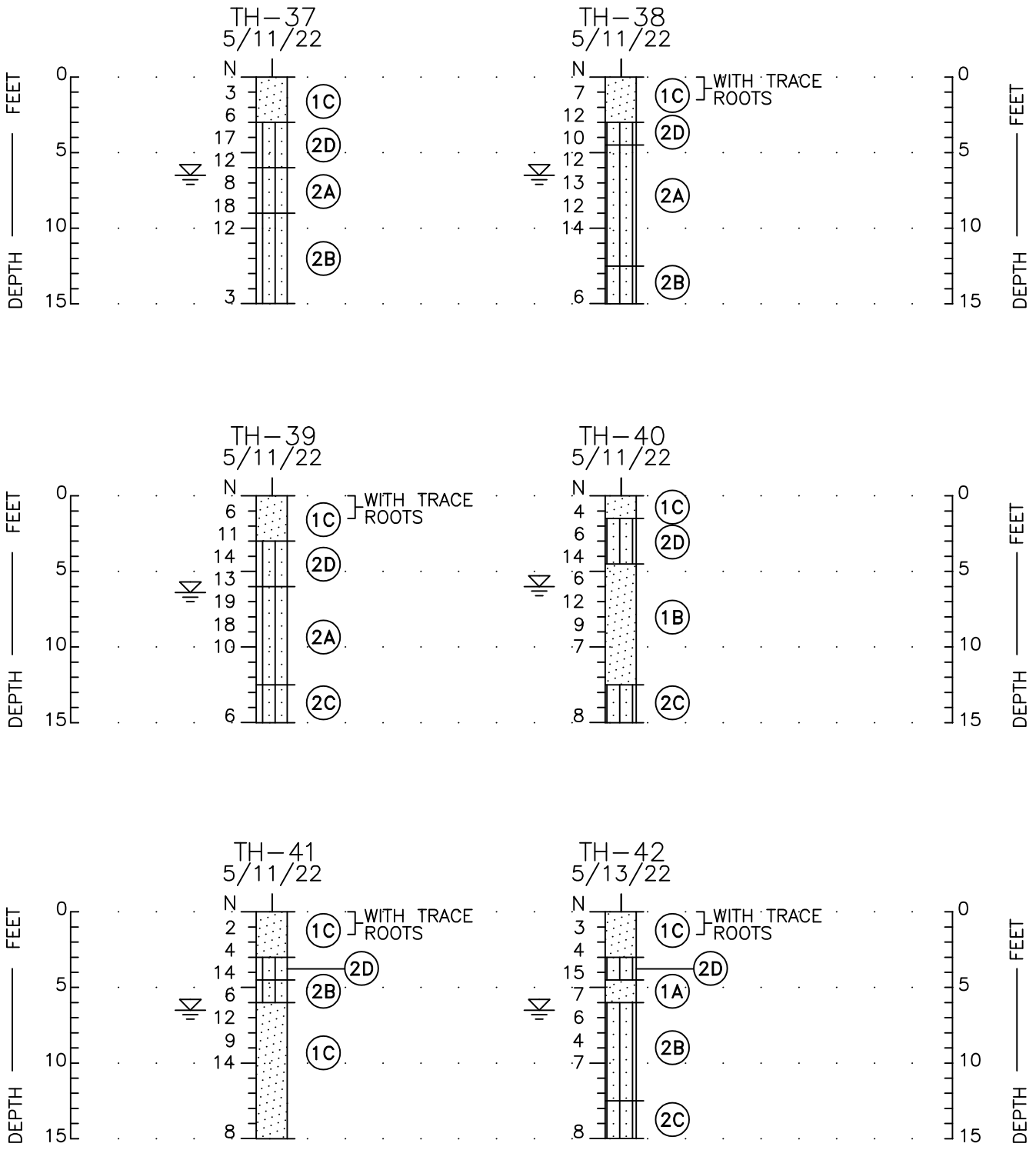
SOIL BORING PROFILES

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

SUBSURFACE SOIL EXPLORATION AND
GEOTECHNICAL ENGINEERING EVALUATION
LEGACY COCOA APARTMENTS
COCOA, FLORIDA

DRAWN BY: TAT	CHECKED BY:	DATE: 6/6/22
FILE NO. 22-5228	APPROVED BY:	FIGURE:

C:\CAD working files\22-0000 CAD FOLDER\22-5228\22522801.dwg 6/10/2022 3:22:01 PM, tam.taylor



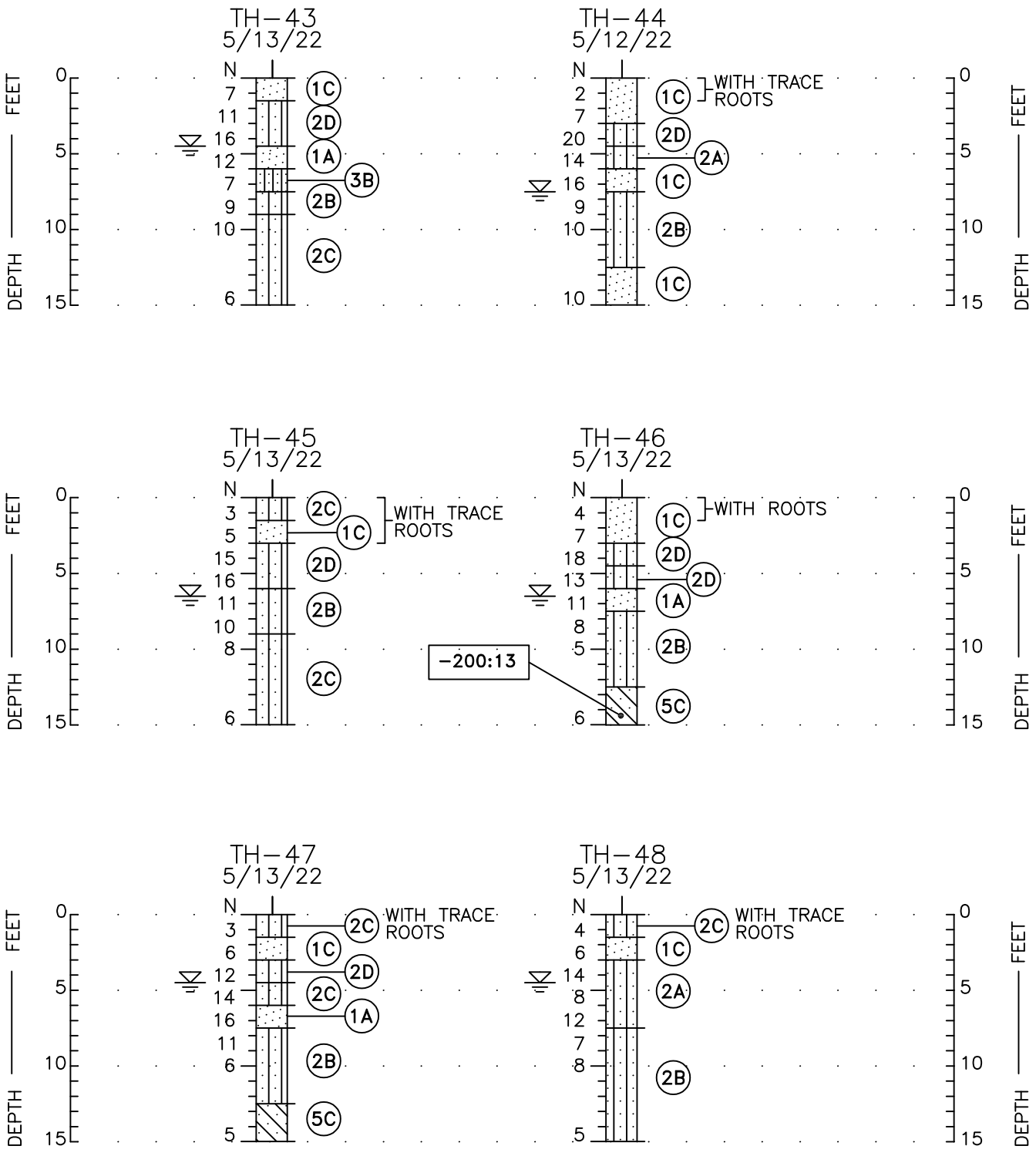
SOIL BORING PROFILES

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

SUBSURFACE SOIL EXPLORATION AND
GEOTECHNICAL ENGINEERING EVALUATION
LEGACY COCOA APARTMENTS
COCOA, FLORIDA

DRAWN BY: TAT	CHECKED BY:	DATE: 6/6/22
FILE NO. 22-5228	APPROVED BY:	FIGURE:

C:\CAD working files\22-0000 CAD FOLDER\22-5228\22522801.dwg 6/10/2022 3:21:47 PM, tom.taylor



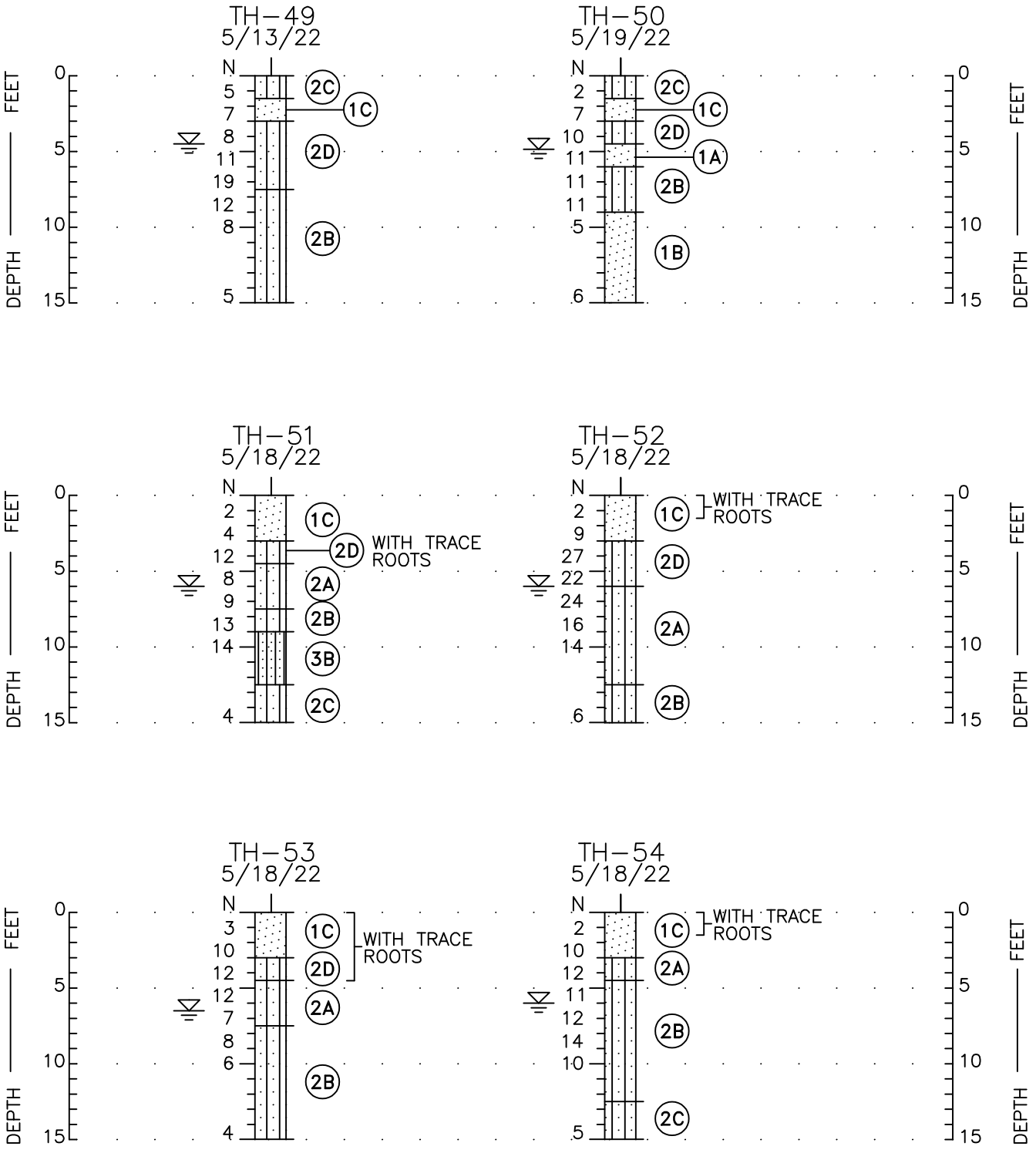
SOIL BORING PROFILES

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

SUBSURFACE SOIL EXPLORATION AND
GEOTECHNICAL ENGINEERING EVALUATION
LEGACY COCOA APARTMENTS
COCOA, FLORIDA

DRAWN BY: TAT	CHECKED BY:	DATE: 6/6/22
FILE NO. 22-5228	APPROVED BY:	FIGURE:

C:\CAD working files\22-0000 CAD FOLDER\22-5228\22522801.dwg 6/10/2022 3:21:31 PM, tom.taylor



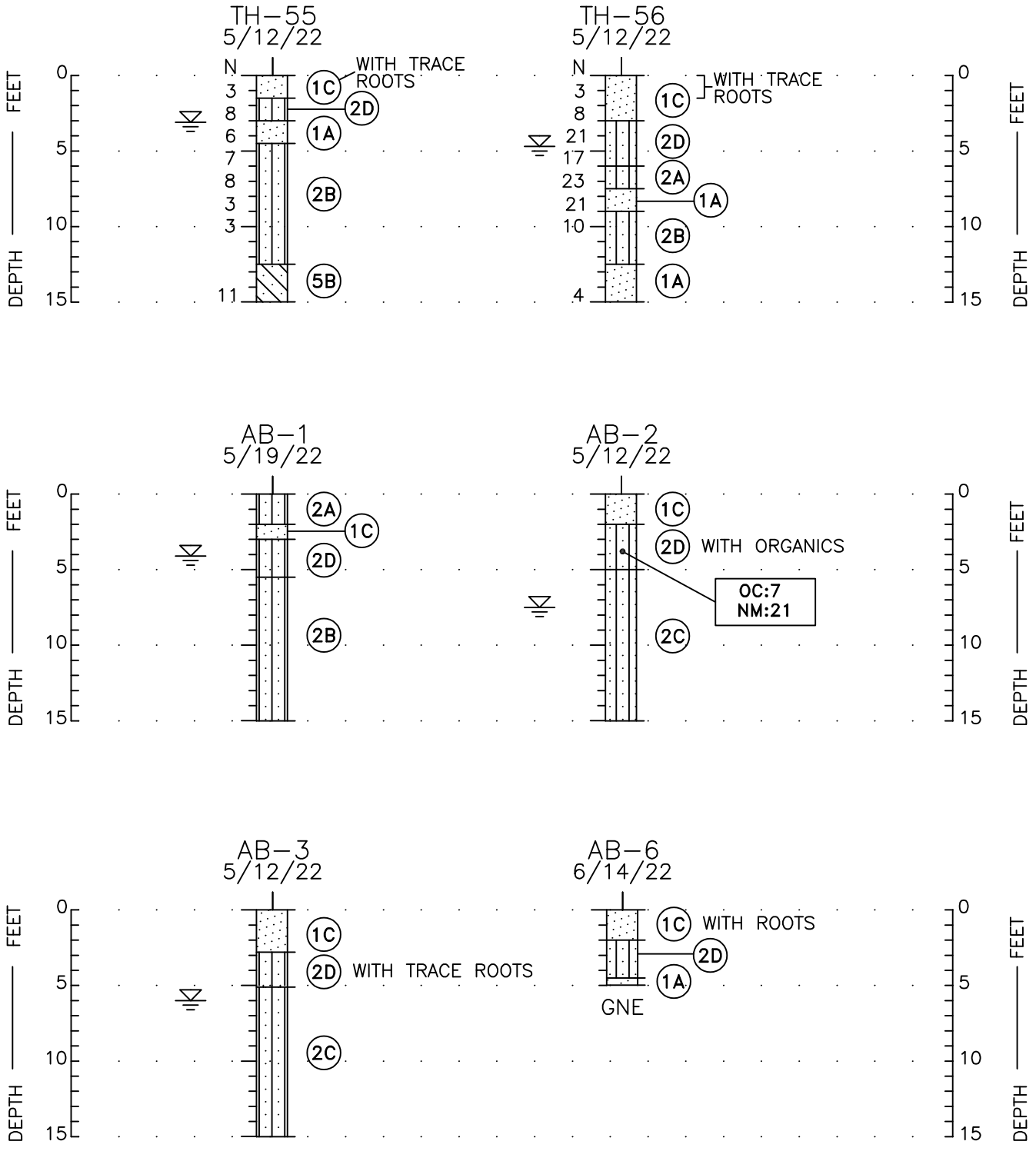
SOIL BORING PROFILES

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

SUBSURFACE SOIL EXPLORATION AND
GEOTECHNICAL ENGINEERING EVALUATION
LEGACY COCOA APARTMENTS
COCOA, FLORIDA

DRAWN BY: TAT	CHECKED BY:	DATE: 6/6/22
FILE NO. 22-5228	APPROVED BY:	FIGURE:

C:\CAD working files\22-0000 CAD FOLDER\22-5228\22522801.dwg 6/10/2022 3:21:10 PM, tom.taylor



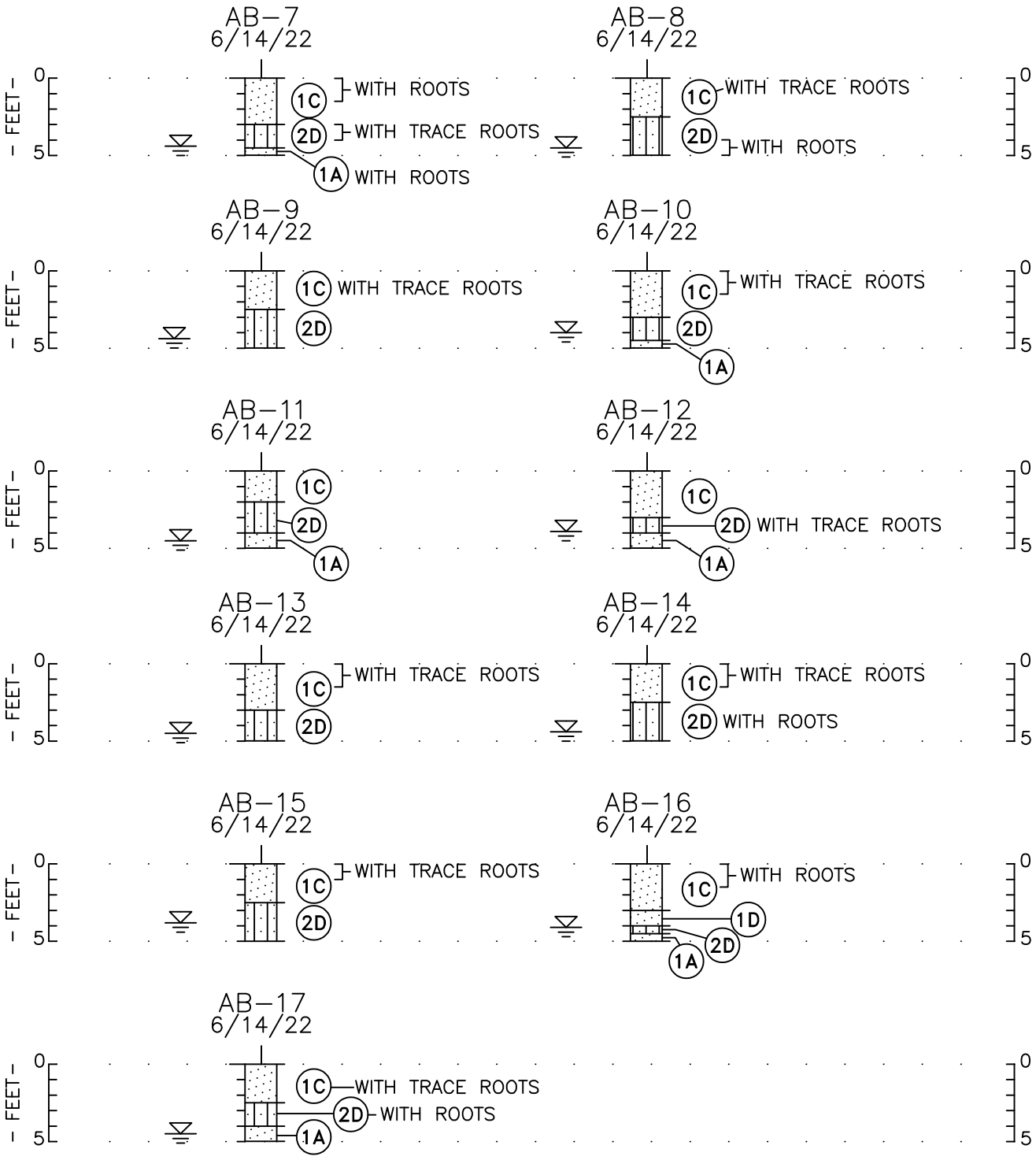
C:\CAD working files\22-0000 CAD FOLDER\22-5228\22522801.dwg 6/22/2022 5:56:55 PM, tam.taylor

SOIL BORING PROFILES

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

SUBSURFACE SOIL EXPLORATION AND
GEOTECHNICAL ENGINEERING EVALUATION
LEGACY COCOA APARTMENTS
COCOA, FLORIDA

DRAWN BY: TAT	CHECKED BY:	DATE: 6/6/22
FILE NO. 22-5228	APPROVED BY:	FIGURE:



C:\CAD working files\22-0000 CAD FOLDER\22-5228\22522801.dwg 6/17/2022 5:52:46 PM, tam.taylor

SOIL BORING PROFILES

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

SUBSURFACE SOIL EXPLORATION AND
GEOTECHNICAL ENGINEERING EVALUATION
LEGACY COCOA APARTMENTS
COCOA, FLORIDA

DRAWN BY: TAT	CHECKED BY:	DATE: 6/6/22
FILE NO. 22-5228	APPROVED BY:	FIGURE:

Meritage Cocoa Legacy

Traffic Impact Analysis

City of Cocoa, FL

February 2025

Kimley»Horn

TRAFFIC IMPACT ANALYSIS

Meritage Cocoa Legacy

City of Cocoa, FL

Prepared by:

Kimley-Horn and Associates, Inc.

JAMES MICHAEL TAYLOR, P.E.

STATE OF FLORIDA,
PROFESSIONAL ENGINEER,
LICENSE NO. 69979

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JAMES MICHAEL TAYLOR, P.E. ON THE DATE INDICATED HERE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Digitally signed by James M Taylor
DN: cn=James M Taylor, c=US, o=KIMLEY-HORN AND ASSOCIATES INC, email=james.taylor@kimley-horn.com
Date: 2025.02.20 17:24:14 -05'00'

February 2025

©Kimley-Horn and Associates, Inc. 2025

Table of Contents

1.0 INTRODUCTION 1

1.1 Study Area 1

2.0 EXISTING DATA 3

3.0 EXISTING CONDITIONS ANALYSIS 3

3.1 Existing Roadway Segment Conditions 3

3.2 Existing Intersection Conditions 5

4.0 BACKGROUND CONDITIONS ANALYSIS 7

4.1 Background Growth Rates 7

4.2 Background Roadway Segment Conditions 7

4.2 Background Intersection Conditions 10

5.0 DEVELOPMENT TRAFFIC 12

5.1 Trip Generation 12

5.2 Trip Distribution 13

5.3 Trip Assignment 13

6.0 BUILDOUT CONDITIONS ANALYSIS 16

6.1 Buildout Roadway Segment Analysis 16

6.2 Buildout Intersection Analysis 18

7.0 Site Access Analysis 23

8.0 CONCLUSION 24

Figures

Figure 1: Project Location and Study Area 2
Figure 2: Project Trip Distribution 14
Figure 3: Project Trip Assignment 15
Figure 4: Buildout (2027) Volumes – AM Peak Hour 21
Figure 5: Buildout (2027) Volumes – PM Peak Hour 22

Tables

Table 1: Existing (2025) Roadway Segment Analysis 4
Table 2: Existing (2025) Intersection Conditions (AM Peak Hour) 6
Table 3: Existing (2025) Intersection Conditions (PM Peak Hour) 6
Table 4: BEBR Growth Rate Calculations 7
Table 5: Background (2027) Daily Roadway Segment Analysis 8
Table 6: Background (2027) PM Peak Hour Roadway Segment Analysis 9
Table 7: Background (2027) Intersection Conditions (AM Peak Hour) 11
Table 8: Background (2027) Intersection Conditions (PM Peak Hour) 11
Table 9: Trip Generation 12
Table 10: Buildout (2027) Daily Roadway Segment Analysis 17
Table 11: Buildout (2027) PM Peak Hour Roadway Segment Analysis 17
Table 12: Buildout (2027) Intersection Conditions (AM Peak Hour) 19
Table 13: Buildout (2027) Intersection Conditions (PM Peak Hour) 20

Appendices

Appendix A: Methodology Statement and Correspondence

Appendix B: Site Plan

Appendix C: Turning Movement Counts

Appendix D: FDOT's Florida Traffic Online (FTO) Data

Appendix E: Turning Movement Volume Worksheets

Appendix F: Signal Timings

Appendix G: Relevant data from the Space Coast TPO Transportation Data Management System

Appendix H: Synchro Outputs

Appendix I: Growth Rate Calculations

Appendix J: ITE Trip Generation Manual

Appendix K: CFRPM Model Plot

Appendix L: NCHRP Report 457 output

1.0 INTRODUCTION

Kimley-Horn has been retained by Meritage Homes to analyze and document the traffic impacts associated with the proposed Meritage Cocoa Legacy residential development in the City of Cocoa, Florida. The following Traffic Impact Analysis (TIA) generally conforms to the methodology statement provided in **Appendix A,** which was prepared in accordance with the policies and guidelines of the Space Coast Transportation Planning Organization (SCTPO), Brevard County, and the City of Cocoa.

The proposed single-family attached residential development is located east of Cox Road and north of Hooper Road in the City of Cocoa, Florida. The proposed development will consist of +/- 240 townhomes and a buildout year of 2027. The ±89.44-acre property (parcel IDs: 24-35-24-00-508, -509, -510) is currently vacant.

Access to the site will be provided via two (2) full access driveways along Cox Road. The project location and proposed driveways are shown in **Figure 1**. The site plan is provided in **Appendix B**.

1.1 STUDY AREA

As described in the TIA methodology statement provided in **Appendix A,** the study area was determined in accordance with Brevard County's 2025 *Guidelines on Minimum Requirements for Traffic Impact Analyses* document. For site plans, subdivision, and right-of-way analysis the analysis extent is established as 0.5 miles per every 100 peak hour trips, rounded to the nearest 100 trips. Therefore, the following roadway segments and intersections were included in the study area, as shown in **Figure 1**:

Study Area Roadway Segment

- Cox Road
  - SR 520 to SR 524

Study Area Intersections

1. SR 520 & Cox Road
2. Cox Road & Project Driveway #1
3. Cox Road & Project Driveway #2
4. SR 524 & Cox Road

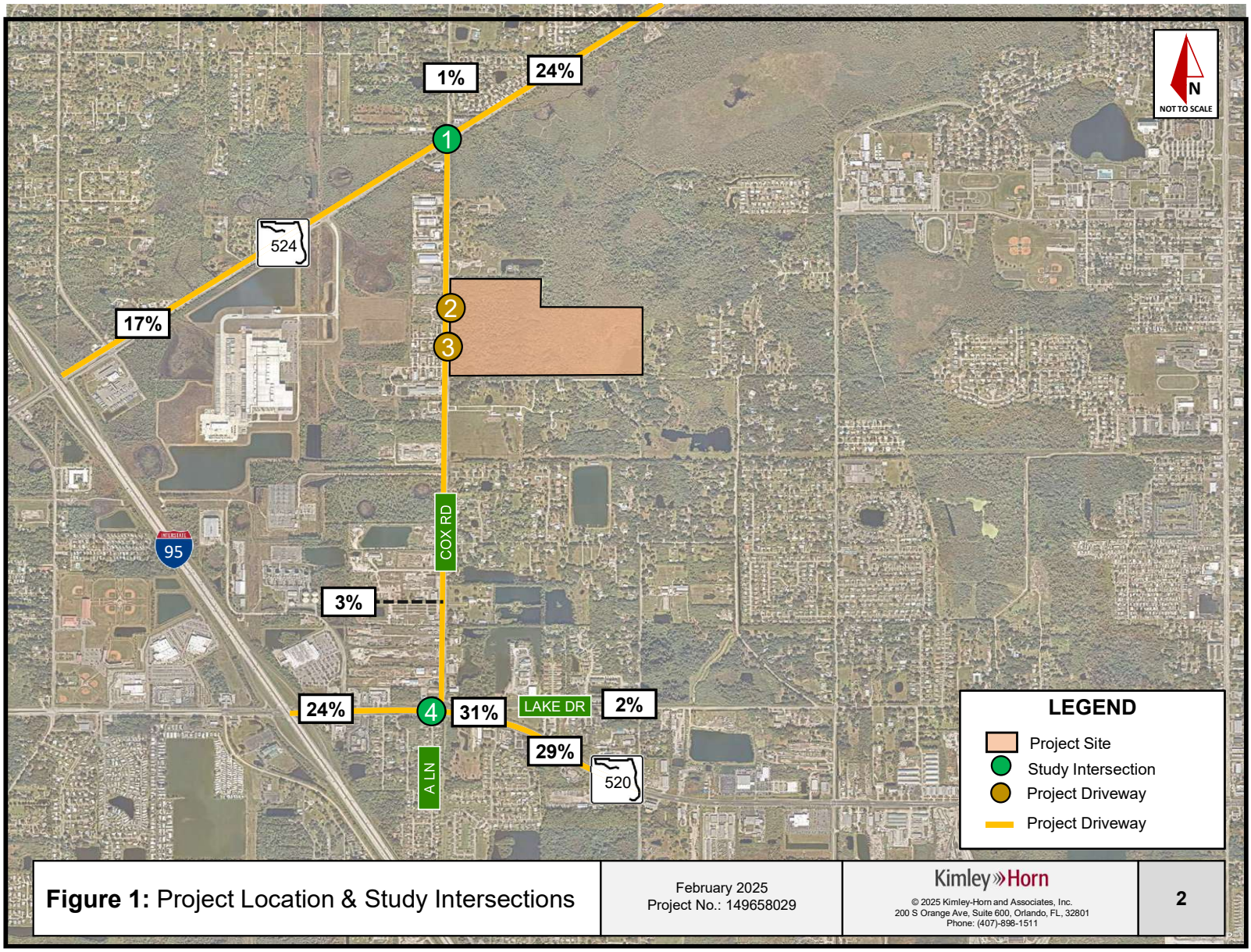


Figure 1: Project Location & Study Intersections

February 2025
Project No.: 149658029

Kimley»Horn

© 2025 Kimley-Horn and Associates, Inc.
200 S Orange Ave, Suite 600, Orlando, FL, 32801
Phone: (407)-898-1511

2

2.0 EXISTING DATA

Turning movement counts (TMCs) were collected at the study intersections on Tuesday, February 4, 2025 during the AM peak period (7:00 AM to 9:00 AM) and PM peak period (4:00 PM – 6:00 PM). The raw TMCs are provided in **Appendix C**. Seasonal factor data provided by the Florida Department of Transportation's (FDOT) Florida Traffic Online (FTO) was used to adjust the raw turning movement volumes. The seasonal factor data is included in **Appendix D**.

Adjusted turning movement volume worksheets for all intersections are provided in **Appendix E.** Signal timings for the signalized study intersections were obtained from Brevard County and are provided in **Appendix F**.

The daily segment analysis was conducted utilizing relevant data from the latest Space Coast Transportation Planning Organization (SCTPO) Context Classification Level of Service Spreadsheet. The Daily and PM peak hour segment analysis was conducted utilizing relevant data from the latest SCTPO Context Classification Level of Service Spreadsheet, SCTPO Transportation Data Management System, and the 2023 FDOT Quality / Level of Service (Q/LOS) Handbook. The data is provided in **Appendix G.**

3.0 EXISTING CONDITIONS ANALYSIS

3.1 EXISTING ROADWAY SEGMENT CONDITIONS

A roadway segment analysis was performed within the study area to determine Daily and PM peak hour conditions. This analysis is meant to provide a basis for the future analysis. The peak hour two-way service capacities, peak hour directional volumes, and roadway attributes were obtained from various sources, including:

- Space Coast TPO's Context Classification Level of Service Spreadsheet
- Space Coast TPO's Transportation Data Management System
- FDOT's 2023 *Multimodal Quality/Level of Service (Q/LOS) Handbook*

Table 1 provides an analysis of the existing conditions under Daily and PM peak hour conditions. As shown in the tables, all segments currently operate within their respective Daily and PM peak hour capacities.

Table 1: Existing (2025) Roadway Segment Analysis

Roadway	From	To	Roadway Attributes [1]				Daily - Existing (2025)							PM Peak Hour - Existing (2025)			
			Functional Classification	Area Type	Adopted LOS	Number of Lanes	2023 AADT[1]	Growth Rate	Regression Type	Existing (2025) AADT [2]	Daily MSV[1]	Max V/C Ratio	LOS	Peak Hour Two-Way Volume[3]	Peak Hour Two-Way MSV[4]	Max V/C Ratio	LOS
Cox Road																	
	SR 520	SR 524	Urban Major Collector	U	D	2	4,590	2.74%	Linear	4,842	17,700	0.27	C	492	1,560	0.32	C
SR 520																	
	I-95	Burnett Rd	Urban Principal Arterial-Other	U	D	4	23,230	2.74%	Linear	24,503	41,790	0.59	C	1,971	3,630	0.54	C
SR 524																	
	I-95	Cox Rd	Urban Minor Arterial	U	D	2	13,300	2.74%	Linear	14,029	18,590	0.75	C	988	2,230	0.44	C
	Cox Rd	Industry Rd	Urban Minor Arterial	U	D	2	14,630	2.74%	Linear	15,432	19,470	0.79	C	1,228	2,230	0.55	C

Notes:

1. Data obtained from the Space Coast TPO Traffic Counts Report (2023).

2. A growth rate was applied to the 2023 volumes based on historical AADT volumes from the Space Coast TPO Traffic Counts Report (2023).

3. Peak Hour Two-Way volumes were obtained from SCTPO's Transportation Data Management System.

4. The Maximum Service Volume was obtained from 2023 Multimodal QLOS handbook.

3.2 EXISTING INTERSECTION CONDITIONS

An intersection operational analysis was performed for existing conditions during the AM and PM peak hour using procedures outlined in the *Highway Capacity Manual, 7th Edition* with Synchro (v12) software. *HCM 2000* was used for the analysis of the intersection of SR 520 & Cox Road as *HCM 7th Edition* does not support the permissive + protective left-turn type of the southbound left/thru shared lane. Intersection level of service (LOS) and maximum volume to capacity (v/c) ratios under existing AM and PM peak hour conditions are provided in **Table 2 and 3**. Synchro outputs are provided in **Appendix H**.

As shown in **Tables 2 and 3**, all study area intersections currently operate with acceptable LOS and v/c ratios less than 1.0 under existing (2025) AM and PM peak hour conditions.

Table 2: Existing (2025) Intersection Conditions (AM Peak Hour)

Existing Condition - 2025					
Intersection	Control Type	Approach	AM Peak Hour		
			Level of Service (overall delay)	Max V/C Movement	Max V/C Ratio
SR 524 (EB/WB) & Cox Road (NB/SB)	Signalized	EB	B	EBT	0.36
		WB	A	WBL/T	0.22
		NB	D	NBL/T/R	0.69
		SB	D	SBL/T/R	0.53
		Overall	**B (19.1 s)**	**NBL/T/R**	**0.69**
SR 520 (EB/WB) & Cox Road (NB/SB)	Signalized	EB	B	EBT	0.52
		WB	B	WBT	0.40
		NB	D	NBL/T/R	0.25
		SB	C	SBL/T	0.67
		Overall	**C (20.6 s)**	**SBL/T**	**0.67**

Table 3: Existing (2025) Intersection Conditions (PM Peak Hour)

Existing Condition - 2025					
Intersection	Control Type	Approach	PM Peak Hour		
			Level of Service (overall delay)	Max V/C Movement	Max V/C Ratio
SR 524 (EB/WB) & Cox Road (NB/SB)	Signalized	EB	C	EBT	0.40
		WB	A	WBT	0.40
		NB	E	NBL/T/R	0.77
		SB	E	SBL/T/R	0.53
		Overall	**C (21.4 s)**	**NBL/T/R**	**0.77**
SR 520 (EB/WB) & Cox Road (NB/SB)	Signalized	EB	B	EBT/R	0.38
		WB	B	WBT	0.41
		NB	E	NBL/T/R	0.36
		SB	D	SBL/T	0.54
		Overall	**B (17.7 s)**	**SBL/T**	**0.54**

4.0 BACKGROUND CONDITIONS ANALYSIS

4.1 BACKGROUND GROWTH RATES

Background traffic was developed using Annual Growth Rates by either applying a minimum growth factor or calculating the annual growth rate of the roadway, or adjacent roadway, using TPO historical count data, whichever is greater. The minimum growth factor was calculated using the latest Bureau of Economic and Business Research Projections (BEBR) of Florida Population by County and based on the proposed build-out year using the "Medium" series of projections. As shown in **Table 4**, the "Medium" series of projected growth rates is 2.74%.

Table 4: BEBR Growth Rate Calculations

County	BEBR Pop Estimate Apr 1, 2023	BEBR Population Projections (April 1) Range	2025	2030	Annual Growth Rate 2025	2030
Brevard	640,773	Low	618,800	625,100	-3.43%	-0.41%
		Medium	658,300	694,600	2.74%	1.40%
		High	697,700	764,100	8.88%	3.21%

4.2 BACKGROUND ROADWAY SEGMENT CONDITIONS

The study area roadway segments were evaluated against the adopted LOS standards under future background (2027) Daily and PM peak hour traffic conditions. Based on a review of trend historical growth rates calculated using historical AADTs provided by the Space Coast MPO's Traffic Counts: 2014-2023, the study area roadway segments were calculated to have a weighted average growth rate below 2.0%. Therefore, the minimum established growth rate (2.74%) from the Bureau of Economic and Business Research (BEBR) was used. All FDOT Traffic Trend sheets and BEBR can be found in **Appendix I**. Background volumes were derived by applying the established 2.74% growth rate to the existing segment volumes.

Tables 5 and 6 provide an analysis of the background conditions under Daily and PM peak hour conditions. As shown in the table, all segments operate within their respective Daily and PM peak hour capacities in the background conditions.

Table 5: Background (2027) Daily Roadway Segment Analysis

Roadway	From	To	Daily - Background (2027)											
			Existing (2023) AADT [1]	Growth Rate	Regression Type	Existing (2025) AADT	Growth Rate	Background (2027) AADT[2]	Daily Vested Traffic[3]		Total Background (2027) AADT	Daily MSV [1]	Max V/C Ratio	LOS
									Cocoa Landing	Total Vested Traffic				
Cox Road														
	SR 520	SR 524	4,590	2.74%	Linear	4,842	2.74%	5,107	164	164	5,271	17,700	0.30	C
SR 520														
	I-95	Burnett Rd	23,230	2.74%	Linear	24,503	2.74%	25,846	0	0	25,846	41,790	0.62	C
SR 524														
	I-95	Cox Rd	13,300	2.74%	Linear	14,029	2.74%	14,798	442	442	15,239	18,590	0.82	C
	Cox Rd	Industry Rd	14,630	2.74%	Linear	15,432	2.74%	16,277	696	696	16,973	19,470	0.87	C

Notes:

1. Data obtained from the Space Coast TPO Traffic Counts Report (2023).

2. A growth rate was applied to the 2023 volumes based on BEBR calculations.

3. Vested Trip data provided by City of Cocoa.

Table 6: Background (2027) PM Peak Hour Roadway Segment Analysis

Roadway	From	To	PM Peak Hour - Background (2027)									
			Peak Hour Two-Way MSV[1]	Existing (2025) Peak Hour Two-Way Volume[2]	Growth Rate	Regression Type	Background Two-Way Volume (Before Vested Trips)[3]	Total Peak Hour Two-Way Vested Traffic[4]		Total Background (2027) Peak Hour Two-Way Volume	Max V/C Ratio	LOS
								Cocoa Landing	Total Vested Traffic			
Cox Road												
	SR 520	SR 524	1,560	492	2.74%	Linear	519	21	21	540	0.35	C
SR 520												
	I-95	Burnett Rd	3,630	1,861	2.74%	Linear	1,963	0	0	1,963	0.54	C
SR 524												
	I-95	Cox Rd	2,230	988	2.74%	Linear	1,042	30	30	1,072	0.48	C
	Cox Rd	Industry Rd	2,230	1,228	2.74%	Linear	1,295	33	33	1,328	0.60	C

Notes:

1. The Maximum Service Volume was obtained from SCTPO's 2020 Segments Functional Classification, MAV, LOS Table.

2. Peak Hour Two-Way volumes were obtained from SCTPO's Transportation Data Management System.

3. A growth rate was applied to the 2023 volumes based on historical AADT volumes from the Space Coast TPO Traffic Counts Report (2023).

4. Vested Trip data provided by City of Cocoa.

4.2 BACKGROUND INTERSECTION CONDITIONS

An intersection operational analysis was performed for background condition during the AM and PM peak hour using procedures outlined in the *Highway Capacity Manual, 7th Edition* with Synchro (v12) software. *HCM 2000* was used for the analysis of the intersection of SR 520 & Cox Road as HCM 7th Edition does not support the permissive + protective left-turn type of the southbound left/thru shared lane. Consistent with the roadway segment analysis, existing (2025) volumes were forecasted to Year 2027 background volumes using an annual growth rate of 2.74%. Volume development worksheets are provided in **Appendix E**.

Intersection level of service (LOS) and maximum volume to capacity (v/c) ratios for the AM and PM peak hour background conditions are provided in **Table 7 and 8**. Synchro outputs are provided in **Appendix H**.

As shown in **Tables 7 and 8**, all study area intersections are anticipated to operate similarly to existing conditions with acceptable LOS and v/c ratios less than one (1.0).

Table 7: Background (2027) Intersection Conditions (AM Peak Hour)

Background Condition - 2027					
Intersection	Control Type	Approach	AM Peak Hour		
			Level of Service (overall delay)	Max V/C Movement	Max V/C Ratio
SR 524 (EB/WB) & Cox Road (NB/SB)	Signalized	EB	B	EBT	0.41
		WB	A	WBL	0.28
		NB	D	NBL/T/R	0.71
		SB	D	SBL/T/R	0.54
		Overall	**B (19.4 s)**	**NBL/T/R**	**0.71**
SR 520 (EB/WB) & Cox Road (NB/SB)	Signalized	EB	B	EBT/R	0.55
		WB	B	WBT	0.42
		NB	D	NBL/T/R	0.24
		SB	C	SBL/T	0.71
		Overall	**C (20.6 s)**	**SBL/T**	**0.71**

Table 8: Background (2027) Intersection Conditions (PM Peak Hour)

Background Condition - 2027					
Intersection	Control Type	Approach	PM Peak Hour		
			Level of Service (overall delay)	Max V/C Movement	Max V/C Ratio
SR 524 (EB/WB) & Cox Road (NB/SB)	Signalized	EB	B	EBT	0.47
		WB	B	WBT	0.45
		NB	E	NBL/T/R	0.79
		SB	E	SBL/T/R	0.57
		Overall	**C (23.2 s)**	**NBL/T/R**	**0.79**
SR 520 (EB/WB) & Cox Road (NB/SB)	Signalized	EB	B	EBT/R	0.40
		WB	B	WBT	0.44
		NB	E	NBL/T/R	0.39
		SB	D	SBL/T	0.56
		Overall	**B (18.2 s)**	**SBL/T**	**0.56**

5.0 DEVELOPMENT TRAFFIC

The applicant is proposing to develop the site to consist of 240 townhomes. Buildout of the project is anticipated in Year 2027.

5.1 TRIP GENERATION

The Institute of Transportation Engineer's (ITE) *Trip Generation Manual, 11th Edition* was reviewed for comparable ITE Land Use Codes (LUCs) for the proposed project. Land Use Code (LUC) 215 [Single-Family Attached Housing] was used to estimate trip generation for the proposed development. Excerpts from the ITE *Trip Generation Manual* are provided in **Appendix J**.

Table 9 provides the Daily, AM and PM peak hour trip generation summary for the project. As shown in the table, the proposed development is anticipated to generate 1,778 daily trips, 119 AM peak hour trips (37 inbound/ 82 outbound), and 140 PM peak hour trips (80 inbound/ 60 outbound).

Table 9: Trip Generation

Daily	Land Use	ITE LUC[1]	Size	Units	ITE Trip Rate[1]	Daily				
						Total	In[1]		Out[1]	
	Single-Family Attached Housing	215	240	DU	T = 7.62*X - 50.48	1,778	50%	889	50%	889
	Total Generated Trips					**1,778**	**889**		**889**	
AM Peak Hour	Land Use	ITE LUC[1]	Size	Units	ITE Trip Rate[1]	AM Peak Hour				
						Total	In[1]		Out[1]	
	Single-Family Attached Housing	215	240	DU	T = 0.52*X - 5.70	119	31%	37	69%	82
	Total Generated Trips					**119**	**37**		**82**	
PM Peak Hour	Land Use	ITE LUC[1]	Size	Units	ITE Trip Rate[1]	PM Peak Hour				
						Total	In[1]		Out[1]	
	Single-Family Attached Housing	215	240	DU	T = 0.60*X - 3.93	140	57%	80	43%	60
	Total Generated Trips					**140**	**80**		**60**	

Note: [1] Vehicle trip rate and directional splits per ITE Trip Generation, 11th Edition

5.2 TRIP DISTRIBUTION

Projected traffic patterns on study area facilities were developed using the regional travel demand model. Land use data for the project was entered into a new traffic analysis zone (TAZ) within the Central Florida Regional Planning Model (CFRPM v7) set and situated within the existing roadway network to appropriately represent project access. The model was used to assign trips for all trip purposes between allocated origin and destination pairs using project buildout year model data. Trip distribution for the project was extracted from the completed model assignment and reviewed for logic. The resulting model plot showing the percent of daily project distribution is provided in **Appendix K**.

Daily model project distribution was referenced to manually assign project distribution at the study area in general accordance with daily model output. Project trips were manually assigned at the driveways. **Figure 2** shows the intersection movement project distribution within the study area for use in forecasting project trips.

5.3 TRIP ASSIGNMENT

Project trip distribution percentages were used to assign anticipated project trips to the study area roadways and intersections. **Figure 3** shows the anticipated peak hour project trip assignments at study area intersections during the AM and PM peak hour.

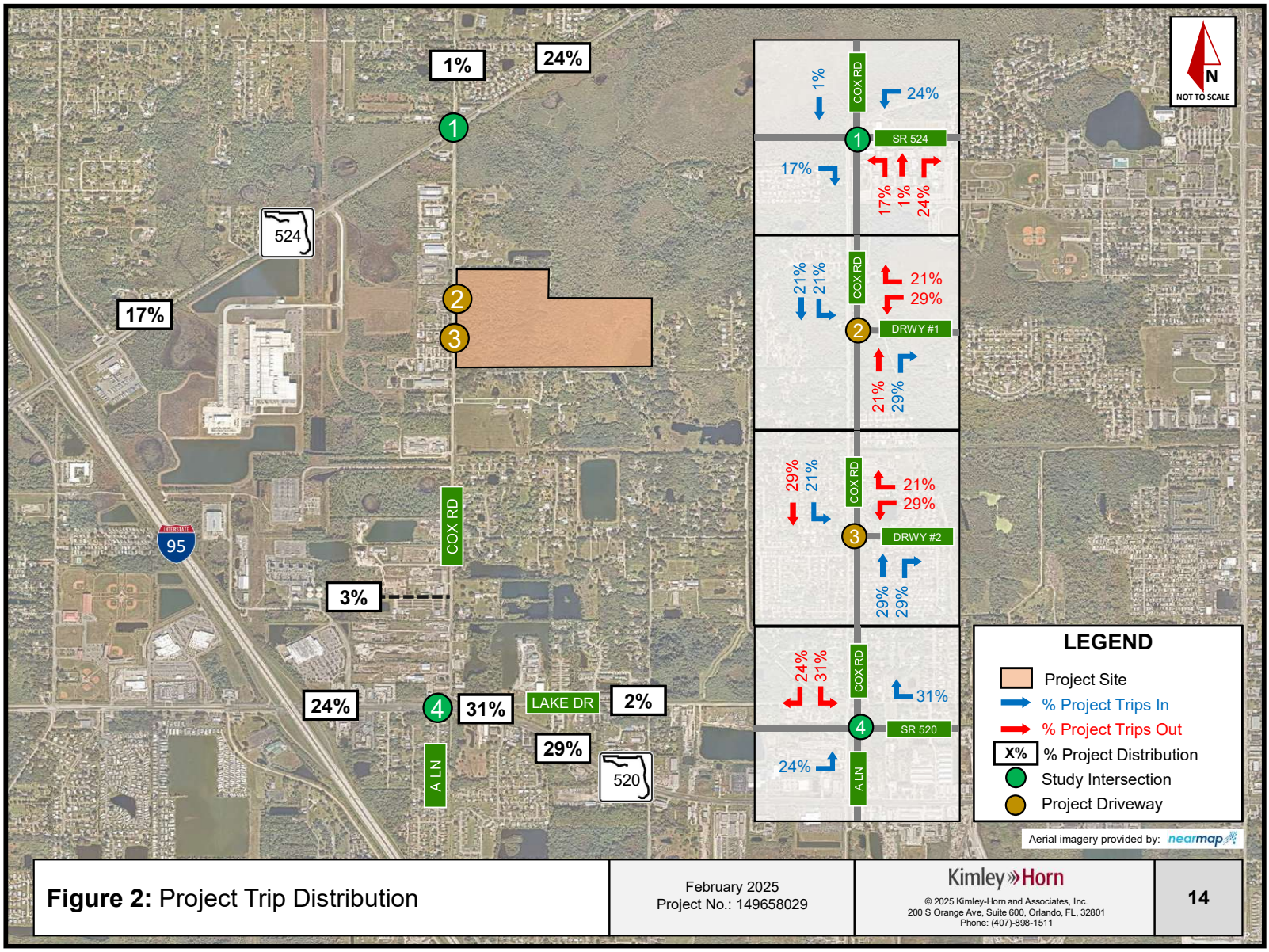


Figure 2: Project Trip Distribution

February 2025
Project No.: 149658029

Kimley»Horn

© 2025 Kimley-Horn and Associates, Inc.
200 S Orange Ave, Suite 600, Orlando, FL, 32801
Phone: (407)-898-1511

14

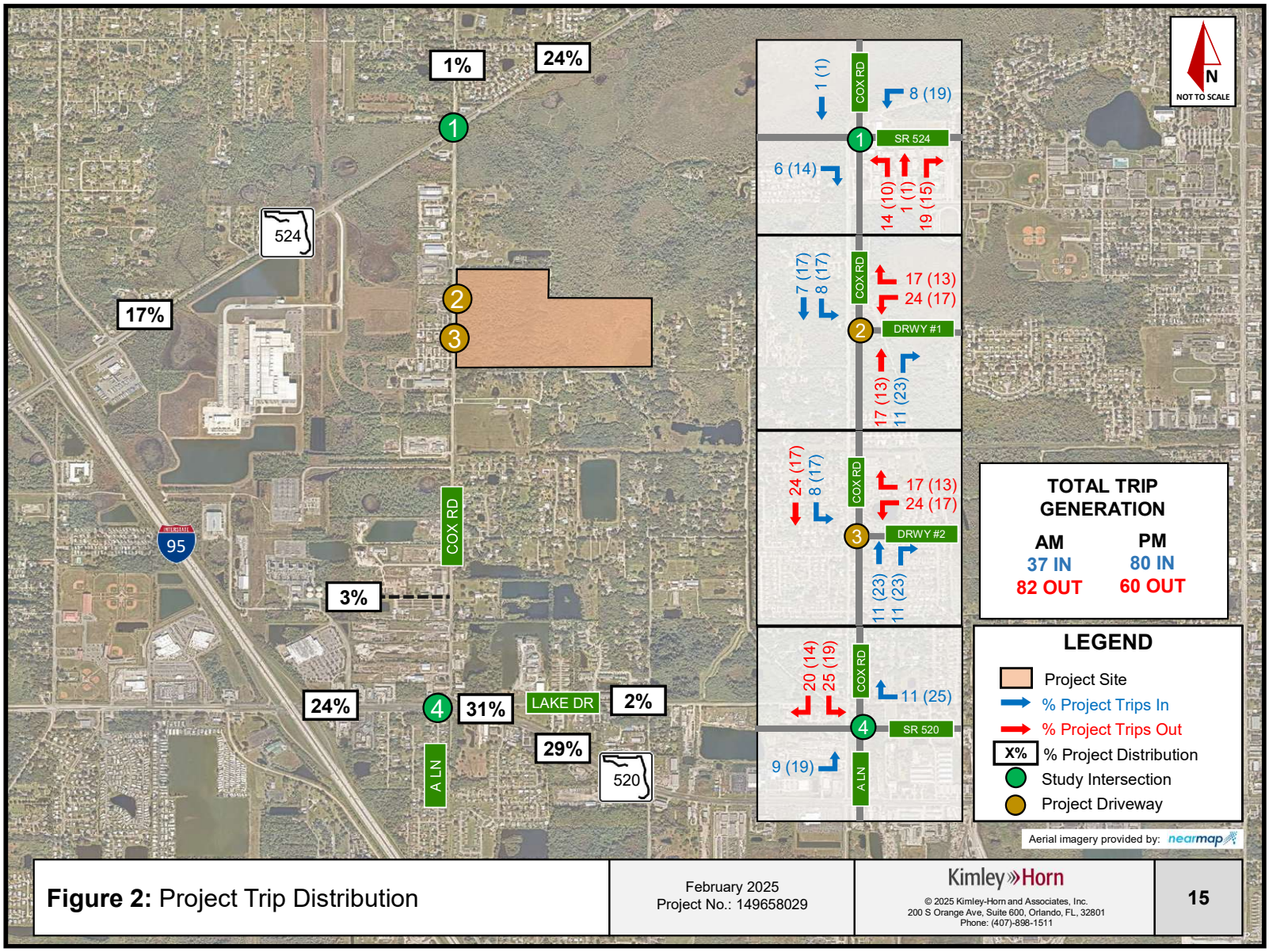


Figure 2: Project Trip Distribution

February 2025
Project No.: 149658029

Kimley»Horn

© 2025 Kimley-Horn and Associates, Inc.
200 S Orange Ave, Suite 600, Orlando, FL, 32801
Phone: (407)-898-1511

15

6.0 BUILDOUT CONDITIONS ANALYSIS

Buildout volumes were developed by adding anticipated project trips to background volumes. Turning movement volume worksheets for all intersections and driveways are provided in **Appendix E.**

6.1 BUILDOUT ROADWAY SEGMENT ANALYSIS

A roadway segment capacity analysis was performed under buildout Daily and PM peak conditions. Buildout volumes were calculated by adding anticipated project trips to background traffic volumes.

Tables 10 and 11 provide an analysis of the buildout conditions under Daily and PM peak hour conditions. As shown in the table, all segments operate within their respective Daily and PM peak hour capacities for buildout conditions. No segment deficiencies were identified as a result of project traffic.

Table 10: Buildout (2027) Daily Roadway Segment Analysis

Roadway	From	To	Daily - Background (2027)											Daily - Buildout (2027)					
									Daily Vested Traffic[3]					Daily Trips = 1,778					
			Existing (2023) AADT[1]	Growth Rate	Regression Type	Existing (2025) AADT	Growth Rate	Background (2027) AADT[2]	Cocoa Landing	Total Vested Traffic	Total Background (2027) AADT	Daily MSV[1]	Max V/C Ratio	LOS	% Assign[4]	Project Trips	Buildout (2027) AADT	Daily MSV[1]	Max V/C Ratio	LOS
Cox Road																			
	SR 520	SR 524	4,590	2.74%	Linear	4,842	2.74%	5,107	164	164	5,271	17,700	0.30	C	100%	1,778	7,049	17,700	0.40	C
SR 520																			
	I-95	Burnett Rd	23,230	2.74%	Linear	24,503	2.74%	25,846	0	0	25,846	41,790	0.62	C	31%	551	26,397	41,790	0.63	C
SR 524																			
	I-95	Cox Rd	13,300	2.74%	Linear	14,029	2.74%	14,798	442	442	15,239	18,590	0.82	C	20%	356	15,595	18,590	0.84	C
	Cox Rd	Industry Rd	14,630	2.74%	Linear	15,432	2.74%	16,277	696	696	16,973	19,470	0.87	C	25%	445	17,418	19,470	0.89	C

Notes:
1. Data obtained from the Space Coast TPO Traffic Counts Report (2023).
2. A growth rate was applied to the 2023 volumes based on BEBR calculations.
3. Vested Trip data provided by City of Cocoa.
4. Percent project traffic assignment was calculated as the maximum across the segment.

Table 11: Buildout (2027) PM Peak Hour Roadway Segment Analysis

Roadway	From	To	PM Peak Hour - Background (2027)										PM Peak Hour - Buildout (2027)					
								Total Peak Hour Two-Way Vested Traffic[4]										
			Peak Hour Two-Way MSV[1]	Existing (2025) Peak Hour Two-Way Volume[2]	Growth Rate	Regression Type	Background Two-Way Volume (Before Vested Trips)[3]	Cocoa Landing	Total Vested Traffic	Total Background (2027) Peak Hour Two-Way Volume	Max V/C Ratio	LOS	% Assign[5]	2-Way Project Trips	Buildout (2027) Peak Hour Two-Way Volume	Max V/C Ratio	LOS	
Cox Road																		
	SR 520	SR 524	1,560	492	2.74%	Linear	519	21	21	540	0.35	C	100%	140	680	0.44	C	
SR 520																		
	I-95	Burnett Rd	3,630	1,861	2.74%	Linear	1,963	0	0	1,963	0.54	C	31%	43	2,006	0.55	C	
SR 524																		
	I-95	Cox Rd	2,230	988	2.74%	Linear	1,042	30	30	1,072	0.48	C	20%	28	1,100	0.49	C	
	Cox Rd	Industry Rd	2,230	1,228	2.74%	Linear	1,295	33	33	1,328	0.60	C	25%	35	1,363	0.61	C	

Notes:
1. The Maximum Service Volume was obtained from SCTPO's 2020 Segments Functional Classification, MAV, LOS Table.
2. Peak Hour Two-Way volumes were obtained from SCTPO's Transportation Data Management System.
3. A growth rate was applied to the 2023 volumes based on historical AADT volumes from the Space Coast TPO Traffic Counts Report (2023).
4. Vested Trip data provided by City of Cocoa.
5. Percent project traffic assignment was calculated as the maximum across the segment.

6.2 BUILDOUT INTERSECTION ANALYSIS

An intersection operational analysis was performed for Year 2027 buildout conditions during the AM and PM peak hours using procedures outlined in the *Highway Capacity Manual, 7th Edition* with Synchro (v12) software. *HCM 2000* was used for the analysis of the intersection of SR 520 & Cox Road as HCM 7th Edition does not support the permissive + protective left-turn type of the southbound left/thru shared lane. Intersection level of service (LOS), delay and maximum volume to capacity (v/c) ratios for the AM and PM peak hour buildout conditions are provided in **Table 12 and 13.** Synchro outputs are provided in **Appendix H**.

Figures 4 and 5 illustrate the AM and PM peak hour turning movement buildout volumes at the study intersections. Volume development worksheets are provided in **Appendix E**.

As shown in **Table 12 and 13**, all study area intersections are expected to operate with acceptable LOS and v/c ratios less than 1.0 under buildout conditions.

Table 12: Buildout (2027) Intersection Conditions (AM Peak Hour)

Buildout Condition - 2027					
Intersection	**Control Type**	**Approach**	**AM Peak Hour**		
			Level of Service (overall delay)	**Max V/C Movement**	**Max V/C Ratio**
SR 524 (EB/WB) & Cox Road (NB/SB)	Signalized	EB	B	EBT	0.43
		WB	A	WBL	0.31
		NB	D	NBL/T/R	0.74
		SB	D	SBL/T/R	0.50
		Overall	**C (20.9 s)**	**NBL/T/R**	**0.74**
Driveway #1 (EB/WB) & Cox Road (NB/SB)	TWSC	EB	-	-	-
		WB	B	WBL/R	0.07
		NB	-	-	-
		SB	A	SBL	0.01
		Overall	**-**	**WBL/R**	**0.07**
Driveway #2 (EB/WB) & Cox Road (NB/SB)	TWSC	EB	-	-	-
		WB	B	WBL/R	0.07
		NB	-	-	-
		SB	A	SBL	0.01
		Overall	**-**	**WBL/R**	**0.07**
SR 520 (EB/WB) & Cox Road (NB/SB)	Signalized	EB	C	EBT/R	0.57
		WB	C	WBT	0.44
		NB	D	NBL/T/R	0.23
		SB	D	SBL/T	0.82
		Overall	**C (23.0 s)**	**SBL/T**	**0.82**

Table 13: Buildout (2027) Intersection Conditions (PM Peak Hour)

Buildout Condition - 2027					
Intersection	**Control Type**	**Approach**	**PM Peak Hour**		
			Level of Service (overall delay)	**Max V/C Movement**	**Max V/C Ratio**
SR 524 (EB/WB) & Cox Road (NB/SB)	Signalized	EB	B	EBT	0.49
		WB	B	WBT	0.46
		NB	E	NBL/T/R	0.80
		SB	D	SBL/T/R	0.54
		Overall	**C (24.6 s)**	**NBL/T/R**	**0.80**
Driveway #1 (EB/WB) & Cox Road (NB/SB)	TWSC	EB	-	-	-
		WB	B	WBL/R	0.06
		NB	-	-	-
		SB	A	SBL	0.01
		Overall	**-**	**WBL/R**	**0.06**
Driveway #2 (EB/WB) & Cox Road (NB/SB)	TWSC	EB	-	-	-
		WB	B	WBL/R	0.05
		NB	-	-	-
		SB	A	SBL	0.01
		Overall	**-**	**WBL/R**	**0.05**
SR 520 (EB/WB) & Cox Road (NB/SB)	Signalized	EB	B	EBT/R	0.40
		WB	B	WBT	0.45
		NB	E	NBL/T/R	0.39
		SB	D	SBL/T	0.66
		Overall	**B (19.2 s)**	**SBL/T**	**0.66**

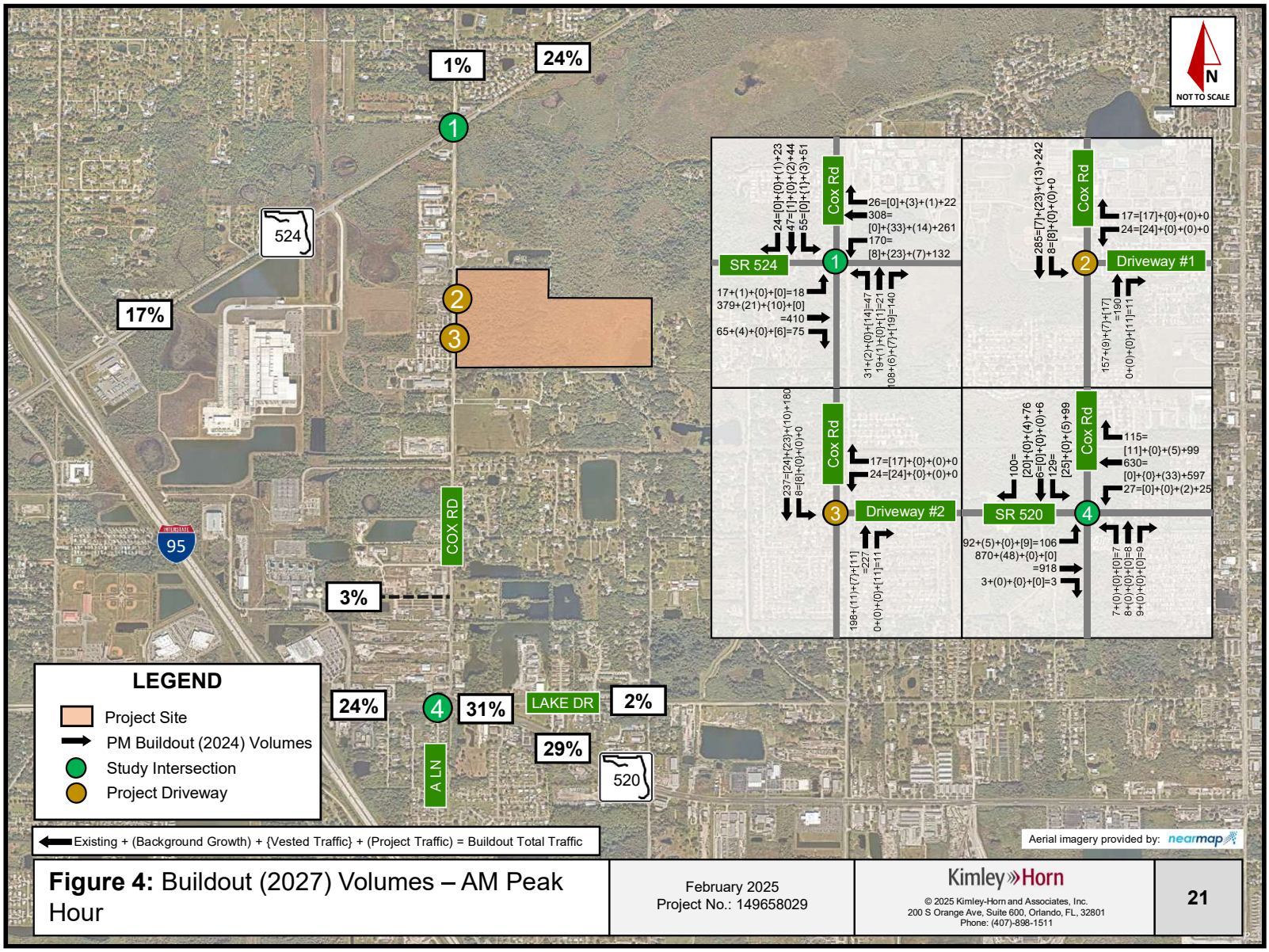


Figure 4: Buildout (2027) Volumes – AM Peak Hour

February 2025
Project No.: 149658029

Kimley»Horn

© 2025 Kimley-Horn and Associates, Inc.
200 S Orange Ave, Suite 600, Orlando, FL, 32801
Phone: (407)-898-1511

21

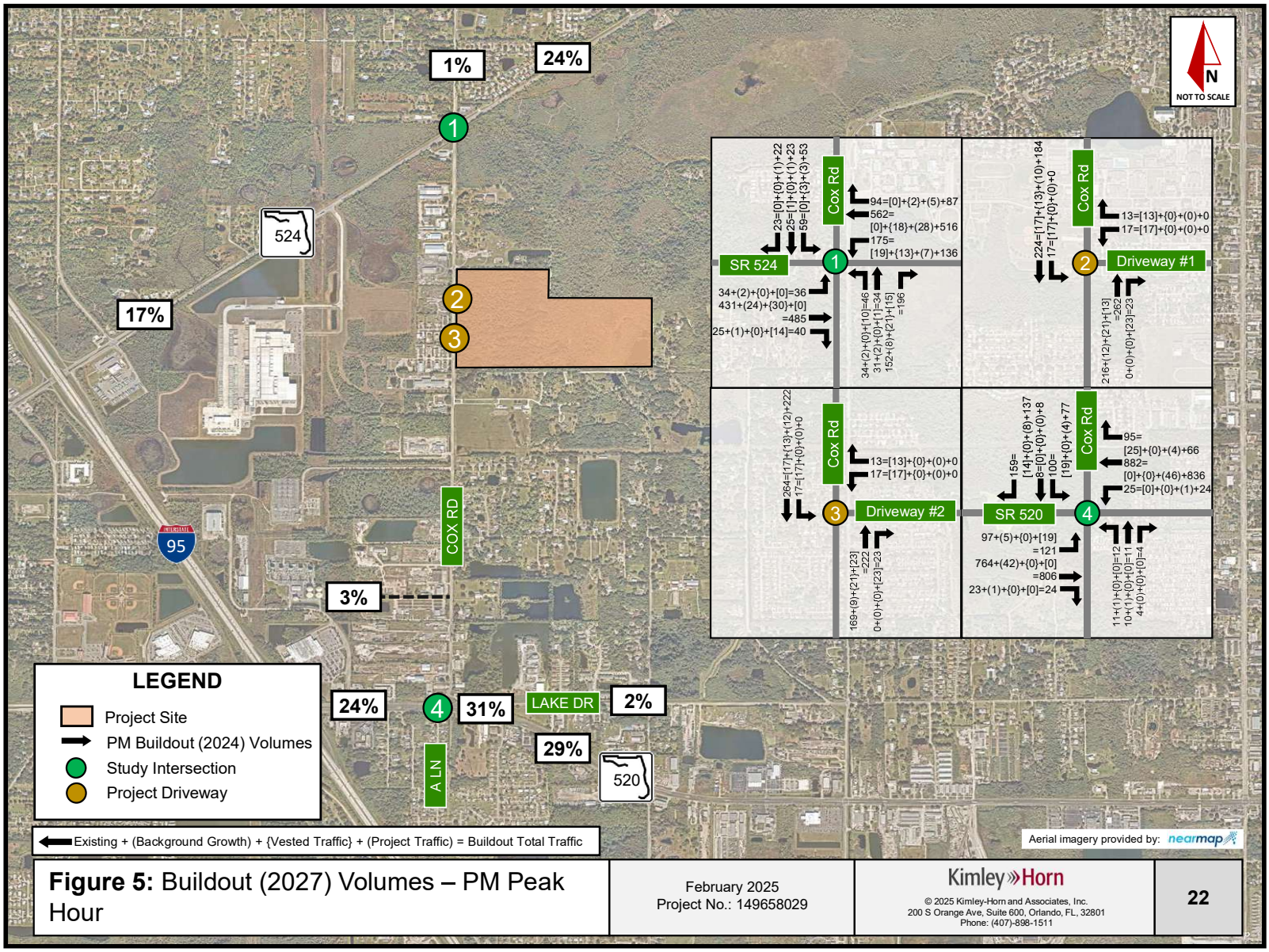


Figure 5: Buildout (2027) Volumes – PM Peak Hour

February 2025
Project No.: 149658029

Kimley»Horn

© 2025 Kimley-Horn and Associates, Inc.
200 S Orange Ave, Suite 600, Orlando, FL, 32801
Phone: (407)-898-1511

22

7.0 SITE ACCESS ANALYSIS

Access to the site will be provided via two full-access driveways on Cox Road. The need for exclusive ingress turn lanes was evaluated at the project driveways on Cox Road using National Cooperative of Highway Research Programs (NCHRP) Report 457 criteria.

The projected buildout year 2027 traffic volumes on Cox Road, were compared to the thresholds of the NCHRP Report 457 for determination of whether a major road left-turn and/or right-turn lane is required at a stop-controlled minor street intersection. Based on the low ingress volumes projected at the project driveways, and the low existing traffic on Cox Road during the AM and PM peak hour, exclusive turn lanes (southbound left and northbound right) at the project driveways are not warranted based on the criteria within the NCHRP 457 analysis.

The NCRHP Report 457 outputs for the left and right-turn lanes for the projected buildout AM and PM peak hour scenarios are provided in **Appendix L**.

8.0 CONCLUSION

Kimley-Horn has been retained by Meritage Homes to analyze and document the traffic impacts associated with the proposed Meritage Cocoa Legacy residential development consisting of 240 townhomes to be located in the City of Cocoa, Florida.

The project site is generally located east of Cox Road and north of Hooper Road in the City of Cocoa, Florida. The ±89.44-acre property (parcel IDs: 24-35-24-00-508, -509, -510) is currently vacant and is planned for construction in Year 2027. Access to the site is proposed via two (2) full-access driveways along Cox Road.

The project is anticipated to generate 1,778 daily trips, 119 AM peak hour trips (37 inbound/ 82 outbound), and 140 PM peak hour trips (80 inbound/ 60 outbound). The Institute of Transportation Engineer's (ITE) Trip Generation Manual, 11th Edition was reviewed, and LUC 215 [Single-Family Attached Housing] was selected for this development. Project trips were distributed onto the surrounding network using the Central Florida Regional Planning Model (CFRPM v7).

A Daily and PM peak hour capacity analysis was performed on the study area roadway segments under existing, background, and buildout conditions. With the addition of project trips, all study area roadway segments are expected to operate within capacity under buildout conditions.

Similarly, an operational analysis was performed at intersections within the study area under existing, background, and buildout conditions. All study area intersections are expected to operate with acceptable LOS and v/c ratios less than 1.0.

Access to the site will be provided via two full-access driveways on Cox Road. The need for exclusive ingress turn lanes was evaluated at the project driveways on Cox Road using NCHRP Report 457 criteria. Based on the low ingress volumes projected at the project driveways, and the low existing traffic on Cox Road during the AM and PM peak hour, exclusive turn lanes at the project driveways are not warranted.

APPENDIX A
Methodology Statement

Kimley»Horn

MEMORANDUM

To: Bryant Smith, P.E.
Public Works Director, City of Cocoa

From: James M. Taylor, P.E.
Kimley-Horn and Associates, Inc.

Date: February 14, 2025

Subject: Meritage Cocoa Legacy Traffic Impact Analysis Methodology
City of Cocoa, FL

Purpose

The following memorandum is a Traffic Impact Analysis (TIA) methodology for a proposed single-family attached residential development in the City of Cocoa, Florida. The forthcoming TIA will generally conform to the methodology herein and the policies and guidelines of the Space Coast Transportation Planning Organization (SCTPO), Brevard County, and the City of Cocoa.

Project Description

The proposed single-family residential development is located east of Cox Road and south of SR 524 in City of Cocoa, Florida. The project property is currently vacant. The proposed development will consist of +/- 240 townhomes. Access to the site will be provided via two (2) full access driveways along Cox Road.

Study Area

Per Brevard County's 2023 *Guidelines on Minimum Requirements for Traffic Impact Analyses* document, the analysis radial extent is established as 0.5-miles since the development is expected to generate greater than 100 peak hour trips. The study area includes all roadway segments within 0.5-miles and roadway segments beyond 0.5-miles where the project is estimated to consume greater than or equal to five percent (5%) of the roadway's Maximum Allowable Volume (MAV).

Table 1 provides a five percent (5%) test for significance. The percent significance for project trips was determined by comparing the estimated daily project trips to the maximum service volume capacity identified for each roadway in the *Space Coast TPO Traffic Counts: 2014-2023* (provided in **Attachment C**). Based on the minimum 0.5-miles study area and the test for significance, the roadway segment of Cox Road from SR 520 to SR 524 will be included in the study area, as it is the closest major roadway connection to the project site

In addition to the two (2) proposed project driveways, the following off-site study intersections are proposed to be included in the study area:

Offsite Study Intersections

- SR 520 & Cox Road
- SR 524 & Cox Road

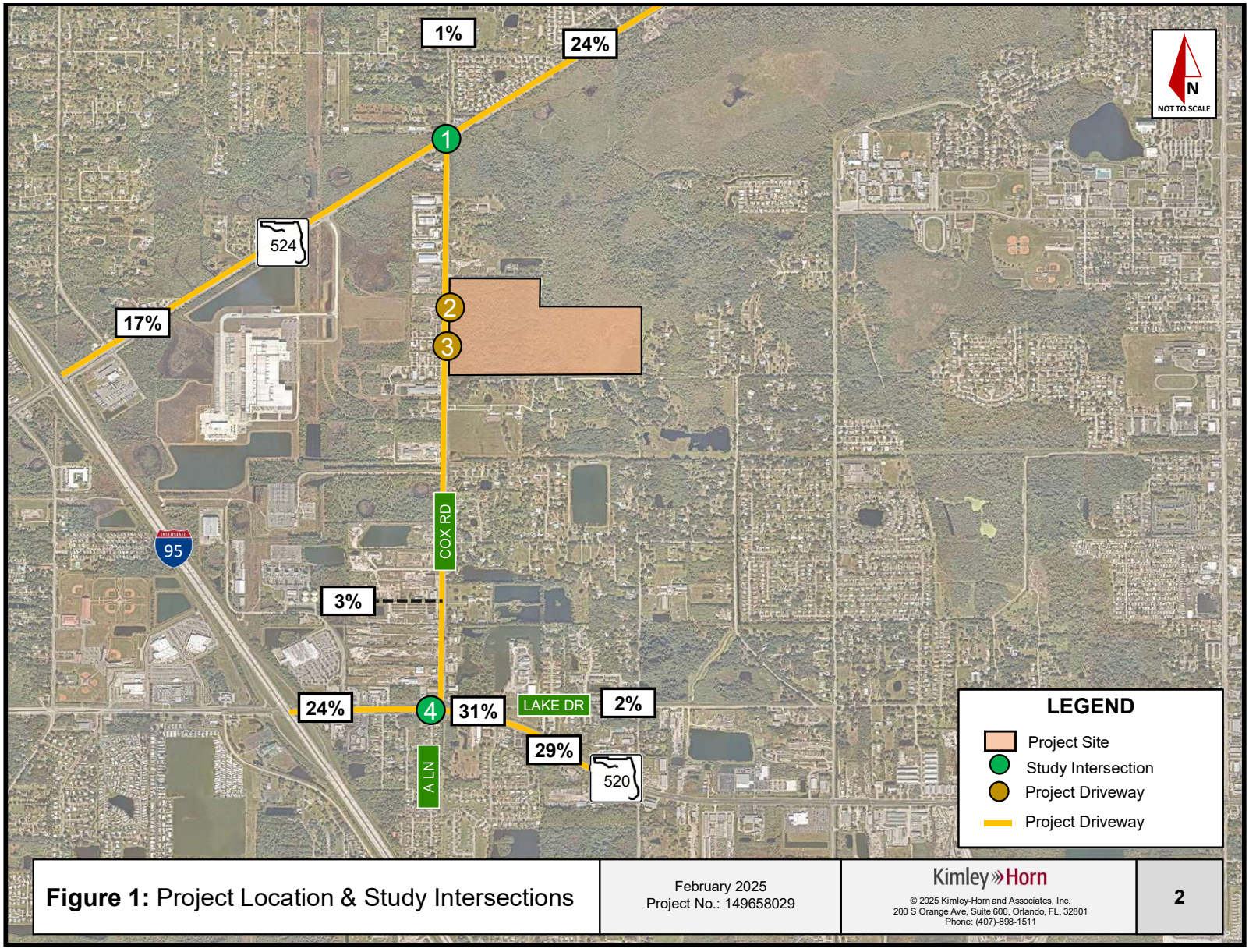


Figure 1: Project Location & Study Intersections

February 2025
Project No.: 149658029

Kimley»Horn

© 2025 Kimley-Horn and Associates, Inc.
200 S Orange Ave, Suite 600, Orlando, FL, 32801
Phone: (407)-898-1511

2

Kimley»Horn

Table 1: Study Determination Area

Roadway			Roadway Attributes [1]				Daily Capacity Volume [1]	2023 Daily AADT Volume	Daily Project Traffic			Intersection Analysis Required? [4]
	From	To	Functional Classification	Area Type	Adopted LOS	Number of Lanes			% Assign [2]	Daily Project Trips	Max % Impact [3]	
Cox Road												
	SR 520	*SR 524*	Urban Major Collector	U	D	2	17,700	4,590	58%	1,031	5.83%	Yes
	SR 524	*James Rd*	Urban Major Collector	U	D	2	17,700	2,620	1%	18	0.10%	No
SR 520												
	Friday Rd	*I-95*	Urban Principal Arterial-Other	U	D	4	41,790	19,730	5%	89	0.21%	No
	I-95	*Burnett Rd*	Urban Principal Arterial-Other	U	D	4	41,790	20,870	31%	551	1.32%	No
	Burnett Rd	*Range Rd*	Urban Principal Arterial-Other	U	D	4	41,790	20,210	27%	480	1.15%	No
SR 524												
	I-95	*Cox Rd*	Urban Minor Arterial	U	D	2	18,590	10,950	17%	302	1.63%	No
	Cox Rd	*Industry Rd*	Urban Minor Arterial	U	D	2	19,470	19,470	24%	427	2.19%	No
I-95												
	Fiske Blvd	*SR 520*	Urban Principal Arterial-Interstate	U	D	6	111,800	98,506	9%	160	0.14%	No
	SR 520	*SR 524*	Urban Principal Arterial-Interstate	U	D	6	111,800	62,000	0%	0	0.00%	No
	SR 524	*SR 528*	Urban Principal Arterial-Interstate	U	D	6	111,800	83,500	4%	71	0.06%	No
Lake Drive												
	Cox Rd	*Range Rd*	Urban Major Collector	U	D	2	17,700	3,170	2%	36	0.20%	No
	Range Rd	*Clearlake Rd*	Urban Major Collector	U	E	2	15,600	3,410	0%	0	0.00%	No
Clearlake Road												
	SR 520	*Lake Dr*	Urban Minor Arterial	U	D	4	39,800	11,650	1%	18	0.04%	No
	Lake Dr	*Dixon Blvd*	Urban Minor Arterial	U	D	4	39,800	15,170	4%	71	0.18%	No

Notes:

1. Data obtained from the Space Coast Transportation Planning Organization (TPO) Traffic Counts Report.
2. Percent project traffic assignment was calculated as the maximum across the segment.
3. Percent impact was calculated based upon daily project trips divided by the daily maximum roadway service capacity.
4. The minimum threshold for significance was at least 5% impact of the daily project trips

Kimley»Horn

Trip Generation

Trip generation for the proposed development was calculated per procedures published in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual, 11th Edition*. Land Use Code (LUC) 215 [Single-Family Attached Housing] was used to estimate trip generation for the project as provided in **Attachment A**.

As shown in Table 2, the proposed residential development is expected to generate 1,778 daily trips, 119 AM peak hour trips (37 inbound/ 82 outbound), and 140 PM peak hour trips (80 inbound/ 60 outbound).

Table 2: Trip Generation

	Land Use	ITE LUC[1]	Size	Units	ITE Trip Rate[1]	Daily				
						Total	In[1]		Out[1]	
Daily	Single-Family Attached Housing	215	240	DU	T = 7.62*X - 50.48	1,778	50%	889	50%	889
	Total Generated Trips					**1,778**	**889**		**889**	
	Land Use	**ITE LUC[1]**	**Size**	**Units**	**ITE Trip Rate[1]**	**AM Peak Hour**				
						Total	**In[1]**		**Out[1]**	
AM Peak Hour	Single-Family Attached Housing	215	240	DU	T = 0.52*X - 5.70	119	31%	37	69%	82
	Total Generated Trips					**119**	**37**		**82**	
	Land Use	**ITE LUC[1]**	**Size**	**Units**	**ITE Trip Rate[1]**	**PM Peak Hour**				
						Total	**In[1]**		**Out[1]**	
PM Peak Hour	Single-Family Attached Housing	215	240	DU	T = 0.60*X - 3.93	140	57%	80	43%	60
	Total Generated Trips					**140**	**80**		**60**	

Note: [1] Vehicle trip rate and directional splits per ITE Trip Generation, 11th Edition

Trip Distribution and Trip Assignment

Projected traffic demand of project trips on study roadways was derived with the use of the latest adopted regional travel demand model. Land use data for the project was entered into a new traffic analysis zone (TAZ) within the Central Florida Regional Planning Model (CFRPM v7) model set and situated within the existing roadway network to appropriately represent project access.

The select zone model distribution for the project was reviewed for logic and modified using engineering judgment. The proposed trip distribution, shown in **Figure 2**, will be used to assign external project traffic to the study area intersections and driveways. Model output plot showing the percent of daily trip distribution is provided in **Attachment B**.

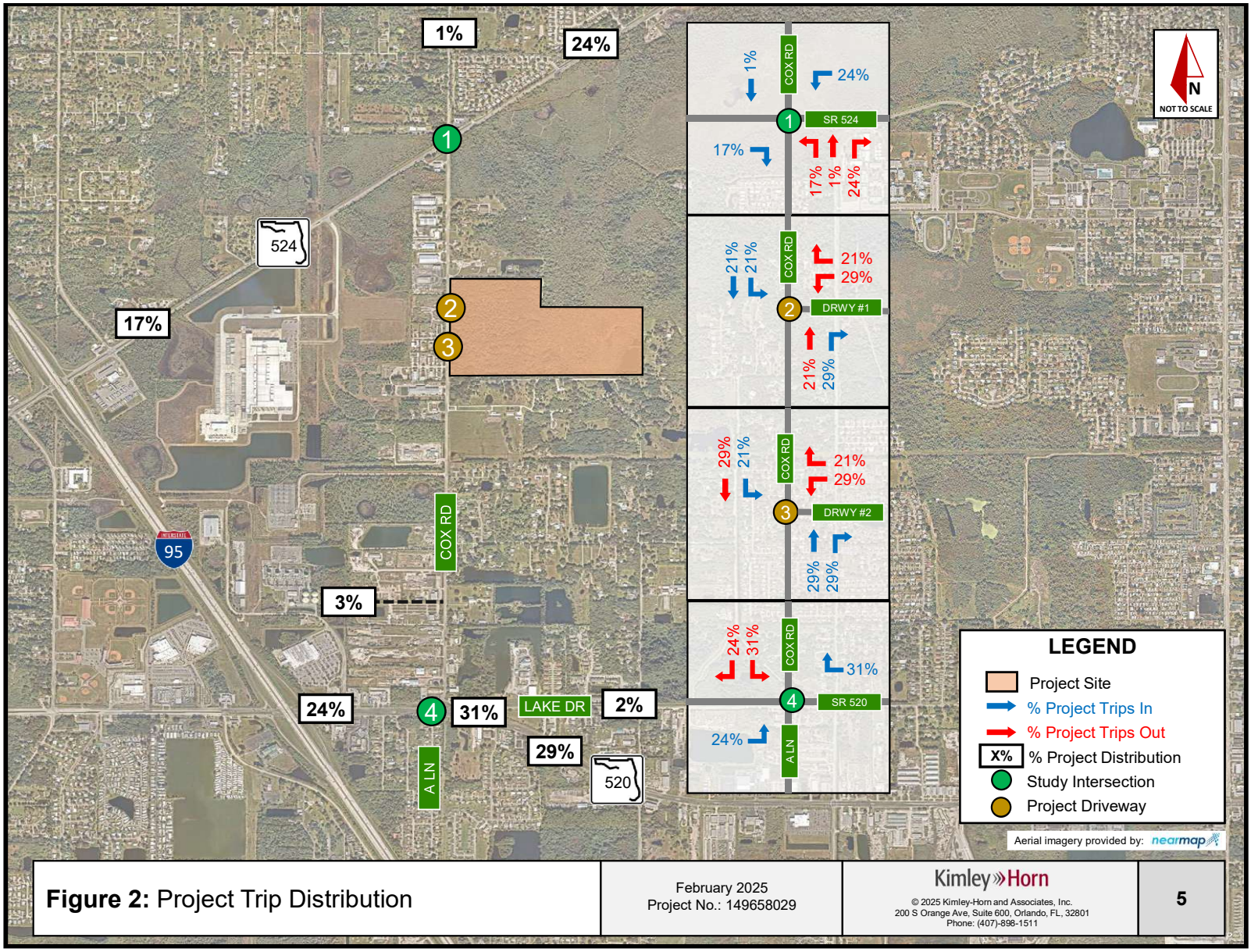


Figure 2: Project Trip Distribution

February 2025
Project No.: 149658029

Kimley»Horn

© 2025 Kimley-Horn and Associates, Inc.
200 S Orange Ave, Suite 600, Orlando, FL, 32801
Phone: (407)-898-1511

5

Kimley»Horn

Data Collection

Turning movement counts (TMCs) will be collected at the study area intersections on a standard mid-weekday (Tuesday, Wednesday, or Thursday) during the AM (7:00 AM to 9:00 AM) and PM (4:00 PM to 6:00 PM) peak periods. Existing TMCs will be adjusted by a seasonal factor based on the latest data from FDOT's Florida Traffic Online (FTO) Web Application.

Future Traffic Development

Per Brevard County's 2023 *Guidelines on Minimum Requirements for Traffic Impact Analyses*, annual growth rates shall be applied to the background traffic by either applying a minimum growth factor, or the annual growth rate of the roadway or adjacent roadway as established by Space Coast TPO, whichever is greater. The minimum growth factor will be calculated using the latest Bureau of Economic and Business Research Projections (BEBR) of Florida Population by County and based on the proposed build-out year using the "Medium" series of projections.

Analysis Scenarios

Traffic analyses will be performed for existing (Year 2024), background (Year 2027), and buildout (Year 2027) conditions as follows:

- **Roadway Segment Analysis:** Roadway segment analyses will be conducted by comparing the existing, background, and buildout daily volumes to the available roadway segment capacity. Data from the latest *Space Coast TPO Traffic Counts Report* and *FDOT Quality Level of Service Tables* will be used.
- **Intersection Analysis:** Intersection operational analysis will be performed for all study area intersections under AM and PM peak hour conditions using procedures outlined in the *Highway Capacity Manual, 7th Edition* with *Synchro* (v12) software. Volume-to-capacity (v/c) ratios, level of service (LOS), and delays will be reported. For signalized study area intersections, the existing timing and phasing plans will be used, as provided by Brevard County. If necessary, mitigating measures will be recommended for any operational deficiencies identified due to project traffic impacts.
- **Project Access Analysis**: The need for ingress turn lanes at the proposed project driveways will be assessed according to NCHRP guidance.

Documentation

All analyses and findings of the TIA will be documented in a report. An electronic copy will be signed and sealed by a registered professional engineer and submitted to the City of Cocoa for review.

ATTACHMENT A
Trip Generation Estimates

Land Use: 215
Single-Family Attached Housing

Description

Single-family attached housing includes any single-family housing unit that shares a wall with an adjoining dwelling unit, whether the walls are for living space, a vehicle garage, or storage space.

Additional Data

The database for this land use includes duplexes (defined as a single structure with two distinct dwelling units, typically joined side-by-side and each with at least one outside entrance) and townhouses/rowhouses (defined as a single structure with three or more distinct dwelling units, joined side-by-side in a row and each with an outside entrance).

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in British Columbia (CAN), California, Georgia, Illinois, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Dakota, Utah, Virginia, and Wisconsin.

Source Numbers

168, 204, 211, 237, 305, 306, 319, 321, 357, 390, 418, 525, 571, 583, 638, 735, 868, 869, 870, 896, 912, 959, 1009, 1046, 1056, 1058, 1077

Single-Family Attached Housing
(215)

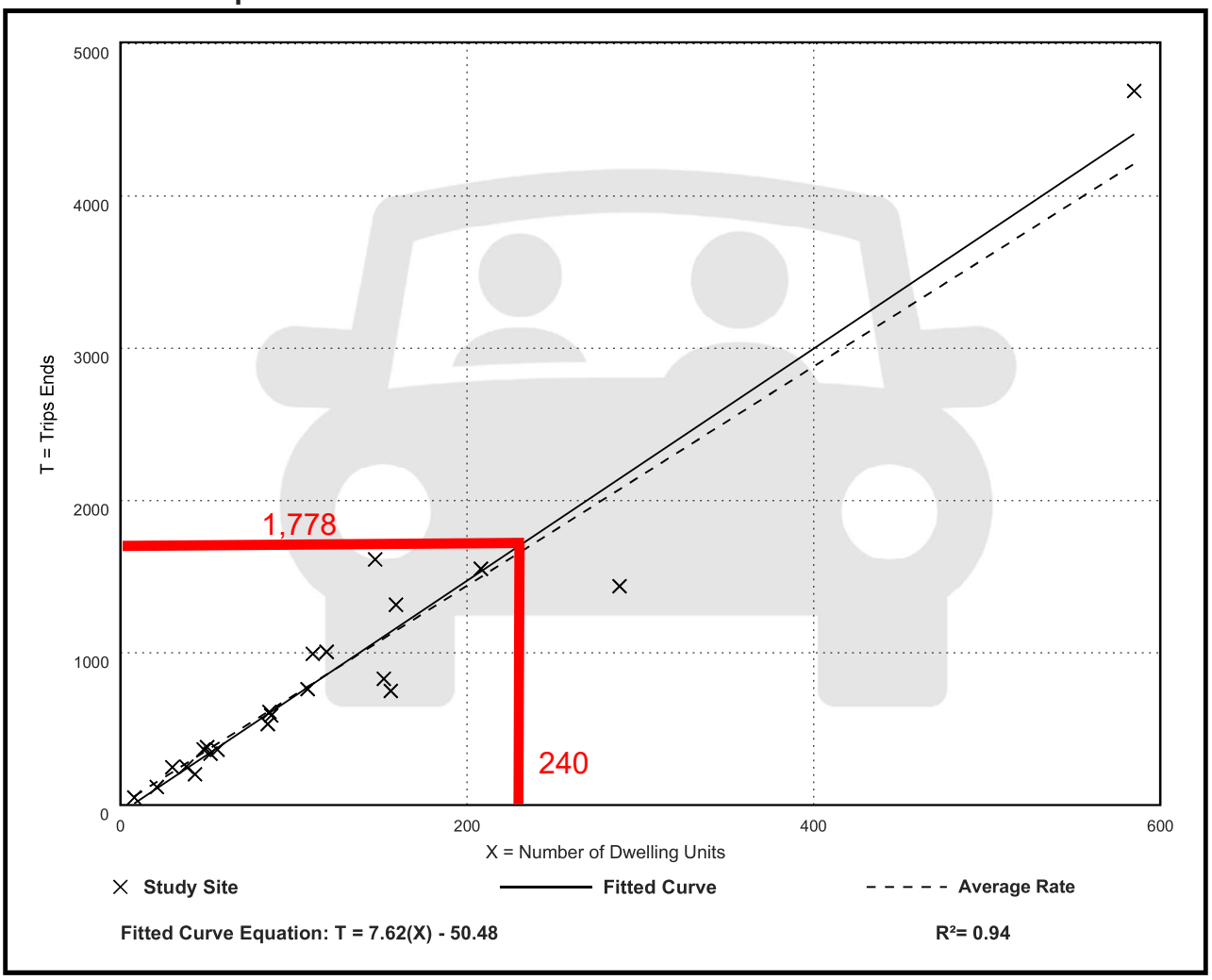
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 120
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



Fitted Curve Equation: T = 7.62(X) - 50.48

R^2= 0.94

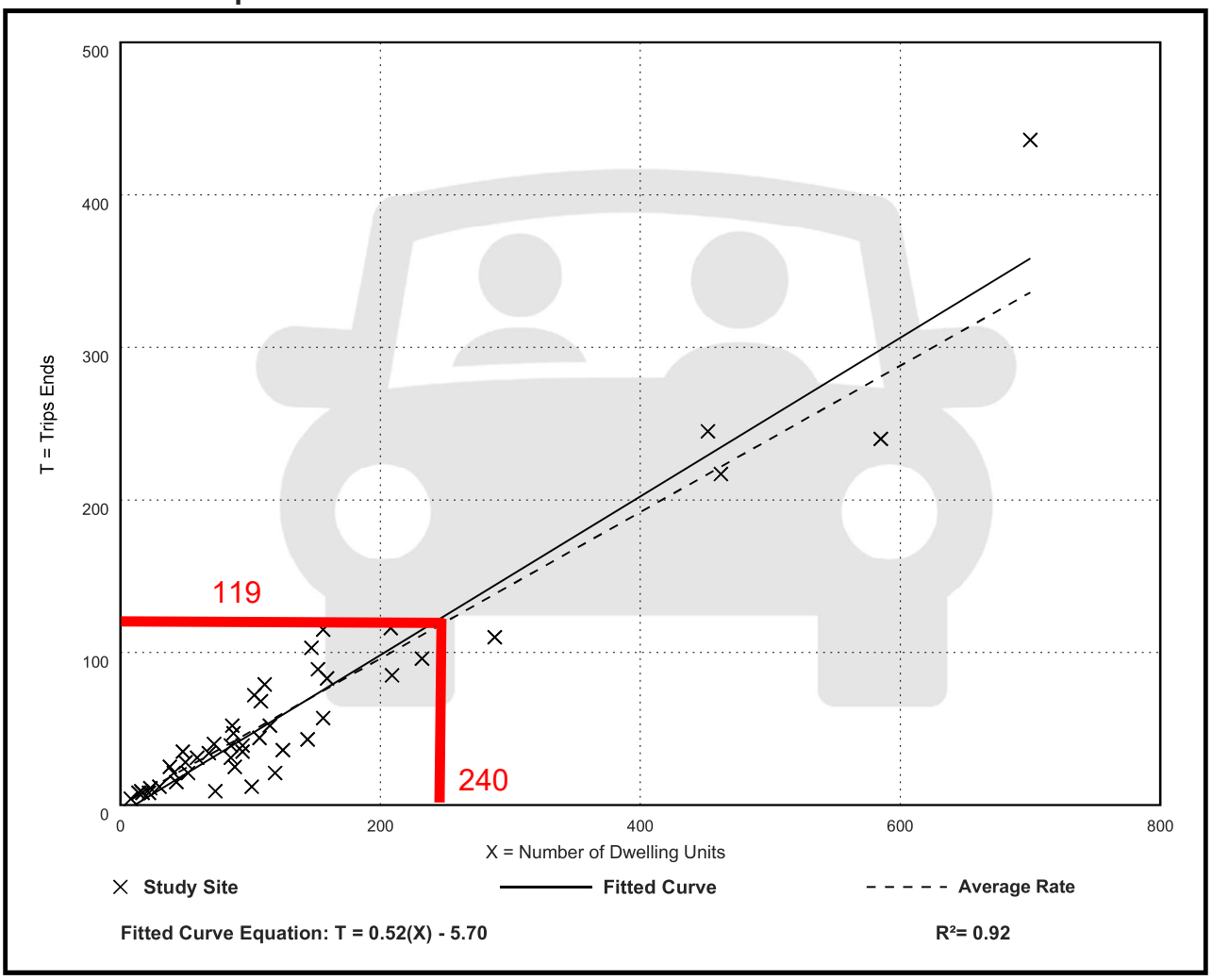
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 46
Avg. Num. of Dwelling Units: 135
Directional Distribution: 31% entering, 69% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



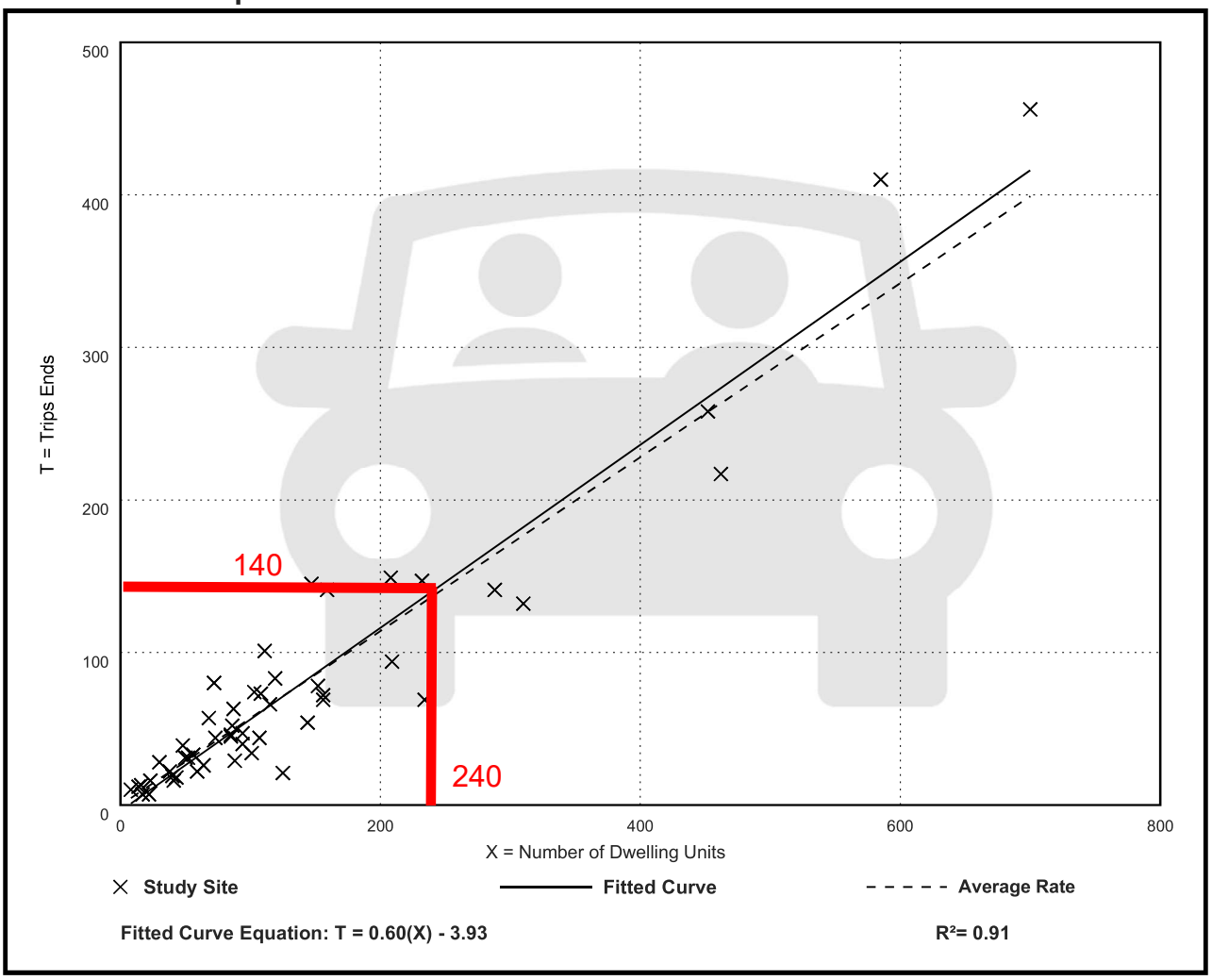
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 51
Avg. Num. of Dwelling Units: 136
Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

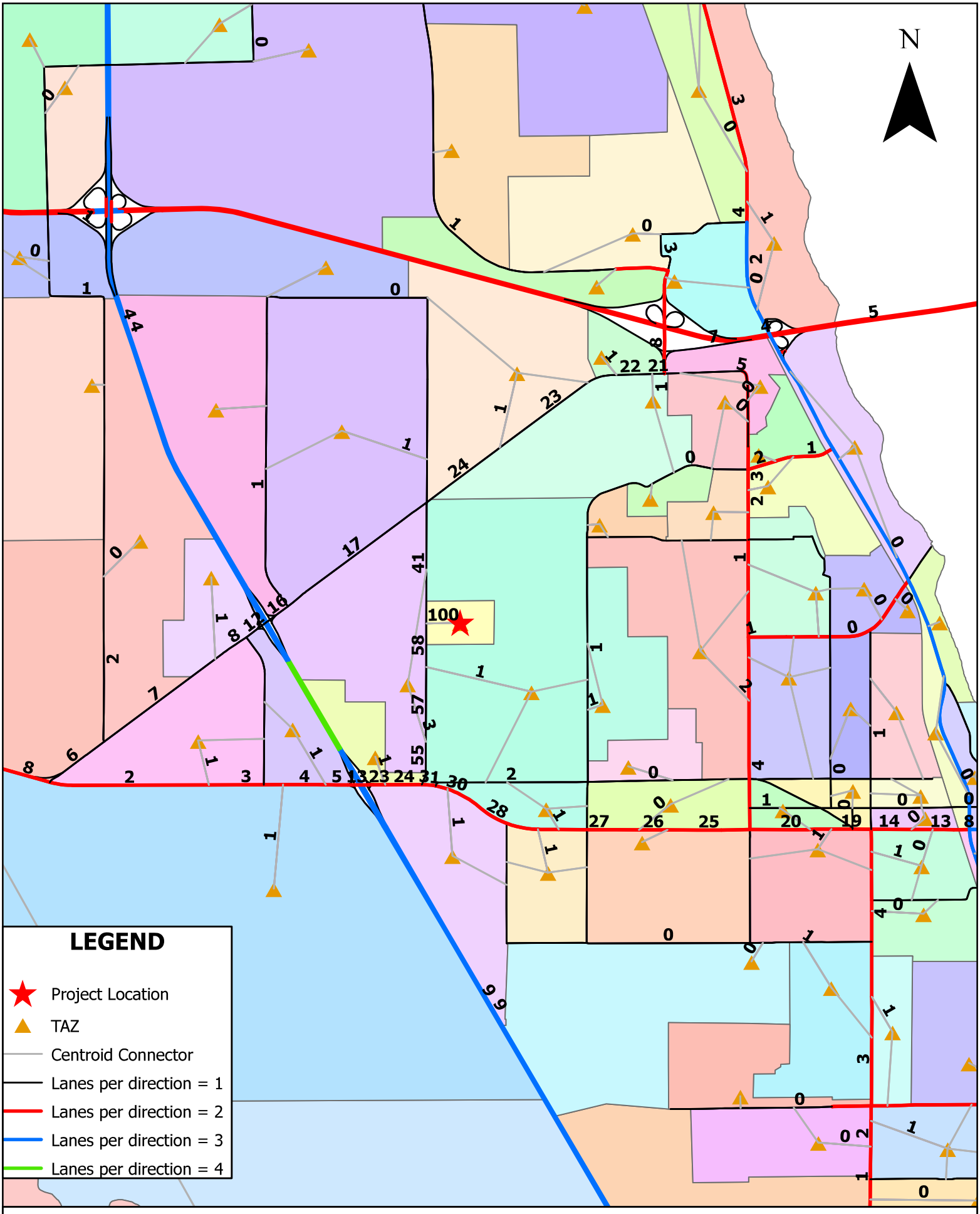
Data Plot and Equation



ATTACHMENT B
CFRPMv7 Model Outputs



Project Distribution - Meritage Cocoa Legacy
CFRPMv7 - 2025 - 2/12/2025



Project Distribution - Meritage Cocoa Legacy
CFRPMv7 - 2025 - 2/12/2025

ATTACHMENT C

Space Coast TPO Traffic Counts: 2014-2023

SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2014 - 2023

ID	ROAD	FROM	TO	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	2021 AADT	2022 AADT	2023 AADT	Current MAV	Last Count Taken	Functional Classification
AREA: CENTRAL																
75	ADAMSON RD.	PINE ST.	SR 524	4,700	5,210	5,380	5,340	6,100	5,100	5,830	6,540	5,650	6,660	17,700	02/02/23-02/03/23	Urban Minor Collector
	BARNES BLVD.	FISKE BLVD. (SR 519)	MURRELL RD.	15,460	15,895		13,145	13,835	17,545	16,660	15,580	15,705	16,115			
77	BARNES BLVD.	FISKE BLVD. (SR 519)	THREE MEADOWS DR.	15,460	15,940	UC	13,440	13,750	19,340	15,560	15,100	15,620	15,130	39,800	02/02/23-02/03/23	Urban Principal Arterial-Other
604	BARNES BLVD.	THREE MEADOWS DR.	MURRELL RD.		15,850	UC	12,850	13,920	15,750	17,760	16,060	15,790	17,100	39,800	01/26/23-01/27/23	Urban Principal Arterial-Other
72	BARNES BLVD.	MURRELL RD.	US 1	9,720	9,910	8,800	9,560	10,510	10,910	10,480	9,510	14,280	10,200	17,700	01/26/23-01/27/23	Urban Principal Arterial-Other
	BARTON BLVD.	FISKE BLVD.	US 1									13,230				
43	BARTON BLVD.	FISKE BLVD.	MURRELL RD.									13,550	15,820	34,020	01/26/23-01/27/23	Urban Minor Arterial
71	BARTON BLVD.	MURRELL RD.	US 1									12,910	13,920	34,020	04/19/23-04/20/23	Urban Minor Arterial
49	CLEARLAKE RD.	PLUCKEBAUM RD.	SR 520	4,800	5,050	4,590	4,750	5,910	5,160	5,190	4,770	4,150	4,210	15,600	01/26/23-01/27/23	Urban Major Collector
	CLEARLAKE RD. (SR 501)	SR 520	MICHIGAN AVE.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
29	CLEARLAKE RD. (SR 501)	SR 520	LAKE DR.	11,640	14,160	13,400	12,810	14,590	12,870	11,330	12,320	11,060	11,650	39,800	01/26/23-01/27/23	Urban Minor Arterial
30	CLEARLAKE RD. (SR 501)	LAKE DR.	DIXON BLVD.	16,210	19,620	19,120	18,200	18,010	17,110	18,220	16,450	13,630	15,170	39,800	01/26/23-01/27/23	Urban Minor Arterial
31	CLEARLAKE RD. (SR 501)	DIXON BLVD.	ROSETINE ST.	19,950	NC	21,570	NC	19,620	NC	17,750	NC	15,640	NC	39,800	03/10/22-03/11/22	Urban Minor Arterial
32	CLEARLAKE RD. (SR 501)	ROSETINE ST.	MICHIGAN AVE.	NC	21,140	NC	19,960	NC	19,000	NC	15,860	NC	16,620	39,800	02/02/23-02/03/23	Urban Minor Arterial
	CLEARLAKE RD. (SR 501)	MICHIGAN AVE.	SR 524	17,727	19,817	19,927	18,193	18,640	17,783	16,933	15,860	16,480	14,820			
39	CLEARLAKE RD. (SR 501)	MICHIGAN AVE.	OTTERBEIN AVE.	18,410	21,290	21,320	19,970	20,550	19,530	18,070	17,230	17,760	16,050	39,800	02/02/23-02/03/23	Urban Minor Arterial
50	CLEARLAKE RD. (SR 501)	OTTERBEIN AVE.	N. WALMART ENTRANCE	15,520	16,960	16,090	14,810	15,770	15,210	13,840	13,580	14,530	13,030	41,790	01/26/23-01/27/23	Urban Minor Arterial
	CLEARLAKE RD. (SR 501)	N. WALMART ENTRANCE	SR 524	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	41,790	[illegible]	Urban Minor Arterial
61	COX RD.	SR 520	SR 524	4,100	4,560	4,810	4,240	4,460	4,370	4,850	4,770	4,650	4,590	17,700	01/19/23-01/20/23	Urban Major Collector
69	COX RD.	SR 524	JAMES RD.	2,490	2,760	2,690	2,600	2,660	2,630	2,540	2,590	2,600	2,620	17,700	01/23/23-01/24/23	Urban Major Collector
	DIXON BLVD.	CLEARLAKE RD.	US 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
47	DIXON BLVD.	CLEARLAKE RD.	PINEDA ST.	10,320	11,360	11,290	10,920	11,070	10,620	10,950	10,150	10,520	9,730	39,800	01/23/23-01/24/23	Urban Minor Arterial
51	DIXON BLVD.	PINEDA ST.	FISKE BLVD.	9,420	10,260	10,130	10,240	10,490	10,390	10,590	9,600	9,670	9,660	39,800	05/15/23-05/16/23	Urban Minor Arterial
46	DIXON BLVD.	FISKE BLVD.	BYRD PLAZA ENTRANCE	9,800	10,220	10,760	10,560	11,260	10,780	10,940	10,000	10,510	9,560	39,800	01/26/23-01/27/23	Urban Minor Arterial
45	DIXON BLVD.	BYRD PLAZA ENTRANCE	US 1	8,980	8,800	9,480	9,490	10,210	9,570	9,420	9,230	9,910	8,950	39,800	05/15/23-05/16/23	Urban Minor Arterial
	EYSTER BLVD.	FISKE BLVD.	US 1									9,120	8,200			
635	EYSTER BLVD.	FISKE BLVD.	HUNTINGTON LN.									7,810	6,770	15,600	02/02/23-02/03/23	Urban Major Collector
636	EYSTER BLVD.	HUNTINGTON LN.	MURRELL RD.									7,020	7,070	15,600	01/26/23-01/27/23	Urban Major Collector
637	EYSTER BLVD.	MURRELL RD.	US 1									12,530	10,760	34,020	04/19/23-04/20/23	Urban Minor Arterial
	FISKE BLVD. (SR 519)	I-95/BARNES BLVD.	BARTON BLVD.	21,805	23,125	23,310	22,190	24,190	25,015	24,170	24,965	22,890	24,295			
44	FISKE BLVD. (SR 519)	I-95/BARNES BLVD.	EYSTER BLVD.	22,160	24,690	25,080	24,190	25,820	27,300	27,750	28,010	25,660	26,600	41,790	01/26/23-01/27/23	Urban Principal Arterial-Other
96	FISKE BLVD. (SR 519)	EYSTER BLVD.	BARTON BLVD.	21,450	21,560	21,540	20,190	22,560	22,730	20,590	21,920	20,120	21,990	41,790	02/02/23-02/03/23	Urban Principal Arterial-Other
	FISKE BLVD. (SR 519)	BARTON BLVD.	SR 520	20,465	21,915	20,000	20,118	20,908	21,038	20,070	21,043	19,423	21,368			
42	FISKE BLVD. (SR 519)	BARTON BLVD.	ST. ANDREWS DR.	24,240	24,150	24,200	22,660	24,320	24,130	22,260	22,700	20,700	25,050	41,790	04/19/23-04/20/23	Urban Principal Arterial-Other
41	FISKE BLVD. (SR 519)	ST. ANDREWS DR.	PLUCKEBAUM RD.	22,620	25,300	23,490	23,080	23,970	23,940	23,520	24,510	22,790	25,000	41,790	05/15/23-05/16/23	Urban Principal Arterial-Other
40	FISKE BLVD. (SR 519)	PLUCKEBAUM RD.	ROSA JONES DR.	18,130	19,860	18,210	18,920	17,720	18,690	18,960	19,140	17,490	19,130	41,790	01/26/23-01/27/23	Urban Principal Arterial-Other
38	FISKE BLVD. (SR 519)	ROSA JONES DR.	SR 520	16,870	18,350	14,100	15,810	17,620	17,390	15,540	17,820	16,710	16,290	41,790	02/02/23-02/03/23	Urban Principal Arterial-Other
37	FISKE BLVD.	SR 520	DIXON BLVD.	7,270	8,020	8,220	7,390	7,330	7,300	6,980	7,290	6,700	6,600	15,600	05/15/23-05/16/23	Urban Minor Arterial
	FLORIDA AVE.	US 1	SR 520	6,665	7,025	6,710	6,910	6,260	5,840	5,560	5,130	5,070	5,090			
55	FLORIDA AVE.	US 1	ROSA JONES DR.	7,580	7,980	7,330	6,910	7,640	7,030	6,560	6,080	6,060	6,320	15,600	01/26/23-01/27/23	Urban Minor Arterial
54	FLORIDA AVE.	ROSA JONES DR.	SR 520	5,750	6,070	6,090	UC	4,880	4,650	4,560	4,180	4,080	3,860	15,600	01/26/23-01/27/23	Urban Minor Arterial
	FORREST AVE.	SR 520	US 1	9,240	8,630	7,880	8,585	8,100	11,500	10,860	10,020	10,205	10,375			
52	FORREST AVE.	SR 520	PEACHTREE ST.	10,170	9,890	8,700	8,930	NC	13,510	12,660	11,380	11,580	11,330	15,600	01/26/23-01/27/23	Urban Minor Arterial
53	FORREST AVE.	PEACHTREE ST.	US 1	8,310	7,370	7,060	8,240	8,100	9,490	9,060	8,660	8,830	9,420	15,600	01/26/23-01/27/23	Urban Minor Arterial
67	FRIDAY RD.	SR 520	SR 524	1,220	1,530	1,390	1,500	1,470	1,780	1,790	1,970	1,840	1,760	15,600	01/26/23-01/27/23	Urban Major Collector
64	FRIDAY RD.	SR 524	JAMES RD.	NC	3,290	NC	3,210	NC	2,960	NC	3,150	NC	3,080	17,700	01/23/23-01/24/23	Urban Local
593	JUDGE F JAMIESON WY.	TAVISTOCK DR.	STADIUM PKWY.	4,400	4,480	4,650	5,040	4,960	4,860	4,650	4,000	4,070	4,020	17,700	01/19/23-01/20/23	Urban Local
	JUDGE F JAMIESON WY.	STADIUM PKWY.	LAKE ANDREW DR.	15,795	15,785	16,295	16,400	16,400	16,140	16,570	12,495	10,925	9,540			
80	JUDGE F JAMIESON WY.	STADIUM PKWY.	GOV'T CENTER/SCH. BOARD ENTRANCE	14,780	15,380	15,970	16,190	16,250	16,210	16,350	11,490	10,090	7,950	39,800	05/15/23-05/16/23	Urban Minor Arterial
78	JUDGE F JAMIESON WY.	GOV'T CENTER/SCH. BOARD ENTRANCE	LAKE ANDREW DR.	16,810	16,190	16,620	16,610	16,550	16,070	16,790	13,500	11,760	11,130	39,800	01/19/23-01/20/23	Urban Minor Arterial
	LAKE DR.	COX RD.	SR 520	3,133	3,767	4,033	3,870	4,510	3,880	3,927	3,793	3,677	3,297			
85	LAKE DR.	COX RD.	RANGE RD.	2,150	2,630	2,790	2,890	NC	3,510	3,360	3,300	3,300	3,170	17,700	02/02/23-02/03/23	Urban Major Collector
62	LAKE DR.	RANGE RD.	CLEARLAKE RD. (SR 501)	3,260	3,860	3,750	4,040	NC	4,110	4,110	4,100	3,640	3,410	15,600	01/19/23-01/20/23	Urban Major Collector
	LAKE DR.	CLEARLAKE RD. (SR 501)	SR 520	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15,600	01/26/23-01/27/23	Urban Major Collector
	LAKE ANDREW DR.	WICKHAM RD.	VIERA BLVD.	17,085	17,900	17,350	17,130	19,090	17,280	17,390	16,625	15,845	15,415			
81	LAKE ANDREW DR.	WICKHAM RD.	THE AVENUES ENTRANCE	18,810	19,940	18,480	18,990	18,980	19,340	19,460	18,590	19,020	19,700	39,800	01/19/23-01/20/23	Urban Minor Arterial
82	LAKE ANDREW DR.	THE AVENUES ENTRANCE	JUDGE F JAMIESON WY.	15,360	15,860	16,220	15,270	19,200	15,220	15,320	14,660	15,930	16,910	39,800	01/30/23-01/31/23	Urban Minor Arterial
640	LAKE ANDREW DR.	JUDGE F JAMIESON WY.	PORADA DR.									11,100	12,130	39,800	01/26/23-01/27/23	-
641	LAKE ANDREW DR.	PORADA DR.	VIERA BLVD.									17,330	12,920	39,800	01/19/23-01/20/23	-
86	MICHIGAN AVE.	RANGE RD.	CLEARLAKE RD.	3,930	NC	4,180	NC	4,450	NC	4,120	NC	3,820	NC	15,600	01/19/22-01/20/22	Urban Major Collector
48	MICHIGAN AVE.	CLEARLAKE RD.	US 1	10,280	8,420	9,940	10,820	11,090	11,500	11,420	10,060	10,320	10,680	39,800	01/26/23-01/27/23	Urban Minor Arterial
	MURRELL RD.	WICKHAM RD.	BARNES BLVD.	16,070	17,400	16,978	16,493	17,170	17,998	16,428	15,478	15,563	15,783			
528	MURRELL RD.	WICKHAM RD.	SPYGLASS HILL DR.	17,120	18,160	17,710	16,870	17,330	19,070	15,830	14,190	14,290	14,600	33,800	01/19/23-01/20/23	Urban Minor Arterial
59	MURRELL RD.	SPYGLASS HILL DR.	VIERA BLVD.	16,230	16,810	17,230	16,910	17,230	18,040	15,370	16,050	14,170	13,650	39,800	01/19/23-01/20/23	Urban Minor Arterial
529	MURRELL RD.	VIERA BLVD.	CLUB HOUSE DR.	16,310	18,310	17,430	16,510	17,980	18,060	18,690	16,590	17,400	18,270	39,800	01/26/23-01/27/23	Urban Minor Arterial
57	MURRELL RD.	CLUB HOUSE DR.	BARNES BLVD.	14,620	16,320	15,540	15,680	16,140	16,820	15,820	15,080	16,390	16,610	39,800	01/26/23-01/27/23	Urban Minor Arterial
	MURRELL RD.	BARNES BLVD.	BARTON BLVD.									11,615	10,365			
60	MURRELL RD.	BARNES BLVD.	EYSTER BLVD.									18,630	16,570	41,790	01/26/23-01/27/23	Urban Minor Arterial
56	MURRELL RD.	EYSTER BLVD.	BARTON BLVD.									4,600	4,160	34,020	04/19/23-04/20/23	Urban Major Collector
592	PEACHTREE ST.	LAKE DR.	FISKE BLVD.	2,910	NC	NC	NC	3,380	4,330	NC	4,460	4,470	NC	15,600	03/01/22-03/02/22	Urban Major Collector

**Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.*
NC=Not Counted; UC=Under Construction

SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2014 - 2023

ID	ROAD	FROM	TO	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	2021 AADT	2022 AADT	2023 AADT	Current MAV	Last Count Taken	Functional Classification
AREA: CENTRAL																
	PINEHURST AVE./HOLIDAY SPRINGS RD.	WICKHAM RD.	HOLIDAY SPRINGS RD.	4,458	4,808	4,928	5,088	5,260	5,285	5,718	4,925	4,880	5,028			
17	PINEHURST AVE.	WICKHAM RD.	SPYGLASS HILL DR.	6,270	6,810	7,100	7,320	7,340	7,480	7,250	6,650	6,640	6,630	15,600	01/19/23-01/20/23	Urban Minor Collector
530	PINEHURST AVE.	SPYGLASS HILL DR.	FARGO DR.	5,040	5,340	5,350	5,430	5,810	5,550	6,170	5,130	5,010	5,170	15,600	01/26/23-01/27/23	Urban Minor Collector
16	PINEHURST AVE.	FARGO DR.	HOLIDAY SPRINGS RD.	2,950	3,190	3,340	3,380	3,590	3,750	4,460	3,650	3,740	3,850	15,600	01/30/23-01/31/23	Urban Minor Collector
94	HOLIDAY SPRINGS RD.	PINEHURST AVE.	VIERA BLVD.	3,570	3,890	3,920	4,220	4,300	4,280	4,990	4,270	4,130	4,460	15,600	01/19/23-01/20/23	Urban Minor Collector
568	PLUCKEBAUM RD.	CLEARLAKE RD.	FISKE BLVD. (SR 519)	6,240	7,030	6,490	6,560	7,570	7,270	6,820	6,530	5,900	6,840	15,600	02/02/23-02/03/23	Urban Major Collector
	RANGE RD.	SR 520	ROSETINE ST.	5,140	4,760	5,860	4,740	5,970	4,360	5,990	4,470	5,970	4,310			
531	RANGE RD.	SR 520	LAKE DR.	NC	4,760	NC	4,740	NC	4,360	NC	4,470	NC	4,310	15,600	02/02/23-02/03/23	Urban Major Collector
532	RANGE RD.	LAKE DR.	ROSETINE ST.	5,140	NC	5,860	NC	5,970	NC	5,990	NC	5,970	NC	15,600	01/19/22-01/20/22	Urban Major Collector
74	ROSETINE ST.	RANGE RD.	CLEARLAKE RD.	2,730	NC	NC	NC	2,920	NC	3,140	2,760	2,920	3,230	15,600	01/23/23-01/24/23	Urban Minor Collector
18	SPYGLASS HILL RD.	MURRELL RD.	PINEHURST AVE.	3,780	3,960	4,240	4,720	4,640	4,780	4,410	3,940	4,220	4,120	15,600	01/19/23-01/20/23	Urban Minor Collector
	SR 520	ORANGE CO	I-95	15,167	17,220	16,670	16,637	16,567	17,160	17,767	17,273	16,097	15,467			
534	SR 520	ORANGE CO	SR 524	12,760	15,950	15,170	15,750	12,240	16,010	18,680	15,530	14,590	13,910	40,300	01/19/23-01/20/23	Rural Principal Arterial Other
84	SR 520	FRIDAY RD.	I-95	18,750	19,990	19,960	19,840	20,850	20,820	19,920	21,190	21,240	19,730	41,790	01/19/23-01/20/23	Urban Principal Arterial-Other
	SR 520	I-95	CLEARLAKE RD. (SR 501)	20,583	23,857	22,600	21,240	20,573	23,173	21,193	22,727	21,840	20,337			
2	SR 520	I-95	BURNETT RD.	21,440	24,190	22,190	21,780	21,740	21,650	24,200	23,230	21,640	20,870	41,790	01/19/23-01/20/23	Urban Principal Arterial-Other
3	SR 520	BURNETT RD.	RANGE RD.	19,680	24,180	22,970	21,040	20,040	21,280	19,840	22,550	21,530	20,210	41,790	01/19/23-01/20/23	Urban Principal Arterial-Other
	SR 520	CLEARLAKE RD. (SR 501)	FISKE BLVD. (SR 519)	21,385	24,880	24,575	22,915	22,735	22,115	21,730	23,145	21,260	20,500			
4	SR 520	CLEARLAKE RD. (SR 501)	LAKE DR.	19,560	22,860	22,870	20,200	20,800	20,400	21,720	21,550	19,310	19,200	39,800	01/26/23-01/27/23	Urban Principal Arterial-Other
5	SR 520	LAKE DR.	FISKE BLVD. (SR 519)	23,210	26,900	26,280	25,630	24,670	23,830	21,740	24,740	23,210	21,800	39,800	01/26/23-01/27/23	Urban Principal Arterial-Other
	SR 520	FISKE BLVD. (SR 519)	US 1	25,160	28,120	28,250	26,600	25,495	25,275	23,310	26,600	24,575	25,180			
6	SR 520	FISKE BLVD. (SR 519)	BLAKE AVE.	25,090	28,270	28,430	26,540	25,550	25,280	NC	26,680	25,010	25,180	41,790	05/18/23-05/19/23	Urban Principal Arterial-Other
7	SR 520	BLAKE AVE.	US 1	25,230	27,970	28,070	26,660	25,440	25,270	23,310	26,520	24,140	NC	41,790	02/03/22-02/04/22	Urban Principal Arterial-Other
	SR 520 (EB)	US 1	RIVEREDGE BLVD.	19,020	21,483	18,600	20,718	20,855	21,135	19,265	22,220	19,625	20,975			
8	SR 520 (EB)	US 1	FORREST AVE.	17,090	18,210	13,820	16,750	17,250	16,830	15,460	NC	16,470	17,270	19,440	01/19/23-01/20/23	Urban Principal Arterial-Other
9	SR 520 (EB)	FORREST AVE.	BREVARD AVE.	19,560	21,850	19,620	22,460	20,930	22,250	20,930	21,800	20,140	22,060	19,440	01/19/23-01/20/23	Urban Principal Arterial-Other
10	SR 520 (EB)	BREVARD AVE.	DELANNOY AVE.	19,450	22,930	22,010	21,670	22,280	22,500	19,990	NC	21,080	22,000	19,440	01/19/23-01/20/23	Urban Principal Arterial-Other
11	SR 520 (EB)	DELANNOY AVE.	RIVEREDGE BLVD.	19,980	22,940	18,950	21,990	22,960	22,960	20,680	22,640	20,810	22,570	19,440	01/26/23-01/27/23	Urban Principal Arterial-Other
	SR 520 (WB)	CAUSEWAY	US 1	20,643	21,703	20,098	21,220	20,920	21,915	19,093	17,797	21,705	21,033			
12	SR 520 (WB)	CAUSEWAY	DELANNOY AVE.	21,250	23,700	23,050	21,130	22,990	22,780	20,340	22,650	20,800	22,260	19,440	01/26/23-01/27/23	Urban Principal Arterial-Other
13	SR 520 (WB)	DELANNOY AVE.	BREVARD AVE.	23,100	23,460	21,900	24,290	22,980	24,250	21,420	NC	22,610	23,720	19,440	04/19/23-04/20/23	Urban Principal Arterial-Other
15	SR 520 (WB)	BREVARD AVE.	FORREST AVE.	21,560	22,400	18,690	21,810	20,660	21,610	19,840	22,080	NC	21,900	19,440	01/26/23-01/27/23	Urban Principal Arterial-Other
87	SR 520 (WB)	FORREST AVE.	US 1	16,660	17,250	16,750	17,650	17,050	19,020	14,770	NC	NC	16,250	19,440	01/26/23-01/27/23	Urban Principal Arterial-Other
66	SR 524	SR 520	I-95	4,530	5,690	5,300	5,890	7,200	6,870	6,600	6,460	6,280	7,380	24,200	01/26/23-01/27/23	Urban Minor Arterial
73	SR 524	I-95	COX RD.	9,670	11,440	11,170	10,460	12,690	11,700	11,020	13,300	12,870	10,950	18,590	02/02/23-02/03/23	Urban Minor Arterial
76	SR 524	COX RD.	INDUSTRY RD.	12,090	14,090	14,040	12,960	15,030	13,380	12,530	14,630	14,380	12,850	19,470	02/02/23-02/03/23	Urban Minor Arterial
91	SR 528	ORANGE CO	SR 407	30,220	37,830	35,120	37,330	40,640	42,560	49,690	36,880	31,390	37,620	43,000	02/02/23-02/03/23	Rural Principal Arterial - Freeways & Expressways
90	SR 528	SR 407	I-95	26,420	30,580	28,360	30,230	NC	33,050	37,930	29,300	24,340	33,200	43,000	02/02/23-02/03/23	Rural Principal Arterial - Freeways & Expressways
	SR 528	I-95	US 1	25,315	30,165	27,775	28,340	31,000	32,730	37,960	28,765	27,060	34,285			
93	SR 528	I-95	INDUSTRY RD.	23,050	23,030	22,810	23,290	29,350	28,880	33,780	24,750	22,810	28,490	74,400	02/02/23-02/03/23	Urban Principal Arterial - Freeways & Expressways
92	SR 528	INDUSTRY RD.	US 1	27,580	37,300	32,740	33,390	32,650	36,580	42,140	32,780	31,310	40,080	74,400	02/02/23-02/03/23	Urban Principal Arterial - Freeways & Expressways
25	STADIUM PKWY.	WICKHAM RD.	JUDGE F JAMIESON WY.	6,890	7,810	8,480	9,150	10,460	11,240	10,620	10,380	11,160	12,730	17,700	01/30/23-01/31/23	Urban Minor Arterial
	STADIUM PKWY.	JUDGE F JAMIESON WY	I-95/FISKE BLVD.	16,965	17,707	18,173	19,337	20,273	20,780	18,447	15,570	14,613	17,750			
26	STADIUM PKWY.	JUDGE F JAMIESON WY	VIERA BLVD.	18,910	19,950	20,890	22,170	22,920	23,650	24,190	18,970	16,590	21,070	39,800	01/26/23-01/27/23	Urban Minor Arterial
535	STADIUM PKWY.	VIERA BLVD.	ROSEMOUNT DR.	15,020	15,980	16,120	17,160	17,870	18,460	15,370	13,700	13,780	15,730	39,800	01/26/23-01/27/23	Urban Minor Arterial
606	STADIUM PKWY.	ROSEMOUNT DR.	I-95/FISKE BLVD.		17,190	17,510	18,680	20,030	20,230	15,780	14,020	13,470	16,450	39,800	05/18/23-05/19/23	Urban Minor Arterial
607	TAVISTOCK DR.	JUDGE F JAMIESON WY.	VIERA BLVD.		3,300	3,680	3,720	3,780	3,620	3,310	2,990	3,070	3,160	15,600	01/19/23-01/20/23	Urban Local
608	TAVISTOCK DR.	VIERA BLVD.	STADIUM PKWY.		2,890	2,680	2,650	3,160	2,290	2,250	2,180	2,130	2,400	15,600	05/18/23-05/19/23	Urban Local
	US 1	PINEDA CSWY. (SR 404)	BARNES BLVD.	31,853	32,577	32,687	30,737	32,013	31,497	32,037	29,953	28,490	31,060			
89	US 1	PINEDA CSWY. (SR 404)	SUNTREE BLVD.	37,580	37,310	38,750	34,340	38,730	37,540	38,150	35,090	31,640	35,290	41,790	01/19/23-01/20/23	Urban Principal Arterial-Other
567	US 1	SUNTREE BLVD.	VIERA BLVD.	31,550	32,650	31,520	30,670	31,070	29,740	31,800	28,090	25,340	32,070	41,790	01/30/23-01/31/23	Urban Principal Arterial-Other
36	US 1	VIERA BLVD.	BARNES BLVD.	26,430	27,770	27,790	27,200	26,240	27,210	26,160	26,680	NC	25,820	41,790	01/26/23-01/27/23	Urban Principal Arterial-Other
70	US 1	BARNES BLVD.	EYSTER BLVD.	25,690	25,980	26,300	25,060	26,090	26,340	25,880	26,480	30,560	26,330	41,790	01/26/23-01/27/23	Urban Principal Arterial-Other
	US 1	EYSTER BLVD.	ROSA JONES DR.	35,303	36,267	35,167	34,170	37,277	35,953	35,180	36,280	35,815	35,897			
34	US 1	EYSTER BLVD.	BARTON BLVD.	32,820	34,440	33,650	32,520	31,160	34,410	32,080	33,300	NC	33,130	62,900	04/19/23-04/20/23	Urban Principal Arterial-Other
33	US 1	BARTON BLVD.	FLORIDA AVE.	40,180	40,480	39,840	36,860	42,630	38,100	38,490	39,550	37,430	40,620	62,900	04/19/23-04/20/23	Urban Principal Arterial-Other
88	US 1	FLORIDA AVE.	ROSA JONES DR.	32,910	33,880	32,010	33,130	38,040	35,350	34,970	35,990	34,200	33,940	62,900	02/02/23-02/03/23	Urban Principal Arterial-Other
	US 1	ROSA JONES DR.	PEACHTREE ST.	25,375	33,480	30,220	26,885	28,525	29,360	27,795	29,375	28,270	28,945			
24	US 1	ROSA JONES DR.	SR 520	32,890	33,480	30,220	33,500	34,020	36,970	33,770	35,750	32,790	34,570	62,900	02/02/23-02/03/23	Urban Principal Arterial-Other
23	US 1	SR 520	PEACHTREE ST.	17,860	UC	UC	20,270	23,030	21,750	21,820	23,000	23,750	23,320	62,900	02/02/23-02/03/23	Urban Principal Arterial-Other
	US 1	PEACHTREE ST.	SR 528				26,600	28,873	29,425	28,678	26,615	26,850	28,733			
22	US 1	PEACHTREE ST.	FORREST AVE.	UC	UC	UC	21,290	24,850	22,720	22,510	23,670	21,780	23,070	62,900	02/02/23-02/03/23	Urban Principal Arterial-Other
21	US 1	FORREST AVE.	DIXON BLVD.	UC	UC	UC	28,620	30,090	30,890	32,280	31,080	30,840	29,940	62,900	02/02/23-02/03/23	Urban Principal Arterial-Other
20	US 1	DIXON BLVD.	MICHIGAN AVE.	UC	UC	UC	25,890	30,430	29,670	27,250	30,370	25,680	31,790	62,900	04/19/23-04/20/23	Urban Principal Arterial-Other
19	US 1	MICHIGAN AVE.	SR 528	UC	UC	UC	30,600	30,120	30,420	32,670	29,140	29,100	30,130	62,900	02/02/23-02/03/23	Urban Principal Arterial-Other

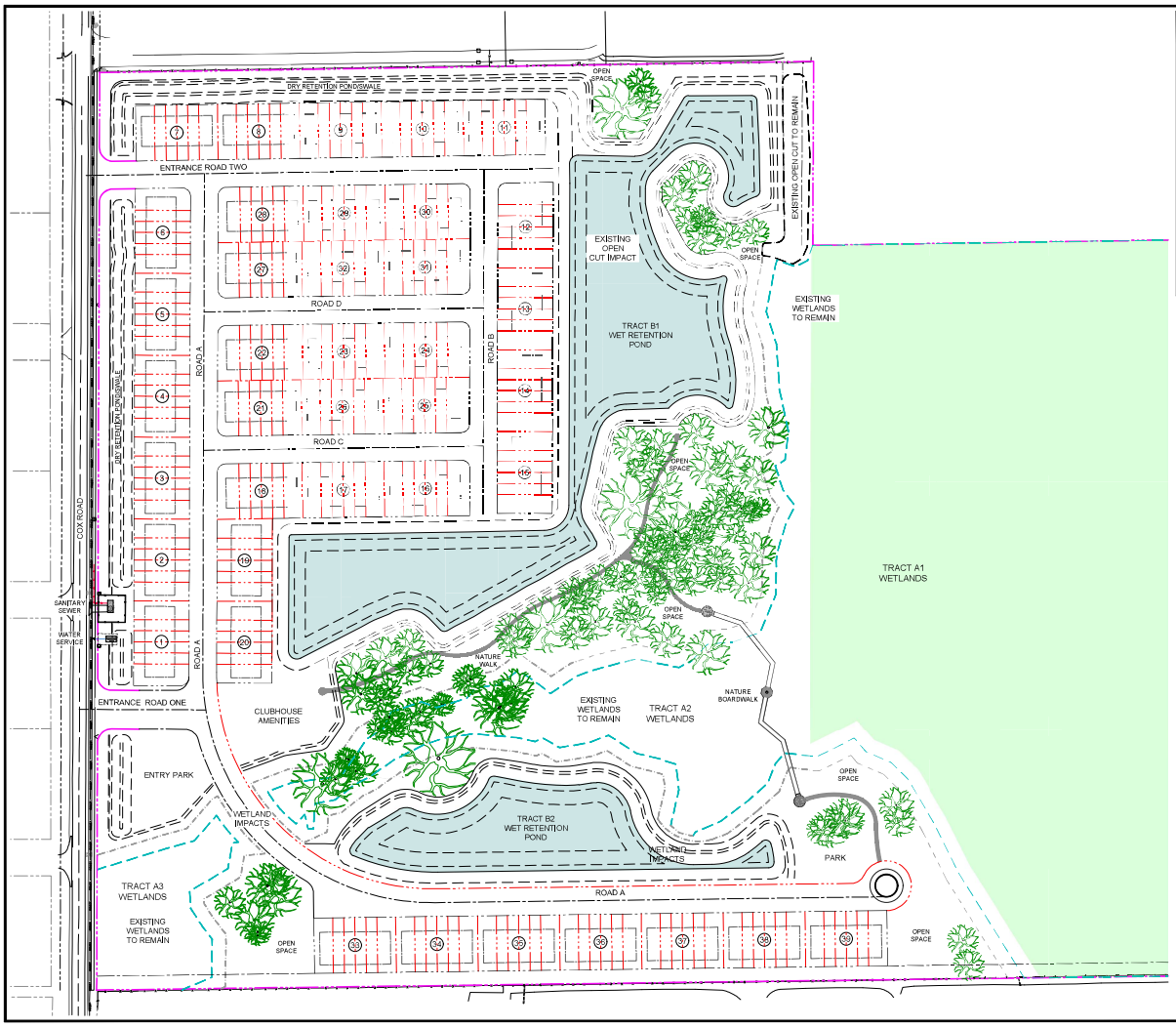
*Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.
NC=Not Counted; UC=Under Construction

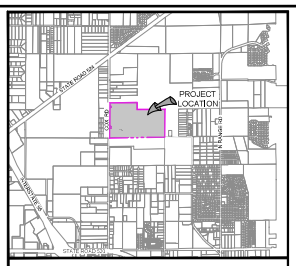
SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2014 - 2023

ID	ROAD	FROM	TO	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	2021 AADT	2022 AADT	2023 AADT	Current MAV	Last Count Taken	Functional Classification
INTERSTATE 95																
Disclaimer: *The following Traffic Counts are provided by The Florida Department of Transportation.*																
Questions or concerns regarding the counts below, should be directed to The Florida Department of Transportation.																
Source: https://tdaappprod.dot.state.fl.us/tfo/																
70-0441	I-95	INDIAN RIVER COUNTY	ST. JOHNS HERITAGE PKWY.								44,000	NC	48,500	64,000		Rural Principal Arterial-Interstate
70-0134	I-95	ST. JOHNS HERITAGE PKWY.	MALABAR RD. (SR 514)	39,614	40,650	42,760	45,330	46,680	48,620	43,130	52,705	54,314	56,580	64,000		Rural Principal Arterial-Interstate
70-0428	I-95	MALABAR RD. (SR 514)	PALM BAY RD.	55,000	59,500	64,500	61,500	62,500	64,500	62,500	61,500	61,500	67,500	111,800		Urban Principal Arterial-Interstate
70-0371	I-95	PALM BAY RD.	US 192	67,500	72,000	81,500	78,000	78,000	80,000	77,000	81,500	65,000	70,500	111,800		Urban Principal Arterial-Interstate
70-0372	I-95	US 192	EAU GALLIE BLVD. (SR 518)	41,000	43,500	68,500	72,500	75,500	84,500	77,500	78,500	77,500	98,500	111,800		Urban Principal Arterial-Interstate
70-0415	I-95	EAU GALLIE BLVD. (SR 518)	WICKHAM RD.	76,500	81,000	82,500	87,500	90,500	94,000	91,000	92,000	76,000	104,000	111,800		Urban Principal Arterial-Interstate
[illegible]	I-95	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
70-9919	I-95	FISKE BLVD. (SR 519)	SR 520	71,181	77,120	81,760	85,450	87,920	88,670	76,440	89,978	94,085	98,506	111,800		Urban Principal Arterial-Interstate
70-0366	I-95	SR 520	SR 524	37,500	40,000	42,000	45,000	47,000	52,000	50,000	51,000	57,500	62,000	111,800		Urban Principal Arterial-Interstate
70-0368	I-95	SR 524	SR 528	54,000	57,000	65,000	58,000	67,500	69,000	67,000	68,000	67,500	83,500	111,800		Urban Principal Arterial-Interstate
[illegible]	I-95	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
70-0401	I-95	PORT ST. JOHNS PKWY.	SR 407	38,500	42,000	45,000	52,500	47,500	48,500	46,500	47,500	48,500	48,500	111,800		Urban Principal Arterial-Interstate
70-0402	I-95	SR 407	SR 50	24,200	25,700	36,500	38,500	40,000	41,500	40,500	41,500	57,000	62,000	111,800		Urban Principal Arterial-Interstate
70-0364	I-95	SR 50	SR 406	37,500	39,500	26,500	28,500	29,500	41,000	40,000	41,000	36,000	48,500	111,800		Urban Principal Arterial-Interstate
70-0363	I-95	SR 406	SR 46	40,000	34,000	39,500	43,500	40,000	45,000	43,000	44,000	45,000	45,000	111,800		Urban Principal Arterial-Interstate
70-0322	I-95	SR 46	DEERING PKWY.	25,000	25,500	32,680	34,750	34,920	36,150	31,490	37,343	38,799	39,864	64,000		Rural Principal Arterial-Interstate
70-0436	I-95	DEERING PKWY.	VOLUSIA CO.	27,500	36,000	29,000	29,000	30,500	33,000	32,000	32,000	34,500	32,500	64,000		Rural Principal Arterial-Interstate

**Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.*
NC=Not Counted; UC=Under Construction

APPENDIX B
Site Plan





SITE INFORMATION TABLE

SITE NAME	MERITAGE SUBDIVISION	
ADDRESS	COX ROAD COCOA, FLORIDA	
JURISDICTION	CITY OF COCOA	
PARCEL ID	21-35-21-00-508, 509, 510	
ZONING DESIGNATION	RU-2-15: MULTIPLE FAMILY DWELLING	
FUTURE LAND USE	MEDIUM DENSITY RESIDENTIAL/CONSERVATION	
OVERLAY DISTRICT	NONE	
PARCEL AREA	3,900,519 SF	89.54 ACRES
EXISTING UPLAND AREA	2,007,569 SF	46.09 ACRES
EXISTING WETLANDS	1,892,950 SF	43.46 ACRES
PROPOSED WETLAND IMPACTS	0 SF	0.00 ACRES
REMAINING USABLE UPLANDS	0 SF	0.00 ACRES
REQUIRED OPEN SPACE (20%)	0 SF	0.00 ACRES
PROPOSED OPEN SPACE		
WET STORMWATER	0 SF	0.00 ACRES
DRY STORMWATER	0 SF	0.00 ACRES
RECREATIONAL AREA	0 SF	0.00 ACRES
OPEN SPACE AREA	0 SF	0.00 ACRES
TOTAL OPEN SPACE PROVIDED	0 SF	0.00 ACRES
DENSITY - ALLOWED	10 UNITS PER ACRE 46.09 x 10 = 461 UNITS	
DENSITY - PROPOSED:		
MULTI FAMILY TOWNHOMES (SIX UNIT BUILDINGS)		
END UNITS (24' WIDE)	78 UNITS	
STANDARD UNITS (20' WIDE)	156 UNITS	
TOTAL UNITS	234 UNITS	
	46.09 / 234 = 5.08 UNITS/ACRE	
BUILDING HEIGHT ALLOWED	35 FEET MAX.	
BUILDING HEIGHT PROPOSED	28 FEET MAX.	
BUILDING STORIES	1, & 3 STORIES	

SETBACKS	BUILDING	BUFFERS
FRONT YARD	25	
SIDE YARD	10	
SIDE CORNER	15	
REAR YARD	20	

GRAPHIC SCALE
(IN FEET)
1 inch = 80 ft.

NO.	REVISIONS	DATE
1	COMMENTS	04/04/2025

JOB NO. 24-1080
DESIGNED BJS
DRAWN BJS
DATE OCTOBER 2024
CHECKED BAM
DATE ISSUED 10/14/2024

MBV ENGINEERING, INC.
Civil, Environmental, Land Development, Transportation
7500 ASTRONAUTS BLVD., SUITE 1
CAPE CANAVERAL, FLORIDA 32920
PHONE: (321) 613-3095
WEB: WWW.MBVENGINEERING.COM

MASTER SITE PLAN

MERITAGE SUBDIVISION
CITY OF COCOA, BREVARD COUNTY, FLORIDA

HOT FOR CONSTRUCTION

SHEET
EX-3A

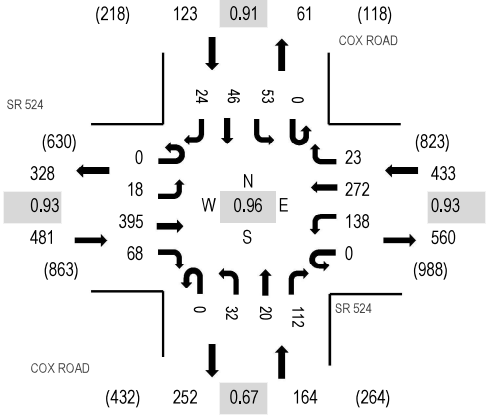
24-1080
CONCEPTUAL

APPENDIX C
Turning Movement Counts

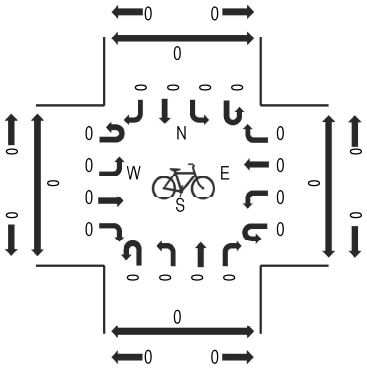
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 COX ROAD & SR 524 AM
Date: Tuesday, February 4, 2025
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

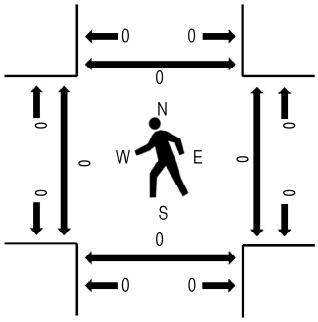
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 524 Eastbound				SR 524 Westbound				COX ROAD Northbound				COX ROAD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	76	6	0	28	58	3	0	2	2	16	0	6	4	3	204	1,093	0	0	0	0
7:15 AM	0	4	92	20	0	31	60	4	0	7	5	7	0	13	13	9	265	1,192	0	0	0	0
7:30 AM	0	2	101	26	0	32	74	4	0	10	5	21	0	12	17	6	310	1,201	0	0	0	0
7:45 AM	0	9	103	22	0	48	62	7	0	6	3	17	0	17	12	8	314	1,126	0	0	0	0
8:00 AM	0	3	103	13	0	27	62	6	0	8	8	45	0	12	10	6	303	1,075	0	0	0	0
8:15 AM	0	4	88	7	0	31	74	6	0	8	4	29	0	12	7	4	274		0	0	0	0
8:30 AM	0	4	78	3	0	26	62	7	0	5	9	18	0	8	8	7	235		0	0	0	0
8:45 AM	0	6	85	8	0	27	76	8	0	4	5	20	0	9	6	9	263		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	17	1	0	2	7	0	0	0	0	2	0	0	0	0	29
Lights	0	17	359	65	0	133	237	22	0	31	17	107	0	52	45	23	1,108
Mediums	0	1	19	2	0	3	28	1	0	1	3	3	0	1	1	1	64
Total	0	18	395	68	0	138	272	23	0	32	20	112	0	53	46	24	1,201

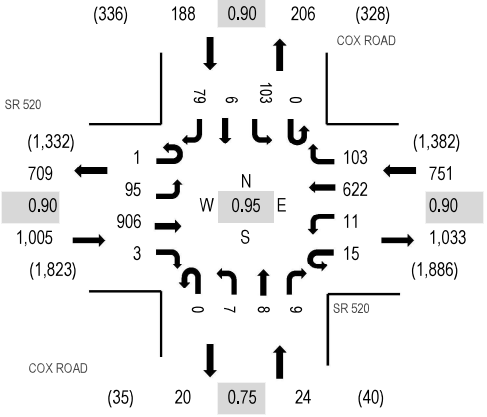
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		8.3%				9.5%				5.5%				2.4%			7.7%
Heavy Vehicle %	0.0%	5.6%	9.1%	4.4%	0.0%	3.6%	12.9%	4.3%	0.0%	3.1%	15.0%	4.5%	0.0%	1.9%	2.2%	4.2%	7.7%
Peak Hour Factor		0.93				0.93				0.67				0.91			0.96
Peak Hour Factor	0.00	0.56	0.97	0.78	0.00	0.72	0.90	0.84	0.00	0.80	0.72	0.62	0.00	0.79	0.76	0.81	0.96

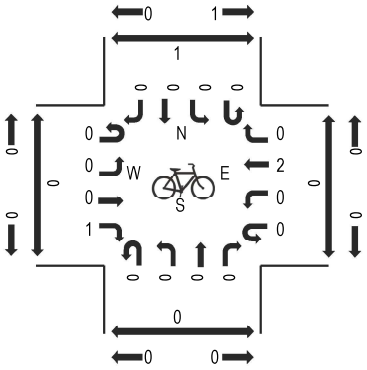
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 COX ROAD & SR 520 AM
Date: Tuesday, February 4, 2025
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

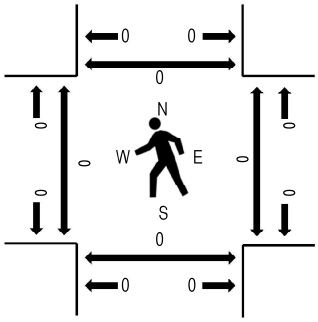
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 520 Eastbound				SR 520 Westbound				COX ROAD Northbound				COX ROAD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	2	12	175	0	1	0	143	16	0	0	1	3	0	10	1	10	374	1,802	0	0	0	0
7:15 AM	0	9	205	2	4	1	136	21	0	3	0	2	0	20	1	20	424	1,904	0	0	0	0
7:30 AM	0	18	261	0	5	2	161	18	0	1	3	4	0	30	0	15	518	1,968	0	0	0	0
7:45 AM	0	26	224	0	3	3	139	32	0	3	3	1	0	27	5	20	486	1,888	0	0	0	0
8:00 AM	1	27	189	3	3	2	176	28	0	1	2	0	0	21	1	22	476	1,779	0	0	0	0
8:15 AM	0	24	232	0	4	4	146	25	0	2	0	4	0	25	0	22	488		0	0	0	0
8:30 AM	0	21	209	0	7	4	135	16	0	2	0	3	0	22	1	18	438		0	0	0	0
8:45 AM	0	15	168	0	5	4	127	11	0	0	0	2	0	17	1	27	377		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	2	9	0	0	0	9	0	0	0	0	0	0	1	0	2	23
Lights	1	88	871	3	12	11	584	99	0	7	7	9	0	93	6	66	1,857
Mediums	0	5	26	0	3	0	29	4	0	0	1	0	0	9	0	11	88
Total	1	95	906	3	15	11	622	103	0	7	8	9	0	103	6	79	1,968

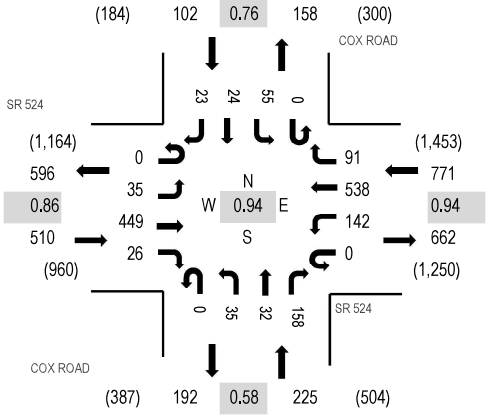
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		4.2%				6.0%				4.2%				12.2%			5.6%
Heavy Vehicle %	0.0%	7.4%	3.9%	0.0%	20.0%	0.0%	6.1%	3.9%	0.0%	0.0%	12.5%	0.0%	0.0%	9.7%	0.0%	16.5%	5.6%
Peak Hour Factor		0.90				0.90				0.75				0.90			0.95
Peak Hour Factor	0.25	0.91	0.87	0.42	0.68	0.88	0.88	0.80	0.00	0.67	0.67	0.63	0.00	0.86	0.35	0.82	0.95

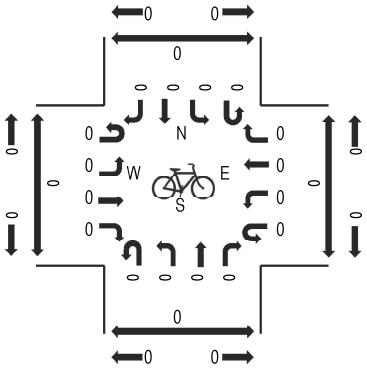
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 COX ROAD & SR 524 PM
Date: Tuesday, February 4, 2025
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:30 PM - 05:45 PM

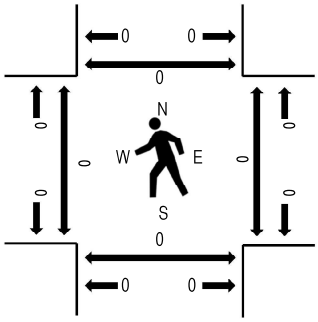
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 524 Eastbound				SR 524 Westbound				COX ROAD Northbound				COX ROAD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	5	78	11	0	34	104	20	0	41	12	69	0	10	8	10	402	1,537	0	0	0	0
4:15 PM	0	9	102	11	0	45	135	22	0	11	11	35	0	11	2	2	396	1,544	0	0	0	0
4:30 PM	0	6	116	10	0	32	120	18	0	11	10	32	0	8	2	7	372	1,552	0	0	0	0
4:45 PM	0	10	92	3	0	43	127	21	0	10	6	34	0	9	4	8	367	1,608	0	0	0	0
5:00 PM	0	11	113	7	0	28	131	27	0	7	9	48	0	16	7	5	409	1,564	0	0	0	0
5:15 PM	0	8	109	8	0	43	138	24	0	11	7	37	0	8	7	4	404		0	0	0	0
5:30 PM	0	6	135	8	0	28	142	19	0	7	10	39	0	22	6	6	428		0	0	0	0
5:45 PM	0	9	85	8	0	22	116	14	0	7	6	34	0	8	10	4	323		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	5	0	0	2	7	0	0	0	0	0	0	0	0	0	14
Lights	0	35	423	26	0	132	529	90	0	35	32	157	0	55	23	23	1,560
Mediums	0	0	21	0	0	8	2	1	0	0	0	1	0	0	1	0	34
Total	0	35	449	26	0	142	538	91	0	35	32	158	0	55	24	23	1,608

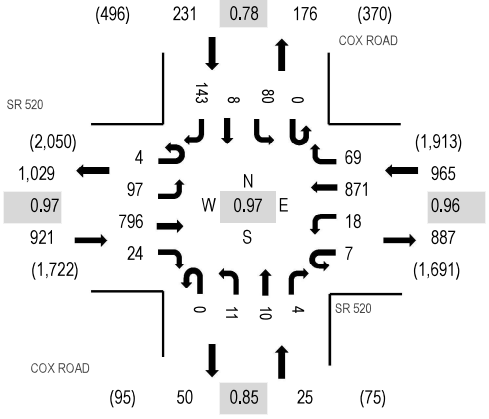
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		5.1%				2.6%				0.4%				1.0%			3.0%
Heavy Vehicle %	0.0%	0.0%	5.8%	0.0%	0.0%	7.0%	1.7%	1.1%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	4.2%	0.0%	3.0%
Peak Hour Factor		0.86				0.94				0.58				0.76			0.94
Peak Hour Factor	0.00	0.82	0.83	0.80	0.00	0.86	0.95	0.84	0.00	0.45	0.81	0.62	0.00	0.63	0.75	0.68	0.94

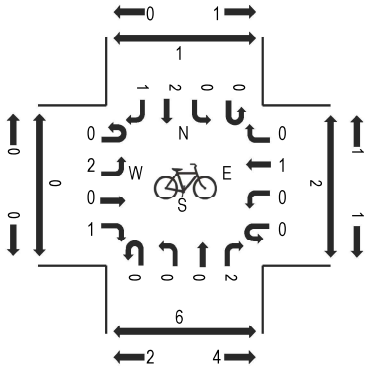
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 COX ROAD & SR 520 PM
Date: Tuesday, February 4, 2025
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

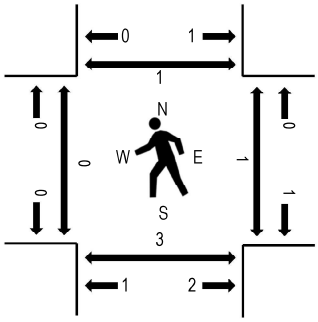
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 520 Eastbound				SR 520 Westbound				COX ROAD Northbound				COX ROAD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	30	179	6	3	3	218	26	0	9	1	2	0	34	3	50	564	2,129	0	0	0	0
4:15 PM	2	34	162	5	0	2	202	21	0	6	0	6	0	20	6	47	513	2,117	0	0	0	0
4:30 PM	2	18	194	7	3	7	225	14	0	3	2	2	0	17	2	34	530	2,142	0	0	1	0
4:45 PM	1	28	193	4	2	4	204	17	0	6	3	1	0	18	2	39	522	2,126	0	1	0	1
5:00 PM	1	24	203	9	0	1	220	16	0	2	4	1	0	26	4	41	552	2,077	0	0	0	0
5:15 PM	0	27	206	4	2	6	222	22	0	0	1	0	0	19	0	29	538		0	0	2	0
5:30 PM	0	28	168	3	6	5	212	15	0	3	5	6	0	24	2	37	514		0	0	2	0
5:45 PM	0	11	168	5	1	4	210	20	0	5	3	4	0	21	1	20	473		0	0	2	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	5	0	0	0	6	0	0	0	0	0	0	0	0	2	13
Lights	4	93	751	23	7	18	857	65	0	10	10	4	0	74	8	139	2,063
Mediums	0	4	40	1	0	0	8	4	0	1	0	0	0	6	0	2	66
Total	4	97	796	24	7	18	871	69	0	11	10	4	0	80	8	143	2,142

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		5.4%				1.9%				4.0%				4.3%			3.7%
Heavy Vehicle %	0.0%	4.1%	5.7%	4.2%	0.0%	0.0%	1.6%	5.8%	0.0%	9.1%	0.0%	0.0%	0.0%	7.5%	0.0%	2.8%	3.7%
Peak Hour Factor		0.97				0.96				0.85				0.78			0.97
Peak Hour Factor	0.75	0.81	0.97	0.69	0.42	0.64	0.97	0.75	0.00	0.67	0.65	0.46	0.00	0.87	0.58	0.85	0.97

APPENDIX D
FDOT's Florida Traffic Online (FTO) Data

2023 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 7000 BREVARD COUNTYWIDE

MOCF: 0.94

WEEK	DATES	SF	PSCF
1	01/01/2023 - 01/07/2023	1.03	1.10
2	01/08/2023 - 01/14/2023	1.01	1.07
3	01/15/2023 - 01/21/2023	0.98	1.04
4	01/22/2023 - 01/28/2023	0.97	1.03
5	01/29/2023 - 02/04/2023	0.96	1.02
* 6	02/05/2023 - 02/11/2023	0.94	1.00
* 7	02/12/2023 - 02/18/2023	0.93	0.99
* 8	02/19/2023 - 02/25/2023	0.93	0.99
* 9	02/26/2023 - 03/04/2023	0.92	0.98
*10	03/05/2023 - 03/11/2023	0.92	0.98
*11	03/12/2023 - 03/18/2023	0.91	0.97
*12	03/19/2023 - 03/25/2023	0.92	0.98
*13	03/26/2023 - 04/01/2023	0.93	0.99
*14	04/02/2023 - 04/08/2023	0.94	1.00
*15	04/09/2023 - 04/15/2023	0.95	1.01
*16	04/16/2023 - 04/22/2023	0.95	1.01
*17	04/23/2023 - 04/29/2023	0.96	1.02
*18	04/30/2023 - 05/06/2023	0.96	1.02
19	05/07/2023 - 05/13/2023	0.96	1.02
20	05/14/2023 - 05/20/2023	0.96	1.02
21	05/21/2023 - 05/27/2023	0.98	1.04
22	05/28/2023 - 06/03/2023	1.00	1.06
23	06/04/2023 - 06/10/2023	1.02	1.09
24	06/11/2023 - 06/17/2023	1.04	1.11
25	06/18/2023 - 06/24/2023	1.04	1.11
26	06/25/2023 - 07/01/2023	1.04	1.11
27	07/02/2023 - 07/08/2023	1.05	1.12
28	07/09/2023 - 07/15/2023	1.05	1.12
29	07/16/2023 - 07/22/2023	1.05	1.12
30	07/23/2023 - 07/29/2023	1.05	1.12
31	07/30/2023 - 08/05/2023	1.05	1.12
32	08/06/2023 - 08/12/2023	1.06	1.13
33	08/13/2023 - 08/19/2023	1.06	1.13
34	08/20/2023 - 08/26/2023	1.06	1.13
35	08/27/2023 - 09/02/2023	1.06	1.13
36	09/03/2023 - 09/09/2023	1.06	1.13
37	09/10/2023 - 09/16/2023	1.06	1.13
38	09/17/2023 - 09/23/2023	1.06	1.13
39	09/24/2023 - 09/30/2023	1.05	1.12
40	10/01/2023 - 10/07/2023	1.05	1.12
41	10/08/2023 - 10/14/2023	1.04	1.11
42	10/15/2023 - 10/21/2023	1.04	1.11
43	10/22/2023 - 10/28/2023	1.04	1.11
44	10/29/2023 - 11/04/2023	1.04	1.11
45	11/05/2023 - 11/11/2023	1.04	1.11
46	11/12/2023 - 11/18/2023	1.04	1.11
47	11/19/2023 - 11/25/2023	1.03	1.10
48	11/26/2023 - 12/02/2023	1.03	1.10
49	12/03/2023 - 12/09/2023	1.03	1.10
50	12/10/2023 - 12/16/2023	1.03	1.10
51	12/17/2023 - 12/23/2023	1.01	1.07
52	12/24/2023 - 12/30/2023	1.00	1.06
53	12/31/2023 - 12/31/2023	0.98	1.04

* PEAK SEASON

09-MAR-2024 18:41:41 830UPD 5_7000_PKSEASON.TXT

APPENDIX E
Turning Movement Volume Worksheets

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	1		*Existing Year:*	2025	*TMC Year:* 2025
Major Street:	SR 524	E/W	*Buildout Year:*	2027	
Minor Street:	Cox Road	N/S	*Seasonal Factor:*	0.96	
			Growth Factor:	2.74%	*AM Peak Hour Trips:* IN = 37 OUT = 82

Weekday AM Peak Hour	Cox Road								SR 524							
	Northbound				Southbound				Eastbound				Westbound			
7:30 AM - 8:30 AM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2025)	0	32	20	112	0	53	46	24	0	18	395	68	0	138	272	23
Seasonal Factor		0.96				0.96				0.96				0.96		
Heavy Vehicle (%)	0.0%	3.1%	15.0%	4.5%	0.0%	1.9%	2.2%	4.2%	0.0%	5.6%	9.1%	4.4%	0.0%	3.6%	12.9%	4.3%
Peak Hour Factor	0.00	0.80	0.72	0.62	0.00	0.79	0.76	0.81	0.00	0.56	0.97	0.78	0.00	0.72	0.90	0.84
Existing (2025)	**0**	**31**	**19**	**108**	**0**	**51**	**44**	**23**	**0**	**17**	**379**	**65**	**0**	**132**	**261**	**22**
Growth Rate		2.74%				2.74%				2.74%				2.74%		
Regression Type		Linear				Linear				Linear				Linear		
Growth Factor		1.05				1.05				1.05				1.05		
Vested Trips																
Cocoa Landing	0	0	0	7	0	1	0	0	0	0	10	0	0	23	33	3
Total Vested Trips	0	0	0	7	0	1	0	0	0	0	10	0	0	23	33	3
Background (2027)	**0**	**33**	**20**	**121**	**0**	**55**	**46**	**24**	**0**	**18**	**410**	**69**	**0**	**162**	**308**	**26**
Project Assignment																
Ingress							1%					17%		24%		
Egress		17%	1%	24%												
Project Trips	0	14	1	19	0	0	1	0	0	0	0	6	0	8	0	0
Project Buildout (2023)	**0**	**47**	**21**	**140**	**0**	**55**	**47**	**24**	**0**	**18**	**410**	**75**	**0**	**170**	**308**	**26**

PM Peak Hour Trips: IN = 80 OUT = 60

Weekday PM Peak Hour	Cox Road								SR 524							
	Northbound				Southbound				Eastbound				Westbound			
4:00 PM - 5:00 PM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2025)	0	35	32	158	0	55	24	23	0	35	449	26	0	142	538	91
Seasonal Factor		0.96				0.96				0.96				0.96		
Heavy Vehicle (%)	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	4.2%	0.0%	0.0%	0.0%	5.8%	0.0%	0.0%	7.0%	1.7%	1.1%
Peak Hour Factor	0.00	0.45	0.81	0.62	0.00	0.63	0.75	0.68	0.00	0.82	0.83	0.80	0.00	0.86	0.95	0.84
Existing (2025)	**0**	**34**	**31**	**152**	**0**	**53**	**23**	**22**	**0**	**34**	**431**	**25**	**0**	**136**	**516**	**87**
Growth Rate		2.74%				2.74%				2.74%				2.74%		
Regression Type		Linear				Linear				Linear				Linear		
Growth Factor		1.05				1.05				1.05				1.05		
Vested Trips																
Cocoa Landing	0	0	0	21	0	3	0	0	0	0	30	0	0	13	18	2
Total Vested Trips	0	0	0	21	0	3	0	0	0	0	30	0	0	13	18	2
Background (2027)	**0**	**36**	**33**	**181**	**0**	**59**	**24**	**23**	**0**	**36**	**485**	**26**	**0**	**156**	**562**	**94**
Project Assignment																
Ingress							1%					17%		24%		
Egress		17%	1%	24%												
Project Trips	0	10	1	15	0	0	1	0	0	0	0	14	0	19	0	0
Project Buildout (2023)	**0**	**46**	**34**	**196**	**0**	**59**	**25**	**23**	**0**	**36**	**485**	**40**	**0**	**175**	**562**	**94**

k:\orl_tpto\149658029_legacy cocoa traffic dd memo\03_excel\traffic calcs_cox road th (bebr growth).xlsx]Int.#1

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	2	*Existing Year:*	2025	*TMC Year:*	2027
Major Street:	Cox Road / N/S	*Buildout Year:*	2027		
Minor Street:	Driveway #1 / E/W	*Seasonal Factor:*	0.96		
		Growth Factor:	2.74%	*AM Peak Hour Trips:*	IN = 37 OUT = 82

Weekday AM Peak Hour	Cox Road								Driveway #1							
	Northbound				Southbound				Eastbound				Westbound			
7:45 AM - 8:45 AM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2027)	0	0	164	0	0	0	252	0	0	0	0	0	0	0	0	0
Seasonal Factor			0.96				0.96				0.96				0.96	
Heavy Vehicle (%)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Peak Hour Factor	0.00	0.80	0.72	0.62	0.00	0.79	0.76	0.81	0.00	0.56	0.97	0.78	0.00	0.72	0.90	0.84
Existing (2025)	**0**	**0**	**157**	**0**	**0**	**0**	**242**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Growth Rate			2.74%				2.74%				2.74%				2.74%	
Regression Type			Linear				Linear				Linear				Linear	
Growth Factor			1.05				1.05				1.05				1.05	
Vested Trips[1]																
Cocoa Landing	0	0	7	0	0	0	23	0	0	0	0	0	0	0	0	0
Background (2027)	**0**	**0**	**173**	**0**	**0**	**0**	**278**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Project Assignment																
Ingress				29%		21%	21%									
Egress			21%											29%		21%
Project Trips	0	0	17	11	0	8	7	0	0	0	0	0	0	24	0	17
Project Buildout (2023)	**0**	**0**	**190**	**11**	**0**	**8**	**285**	**0**	**0**	**0**	**0**	**0**	**0**	**24**	**0**	**17**

PM Peak Hour Trips: IN = 80 OUT = 60

Weekday PM Peak Hour	Cox Road								Driveway #1							
	Northbound				Southbound				Eastbound				Westbound			
4:45 PM - 5:45 PM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2027)	0	0	225	0	0	0	192	0	0	0	0	0	0	0	0	0
Seasonal Factor			0.96				0.96				0.96				0.96	
Heavy Vehicle (%)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Peak Hour Factor	0.00	0.45	0.81	0.62	0.00	0.63	0.75	0.68	0.00	0.82	0.83	0.80	0.00	0.86	0.95	0.84
Existing (2025)	**0**	**0**	**216**	**0**	**0**	**0**	**184**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Growth Rate			2.74%				2.74%				2.74%				2.74%	
Regression Type			Linear				Linear				Linear				Linear	
Growth Factor			1.05				1.05				1.05				1.05	
Vested Trips[1]																
Cocoa Landing	0	0	21	0	0	0	13	0	0	0	0	0	0	0	0	0
Background (2027)	**0**	**0**	**249**	**0**	**0**	**0**	**207**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Project Assignment																
Ingress				29%		21%	21%									
Egress			21%											29%		21%
Project Trips	0	0	13	23	0	17	17	0	0	0	0	0	0	17	0	13
Project Buildout (2023)	**0**	**0**	**262**	**23**	**0**	**17**	**224**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**0**	**13**

k:\orl_tpto\149658029_legacy cocoa traffic dd memo\03_excel\[traffic calcs_cox road th (bebr growth).xlsx]Int.#2

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	3	*Existing Year:*	2025	*TMC Year:*	2027
Major Street:	Cox Road / N/S	*Buildout Year:*	2027		
Minor Street:	Driveway #2 / E/W	*Seasonal Factor:*	0.96		
		Growth Factor:	2.74%	*AM Peak Hour Trips:*	IN = 37 OUT = 82

Weekday AM Peak Hour	Cox Road								Driveway #2							
	Northbound				Southbound				Eastbound				Westbound			
7:15 AM - 8:15 AM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2027)	0	0	206	0	0	0	188	0	0	0	0	0	0	0	0	0
Seasonal Factor			0.96				0.96				0.96				0.96	
Heavy Vehicle (%)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Peak Hour Factor	0.00	0.67	0.67	0.63	0.00	0.86	0.35	0.82	0.25	0.91	0.87	0.42	0.68	0.88	0.88	0.80
Existing (2025)	**0**	**0**	**198**	**0**	**0**	**0**	**180**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Growth Rate			2.74%				2.74%				2.74%				2.74%	
Regression Type			Linear				Linear				Linear				Linear	
Growth Factor			1.05				1.05				1.05				1.05	
Vested Trips[1]																
Cocoa Landing	0	0	7	0	0	0	23	0	0	0	0	0	0	0	0	0
Background (2027)	**0**	**0**	**216**	**0**	**0**	**0**	**213**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Project Assignment																
Ingress			29%	29%		21%										
Egress							29%							29%		21%
Project Trips	0	0	11	11	0	8	24	0	0	0	0	0	0	24	0	17
Project Buildout (2023)	**0**	**0**	**227**	**11**	**0**	**8**	**237**	**0**	**0**	**0**	**0**	**0**	**0**	**24**	**0**	**17**

PM Peak Hour Trips: IN = 80 OUT = 60

Weekday PM Peak Hour	Cox Road								Driveway #2							
	Northbound				Southbound				Eastbound				Westbound			
4:45 PM - 5:45 PM	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2027)	0	0	176	0	0	0	231	0	0	0	0	0	0	0	0	0
Seasonal Factor			0.96				0.96				0.96				0.96	
Heavy Vehicle (%)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Peak Hour Factor	0.00	0.67	0.65	0.46	0.00	0.87	0.58	0.85	0.75	0.81	0.97	0.69	0.42	0.64	0.97	0.75
Existing (2025)	**0**	**0**	**169**	**0**	**0**	**0**	**222**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Growth Rate			2.74%				2.74%				2.74%				2.74%	
Regression Type			Linear				Linear				Linear				Linear	
Growth Factor			1.05				1.05				1.05				1.05	
Vested Trips[1]																
Cocoa Landing	0	0	21	0	0	0	13	0	0	0	0	0	0	0	0	0
Background (2027)	**0**	**0**	**199**	**0**	**0**	**0**	**247**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Project Assignment																
Ingress			29%	29%		21%										
Egress							29%							29%		21%
Project Trips	0	0	23	23	0	17	17	0	0	0	0	0	0	17	0	13
Project Buildout (2023)	**0**	**0**	**222**	**23**	**0**	**17**	**264**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**0**	**13**

k:\orl_tpto\149658029_legacy cocoa traffic dd memo\03_excel\[traffic calcs_cox road th (bebr growth).xlsx]Int.#3

Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

Intersection #:	4		
Major Street:	SR 520	E/W	
Minor Street:	Cox Road	N/S	

Existing Year:	2025
Buildout Year:	2027
Seasonal Factor:	0.96
Growth Factor:	2.74%

TMC Year: 2025

AM Peak Hour Trips: IN = 37 OUT = 82

Weekday AM Peak Hour 7:15 AM - 8:15 AM	Cox Road								SR 520							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2025)	0	7	8	9	0	103	6	79	1	95	906	3	15	11	622	103
Seasonal Factor		0.96				0.96				0.96				0.96		
Heavy Vehicle (%)	0.0%	0.0%	12.5%	0.0%	0.0%	9.7%	0.0%	16.5%	0.0%	7.4%	3.9%	0.0%	20.0%	0.0%	6.1%	3.9%
Peak Hour Factor	0.00	0.67	0.67	0.63	0.00	0.86	0.35	0.82	0.25	0.91	0.87	0.42	0.68	0.88	0.88	0.80
Existing (2025)	**0**	**7**	**8**	**9**	**0**	**99**	**6**	**76**	**1**	**91**	**870**	**3**	**14**	**11**	**597**	**99**
Growth Rate		2.74%				2.74%				2.74%				2.74%		
Regression Type		Linear				Linear				Linear				Linear		
Growth Factor		1.05				1.05				1.05				1.05		
Background (2027)	**0**	**7**	**8**	**9**	**0**	**104**	**6**	**80**	**1**	**96**	**918**	**3**	**15**	**12**	**630**	**104**
Project Assignment																
Ingress										24%						31%
Egress						31%		24%								
Project Trips	0	0	0	0	0	25	0	20	0	9	0	0	0	0	0	11
Project Buildout (2023)	**0**	**7**	**8**	**9**	**0**	**129**	**6**	**100**	**1**	**105**	**918**	**3**	**15**	**12**	**630**	**115**

PM Peak Hour Trips: IN = 80 OUT = 60

Weekday PM Peak Hour 4:45 PM - 5:45 PM	Cox Road								SR 520							
	Northbound				Southbound				Eastbound				Westbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
TMC (2025)	0	11	10	4	0	80	8	143	4	97	796	24	7	18	871	69
Seasonal Factor		0.96				0.96				0.96				0.96		
Heavy Vehicle (%)	0.0%	9.1%	0.0%	0.0%	0.0%	7.5%	0.0%	2.8%	0.0%	4.1%	5.7%	4.2%	0.0%	0.0%	1.6%	5.8%
Peak Hour Factor	0.00	0.67	0.65	0.46	0.00	0.87	0.58	0.85	0.75	0.81	0.97	0.69	0.42	0.64	0.97	0.75
Existing (2025)	**0**	**11**	**10**	**4**	**0**	**77**	**8**	**137**	**4**	**93**	**764**	**23**	**7**	**17**	**836**	**66**
Growth Rate		2.74%				2.74%				2.74%				2.74%		
Regression Type		Linear				Linear				Linear				Linear		
Growth Factor		1.05				1.05				1.05				1.05		
Background (2027)	**0**	**12**	**11**	**4**	**0**	**81**	**8**	**145**	**4**	**98**	**806**	**24**	**7**	**18**	**882**	**70**
Project Assignment																
Ingress										24%						31%
Egress						31%		24%								
Project Trips	0	0	0	0	0	19	0	14	0	19	0	0	0	0	0	25
Project Buildout (2023)	**0**	**12**	**11**	**4**	**0**	**100**	**8**	**159**	**4**	**117**	**806**	**24**	**7**	**18**	**882**	**95**

k:\orl_tpto\149658029_legacy cocoa traffic dd memo\03_excel\[traffic calcs_cox road th (bebr growth).xlsx]int.#4

APPENDIX F
Signal Timings

Station : 185 **-** SR 524 & Cox Rd (Upload File)

Phase [1.1.1]

	ϕ1	ϕ2 (WR)	ϕ3	ϕ4 (NT)	ϕ5 (WL)	ϕ6 (ER)	ϕ7	ϕ8 (ST)	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clearance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	0	15	0	6	5	15	0	6	0	0	0	0	0	0	0	0
Gap Ext	0	3.5	0	3.5	3.5	3.5	0	3.5	0	0	0	0	0	0	0	0
Max1	0	50	0	25	15	50	0	25	0	0	0	0	0	0	0	0
Max2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Clr	4	5.5	4	4.8	5.5	5.5	0	4.8	0	0	0	0	0	0	0	0
Red Clr	2	2.5	2	2	2.4	2.5	2	2	0	0	0	0	0	0	0	0
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Bike Clear																
Safe Clear Min																
Enable		ON		ON	ON	ON		ON								
Lock Call		ON				ON										
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable		ON				ON										
Guar Passage																
Rest In Walk																
Cond Service																
Add Init Calc																

Close Loop Active	OFF

Prepared By

System

Date Implemented

Reviewed By

Approved By

Brevard County Timing Sheet 2/11/2025 9:17:52 AM

Station : 185 **-** SR 524 & Cox Rd (Upload File)

PreemptionTimes[3.1]/Phases[3.2]/Options[3.3]/Times+[3.4]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt	ON	ON				
Flash in Dwell						
Link to Preempt	0	0	0	0	0	0
Delay	0	0	0	0	0	0
Min Duration	0	0	0	0	0	0
Min Green	0	0	6	6	6	6
Min Walk	0	0	0	0	0	0

Low Priority Preempt [3]

Preempt	7	8	9	10
Min	0	0	0	0
Max	0	0	0	0
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1	0	0	0	0
Priority P2	0	0	0	0
Priority P3	0	0	0	0
Priority P4	0	0	0	0

Ped Clear	0	0	60	60	60	60
Track Green	0	0	0	0	0	0
Min Dwell	0	0	0	0	0	0
Max Presence	0	0	120	120	120	120
Track Veh 1	0	0	0	0	0	0
Track Veh 2	0	0	0	0	0	0
Track Veh 3	0	0	0	0	0	0
Track Veh 4	0	0	0	0	0	0
Dwell Cyc Veh 1	0	0	3	4	2	1
Dwell Cyc Veh 2	0	0	8	7	5	6
Dwell Cyc Veh 3	0	0	0	0	0	0
Dwell Cyc Veh 4	0	0	0	0	0	0
Dwell Cyc Ped1	0	0	0	0	0	0
Exit 1	0	0	4	4	2	2
Exit 2	0	0	8	8	6	6
Exit 3	0	0	0	0	0	0
Exit 4	0	0	0	0	0	0
Track Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Track Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Enable						
Type	RAIL	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Track Over 1	0	0	0	0	0	0
Track Over 2	0	0	0	0	0	0
Track Over 3	0	0	0	0	0	0
Track Over 4	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Yellow	0	0	0	0	0	0
Red	0	0	0	0	0	0

Lock	0	0	0	0
Headway	0	0	0	0
Group Lock				
Queue Jump				
Free Mode				
Alt Table	0	0	0	0

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1	1	2	3														NORMAL		4	2
Overlap 2																	NORMAL		4.5	2
Overlap 3																	NORMAL		4.5	2
Overlap 4																	NORMAL		4.5	2
Overlap 5																	NORMAL		4.5	2
Overlap 6																	NORMAL		4.5	2
Overlap 7																	NORMAL		4.5	2
Overlap 8																	NORMAL		4.5	2
Overlap 9																	NORMAL		4.5	2
Overlap 10																	NORMAL		4.5	2
Overlap 11																	NORMAL		4.5	2
Overlap 12																	NORMAL		4.5	2
Overlap 13																	NORMAL		4.5	2
Overlap 14																	NORMAL		4.5	2
Overlap 15																	NORMAL		4.5	2
Overlap 16																	NORMAL		4.5	2

Station : 185 **-** SR 524 & Cox Rd (Upload File)

Coordination, Pattern 1-16 [2.4]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	110	110	140	110												
Offset Time	15	55	47	55												
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Short	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Long	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN

Coordination, Pattern 17-32 [2.4]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time				200	200	200	200	200	200							
Offset Time				151	100	181	11	39	11							
Split Number	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Short	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Long	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN

Coordination, Splits [2.7.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-Time		71		39	21	50		39								
1-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
1-Coord Phase		ON														
2-Time		62		48	15	47		48								
2-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
2-Coord Phase		ON														
3-Time		71		69	19	52		69								
3-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
3-Coord Phase		ON														
4-Time		62		48	15	47		48								
4-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
4-Coord Phase		ON														
5-Time																
5-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
5-Coord Phase		ON														
6-Time																
6-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
6-Coord Phase		ON														
7-Time																
7-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
7-Coord Phase		ON														
8-Time																
8-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
8-Coord Phase		ON														
9-Time																
9-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
9-Coord Phase		ON														
10-Time																
10-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
10-Coord Phase		ON														
11-Time																
11-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
11-Coord Phase		ON														
12-Time																
12-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
12-Coord Phase		ON														
13-Time																
13-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
13-Coord Phase		ON														
14-Time																
14-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
14-Coord Phase		ON														
15-Time																
15-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
15-Coord Phase		ON														
16-Time																
16-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
16-Coord Phase		ON														
17-Time																
17-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
17-Coord Phase		ON														
18-Time																
18-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
18-Coord Phase		ON														
19-Time																
19-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
19-Coord Phase		ON														
20-Time		144		56	15	129		56								
20-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
20-Coord Phase		ON														

21-Time		100		100	15	85		100								
21-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
21-Coord Phase		ON														
22-Time		144		56	15	129		56								
22-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
22-Coord Phase		ON														
23-Time		100		100	15	85		100								
23-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
23-Coord Phase		ON														
24-Time		144		56	15	129		56								
24-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
24-Coord Phase		ON														
25-Time		105		95	15	90		95								
25-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
25-Coord Phase		ON														
26-Time																
26-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
26-Coord Phase		ON														
27-Time																
27-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
27-Coord Phase		ON														
28-Time																
28-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
28-Coord Phase		ON														
29-Time																
29-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
29-Coord Phase		ON														
30-Time																
30-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
30-Coord Phase		ON														
31-Time																
31-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
31-Coord Phase		ON														
32-Time																
32-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
32-Coord Phase		ON														

Station : 185 **-** SR 524 & Cox Rd (Upload File)

TB Coor, Advanced Scheduler [4.3]

	Month											Day of Week							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3																																																	1
4																																																		1
5																																																		1
6																																																		1
7																																																		1
8																																																		1
9																																																		1
10																																																		1
11																																																		1
12																																																		1
13																																																		1
14																																																		1
15																																																		1
16																																																		1
17																																																		1
18																																																		1
19																																																		1
20																																																		1
21																																																		1
22																																																		1
23																																																		1
24																																																		1

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**EASY**															
		100	254																							
6		1	1	110	15	1	1	12	22	60		71		39	21	50		39								
10		2	2	110	55	2	1	12	22	60		62		48	15	47		48								
14		3	3	140	47	3	1	12	22	60		71		69	19	52		69								
18		100	254																							
Day Plan 2											**EASY**															
		100	254																							
9		4	4	110	55	4	1	12	22	60		62		48	15	47		48								
18		100	254																							

Station : 185 **-** SR 524 & Cox Rd (Upload File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 3											**EASY**															
Day Plan 4											**EASY**															

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Table : 1 Ring 1	1	2	3	4				
Table : 1 Ring 2	5	6	7	8				
Table : 1 Ring 3								
Table : 1 Ring 4								
Table : 2 Ring 1	1	2	3	4				
Table : 2 Ring 2	6	5	7	8				
Table : 2 Ring 3								
Table : 2 Ring 4								
Table : 3 Ring 1	2	1	3	4				
Table : 3 Ring 2	5	6	7	8				
Table : 3 Ring 3								
Table : 3 Ring 4								
Table : 4 Ring 1	2	1	3	4				
Table : 4 Ring 2	6	5	7	8				
Table : 4 Ring 3								
Table : 4 Ring 4								
Table : 5 Ring 1	1	2	3	4				
Table : 5 Ring 2	5	6	8	7				
Table : 5 Ring 3								
Table : 5 Ring 4								
Table : 6 Ring 1	1	2	3	4				
Table : 6 Ring 2	6	5	8	7				
Table : 6 Ring 3								
Table : 6 Ring 4								
Table : 7 Ring 1	2	1	3	4				
Table : 7 Ring 2	5	6	8	7				
Table : 7 Ring 3								
Table : 7 Ring 4								
Table : 8 Ring 1	2	1	3	4				
Table : 8 Ring 2	6	5	8	7				
Table : 8 Ring 3								
Table : 8 Ring 4								
Table : 9 Ring 1	1	2	4	3				
Table : 9 Ring 2	5	6	7	8				
Table : 9 Ring 3								
Table : 9 Ring 4								
Table : 10 Ring 1	1	2	4	3				
Table : 10 Ring 2	6	5	7	8				
Table : 10 Ring 3								
Table : 10 Ring 4								
Table : 11 Ring 1	2	1	4	3				
Table : 11 Ring 2	5	6	7	8				

Table : 11 Ring 3								
Table : 11 Ring 4								
Table : 12 Ring 1	2	1	4	3				
Table : 12 Ring 2	6	5	7	8				
Table : 12 Ring 3								
Table : 12 Ring 4								
Table : 13 Ring 1	1	2	4	3				
Table : 13 Ring 2	5	6	8	7				
Table : 13 Ring 3								
Table : 13 Ring 4								
Table : 14 Ring 1	1	2	4	3				
Table : 14 Ring 2	6	5	8	7				
Table : 14 Ring 3								
Table : 14 Ring 4								
Table : 15 Ring 1	2	1	4	3				
Table : 15 Ring 2	5	6	8	7				
Table : 15 Ring 3								
Table : 15 Ring 4								
Table : 16 Ring 1	2	1	4	3				
Table : 16 Ring 2	6	5	8	7				
Table : 16 Ring 3								
Table : 16 Ring 4								

Channels/SDLC+, IO Logic [1.8.7]

	1	2	3	4	5	6	7	8	9	10
Result	0	0	0	0	0	0	0	0	0	0
Fun 1	0	0	0	0	0	0	0	0	0	0
Src 1	0	0	0	0	0	0	0	0	0	0
Fun 2	0	0	0	0	0	0	0	0	0	0
Src 2	0	0	0	0	0	0	0	0	0	0
Fun 3	0	0	0	0	0	0	0	0	0	0
Src 3	0	0	0	0	0	0	0	0	0	0
Operator 1 Function	----	----	----	----	----	----	----	----	----	----
Operand 1 Result	I	I	I	I	I	I	I	I	I	I
Operand 1 IO	I	I	I	I	I	I	I	I	I	I
Operand 1 Invert	-	-	-	-	-	-	-	-	-	-
Operator 2 Function	----	----	----	----	----	----	----	----	----	----
Operand 2 IO	I	I	I	I	I	I	I	I	I	I
Operand 2 Invert	-	-	-	-	-	-	-	-	-	-
Operator 3 Function	----	----	----	----	----	----	----	----	----	----
Operand 3 IO	I	I	I	I	I	I	I	I	I	I

User Comments:

Station : 374 **-** SR 520 & Cox Rd **-** A Lane (Upload File)

Phase [1.1.1]

	ϕ1 (WL)	ϕ2 (ET)	ϕ3	ϕ4 (SR)	ϕ5 (EL)	ϕ6 (WR)	ϕ7 (ST)	ϕ8 (NT)	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Ped Clearance	0	19	0	30	0	25	0	36	0	0	0	0	0	0	0	0
Min Green	5	15	0	5	5	15	5	5	0	0	0	0	0	0	0	0
Gap Ext	3	3.5	0	3	3	3.5	3	3	0	0	0	0	0	0	0	0
Max1	15	50	0	35	15	50	15	35	0	0	0	0	0	0	0	0
Max2	19	75	0	20	19	75	15	12	0	0	0	0	0	0	0	0
Yellow Clr	4.8	4.9	4	3.7	4.9	4.9	3.7	3.4	0	0	0	0	0	0	0	0
Red Clr	3	2	2	3.6	3.5	2	2.6	3.6	2	0	0	0	0	0	0	0
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Bike Clear																
Safe Clear Min																
Enable	ON	ON		ON	ON	ON	ON	ON								
Lock Call		ON				ON										
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable		ON				ON										
Guar Passage																
Rest In Walk		ON														
Cond Service																
Add Init Calc																

Close Loop Active	OFF

Prepared By **System**	Date Implemented
Reviewed By	Approved By

Brevard County Timing Sheet 2/11/2025 9:18:07 AM

Station : 374 **-** SR 520 & Cox Rd **-** A Lane (Upload File)

PreemptionTimes[3.1]/Phases[3.2]/Options[3.3]/Times+[3.4]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON	ON	ON	ON	ON
Override Higher Preempt	ON	ON	ON	ON	ON	ON
Flash in Dwell						
Link to Preempt	0	0	0	0	0	0
Delay	0	0	0	0	0	0
Min Duration	0	0	0	0	0	0
Min Green	0	0	0	0	0	0
Min Walk	0	0	0	0	0	0

Low Priority Preempt [3]

Preempt	7	8	9	10
Min	0	0	0	0
Max	0	0	0	0
Enable	ON	ON	ON	ON
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt	ON	ON	ON	ON
No Skip				
Priority P1	0	0	0	0
Priority P2	0	0	0	0
Priority P3	0	0	0	0
Priority P4	0	0	0	0

Ped Clear	0	0	0	0	0	0
Track Green	0	0	0	0	0	0
Min Dwell	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0
Track Veh 1	0	0	0	0	0	0
Track Veh 2	0	0	0	0	0	0
Track Veh 3	0	0	0	0	0	0
Track Veh 4	0	0	0	0	0	0
Dwell Cyc Veh 1	0	0	0	0	0	0
Dwell Cyc Veh 2	0	0	0	0	0	0
Dwell Cyc Veh 3	0	0	0	0	0	0
Dwell Cyc Veh 4	0	0	0	0	0	0
Dwell Cyc Ped1	0	0	0	0	0	0
Exit 1	0	0	0	0	0	0
Exit 2	0	0	0	0	0	0
Exit 3	0	0	0	0	0	0
Exit 4	0	0	0	0	0	0
Track Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Track Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Enable						
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Track Over 1	0	0	0	0	0	0
Track Over 2	0	0	0	0	0	0
Track Over 3	0	0	0	0	0	0
Track Over 4	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Yellow	0	0	0	0	0	0
Red	0	0	0	0	0	0

Lock	0	0	0	0
Headway	0	0	0	0
Group Lock				
Queue Jump				
Free Mode				
Alt Table	0	0	0	0

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2	1								2								FYA-4		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6	5								6								FYA-4		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5
Overlap 9																	NORMAL		3.5	1.5
Overlap 10																	NORMAL		3.5	1.5
Overlap 11	6	7															NORMAL		3.5	1.5
Overlap 12																	NORMAL		3.5	1.5
Overlap 13																	NORMAL		3.5	1.5
Overlap 14																	NORMAL		3.5	1.5
Overlap 15																	NORMAL		3.5	1.5
Overlap 16																	NORMAL		3.5	1.5

Station : 374 **-** SR 520 & Cox Rd **-** A Lane (Upload File)

Coordination, Pattern 1-16 [2.4]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	110	120	130	120	110											
Offset Time	31	17	42	9	23											
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Short	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Long	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN

Coordination, Pattern 17-32 [2.4]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time	200	200	200	200	200	200	200	200	200							
Offset Time	5	17	177	86	13	56	183	199	183							
Split Number	17	18	19	20	21	22	23	24	25	26						
Seq Number	1	1	1	3	1	1	3	1	1	1	1	1		1	1	1
Short	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Long	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
Offset	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN	ENDGRN

Coordination, Splits [2.7.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1-Time	18	56		36	18	56	18	18								
1-Mode	NON	MXP	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
1-Coord Phase		ON														
2-Time	20	60		40	20	60	20	20								
2-Mode	NON	MXP	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
2-Coord Phase		ON														
3-Time	18	74		38	20	72	18	20								
3-Mode	NON	MXP	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
3-Coord Phase		ON														
4-Time	18	58		44	21	55	24	20								
4-Mode	NON	MXP	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
4-Coord Phase		ON														
5-Time	18	54		38	20	52	18	20								
5-Mode	NON	MXP	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
5-Coord Phase		ON														
6-Time																
6-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
6-Coord Phase		ON														
7-Time																
7-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
7-Coord Phase		ON														
8-Time																
8-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
8-Coord Phase		ON														
9-Time																
9-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
9-Coord Phase		ON														
10-Time																
10-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
10-Coord Phase		ON														
11-Time																
11-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
11-Coord Phase		ON														
12-Time																
12-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
12-Coord Phase		ON														
13-Time																
13-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
13-Coord Phase		ON														
14-Time																
14-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
14-Coord Phase		ON														
15-Time																
15-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
15-Coord Phase		ON														
16-Time																
16-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
16-Coord Phase		ON														
17-Time	18	115		67	18	115	17	50								
17-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
17-Coord Phase		ON														
18-Time	18	115		67	18	115	17	50								
18-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
18-Coord Phase		ON														
19-Time	18	136		46	22	132	24	22								
19-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
19-Coord Phase		ON														
20-Time	18	115		67	18	115	17	50								
20-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
20-Coord Phase		ON														

21-Time	18	115		67	18	115	17	50								
21-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
21-Coord Phase		ON														
22-Time	18	115		67	18	115	17	50								
22-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
22-Coord Phase		ON														
23-Time	18	118		64	65	71	14	50								
23-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
23-Coord Phase		ON														
24-Time	20	96		84	20	96	18	66								
24-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
24-Coord Phase		ON														
25-Time	18	118		64	65	71	14	50								
25-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
25-Coord Phase		ON														
26-Time																
26-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
26-Coord Phase		ON														
27-Time																
27-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
27-Coord Phase		ON														
28-Time																
28-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
28-Coord Phase		ON														
29-Time																
29-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
29-Coord Phase		ON														
30-Time																
30-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
30-Coord Phase		ON														
31-Time																
31-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
31-Coord Phase		ON														
32-Time																
32-Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
32-Coord Phase		ON														

Station : 374 **-** SR 520 & Cox Rd **-** A Lane (Upload File)

TB Coor, Advanced Scheduler [4.3]

	Month											Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1	1	1	1	1	1	1	1	1	1	1	1								1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4
5																																																	1
6																																																		1
7																																																		1
8																																																		1
9																																																		1
10																																																		1
11																																																		1
12																																																		1
13																																																		1
14																																																		1
15																																																		1
16																																																		1
17																																																		1
18																																																		1
19																																																		1
20																																																		1
21																																																		1
22																																																		1
23																																																		1
24																																																		1

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**EASY**															
		100	254																							
6	15	1	1	110	31	1	1	12	22		18	56		36	18	56	18	18								
9		2	2	120	17	2	1	12	22		20	60		40	20	60	20	20								
14	30	3	3	130	42	3	1	12	22		18	74		38	20	72	18	20								
17	45	5	5	110	23	5	1	12	22		18	54		38	20	52	18	20								
19	30	100	254																							
Day Plan 2											**EASY**															
		100	254																							
8		2	2	120	17	2	1	12	22		20	60		40	20	60	20	20								
10		4	4	120	9	4	1	12	22		18	58		44	21	55	24	20								
16		2	2	120	17	2	1	12	22		20	60		40	20	60	20	20								
19	30	100	254																							

Station : 374 **-** SR 520 & Cox Rd **-** A Lane (Upload File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 3											**EASY**															
		100	254																							
9	30	2	2	120	17	2	1	12	22		20	60		40	20	60	20	20								
11	30	4	4	120	9	4	1	12	22		18	58		44	21	55	24	20								
17	30	2	2	120	17	2	1	12	22		20	60		40	20	60	20	20								
19		100	254																							
Day Plan 4											**EASY**															
		100	254																							

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Table : 1 Ring 1	1	2	3	4				
Table : 1 Ring 2	5	6	7	8				
Table : 1 Ring 3								
Table : 1 Ring 4								
Table : 2 Ring 1	1	2	3	4				
Table : 2 Ring 2	6	5	7	8				
Table : 2 Ring 3								
Table : 2 Ring 4								
Table : 3 Ring 1	2	1	3	4				
Table : 3 Ring 2	5	6	7	8				
Table : 3 Ring 3								
Table : 3 Ring 4								
Table : 4 Ring 1	2	1	3	4				
Table : 4 Ring 2	6	5	7	8				
Table : 4 Ring 3								
Table : 4 Ring 4								
Table : 5 Ring 1	1	2	3	4				
Table : 5 Ring 2	5	6	8	7				
Table : 5 Ring 3								
Table : 5 Ring 4								
Table : 6 Ring 1	1	2	3	4				
Table : 6 Ring 2	6	5	8	7				
Table : 6 Ring 3								
Table : 6 Ring 4								
Table : 7 Ring 1	2	1	3	4				
Table : 7 Ring 2	5	6	8	7				
Table : 7 Ring 3								
Table : 7 Ring 4								
Table : 8 Ring 1	2	1	3	4				
Table : 8 Ring 2	6	5	8	7				
Table : 8 Ring 3								
Table : 8 Ring 4								
Table : 9 Ring 1	1	2	4	3				
Table : 9 Ring 2	5	6	7	8				
Table : 9 Ring 3								
Table : 9 Ring 4								
Table : 10 Ring 1	1	2	4	3				
Table : 10 Ring 2	6	5	7	8				
Table : 10 Ring 3								
Table : 10 Ring 4								
Table : 11 Ring 1	2	1	4	3				
Table : 11 Ring 2	5	6	7	8				

Table : 11 Ring 3								
Table : 11 Ring 4								
Table : 12 Ring 1	2	1	4	3				
Table : 12 Ring 2	6	5	7	8				
Table : 12 Ring 3								
Table : 12 Ring 4								
Table : 13 Ring 1	1	2	4	3				
Table : 13 Ring 2	5	6	8	7				
Table : 13 Ring 3								
Table : 13 Ring 4								
Table : 14 Ring 1	1	2	4	3				
Table : 14 Ring 2	6	5	8	7				
Table : 14 Ring 3								
Table : 14 Ring 4								
Table : 15 Ring 1	2	1	4	3				
Table : 15 Ring 2	5	6	8	7				
Table : 15 Ring 3								
Table : 15 Ring 4								
Table : 16 Ring 1	2	1	4	3				
Table : 16 Ring 2	6	5	8	7				
Table : 16 Ring 3								
Table : 16 Ring 4								

Channels/SDLC+, IO Logic [1.8.7]

	1	2	3	4	5	6	7	8	9	10
Result	0	0	0	0	0	0	0	0	0	0
Fun 1	0	0	0	0	0	0	0	0	0	0
Src 1	0	0	0	0	0	0	0	0	0	0
Fun 2	0	0	0	0	0	0	0	0	0	0
Src 2	0	0	0	0	0	0	0	0	0	0
Fun 3	0	0	0	0	0	0	0	0	0	0
Src 3	0	0	0	0	0	0	0	0	0	0
Operator 1 Function	----	----	----	----	----	----	----	----	----	----
Operand 1 Result	I	I	I	I	I	I	I	I	I	I
Operand 1 IO	I	I	I	I	I	I	I	I	I	I
Operand 1 Invert	-	-	-	-	-	-	-	-	-	-
Operator 2 Function	----	----	----	----	----	----	----	----	----	----
Operand 2 IO	I	I	I	I	I	I	I	I	I	I
Operand 2 Invert	-	-	-	-	-	-	-	-	-	-
Operator 3 Function	----	----	----	----	----	----	----	----	----	----
Operand 3 IO	I	I	I	I	I	I	I	I	I	I

User Comments:

APPENDIX G

Relevant data from the Space Coast TPO Transportation Data Management System

SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2014 - 2023

ID	ROAD		FROM	TO	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	2021 AADT	2022 AADT	2023 AADT	Current MAV	Last Count Taken	Functional Classification
AREA: CENTRAL																	
75	ADAMSON RD.		PINE ST.	SR 524	4,700	5,210	5,380	5,340	6,100	5,100	5,830	6,540	5,650	6,660	17,700	02/02/23-02/03/23	Urban Minor Collector
	BARNES BLVD.		FISKE BLVD. (SR 519)	MURRELL RD.	15,460	15,895		13,145	13,835	17,545	16,660	15,580	15,705	16,115			
77		BARNES BLVD.	FISKE BLVD. (SR 519)	THREE MEADOWS DR.	15,460	15,940	UC	13,440	13,750	19,340	15,560	15,100	15,620	15,130	39,800	02/02/23-02/03/23	Urban Principal Arterial-Other
604		BARNES BLVD.	THREE MEADOWS DR.	MURRELL RD.		15,850	UC	12,850	13,920	15,750	17,760	16,060	15,790	17,100	39,800	01/26/23-01/27/23	Urban Principal Arterial-Other
72	BARNES BLVD.		MURRELL RD.	US 1	9,720	9,910	8,800	9,560	10,510	10,910	10,480	9,510	14,280	10,200	17,700	01/26/23-01/27/23	Urban Principal Arterial-Other
	BARTON BLVD.		FISKE BLVD.	US 1									13,230				
43		BARTON BLVD.	FISKE BLVD.	MURRELL RD.									13,550	15,820	34,020	01/26/23-01/27/23	Urban Minor Arterial
71		BARTON BLVD.	MURRELL RD.	US 1									12,910	13,920	34,020	04/19/23-04/20/23	Urban Minor Arterial
49	CLEARLAKE RD.		PLUCKEBAUM RD.	SR 520	4,800	5,050	4,590	4,750	5,910	5,160	5,190	4,770	4,150	4,210	15,600	01/26/23-01/27/23	Urban Major Collector
	CLEARLAKE RD. (SR 501)		SR 520	MICHIGAN AVE.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
29		CLEARLAKE RD. (SR 501)	SR 520	LAKE DR.	11,640	14,160	13,400	12,810	14,590	12,870	11,330	12,320	11,060	11,650	39,800	01/26/23-01/27/23	Urban Minor Arterial
30		CLEARLAKE RD. (SR 501)	LAKE DR.	DIXON BLVD.	16,210	19,620	19,120	18,200	18,010	17,110	18,220	16,450	13,630	15,170	39,800	01/26/23-01/27/23	Urban Minor Arterial
31		CLEARLAKE RD. (SR 501)	DIXON BLVD.	ROSETINE ST.	19,950	NC	21,370	NC	19,620	NC	17,750	NC	15,040	NC	39,800	03/10/22-03/11/22	Urban Minor Arterial
32		CLEARLAKE RD. (SR 501)	ROSETINE ST.	MICHIGAN AVE.	NC	21,140	NC	19,960	NC	19,000	NC	15,860	NC	16,620	39,800	02/02/23-02/03/23	Urban Minor Arterial
	CLEARLAKE RD. (SR 501)		MICHIGAN AVE.	SR 524	17,727	19,817	19,927	18,193	18,640	17,783	16,933	15,860	16,480	14,820			
39		CLEARLAKE RD. (SR 501)	MICHIGAN AVE.	OTTERBEIN AVE.	18,410	21,290	21,320	19,970	20,550	19,530	18,070	17,230	17,760	16,050	39,800	02/02/23-02/03/23	Urban Minor Arterial
50		CLEARLAKE RD. (SR 501)	OTTERBEIN AVE.	N. WALMART ENTRANCE	15,520	16,960	16,090	14,810	15,770	15,210	13,840	13,580	14,530	13,030	41,790	01/26/23-01/27/23	Urban Minor Arterial
[illegible]		CLEARLAKE RD. (SR 501)	N. WALMART ENTRANCE	SR 524	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Urban Minor Arterial
61	COX RD.		SR 520	SR 524	4,100	4,560	4,810	4,240	4,460	4,370	4,850	4,770	4,650	4,590	17,700	01/19/23-01/20/23	Urban Major Collector
69	COX RD.		SR 524	JAMES RD.	2,490	2,760	2,690	2,600	2,660	2,630	2,540	2,590	2,600	2,620	17,700	01/23/23-01/24/23	Urban Major Collector
	DIXON BLVD.		CLEARLAKE RD.	US 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
47		DIXON BLVD.	CLEARLAKE RD.	PINEDA ST.	10,320	11,360	11,290	10,920	11,070	10,620	10,950	10,150	10,520	9,730	39,800	01/23/23-01/24/23	Urban Minor Arterial
51		DIXON BLVD.	PINEDA ST.	FISKE BLVD.	9,420	10,260	10,130	10,240	10,490	10,390	10,590	9,600	9,670	9,660	39,800	05/15/23-05/16/23	Urban Minor Arterial
46		DIXON BLVD.	FISKE BLVD.	BYRD PLAZA ENTRANCE	9,800	10,220	10,760	10,560	11,260	10,780	10,940	10,000	10,510	9,560	39,800	01/26/23-01/27/23	Urban Minor Arterial
45		DIXON BLVD.	BYRD PLAZA ENTRANCE	US 1	8,980	8,800	9,480	9,490	10,210	9,570	9,420	9,230	9,910	8,950	39,800	05/15/23-05/16/23	Urban Minor Arterial
	EYSTER BLVD.		FISKE BLVD.	US 1									9,120	8,200			
635		EYSTER BLVD.	FISKE BLVD.	HUNTINGTON LN.									7,810	6,770	15,600	02/02/23-02/03/23	Urban Major Collector
636		EYSTER BLVD.	HUNTINGTON LN.	MURRELL RD.									7,020	7,070	15,600	01/26/23-01/27/23	Urban Major Collector
637		EYSTER BLVD.	MURRELL RD.	US 1									12,530	10,760	34,020	04/19/23-04/20/23	Urban Minor Arterial
	FISKE BLVD. (SR 519)		I-95/BARNES BLVD.	BARTON BLVD.	21,805	23,125	23,310	22,190	24,190	25,015	24,170	24,965	22,890	24,295			
44		FISKE BLVD. (SR 519)	I-95/BARNES BLVD.	EYSTER BLVD.	22,160	24,690	25,080	24,190	25,820	27,300	27,750	28,010	25,660	26,600	41,790	01/26/23-01/27/23	Urban Principal Arterial-Other
96		FISKE BLVD. (SR 519)	EYSTER BLVD.	BARTON BLVD.	21,450	21,560	21,540	20,190	22,560	22,730	20,590	21,920	20,120	21,990	41,790	02/02/23-02/03/23	Urban Principal Arterial-Other
	FISKE BLVD. (SR 519)		BARTON BLVD.	SR 520	20,465	21,915	20,000	20,118	20,908	21,038	20,070	21,043	19,423	21,368			
42		FISKE BLVD. (SR 519)	BARTON BLVD.	ST. ANDREWS DR.	24,240	24,150	24,200	22,660	24,320	24,130	22,260	22,700	20,700	25,050	41,790	04/19/23-04/20/23	Urban Principal Arterial-Other
41		FISKE BLVD. (SR 519)	ST. ANDREWS DR.	PLUCKEBAUM RD.	22,620	25,300	23,490	23,080	23,970	23,940	23,520	24,510	22,790	25,000	41,790	05/15/23-05/16/23	Urban Principal Arterial-Other
40		FISKE BLVD. (SR 519)	PLUCKEBAUM RD.	ROSA JONES DR.	18,130	19,860	18,210	18,920	17,720	18,690	18,960	19,140	17,490	19,130	41,790	01/26/23-01/27/23	Urban Principal Arterial-Other
38		FISKE BLVD. (SR 519)	ROSA JONES DR.	SR 520	16,870	18,350	14,100	15,810	17,620	17,390	15,540	17,820	16,710	16,290	41,790	02/02/23-02/03/23	Urban Principal Arterial-Other
37	FISKE BLVD.		SR 520	DIXON BLVD.	7,270	8,020	8,220	7,390	7,330	7,300	6,980	7,290	6,700	6,600	15,600	05/15/23-05/16/23	Urban Minor Arterial
	FLORIDA AVE.		US 1	SR 520	6,665	7,025	6,710	6,910	6,260	5,840	5,560	5,130	5,070	5,090			
55		FLORIDA AVE.	US 1	ROSA JONES DR.	7,580	7,980	7,330	6,910	7,640	7,030	6,560	6,080	6,060	6,320	15,600	01/26/23-01/27/23	Urban Minor Arterial
54		FLORIDA AVE.	ROSA JONES DR.	SR 520	5,750	6,070	6,090	UC	4,880	4,650	4,560	4,180	4,080	3,860	15,600	01/26/23-01/27/23	Urban Minor Arterial
	FORREST AVE.		SR 520	US 1	9,240	8,630	7,880	8,585	8,100	11,500	10,860	10,020	10,205	10,375			
52		FORREST AVE.	SR 520	PEACHTREE ST.	10,170	9,890	8,700	8,930	NC	13,510	12,660	11,380	11,580	11,330	15,600	01/26/23-01/27/23	Urban Minor Arterial
53		FORREST AVE.	PEACHTREE ST.	US 1	8,310	7,370	7,060	8,240	8,100	9,490	9,060	8,660	8,830	9,420	15,600	01/26/23-01/27/23	Urban Minor Arterial
67	FRIDAY RD.		SR 520	SR 524	1,220	1,530	1,390	1,500	1,470	1,780	1,790	1,970	1,840	1,760	15,600	01/26/23-01/27/23	Urban Major Collector
64	FRIDAY RD.		SR 524	JAMES RD.	NC	3,290	NC	3,210	NC	2,960	NC	3,150	NC	3,080	17,700	01/23/23-01/24/23	Urban Local
593	JUDGE F JAMIESON WY.		TAVISTOCK DR.	STADIUM PKWY.	4,400	4,480	4,650	5,040	4,960	4,860	4,650	4,000	4,070	4,020	17,700	01/19/23-01/20/23	Urban Local
	JUDGE F JAMIESON WY.		STADIUM PKWY.	LAKE ANDREW DR.	15,795	15,785	16,295	16,400	16,400	16,140	16,570	12,495	10,925	9,540			
80		JUDGE F JAMIESON WY.	STADIUM PKWY.	GOV'T CENTER/SCH. BOARD ENTRANCE	14,780	15,380	15,970	16,190	16,250	16,210	16,350	11,490	10,090	7,950	39,800	05/15/23-05/16/23	Urban Minor Arterial
78		JUDGE F JAMIESON WY.	GOV'T CENTER/SCH. BOARD ENTRANCE	LAKE ANDREW DR.	16,810	16,190	16,620	16,610	16,550	16,070	16,790	13,500	11,760	11,130	39,800	01/19/23-01/20/23	Urban Minor Arterial
	LAKE DR.		COX RD.	SR 520	3,133	3,767	4,033	3,870	4,510	3,880	3,927	3,793	3,677	3,297			
85		LAKE DR.	COX RD.	RANGE RD.	2,150	2,630	2,790	2,890	NC	3,510	3,360	3,300	3,300	3,170	17,700	02/02/23-02/03/23	Urban Major Collector
62		LAKE DR.	RANGE RD.	CLEARLAKE RD. (SR 501)	3,260	3,860	3,750	4,040	NC	4,110	4,110	4,100	3,640	3,410	15,600	01/19/23-01/20/23	Urban Major Collector
[illegible]		LAKE DR.	CLEARLAKE RD. (SR 501)	SR 520	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	01/26/23-01/27/23	Urban Major Collector
	LAKE ANDREW DR.		WICKHAM RD.	VIERA BLVD.	17,085	17,900	17,350	17,130	19,090	17,280	17,390	16,625	15,845	15,415			
81		LAKE ANDREW DR.	WICKHAM RD.	THE AVENUES ENTRANCE	18,810	19,940	18,480	18,990	18,980	19,340	19,460	18,590	19,020	19,700	39,800	01/19/23-01/20/23	Urban Minor Arterial
82		LAKE ANDREW DR.	THE AVENUES ENTRANCE	JUDGE F JAMIESON WY.	15,360	15,860	16,220	15,270	19,200	15,220	15,320	14,660	15,930	16,910	39,800	01/30/23-01/31/23	Urban Minor Arterial
640		LAKE ANDREW DR.	JUDGE F JAMIESON WY.	PORADA DR.									11,100	12,130	39,800	01/26/23-01/27/23	-
641		LAKE ANDREW DR.	PORADA DR.	VIERA BLVD.									17,330	12,920	39,800	01/19/23-01/20/23	-
86	MICHIGAN AVE.		RANGE RD.	CLEARLAKE RD.	3,930	NC	4,180	NC	4,450	NC	4,120	NC	3,820	NC	15,600	01/19/22-01/20/22	Urban Major Collector
48	MICHIGAN AVE.		CLEARLAKE RD.	US 1	10,280	8,420	9,940	10,820	11,090	11,500	11,420	10,060	10,320	10,680	39,800	01/26/23-01/27/23	Urban Minor Arterial
	MURRELL RD.		WICKHAM RD.	BARNES BLVD.	16,070	17,400	16,978	16,493	17,170	17,998	16,428	15,478	15,563	15,783			
528		MURRELL RD.	WICKHAM RD.	SPYGLASS HILL DR.	17,120	18,160	17,710	16,870	17,330	19,070	15,830	14,190	14,290	14,600	33,800	01/19/23-01/20/23	Urban Minor Arterial
59		MURRELL RD.	SPYGLASS HILL DR.	VIERA BLVD.	16,230	16,810	17,230	16,910	17,230	18,040	15,370	16,050	14,170	13,650	39,800	01/19/23-01/20/23	Urban Minor Arterial
529		MURRELL RD.	VIERA BLVD.	CLUB HOUSE DR.	16,310	18,310	17,430	16,510	17,980	18,060	18,690	16,590	17,400	18,270	39,800	01/26/23-01/27/23	Urban Minor Arterial
57		MURRELL RD.	CLUB HOUSE DR.	BARNES BLVD.	14,620	16,320	15,540	15,680	16,140	16,820	15,820	15,080	16,390	16,610	39,800	01/26/23-01/27/23	Urban Minor Arterial
	MURRELL RD.		BARNES BLVD.	BARTON BLVD.									11,615	10,365			
60		MURRELL RD.	BARNES BLVD.	EYSTER BLVD.									18,630	16,570	41,790	01/26/23-01/27/23	Urban Minor Arterial
56		MURRELL RD.	EYSTER BLVD.	BARTON BLVD.									4,600	4,160	34,020	04/19/23-04/20/23	Urban Major Collector
592	PEACHTREE ST.		LAKE DR.	FISKE BLVD.	2,910	NC	NC	NC	3,380	4,330	NC	4,460	4,470	NC	15,600	03/01/22-03/02/22	Urban Major Collector

**Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.*
NC=Not Counted; UC=Under Construction

SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2014 - 2023

ID	ROAD	FROM	TO	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	2021 AADT	2022 AADT	2023 AADT	Current MAV	Last Count Taken	Functional Classification
AREA: CENTRAL																
	PINEHURST AVE./HOLIDAY SPRINGS RD.	WICKHAM RD.	HOLIDAY SPRINGS RD.	4,458	4,808	4,928	5,088	5,260	5,285	5,718	4,925	4,880	5,028			
17	PINEHURST AVE.	WICKHAM RD.	SPYGLASS HILL DR.	6,270	6,810	7,100	7,320	7,340	7,480	7,250	6,650	6,640	6,630	15,600	01/19/23-01/20/23	Urban Minor Collector
530	PINEHURST AVE.	SPYGLASS HILL DR.	FARGO DR.	5,040	5,340	5,350	5,430	5,810	5,550	6,170	5,130	5,010	5,170	15,600	01/26/23-01/27/23	Urban Minor Collector
16	PINEHURST AVE.	FARGO DR.	HOLIDAY SPRINGS RD.	2,950	3,190	3,340	3,380	3,590	3,750	4,460	3,650	3,740	3,850	15,600	01/30/23-01/31/23	Urban Minor Collector
94	HOLIDAY SPRINGS RD.	PINEHURST AVE.	VIERA BLVD.	3,570	3,890	3,920	4,220	4,300	4,280	4,990	4,270	4,130	4,460	15,600	01/19/23-01/20/23	Urban Minor Collector
568	PLUCKEBAUM RD.	CLEARLAKE RD.	FISKE BLVD. (SR 519)	6,240	7,030	6,490	6,560	7,570	7,270	6,820	6,530	5,900	6,840	15,600	02/02/23-02/03/23	Urban Major Collector
	RANGE RD.	SR 520	ROSETINE ST.	5,140	4,760	5,860	4,740	5,970	4,360	5,990	4,470	5,970	4,310			
531	RANGE RD.	SR 520	LAKE DR.	NC	4,760	NC	4,740	NC	4,360	NC	4,470	NC	4,310	15,600	02/02/23-02/03/23	Urban Major Collector
532	RANGE RD.	LAKE DR.	ROSETINE ST.	5,140	NC	5,860	NC	5,970	NC	5,990	NC	5,970	NC	15,600	01/19/22-01/20/22	Urban Major Collector
74	ROSETINE ST.	RANGE RD.	CLEARLAKE RD.	2,730	NC	NC	NC	2,920	NC	3,140	2,760	2,920	3,230	15,600	01/23/23-01/24/23	Urban Minor Collector
18	SPYGLASS HILL RD.	MURRELL RD.	PINEHURST AVE.	3,780	3,960	4,240	4,720	4,640	4,780	4,410	3,940	4,220	4,120	15,600	01/19/23-01/20/23	Urban Minor Collector
	SR 520	ORANGE CO	I-95	15,167	17,220	16,670	16,637	16,567	17,160	17,767	17,273	16,097	15,467			
534	SR 520	ORANGE CO	SR 524	12,760	15,950	15,170	15,750	12,240	16,010	18,680	15,530	14,590	13,910	40,300	01/19/23-01/20/23	Rural Principal Arterial Other
84	SR 520	FRIDAY RD.	I-95	18,750	19,990	19,960	19,840	20,850	20,820	19,920	21,190	21,240	19,730	41,790	01/19/23-01/20/23	Urban Principal Arterial-Other
	SR 520	I-95	CLEARLAKE RD. (SR 501)	20,583	23,857	22,600	21,240	20,573	23,173	21,193	22,727	21,840	20,337			
2	SR 520	I-95	BURNETT RD.	21,440	24,190	22,190	21,780	21,740	21,650	24,200	23,230	21,640	20,870	41,790	01/19/23-01/20/23	Urban Principal Arterial-Other
3	SR 520	BURNETT RD.	RANGE RD.	19,680	24,180	22,970	21,040	20,040	21,280	19,840	22,550	21,530	20,210	41,790	01/19/23-01/20/23	Urban Principal Arterial-Other
	SR 520	CLEARLAKE RD. (SR 501)	FISKE BLVD. (SR 519)	21,385	24,880	24,575	22,915	22,735	22,115	21,730	23,145	21,260	20,500			
4	SR 520	CLEARLAKE RD. (SR 501)	LAKE DR.	19,560	22,860	22,870	20,200	20,800	20,400	21,720	21,550	19,310	19,200	39,800	01/26/23-01/27/23	Urban Principal Arterial-Other
5	SR 520	LAKE DR.	FISKE BLVD. (SR 519)	23,210	26,900	26,280	25,630	24,670	23,830	21,740	24,740	23,210	21,800	39,800	01/26/23-01/27/23	Urban Principal Arterial-Other
	SR 520	FISKE BLVD. (SR 519)	US 1	25,160	28,120	28,250	26,600	25,495	25,275	23,310	26,600	24,575	25,180			
6	SR 520	FISKE BLVD. (SR 519)	BLAKE AVE.	25,090	28,270	28,430	26,540	25,550	25,280	NC	26,680	25,010	25,180	41,790	05/18/23-05/19/23	Urban Principal Arterial-Other
7	SR 520	BLAKE AVE.	US 1	25,230	27,970	28,070	26,660	25,440	25,270	23,310	26,520	24,140	NC	41,790	02/03/22-02/04/22	Urban Principal Arterial-Other
	SR 520 (EB)	US 1	RIVEREDGE BLVD.	19,020	21,483	18,600	20,718	20,855	21,135	19,265	22,220	19,625	20,975			
8	SR 520 (EB)	US 1	FORREST AVE.	17,090	18,210	13,820	16,750	17,250	16,830	15,460	NC	16,470	17,270	19,440	01/19/23-01/20/23	Urban Principal Arterial-Other
9	SR 520 (EB)	FORREST AVE.	BREVARD AVE.	19,560	21,850	19,620	22,460	20,930	22,250	20,930	21,800	20,140	22,060	19,440	01/19/23-01/20/23	Urban Principal Arterial-Other
10	SR 520 (EB)	BREVARD AVE.	DELANNOY AVE.	19,450	22,930	22,010	21,670	22,280	22,500	19,990	NC	21,080	22,000	19,440	01/19/23-01/20/23	Urban Principal Arterial-Other
11	SR 520 (EB)	DELANNOY AVE.	RIVEREDGE BLVD.	19,980	22,940	18,950	21,990	22,960	22,960	20,680	22,640	20,810	22,570	19,440	01/26/23-01/27/23	Urban Principal Arterial-Other
	SR 520 (WB)	CAUSEWAY	US 1	20,643	21,703	20,098	21,220	20,920	21,915	19,093	17,797	21,705	21,033			
12	SR 520 (WB)	CAUSEWAY	DELANNOY AVE.	21,250	23,700	23,050	21,130	22,990	22,780	20,340	22,850	20,800	22,260	19,440	01/26/23-01/27/23	Urban Principal Arterial-Other
13	SR 520 (WB)	DELANNOY AVE.	BREVARD AVE.	23,100	23,460	21,900	24,290	22,980	24,250	21,420	NC	22,610	23,720	19,440	04/19/23-04/20/23	Urban Principal Arterial-Other
15	SR 520 (WB)	BREVARD AVE.	FORREST AVE.	21,560	22,400	18,990	21,810	20,660	21,610	19,840	22,080	NC	21,900	19,440	01/26/23-01/27/23	Urban Principal Arterial-Other
87	SR 520 (WB)	FORREST AVE.	US 1	16,660	17,250	16,750	17,650	17,050	19,020	14,770	NC	NC	16,250	19,440	01/26/23-01/27/23	Urban Principal Arterial-Other
66	SR 524	SR 520	I-95	4,530	5,690	5,300	5,890	7,200	6,870	6,600	6,460	6,280	7,380	24,200	01/26/23-01/27/23	Urban Minor Arterial
73	SR 524	I-95	COX RD.	9,670	11,440	11,170	10,460	12,690	11,700	11,020	13,300	12,870	10,950	18,590	02/02/23-02/03/23	Urban Minor Arterial
76	SR 524	COX RD.	INDUSTRY RD.	12,090	14,090	14,040	12,960	15,030	13,380	12,530	14,630	14,380	12,850	19,470	02/02/23-02/03/23	Urban Minor Arterial
91	SR 528	ORANGE CO	SR 407	30,220	37,830	35,120	37,330	40,640	42,560	49,690	36,880	31,390	37,620	43,000	02/02/23-02/03/23	Rural Principal Arterial - Freeways & Expressways
90	SR 528	SR 407	I-95	26,420	30,580	28,360	30,230	NC	33,050	37,930	29,300	24,340	33,200	43,000	02/02/23-02/03/23	Rural Principal Arterial - Freeways & Expressways
	SR 528	I-95	US 1	25,315	30,165	27,775	28,340	31,000	32,730	37,960	28,765	27,060	34,285			
93	SR 528	I-95	INDUSTRY RD.	23,050	23,030	22,810	23,290	29,350	28,880	33,780	24,750	22,810	28,490	74,400	02/02/23-02/03/23	Urban Principal Arterial - Freeways & Expressways
92	SR 528	INDUSTRY RD.	US 1	27,580	37,300	32,740	33,390	32,650	36,580	42,140	32,780	31,310	40,080	74,400	02/02/23-02/03/23	Urban Principal Arterial - Freeways & Expressways
25	STADIUM PKWY.	WICKHAM RD.	JUDGE F JAMIESON WY.	6,890	7,810	8,480	9,150	10,460	11,240	10,620	10,380	11,160	12,730	17,700	01/30/23-01/31/23	Urban Minor Arterial
	STADIUM PKWY.	JUDGE F JAMIESON WY	I-95/FISKE BLVD.	16,965	17,707	18,173	19,337	20,273	20,780	18,447	15,570	14,613	17,750			
26	STADIUM PKWY.	JUDGE F JAMIESON WY	VIERA BLVD.	18,910	19,950	20,890	22,170	22,920	23,650	24,190	18,970	16,590	21,070	39,800	01/26/23-01/27/23	Urban Minor Arterial
535	STADIUM PKWY.	VIERA BLVD.	ROSEMOUNT DR.	15,020	15,980	16,120	17,160	17,870	18,460	15,370	13,700	13,780	15,730	39,800	01/26/23-01/27/23	Urban Minor Arterial
606	STADIUM PKWY.	ROSEMOUNT DR.	I-95/FISKE BLVD.		17,190	17,510	18,680	20,030	20,230	15,780	14,020	13,470	16,450	39,800	05/18/23-05/19/23	Urban Minor Arterial
607	TAVISTOCK DR.	JUDGE F JAMIESON WY.	VIERA BLVD.		3,300	3,680	3,720	3,780	3,620	3,310	2,990	3,070	3,160	15,600	01/19/23-01/20/23	Urban Local
608	TAVISTOCK DR.	VIERA BLVD.	STADIUM PKWY.		2,890	2,680	2,650	3,160	2,290	2,250	2,180	2,130	2,400	15,600	05/18/23-05/19/23	Urban Local
	US 1	PINEDA CSWY. (SR 404)	BARNES BLVD.	31,853	32,577	32,687	30,737	32,013	31,497	32,037	29,953	28,490	31,060			
89	US 1	PINEDA CSWY. (SR 404)	SUNTREE BLVD.	37,580	37,310	38,750	34,340	38,730	37,540	38,150	35,090	31,640	35,290	41,790	01/19/23-01/20/23	Urban Principal Arterial-Other
567	US 1	SUNTREE BLVD.	VIERA BLVD.	31,550	32,650	31,520	30,670	31,070	29,740	31,800	28,090	25,340	32,070	41,790	01/30/23-01/31/23	Urban Principal Arterial-Other
36	US 1	VIERA BLVD.	BARNES BLVD.	26,430	27,770	27,790	27,200	26,240	27,210	26,160	26,680	NC	25,820	41,790	01/26/23-01/27/23	Urban Principal Arterial-Other
70	US 1	BARNES BLVD.	EYSTER BLVD.	25,690	25,980	26,300	25,060	26,090	26,340	25,880	26,480	30,560	26,330	41,790	01/26/23-01/27/23	Urban Principal Arterial-Other
	US 1	EYSTER BLVD.	ROSA JONES DR.	35,303	36,267	35,167	34,170	37,277	35,953	35,180	36,280	35,815	35,897			
34	US 1	EYSTER BLVD.	BARTON BLVD.	32,820	34,440	33,650	32,520	31,160	34,410	32,080	33,300	NC	33,130	62,900	04/19/23-04/20/23	Urban Principal Arterial-Other
33	US 1	BARTON BLVD.	FLORIDA AVE.	40,180	40,480	39,840	36,860	42,630	38,100	38,490	39,550	37,430	40,620	62,900	04/19/23-04/20/23	Urban Principal Arterial-Other
88	US 1	FLORIDA AVE.	ROSA JONES DR.	32,910	33,880	32,010	33,130	38,040	35,350	34,970	35,990	34,200	33,940	62,900	02/02/23-02/03/23	Urban Principal Arterial-Other
	US 1	ROSA JONES DR.	PEACHTREE ST.	25,375	33,480	30,220	26,885	28,525	29,360	27,795	29,375	28,270	28,945			
24	US 1	ROSA JONES DR.	SR 520	32,890	33,480	30,220	33,500	34,020	36,970	33,770	35,750	32,790	34,570	62,900	02/02/23-02/03/23	Urban Principal Arterial-Other
23	US 1	SR 520	PEACHTREE ST.	17,860	UC	UC	20,270	23,030	21,750	21,820	23,000	23,750	23,320	62,900	02/02/23-02/03/23	Urban Principal Arterial-Other
	US 1	PEACHTREE ST.	SR 528				26,600	28,873	29,425	28,678	28,615	26,850	28,733			
22	US 1	PEACHTREE ST.	FORREST AVE.	UC	UC	UC	21,290	24,850	22,720	22,510	23,670	21,780	23,070	62,900	02/02/23-02/03/23	Urban Principal Arterial-Other
21	US 1	FORREST AVE.	DIXON BLVD.	UC	UC	UC	28,620	30,090	30,890	32,280	31,080	30,840	29,940	62,900	02/02/23-02/03/23	Urban Principal Arterial-Other
20	US 1	DIXON BLVD.	MICHIGAN AVE.	UC	UC	UC	25,890	30,430	29,670	27,250	30,370	25,680	31,790	62,900	04/19/23-04/20/23	Urban Principal Arterial-Other
19	US 1	MICHIGAN AVE.	SR 528	UC	UC	UC	30,600	30,120	30,420	32,670	29,140	29,100	30,130	62,900	02/02/23-02/03/23	Urban Principal Arterial-Other

*Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.
NC=Not Counted; UC=Under Construction

SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2014 - 2023

ID	ROAD	FROM	TO	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	2021 AADT	2022 AADT	2023 AADT	Current MAV	Last Count Taken	Functional Classification
INTERSTATE 95																
Disclaimer: The following Traffic Counts are provided by The Florida Department of Transportation.																
Questions or concerns regarding the counts below, should be directed to The Florida Department of Transportation.																
Source: https://tdaggsprod.dot.state.fl.us/tfo/																
70-0441	I-95	INDIAN RIVER COUNTY	ST. JOHNS HERITAGE PKWY.								44,000	NC	48,500	64,000		Rural Principal Arterial-Interstate
70-0134	I-95	ST. JOHNS HERITAGE PKWY.	MALABAR RD. (SR 514)	39,614	40,650	42,760	45,330	46,680	48,620	43,130	52,705	54,314	56,580	64,000		Rural Principal Arterial-Interstate
70-0428	I-95	MALABAR RD. (SR 514)	PALM BAY RD.	55,000	59,500	64,500	61,500	62,500	64,500	62,500	61,500	61,500	67,500	111,800		Urban Principal Arterial-Interstate
70-0371	I-95	PALM BAY RD.	US 192	67,500	72,000	81,500	78,000	78,000	80,000	77,000	81,500	65,000	70,500	111,800		Urban Principal Arterial-Interstate
70-0372	I-95	US 192	EAU GALLIE BLVD. (SR 518)	41,000	43,500	68,500	72,500	75,500	84,500	77,500	78,500	77,500	98,500	111,800		Urban Principal Arterial-Interstate
70-0415	I-95	EAU GALLIE BLVD. (SR 518)	WICKHAM RD.	76,500	81,000	82,500	87,500	90,500	94,000	91,000	92,000	76,000	104,000	111,800		Urban Principal Arterial-Interstate
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
70-9919	I-95	FISKE BLVD. (SR 519)	SR 520	71,181	77,120	81,760	85,450	87,920	88,670	76,440	89,978	94,085	98,506	111,800		Urban Principal Arterial-Interstate
70-0366	I-95	SR 520	SR 524	37,500	40,000	42,000	45,000	47,000	52,000	50,000	51,000	57,500	62,000	111,800		Urban Principal Arterial-Interstate
70-0368	I-95	SR 524	SR 528	54,000	57,000	65,000	58,000	67,500	69,000	67,000	68,000	67,500	83,500	111,800		Urban Principal Arterial-Interstate
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
70-0401	I-95	PORT ST. JOHNS PKWY.	SR 407	38,500	42,000	45,000	52,500	47,500	48,500	46,500	47,500	48,500	48,500	111,800		Urban Principal Arterial-Interstate
70-0402	I-95	SR 407	SR 50	24,200	25,700	36,500	38,500	40,000	41,500	40,500	41,500	57,000	62,000	111,800		Urban Principal Arterial-Interstate
70-0364	I-95	SR 50	SR 406	37,500	39,500	26,500	28,500	29,500	41,000	40,000	41,000	36,000	48,500	111,800		Urban Principal Arterial-Interstate
70-0363	I-95	SR 406	SR 46	40,000	34,000	39,500	43,500	40,000	45,000	43,000	44,000	45,000	45,000	111,800		Urban Principal Arterial-Interstate
70-0322	I-95	SR 46	DEERING PKWY.	25,000	25,500	32,680	34,750	34,920	36,150	31,490	37,343	38,799	39,864	64,000		Rural Principal Arterial-Interstate
70-0436	I-95	DEERING PKWY.	VOLUSIA CO.	27,500	36,000	29,000	29,000	30,500	33,000	32,000	32,000	34,500	32,500	64,000		Rural Principal Arterial-Interstate

**Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.*
NC=Not Counted; UC=Under Construction

Location Info	
Location ID	61
Type	LINK
Functional Class	17
Located On	COX
Between	SR 520 AND SR 524
Direction	2-WAY
Community	Cocoa
CMS Segment	340
HPMS ID	
Agency	Space Coast Transportation Planning Organization

Count Data Info	
Start Date	1/20/2023
End Date	1/21/2023
Start Time	12:00 AM
End Time	12:00 AM
Direction	
Notes	brevard
Count Source	
File Name	
Weather	
Study	
Owner	agarrison
QC Status	Accepted

Interval: 15 mins

Time	15 Min				Hourly Count
	1st	2nd	3rd	4th	
00:00 - 01:00	13	9	5	7	34
01:00 - 02:00	2	1	2	3	8
02:00 - 03:00	4	3	1	3	11
03:00 - 04:00	4	4	2	4	14
04:00 - 05:00	2	18	9	10	39
05:00 - 06:00	9	15	36	36	96
06:00 - 07:00	41	33	45	80	199
07:00 - 08:00	66	72	82	101	321
08:00 - 09:00	65	66	83	75	289
09:00 - 10:00	67	64	74	81	286
10:00 - 11:00	60	62	91	65	278
11:00 - 12:00	100	67	80	76	323
12:00 - 13:00	115	100	79	102	396
13:00 - 14:00	88	86	82	96	352
14:00 - 15:00	70	94	92	86	342
15:00 - 16:00	95	86	120	105	406
16:00 - 17:00	136	131	87	103	457
17:00 - 18:00	133	102	82	71	388
18:00 - 19:00	60	66	45	39	210
19:00 - 20:00	30	41	24	26	121
20:00 - 21:00	19	15	14	18	66
21:00 - 22:00	14	12	7	7	40
22:00 - 23:00	13	11	7	11	42
23:00 - 24:00	9	9	7	8	33
TOTAL					4751

Location Info	
Location ID	2
Type	LINK
Functional Class	14
Located On	SR 520
Between	I 95 AND Burnett
Direction	2-WAY
Community	Cocoa
CMS Segment	2040
HPMS ID	
Agency	Space Coast Transportation Planning Organization

Count Data Info	
Start Date	1/20/2023
End Date	1/21/2023
Start Time	12:00 AM
End Time	12:00 AM
Direction	
Notes	brevard
Count Source	
File Name	
Weather	
Study	
Owner	agarrison
QC Status	Accepted

Interval: 15 mins

Time	15 Min				Hourly Count
	1st	2nd	3rd	4th	
00:00 - 01:00	24	37	28	28	117
01:00 - 02:00	13	18	11	30	72
02:00 - 03:00	21	8	14	17	60
03:00 - 04:00	18	17	18	28	81
04:00 - 05:00	28	41	54	37	160
05:00 - 06:00	48	62	75	129	314
06:00 - 07:00	137	148	163	294	742
07:00 - 08:00	342	371	414	441	1568
08:00 - 09:00	417	397	385	353	1552
09:00 - 10:00	352	386	395	327	1460
10:00 - 11:00	303	351	373	395	1422
11:00 - 12:00	361	364	415	396	1536
12:00 - 13:00	386	391	383	362	1522
13:00 - 14:00	363	396	385	363	1507
14:00 - 15:00	409	376	453	443	1681
15:00 - 16:00	494	422	440	484	1840
16:00 - 17:00	490	504	482	474	1950
17:00 - 18:00	511	489	482	427	1909
18:00 - 19:00	373	360	254	211	1198
19:00 - 20:00	212	215	186	162	775
20:00 - 21:00	165	158	148	130	601
21:00 - 22:00	106	93	104	83	386
22:00 - 23:00	62	64	69	48	243
23:00 - 24:00	55	45	35	41	176
TOTAL					22872

Location Info	
Location ID	73
Type	LINK
Functional Class	16
Located On	SR 524
Between	I 95 AND Cox
Direction	2-WAY
Community	Cocoa
CMS Segment	2160
HPMS ID	
Agency	Space Coast Transportation Planning Organization

Count Data Info	
Start Date	2/3/2023
End Date	2/4/2023
Start Time	12:00 AM
End Time	12:00 AM
Direction	
Notes	brevard
Count Source	
File Name	
Weather	
Study	
Owner	agarrison
QC Status	Accepted

Interval: 15 mins					
Time	15 Min				Hourly Count
	1st	2nd	3rd	4th	
00:00 - 01:00	34	26	29	31	120
01:00 - 02:00	28	27	31	24	110
02:00 - 03:00	21	20	36	47	124
03:00 - 04:00	30	30	36	51	147
04:00 - 05:00	25	28	34	47	134
05:00 - 06:00	44	45	73	80	242
06:00 - 07:00	71	107	142	135	455
07:00 - 08:00	150	192	219	221	782
08:00 - 09:00	178	205	212	220	815
09:00 - 10:00	170	198	190	182	740
10:00 - 11:00	169	177	165	197	708
11:00 - 12:00	177	189	204	215	785
12:00 - 13:00	215	246	189	205	855
13:00 - 14:00	182	214	223	208	827
14:00 - 15:00	210	225	225	259	919
15:00 - 16:00	218	209	213	229	869
16:00 - 17:00	253	239	263	233	988
17:00 - 18:00	240	215	186	215	856
18:00 - 19:00	198	178	149	144	669
19:00 - 20:00	117	115	109	104	445
20:00 - 21:00	93	88	87	70	338
21:00 - 22:00	66	58	60	51	235
22:00 - 23:00	43	56	48	34	181
23:00 - 24:00	28	32	30	32	122
TOTAL					12466

Location Info	
Location ID	76
Type	LINK
Functional Class	16
Located On	SR 524
Between	Cox AND Industry/Clearlake
Direction	2-WAY
Community	Cocoa
CMS Segment	2160
HPMS ID	
Agency	Space Coast Transportation Planning Organization

Count Data Info	
Start Date	2/3/2023
End Date	2/4/2023
Start Time	12:00 AM
End Time	12:00 AM
Direction	
Notes	brevard
Count Source	
File Name	
Weather	
Study	
Owner	agarrison
QC Status	Accepted

Interval: 15 mins

Time	15 Min				Hourly Count
	1st	2nd	3rd	4th	
00:00 - 01:00	32	23	30	29	114
01:00 - 02:00	20	21	11	27	79
02:00 - 03:00	18	23	23	27	91
03:00 - 04:00	24	23	25	27	99
04:00 - 05:00	24	29	33	39	125
05:00 - 06:00	59	59	100	93	311
06:00 - 07:00	103	123	165	149	540
07:00 - 08:00	158	217	232	218	825
08:00 - 09:00	211	222	236	260	929
09:00 - 10:00	198	221	241	228	888
10:00 - 11:00	226	216	214	217	873
11:00 - 12:00	231	260	247	260	998
12:00 - 13:00	280	294	238	273	1085
13:00 - 14:00	226	261	247	255	989
14:00 - 15:00	256	264	278	290	1088
15:00 - 16:00	282	267	282	272	1103
16:00 - 17:00	320	302	306	300	1228
17:00 - 18:00	289	277	258	239	1063
18:00 - 19:00	239	224	192	168	823
19:00 - 20:00	119	113	106	102	440
20:00 - 21:00	94	89	73	72	328
21:00 - 22:00	77	54	49	59	239
22:00 - 23:00	38	45	37	27	147
23:00 - 24:00	26	27	23	25	101
TOTAL					14506

APPENDIX H

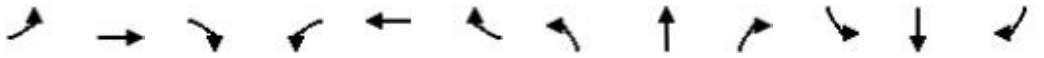
Synchro Outputs

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	17	379	65	132	261	22	31	19	51	44
Future Volume (vph)	17	379	65	132	261	22	31	19	51	44
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases		6		5	2			4		8
Permitted Phases	6		6	2		2	4		8	
Detector Phase	6	6	6	5	2	2	4	4	8	8
Switch Phase										
Minimum Initial (s)	15.0	15.0	15.0	5.0	15.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	23.0	23.0	23.0	12.9	23.0	23.0	12.8	12.8	12.8	12.8
Total Split (s)	50.0	50.0	50.0	21.0	71.0	71.0	39.0	39.0	39.0	39.0
Total Split (%)	45.5%	45.5%	45.5%	19.1%	64.5%	64.5%	35.5%	35.5%	35.5%	35.5%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.4	2.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	8.0	8.0	8.0	7.9	8.0	8.0		6.8		6.8
Lead/Lag	Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	Max	Max	Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	64.5	64.5	64.5	81.1	81.0	81.0		14.2		14.2
Actuated g/C Ratio	0.59	0.59	0.59	0.74	0.74	0.74		0.13		0.13
v/c Ratio	0.03	0.39	0.07	0.21	0.22	0.02		0.60		0.76
Control Delay (s/veh)	12.1	14.8	0.6	5.5	5.6	0.9		22.9		69.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)	12.1	14.8	0.6	5.5	5.6	0.9		22.9		69.9
LOS	B	B	A	A	A	A		C		E
Approach Delay (s/veh)		12.7			5.3			22.9		69.9
Approach LOS		B			A			C		E

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 15 (14%), Referenced to phase 2:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay (s/veh): 17.3	Intersection LOS: B
Intersection Capacity Utilization 59.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Cox Road & SR 524





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	379	65	132	261	22	31	19	108	51	44	23
Future Volume (veh/h)	17	379	65	132	261	22	31	19	108	51	44	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1767	1841	1841	1707	1841	1856	1678	1826	1870	1870	1841
Adj Flow Rate, veh/h	18	395	0	138	272	0	32	20	112	53	46	24
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	6	9	4	4	13	4	3	15	5	2	2	4
Cap, veh/h	724	1085		638	1251		66	35	135	109	87	36
Arrive On Green	0.61	0.61	0.00	0.05	0.73	0.00	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1072	1767	1560	1753	1707	1560	207	267	1020	468	660	273
Grp Volume(v), veh/h	18	395	0	138	272	0	164	0	0	123	0	0
Grp Sat Flow(s),veh/h/ln	1072	1767	1560	1753	1707	1560	1494	0	0	1401	0	0
Q Serve(g_s), s	0.7	12.2	0.0	3.0	5.6	0.0	2.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.7	12.2	0.0	3.0	5.6	0.0	11.5	0.0	0.0	9.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.20		0.68	0.43		0.20
Lane Grp Cap(c), veh/h	724	1085		638	1251		237	0	0	232	0	0
V/C Ratio(X)	0.02	0.36		0.22	0.22		0.69	0.00	0.00	0.53	0.00	0.00
Avail Cap(c_a), veh/h	724	1085		764	1251		461	0	0	473	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.3	10.5	0.0	7.2	4.7	0.0	46.4	0.0	0.0	45.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.9	0.0	0.2	0.4	0.0	4.3	0.0	0.0	2.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	7.6	0.0	1.6	2.7	0.0	8.1	0.0	0.0	5.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.4	11.5	0.0	7.4	5.1	0.0	50.7	0.0	0.0	47.3	0.0	0.0
LnGrp LOS	A	B		A	A		D			D		
Approach Vol, veh/h		413			410			164			123	
Approach Delay, s/veh		11.4			5.9			50.7			47.3	
Approach LOS		B			A			D			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		88.6		21.4	13.1	75.6		21.4				
Change Period (Y+Rc), s		8.0		6.8	7.9	8.0		6.8				
Max Green Setting (Gmax), s		63.0		32.2	13.1	42.0		32.2				
Max Q Clear Time (g_c+I1), s		7.6		13.5	5.0	14.2		11.1				
Green Ext Time (p_c), s		1.8		1.0	0.2	2.7		0.7				

Intersection Summary		
HCM 7th Control Delay, s/veh	19.1	
HCM 7th LOS	B	

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	157	0	0	242
Future Vol, veh/h	0	0	157	0	0	242
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	164	0	0	252

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	416	164	0	0	164	0
Stage 1	164	-	-	-	-	-
Stage 2	252	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	593	881	-	-	1415	-
Stage 1	866	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	593	881	-	-	1415	-
Mov Cap-2 Maneuver	593	-	-	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	790	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1415	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	198	0	0	180
Future Vol, veh/h	0	0	198	0	0	180
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	208	0	0	189

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	398	208	0	0	208	0
Stage 1	208	-	-	-	-	-
Stage 2	189	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	607	832	-	-	1362	-
Stage 1	826	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	607	832	-	-	1362	-
Mov Cap-2 Maneuver	607	-	-	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	843	-	-	-	-	-

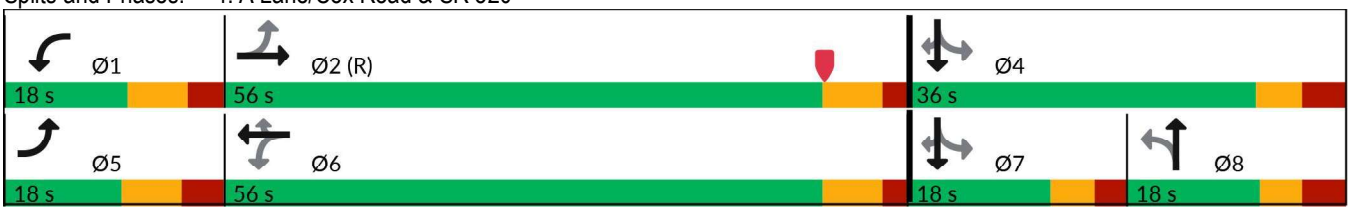
Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

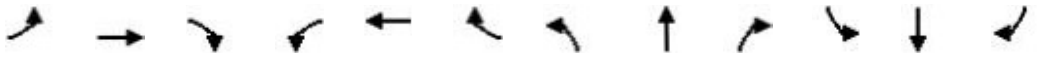
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1362	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	Ø4	Ø7
Lane Configurations												
Traffic Volume (vph)	92	870	25	597	99	7	8	99	6	76		
Future Volume (vph)	92	870	25	597	99	7	8	99	6	76		
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA	Perm		
Protected Phases	5	2	1	6			8		4 7		4	7
Permitted Phases	2		6		6	8		4 7		4 7		
Detector Phase	5	2	1	6	6	8	8	4 7	4 7	4 7		
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	5.0				5.0	5.0
Minimum Split (s)	13.4	21.9	12.8	21.9	21.9	12.0	12.0				12.3	11.3
Total Split (s)	18.0	56.0	18.0	56.0	56.0	18.0	18.0				36.0	18.0
Total Split (%)	16.4%	50.9%	16.4%	50.9%	50.9%	16.4%	16.4%				33%	16%
Yellow Time (s)	4.9	4.9	4.8	4.9	4.9	3.4	3.4				3.7	3.7
All-Red Time (s)	3.5	2.0	3.0	2.0	2.0	3.6	3.6				3.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0					
Total Lost Time (s)	8.4	6.9	7.8	6.9	6.9		7.0					
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	C-Min	None	Min	Min	None	None				None	None
Act Effct Green (s)	65.9	61.6	59.2	53.8	53.8		6.8		25.3	25.3		
Actuated g/C Ratio	0.60	0.56	0.54	0.49	0.49		0.06		0.23	0.23		
v/c Ratio	0.22	0.47	0.09	0.38	0.12		0.24		0.74	0.19		
Control Delay (s/veh)	12.1	19.5	12.1	21.1	0.3		40.6		61.7	2.2		
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0		
Total Delay (s/veh)	12.1	19.5	12.1	21.1	0.3		40.6		61.7	2.2		
LOS	B	B	B	C	A		D		E	A		
Approach Delay (s/veh)		18.8		17.9			40.6		36.6			
Approach LOS		B		B			D		D			

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 31 (28%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay (s/veh): 20.4	Intersection LOS: C
Intersection Capacity Utilization 59.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: A Lane/Cox Road & SR 520





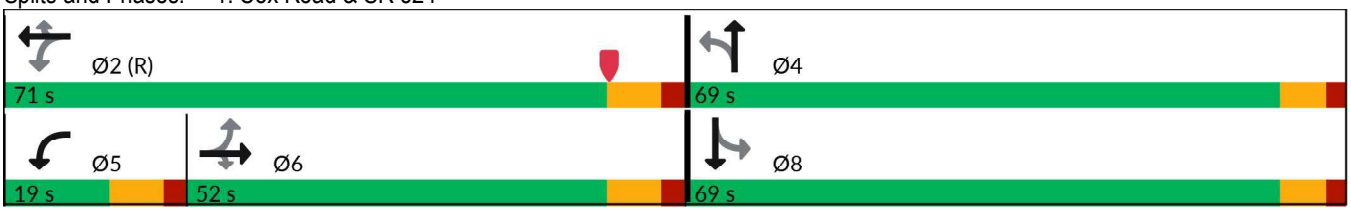
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	870	3	25	597	99	7	8	9	99	6	76
Future Volume (vph)	92	870	3	25	597	99	7	8	9	99	6	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.4	6.9		7.8	6.9	6.9		7.0			7.3	7.3
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.95			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99			0.95	1.00
Satd. Flow (prot)	1687	3470		1504	3406	1553		1704			1658	1380
Flt Permitted	0.33	1.00		0.26	1.00	1.00		0.86			0.37	1.00
Satd. Flow (perm)	587	3470		413	3406	1553		1491			645	1380
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	97	916	3	26	628	104	7	8	9	104	6	80
RTOR Reduction (vph)	0	0	0	0	0	56	0	9	0	0	0	60
Lane Group Flow (vph)	97	919	0	26	628	48	0	15	0	0	110	20
Heavy Vehicles (%)	7%	4%	0%	20%	6%	4%	0%	13%	0%	10%	0%	17%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8			4 7	
Permitted Phases	2			6		6	8			4 7		4 7
Actuated Green, G (s)	64.1	55.8		55.1	51.0	51.0		4.6			28.1	28.1
Effective Green, g (s)	64.1	55.8		55.1	51.0	51.0		4.6			28.1	28.1
Actuated g/C Ratio	0.58	0.51		0.50	0.46	0.46		0.04			0.26	0.26
Clearance Time (s)	8.4	6.9		7.8	6.9	6.9		7.0				
Vehicle Extension (s)	3.0	3.5		3.0	3.5	3.5		3.0				
Lane Grp Cap (vph)	425	1760		247	1579	720		62			164	352
v/s Ratio Prot	c0.02	c0.26		0.00	0.18							
v/s Ratio Perm	0.12			0.05		0.03		0.01			c0.17	0.01
v/c Ratio	0.23	0.52		0.11	0.40	0.07		0.25			0.67	0.06
Uniform Delay, d1	10.8	18.2		14.3	19.4	16.3		51.0			36.8	30.9
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			0.91	0.67
Incremental Delay, d2	0.3	1.1		0.2	0.2	0.0		2.1			10.2	0.1
Delay (s)	11.1	19.3		14.5	19.6	16.4		53.1			43.7	20.8
Level of Service	B	B		B	B	B		D			D	C
Approach Delay (s/veh)		18.5			19.0			53.1			34.1	
Approach LOS		B			B			D			C	

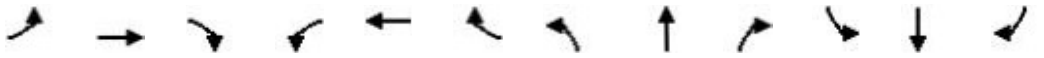
Intersection Summary			
HCM 2000 Control Delay (s/veh)	20.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	28.6
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	34	431	25	136	516	87	34	31	53	23
Future Volume (vph)	34	431	25	136	516	87	34	31	53	23
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases		6		5	2			4		8
Permitted Phases	6		6	2		2	4		8	
Detector Phase	6	6	6	5	2	2	4	4	8	8
Switch Phase										
Minimum Initial (s)	15.0	15.0	15.0	5.0	15.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	23.0	23.0	23.0	12.9	23.0	23.0	12.8	12.8	12.8	12.8
Total Split (s)	52.0	52.0	52.0	19.0	71.0	71.0	69.0	69.0	69.0	69.0
Total Split (%)	37.1%	37.1%	37.1%	13.6%	50.7%	50.7%	49.3%	49.3%	49.3%	49.3%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.4	2.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	8.0	8.0	8.0	7.9	8.0	8.0		6.8		6.8
Lead/Lag	Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	Max	Max	Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	90.4	90.4	90.4	107.7	107.6	107.6		17.6		17.6
Actuated g/C Ratio	0.65	0.65	0.65	0.77	0.77	0.77		0.13		0.13
v/c Ratio	0.06	0.40	0.03	0.23	0.38	0.07		0.79		1.10
Control Delay (s/veh)	12.1	14.5	0.0	5.8	7.0	1.3		49.3		170.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)	12.1	14.5	0.0	5.8	7.0	1.3		49.3		170.1
LOS	B	B	A	A	A	A		D		F
Approach Delay (s/veh)		13.6			6.1			49.3		170.1
Approach LOS		B			A			D		F

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 47 (34%), Referenced to phase 2:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay (s/veh): 24.8	Intersection LOS: C
Intersection Capacity Utilization 73.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Cox Road & SR 524





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	431	25	136	516	87	34	31	152	53	23	22
Future Volume (veh/h)	34	431	25	136	516	87	34	31	152	53	23	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1811	1900	1796	1870	1885	1900	1900	1885	1900	1841	1900
Adj Flow Rate, veh/h	36	459	0	145	549	0	36	33	162	56	24	23
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	6	0	7	2	1	0	0	1	0	4	0
Cap, veh/h	595	1147		583	1373		61	49	189	111	47	34
Arrive On Green	0.63	0.63	0.00	0.04	0.73	0.00	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	872	1811	1610	1711	1870	1598	195	308	1179	447	294	213
Grp Volume(v), veh/h	36	459	0	145	549	0	231	0	0	103	0	0
Grp Sat Flow(s),veh/h/ln	872	1811	1610	1711	1870	1598	1681	0	0	955	0	0
Q Serve(g_s), s	2.3	17.4	0.0	4.0	15.5	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.7	17.4	0.0	4.0	15.5	0.0	18.5	0.0	0.0	15.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.16		0.70	0.54		0.22
Lane Grp Cap(c), veh/h	595	1147		583	1373		299	0	0	193	0	0
V/C Ratio(X)	0.06	0.40		0.25	0.40		0.77	0.00	0.00	0.53	0.00	0.00
Avail Cap(c_a), veh/h	595	1147		643	1373		755	0	0	579	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.4	12.6	0.0	8.9	7.0	0.0	57.1	0.0	0.0	55.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	1.0	0.0	0.3	0.9	0.0	5.0	0.0	0.0	2.8	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	10.9	0.0	2.3	9.0	0.0	13.1	0.0	0.0	6.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.6	13.6	0.0	9.1	7.9	0.0	62.1	0.0	0.0	57.8	0.0	0.0
LnGrp LOS	B	B		A	A		E			E		
Approach Vol, veh/h		495			694			231			103	
Approach Delay, s/veh		13.4			8.2			62.1			57.8	
Approach LOS		B			A			E			E	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		110.7		29.3	14.1	96.7		29.3				
Change Period (Y+Rc), s		8.0		6.8	7.9	8.0		6.8				
Max Green Setting (Gmax), s		63.0		62.2	11.1	44.0		62.2				
Max Q Clear Time (g_c+I1), s		17.5		20.5	6.0	19.4		17.5				
Green Ext Time (p_c), s		4.1		1.9	0.2	3.3		0.7				

Intersection Summary	
HCM 7th Control Delay, s/veh	21.4
HCM 7th LOS	C

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	216	0	0	184
Future Vol, veh/h	0	0	216	0	0	184
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	230	0	0	196

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	426	230	0	0	230	0
Stage 1	230	-	-	-	-	-
Stage 2	196	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	586	809	-	-	1338	-
Stage 1	808	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	586	809	-	-	1338	-
Mov Cap-2 Maneuver	586	-	-	-	-	-
Stage 1	808	-	-	-	-	-
Stage 2	837	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1338	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	169	0	0	222
Future Vol, veh/h	0	0	169	0	0	222
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	174	0	0	229

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	403	174	0	0	174	0
Stage 1	174	-	-	-	-	-
Stage 2	229	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	603	869	-	-	1402	-
Stage 1	856	-	-	-	-	-
Stage 2	809	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	603	869	-	-	1402	-
Mov Cap-2 Maneuver	603	-	-	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	809	-	-	-	-	-

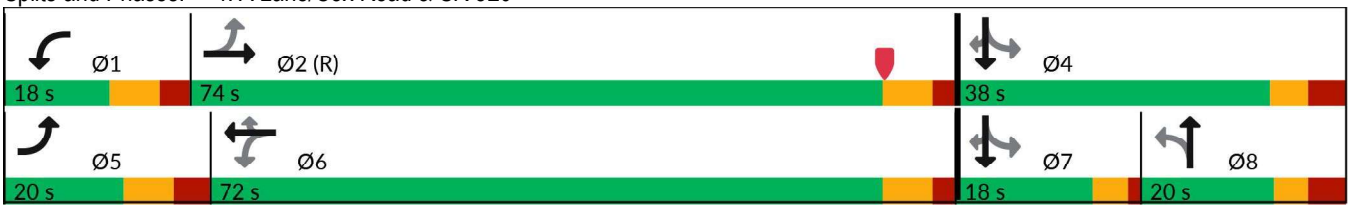
Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

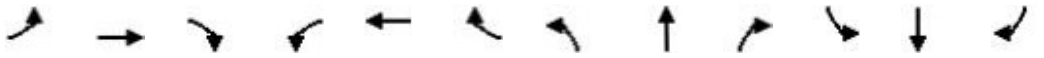
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1402	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	Ø4	Ø7
Lane Configurations												
Traffic Volume (vph)	97	764	24	836	66	11	10	77	8	137		
Future Volume (vph)	97	764	24	836	66	11	10	77	8	137		
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA	Perm		
Protected Phases	5	2	1	6			8		4 7		4	7
Permitted Phases	2		6		6	8		4 7		4 7		
Detector Phase	5	2	1	6	6	8	8	4 7	4 7	4 7		
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	5.0				5.0	5.0
Minimum Split (s)	13.4	21.9	12.8	21.9	21.9	12.0	12.0				12.3	9.5
Total Split (s)	20.0	74.0	18.0	72.0	72.0	20.0	20.0				38.0	18.0
Total Split (%)	15.4%	56.9%	13.8%	55.4%	55.4%	15.4%	15.4%				29%	14%
Yellow Time (s)	4.9	4.9	4.8	4.9	4.9	3.4	3.4				3.7	3.5
All-Red Time (s)	3.5	2.0	3.0	2.0	2.0	3.6	3.6				3.6	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0					
Total Lost Time (s)	8.4	6.9	7.8	6.9	6.9		7.0					
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	C-Max	None	Max	Max	None	None				None	None
Act Effct Green (s)	91.0	87.2	84.6	79.4	79.4		7.5		20.1	20.1		
Actuated g/C Ratio	0.70	0.67	0.65	0.61	0.61		0.06		0.15	0.15		
v/c Ratio	0.24	0.36	0.05	0.40	0.07		0.29		0.61	0.39		
Control Delay (s/veh)	8.0	12.0	7.3	15.0	0.1		59.1		67.3	10.0		
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0		
Total Delay (s/veh)	8.0	12.0	7.3	15.0	0.1		59.1		67.3	10.0		
LOS	A	B	A	B	A		E		E	A		
Approach Delay (s/veh)		11.6		13.8			59.1		31.8			
Approach LOS		B		B			E		C			

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 42 (32%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay (s/veh): 15.3	Intersection LOS: B
Intersection Capacity Utilization 56.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: A Lane/Cox Road & SR 520





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	764	23	24	836	66	11	10	4	77	8	137
Future Volume (vph)	97	764	23	24	836	66	11	10	4	77	8	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.4	6.9		7.8	6.9	6.9		7.0			7.3	7.3
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.98			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98			0.96	1.00
Satd. Flow (prot)	1736	3392		1805	3539	1524		1750			1694	1568
Flt Permitted	0.27	1.00		0.33	1.00	1.00		0.82			0.52	1.00
Satd. Flow (perm)	484	3392		624	3539	1524		1461			925	1568
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	100	788	24	25	862	68	11	10	4	79	8	141
RTOR Reduction (vph)	0	1	0	0	0	28	0	4	0	0	0	116
Lane Group Flow (vph)	100	811	0	25	862	40	0	21	0	0	87	25
Heavy Vehicles (%)	4%	6%	4%	0%	2%	6%	9%	0%	0%	8%	0%	3%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8			4 7	
Permitted Phases	2			6		6	8			4 7		4 7
Actuated Green, G (s)	89.1	81.2		80.5	76.6	76.6		5.2			22.9	22.9
Effective Green, g (s)	89.1	81.2		80.5	76.6	76.6		5.2			22.9	22.9
Actuated g/C Ratio	0.69	0.62		0.62	0.59	0.59		0.04			0.18	0.18
Clearance Time (s)	8.4	6.9		7.8	6.9	6.9		7.0				
Vehicle Extension (s)	3.0	3.5		3.0	3.5	3.5		3.0				
Lane Grp Cap (vph)	407	2118		421	2085	897		58			162	276
v/s Ratio Prot	c0.01	c0.24		0.00	c0.24							
v/s Ratio Perm	0.15			0.03		0.03		0.01			c0.09	0.02
v/c Ratio	0.25	0.38		0.06	0.41	0.04		0.36			0.54	0.09
Uniform Delay, d1	8.0	12.0		9.6	14.5	11.3		60.8			48.7	44.8
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	0.3	0.5		0.1	0.6	0.1		3.9			3.4	0.1
Delay (s)	8.3	12.6		9.7	15.1	11.4		64.7			52.1	45.0
Level of Service	A	B		A	B	B		E			D	D
Approach Delay (s/veh)		12.1			14.7			64.7			47.7	
Approach LOS		B			B			E			D	

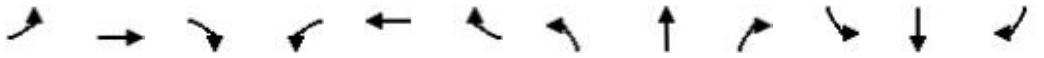
Intersection Summary			
HCM 2000 Control Delay (s/veh)	17.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	26.8
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	18	404	68	160	304	26	32	20	54	46
Future Volume (vph)	18	404	68	160	304	26	32	20	54	46
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases		6		5	2			4		8
Permitted Phases	6		6	2		2	4		8	
Detector Phase	6	6	6	5	2	2	4	4	8	8
Switch Phase										
Minimum Initial (s)	15.0	15.0	15.0	5.0	15.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	23.0	23.0	23.0	12.9	23.0	23.0	12.8	12.8	12.8	12.8
Total Split (s)	50.0	50.0	50.0	21.0	71.0	71.0	39.0	39.0	39.0	39.0
Total Split (%)	45.5%	45.5%	45.5%	19.1%	64.5%	64.5%	35.5%	35.5%	35.5%	35.5%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.4	2.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	8.0	8.0	8.0	7.9	8.0	8.0		6.8		6.8
Lead/Lag	Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	Max	Max	Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	63.1	63.1	63.1	80.5	80.4	80.4		14.8		14.8
Actuated g/C Ratio	0.57	0.57	0.57	0.73	0.73	0.73		0.13		0.13
v/c Ratio	0.03	0.42	0.08	0.26	0.26	0.02		0.62		0.80
Control Delay (s/veh)	13.0	16.1	0.9	6.1	6.1	1.3		24.0		74.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)	13.0	16.1	0.9	6.1	6.1	1.3		24.0		74.2
LOS	B	B	A	A	A	A		C		E
Approach Delay (s/veh)		13.9			5.9			24.0		74.2
Approach LOS		B			A			C		E

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 15 (14%), Referenced to phase 2:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay (s/veh): 18.0	Intersection LOS: B
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Cox Road & SR 524





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	404	68	160	304	26	32	20	119	54	46	24
Future Volume (veh/h)	18	404	68	160	304	26	32	20	119	54	46	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1767	1841	1841	1707	1841	1856	1678	1826	1870	1870	1841
Adj Flow Rate, veh/h	19	421	0	167	317	0	33	21	124	56	48	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	6	9	4	4	13	4	3	15	5	2	2	4
Cap, veh/h	678	1052		608	1234		67	37	148	112	90	37
Arrive On Green	0.60	0.60	0.00	0.06	0.72	0.00	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1029	1767	1560	1753	1707	1560	195	257	1037	455	629	261
Grp Volume(v), veh/h	19	421	0	167	317	0	178	0	0	129	0	0
Grp Sat Flow(s),veh/h/ln	1029	1767	1560	1753	1707	1560	1488	0	0	1345	0	0
Q Serve(g_s), s	0.8	13.9	0.0	3.8	7.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.8	13.9	0.0	3.8	7.0	0.0	12.6	0.0	0.0	10.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.19		0.70	0.43		0.19
Lane Grp Cap(c), veh/h	678	1052		608	1234		251	0	0	239	0	0
V/C Ratio(X)	0.03	0.40		0.27	0.26		0.71	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	678	1052		720	1234		461	0	0	463	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.2	11.8	0.0	8.1	5.2	0.0	45.8	0.0	0.0	44.3	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.1	0.0	0.3	0.5	0.0	4.4	0.0	0.0	2.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	8.6	0.0	2.1	3.4	0.0	8.7	0.0	0.0	6.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.2	12.9	0.0	8.3	5.7	0.0	50.2	0.0	0.0	46.6	0.0	0.0
LnGrp LOS	A	B		A	A		D			D		
Approach Vol, veh/h		440			484			178			129	
Approach Delay, s/veh		12.8			6.6			50.2			46.6	
Approach LOS		B			A			D			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		87.5		22.5	14.0	73.5		22.5				
Change Period (Y+Rc), s		8.0		6.8	7.9	8.0		6.8				
Max Green Setting (Gmax), s		63.0		32.2	13.1	42.0		32.2				
Max Q Clear Time (g_c+I1), s		9.0		14.6	5.8	15.9		12.0				
Green Ext Time (p_c), s		2.1		1.1	0.3	2.9		0.7				

Intersection Summary	
HCM 7th Control Delay, s/veh	19.3
HCM 7th LOS	B

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	170	0	0	275
Future Vol, veh/h	0	0	170	0	0	275
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	177	0	0	286

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	464	177	0	0	177	0
Stage 1	177	-	-	-	-	-
Stage 2	286	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	557	866	-	-	1399	-
Stage 1	854	-	-	-	-	-
Stage 2	762	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	557	866	-	-	1399	-
Mov Cap-2 Maneuver	557	-	-	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	762	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1399	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	213	0	0	210
Future Vol, veh/h	0	0	213	0	0	210
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	224	0	0	221

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	445	224	0	0	224	0
Stage 1	224	-	-	-	-	-
Stage 2	221	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	570	815	-	-	1344	-
Stage 1	813	-	-	-	-	-
Stage 2	816	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	570	815	-	-	1344	-
Mov Cap-2 Maneuver	570	-	-	-	-	-
Stage 1	813	-	-	-	-	-
Stage 2	816	-	-	-	-	-

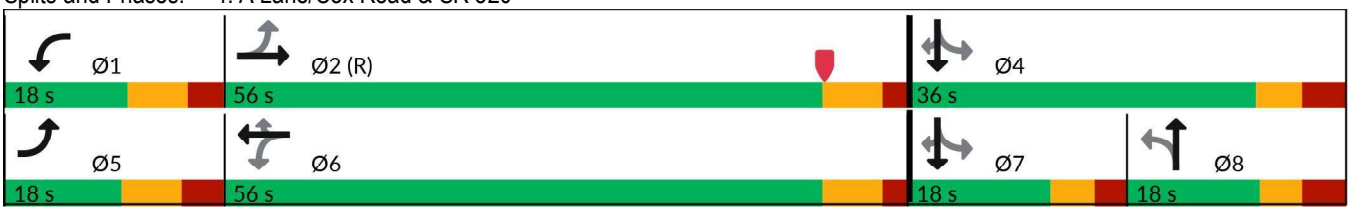
Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

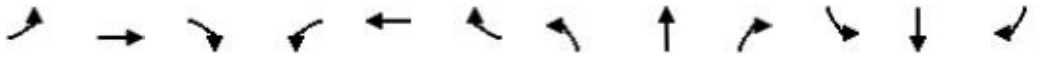
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1344	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	Ø4	Ø7
Lane Configurations												
Traffic Volume (vph)	96	905	26	621	103	7	8	103	6	79		
Future Volume (vph)	96	905	26	621	103	7	8	103	6	79		
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA	Perm		
Protected Phases	5	2	1	6			8		4 7		4	7
Permitted Phases	2		6		6	8		4 7		4 7		
Detector Phase	5	2	1	6	6	8	8	4 7	4 7	4 7		
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	5.0				5.0	5.0
Minimum Split (s)	13.4	21.9	12.8	21.9	21.9	12.0	12.0				12.3	11.3
Total Split (s)	18.0	56.0	18.0	56.0	56.0	18.0	18.0				36.0	18.0
Total Split (%)	16.4%	50.9%	16.4%	50.9%	50.9%	16.4%	16.4%				33%	16%
Yellow Time (s)	4.9	4.9	4.8	4.9	4.9	3.4	3.4				3.7	3.7
All-Red Time (s)	3.5	2.0	3.0	2.0	2.0	3.6	3.6				3.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0					
Total Lost Time (s)	8.4	6.9	7.8	6.9	6.9		7.0					
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	C-Min	None	Min	Min	None	None				None	None
Act Effct Green (s)	66.3	62.0	59.5	54.0	54.0		6.8		25.0	25.0		
Actuated g/C Ratio	0.60	0.56	0.54	0.49	0.49		0.06		0.23	0.23		
v/c Ratio	0.24	0.49	0.10	0.39	0.13		0.24		0.78	0.20		
Control Delay (s/veh)	11.8	19.4	11.8	20.9	0.3		40.7		67.0	2.1		
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0		
Total Delay (s/veh)	11.8	19.4	11.8	20.9	0.3		40.7		67.0	2.1		
LOS	B	B	B	C	A		D		E	A		
Approach Delay (s/veh)		18.6		17.7			40.7		39.7			
Approach LOS		B		B			D		D			

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 31 (28%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 20.6	Intersection LOS: C
Intersection Capacity Utilization 60.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: A Lane/Cox Road & SR 520





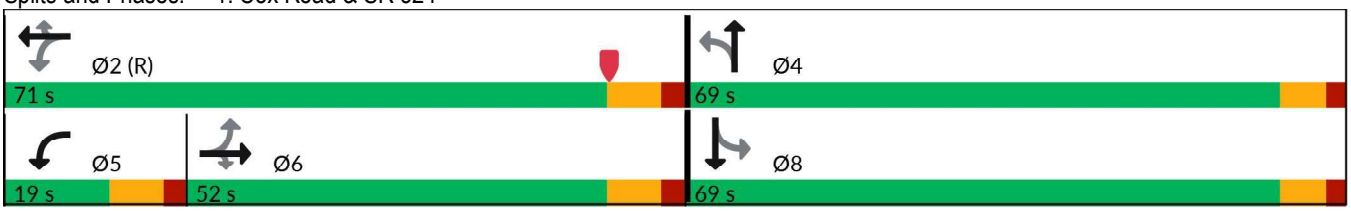
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	905	3	26	621	103	7	8	9	103	6	79
Future Volume (vph)	96	905	3	26	621	103	7	8	9	103	6	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.4	6.9		7.8	6.9	6.9		7.0			7.3	7.3
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.95			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99			0.95	1.00
Satd. Flow (prot)	1687	3470		1504	3406	1553		1704			1657	1380
Flt Permitted	0.32	1.00		0.25	1.00	1.00		0.86			0.37	1.00
Satd. Flow (perm)	565	3470		388	3406	1553		1489			645	1380
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	101	953	3	27	654	108	7	8	9	108	6	83
RTOR Reduction (vph)	0	0	0	0	0	58	0	9	0	0	0	62
Lane Group Flow (vph)	101	956	0	27	654	50	0	15	0	0	114	21
Heavy Vehicles (%)	7%	4%	0%	20%	6%	4%	0%	13%	0%	10%	0%	17%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8			4 7	
Permitted Phases	2			6		6	8			4 7		4 7
Actuated Green, G (s)	64.4	56.0		55.4	51.2	51.2		4.6			27.8	27.8
Effective Green, g (s)	64.4	56.0		55.4	51.2	51.2		4.6			27.8	27.8
Actuated g/C Ratio	0.59	0.51		0.50	0.47	0.47		0.04			0.25	0.25
Clearance Time (s)	8.4	6.9		7.8	6.9	6.9		7.0				
Vehicle Extension (s)	3.0	3.5		3.0	3.5	3.5		3.0				
Lane Grp Cap (vph)	416	1766		238	1585	722		62			163	348
v/s Ratio Prot	c0.02	c0.28		0.00	0.19							
v/s Ratio Perm	0.12			0.05		0.03		0.01			c0.18	0.02
v/c Ratio	0.24	0.54		0.11	0.41	0.07		0.25			0.70	0.06
Uniform Delay, d1	10.8	18.3		14.2	19.5	16.2		51.0			37.3	31.2
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			0.91	0.49
Incremental Delay, d2	0.3	1.2		0.2	0.2	0.0		2.1			12.2	0.1
Delay (s)	11.1	19.5		14.4	19.7	16.3		53.1			46.0	15.3
Level of Service	B	B		B	B	B		D			D	B
Approach Delay (s/veh)		18.7			19.0			53.1			33.1	
Approach LOS		B			B			D			C	

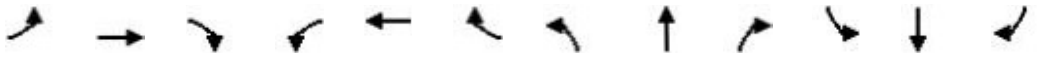
Intersection Summary			
HCM 2000 Control Delay (s/veh)	20.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	28.6
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	35	478	26	154	555	92	35	32	58	24
Future Volume (vph)	35	478	26	154	555	92	35	32	58	24
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases		6		5	2			4		8
Permitted Phases	6		6	2		2	4		8	
Detector Phase	6	6	6	5	2	2	4	4	8	8
Switch Phase										
Minimum Initial (s)	15.0	15.0	15.0	5.0	15.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	23.0	23.0	23.0	12.9	23.0	23.0	12.8	12.8	12.8	12.8
Total Split (s)	52.0	52.0	52.0	19.0	71.0	71.0	69.0	69.0	69.0	69.0
Total Split (%)	37.1%	37.1%	37.1%	13.6%	50.7%	50.7%	49.3%	49.3%	49.3%	49.3%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.4	2.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	8.0	8.0	8.0	7.9	8.0	8.0		6.8		6.8
Lead/Lag	Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	Max	Max	Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	87.6	87.6	87.6	106.2	106.1	106.1		19.1		19.1
Actuated g/C Ratio	0.63	0.63	0.63	0.76	0.76	0.76		0.14		0.14
v/c Ratio	0.07	0.45	0.03	0.28	0.42	0.08		0.81		1.23
Control Delay (s/veh)	13.8	17.2	0.0	6.7	8.0	1.4		48.9		210.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)	13.8	17.2	0.0	6.7	8.0	1.4		48.9		210.2
LOS	B	B	A	A	A	A		D		F
Approach Delay (s/veh)		16.1			7.0			48.9		210.2
Approach LOS		B			A			D		F

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 47 (34%), Referenced to phase 2:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay (s/veh): 28.6	Intersection LOS: C
Intersection Capacity Utilization 77.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Cox Road & SR 524





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	478	26	154	555	92	35	32	179	58	24	23
Future Volume (veh/h)	35	478	26	154	555	92	35	32	179	58	24	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1811	1900	1796	1870	1885	1900	1900	1885	1900	1841	1900
Adj Flow Rate, veh/h	37	509	0	164	590	0	37	34	190	62	26	24
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	6	0	7	2	1	0	0	1	0	4	0
Cap, veh/h	542	1103		527	1338		61	50	219	116	48	34
Arrive On Green	0.61	0.61	0.00	0.05	0.72	0.00	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	839	1811	1610	1711	1870	1598	177	281	1227	422	267	188
Grp Volume(v), veh/h	37	509	0	164	590	0	261	0	0	112	0	0
Grp Sat Flow(s),veh/h/ln	839	1811	1610	1711	1870	1598	1686	0	0	877	0	0
Q Serve(g_s), s	2.7	21.4	0.0	4.8	18.4	0.0	1.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.1	21.4	0.0	4.8	18.4	0.0	20.8	0.0	0.0	18.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.14		0.73	0.55		0.21
Lane Grp Cap(c), veh/h	542	1103		527	1338		331	0	0	197	0	0
V/C Ratio(X)	0.07	0.46		0.31	0.44		0.79	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	542	1103		577	1338		756	0	0	551	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.7	14.9	0.0	10.7	8.3	0.0	55.7	0.0	0.0	54.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	1.4	0.0	0.4	1.1	0.0	5.0	0.0	0.0	3.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	13.1	0.0	2.9	10.6	0.0	14.4	0.0	0.0	6.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.9	16.3	0.0	11.1	9.3	0.0	60.8	0.0	0.0	57.1	0.0	0.0
LnGrp LOS	B	B		B	A		E			E		
Approach Vol, veh/h		546			754			261			112	
Approach Delay, s/veh		16.1			9.7			60.8			57.1	
Approach LOS		B			A			E			E	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		108.2		31.8	14.9	93.2		31.8				
Change Period (Y+Rc), s		8.0		6.8	7.9	8.0		6.8				
Max Green Setting (Gmax), s		63.0		62.2	11.1	44.0		62.2				
Max Q Clear Time (g_c+I1), s		20.4		22.8	6.8	23.4		20.9				
Green Ext Time (p_c), s		4.5		2.2	0.2	3.5		0.8				

Intersection Summary	
HCM 7th Control Delay, s/veh	22.9
HCM 7th LOS	C

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	246	0	0	204
Future Vol, veh/h	0	0	246	0	0	204
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	262	0	0	217

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	479	262	0	0	262	0
Stage 1	262	-	-	-	-	-
Stage 2	217	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	546	777	-	-	1303	-
Stage 1	782	-	-	-	-	-
Stage 2	819	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	546	777	-	-	1303	-
Mov Cap-2 Maneuver	546	-	-	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	819	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1303	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	197	0	0	244
Future Vol, veh/h	0	0	197	0	0	244
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	203	0	0	252

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	455	203	0	0	203	0
Stage 1	203	-	-	-	-	-
Stage 2	252	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	563	838	-	-	1369	-
Stage 1	831	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	563	838	-	-	1369	-
Mov Cap-2 Maneuver	563	-	-	-	-	-
Stage 1	831	-	-	-	-	-
Stage 2	790	-	-	-	-	-

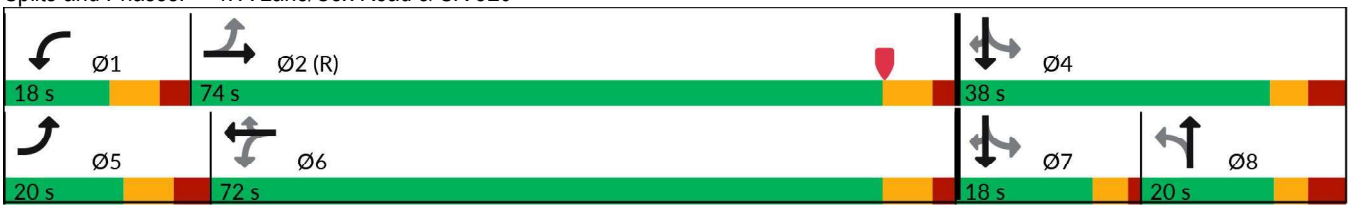
Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

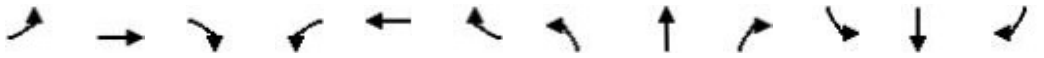
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1369	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	Ø4	Ø7
Lane Configurations												
Traffic Volume (vph)	101	795	25	869	69	11	10	80	8	142		
Future Volume (vph)	101	795	25	869	69	11	10	80	8	142		
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA	Perm		
Protected Phases	5	2	1	6			8		4 7		4	7
Permitted Phases	2		6		6	8		4 7		4 7		
Detector Phase	5	2	1	6	6	8	8	4 7	4 7	4 7		
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	5.0				5.0	5.0
Minimum Split (s)	13.4	21.9	12.8	21.9	21.9	12.0	12.0				12.3	9.5
Total Split (s)	20.0	74.0	18.0	72.0	72.0	20.0	20.0				38.0	18.0
Total Split (%)	15.4%	56.9%	13.8%	55.4%	55.4%	15.4%	15.4%				29%	14%
Yellow Time (s)	4.9	4.9	4.8	4.9	4.9	3.4	3.4				3.7	3.5
All-Red Time (s)	3.5	2.0	3.0	2.0	2.0	3.6	3.6				3.6	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0					
Total Lost Time (s)	8.4	6.9	7.8	6.9	6.9		7.0					
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	C-Max	None	Max	Max	None	None				None	None
Act Effct Green (s)	91.0	87.0	84.4	79.2	79.2		7.5		20.2	20.2		
Actuated g/C Ratio	0.70	0.67	0.65	0.61	0.61		0.06		0.16	0.16		
v/c Ratio	0.26	0.37	0.06	0.42	0.07		0.28		0.63	0.40		
Control Delay (s/veh)	8.2	12.2	7.4	15.4	0.1		59.0		68.4	9.9		
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0		
Total Delay (s/veh)	8.2	12.2	7.4	15.4	0.1		59.0		68.4	9.9		
LOS	A	B	A	B	A		E		E	A		
Approach Delay (s/veh)		11.8		14.1			59.0		32.2			
Approach LOS		B		B			E		C			

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 42 (32%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay (s/veh): 15.5	Intersection LOS: B
Intersection Capacity Utilization 57.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: A Lane/Cox Road & SR 520





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	795	24	25	869	69	11	10	4	80	8	142
Future Volume (vph)	101	795	24	25	869	69	11	10	4	80	8	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.4	6.9		7.8	6.9	6.9		7.0			7.3	7.3
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.98			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98			0.96	1.00
Satd. Flow (prot)	1736	3392		1805	3539	1524		1750			1694	1568
Flt Permitted	0.25	1.00		0.31	1.00	1.00		0.82			0.52	1.00
Satd. Flow (perm)	460	3392		598	3539	1524		1458			923	1568
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	104	820	25	26	896	71	11	10	4	82	8	146
RTOR Reduction (vph)	0	1	0	0	0	29	0	4	0	0	0	120
Lane Group Flow (vph)	104	844	0	26	896	42	0	21	0	0	90	26
Heavy Vehicles (%)	4%	6%	4%	0%	2%	6%	9%	0%	0%	8%	0%	3%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8			4 7	
Permitted Phases	2			6		6	8			4 7		4 7
Actuated Green, G (s)	89.1	81.1		80.3	76.4	76.4		5.2			23.0	23.0
Effective Green, g (s)	89.1	81.1		80.3	76.4	76.4		5.2			23.0	23.0
Actuated g/C Ratio	0.69	0.62		0.62	0.59	0.59		0.04			0.18	0.18
Clearance Time (s)	8.4	6.9		7.8	6.9	6.9		7.0				
Vehicle Extension (s)	3.0	3.5		3.0	3.5	3.5		3.0				
Lane Grp Cap (vph)	393	2116		405	2079	895		58			163	277
v/s Ratio Prot	c0.02	c0.25		0.00	c0.25							
v/s Ratio Perm	0.16			0.04		0.03		0.01			c0.10	0.02
v/c Ratio	0.26	0.40		0.06	0.43	0.05		0.36			0.55	0.09
Uniform Delay, d1	8.2	12.2		9.7	14.8	11.4		60.8			48.8	44.8
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	0.4	0.6		0.1	0.7	0.1		3.9			4.0	0.1
Delay (s)	8.5	12.8		9.8	15.5	11.5		64.7			52.8	44.9
Level of Service	A	B		A	B	B		E			D	D
Approach Delay (s/veh)		12.3			15.0			64.7			47.9	
Approach LOS		B			B			E			D	

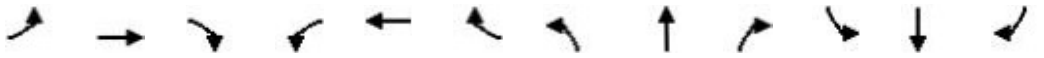
Intersection Summary			
HCM 2000 Control Delay (s/veh)	18.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	26.8
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	18	404	74	168	304	26	46	21	54	47
Future Volume (vph)	18	404	74	168	304	26	46	21	54	47
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases		6		5	2			4		8
Permitted Phases	6		6	2		2	4		8	
Detector Phase	6	6	6	5	2	2	4	4	8	8
Switch Phase										
Minimum Initial (s)	15.0	15.0	15.0	5.0	15.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	23.0	23.0	23.0	12.9	23.0	23.0	12.8	12.8	12.8	12.8
Total Split (s)	50.0	50.0	50.0	21.0	71.0	71.0	39.0	39.0	39.0	39.0
Total Split (%)	45.5%	45.5%	45.5%	19.1%	64.5%	64.5%	35.5%	35.5%	35.5%	35.5%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.4	2.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	8.0	8.0	8.0	7.9	8.0	8.0		6.8		6.8
Lead/Lag	Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	Max	Max	Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	61.8	61.8	61.8	79.5	79.4	79.4		15.8		15.8
Actuated g/C Ratio	0.56	0.56	0.56	0.72	0.72	0.72		0.14		0.14
v/c Ratio	0.03	0.43	0.08	0.28	0.26	0.02		0.75		0.81
Control Delay (s/veh)	14.2	17.4	1.2	6.7	6.7	1.5		36.9		74.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)	14.2	17.4	1.2	6.7	6.7	1.5		36.9		74.4
LOS	B	B	A	A	A	A		D		E
Approach Delay (s/veh)		14.9			6.4			36.9		74.4
Approach LOS		B			A			D		E

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 15 (14%), Referenced to phase 2:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay (s/veh): 20.7	Intersection LOS: C
Intersection Capacity Utilization 62.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Cox Road & SR 524





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	404	74	168	304	26	46	21	138	54	47	24
Future Volume (veh/h)	18	404	74	168	304	26	46	21	138	54	47	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1767	1841	1841	1707	1841	1856	1678	1826	1870	1870	1841
Adj Flow Rate, veh/h	19	421	0	175	317	0	48	22	144	56	49	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	6	9	4	4	13	4	3	15	5	2	2	4
Cap, veh/h	644	994		576	1186		83	39	167	121	100	41
Arrive On Green	0.56	0.56	0.00	0.06	0.69	0.00	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1029	1767	1560	1753	1707	1560	250	226	980	433	583	242
Grp Volume(v), veh/h	19	421	0	175	317	0	214	0	0	130	0	0
Grp Sat Flow(s),veh/h/ln	1029	1767	1560	1753	1707	1560	1457	0	0	1258	0	0
Q Serve(g_s), s	0.9	15.1	0.0	4.4	7.7	0.0	5.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.9	15.1	0.0	4.4	7.7	0.0	15.5	0.0	0.0	10.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.22		0.67	0.43		0.19
Lane Grp Cap(c), veh/h	644	994		576	1186		289	0	0	262	0	0
V/C Ratio(X)	0.03	0.42		0.30	0.27		0.74	0.00	0.00	0.50	0.00	0.00
Avail Cap(c_a), veh/h	644	994		679	1186		457	0	0	442	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.7	13.8	0.0	9.5	6.3	0.0	44.1	0.0	0.0	41.6	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.3	0.0	0.4	0.6	0.0	4.5	0.0	0.0	1.8	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	9.4	0.0	2.5	4.1	0.0	10.0	0.0	0.0	5.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.8	15.1	0.0	9.8	6.8	0.0	48.6	0.0	0.0	43.4	0.0	0.0
LnGrp LOS	B	B		A	A		D			D		
Approach Vol, veh/h		440			492			214			130	
Approach Delay, s/veh		15.0			7.9			48.6			43.4	
Approach LOS		B			A			D			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		84.4		25.6	14.5	69.9		25.6				
Change Period (Y+Rc), s		8.0		6.8	7.9	8.0		6.8				
Max Green Setting (Gmax), s		63.0		32.2	13.1	42.0		32.2				
Max Q Clear Time (g_c+I1), s		9.7		17.5	6.4	17.1		12.4				
Green Ext Time (p_c), s		2.1		1.3	0.3	2.8		0.7				

Intersection Summary		
HCM 7th Control Delay, s/veh	20.8	
HCM 7th LOS	C	

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	17	187	11	8	282
Future Vol, veh/h	24	17	187	11	8	282
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	18	195	11	8	294

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	511	201	0	0	206	0
Stage 1	201	-	-	-	-	-
Stage 2	310	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	523	840	-	-	1365	-
Stage 1	833	-	-	-	-	-
Stage 2	743	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	519	840	-	-	1365	-
Mov Cap-2 Maneuver	519	-	-	-	-	-
Stage 1	833	-	-	-	-	-
Stage 2	738	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	11.27	0	0.21
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	617	50	-
HCM Lane V/C Ratio	-	-	0.069	0.006	-
HCM Control Delay (s/veh)	-	-	11.3	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	17	224	11	8	234
Future Vol, veh/h	24	17	224	11	8	234
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	18	236	12	8	246

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	505	242	0	0	247	0
Stage 1	242	-	-	-	-	-
Stage 2	263	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	527	797	-	-	1318	-
Stage 1	799	-	-	-	-	-
Stage 2	781	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	523	797	-	-	1318	-
Mov Cap-2 Maneuver	523	-	-	-	-	-
Stage 1	799	-	-	-	-	-
Stage 2	775	-	-	-	-	-

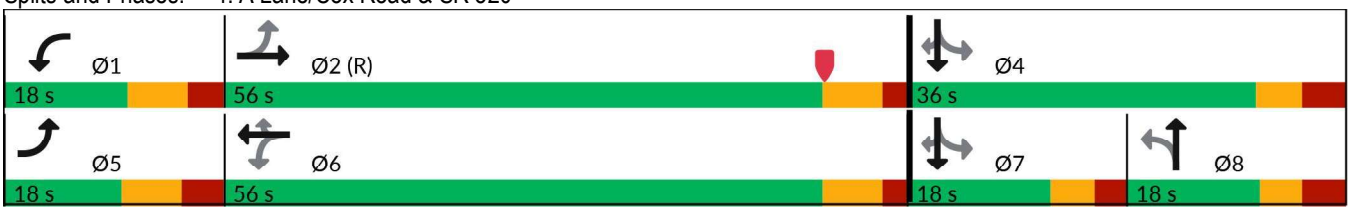
Approach	WB	NB	SB
HCM Control Delay, s/v	11.35	0	0.26
HCM LOS	B		

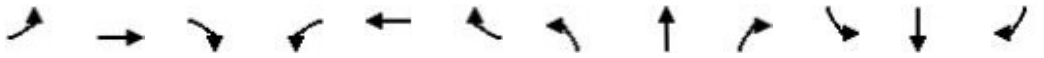
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	610	60	-
HCM Lane V/C Ratio	-	-	0.071	0.006	-
HCM Control Delay (s/veh)	-	-	11.3	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	Ø4	Ø7
Lane Configurations												
Traffic Volume (vph)	105	905	26	621	114	7	8	128	6	99		
Future Volume (vph)	105	905	26	621	114	7	8	128	6	99		
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA	Perm		
Protected Phases	5	2	1	6			8		4 7		4	7
Permitted Phases	2		6		6	8		4 7		4 7		
Detector Phase	5	2	1	6	6	8	8	4 7	4 7	4 7		
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	5.0				5.0	5.0
Minimum Split (s)	13.4	21.9	12.8	21.9	21.9	12.0	12.0				12.3	11.3
Total Split (s)	18.0	56.0	18.0	56.0	56.0	18.0	18.0				36.0	18.0
Total Split (%)	16.4%	50.9%	16.4%	50.9%	50.9%	16.4%	16.4%				33%	16%
Yellow Time (s)	4.9	4.9	4.8	4.9	4.9	3.4	3.4				3.7	3.7
All-Red Time (s)	3.5	2.0	3.0	2.0	2.0	3.6	3.6				3.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0					
Total Lost Time (s)	8.4	6.9	7.8	6.9	6.9		7.0					
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	C-Min	None	Min	Min	None	None				None	None
Act Effct Green (s)	64.1	59.8	57.4	51.9	51.9		7.2		27.1	27.1		
Actuated g/C Ratio	0.58	0.54	0.52	0.47	0.47		0.07		0.25	0.25		
v/c Ratio	0.27	0.51	0.10	0.41	0.14		0.23		0.89	0.24		
Control Delay (s/veh)	12.8	20.5	12.3	22.0	0.7		39.5		83.2	3.3		
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0		
Total Delay (s/veh)	12.8	20.5	12.3	22.0	0.7		39.5		83.2	3.3		
LOS	B	C	B	C	A		D		F	A		
Approach Delay (s/veh)		19.7		18.5			39.5		49.3			
Approach LOS		B		B			D		D			

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 31 (28%), Referenced to phase 2:EBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 22.9	Intersection LOS: C
Intersection Capacity Utilization 61.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: A Lane/Cox Road & SR 520





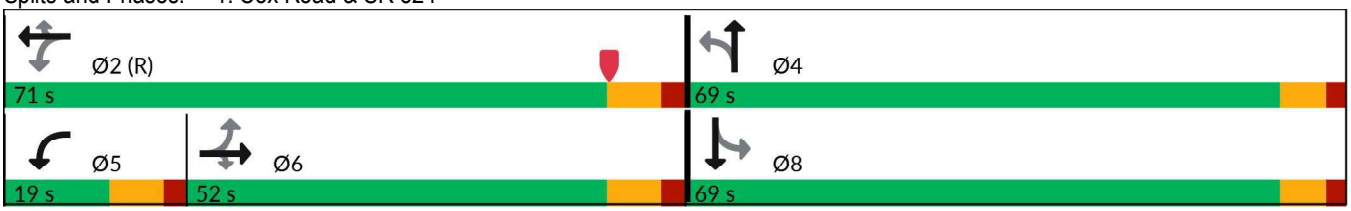
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	905	3	26	621	114	7	8	9	128	6	99
Future Volume (vph)	105	905	3	26	621	114	7	8	9	128	6	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.4	6.9		7.8	6.9	6.9		7.0			7.3	7.3
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.95			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99			0.95	1.00
Satd. Flow (prot)	1687	3470		1504	3406	1553		1704			1655	1380
Flt Permitted	0.31	1.00		0.24	1.00	1.00		0.85			0.37	1.00
Satd. Flow (perm)	553	3470		377	3406	1553		1472			641	1380
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	111	953	3	27	654	120	7	8	9	135	6	104
RTOR Reduction (vph)	0	0	0	0	0	66	0	9	0	0	0	76
Lane Group Flow (vph)	111	956	0	27	654	54	0	15	0	0	141	28
Heavy Vehicles (%)	7%	4%	0%	20%	6%	4%	0%	13%	0%	10%	0%	17%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8			4 7	
Permitted Phases	2			6		6	8			4 7		4 7
Actuated Green, G (s)	62.3	53.9		53.3	49.1	49.1		5.0			29.9	29.9
Effective Green, g (s)	62.3	53.9		53.3	49.1	49.1		5.0			29.9	29.9
Actuated g/C Ratio	0.57	0.49		0.48	0.45	0.45		0.05			0.27	0.27
Clearance Time (s)	8.4	6.9		7.8	6.9	6.9		7.0				
Vehicle Extension (s)	3.0	3.5		3.0	3.5	3.5		3.0				
Lane Grp Cap (vph)	399	1700		225	1520	693		66			174	375
v/s Ratio Prot	c0.02	c0.28		0.00	0.19							
v/s Ratio Perm	0.14			0.05		0.03		0.01			c0.22	0.02
v/c Ratio	0.28	0.56		0.12	0.43	0.08		0.23			0.81	0.08
Uniform Delay, d1	11.9	19.7		15.4	20.9	17.5		50.7			37.4	29.8
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			0.90	0.51
Incremental Delay, d2	0.4	1.4		0.2	0.2	0.1		1.8			23.8	0.1
Delay (s)	12.3	21.1		15.6	21.1	17.5		52.5			57.6	15.4
Level of Service	B	C		B	C	B		D			E	B
Approach Delay (s/veh)		20.2			20.4			52.5			39.7	
Approach LOS		C			C			D			D	

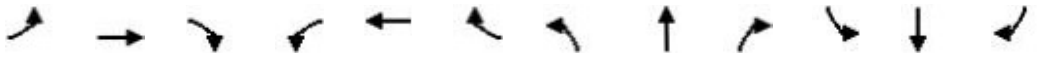
Intersection Summary			
HCM 2000 Control Delay (s/veh)	22.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	28.6
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	35	478	40	173	555	92	45	33	58	25
Future Volume (vph)	35	478	40	173	555	92	45	33	58	25
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases		6		5	2			4		8
Permitted Phases	6		6	2		2	4		8	
Detector Phase	6	6	6	5	2	2	4	4	8	8
Switch Phase										
Minimum Initial (s)	15.0	15.0	15.0	5.0	15.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	23.0	23.0	23.0	12.9	23.0	23.0	12.8	12.8	12.8	12.8
Total Split (s)	52.0	52.0	52.0	19.0	71.0	71.0	69.0	69.0	69.0	69.0
Total Split (%)	37.1%	37.1%	37.1%	13.6%	50.7%	50.7%	49.3%	49.3%	49.3%	49.3%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	4.8	4.8	4.8	4.8
All-Red Time (s)	2.5	2.5	2.5	2.4	2.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	8.0	8.0	8.0	7.9	8.0	8.0		6.8		6.8
Lead/Lag	Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	Max	Max	Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	81.8	81.8	81.8	102.4	102.3	102.3		22.9		22.9
Actuated g/C Ratio	0.58	0.58	0.58	0.73	0.73	0.73		0.16		0.16
v/c Ratio	0.08	0.49	0.04	0.33	0.43	0.08		0.83		0.93
Control Delay (s/veh)	17.0	21.1	0.1	8.4	9.7	1.6		51.9		113.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)	17.0	21.1	0.1	8.4	9.7	1.6		51.9		113.4
LOS	B	C	A	A	A	A		D		F
Approach Delay (s/veh)		19.3			8.5			51.9		113.4
Approach LOS		B			A			D		F

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 47 (34%), Referenced to phase 2:WBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay (s/veh): 25.0	Intersection LOS: C
Intersection Capacity Utilization 77.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Cox Road & SR 524





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	478	40	173	555	92	45	33	194	58	25	23
Future Volume (veh/h)	35	478	40	173	555	92	45	33	194	58	25	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1811	1900	1796	1870	1885	1900	1900	1885	1900	1841	1900
Adj Flow Rate, veh/h	37	509	0	184	590	0	48	35	206	62	27	24
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	6	0	7	2	1	0	0	1	0	4	0
Cap, veh/h	517	1053		507	1300		73	52	236	122	52	36
Arrive On Green	0.58	0.58	0.00	0.06	0.70	0.00	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	839	1811	1610	1711	1870	1598	218	259	1184	414	263	182
Grp Volume(v), veh/h	37	509	0	184	590	0	289	0	0	113	0	0
Grp Sat Flow(s),veh/h/ln	839	1811	1610	1711	1870	1598	1661	0	0	859	0	0
Q Serve(g_s), s	2.9	22.9	0.0	5.9	19.7	0.0	4.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.6	22.9	0.0	5.9	19.7	0.0	23.4	0.0	0.0	18.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.17		0.71	0.55		0.21
Lane Grp Cap(c), veh/h	517	1053		507	1300		361	0	0	211	0	0
V/C Ratio(X)	0.07	0.48		0.36	0.45		0.80	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	517	1053		544	1300		752	0	0	535	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.5	17.1	0.0	12.3	9.5	0.0	54.2	0.0	0.0	51.4	0.0	0.0
Incr Delay (d2), s/veh	0.3	1.6	0.0	0.5	1.1	0.0	5.0	0.0	0.0	2.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	14.1	0.0	3.6	11.6	0.0	15.6	0.0	0.0	6.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.8	18.6	0.0	12.8	10.6	0.0	59.1	0.0	0.0	54.0	0.0	0.0
LnGrp LOS	B	B		B	B		E			D		
Approach Vol, veh/h		546			774			289			113	
Approach Delay, s/veh		18.4			11.2			59.1			54.0	
Approach LOS		B			B			E			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		105.3		34.7	15.9	89.4		34.7				
Change Period (Y+Rc), s		8.0		6.8	7.9	8.0		6.8				
Max Green Setting (Gmax), s		63.0		62.2	11.1	44.0		62.2				
Max Q Clear Time (g_c+I1), s		21.7		25.4	7.9	24.9		20.8				
Green Ext Time (p_c), s		4.5		2.5	0.2	3.4		0.8				

Intersection Summary	
HCM 7th Control Delay, s/veh	24.3
HCM 7th LOS	C

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	13	259	23	17	221
Future Vol, veh/h	17	13	259	23	17	221
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	14	276	24	18	235

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	559	288	0	0	300	0
Stage 1	288	-	-	-	-	-
Stage 2	271	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	490	751	-	-	1261	-
Stage 1	761	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	482	751	-	-	1261	-
Mov Cap-2 Maneuver	482	-	-	-	-	-
Stage 1	761	-	-	-	-	-
Stage 2	762	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	11.68	0	0.56
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	571	129	-
HCM Lane V/C Ratio	-	-	0.056	0.014	-
HCM Control Delay (s/veh)	-	-	11.7	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	13	220	23	17	261
Future Vol, veh/h	17	13	220	23	17	261
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	13	227	24	18	269

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	543	239	0	0	251	0
Stage 1	239	-	-	-	-	-
Stage 2	304	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	501	800	-	-	1315	-
Stage 1	801	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	493	800	-	-	1315	-
Mov Cap-2 Maneuver	493	-	-	-	-	-
Stage 1	801	-	-	-	-	-
Stage 2	737	-	-	-	-	-

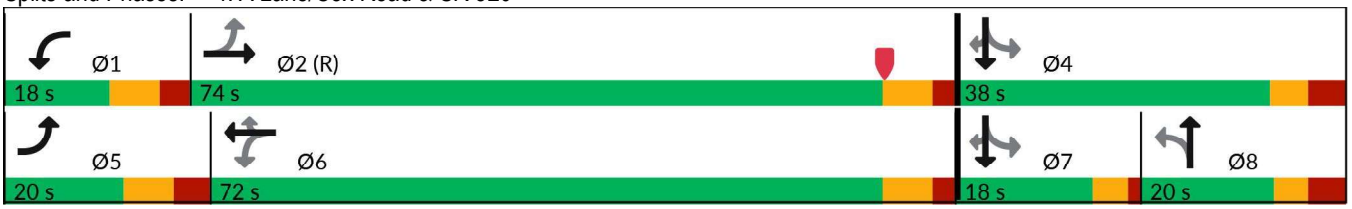
Approach	WB	NB	SB
HCM Control Delay, s/v	11.42	0	0.48
HCM LOS	B		

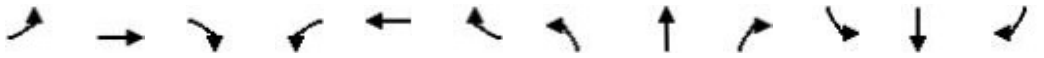
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	591	110	-
HCM Lane V/C Ratio	-	-	0.052	0.013	-
HCM Control Delay (s/veh)	-	-	11.4	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR	Ø4	Ø7
Lane Configurations												
Traffic Volume (vph)	120	795	25	869	94	11	10	99	8	156		
Future Volume (vph)	120	795	25	869	94	11	10	99	8	156		
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA	Perm		
Protected Phases	5	2	1	6			8		4 7		4	7
Permitted Phases	2		6		6	8		4 7		4 7		
Detector Phase	5	2	1	6	6	8	8	4 7	4 7	4 7		
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	5.0				5.0	5.0
Minimum Split (s)	13.4	21.9	12.8	21.9	21.9	12.0	12.0				12.3	9.5
Total Split (s)	20.0	74.0	18.0	72.0	72.0	20.0	20.0				38.0	18.0
Total Split (%)	15.4%	56.9%	13.8%	55.4%	55.4%	15.4%	15.4%				29%	14%
Yellow Time (s)	4.9	4.9	4.8	4.9	4.9	3.4	3.4				3.7	3.5
All-Red Time (s)	3.5	2.0	3.0	2.0	2.0	3.6	3.6				3.6	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0					
Total Lost Time (s)	8.4	6.9	7.8	6.9	6.9		7.0					
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag					Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	C-Max	None	Max	Max	None	None				None	None
Act Effct Green (s)	90.5	86.2	82.9	77.7	77.7		7.6		21.1	21.1		
Actuated g/C Ratio	0.70	0.66	0.64	0.60	0.60		0.06		0.16	0.16		
v/c Ratio	0.31	0.38	0.06	0.42	0.10		0.28		0.74	0.41		
Control Delay (s/veh)	8.9	12.5	7.6	16.1	1.0		58.9		78.9	9.6		
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0		
Total Delay (s/veh)	8.9	12.5	7.6	16.1	1.0		58.9		78.9	9.6		
LOS	A	B	A	B	A		E		E	A		
Approach Delay (s/veh)		12.0		14.5			58.9		37.7			
Approach LOS		B		B			E		D			

Intersection Summary		
Cycle Length: 130		
Actuated Cycle Length: 130		
Offset: 42 (32%), Referenced to phase 2:EBTL, Start of Yellow		
Natural Cycle: 60		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.74		
Intersection Signal Delay (s/veh): 16.7	Intersection LOS: B	
Intersection Capacity Utilization 60.6%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 4: A Lane/Cox Road & SR 520





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	795	24	25	869	94	11	10	4	99	8	156
Future Volume (vph)	120	795	24	25	869	94	11	10	4	99	8	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.4	6.9		7.8	6.9	6.9		7.0			7.3	7.3
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00		1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.98			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98			0.96	1.00
Satd. Flow (prot)	1736	3392		1805	3539	1524		1750			1690	1568
Flt Permitted	0.25	1.00		0.32	1.00	1.00		0.81			0.52	1.00
Satd. Flow (perm)	451	3392		600	3539	1524		1442			912	1568
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	124	820	25	26	896	97	11	10	4	102	8	161
RTOR Reduction (vph)	0	1	0	0	0	41	0	4	0	0	0	131
Lane Group Flow (vph)	124	844	0	26	896	56	0	21	0	0	110	30
Heavy Vehicles (%)	4%	6%	4%	0%	2%	6%	9%	0%	0%	8%	0%	3%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8			4 7	
Permitted Phases	2			6		6	8			4 7		4 7
Actuated Green, G (s)	88.8	80.2		78.8	74.9	74.9		5.3			23.9	23.9
Effective Green, g (s)	88.8	80.2		78.8	74.9	74.9		5.3			23.9	23.9
Actuated g/C Ratio	0.68	0.62		0.61	0.58	0.58		0.04			0.18	0.18
Clearance Time (s)	8.4	6.9		7.8	6.9	6.9		7.0				
Vehicle Extension (s)	3.0	3.5		3.0	3.5	3.5		3.0				
Lane Grp Cap (vph)	393	2092		399	2039	878		58			167	288
v/s Ratio Prot	c0.02	c0.25		0.00	c0.25							
v/s Ratio Perm	0.19			0.04		0.04		0.01			c0.12	0.02
v/c Ratio	0.32	0.40		0.07	0.44	0.06		0.36			0.66	0.10
Uniform Delay, d1	8.6	12.7		10.3	15.6	12.1		60.7			49.3	44.1
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	0.5	0.6		0.1	0.7	0.1		3.9			9.0	0.2
Delay (s)	9.1	13.3		10.4	16.3	12.3		64.6			58.3	44.3
Level of Service	A	B		B	B	B		E			E	D
Approach Delay (s/veh)		12.7			15.8			64.6			50.0	
Approach LOS		B			B			E			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	26.8
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

APPENDIX I

Growth Rate Calculations

FDOT Station [1]	Road[1]	Description[1]	Year 2023 AADT[1]	Weight (based on AADT)	Trend Historical Growth Rate[2]
	Cox Rd	SR 520 to SR 524	4,590	0.29537	1.25%
	SR 524	I-95 to Cox Rd	10,950	0.70463	-1.01%
	SR 524	Cox Rd to Industry Rd	12,850	0.82690	-0.46%
	SR 520	I-95 to Burnett Rd	20,870	1.34299	-1.26%
			Normal Average		0.12%
			Weighted Average[3]		-0.34%
			Growth Rate Used		**2.00%**

Notes:

1. Data obtained from FDOT's Florida Traffic Online (FTO) database or St Lucie TPO Traffic Count Data Management System.

2. Calculated using trend worksheets provided in ***Appendix H.***

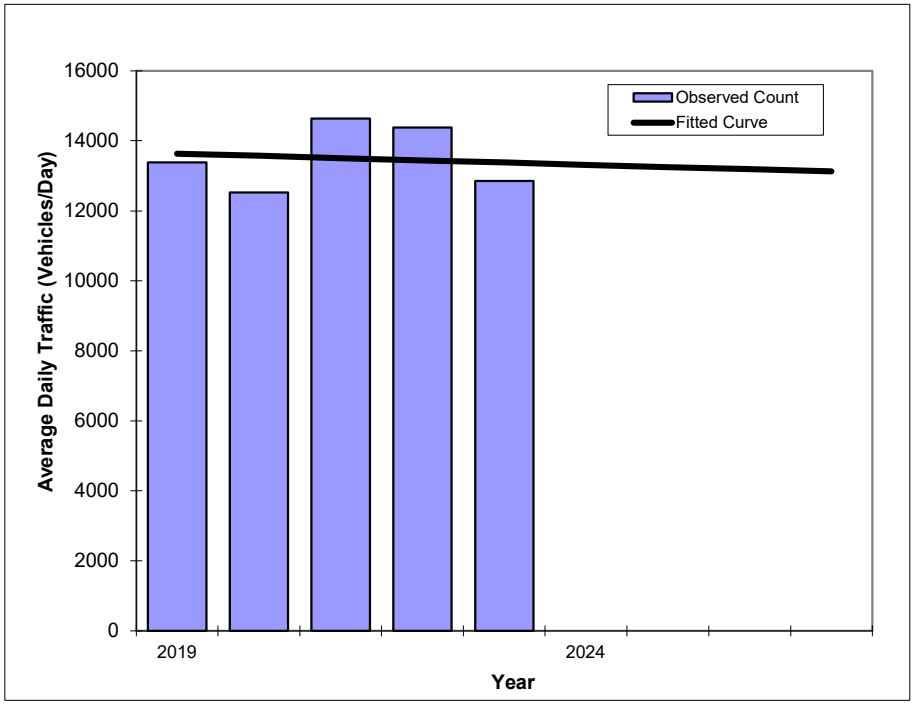
3. Weighted based on AADT.

Traffic Trends - V2023

SR 524 -- ON SR-514, 0.331 MI. E OF I-95 (UCLP)

FM #	**1234**
Location	**1**

County:	Brevard (70)
Station #:	700427
Roadway:	SR 524



Year	Traffic (ADT/AADT) Count*	Trend
2019	13,380	13,630
2020	12,530	13,570
2021	14,630	13,500
2022	14,380	13,440
2023	12,850	13,380
2025 Opening Year Trend		
2025	N/A	13,250
2025 Interim Year Trend		
2025	N/A	13,250
2027 Design Year Trend		
2027	N/A	13,130
FSUTMS Forecasts/Trends		

*Axle-Adjusted

Trend R-squared:	5.24%
Compounded Annual Historic Growth Rate:	-0.46%
Compounded Growth Rate (2023 to Design Year)	-0.47%
Printed:	2/17/2025

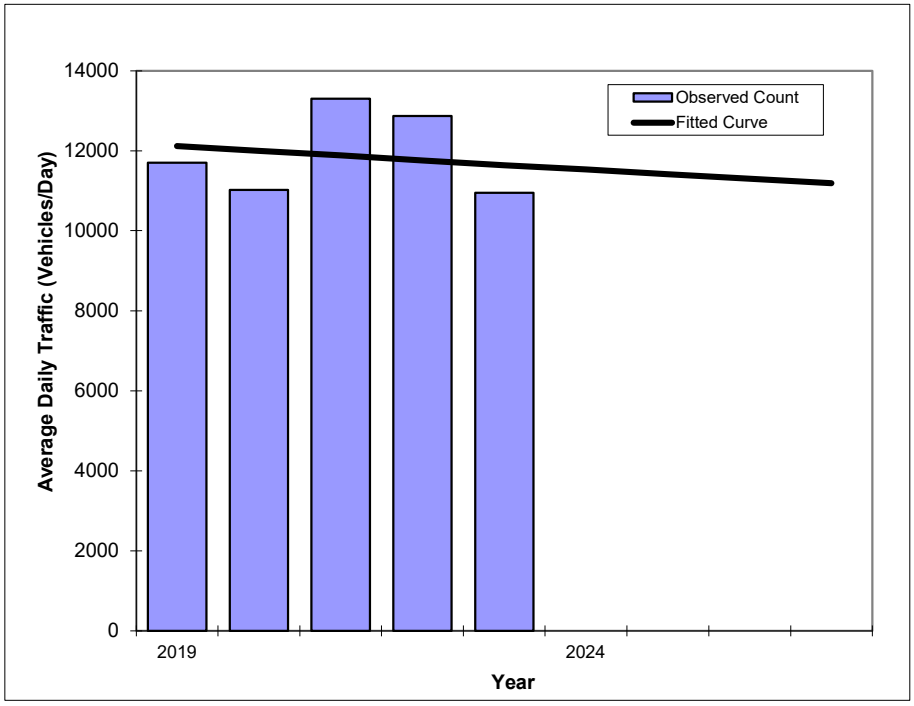
Exponential Growth Option

Traffic Trends - V2023

SR 524 -- ON SR-524, 0.664 MI. W OF SR-501 (UVL)

FM #	**1234**
Location	**1**

County:	Brevard (70)
Station #:	700426
Roadway:	SR 524



Year	Traffic (ADT/AADT) Count*	Trend
2019	11,700	12,120
2020	11,020	12,000
2021	13,300	11,880
2022	12,870	11,760
2023	10,950	11,640
2025 Opening Year Trend		
2025	N/A	11,410
2025 Interim Year Trend		
2025	N/A	11,410
2027 Design Year Trend		
2027	N/A	11,190
FSUTMS Forecasts/Trends		

*Axle-Adjusted

Trend R-squared:	9.34%
Compounded Annual Historic Growth Rate:	-1.01%
Compounded Growth Rate (2023 to Design Year)	-0.98%
Printed:	2/17/2025

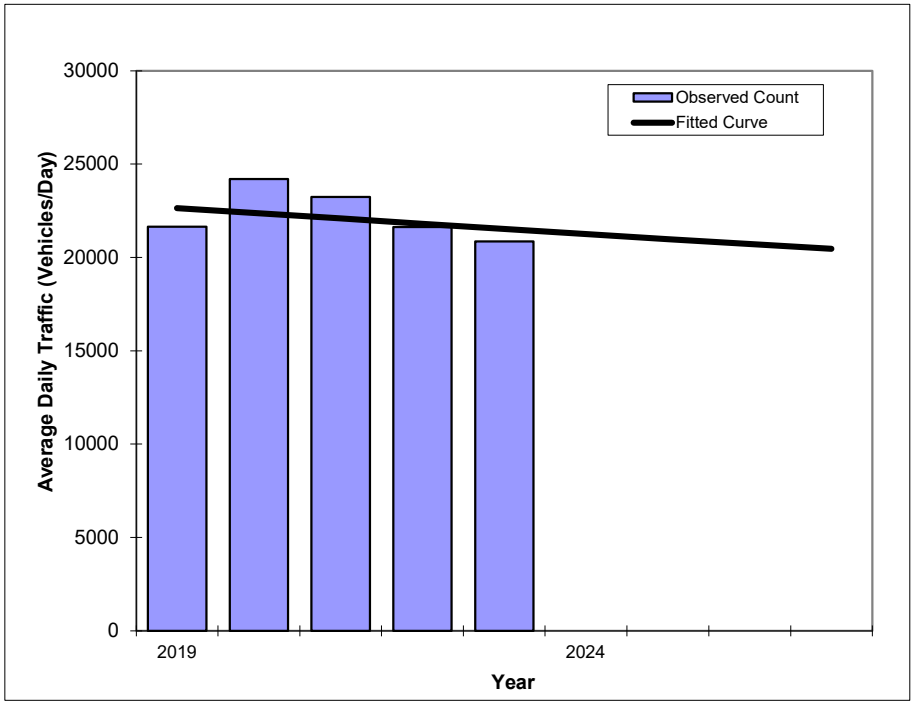
Exponential Growth Option

Traffic Trends - V2023

-- SR 520, 0.797 MI. E OF I-95

FM #	**1234**
Location	**1**

County:	Brevard (70)
Station #:	700080
Roadway:	



Year	Traffic (ADT/AADT) Count*	Trend
2019	21,650	22,650
2020	24,200	22,360
2021	23,230	22,080
2022	21,640	21,800
2023	20,870	21,530
2025 Opening Year Trend		
2025	N/A	20,990
2025 Interim Year Trend		
2025	N/A	20,990
2027 Design Year Trend		
2027	N/A	20,460
FSUTMS Forecasts/Trends		

*Axle-Adjusted

Trend R-squared:	23.45%
Compounded Annual Historic Growth Rate:	-1.26%
Compounded Growth Rate (2023 to Design Year)	-1.27%
Printed:	2/17/2025

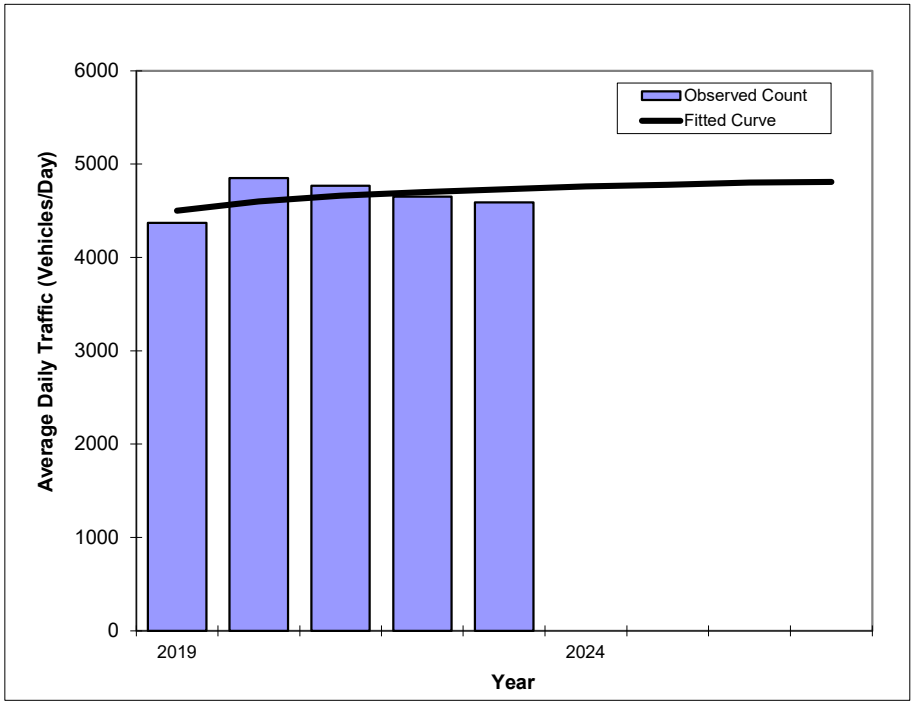
Exponential Growth Option

Traffic Trends - V2023

Cox Rd --

FM #	**1234**
Location	**1**

County:	Brevard (70)
Station #:	102022
Roadway:	Cox Rd



Year	Traffic (ADT/AADT) Count*	Trend
2019	4,370	4,500
2020	4,850	4,600
2021	4,770	4,660
2022	4,650	4,700
2023	4,590	4,730
2025 Opening Year Trend		
2025	N/A	4,780
2025 Interim Year Trend		
2025	N/A	4,780
2027 Design Year Trend		
2027	N/A	4,810
FSUTMS Forecasts/Trends		

*Axle-Adjusted

Trend R-squared:	35.15%
Compounded Annual Historic Growth Rate:	1.25%
Compounded Growth Rate (2023 to Design Year)	0.42%
Printed:	2/17/2025

Decaying Exponential Growth Option

Projections of Florida Population by County, 2025–2050, with Estimates for 2023

County and State	Estimates April 1, 2023	Projections, April 1 2025	2030	2035	2040	2045	2050
ALACHUA	293,040						
Low		282,700	285,300	284,000	280,000	274,800	269,300
Medium		300,800	317,000	329,300	338,400	345,600	352,000
High		318,800	348,700	374,600	396,800	416,500	434,700
BAKER	28,339						
Low		26,900	26,700	26,400	25,800	25,200	24,500
Medium		28,900	30,200	31,300	32,200	32,900	33,600
High		31,000	33,700	36,200	38,500	40,700	42,700
BAY	187,545						
Low		179,600	178,800	176,900	174,100	171,000	167,800
Medium		191,000	198,600	205,100	210,400	215,100	219,400
High		202,500	218,500	233,300	246,700	259,200	270,900
BRADFORD	27,389						
Low		26,000	25,400	24,700	23,900	23,200	22,600
Medium		27,700	28,200	28,600	28,900	29,200	29,500
High		29,300	31,100	32,500	33,900	35,200	36,400
BREVARD	640,773						
Low		618,800	625,100	625,000	619,200	610,400	600,100
Medium		658,300	694,600	724,600	748,300	767,700	784,500
High		697,700	764,100	824,300	877,400	925,100	968,800
BROWARD	1,973,579						
Low		1,906,400	1,899,700	1,876,000	1,842,400	1,806,200	1,771,100
Medium		2,006,700	2,076,200	2,125,800	2,161,100	2,189,300	2,213,800
High		2,107,000	2,252,700	2,375,600	2,479,900	2,572,400	2,656,600
CALHOUN	13,816						
Low		13,000	12,500	12,000	11,500	11,100	10,700
Medium		13,800	13,900	13,900	13,900	13,900	14,000
High		14,700	15,300	15,800	16,300	16,800	17,200
CHARLOTTE	204,126						
Low		198,700	204,200	207,000	207,900	208,000	206,900
Medium		211,300	226,900	240,000	251,300	261,600	270,500
High		224,000	249,600	273,000	294,600	315,300	334,000
CITRUS	162,240						
Low		156,400	157,800	157,300	155,400	152,900	150,400
Medium		166,400	175,400	182,400	187,800	192,300	196,500
High		176,400	192,900	207,500	220,200	231,800	242,700
CLAY	231,042						
Low		224,200	229,100	231,000	229,200	225,900	222,300
Medium		238,500	254,500	267,900	276,900	284,200	290,600
High		252,800	280,000	304,700	324,700	342,400	358,900
COLLIER	399,480						
Low		388,500	398,700	402,000	400,600	396,900	392,200
Medium		413,300	443,000	466,000	484,100	499,300	512,700
High		438,100	487,300	530,100	567,600	601,700	633,200
COLUMBIA	72,191						
Low		69,600	69,000	68,100	67,000	65,800	64,700
Medium		73,300	75,400	77,100	78,600	79,800	80,900
High		76,900	81,800	86,200	90,200	93,700	97,000
DESOTO	34,974						
Low		33,400	32,500	31,600	30,700	29,700	28,900
Medium		35,200	35,500	35,800	36,000	36,100	36,200
High		36,900	38,500	40,000	41,300	42,400	43,400
DIXIE	17,271						
Low		16,500	16,200	15,900	15,500	15,000	14,700
Medium		17,500	18,000	18,400	18,700	18,900	19,200
High		18,600	19,800	20,900	21,900	22,800	23,700

APPENDIX J

ITE Trip Generation Manual

Land Use: 215
Single-Family Attached Housing

Description

Single-family attached housing includes any single-family housing unit that shares a wall with an adjoining dwelling unit, whether the walls are for living space, a vehicle garage, or storage space.

Additional Data

The database for this land use includes duplexes (defined as a single structure with two distinct dwelling units, typically joined side-by-side and each with at least one outside entrance) and townhouses/rowhouses (defined as a single structure with three or more distinct dwelling units, joined side-by-side in a row and each with an outside entrance).

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in British Columbia (CAN), California, Georgia, Illinois, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Dakota, Utah, Virginia, and Wisconsin.

Source Numbers

168, 204, 211, 237, 305, 306, 319, 321, 357, 390, 418, 525, 571, 583, 638, 735, 868, 869, 870, 896, 912, 959, 1009, 1046, 1056, 1058, 1077

Single-Family Attached Housing
(215)

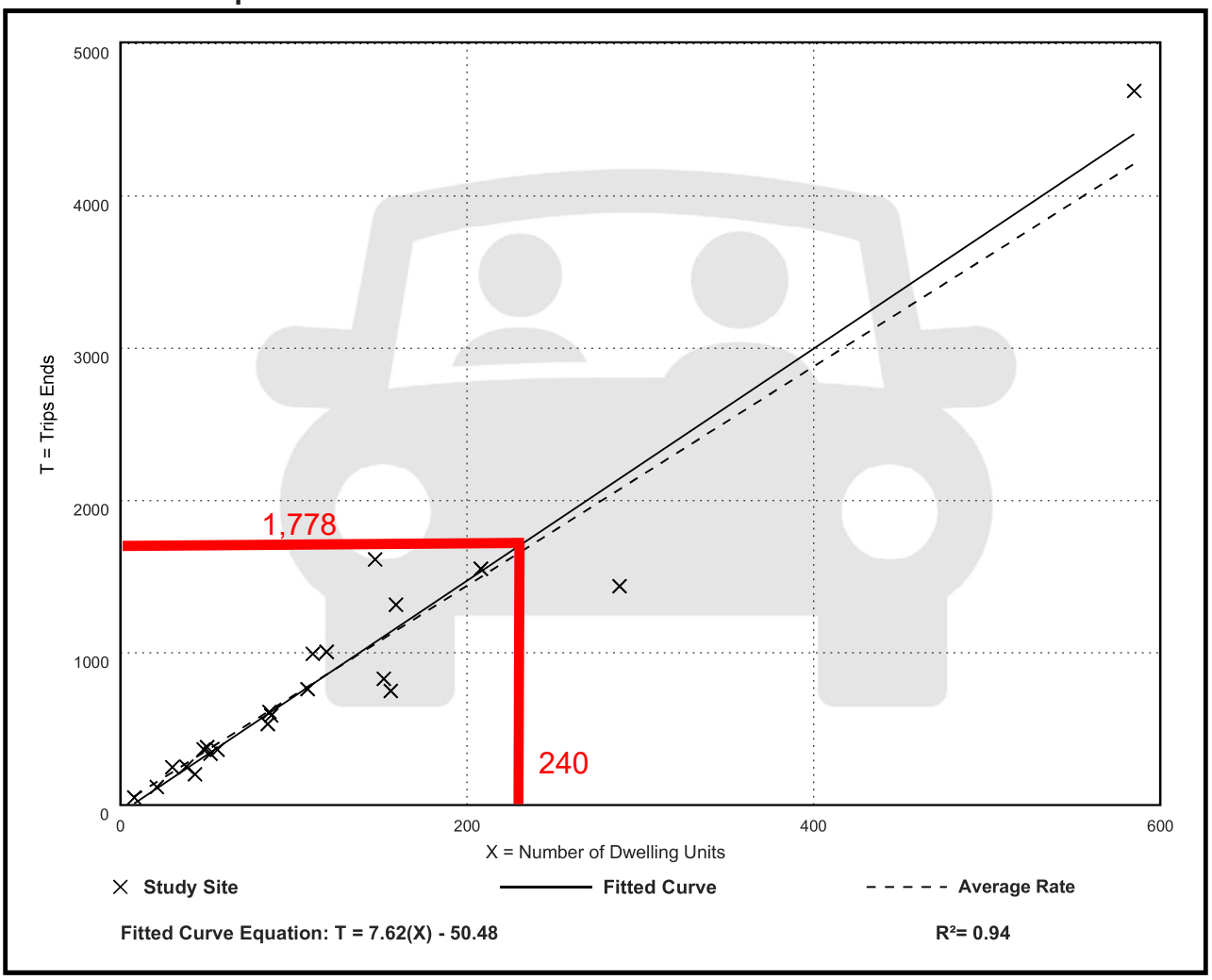
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 120
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



Fitted Curve Equation: T = 7.62(X) - 50.48

R^2= 0.94

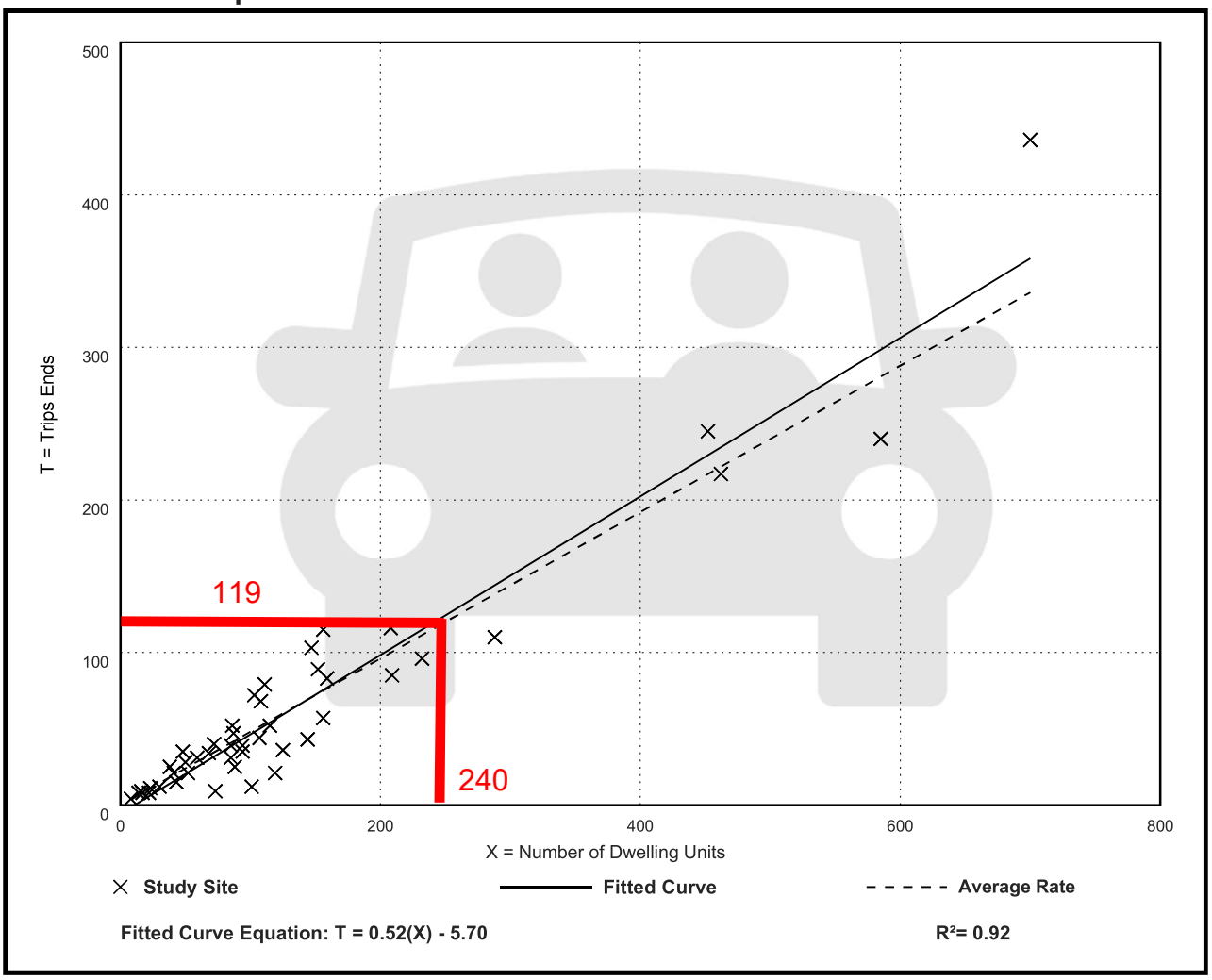
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 46
Avg. Num. of Dwelling Units: 135
Directional Distribution: 31% entering, 69% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



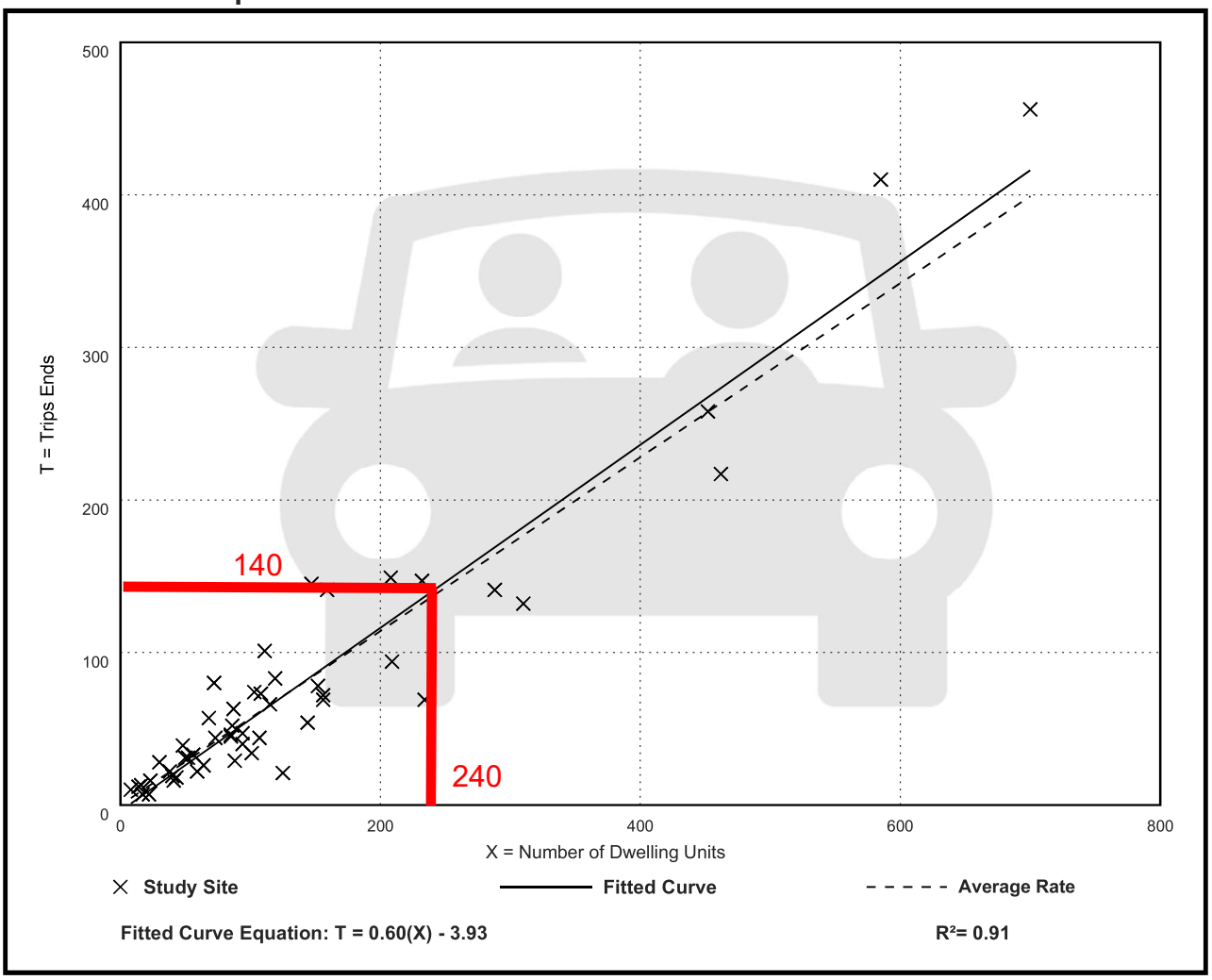
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 51
Avg. Num. of Dwelling Units: 136
Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per Dwelling Unit

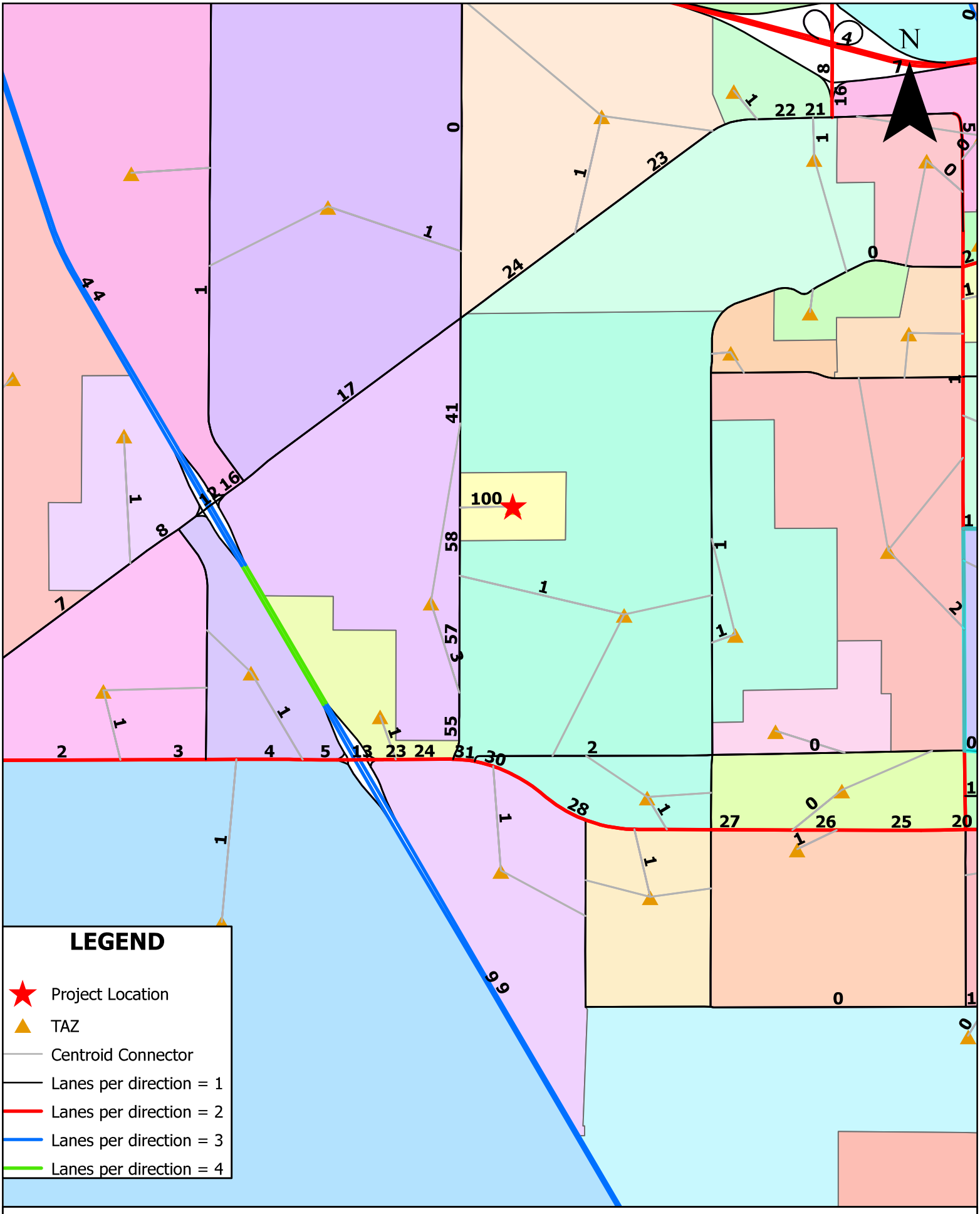
Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation

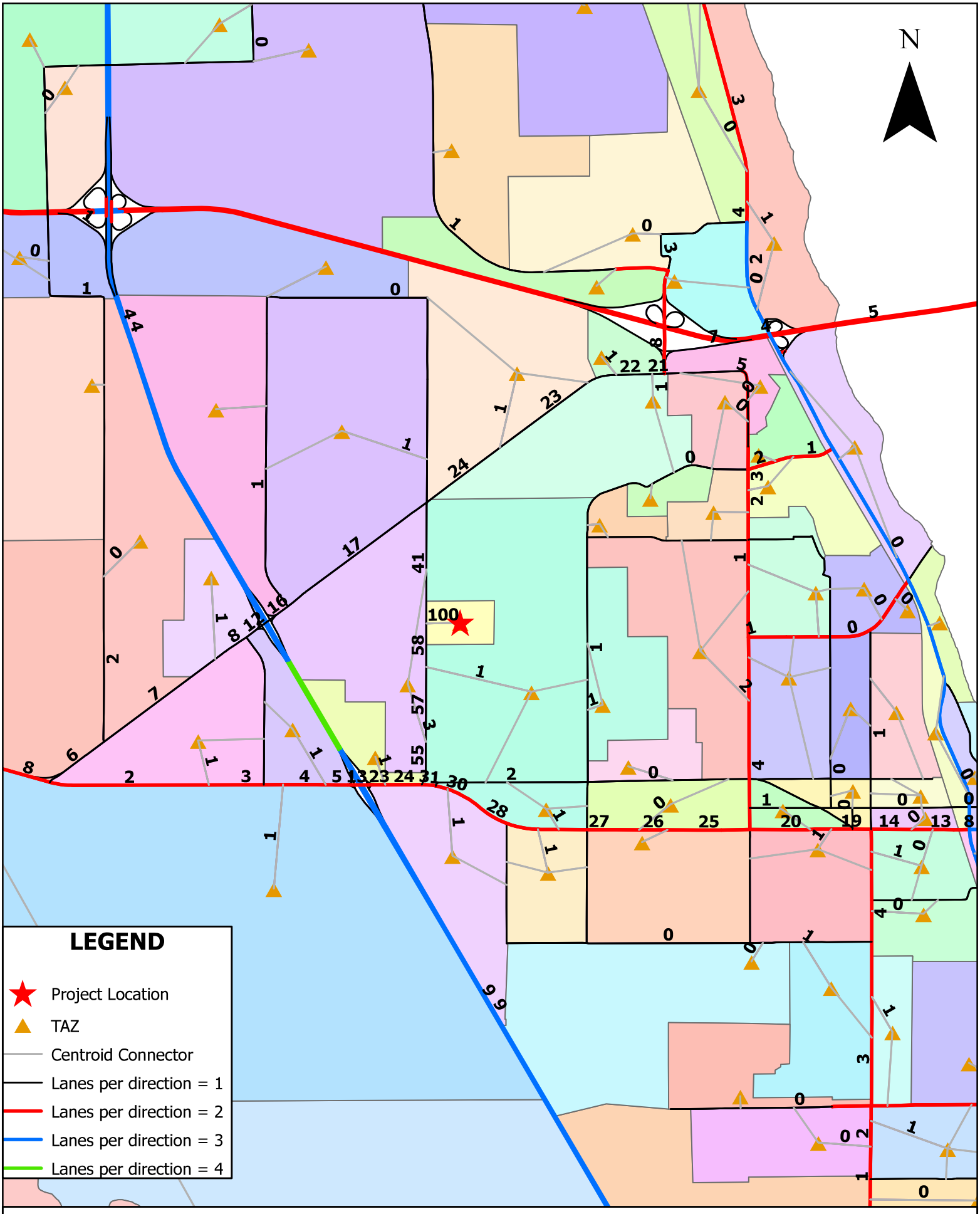


APPENDIX K

CFRPM Model Plot



Project Distribution - Meritage Cocoa Legacy
CFRPMv7 - 2025 - 2/12/2025



Project Distribution - Meritage Cocoa Legacy
CFRPMv7 - 2025 - 2/12/2025

APPENDIX L

NCRHP Report 457 Output

Project Driveway #1

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

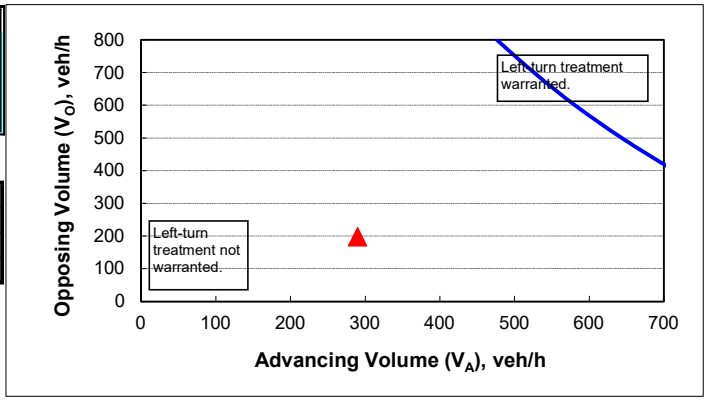
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	290
Opposing volume (V_O), veh/h:	198

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	891
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Project Driveway #1

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

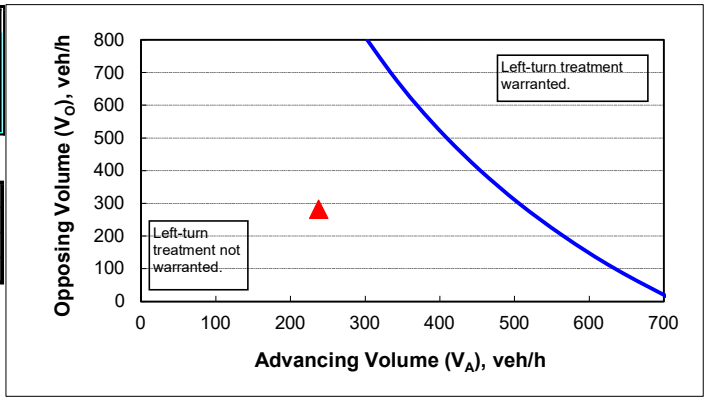
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	7%
Advancing volume (V_A), veh/h:	238
Opposing volume (V_O), veh/h:	282

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	516
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Project Driveway #1

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

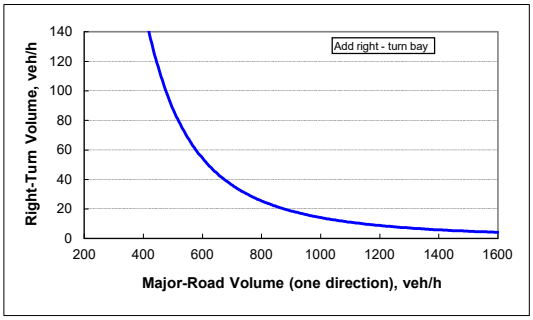
INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	198
Right-turn volume, veh/h:	11

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	1015
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Project Driveway #1

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

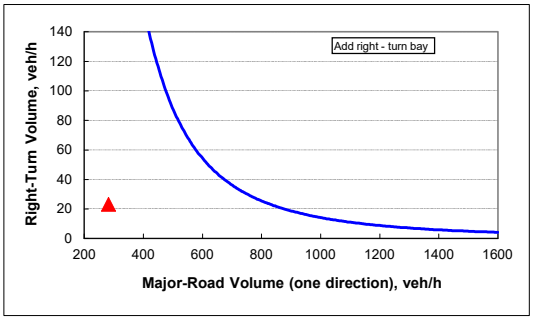
INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	282
Right-turn volume, veh/h:	23

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	399
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Project Driveway #2

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

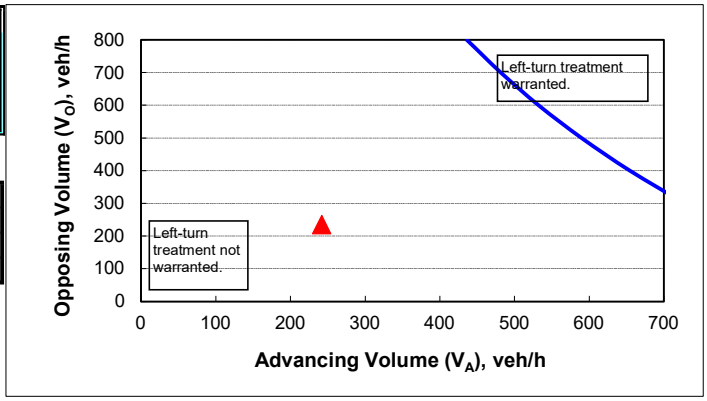
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	242
Opposing volume (V_O), veh/h:	235

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	783
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Project Driveway #2

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

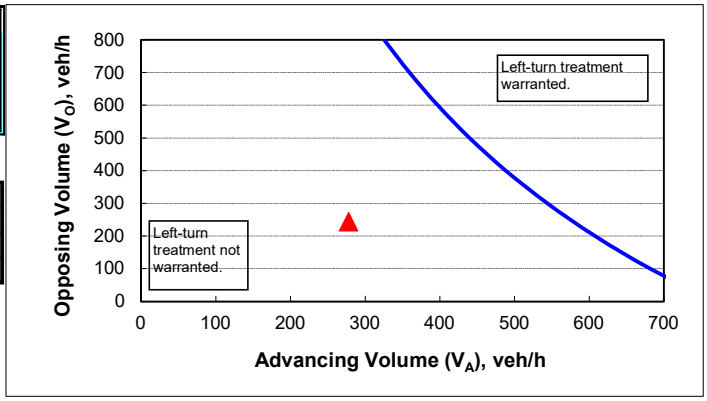
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	6%
Advancing volume (V_A), veh/h:	278
Opposing volume (V_O), veh/h:	243

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	579
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Project Driveway #2

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

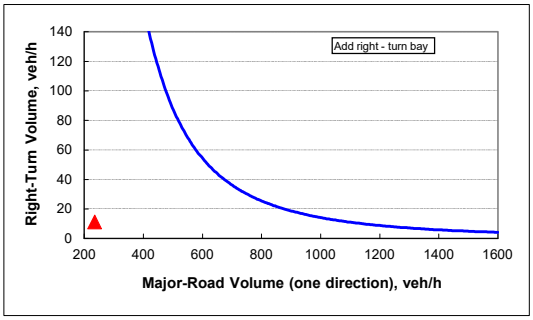
INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	235
Right-turn volume, veh/h:	11

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	646
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Project Driveway #2

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

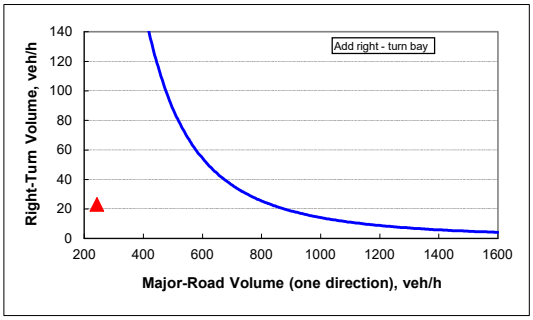
INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	243
Right-turn volume, veh/h:	23

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	591
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



THIS INSTRUMENT PREPARED B

Anthony A. Garganese, Esq.
City Attorney
City of Cocoa
65 Stone Street
Cocoa, FL 32922

Return to:
Monica Arsenault
City Clerk
City of Cocoa
65 Stone Street
Cocoa, FL 32922

DEVELOPMENT AGREEMENT

(The Sanctuary at Cocoa)

THIS DEVELOPMENT AGREEMENT ("Agreement") is made and entered into this ____ day of _____, 2026 (the "Effective Date"), by and between the **CITY OF COCOA**, a Florida municipal corporation located at 65 Stone Street, Cocoa, Florida 32922 ("City"), and **LEGACY VILLAS AT COCOA, LLC**, a Florida limited liability company with a principal address at 3850 Bird Road, Suite 801, Miami, Florida 33146 ("Developer") (collectively, the "Parties").

RECITALS:

WHEREAS, Developer is the owner of approximately 89.54 acres, more or less, of real property with Brevard County Tax Parcel Identification Numbers 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510, more particularly described herein in **Exhibit "A"** (collectively, the "Property"); and

WHEREAS, Developer is seeking to develop a townhome project known as the Sanctuary at Cocoa (the "Project"); and

WHEREAS, pursuant to its Florida Municipal Home Rule Powers and the City of Cocoa Code of Ordinances ("City Code"), Section 15-21, the City Council may approve Development Agreements which waive certain provisions of the City's land development regulations when in the public interest and consistent with the Comprehensive Plan, provided the Developer demonstrates a bona fide need for the variance or waiver and agrees to provide significant enhancements to the Property in exchange for the variance or waiver; and

WHEREAS, through this Development Agreement, the City agrees to waive a portion of the tree mitigation fees which the Developer is required to pay to the City in order to construct the Project, and in consideration for this fee waiver the Developer shall convey a portion of the Property to the City, dedicate an easement for future right-of-way improvements on the Property, and construct other improvements as detailed herein; and

WHEREAS, the City Council finds and declares that this Development Agreement serves a public purpose and serves the public health, safety and welfare of the citizens and visitors of Cocoa, which includes preservation of open space and provision of opportunities for future transportation connections ; and

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, and other good and valuable consideration, which the parties agree has been exchanged and received, the parties agree as follows:

1.0 Recitals. The foregoing recitals are true and correct and are hereby incorporated herein by this reference.

2.0 Authority. This Agreement is entered into pursuant to the Florida Municipal Home Rule Powers Act and Section 15-21 of the City Code which expressly authorizes the City Council to waive applicable land development regulations of the City by Development Agreement.

3.0 The Property. The real property subject to this Agreement consists of Brevard County Tax Parcel Identification Numbers 24-35-24-00-508, 24-35-24-00-509, and 24-35-24-00-510, which is legally described in **Exhibit "A,"** attached hereto and fully incorporated herein by this reference (the "Property").

4.0 Project Description and Requirements. Developer shall, at its expense, design, permit, and construct a townhome project not to exceed 249 units, and related infrastructure, facilities, and amenities on the Property, including a community swimming pool and cabana and walking trails, as well as internal sidewalks, a sidewalk along the Property frontage on Cox Road, and an off-site sidewalk along Cox Road commencing at the northern boundary of the Property and terminating at the entrance to the Cocoa Conservation Area, as further described herein. (Hereinafter the project description and requirements are referred to as the "Project").

The supporting infrastructure for the Project shall be constructed in accordance with the Sanctuary at Cocoa Final Engineering/Site Plans approved by the City Council on _____, 2026. Developer may construct the Project in two phases in a manner consistent with the approved Final Engineering/Site Plans on file with the City of Cocoa, File No. PZ-25-00100001, and consistent with the requirements contained in this Agreement. For convenience, a copy of the Overall Final Engineering/Site Plan is attached hereto as **Exhibit "B"** and is fully incorporated herein by this reference. The official and controlling copy of the Final Engineering/Site Plan shall be maintained in File No. PZ-25-00100001, which shall govern in all respects, including the resolution of any inconsistencies or conflicts with Exhibit "B." The official copy should be reviewed for the complete and authoritative specifications, requirements, and other content of the Final Engineering/Site Plan.

5.0 Building Elevations and Floor Plans. The buildings and related floor plans for the Project shall be constructed substantially in accordance with the building elevations and floor plans depicted and set forth on **Exhibit "C,"** which is attached hereto and incorporated herein by this reference ("Building Plans"). Aspects of the building façade and roof lines, color scheme, and

architectural features depicted on the building may be adjusted during the City's final review and approval procedures to satisfy the requirements of the City Code.

6.0 Development Schedule and Future Permitting.

A. Phase I. Developer shall be required to apply for a final plat for Phase I of the Project as depicted in the approved Final Engineering/Site Plan within one year of the approval of the preliminary plat in accordance with Section 18-30 of the City Code. Further, the Developer shall receive building permits and substantially commence vertical construction of buildings, which shall at minimum include building foundations, for Phase I of the Project within two (2) years of the Effective Date of this Agreement. City shall not unreasonably withhold its consent to any building permit application, provided such applications are consistent with the provisions of this Agreement.

B. Phase II. The approved Final Engineering/Site Plan depicts Phase II as the southern portion of Bellflower Drive and includes future Lots 187 through 249. Supporting infrastructure, including the southern portion of the private street (Bellflower Drive), sidewalks, and utilities to serve Phase II will not be constructed during the development of Phase I. The Developer has not established a firm development schedule for constructing Phase II. Accordingly, the City Council agrees that approval of the Final Engineering/Site Plan for Phase II shall occur concurrently with Phase I, but that portion of the approved Final Engineering/Site Plan for Phase II shall be valid only for a period of five (5) years from the Effective Date of this Agreement. The Developer shall be required to obtain building permits and substantially commence vertical construction of buildings within Phase II, which shall at minimum include building foundations, prior to the termination of the five-year period following the Effective Date of this Agreement. To the extent that building permits have not been obtained during the five-year period, the Final Engineering/Site Plan approval for Phase II shall be considered null and void. Further, both preliminary and final plat approval shall be required to be obtained for Phase II within the same five-year period. At the time of this Agreement's approval, Phase II shall be included and depicted in the Sanctuary at Cocoa Preliminary Plat as a future development tract only.

7.0. Project Enhancements: Conveyance of Property. In accordance with Section 15-21 of the City Code and in consideration of the waivers granted in Section 8.0 below, the Developer agrees to incorporate the following development enhancements into the Final Engineering/Site Plan and affect conveyance of a portion of the Property to the City of Cocoa as follows:

A. In accordance with Policy 2.1.6.2 of the Transportation Element of the City of Cocoa Comprehensive Plan, the Developer shall construct or cause to be constructed, at its sole cost and expense, an off-site 5' sidewalk extending from the northern boundary of the Property to the entrance of the Cocoa Conservation Area, located at the City of Cocoa's property with Tax Parcel ID No. 24-35-24-00-3. The Developer agrees that, prior to the issuance of the fiftieth (50th) certificate of occupancy for Phase I of the

Project, it shall complete or cause to be completed the sidewalk, which shall be provided in the Final Engineering/Site Plan. The construction contractor and/or the Developer shall be required to provide the City and its officials and employees with a written indemnification and hold harmless agreement in a form subject to approval of the City Attorney. Further, the construction contractor and/or the Developer must provide current certificates of worker's compensation, general liability and automobile insurance as provided in the City's Financial Operations Manual. In performing the sidewalk construction services, the Developer, its contractors or subcontractors shall comply with all applicable federal, state and local laws, ordinances, and regulations, including without limitation providing Worker's Compensation, Unemployment Insurance and Social Security. The contractor and/or the Developer shall be required to post a one (1) year maintenance bond or cash bond, which shall be in an amount not less than ten percent (10%) of the cost of the work, in favor of the City upon the City's acceptance and execution of a bill of sale. The form of said bond shall be subject to approval of the City Attorney.

B. The Developer shall dedicate to the City, via approval of the Phase I final plat, a 25-foot right-of-way easement along the southern boundary of the Property for purposes of future right-of-way expansion. Until the City of Cocoa opens and improves such right-of-way, the dedicated easement area shall be maintained by the Developer, limited to weeding and removing debris, or successor Homeowner's Association.

C. All utilities constructed on the Property including, but not limited to, electric, water, sewer, cable, phone, fiber optics, natural gas and other similar kinds of utilities to service the Property shall be constructed underground unless otherwise necessary to be above ground and approved by the City.

D. The Project shall incorporate the use of energy efficient lighting systems, insulation, energy efficient windows, low-flow water fixtures, and energy efficient HVAC systems.

E. The Developer shall convey, free of charge and free and clear of all liens, mortgages, and other encumbrances that are not reasonably deemed by the City to be permitted exceptions which will interfere with the City's intended purpose and use for the land, a portion of its Property as further described in this Section. The property to be conveyed by the Developer to the City shall consist of:

> The portion of Tax Parcel Identification Numbers 24-35-24-00-509 and 24-35-24-00-510 consisting of the entirety of **Tract E** as depicted on the Sanctuary at Cocoa preliminary plat and Final Engineering/Site Plan, totaling approximately 46.12 acres (the "Conveyance Parcel"). A depiction and description of the Conveyance Parcel is included in the Overall Site Plan attached hereto as **Exhibit "B."**.

The conveyance contemplated herein shall be by special warranty deed in a form acceptable to the city attorney, free from all encumbrances except easements,

reservations, and restrictions acceptable to the City ("Permitted Exceptions") together with all appurtenances pertaining thereto.

The Developer shall initiate the conveyance to the City within thirty (30) days following commencement of land clearing on the Property for purposes of construction. The Developer shall inform the Building Official and City Attorney of the date of commencement of land clearing on the Property for purposes of this Section. To initiate the conveyance, the Developer shall provide the City with a written notice requesting the City to accept conveyance of the property ("Written Notice"). The Written Notice must be accompanied by a survey and legal description, prepared by a duly registered and professional surveyor, of the new parcel that will be conveyed to the City, consisting of property identified in this subsection and consistent with Tract E of "**Exhibit B**." In addition, the Written Notice shall be accompanied by copies of all existing leases, title policies, studies, tests, environmental audits, soil borings results, surveys, reports, warranties, applications, certificates, reservations, agreements, maps, aerials and related materials in its possession relating to the Conveyance Property.

The City shall have twenty (20) days to review the survey and notify the Developer of its acceptance or objection to the proposed legal description of the property to be conveyed.

The Developer shall obtain at the Developer's expense within fifteen (15) days from the City's acceptance of the survey and legal description, a commitment for an ALTA Owner's Title Insurance Policy from a title insurance company ("Title Company") reasonably acceptable to the City, agreeing to insure title to the property in an amount equal to the estimated assessed value of the property to be conveyed, which the parties agree, for purposes of Title Insurance, is two-hundred and fifty thousand dollars ($250,000.00), and subject to: no exceptions other than those matters herein permitted; those which will be discharged prior to or at Closing; and the standard printed exceptions and exclusions from coverage customarily contained in an Owner's Policy from the Title Company. The Developer shall provide the City a copy of the title commitment, accompanied by a copy of each document supporting any exceptions to the title commitment, upon receipt of same. The City shall have twenty (20) days to examine the commitment and tender any objections thereto. At closing, Title Company shall provide the City standard "GAP" coverage in the custom as established by title insurance practices in Florida. Developer will execute a standard form owner's affidavit and such other affidavits as may be reasonably required by the City, the Title Company, or the Closing Agent. Subsequent to closing, Title Company, at the Developer's expense, shall provide an owner's title policy showing title up to and including the recording of the deed delivered at closing, said policy showing the continuation of good and marketable title in the Developer up to the moment of recording the special warranty deed and subject only to the Permitted Exceptions and any matters created at closing. If the title commitment discloses unpermitted exceptions or matters that render the title non-marketable or unacceptable to the City for its

intended purposes and proposed land uses, the Developer, at its option, shall have forty-five (45) days from the date of receiving written notice of defects from the City within which to have the exceptions removed from the commitment or the defects cured to the reasonable satisfaction of the City. In such event, the time of closing shall be thirty (30) days after delivery of the commitment or the time expressly specified in this Agreement, whichever is later. If the Developer fails to have the commitment exceptions removed or the defects cured within the specified time, the City may terminate this Agreement and demand full payment of the Arbor Mitigation Fund Contribution, not to exceed $1,375,325.00, or the City may elect, upon notice to the Developer within ten (10) days after the expiration of the forty-five (45) day curative period, to take title as it then is notwithstanding such exceptions or title defects. Notwithstanding anything herein contained to the contrary, the Developer shall exercise reasonable diligence in the curing of any defects in title, including the payment and discharge of any liens or encumbrances affecting the title status of the property. The Developer shall pay for the cost of recording any necessary curative instruments, the title insurance commitment, and the Owner's policy if issued, and recording of the deed. Each party shall pay their respective attorney's fees. In no event shall the City issue a certificate of occupancy for any structure associated with the Project until closing has occurred or the full payment of the Arbor Mitigation Fund Contribution is received by the City.

Developer shall prepay taxes for the year of closing pursuant to Section 196.295, Florida Statutes, and all special assessments which have been levied or certified prior to closing must be paid in full by Developer.

Developer warrants to the City that to the knowledge of the warranting party the Conveyance Parcel does not currently contain any Hazardous Substances in violation of any applicable environmental laws or regulations, including but not limited to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. '9601 et seq., any “superlien” laws, any superfund laws, or similar federal or state laws, or any successor statutes thereto (“Environmental Laws”), nor to the warranting party’s knowledge has any clean-up of the Conveyance Parcel occurred pursuant to the Environmental Laws which could give rise to liability to reimburse any governmental authority for the costs of such clean-up nor a lien or encumbrance on the Conveyance Parcel.

The City agrees that should the Developer abandon the Project after final site plan approval and conveyance of the above-described property, but prior to completion of construction and issuance of certificates of occupancy, the Developer's successors or assigns shall be permitted to apply the acreage of the above-described property if already conveyed to the City for purposes of calculating density, floor area ratio, and maximum impervious surface or lot coverage, provided that, absent a written modification to this Agreement approved by the City Council, such calculations shall not be increased beyond that proposed in the final site plan and as provided in this Agreement for purposes of future development.

8.0 Arbor Mitigation Fund Contribution. Tree removals, tree preservation, and tree replacements shall be in accordance with the approved Final Engineering/Site Plan. It is anticipated that all tree removals proposed on the Property (including Phase II) shall occur during Phase I, but tree replacements planned for Phase II will not be planted until Phase II construction occurs. Accordingly, with respect to tree replacement, the Developer shall be required in Phase I to plant at least __4086_____ inches of new trees, with the remaining __867____ inches to be planted in Phase II. All required tree replacements in Phase I common area tracts shall be planted prior to the issuance of the 100th certificate of occupancy for any building or structure in Phase I. A Landscape Performance and Maintenance Bond in a form acceptable to the City Attorney ensuring planting, installation and maintenance of all required replacement trees and landscaping should the Project or any individual Phase be abandoned after the Property has been cleared, including proper maintenance of the trees for two (2) years after planting, shall be delivered to the City prior to the commencement of any land clearing on the Property. Given the phased nature and lengthy duration of the Project, the Landscape Performance and Maintenance Bond must have a duration that is automatically extended, without notice to the surety, for successive periods until all landscaping requirements have been completed or be provided in a similar form acceptable to the City Attorney. The Landscape Performance and Maintenance Bond will terminate as to individual lots as lots are transferred by sale and will terminate as to common area tracts upon transfer of the common area tracts to the HOA.

Tree replacements and landscaping for the Project shall be subject to the obligation of ongoing maintenance and replacement for the first two years following planting, at the Developer's expense, if the City determines, after reasonable inspection, that any tree or landscaping has become severely diseased or damaged to the point that the viability of the tree or landscaping has been significantly compromised. In the event that Developer fails to perform the necessary maintenance, repairs or replacements of any of the trees or landscaping, the City shall have the right, but not obligation, to conduct said maintenance, repairs or replacements and recover the actual cost thereof from the Developer. Prior to exercising that right, the City shall provide the Developer written notice and an explanation of the specific default and at least thirty (30) days in which to cure the default. If Developer fails to cure the default by the end of the cure period, the City may exercise its rights to maintain and replace at any time thereafter.

Developer and the City agree that Developer shall pay to the City, prior to the commencement of any tree removal on the Property, $550,000 of the Developer's Arbor Mitigation Fund Contribution for the tree removals on the Property that will not be replaced in consideration of the Conveyance Parcel .

If the Developer fails to obtain building permits and substantially commence vertical construction of Phase I of the Project within the aforesaid two (2) year timeframe, or fails to satisfy any of the conditions of this Section, the City shall have the right to declare the Developer in default pursuant to the terms of this Agreement. If the Developer does not cure the default within the designated cure period, the City shall have the right, but not obligation to, terminate this Agreement without penalty and/or immediately take any and all actions necessary to collect the entire Arbor Mitigation Fund Contribution, to the extent the trees have been removed, not to exceed $1,375,325.00.

8.0 **Representations of the Parties.** The Parties hereby each represent and warrant to the other that it has the power and authority to execute, deliver and perform the terms and provisions of this Agreement and has taken all necessary action to authorize the execution, delivery and performance of this Agreement. This Agreement will, when duly executed and delivered by the Parties, constitute a legal, valid and binding obligation enforceable against the Parties hereto. Developer represents that it has voluntarily and willfully executed this Agreement for purposes of binding himself and the Property to the terms and conditions set forth in this Agreement.

9.0 **Successors and Assigns.** This Agreement shall automatically be binding upon and shall inure to the benefit of the City and Developer and their respective successors and assigns. The terms and conditions of this Agreement similarly shall be binding upon the Property and shall run with title to the same upon being duly recorded against the Property by the City.

10.0 **Applicable Law; Venue.** This Agreement shall be governed by and construed in accordance with the laws of the State of Florida. The venue of any litigation arising out of this Agreement shall be in Brevard County, Florida or in the event of a federal court action, in the Middle District of Florida, in Orlando, Florida.

11.0 **Amendments.** This Agreement shall not be modified or amended except by written agreement duly executed by all parties hereto (or their successors or assigns) and approved by the City Council.

12.0 **Entire Agreement; Exhibits.** This Agreement and all attached exhibits hereto supersede any other agreement, oral or written, regarding the Property and contain the entire agreement between the City and Developer as to the subject matter hereof. The Exhibits attached hereto and referenced herein are hereby fully incorporated herein by this reference.

13.0 **Severability.** If any provision of this Agreement shall be held to be invalid or unenforceable to any extent by a Court of competent jurisdiction, the same shall not affect in any respect the validity or enforceability of the remainder of this Agreement.

14.0 **Effective Date.** This Agreement shall become effective upon approval by the City Council and execution of this Agreement by all Parties hereto.

15.0 **Recordation.** Upon full execution by the Parties, this Agreement shall be recorded in the Public Records of Brevard County, Florida by the City.

16.0 **Relationship of the Parties.** The relationship of the Parties to this Agreement is contractual and Developer is an independent contractor or an agent of the City. Nothing herein shall be deemed to create a joint venture or principal-agent relationship between the Parties, and none of the Parties is authorized to, nor shall any Party act toward third persons or the public in any manner, which would indicate any such relationship with the other.

17.0 **Sovereign Immunity.** Notwithstanding any other provision set forth in this Agreement, nothing contained in this Agreement shall be construed as a waiver of the City's right to sovereign immunity under Section 768.28, Florida Statutes, or other limitations imposed on the City's potential liability under state or federal law.

20.0 **City's Police Power.** Developer agrees and acknowledges that the City hereby reserves all police powers granted to the City by law. In no way shall this Agreement be construed as the City bargaining away or surrendering its police powers.

21.0 **Interpretation.** The Parties hereby agree and acknowledge that they have all participated equally in the drafting of this Agreement and no party shall be favored or disfavored regarding the interpretation to this Agreement in the event of a dispute between the parties.

22.0 **Third-Party Rights.** This Agreement is not a third-party beneficiary contract and shall not in any way whatsoever create any rights on behalf of any third party.

23.0 **Attorney's Fees.** In connection with any arbitration or litigation arising out of this Agreement, each party shall be responsible for their own attorney's fees and costs, except that Developer shall promptly pay to the City all costs and expenses of collection, including reasonable attorneys' fees, with respect to any part of the Arbor Mitigation Fund Contribution herein required by Developer to be paid, which may be sustained or incurred by the City, after the date the same or any part thereof, becomes due.

24.0 **Development Permits.** Nothing herein shall limit the City's authority to grant or deny any development permit applications or requests subsequent to the effective date of this Agreement. The failure of this Agreement to address any particular City, County, State and/or Federal permit, condition, term or restriction shall not relieve any Party of the necessity of complying with the law governing said permitting requirement, condition, term or restriction. Without imposing any limitation on the City's police powers, the City reserves the right to withhold issuance of any and all certificates of occupancy for any building, trailer, structure or unit if Developer is in breach of any term and condition of this Agreement beyond the expiration of all applicable notice and cure periods hereunder.

25.0 **Default.** Failure by either party to perform each and every one of its obligations hereunder shall constitute a default, entitling the non-defaulting party to pursue whatever remedies are available to it under Florida law or equity including, without limitation, injunctive relief and termination of this Agreement. Prior to any Party filing any action as a result of a default under this Agreement, the non-defaulting party shall first provide the defaulting party with written notice of said default. Upon receipt of said notice, the defaulting Party shall be provided a thirty (30) day opportunity in which to cure the default to the reasonable satisfaction of the non-defaulting party prior to filing said action; provided, however, that if the nature of the default is such that it cannot reasonably be cured within thirty (30) days, then the cure period shall be deemed extended so long as the defaulting Party commences the cure thereof within

such period and thereafter diligently pursues such cure to completion.

26.0 **Termination.** In addition to those circumstances allowing termination as already provided herein, the City shall have the unconditional right, but not obligation, to terminate this Agreement, without penalty, if Developer fails to receive a building permit and commence vertical construction of Phase I of the Project, which shall at minimum include building foundation(s), within two years of the Effective Date of this Agreement. In addition, the City shall have the right, but not obligation, to terminate the Agreement if Developer permanently abandons construction of the Project. Provided, however, that in either of these circumstances, the City shall first deliver written notice and an opportunity to cure to the Developer as set forth in Section 25.0. If the City terminates this Agreement, the City shall record a notice of termination against the Property in the public records of Brevard County, Florida. This Agreement may otherwise be terminated by mutual written agreement of the Parties.

27.0 **Indemnification and Hold Harmless.** As between the City and Developer, Developer shall be solely responsible for designing, permitting, constructing, operating and maintaining this Project. As such, Developer hereby agrees to indemnify, release, and hold harmless the City and its elected officials, employees and attorneys from and against all claims, losses, damages, personal injuries (including, but not limited to, death), or liability (including reasonable attorney's fees and costs through all appellate proceedings), directly or indirectly arising from, out of, or caused by Developer and Developer's contractor's and subcontractor's performance of design, permit and construction activities in furtherance of constructing the Project under this Agreement and the operation and maintenance of the Project thereafter; provided, however, that the foregoing indemnification obligation shall not include matters resulting from the acts or omissions of the City, nor the gross negligence or willful misconduct of the City. This indemnification shall survive the termination of this Agreement.

28.0 **Force Majeure.** The parties agree that in the event that the failure by either party to accomplish any action required hereunder within a specified time period ("Time Period") constitutes a default under the terms of this Agreement and, if any such failure is due to acts of God, acts of government authority (other than the City's own acts, if the City is claiming the benefit of this Section 28.0), acts of public enemy or war, riots, civil disturbances, power failure, shortages of labor or materials, pandemics, quarantines and "stay-at- home" orders not including COVID-19 (other than the City's own acts, if the City is claiming the benefit of this Section 28.0), injunction or other court proceedings beyond the control of such party, or severe adverse weather conditions ("Force Majeure Event"), then, notwithstanding any provision of this Agreement to the contrary, that failure shall not constitute a default under this Agreement and any Time Period proscribed hereunder shall be extended by the amount of time that such party was unable to perform solely due to the Force Majeure Event. The extended time period shall be agreed to in writing by the parties and said agreement shall not be unreasonably withheld by either party. The City Manager shall have the authority to grant an extended Time Period. An extension of any Time Period for reasons of a Force Majeure Event shall be requested solely as provided in this Section. Developer hereby waives and relinquishes the right to notify the City of the intent to exercise the tolling and extension of any permit related to the Project, including Time Periods under this Agreement, development orders, and building permits, available under Section

252.363, Florida Statutes, as the result of a declaration of a state of emergency issued by the Governor for a natural emergency.

29.0 **Notice.** Whenever either party desires to give notice to the other, notice shall be sent by hand delivery or certified mail, return receipt requested, and shall be sent to:

To the City:
City of Cocoa
Attn: Stockton Whitten, City Manager
65 Stone Street
Cocoa, Florida 32922

To the Developer:
Legacy Villas at Cocoa LLC
Attn: Tomas Cabrerizo
3850 Bird Road, Suite 801
Miami, FL 33246

Any Party may freely modify their respective contact person and address contained in this Paragraph by providing written notice of the modification to the other party. Any Notice given as provided herein shall be deemed received as follows: if delivered by personal service, on the date so delivered; and if mailed, on the third business day after mailing.

30.0 **Assignment.** Prior to completing the construction of the Project and reaching final build-out of the Project (as evidenced by issuance of a certificate of occupancy for the Project), Developer shall not assign this Agreement without the prior written consent of the City, and same shall not to be unreasonably withheld. Any such assignment shall also require the written approval of the City by amendment to this Agreement, but which shall not require a public hearing and shall not be unreasonably withheld. Notwithstanding the foregoing, Developer shall be entitled to assign its rights and obligations under this Agreement, at any time and without the prior written consent of the City, to (a) a parent, subsidiary, or affiliated entity in which Developer or its affiliates are members or interest holders without City consent, or (b) any tenant of the Project pursuant to a lease entered into with the Developer, provided that the City is given notice of such assignment in accordance with Section 29.0 herein. Any assignment authorized by this subparagraph shall require the assignee to be a formal signatory to this Agreement and fully assume all of Developer 's obligations, commitments, representations, and warranties under this Agreement. In any assignment, the rights and obligations contained herein shall be binding on successors in interest to the Property, and the terms and conditions of this Agreement shall bind and inure to the benefit of the parties hereto and any respective successors and assigns. Upon any such assignment, Developer shall be automatically released from all of its obligations and liabilities under this Agreement.

31.0 **Compliance with Laws; Planning & Zoning Board Site Plan Conditions.** As between the City and Developer, Developer shall be responsible for complying with all applicable laws, ordinances, rules, regulations, and lawful orders of any public authority regarding the construction, location and continued operation of its business within the City of Cocoa. As between the City and Developer, Developer shall also be

responsible for complying with all conditions of Site Plan approval imposed by the City Council which are not contrary to this Agreement.

32.0 **Waiver.** No failure to insist on the prompt performance by Developer of its obligations under this Agreement shall be construed as a waiver by the City of its rights to demand performance. Further, any waiver by the City of any breach or violation of Developer's obligations under this Agreement shall not be construed as a continuing waiver or consent to any subsequent breach or violation or impede the City's ability to enforce the terms of this Agreement.

Signed, sealed, and delivered in the presence of the following witnesses:

CITY OF COCOA, A FLORIDA MUNICIPAL CORPORATION

_____
Signature of Witness

_____
Printed Name of Witness

_____
Michael C. Blake, Mayor

_____ Date: _____
Address of Witness

_____
Signature of Witness

_____
Printed Name of Witness

APPROVED AS TO FORM

By: _____
Anthony A. Garganese, City Attorney

_____
Address of Witness

ATTEST:

By: _____
Monica Arsenault, City Clerk

State of Florida
County of Brevard

The foregoing instrument was acknowledged before me by means of [_] physical presence or [_] online notarization, this ___ day of _____, 20___ by Michael C. Blake, the Mayor of the City of Cocoa, on behalf of the City, who [_] is personally known or [_] has produced a driver's license as identification.

_____

____

[Seal]

Notary Public
Print Name: _____
My Commission Expires: _____

DEVELOPER:
LEGACY VILLAS AT COCOA, LLC

_____
Signature of Witness

_____
Printed Name of Witness

BY: _____
Print: _____
Title: _____
Date: _____

_____
Address of Witness

_____
Signature of Witness

_____
Printed Name of Witness

_____
Address of Witness

State of _____
County of _____

The foregoing instrument was acknowledged before me by means of [_] physical presence or [_] online notarization, this ___ day of _____, 20_____ by _____ as _____ of **LEGACY VILLAS AT COCOA, LLC** who [_] is personally known or [_] has produced a driver's license as identification.

_____

[Seal]

Notary Public
Print Name: _____
My Commission Expires: _____

EXHIBIT "A" – Legal Description

DESCRIPTION:

PARCEL 1:

THE SOUTH QUARTER (S ¼) OF THE NORTHWEST QUARTER (NW¼) OF THE SOUTHWEST QUARTER (SW¼) OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY,
FLORIDA, EXCEPT ROAD RIGHT-OF-WAY.

PARCEL 2:

THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, LESS THE WEST 33 FEET FOR COX ROAD RIGHT-OF-WAY.

ALSO DESCRIBED AS:

A PARCEL OF LAND BEING THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA, LESS AND EXCEPT THE RIGHT OF WAY OF COX ROAD, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A BRASS DISK (NO IDENTIFICATION) WHICH MONUMENTS THE SOUTHWEST CORNER OF SAID SECTION 24, AND RUN NORTH 89° 14' 1 57" EAST ALONG THE SOUTH LINE OF SAID SECTION, A DISTANCE OF 33.00 FEET TO A POINT ON THE EAST RIGHT WAY LINE OF COX ROAD, THE POINT OF BEGINNING; THENCE CONTINUE NORTH 89°14' 57" EAST, ALONG SAID SOUTH LINE, A DISTANCE OF 2610.50 FEET TO A 4" X 4" CONCRETE MONUMENT(NO IDENTIFICATION), WHICH MARKS THE SOUTH 1/4 CORNER OF SAID SECTION; THENCE NORTH 00°20' 16" EAST, ALONG THE EAST LINE OF THE SOUTHWEST 1/4, A DISTANCE OF 1332.14 FEET TO THE NORTH-EAST CORNER OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4; THENCE SOUTH 89°07' 58" WEST, ALONG THE NORTH LINE OF SAID SOUTH 1/2 OF THE SOUTHWEST 1/4, A DISTANCE OF 2614.10 FEET TO A POINT ON THE EAST RIGHT OF WAY LINE OF COX ROAD (A 66 FOOT WIDE RIGHT OF WAY); THENCE SOUTH 00°11'14" WEST, ALONG SAID EAST RIGHT OF WAY LINE A DISTANCE OF 1326.77 FEET TO THE POINT OF BEGINNING, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.

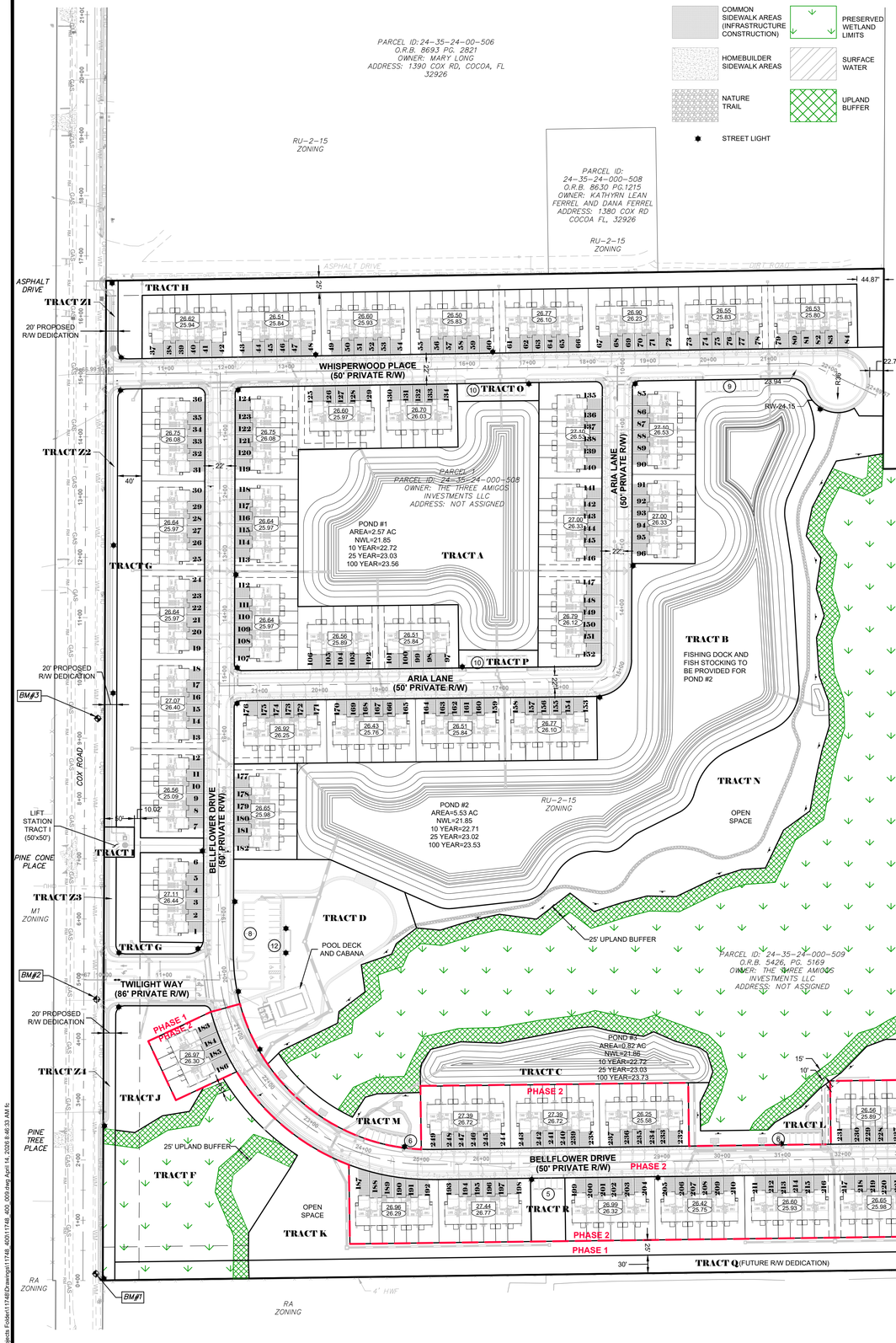
CONTAINING 3,900,519 SQUARE FEET OR 89.54 ACRES, MORE OR LESS.

Exhibit B

Overall Site Plan

Exhibit C

Elevations and Floor Plans



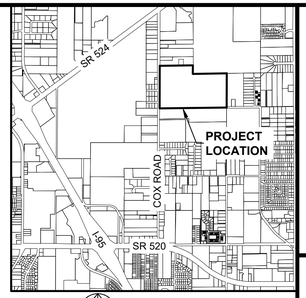
TRACT AREA SUMMARY TABLE - PHASE 1		
TRACT	AREA (ACRES)	TRACT USE
TRACT A	2.86	STORMWATER FACILITIES, LANDSCAPING, IRRIGATION, AND RELATED FACILITIES
TRACT B	6.06	STORMWATER FACILITIES, LANDSCAPING, IRRIGATION, OPEN SPACE, AND RELATED FACILITIES
TRACT C	0.84	STORMWATER FACILITIES, LANDSCAPING, IRRIGATION, AND RELATED FACILITIES
TRACT D	1.59	AMENITY CENTER, INSTALLATION AND MAINTENANCE OF UTILITIES, RECREATION, OPEN SPACE AND STORMWATER MANAGEMENT
TRACT E	46.12	WETLAND PRESERVATION, UPLAND BUFFER
TRACT F	1.46	WETLAND PRESERVATION, UPLAND BUFFER
TRACT G	0.93	LANDSCAPE IMPROVEMENTS, PUBLIC SIDEWALK, STORMWATER MANAGEMENT AND RELATED IMPROVEMENTS
TRACT H	0.93	LANDSCAPE BUFFER AND STORMWATER MANAGEMENT
TRACT I	0.06	LIFT STATION
TRACT J	0.44	LANDSCAPE BUFFER
TRACT K	1.95	LANDSCAPE BUFFER

TRACT AREA SUMMARY TABLE - PHASE 2		
TRACT	AREA (ACRES)	TRACT USE
TRACT S	5.95	FUTURE DEVELOPMENT

TRACT AREA SUMMARY TABLE - PHASE 1		
TRACT	AREA (ACRES)	TRACT USE
TRACT L	0.27	PARKING AREA, OPEN SPACE, AND INGRESS/EGRESS TO TRACT C, SPECIFIC FOR THE MAINTENANCE AND OPERATION OF TRACT C
TRACT M	0.31	OPEN SPACE
TRACT N	2.26	OPEN SPACE, TRAIL, AND STORMWATER FACILITIES
TRACT O	0.09	PARKING, LANDSCAPING, & RELATED IMPROVEMENT, INCLUDING THE INGRESS/EGRESS TO TRACT A SPECIFIC TO THE MAINTENANCE AND OPERATION OF TRACT A.
TRACT P	0.09	PARKING, LANDSCAPING, & RELATED IMPROVEMENT, INCLUDING THE INGRESS/EGRESS TO TRACT A SPECIFIC TO THE MAINTENANCE AND OPERATION OF TRACT A.
TRACT Q	1.09	FUTURE ROW EXPANSION
TRACT ZZ1	4.45	ROW (PHASE 1) INGRESS/EGRESS, PUBLIC AND PRIVATE UTILITIES
TRACT Z1	0.06	ROAD ROW - TO BE DEDICATED TO THE CITY OF COCOA
TRACT Z2	0.33	ROAD ROW - TO BE DEDICATED TO THE CITY OF COCOA
TRACT Z3	0.07	ROAD ROW - TO BE DEDICATED TO THE CITY OF COCOA
TRACT Z4	0.21	ROAD ROW - TO BE DEDICATED TO THE CITY OF COCOA

WETLAND INFORMATION TABLE

PARCEL AREA	3,900,519 SF	89.54 ACRES
TOTAL WETLANDS	2,035,721 SF	46.73 ACRES
PROPOSED WETLAND IMPACTS	60,444 SF	1.39 ACRES
PRESERVED WETLANDS	1,975,277 SF	45.34 ACRES
SURFACE WATER	130,128 SF	2.99 ACRES



LOCATION MAP
NTS

OPEN SPACE DEVELOPMENT TABLE - PHASE 1				
TYPE	TRACTS	AREA SF	AREA AC	DESCRIPTION OF IMPROVEMENTS
ACTIVE RERETION	N	98,446	2.26	NATURE TRAIL
PASSIVE OPEN SPACE*	B	189,050*	4.34*	PASSIVE OPEN SPACE
AMENITY AREA	D	69,168	1.59	POOL, POOL DECK, CABANA, RESTROOMS, MAIL KIOSK, WALKING TRAIL, LAKE OVERLOOK
TOTAL		356,664	8.19	

*OPEN SPACE CREDIT FOR STORMWATER POND CANNOT EXCEED 50% OF THE REQUIRED OPEN SPACE AND WILL BE STOCKED FOR FISHING AND INCLUDE A FISHING DOCK/PLATFORM FOR THE USE OF THE RESIDENTS.

OPEN SPACE DEVELOPMENT TABLE - PHASE 2				
TYPE	TRACTS	AREA SF	AREA AC	DESCRIPTION OF IMPROVEMENTS
PASSIVE OPEN SPACE	L	11,761	0.27	WALKING TRAIL, BENCHES
PASSIVE OPEN SPACE	M	16,117	0.37	WALKING TRAIL, BENCHES
TOTAL		27,878	0.64	

TOTAL OPEN SPACE PROVIDED:

PHASE 1 = 8.19 AC
PHASE 2 = 0.64 AC
TOTAL 8.83 AC

BENCHMARK (BM) TABLE		
NUMBER	DESCRIPTION	ELEV (NAVD88)
BM#1	1/2" IRC "BSE TRAV"	23.92
BM#2	1/2" IRC "BSE TRAV"	24.71
BM#3	1/2" IRC "BSE TRAV"	24.83

SURVEYOR OF RECORD:
MR. LES HOWARD PSM
LHOWARD@LJA.COM

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905
SCOTT M. GLAUBITZ, P.E. & P.L.S. STATE OF FLORIDA, No. 33659 No. 4151
HASSAN A. KAMAL, P.E. STATE OF FLORIDA, No. 41951

100 0 50 100
(IN FEET)
VERTICAL DATUM: NAVD88

6	
5	
4	
3	
2	
1	
3	CITY COMMENTS 02/25/26
2	SJRWMD COMMENTS 12/16/25
1	CITY COMMENTS 07/21/25
DATE:	5/16/25
DESIGN/DRAWN:	HAK/FMC

PROJECT TITLE
SANCTUARY AT COCOA TOWNHOMES INFRASTRUCTURE IMPROVEMENTS

SHEET TITLE
OVERALL SITE PLAN

LIGHTING SHALL BE DESIGNED, INSTALLED, MAINTAINED, AND DIRECTED TO AVOID GLARE ON ADJOINING PROPERTIES AND RIGHTS-OF-WAY THROUGH THE USE OF SEMI AND FULL CUT-OFF FEATURES.

ALL AREAS DISTURBED IN THE RIGHT-OF-WAY SHALL BE RETURNED TO ORIGINAL CONDITION OR BETTER.

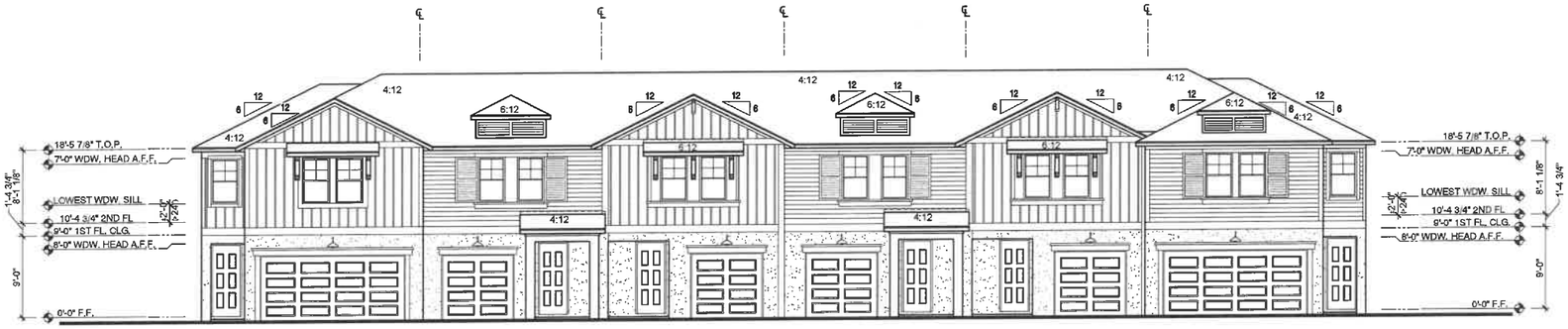
PROJECT NO.
11748

DRAWING NO.
11748_400_009

SHEET
9 of 58

H:\Projects Folder\11748\Drawings\11748_400\11748_400_009.dwg April 14, 2026 8:46:33 AM E

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



UNIT - T179 GARAGE RIGHT | UNIT - T148 GARAGE LEFT | UNIT - T148 GARAGE RIGHT | UNIT - T148 GARAGE LEFT | UNIT - T148 GARAGE RIGHT | UNIT - T179 GARAGE LEFT

ELEVATION - FRONT

SCALE: 1/8"=1'-0"



UNIT - T179 GARAGE LEFT | UNIT - T148 GARAGE RIGHT | UNIT - T148 GARAGE LEFT | UNIT - T148 GARAGE RIGHT | UNIT - T148 GARAGE LEFT | UNIT - T179 GARAGE RIGHT

ELEVATION - REAR

SCALE: 1/8"=1'-0"

FIELDSTONE ARCHITECTURE & ENGINEERING
Michigan: 3400 Auburn Rd. · Ste. 200 · Auburn Hills, MI 48326
Florida: 12906 Tampa Oaks Blvd. · Ste.150 · Tampa, FL 33637
248.622.4035 · FieldstoneAE.com · 813.466.3310

Meritage Homes
1127 Gateway Boulevard
Boynton Beach, FL 33426
561-847-7515 Phone

Control Date 02.12.2025

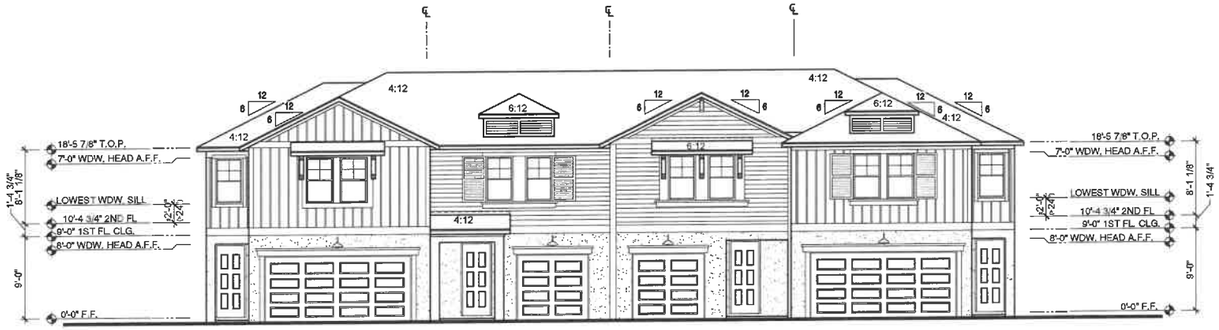
Date/Issued for:

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
BUILDING ELEVATIONS

©Fieldstone A&E, LLC
DO NOT SCALE DRAWINGS

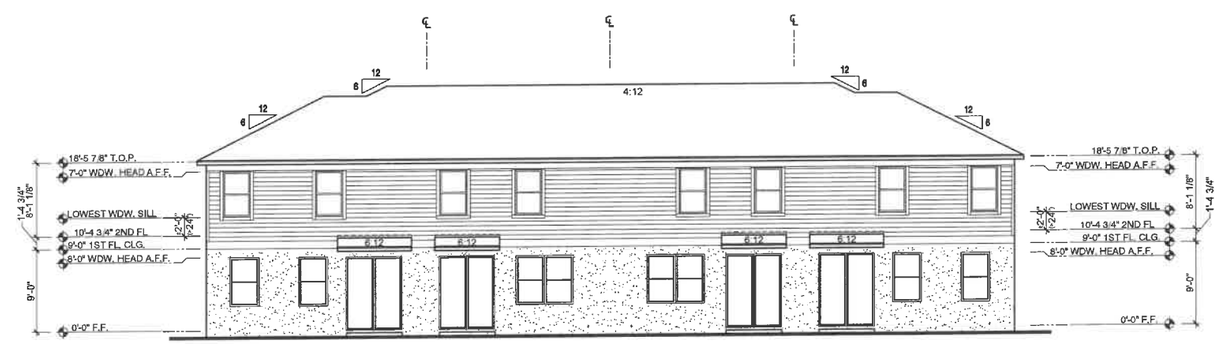
Sheet No.
A3.1



UNIT - T179 GARAGE RIGHT | UNIT - T148 GARAGE RIGHT | UNIT - T148 GARAGE LEFT | UNIT - T179 GARAGE LEFT

ELEVATION - FRONT

SCALE: 1/8"=1'-0"



UNIT - T179 GARAGE LEFT | UNIT - T148 GARAGE LEFT | UNIT - T148 GARAGE RIGHT | UNIT - T179 GARAGE RIGHT

ELEVATION - REAR

SCALE: 1/8"=1'-0"

FIELDSTONE
ARCHITECTURE & ENGINEERING
Michigan: 3400 Auburn Rd. · Ste. 200 · Auburn Hills, MI 48326
Florida: 12006 Tampa Oaks Blvd. · Ste.150 · Tampa, FL 33637
248.622.4035 · FieldstoneAE.com · 813.466.3310

Meritage Homes

1127 Gateway Boulevard
Boynton Beach , FL 33426
561-847-7515 Phone

Control Date 02.12.2025

Date/Issued for:

0 –
– –
– –
– –
– –

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
BUILDING ELEVATIONS

©Fieldstone A&E, LLC
DO NOT SCALE DRAWINGS

Sheet No.
A3.1

C:\Users\mkuchera\Desktop\Local Backup\Auto_51\4535_Bldg_4x1_01_CO_T148_T179_ARC_Master.dwg - Plot Date: Wednesday, February 12, 2025 7:48 PM, Plotted By: mkuchera

DIVISION 01 / GENERAL REQUIREMENTS:

1. THE FLORIDA BUILDING CODE – RESIDENTIAL (FBC-R) W/LATEST ADOPTED AMENDMENTS, BULLETINS, AND INTERPRETATIONS AND ALL ADOPTED & REFERENCED SUB CODES, PUBLICATIONS, REPORTS (THE "CODE") APPLIES TO ALL CONSTRUCTION ACTIVITIES (THE "WORK") OF A NATURE AND INTENT INDICATED BY THESE CONSTRUCTION DRAWINGS, SPECIFICATIONS, ADDENDA, ETC. (THE "DOCUMENTS") AT THE STRUCTURE, BUILDING, AND/OR SITE (THE "PROJECT", THE "SITE") OR SPECIFICALLY-DESIGNATED PORTION OF THE PROJECT/SITE (THE "WORK AREA") REFERENCED HEREIN. THE GENERAL CONTRACTOR (THE "CONTRACTOR" OR "G.C.") SHALL VERIFY ALL CODE REQUIREMENTS BEFORE COMMENCEMENT OF WORK AND BRING ANY DISCREPANCIES BETWEEN CODE REQUIREMENTS AND THE CONSTRUCTION DOCUMENTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER. ALL TRADES, I.E. MECHANICAL, ELECTRICAL AND PLUMBING SUBCONTRACTORS OR INDEPENDENTLY CONTRACTED INDIVIDUAL TRADE CONTRACTORS (THE "CONTRACTORS"), SHALL PERFORM ALL WORK IN ACCORDANCE WITH ANY AND ALL APPLICABLE CODES CURRENTLY IN EFFECT AT THE TIME OF CONSTRUCTION.
2. OSHA REGULATIONS SHALL APPLY WHERE REQUIRED DURING THE COURSE OF THE WORK AS IT APPLIES TO WORKER SAFETY. CONTRACTOR SHALL DESIGNATE A "SAFETY DIRECTOR" OR "SAFETY POINT OF CONTACT" WHO SHALL BE RESPONSIBLE FOR ALL OSHA SAFETY REQUIREMENTS. NOTHING CONTAINED IN THESE DOCUMENTS IN ANY WAY REQUIRES THE ARCHITECT, ENGINEER OR OWNER TO BE RESPONSIBLE FOR ANY ASPECT OF SAFETY DURING CONSTRUCTION OR TO ENSURE THAT THE CONTRACTOR FOLLOWS WHATEVER SAFETY REGULATIONS MAY BE APPLICABLE.
3. ALL WORK SHALL BE IN CONFORMANCE WITH ALL FEDERAL, STATE AND LOCAL CODES AND ACTS, MANUF'S RECOMMENDATIONS & INDUSTRY STANDARDS OF GOOD PRACTICE.
4. ALL MATERIALS SHALL BE AS SPECIFIED AND/OR DETAILED, AND STORED AND INSTALLED IN A WORKMANLIKE MANNER, IN ACCORDANCE WITH APPLICABLE CODES, MANUF'S RECOMMENDATIONS, & INDUSTRY STDS OF GOOD PRACTICE (AS REQUIRED).
5. ALL CONTRACTORS SHALL MAINTAIN THE PREMISES CLEAN AND FREE OF ALL TRASH, DEBRIS AND SHALL PROTECT ALL ADJACENT WORK FROM DAMAGE, SOILING, PAINT OVER SPRAY, ETC. ALL FIXTURES, EQUIPMENT, GLAZING, FLOORS, ETC., SHALL BE LEFT CLEAN & READY FOR OWNER'S USE UPON COMPLETION OF THE PROJECT.
6. GC SHALL BRING ERRORS AND OMISSIONS WHICH MAY OCCUR IN CONTRACT DOCUMENTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER AND INSTRUCTIONS SHALL BE OBTAINED BEFORE PROCEEDING WITH AFFECTED WORK. THE GC SHALL BE RESPONSIBLE FOR RECTIFYING UNACCEPTABLE RESULTS OF ANY ERRORS, DISCREPANCIES, OR OMISSIONS IN THE CONTRACT DOCUMENTS WHICH CAN REALLY OR REASONABLY BE DETERMINED AND FOR WHICH THE CONTRACTOR FAILED TO NOTIFY THE ARCHITECT/ENGINEER BEFORE CONSTRUCTION AND/OR FABRICATION OF SUBJECT WORK. THE GC SHALL VERIFY ALL CONDITIONS AND DIMENSIONS WITHIN THE CONTRACT LIMITS. DEVIATIONS FROM THE CONTRACT DOCUMENTS NECESSITATED BY FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF AND REVIEWED BY THE ARCHITECT/ENGINEER AND INSTRUCTIONS SHALL BE OBTAINED BEFORE PROCEEDING WITH WORK. SEE RFI PROCESS BELOW.
7. GC TO COORDINATE ALL DIMENSIONS ON PREFABRICATED ITEMS WITH MANUFACTURER'S INSTRUCTIONS. ALL MANUFACTURER'S PRINTED WARNINGS FOR HANDLING OF PRODUCTS MUST BE OBSERVED. THE WORDS "OR EQUAL" ARE TO BE ASSUMED WHENEVER A SPECIFIC MANUFACTURER IS NOTED UNLESS "NO SUBSTITUTIONS PERMITTED".
8. GC RESPONSIBLE FOR SUPPLYING ALL RELATED ITEMS REQUIRED FOR CONSTRUCTION AND FULL PROJECT COMPLETION, UNLESS OTHER ARRANGEMENTS ARE MADE WITH OWNER. SPECIFIC ITEMS TO BE FURNISHED BY OWNER OR OTHERS ARE NOTED IN THESE DOCUMENTS AND SHOULD BE COORDINATED PRIOR TO CONSTRUCTION START.
9. THE GC SHALL PAY FOR ANY/ALL TEMPORARY UTILITIES DURING CONSTRUCTIONS INCLUDING (BUT NOT LIMITED TO) ELECTRICITY, HEAT, WATER, SEWER, ETC.
10. CIVIL ENGINEERING AND SITE IMPROVEMENTS, GEOTECHNICAL, ENVIRONMENTAL, TELECOM, AUDIO-VISUAL, LOW VOLTAGE, COMPUTER, AND SECURITY SYSTEMS, INTERIOR DESIGN & DOCUMENTATION PROVISIONS ARE NOT INCLUDED AS PART OF THE SCOPE OF THESE DOCUMENTS UNLESS SPECIFICALLY NOTED HEREIN. THE GC SHALL CONSULT WITH THE OWNER REGARDING THE COORDINATION OF THESE PROVISIONS WITH THE SCOPE OF WORK IDENTIFIED BY THESE DOCUMENTS AND ANY OTHER WORK REQUIRED BY THE OWNER RELATED TO THIS PROJECT.
11. THE ARCHITECT, ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR WORK COMPLETED BY CONTRACTOR(S) THAT DEVIATES FROM ADOPTED APPLICABLE CODES, OR THE INTENT OF THESE DOCUMENTS. THE GC SHALL RECTIFY ALL NON-CONFORMANCE ISSUES IN ORDER TO COMPLY WITH CODE AND THE INTENT OF THESE DOCUMENTS AT NO ADDITIONAL COST TO THE OWNER, ATTAINMENT OF A CERTIFICATE OF OCCUPANCY FOR THE OWNER IS REQUIRED BUT MAY NOT REPRESENT THE ENTIRETY OF THE SCOPE OF WORK THAT IS TO BE COMPLETED BY THE GC FOR THIS PROJECT.
12. ENLARGED DRAWINGS AND DETAILS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS AND DETAILS.
13. DO NOT SCALE DRAWINGS. MATERIALS, GRAPHIC CONDITIONS AND DISTANCES SHOWN SHALL BE SUPERSEDED BY WRITTEN TEXT AND DIMENSIONS.
14. DETAILS AND SECTIONS ON THE DRAWINGS ARE TAKEN AT SPECIFIC LOCATIONS AND ARE INTENDED TO SERVE AS A REPRESENTATION OF TYPICAL CONSTRUCTION METHODOLOGY FOR ALL SIMILAR CONDITIONS. MODIFICATIONS SHALL BE MADE BY THE CONTRACTORS TO ACCOMMODATE MINOR VARIATIONS. IF MAJOR VARIATIONS FROM TYPICAL DETAILS AND SECTIONS ARE REQUIRED, GC SHALL NOTIFY ARCHITECT PRIOR TO PERFORMING SUCH WORK.
15. GC SHALL INSURE STABILITY AND SAFETY OF STRUCTURE AT ALL TIMES DURING THE CONSTRUCTION PERIOD. GC SHALL NOT OCCUPY ADJACENT PROPERTIES, PARCELS, OR LANDS WITHOUT FIRST OBTAINING WRITTEN PERMISSION FROM PROPERTY OWNERS AND SUBMITTING A RECORD OF THIS PERMISSION TO THE OWNER FOR REVIEW & APPROVAL.
16. THE GC SHALL MAKE NO STRUCTURAL CHANGES TO THE PROJECT WITHOUT WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER. THIS INCLUDES (BUT IS NOT LIMITED TO) LINTELS, BEAMS, SLABS, FOOTINGS, ARCHED LINTELS (FRAMED vs POURED) ROOF FRAMING, AND ALL OTHER STRUCTURAL ELEMENTS.
17. PROVISIONS FOR RADON CONTROL HAVE NOT BEEN INCLUDED IN THE DESIGN OF THIS PROJECT. GC TO NOTIFY OWNER IF SITE CONDITIONS WARRANT THE INCLUSION OF POSITIVE RADON CONTROL SYSTEM IN THE SCOPE OF WORK FOR THIS PROJECT.
18. THE GC SHALL SECURE AND REMIT THE COST OF ALL REQUIRED PERMITS AND INSPECTIONS FOR THIS PROJECT AND SHALL COORDINATE ALL INSPECTIONS IN ORDER TO OBTAIN A CERTIFICATE OF OCCUPANCY PERMIT UPON COMPLETION OF THE WORK.
19. GC IS TO PROVIDE AN ENTIRELY FINISHED PRODUCT UPON COMPLETION OF CONSTRUCTION INCLUDING ANY FINAL REPAIRS OR WORK IDENTIFIED BY PUNCHLIST ITEMS TO THE SATISFACTION OF THE OWNER AND ENGINEER/ARCHITECT.
20. THE GC SHALL GUARANTEE ALL WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR MINIMUM OR AS OTHERWISE AGREED BY THE OWNER. ALL PRODUCTS INSTALLED WITH MANUFACTURER'S WRITTEN WARRANTIES SHALL BE GUARANTEED IN ACCORDANCE WITH EACH WARRANTY. A COMPLETE WARRANTY PACKAGE FOR ALL SUCH PRODUCTS SHALL BE DELIVERED TO OWNER BY CONTRACTOR AT TIME OF PROJECT COMPLETION.

DIVISION 01 / CONSTRUCTION ADMIN PROCEDURES:

1. PROJECT COMMUNICATION
   - 1.1. GC SHALL PARTICIPATE IN A CONSTRUCTION ADMINISTRATION KICK-OFF MEETING WITH OWNER, ARCHITECT, AND DESIGN TEAM TO DEVELOP AND IMPLEMENT A SYSTEM OF ROUTING AND DISTRIBUTION OF:
     - 1.1.1. PROJECT CORRESPONDENCE
     - 1.1.2. PROJECT MEMOS AND EMAILS
     - 1.1.3. SUBMITTALS AND SHOP DRAWINGS
     - 1.1.4. REQUESTS FOR INFORMATION
     - 1.1.5. FIELD SKETCHES
     - 1.1.6. DRAWING REVISIONS AND DELTAS
   - 1.2. GC SHALL PROVIDE AND INITIATE ALL COORDINATION EFFORTS DURING CONSTRUCTION TO ENSURE ALL RELEVANT CHANGES REQUIRED ON THE PROJECT ARE COMMUNICATED TO ALL TRADES, SUBCONTRACTORS, OWNER, ARCHITECT, ENGINEER AND ANY OTHER PROJECT TEAM MEMBER.
2. SUBMITTALS AND SHOP DRAWINGS
   - 2.1. SHOP DRAWINGS ARE REQUIRED FOR STRUCT, MECH, ELEC AND SPECIALIZED CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED BY THE GC FOR REVIEW FOR CONFORMANCE WITH THE DESIGN CONCEPT OF THE WORK. IN AREAS WHERE THE DRAWINGS DO NOT ADDRESS METHODOLOGY, THE CONTRACTORS SHALL BE BOUND TO PERFORM IN COMPLIANCE WITH THE MANUFACTURER'S SPECS. AND RECOMMENDATIONS.
   - 2.2. GC SHALL PREPARE A LIST AND LOG OF ANTICIPATED SUBMITTALS AND SHOP DRAWINGS REQUIRING OWNER AND/OR ARCHITECT AND/OR ENGINEER APPROVAL AS PER THE CONTRACT AGREEMENT PRIOR TO THE START OF CONSTRUCTION. LIST AND LOG SHALL BE DELIVERED TO OWNER/ARCHITECT FOR RECORD AND BE MAINTAINED BY GC THROUGHOUT THE CONSTRUCTION PHASE.
   - 2.3 ALL SUBMITTALS AND SHOP DRAWINGS WILL BE REVIEWED BY OWNER/ARCHITECT A MAX OF (2) REVIEWS. ADDITIONAL REVIEWS RESULTING FROM ERRORS OR INACCURATE SUBMITTAL DATA WILL BE AT GC'S EXPENSE FOR REVIEW TIME COSTS INCURRED.
3. REQUESTS FOR INFORMATION (RFIs)
   - 3.1 ALL RFIs FROM FIELD SHALL BE ISSUED TO THE OWNER AND ARCHITECT BY GC ALONE. RFIs ISSUED DIRECTLY FROM SUBCONTRACTORS OR TRADES TO ARCHITECT OR BY ANY OTHER MEANS WILL NOT BE ACCEPTED OR REVIEWED.
   - 3.2 RFIs SHALL BE SUBMITTED IN AN RFI TEMPLATE ISSUED BY THE OWNER AT THE START OF THE PROJECT. ANY OTHER QUESTIONS, PHONE CONVERSATIONS, EMAILS, OR OTHER CORRESPONDENCE WILL BE CONSIDERED UNOFFICIAL AND NOT BE A PART OF THE CONTRACT DOCUMENTS UNTIL AN OFFICIAL RFI IS ISSUED.
   - 3.3 GC SHALL PREPARE AND MAINTAIN A LIST AND LOG OF RFIs (INCLUDING 'OPEN', 'PENDING', 'CLOSED', ETC) FOR THE DURATION OF THE PROJECT.
4. FIELD SKETCHES
   - 4.1. IN THE EVENT OF A FIELD REQUESTED CHANGE TO THE DOCUMENTS, GC MAY BE ASKED TO PREPARE A FIELD SKETCH THAT ILLUSTRATES THE DESIRED ALTERED APPROACH TO CONSTRUCTION. GC IS RESPONSIBLE FOR ISSUING THIS SKETCH VIA EMAIL OR ELECTRONIC TRANSMISSION TO THE OWNER/ARCHITECT FOR REVIEW PRIOR TO CONSTRUCTING THE ALTERED DETAIL OR METHOD.
   - 4.2. ARCHITECT/ENGINEER MAY ISSUE REVISED DETAILS OR PLANS TO THE CONTRACTOR IN THE FORM OF FIELD SKETCHES. THESE RELEASES ARE CONSIDERED AN OFFICIAL PART OF THE CONTRACT DOCUMENTS ONCE RELEASED AND ALL GC'S CONTRACT TERMS AND RESPONSIBILITIES WILL THEN APPLY. DEVIATION FROM A FIELD SKETCH SHALL BE CONSIDERED EQUAL TO DEVIATIONS FROM THE CONTRACT DRAWINGS OR SPECIFICATIONS.
   - 4.3. ARCHITECTS/ENGINEER'S GENERAL PRACTICE SHALL BE TO INCLUDE FIELD SKETCHES ON FULL DELTA REVISED DRAWINGS AT A LATER DATE FOR THE PURPOSE OF DOCUMENTATION FOR CODE AND INSPECTION PURPOSES. SEE BELOW FOR DRAWING REVISIONS AND DELTAS.
5. DRAWING REVISIONS AND DELTAS
   - 5.1. ARCHITECT/ENGINEER WILL RELEASE REVISED DRAWINGS AT KEY AND CRITICAL TIMES OF THE CONSTRUCTION PHASE AS NEEDED FOR ADDRESSING:
     - 5.1.1. INITIAL PERMIT REVIEW COMMENTS
     - 5.1.2. BIDDING RFIs
     - 5.1.3. OWNER REQUESTED CHANGES FROM BID RESULTS
     - 5.1.4. MAJOR CHANGES DURING CONSTRUCTION
     - 5.1.5. REQUESTS FROM JURISDICTION FOR PROGRESS SIGNED/SEALED
     - 5.1.6. FINAL CERTIFICATE OF OCCUPANCY OR PROJECT CLOSEOUT SETS
   - 5.2. REVISION SETS MAY RELEASED COMBINING MULTIPLE PURPOSES OUTLINED ABOVE (i.e. A DELTA #1 SET THAT CAPTURES BOTH THE INITIAL PERMIT REVIEW COMMENTS ALONG WITH THE BIDDING RFIs AND OWNER REQUESTED CHANGES FROM BID RESULTS ALL IN ONE REVISED SET – OFTEN LABELED AS "ISSUED FOR CONSTRUCTION").
   - 5.3. ALL REVISION SETS ISSUED BY THE ARCHITECT/ENGINEER WILL BE DONE WITH ALL CHANGES CLOUDED AND MARKED WITH A TRIANGLE 'DELTA' AND NUMBER INDICATING THE REVISION RELEASE. TITLE BLOCKS ON ALL SHEETS WILL ALSO HAVE THE DELTA NUMBER AND THE RELEASE DATE.
   - 5.4. GC IS RESPONSIBLE TO DISTRIBUTE REVISED SETS TO ALL TRADES AND ENSURE THAT ALL TRADES ARE WORKING FROM THE MOST RECENT SET OF DOCUMENTS. OWNER AND ARCHITECT/ENGINEER WILL NOT BE RESPONSIBLE FOR ERRORS, OMISSIONS, OR INCORRECT INSTALLATIONS THAT RESULT FROM GC OR ANY SUB CONTRACTORS NOT WORKING FROM THE MOST CURRENT SET OF DRAWINGS. CORRECTION OF SUCH ERRORS SHALL BE THE GCs RESPONSIBILITY AT NO COST TO THE OWNER/ARCHITECT AND AT THE DISCRETION OF THE OWNER.
6. SITE VISITS AND FIELD OBSERVATIONS
   - 6.1. GC SHALL COORDINATE WITH OWNER AND ARCHITECT AND INTERIOR DESIGNER (IF APPLICABLE TO THE PROJECT) FOR THE SCHEDULING OF ANY/ALL SITE VISITS DURING PLANNING, MOBILIZATION, CONSTRUCTION, AND/OR CLOSEOUT.
   - 6.2. SITE VISITS BY THE OWNER AND ARCHITECT MAY BE WITHOUT ADVANCE WARNING BUT WILL ALWAYS YIELD TO SITE CONDITIONS THAT MAY INTRODUCE SAFETY HAZARDS (i.e. VISITS MAY BE POSTPONED IF HARPEN TO OVERLAP WITH TRUSS INSTALLATION DAY(S)).
   - 6.3. GC SHALL MAKE EVERY EFFORT POSSIBLE TO BE AVAILABLE ON DAYS OF SITE VISITS TO ACCOMPANY OWNER/ARCHITECT ON SITE WALK TO ANSWER QUESTIONS AND NOTE ANY AREAS OF CONCERN OR REQUIRED CORRECTIONS.
   - 6.4. GC SHALL FOLLOW-UP AFTER EACH SITE VISIT WITH A WRITTEN SUMMARY OF ITEMS DISCUSSED, ISSUES NOTED, AND A PLAN OF ACTION TO ADDRESS ANY/ALL ISSUES OR CORRECTIONS REQUIRED BASED ON THE SITE WALK.
   - 6.5. GC SHALL TAKE DIGITAL PHOTOGRAPHS OF CONSTRUCTION PROCESS ON A WEEKLY BASIS AS POST IMAGES TO AN ONLINE FILE-SHARING PLATFORM (i.e. DropBox OR OTHER flp SHARING SITE) FOR OWNER/ARCHITECT REVIEW. IMAGES SHALL BE OF ALL ANGLES, INTERIOR AND EXTERIOR, CLOSE-UPS OF REBAR AND FORMS, ETC AS NECESSARY FOR THE OWNER AND DESIGN TEAM TO REVIEW AND COMMENT WITHOUT HAVING TO BE PHYSICALLY ON SITE.
7. PROJECT CLOSEOUT
   - 7.1. AT TIME OF SUBSTANTIAL PROJECT COMPLETION, GC SHALL DELIVER NOTICE TO OWNER AND ARCHITECT ALONG WITH A LIST OF ANY OUTSTANDING ITEMS TO BE COMPLETED OR CORRECTED AS A RESULT OF FINAL PUNCH-LIST WALK THROUGH OR PERMITTING "CERTIFICATE OF OCCUPANCY" INSPECTION(S).
   - 7.2. GC SHALL PREPARE AND DELIVER A FINAL FIELD INSPECTION REPORT TO THE OWNER AND ARCHITECT FOR RECORD.
   - 7.3. GC SHALL PREPARE, ASSEMBLE, AND DELIVER A COMPLETE SET OF MARKUPS AND FIELD DRAWINGS TO THE OWNER AND ARCHITECT IN BOTH HARD COPY AND FULL SIZE COLOR HI RESOLUTION SCANS FOR USE IN AS-BUILT DOCUMENTATION. INCLUDED SHALL BE LISTED ANY SUBSTITUTIONS OR VARIATIONS IMPLEMENTED (EITHER BY APPROVED RFI OR CHANGE ORDER OR BY GC'S FIELD DECISIONS BASED ON BEST PRACTICES) ALONG WITH ANY SKETCHES OF ALTERED DETAILS OR INSTALLATION PROCEDU

DIVISION 03 / CONCRETE:

1. REFER TO STRUCTURAL DRAWINGS FOR SPECS AND GENERAL INFORMATION.

DIVISION 04 / MASONRY:

1. REFER TO STRUCTURAL DRAWINGS FOR SPECS AND GENERAL INFORMATION.

DIVISION 05 / METALS:

1. REFER TO STRUCTURAL DRAWINGS FOR SPECS AND GENERAL INFORMATION.

DIVISION 06 / WOOD, PLASTICS, AND COMPOSITES:

1. ALL WOOD PRODUCTS AND MATERIALS SHALL BE STORED, STAGED, AND INSTALLED DRY AND SHALL BE PROTECTED FROM MOISTURE TO GREATEST EXTENT PRACTICABLE. STANDING WATER SHALL BE IMMEDIATELY REMOVED FROM WOOD MATERIALS EXPOSED TO MOISTURE DURING CONSTRUCTION. PT LUMBER SHALL BE "ARSENIC-FREE".
2. ALL METAL AND/OR WOOD FRAMING MATERIALS SHALL BE FREE OF VISUALLY OBSERVABLE WARPING, CUPPING, CHECKING, AND OTHER SUBSTANTIVE IMPERFECTIONS THAT ADVERSELY AFFECT STRUCTURAL PERFORMANCE OR THE PROVISION OF PLUMB AND TRUE CONNECTIONS WITH OTHER FRAMING MEMBERS.
3. ALL WOOD TRIM EXPOSED TO THE ELEMENTS, OR IN CONTACT WITH EARTH, CONCRETE, OR MASONRY, SHALL BE OF ARSENIC-FREE PRESSURE-TREATED LUMBER.
4. GC SHALL PROVIDE ADEQUATE SUPPORTS AND/OR BACKING MATERIAL IN NEW OR EXISTING WALLS FOR EQUIPMENT AND/OR ACCESSORIES ATTACHED THERETO.
5. FOAM TRIM
   - 5.1. BASIS OF DESIGN FOR THIS PROJECT SHALL BE THE FOLLOWING:
     - 5.1.1. LOCATIONS AT OR BELOW 5'-0" ABOVE GRADE: "STONE ON FOAM"
     - 5.1.2. LOCATIONS ABOVE 5'-0" ABOVE GRADE: HARDCOAT POLYURETHANE
   - 5.2. ALL FOAM TO HAVE SURFACE TEXTURE AND COLOR FINISH AS SELECTED BY OWNER OR ARCHITECT PER EXTERIOR COLOR BLOCKING PACKAGE.
   - 5.3. GC SHALL BE RESPONSIBLE TO PROCURE AND RECEIVE ALL FOAM TRIM TO THE SITE FREE OF DEFECT OR BLEMISH OR SHALL REPLACE BROKEN OR DAMAGED PIECES OF FOAM AS NEEDED. PUTTY OR SURFACE PATCH REPAIRS TO DEFECT FOAM PIECES IS PROHIBITED. STORE FOAM ON SITE IN A WEATHER PROTECTED LOCATION FOR MINIMUM 24-HOURS UNTIL INSTALLED.
   - 5.4. ADHERE FOAM TRIM TO BUILDING SUBSTRATE WITH ADHESIVE AS PER RECOMMENDED MANUF SPEC. PROVIDE FILLER AT JOINTS ONLY AND SMOOTH TO FINISH AS NOTED ON PLANS PRIOR TO FINAL PAINT/STUCCO.
   - 5.5. INSTALL FOAM IN ACCORDANCE WITH ALL MANUF INSTALLATION INSTRUCTIONS TO ENSURE PROPER FIT, FINISH, AND PROTECTION FROM UV DEGRADATION AS PER THE FOAM PRODUCT WARRANTY PACKAGE.

DIVISION 06 / WOOD, PLASTICS, AND COMPOSITES (CONT'D):

ALL TRIM SHALL BE TO SIZE, SHAPE, AND DIMENSION AS SHOWN ON PLANS.

- 5.5. NOTIFY OWNER/ARCHITECT IMMEDIATELY OF ANY UNACCEPTABLE CONDITIONS OR GEOMETRIC ISSUES PREVENTING FOAM INSTALLATION. DO NOT INSTALL ANY FOAM TRIM THAT DOES NOT MEETING THE DRAWING DESIGN OR ELEVATION INTENT. GC WILL BE RESPONSIBLE FOR CORRECTING ANY INCORRECT INSTALLATION OF FOAM TRIM THAT DOES NOT MATCH THE DRAWINGS.

DIVISION 07 / THERMAL AND MOISTURE PROTECTION:

1. THE FOLLOWING SPECIFICATION SHALL GOVERN WITH MODIFICATIONS AS SPECIFIED HEREIN: AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS (ASHRAE) HANDBOOK OF FUNDAMENTALS.
2. FLASHING
   - 2.1. INSTALL FLASHING AND SHEET METAL IN COMPLIANCE WITH "ARCHITECTURAL SHEET METAL MANUAL" BY SMACNA.
   - 2.2. ALUMINUM FLASHING SHALL CONFORM TO ASTM B 209, AND BE MINIMUM 0.016" THICK STANDARD BUILDING SHEET OF PLAIN FINISH.
   - 2.3. GALVANIZED STEEL FLASHING SHALL CONFORM TO ASTM A 526, 0.20%% COPPER, 26 GAGE (0.019") ASTM A 525, DESIGNATION G 90 HOT-DIP GALVANIZED, MILL PHOSPHATIZED.
   - 2.4. NONREINFORCED FLEXIBLE BLACK ELASTIC SHEET FLASHING OF 50 TO 65 MILS THICKNESS SHALL COMPLY WITH THE FOLLOWING: SHORE A HARDNESS: ASTM D-2240 – TENSILE STRENGTH: ASTM D-412 TEAR RESISTANCE: ASTM D-624, DIE C – ULTIMATE ELONGATION: ASTM D-412 LOW TEMPERATURE BRITTLENESS: ASTM D-1149 – OZONE AGING: ASTM D-1149 HEAT AGING: ASTM D-573.
   - 2.5. BACKPAINT FLASHINGS WITH BITUMINOUS PAINT WHERE EXPECTED TO BE IN CONTACT WITH CEMENTITIOUS MATERIALS OR DISSIMILAR METALS.
   - 2.6. PROVIDE AND INSTALL FLASHING AT ALL ROOF TO WALL CONDITIONS, PROJECTIONS OF WOOD BEAMS THROUGH EXTERIOR WALLS, EXTERIOR OPENINGS, & ELSEWHERE AS REQ'D TO PROVIDE WATERTIGHT/WEATHERPROOF ENVELOPE.
5. VENTILATION OF ATTICS INSULATED W/ SPRAY FOAM INSULATION:
   - 5.1. THE HVAC SYSTEM DESIGN (BY OTHERS) SHALL ACCOUNT FOR AIR CHANGE IN AN INSULATED ATTIC SPACE TO AVOID MOISTURE BUILDUP OVER TIME. IT IS RECOMMENDED THAT THE HVAC DESIGNER OBTAIN THE RECOMMENDATIONS OF THE SPRAY INSULATION MANUFACTURER FOR THE PROJECT SPECIFIC CONDITIONS AND CONSIDER THEM FOR INCLUSION OF THEIR DESIGN.
6. INSULATION
   - 6.2. PROTECT ALL INSULATION MATERIALS FROM PHYSICAL DAMAGE FROM DETERIORATION BY MOISTURE, SOILING, AND OTHER SOURCES. STORE INSIDE AND IN A DRY LOCATION.
   - 6.3. INSULATION MATERIALS, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS AND VAPOR-PERMEABLE MEMBRANES INSTALLED WITHIN FLOOR/CEILING ASSEMBLIES, ROOF/CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES AND ATTICS SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25 WITH AN ACCOMPANYING SMOKE-DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 723 EXCEPT AS OTHERWISE PERMITTED PER CODE.
   - 6.6. PROVIDE AND INSTALL SPRAY APPLIED INSULATION WITH AN INSULATION-ONLY VALUE OF R-19 ON UNDERSIDE OF ROOF SHEATHING AND TRUSS TOP CHORDS AS SHOWN ON DRAWINGS.
   - 6.7. PROVIDE & INSTALL GLASS FIBER BATT INSULATION AT WINDOW SHIM SPACES.
   - 6.8. FIT INSULATION TIGHT WITHIN SPACES AND TIGHT TO AND BEHIND MECHANICAL AND ELECTRICAL SERVICES WITHIN THE PLANE OF INSULATION. LEAVE NO GAPS OR SPACES BEING SURE NOT TO COMPRESS GLASS INSULATION.
7. PROVIDE AND INSTALL GUTTERS AND DOWNSPOUTS AS PER SMACNA ARCHITECTURAL SHEET METAL MANUAL (WHEN SELECTED BY OWNER.)
   - 7.1. GUTTER – PER MATERIAL SPECIFICATION
   - 7.2. DOWNSPOUT – CONTINUOUS PER SPECIFICATION (ALUMINUM).
   - 7.3. CONNECT DOWNSPOUTS TO IN-GROUND PERIMETER DRAINAGE SYSTEM PIPING OR SPLASHING TO GRADE WITH CONIC SPLASHBLOCKS AS INDICATED ON DWGS.
   - 7.4. PROVIDE AND INSTALL RAINWATER CONDUCTORS PLUMB AND TRUE AND FASTEN TO SUBSTRATE AS REQUIRED FOR SECURE ATTACHMENT CONSIDERING POTENTIAL DYNAMIC THRUST CREATED BY STORMWATER FLOW AND VOLUME. ALL FASTENERS AND SUPPORT ACCESSORIES SHALL BE OF THE SAME MATERIAL AS THE CONDUCTOR AND SHALL BE PROVIDED TO ELIMINATE THE POSSIBILITY OF GALVANIC CORROSION DUE TO DISSIMILAR METALS.
8. EXTERIOR STUCCO TO BE 5/8" ON BLOCK, 7/8" ON WOOD FRAMING, (2) COAT SYSTEM AT 1/4" EACH (SCRATCH, AND FINISH.) STUCCO TO BE APPLIED OVER 2 LAYERS OF PAPER BACKED METAL LATH. USE APPROPRIATE CORNER BEADS, MOLDINGS, ETC, TO ENSURE PROPER INSTALLATION. COLOR TO BE SELECTED BY OWNER OR AS PER COLOR BLOCKING PROVIDED BY OWNER.
9. WHERE CEMENT PLASTER (STUCCO) IS TO BE APPLIED TO LATH OVER FRAME CONSTRUCTION, MEASURES SHALL BE TAKEN TO PREVENT BONDING BETWEEN THE CEMENT PLASTER AND THE WATER RESISTIVE BARRIER. A BOND BREAK SHALL BE PROVIDED BETWEEN THE WATER RESISTIVE BARRIER AND THE CEMENT PLASTER (STUCCO) CONSISTING OF ONE OF THE FOLLOWING:
   - 1.1. TWO LAYERS OF AN APPROVED WATER RESISTANT BARRIER or
   - 1.2. ONE LAYER OF AN APPROVED WATER RESISTANT BARRIER OVER AN APPROVED PLASTIC HOUSE WRAP, or
   - 1.3. OTHER APPROVED METHODS OR MATERIALS APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. MINIMUM THICKNESS OF STUCCO WEATHER COVERINGS (EXCLUSIVE OF TEXTURES)

COVERING TYPE	MINIMUM THICKNESS
THREE-COAT WORK OVER:	
METAL PLASTER BASE	0.875"
UNIT MASONRY, C.I.P. OR PRECAST CONCRETE	0.625"
TWO-COAT WORK OVER:	
UNIT MASONRY	0.500"
CAST-IN-PLACE OR PRECASE CONCRETE	0.375"

3. STUCCO, FLASHING, CONTROL JOINTS, & WEATHER BARRIERS SHALL BE INSTALLED W/ STRICT ADHERENCE TO ALL APPLICABLE ASTM STDS & BUILDING CODE REQUIREMENTS.

DIVISION 08 / OPENINGS:

1. REFERENCE STANDARDS FOR METAL DOORS, WOOD DOORS, AND WINDOWS SHALL BE:
   - 1.1. UNDERWRITER'S LABORATORIES, INC.: BUILDING MATERIALS DIRECTORY.
   - 1.2. NATIONAL FIRE PROTECTION ASSOCIATION: PAMPHLET NO. 80 STANDARD FOR FIRE DOORS AND WINDOWS.
   - 1.3. THE REFERENCED STANDARDS OF FLORIDA BUILDING CODE – RESIDENTIAL
   - 1.4. IF CONSTRUCTION MATERIALS SPECIFIED IN THESE DOCUMENTS IS NOT REFERENCED IN THE 'RESIDENTIAL' CODE THEN THE APPLICABLE REFERENCED STANDARDS OF THE FLORIDA BUILDING CODE SHALL BE USED.
   - 1.5. REFERENCED STANDARDS INCLUDE BUT ARE NOT LIMITED TO MANUFACTURING, TESTING, PERFORMANCE (INCLUDES STRUCTURAL, GLAZING, AIR INFILTRATION, WATER PENETRATION).
2. ALL DOORS AND WINDOWS SHALL COMPLY WITH THE CODE FOR THE SITE, LOCATION & GEOGRAPHIC SPECIFIC REQUIREMENTS AND AS SELECTED BY OWNER FROM BUILDER / DEVELOPER'S CODE APPROVED AND DESIGNATED BUILDING MATERIAL SPECIFICATIONS.
3. CONTRACTOR SHALL CONFORM TO THE ADOPTED ENERGY CODE AND VERIFY THAT MAXIMUM WINDOW AND DOOR INFILTRATION RATES ARE NOT EXCEEDED.
4. ALL DOORS, WINDOWS, TRANSOMS, SIDELIGHTS, ETC. OPENING TO THE EXTERIOR OR TO UNCONDITIONED AREAS SHALL BE FULLY WEATHER STRIPPED, GASKETED OR OTHERWISE TREATED TO LIMIT AIR FILTRATION.
5. DOORS
   - 5.1. GLAZING IN DOORS ARE CONSIDERED A HAZARDOUS LOCATION AN SHALL BE TEMPERED GLASS EXCEPT AS PERMITTED PER CODE.
   - 5.2. DOOR UNITS AND FRAMES SHALL BE PROTECTED DURING CONSTRUCTION. THE GENERAL CONTRACTOR SHALL REPAIR/REPLACE ANY DAMAGE TO SUCH MATERIALS AND PRODUCTS AT NO ADDITIONAL COST TO THE OWNER.
   - 5.3. ALL DOOR HEIGHTS TO BE AS INDICATED ON THE CONSTRUCTION DOCUMENTS. DOOR HEIGHT TO BE MODIFIED BY GC AS REQUIRED TO ACCOMMODATE VARIOUS FLOOR FINISHES, THRESHOLDS, ROUGH OPENINGS AND MECHANICAL DESIGN UNDERCUTS.
   - 5.4. REFER TO DRAWINGS FOR DOOR TYPES, SIZES, FRAME DETAILS, AND HARDWARE SET DESIGNATIONS AND APPROVED BUILDER / DEVELOPER'S CODE APPROVED AND DESIGNATED BUILDING MATERIAL SPECIFICATIONS.
   - 5.5. ALL DOORS SHALL BE STORED IN A THERMALLY CONTROLLED ENVIRONMENT ON SITE UNTIL INSTALLED. STORE DOORS UPRIGHT WITH HEADS UP AND BLOCKING BETWEEN DOORS TO PREVENT DAMAGE OR WARPING.
   - 5.6. ALL LOCKS AND LOCKSETS SHALL BE COORDINATED WITH THIRD PARTY SECURITY CON

TYPICAL WALL TYPES

GENERAL NOTES - WALL TYPES

ALL INTERIOR PARTITIONS ARE WALL TYPE (1) U.N.O.

FOR ADDITIONAL INFORMATION ABOUT WALL ASSEMBLIES ALSO REFER TO SHEETS DESIGNATED AS:

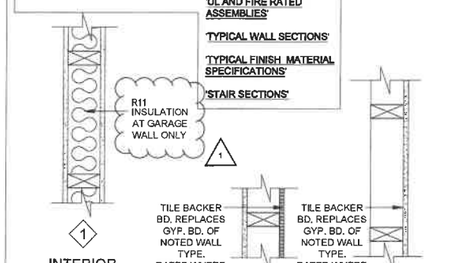
'FIRE RATING DETAILS'

'UL AND FIRE RATED ASSEMBLIES'

'TYPICAL WALL SECTIONS'

'TYPICAL FINISH MATERIAL SPECIFICATIONS'

'STAIR SECTIONS'



INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

-OR ALTERNATE-
METAL STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

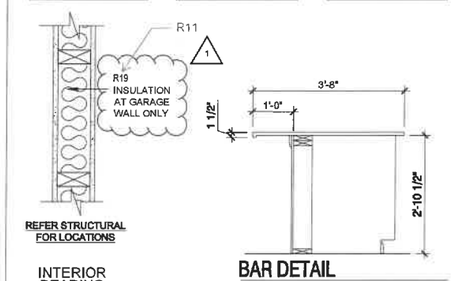
NON-RATED INTERIOR WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD BOTH SIDES.

NON-RATED INTERIOR FRAME WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD ONE SIDE. (P.T. WHEN AGAINST MASONRY)

NON-RATED INTERIOR FRAME WALL



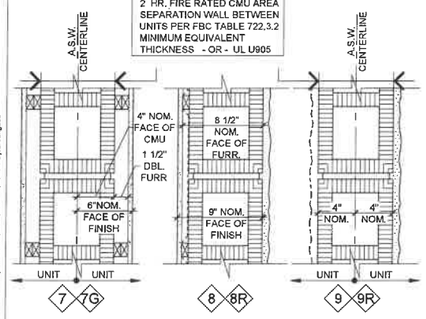
REFER STRUCTURAL FOR LOCATIONS

BAR DETAIL
SCALE: N.T.S.

INTERIOR BEARING
2x4 (U.N.O.) STUDS @ 16" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

NON-RATED INT. BEARING WALL

2 HR. FIRE RATED CMU AREA SEPARATION WALL BETWEEN UNITS PER FBC TABLE 722.3.2 MINIMUM EQUIVALENT THICKNESS - OR - UL U905



TYPICAL AREA SEPARATION WALL
8" CONCRETE BLOCK WALL **(SEE FIRE RATING INFO ABOVE)** W/ 1/2" GYP. BD. OVER DOUBLE FURRING (1X2 PT) @ 24" O.C. (FURR FOR ELECTRICAL INSTALLATION). ACOUSTICAL INSULATION PER COMMUNITY / DEVELOPERS SPEC.

7G **GARAGE**: EXPOSED CMU, STRUCK JOINTS, PAINTED, (NO FURRING OR GYPSUM BOARD).

(2) HOUR RATED WALL AREA SEPARATION

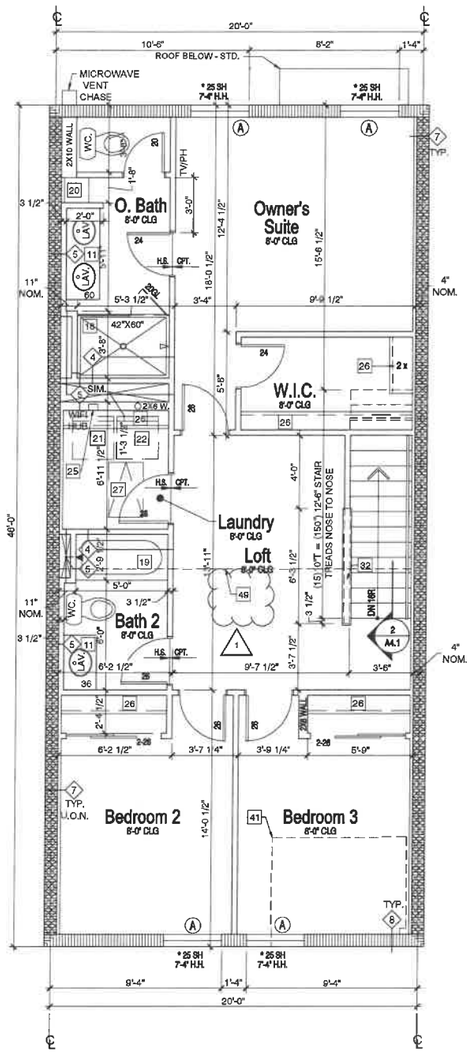
TYPICAL FIRST FL. EXTERIOR
8" CONCRETE BLOCK EXTERIOR WALL W/ 1/2" GYP. BD. OVER RADIANT BARRIER INSULATION OVER 1X2 PT. FURRING @ 24" O.C.ON INTERIOR FACE OF WALL. STUCCO ON EXTERIOR BLOCK **(1) HR RATED BY EQUIVALENT THICKNESS AT TYPE** 8R

EXTERIOR CONC. BLOCK WALL

CMU - A.S.W. AT EXTERIOR 9R
8" CONCRETE BLOCK WALL **(SEE FIRE RATING INFO ABOVE)** W/ 5/8" MIN.STUCCO AT EXTERIOR CONDITIONS.

9 **GARAGE**: NON RATED, EXPOSED CMU, STRUCK JOINTS, PAINTED. EXTERIOR 5/8" MIN.STUCCO

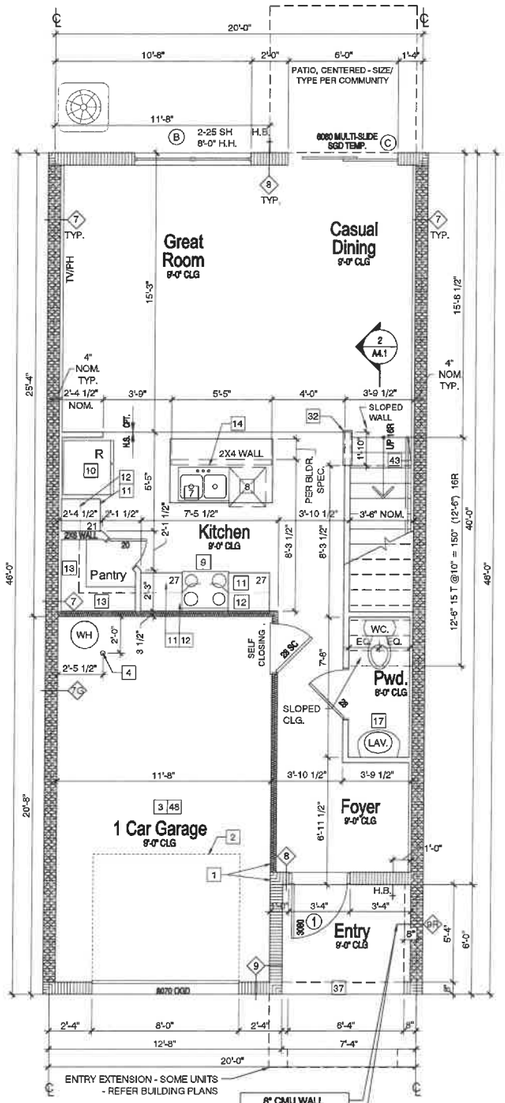
(2) HOUR RATED WALL AREA SEPARATION



SECOND FLOOR PLAN - UNIT T148
22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

LEFT HAND

T148 - LN	
UNIT SQ. FTG. TABLE	
1st FLOOR	513 SQ. FT.
2nd FLOOR	872 SQ. FT.
TOTAL A/C	1485 SQ. FT.
GARAGE	249 SQ. FT.
ENTRY	44 SQ. FT.
TOTAL UR	1778 SQ. FT.



8" CMU WALL LOCATION & RATING VARIES PER LOCATION IN THE BUILDING REFER BUILDING PLANS AND FIRE RATED DETAILS

2 HR. FIRE SEPARATION REQ'D WHEN ADJOINING UNIT IS PRESENT REFER BLDG. PLANS

FIRST FLOOR PLAN - UNIT T148
22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

LEFT HAND

FLOOR PLAN NOTES:

[#] THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS:

1. FLUSH THE FACE OF FINISHES
2. LINE OF OVERHEAD GARAGE DOOR IN OPEN POSITION.
3. SLOPE GARAGE FLOOR 1/8" PER FOOT TOWARD OVERHEAD GARAGE DOOR OPENING.
4. 36" HIGH BOLLARD
5. STAIR PER GOVERNING CODE.
6. 2x4 W/ GYP. BOARD CLOSURE UNDER STAIR
7. SINK W/GARBAGE DISPOSAL.
8. DISHWASHER.
9. RANGE w/ HOOD OR MICRO ABOVE
10. REFRIGERATOR.
11. BASE CABINETS.
12. UPPER CABINETS.
13. PANTRY - (4) 12" D. SHELVES
14. HALF WALL +34 1/2" A.F.F. W/ COUNTERTOP PER PLAN.
15. OPTIONAL UPPER CABINETS.
16. OPTIONAL CABINETS.
17. PEDESTAL SINK.
18. TILED SHOWER W/TEMPERED GLASS ENCLOSURE.
19. 30" X 60" TUB/SHOWER
20. LINEN SHELVES.
21. WASHER SPACE W/ DRAIN PAN BELOW. PROVIDE DRAIN PAN TO EXTERIOR
22. DRYER SPACE w/ VENT TO EXTERIOR.
23. STACKED WASHER/ DRYER.
24. OPTIONAL LAUNDRY SINK.
25. HANSON BOX
26. ROD & SHELF.
27. ATTIC ACCESS (22"x36" U.N.O.).
28. ATTIC ACCESS W/ STAIRS (22 1/2"x54" U.N.O.).
29. GYPSUM BOARD OPENING.
30. OPTIONAL PRE-PLUMB FOR LAUNDRY SINK.
31. OPTIONAL COFFERED CEILING (AS NOTED PER PLAN)
32. 2X4 LOW WALL w/ GYPSUM BOARD & WOOD CAP - 42" HT. MIN.
33. 2X4 LOW WALL 42" A.F.F.
34. N/A
35. LOW WALL 32 1/2" A.F.F.
36. N/A
37. SOFFIT OR BEAM ABOVE, REFER TO STRUCTURAL & EXTERIOR ELEVATIONS FOR HEIGHTS & FINISHES.
38. PLANT SHELF
39. N/A
40. LINE OF FRAMING ABOVE.
41. LINE OF FRAMING WALL BELOW.
42. MASONRY, SEE EXTERIOR ELEVATIONS.
43. HANDRAIL AT +36" ABV. STAIR NOSING OR LANDING - PER CODE - ALSO REFER STAIR SECTIONS.
44. COORD. PLUMBING SUPPLY & VENT IN FRAME OR MASONRY WALL
45. COORD. TOILET SUPPLY IN MASONRY WALL OR THROUGH FLOOR
46. N/A
47. INSTALL 1/2" GYP. AT WALLS & CEILINGS OF ACCESSIBLE AREAS UNDER STAIRS
48. INSTALL 1/2" GYP. BD. ON GARAGE SIDE OF WALL BETWEEN GARAGE & LIVING. INSTALL 5/8" TYPE 'X' GYP BD. ON GARAGE CEILING AT AREA BETWEEN LIVING ABOVE AND GARAGE
49. DRAFTSTOPING, SEE DETAIL 5/AD-3.1

(1) **GENERAL PLAN NOTES:**

ALL INTERIOR DOORS ARE 6'-8" HEIGHT

DOOR WIDTH DESIGNATIONS: 20 = 2'-0"; 24 = 2'-4"; ETC.

GARAGE DOORS SHALL BE SOLID CORE DOOR, A MIN. 1⅜" THICK w/ CLOSER.

WINDOWS MARKED WITH AN * MUST MEET EMERGENCY ESCAPE AND RESCUE (E.E.R.) REQUIREMENTS. WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS MEETS (E.E.R.) REQUIREMENTS.

FOR ADDITIONAL INFORMATION SEE GENERAL NOTES, TYPICAL FINISH MATERIAL SPECIFICATIONS, WALL SECTIONS AND DETAILS.

PLUMBING NOTE: OFFSET ALL PLUMBING VENTS, DRYER VENTS, AND BATH FAN EXHAUST MIN. 5'-0" FROM CENTER LINE OF PARTY WALL TO AVOID PENETRATING FIRE RESISTANT ROOF SHEATHING.

FALL PROTECTION

IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR AND GREATER THAN 72 INCHES (1829 MM) ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

1. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4-INCH-DIAMETER (102 MM) SPHERE TO PASS THROUGH THE OPENING WHERE THE OPENING IS IN ITS LARGEST OPENED POSITION.
2. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F2090.

THE WINDOW OPENING CONTROL DEVICE, AFTER OPERATION TO RELEASE THE CONTROL DEVICE ALLOWING THE WINDOW TO FULLY OPEN, **SHALL NOT REDUCE THE NET CLEAR OPENING AREA OF THE WINDOW UNIT.**

(1)

Townhome Window Schedule

Call Out	Type	Size	U-Factor	SHGC	Remarks
A 25 SH	Single Hung	3'0" X 5'0"	0.56	0.24	
B (2) 25 SH	Single Hung	6'-0" X 5'0"	0.56	0.24	
C 6080 S.G.D	Sliding Glass	6'0" X 8'0"	0.69	0.22	tempered

DOOR SCHEDULE

MARK	MODEL	SIZE WIDTH	SIZE HEIGHT	DESCRIPTION
1	3080	3'-0"	8'-0"	

(1)

Fieldstone

Michigan
3400 Auburn Rd
Suite 200
Auburn Hills, MI 48326
+1 248.622.4035

Florida
12906 Tampa Oaks Blvd.
Suite 150
Tampa, FL 33637
+1 813.466.3310

www.fieldstoneae.com

Meritage Homes
1127 Gateway Boulevard
Boynton Beach, FL 33426
561-847-7515 Phone

Control Date: 03-07-2022

Date/Issued for:

0	
1	03/13/2023 PERMIT REVIEW
-	-
-	-
-	-

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
UNIT T148 - L
Floor Plans

©Fieldstone A&E, LLC
DO NOT SCALE DRAWINGS

Sheet No.
A1.1L

P:\3286005_MFMaster_TH_Live_Now_Units_DWG\Arch_Units.dwg Plot Date: Tuesday, March 07, 2023 2:00 PM, Plotted By:brucefigueiredo

TYPICAL WALL TYPES

GENERAL NOTES - WALL TYPES

ALL INTERIOR PARTITIONS ARE WALL TYPE 1 U.N.O.

FOR ADDITIONAL INFORMATION ABOUT WALL ASSEMBLIES ALSO REFER TO SHEETS DESIGNATED AS:

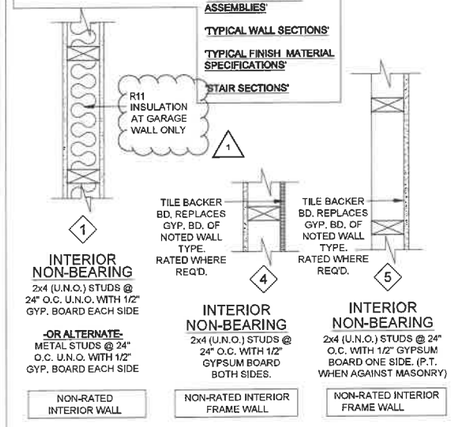
'FIRE RATING DETAILS'

'UL AND FIRE RATED ASSEMBLIES'

'TYPICAL WALL SECTIONS'

'TYPICAL FINISH MATERIAL SPECIFICATIONS'

'STAIR SECTIONS'



INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

-OR ALTERNATE-
METAL STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

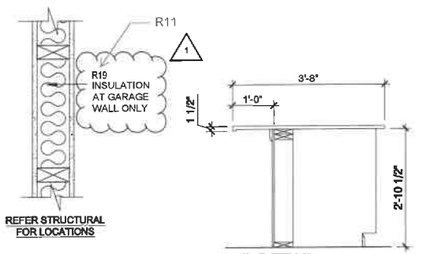
NON-RATED INTERIOR WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD BOTH SIDES.

NON-RATED INTERIOR FRAME WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD ONE SIDE. (P.T. WHEN AGAINST MASONRY)

NON-RATED INTERIOR FRAME WALL



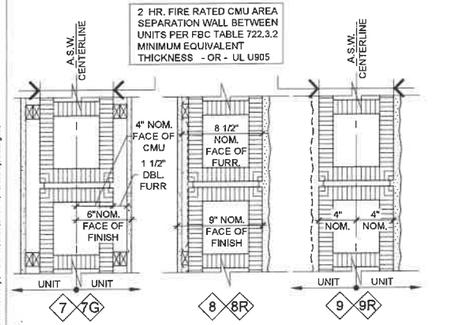
REFER STRUCTURAL FOR LOCATIONS

BAR DETAIL
SCALE: N.T.S.

INTERIOR BEARING
2x4 (U.N.O.) STUDS @ 16" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

NON-RATED INT. BEARING WALL

2 HR. FIRE RATED CMU AREA SEPARATION WALL BETWEEN UNITS PER FBC TABLE 722.3.2 MINIMUM EQUIVALENT THICKNESS - OR - UL U905



TYPICAL AREA SEPARATION WALL
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 1/2" GYP. BD. OVER DOUBLE FURRING (1X2 PT) @ 24" O.C. (FURR FOR ELECTRICAL INSTALLATION). ACOUSTICAL INSULATION PER COMMUNITY / DEVELOPERS SPEC.

7G GARAGE: EXPOSED CMU, STRUCK JOINTS, PAINTED, (NO FURRING OR GYPSUM BOARD).

(2) HOUR RATED WALL AREA SEPARATION

TYPICAL FIRST FL. EXTERIOR
8" CONCRETE BLOCK EXTERIOR WALL W/ 1/2" GYP. BD. OVER RADIANT BARRIER INSULATION OVER 1X2 PT. FURRING @ 24" O.C.ON INTERIOR FACE OF WALL. STUCCO ON EXTERIOR BLOCK

(1) HR RATED BY EQUIVALENT THICKNESS AT TYPE 8R

EXTERIOR CONC. BLOCK WALL

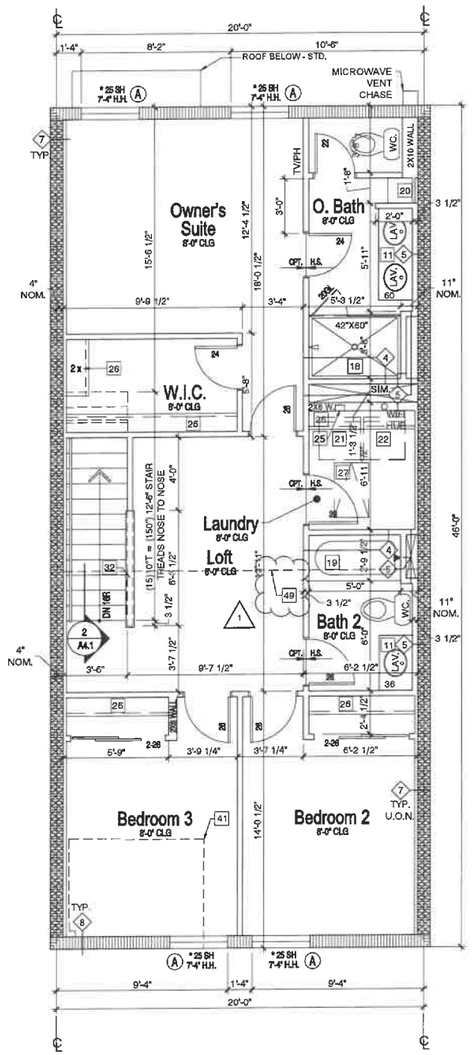
CMU - A.S.W. AT EXTERIOR 9R
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 5/8" MIN.STUCCO AT EXTERIOR CONDITIONS.

9

GARAGE: NON RATED, EXPOSED CMU, STRUCK JOINTS, PAINTED. EXTERIOR 5/8" MIN.STUCCO

(2) HOUR RATED WALL AREA SEPARATION

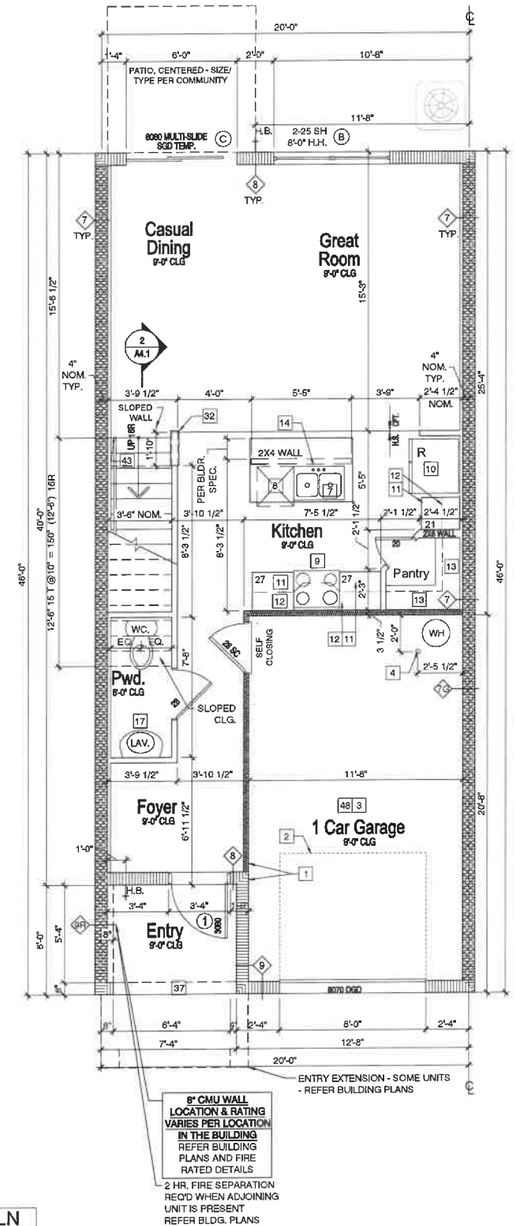
P:\2025\025_MF\Meritage_TH_Line_Area_Unit\1_DWG\Arch\A1_Units.dwg, Plot Date: Tuesday, March 07, 2023 2:03 PM, Plotted By:dmcgrat



SECOND FLOOR PLAN - UNIT T148
22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

RIGHT HAND

T148 - LN	
UNIT SQ. FTG. TABLE	
1st FLOOR	513 SQ. FT.
2nd FLOOR	872 SQ. FT.
TOTAL A/C	1485 SQ. FT.
GARAGE	249 SQ. FT.
ENTRY	44 SQ. FT.
TOTAL UR	1778 SQ. FT.



FIRST FLOOR PLAN - UNIT T148
22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

RIGHT HAND

FLOOR PLAN NOTES:

THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS:

1. FLUSH THE FACE OF FINISHES
2. LINE OF OVERHEAD GARAGE DOOR IN OPEN POSITION.
3. SLOPE GARAGE FLOOR 1/8" PER FOOT TOWARD OVERHEAD GARAGE DOOR OPENING.
4. 36" HIGH BOLLARD
5. STAIR PER GOVERNING CODE.
6. 2x4 W/ GYP. BOARD CLOSURE UNDER STAIR
7. SINK W/GARBAGE DISPOSAL.
8. DISHWASHER.
9. RANGE w/ HOOD OR MICRO ABOVE
10. REFRIGERATOR.
11. BASE CABINETS.
12. UPPER CABINETS.
13. PANTRY - (4) 12" D. SHELVES
14. HALF WALL +34 1/2" A.F.F. W/ COUNTERTOP PER PLAN.
15. OPTIONAL UPPER CABINETS.
16. OPTIONAL CABINETS.
17. PEDESTAL SINK.
18. TILED SHOWER W/TEMPERED GLASS ENCLOSURE.
19. 30" X 60" TUB/SHOWER
20. LINEN SHELVES.
21. WASHER SPACE W/ DRAIN PAN BELOW. PROVIDE DRAIN PAN TO EXTERIOR
22. DRYER SPACE w/ VENT TO EXTERIOR.
23. STACKED WASHER/ DRYER.
24. OPTIONAL LAUNDRY SINK.
25. HANSON BOX
26. ROD & SHELF.
27. ATTIC ACCESS (22"x36" U.N.O.).
28. ATTIC ACCESS W/ STAIRS (22 1/2"x54" U.N.O.).
29. GYPSUM BOARD OPENING.
30. OPTIONAL PRE-PLUMB FOR LAUNDRY SINK.
31. OPTIONAL COFFERED CEILING (AS NOTED PER PLAN)
32. 2X4 LOW WALL w/ GYPSUM BOARD & WOOD CAP - 42" HT. MIN.
33. 2X4 LOW WALL 42" A.F.F.
34. N/A
35. LOW WALL 32 1/2" A.F.F.
36. N/A
37. SOFFIT OR BEAM ABOVE, REFER TO STRUCTURAL & EXTERIOR ELEVATIONS FOR HEIGHTS & FINISHES.
38. PLANT SHELF
39. N/A
40. LINE OF FRAMING ABOVE.
41. LINE OF FRAMING WALL BELOW.
42. MASONRY, SEE EXTERIOR ELEVATIONS.
43. HANDRAIL AT +35" ABV. STAIR NOSING OR LANDING - PER CODE - ALSO REFER STAIR SECTIONS.
44. COORD. PLUMBING SUPPLY & VENT IN FRAME OR MASONRY WALL
45. COORD. TOILET SUPPLY IN MASONRY WALL OR THROUGH FLOOR
46. N/A
47. INSTALL 1/2" GYP. AT WALLS & CEILINGS OF ACCESSIBLE AREAS UNDER STAIRS
48. INSTALL 1/2" GYP. BD. ON GARAGE SIDE OF WALL BETWEEN GARAGE & LIVING. INSTALL 5/8" TYPE 'X' GYP BD. ON GARAGE CEILING AT AREA BETWEEN LIVING ABOVE AND GARAGE
49. DRAFTSTOPING, SEE DETAIL 5/AD-3.1

1 **GENERAL PLAN NOTES:**

ALL INTERIOR DOORS ARE 6'-8" HEIGHT

DOOR WIDTH DESIGNATIONS: 20 = 2'-0"; 24 = 2'-4"; ETC.

GARAGE DOORS SHALL BE SOLID CORE DOOR, A MIN. 1⅜" THICK w/ CLOSER.

WINDOWS MARKED WITH AN * MUST MEET EMERGENCY ESCAPE AND RESCUE (E.E.R.) REQUIREMENTS. WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS MEETS (E.E.R.) REQUIREMENTS.

FOR ADDITIONAL INFORMATION SEE GENERAL NOTES, TYPICAL FINISH MATERIAL SPECIFICATIONS, WALL SECTIONS AND DETAILS.

PLUMBING NOTE: OFFSET ALL PLUMBING VENTS, DRYER VENTS, AND BATH FAN EXHAUST MIN. 5'-0" FROM CENTER LINE OF PARTY WALL TO AVOID PENETRATING FIRE RESISTANT ROOF SHEATHING.

FALL PROTECTION

IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR AND GREATER THAN 72 INCHES (1829 MM) ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

1. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4-INCH-DIAMETER (102 MM) SPHERE TO PASS THROUGH THE OPENING WHERE THE OPENING IS IN ITS LARGEST OPENED POSITION.
2. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F2090.

THE WINDOW OPENING CONTROL DEVICE, AFTER OPERATION TO RELEASE THE CONTROL DEVICE ALLOWING THE WINDOW TO FULLY OPEN, **SHALL NOT REDUCE THE NET CLEAR OPENING AREA OF THE WINDOW UNIT.**

Townhome Window Schedule

Call Out	Type	Size	U-Factor	SHGC	Remarks
A 25 SH	Single Hung	3'0" X 5'0"	0.56	0.24	
B (2) 25 SH	Single Hung	6'-0" X 5'0"	0.56	0.24	
C 6080 S.G.D	Sliding Glass	6'0" X 8'0"	0.69	0.22	tempered

DOOR SCHEDULE

MARK	MODEL	SIZE WIDTH	SIZE HEIGHT	DESCRIPTION
1	3080	3'-0"	8'-0"	

1

Fieldstone
Michigan
3400 Auburn Rd
Suite 200
Auburn Hills, MI 48326
+1 248.622.4035
Florida
12906 Tampa Oaks Blvd.
Suite 150
Tampa, FL 33637
+1 813.466.3310
www.fieldstoneae.com

Meritage Homes
1127 Gateway Boulevard
Boynton Beach, FL 33426
561-847-7515 Phone

Control Date: 03-07-2022

Date/Issued for:

0	
1	03/13/2023 PERMIT REVIEW
–	–
–	–
–	–

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
UNIT T148 - R
Floor Plans

©Fieldstone A&E, LLC
DO NOT SCALE DRAWINGS

Sheet No.
A1.1R

TYPICAL WALL TYPES

GENERAL NOTES - WALL TYPES

ALL INTERIOR PARTITIONS ARE WALL TYPE 1 U.N.O.

FOR ADDITIONAL INFORMATION ABOUT WALL ASSEMBLIES ALSO REFER TO SHEETS DESIGNATED AS:

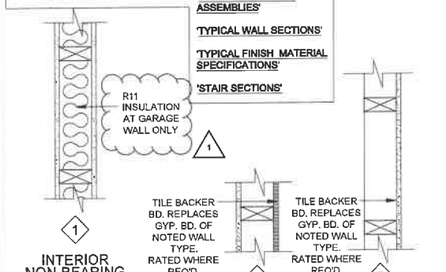
'FIRE RATING DETAILS'

'UL AND FIRE RATED ASSEMBLIES'

'TYPICAL WALL SECTIONS'

'TYPICAL FINISH MATERIAL SPECIFICATIONS'

'STAIR SECTIONS'



INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

-OR ALTERNATE-
METAL STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

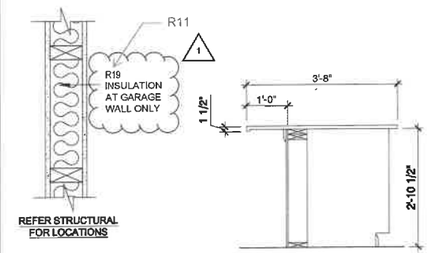
NON-RATED INTERIOR WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD BOTH SIDES.

NON-RATED INTERIOR FRAME WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD ONE SIDE. (P.T. WHEN AGAINST MASONRY)

NON-RATED INTERIOR FRAME WALL

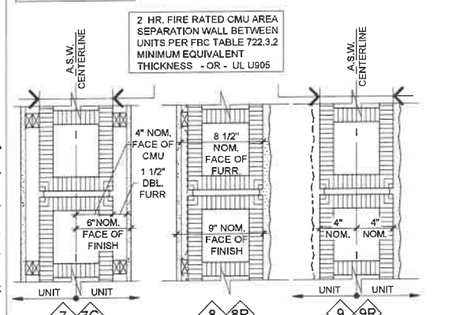


INTERIOR BEARING
2x4 (U.N.O.) STUDS @ 16" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

NON-RATED INT. BEARING WALL

BAR DETAIL
SCALE: N.T.S.

2 HR. FIRE RATED CMU AREA SEPARATION WALL BETWEEN UNITS PER FRC TABLE 722.3.2 MINIMUM EQUIVALENT THICKNESS - OR - UL U905



TYPICAL AREA SEPARATION WALL
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 1/2" GYP. BD. OVER DOUBLE FURRING (1X2 PT) @ 24" O.C. (FURR FOR ELECTRICAL INSTALLATION). ACOUSTICAL INSULATION PER COMMUNITY / DEVELOPERS SPEC.

7G **GARAGE**: EXPOSED CMU, STRUCK JOINTS, PAINTED, (NO FURRING OR GYPSUM BOARD).

(2) HOUR RATED WALL AREA SEPARATION

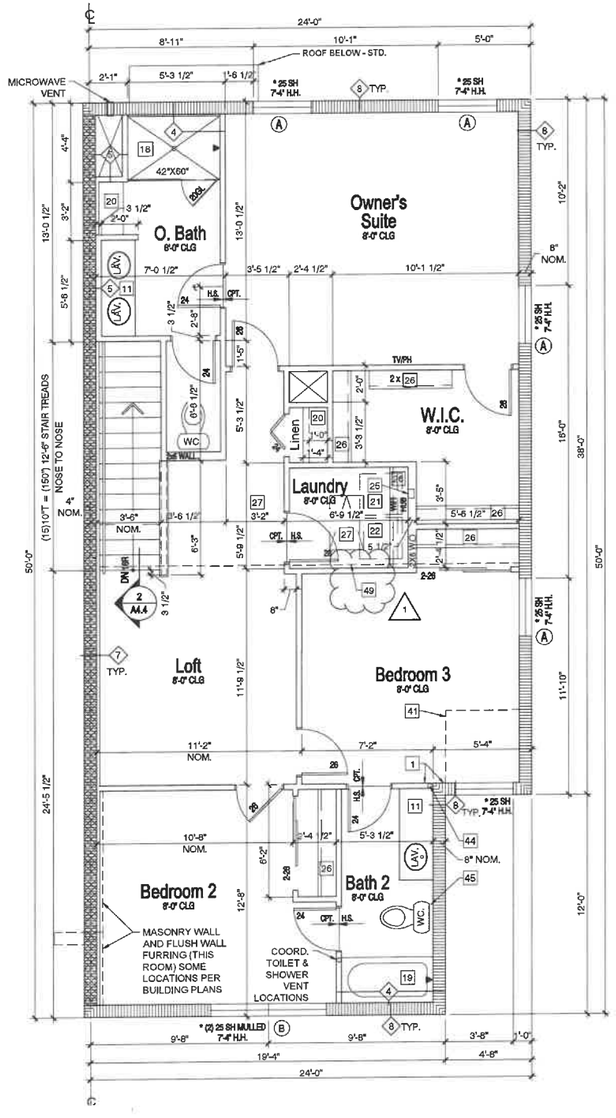
TYPICAL FIRST FL. EXTERIOR
8" CONCRETE BLOCK EXTERIOR WALL W/ 1/2" GYP. BD. OVER RADIANT BARRIER INSULATION OVER 1X2 PT. FURRING @ 24" O.C.ON INTERIOR FACE OF WALL. STUCCO ON EXTERIOR BLOCK
(1) HR RATED BY EQUIVALENT THICKNESS AT TYPE 8R

EXTERIOR CONC. BLOCK WALL

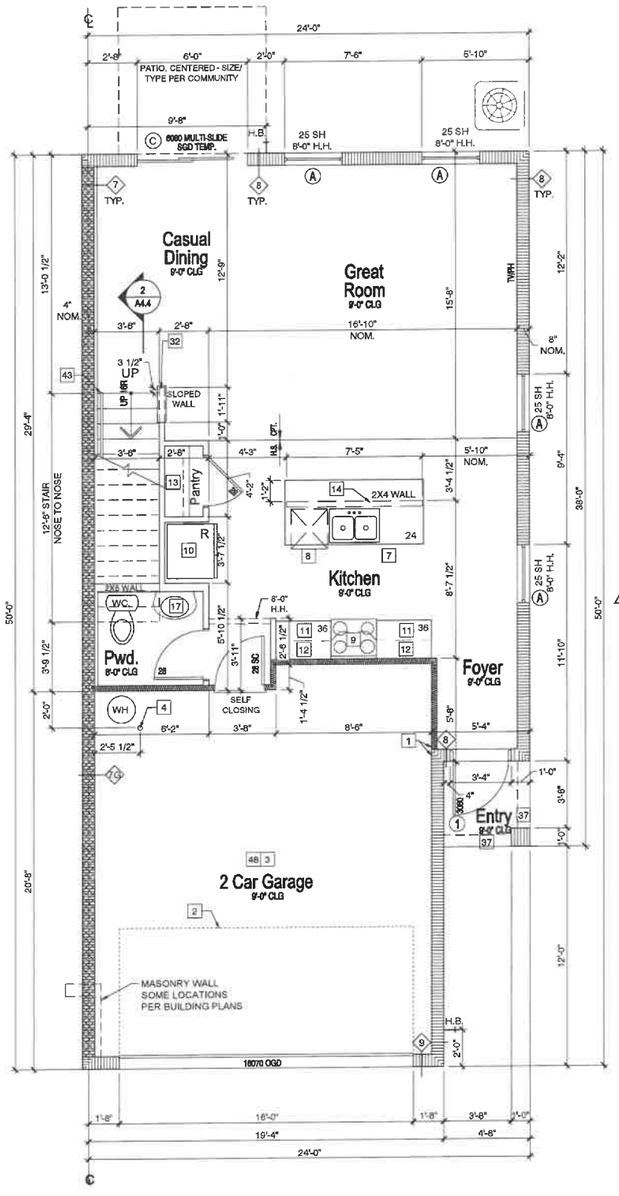
CMU - A.S.W. AT EXTERIOR 9R
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 5/8" MIN.STUCCO AT EXTERIOR CONDITIONS.

9 **GARAGE**: NON RATED, EXPOSED CMU, STRUCK JOINTS, PAINTED. EXTERIOR 5/8" MIN.STUCCO

(2) HOUR RATED WALL AREA SEPARATION



SECOND FLOOR PLAN - UNIT T179 (END) LEFT HAND
22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"



FIRST FLOOR PLAN - UNIT T179 (END) LEFT HAND
22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

T179 - LN	
UNIT SQ. FTG. TABLE	
1st FLOOR	714 SQ. FT.
2nd FLOOR	1094 SQ. FT.
TOTAL A/C	1808 SQ. FT.
GARAGE	408 SQ. FT.
ENTRY	22 SQ. FT.
TOTAL UR	2238 SQ. FT.

FLOOR PLAN NOTES:

THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS:

1. FLUSH THE FACE OF FINISHES
2. LINE OF OVERHEAD GARAGE DOOR IN OPEN POSITION.
3. SLOPE GARAGE FLOOR 1/8" PER FOOT TOWARD OVERHEAD GARAGE DOOR OPENING.
4. 36" HIGH BOLLARD
5. STAIR PER GOVERNING CODE.
6. 2x4 W/ GYP. BOARD CLOSURE UNDER STAIR
7. SINK W/GARBAGE DISPOSAL.
8. DISHWASHER.
9. RANGE w/ HOOD OR MICRO ABOVE
10. REFRIGERATOR.
11. BASE CABINETS.
12. UPPER CABINETS.
13. PANTRY - (4) 12" D. SHELVES
14. HALF WALL +34 1/2" A.F.F. W/ COUNTERTOP PER PLAN.
15. OPTIONAL UPPER CABINETS.
16. OPTIONAL CABINETS.
17. PEDESTAL SINK.
18. TILED SHOWER W/TEMPERED GLASS ENCLOSURE.
19. 30" X 60" TUB/SHOWER
20. LINEN SHELVES.
21. WASHER SPACE W/ DRAIN PAN BELOW. PROVIDE DRAIN PAN TO EXTERIOR
22. DRYER SPACE w/ VENT TO EXTERIOR.
23. STACKED WASHER/ DRYER.
24. OPTIONAL LAUNDRY SINK.
25. HANSON BOX
26. ROD & SHELF.
27. ATTIC ACCESS (22"x36" U.N.O.).
28. ATTIC ACCESS W/ STAIRS (22 1/2"x54" U.N.O.).
29. GYPSUM BOARD OPENING.
30. OPTIONAL PRE-PLUMB FOR LAUNDRY SINK.
31. OPTIONAL COFFERED CEILING (AS NOTED PER PLAN)
32. 2X4 LOW WALL w/ GYPSUM BOARD & WOOD CAP - 42" HT. MIN.
33. 2X4 LOW WALL 42" A.F.F.
34. N/A
35. LOW WALL 32 1/2" A.F.F.
36. N/A
37. SOFFIT OR BEAM ABOVE, REFER TO STRUCTURAL & EXTERIOR ELEVATIONS FOR HEIGHTS & FINISHES.
38. PLANT SHELF
39. N/A
40. LINE OF FRAMING ABOVE.
41. LINE OF FRAMING WALL BELOW.
42. MASONRY, SEE EXTERIOR ELEVATIONS.
43. HANDRAIL AT +36" ABV. STAIR NOSING OR LANDING - PER CODE - ALSO REFER STAIR SECTIONS.
44. COORD. PLUMBING SUPPLY & VENT IN FRAME OR MASONRY WALL
45. COORD. TOILET SUPPLY IN MASONRY WALL OR THROUGH FLOOR
46. N/A
47. INSTALL 1/2" GYP. AT WALLS & CEILINGS OF ACCESSIBLE AREAS UNDER STAIRS
48. INSTALL 1/2" GYP. BD. ON GARAGE SIDE OF WALL BETWEEN GARAGE & LIVING. INSTALL 5/8" TYPE 'X' GYP BD. ON GARAGE CEILING AT AREA BETWEEN LIVING ABOVE AND GARAGE
49. DRAFTSTOPING, SEE DETAIL 5/AD-3.1

1 GENERAL PLAN NOTES:

ALL INTERIOR DOORS ARE 6'-8" HEIGHT

DOOR WIDTH DESIGNATIONS: 20 = 2'-0"; 24 = 2'-4"; ETC.

GARAGE DOORS SHALL BE SOLID CORE DOOR, A MIN. 1⅜" THICK w/ CLOSER.

WINDOWS MARKED WITH AN * MUST MEET EMERGENCY ESCAPE AND RESCUE (E.E.R.) REQUIREMENTS. WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS MEETS (E.E.R.) REQUIREMENTS.

FOR ADDITIONAL INFORMATION SEE GENERAL NOTES, TYPICAL FINISH MATERIAL SPECIFICATIONS, WALL SECTIONS AND DETAILS.

PLUMBING NOTE: OFFSET ALL PLUMBING VENTS, DRYER VENTS, AND BATH FAN EXHAUST MIN. 5'-0" FROM CENTER LINE OF PARTY WALL TO AVOID PENETRATING FIRE RESISTANT ROOF SHEATHING.

FALL PROTECTION

IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR AND GREATER THAN 72 INCHES (1829 MM) ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

1. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4-INCH-DIAMETER (102 MM) SPHERE TO PASS THROUGH THE OPENING WHERE THE OPENING IS IN ITS LARGEST OPENED POSITION.
2. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F2090.

THE WINDOW OPENING CONTROL DEVICE, AFTER OPERATION TO RELEASE THE CONTROL DEVICE ALLOWING THE WINDOW TO FULLY OPEN, **SHALL NOT REDUCE THE NET CLEAR OPENING AREA OF THE WINDOW UNIT.**

Townhome Window Schedule

Call Out	Type	Size	U-Factor	SHGC	Remarks
A 25 SH	Single Hung	3'0" X 5'0"	0.56	0.24	
B (2) 25 SH	Single Hung	6'-0" X 5'0"	0.56	0.24	
C 6080 S,G,D	Sliding Glass	6'0" X 8'0"	0.59	0.22	tempered

DOOR SCHEDULE

MARK	MODEL	SIZE: WIDTH	HEIGHT	DESCRIPTION
1	3080	3'-0"	8'-0"	

Fieldstone

Michigan
3400 Auburn Rd
Suite 200
Auburn Hills, MI 48326
+1 248.622.4035

Florida
12906 Tampa Oaks Blvd.
Suite 150
Tampa, FL 33637
+1 813.466.3310

www.fieldstoneae.com

Meritage Homes
1127 Gateway Boulevard
Boynton Beach, FL 33426
561-847-7515 Phone

Control Date: 03-07-2022

Date/Issued for:

0	
1	03/13/2023 PERMIT REVIEW
--	--
--	--
--	--

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
Unit T179 (end) - L
Floor Plans

©Fieldstone A&E, LLC
DO NOT SCALE DRAWINGS

Sheet No.
A1.4Le

P:\2020\000_MF\Master_TH_Unit_Plans_Aerial_DWGS\A1A3A1_Units.dwg, Plot Date: Tuesday, March 07, 2023 2:50 PM, Plotted By: dsedlacek

TYPICAL WALL TYPES

GENERAL NOTES - WALL TYPES

ALL INTERIOR PARTITIONS ARE WALL TYPE (1) U.N.O.

FOR ADDITIONAL INFORMATION ABOUT WALL ASSEMBLIES ALSO REFER TO SHEETS DESIGNATED AS:

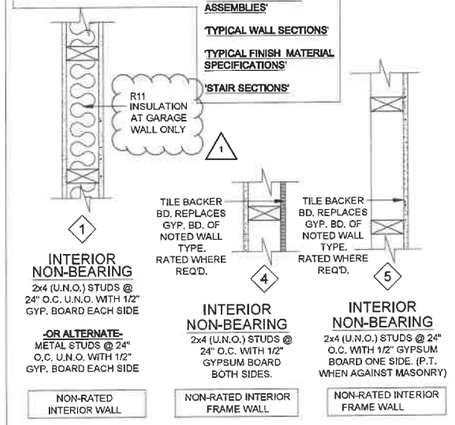
'FIRE RATING DETAILS'

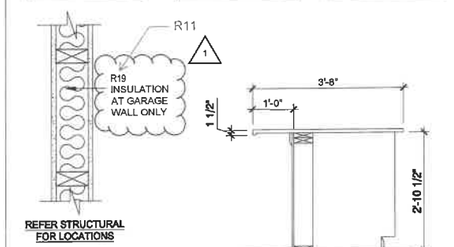
'UL AND FIRE RATED ASSEMBLIES'

'TYPICAL WALL SECTIONS'

'TYPICAL FINISH MATERIAL SPECIFICATIONS'

'STAIR SECTIONS'



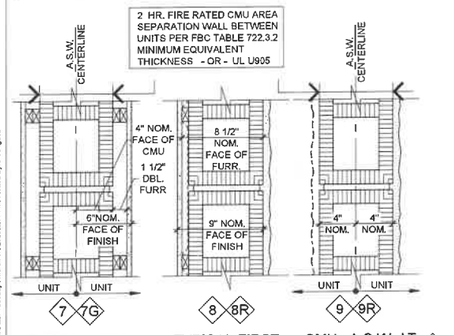


INTERIOR BEARING

2x4 (U.N.O.) STUDS @ 16" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

NON-RATED INT. BEARING WALL

2 HR. FIRE RATED CMU AREA SEPARATION WALL BETWEEN UNITS PER FBC TABLE 722.3.2 MINIMUM EQUIVALENT THICKNESS - OR - UL U905



TYPICAL AREA SEPARATION WALL

8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 1/2" GYP. BD. OVER DOUBLE FURRING (1X2 PT) @ 24" O.C. (FURR FOR ELECTRICAL INSTALLATION). ACOUSTICAL INSULATION PER COMMUNITY / DEVELOPERS SPEC.

7G **GARAGE**: EXPOSED CMU, STRUCK JOINTS, PAINTED, (NO FURRING OR GYPSUM BOARD).

(2) HOUR RATED WALL AREA SEPARATION

TYPICAL FIRST FL. EXTERIOR

8" CONCRETE BLOCK EXTERIOR WALL W/ 1/2" GYP. BD. OVER RADIANT BARRIER INSULATION OVER 1X2 PT. FURRING @ 24" O.C.ON INTERIOR FACE OF WALL. STUCCO ON EXTERIOR BLOCK

(1) HR RATED BY EQUIVALENT THICKNESS AT TYPE 8R

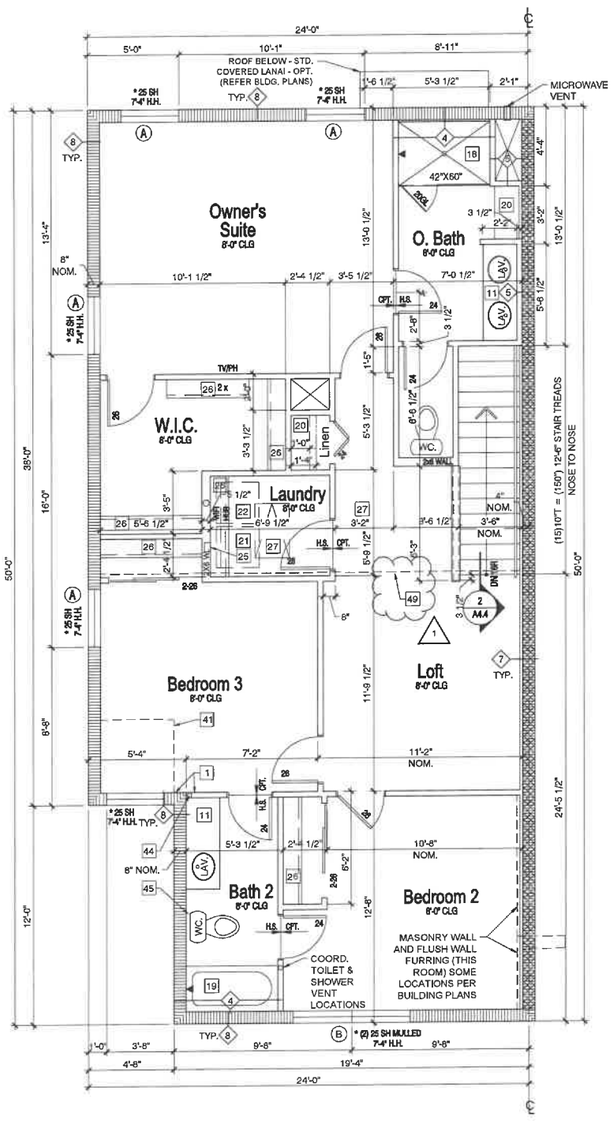
EXTERIOR CONC. BLOCK WALL

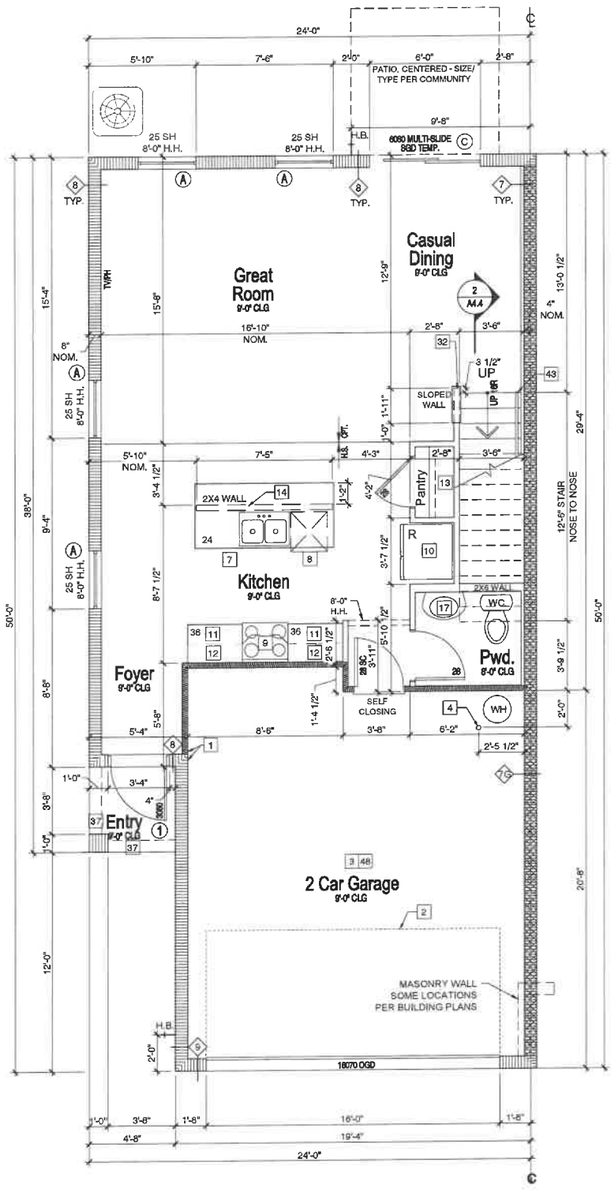
CMU - A.S.W. AT EXTERIOR 9R

8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 5/8" MIN.STUCCO AT EXTERIOR CONDITIONS.

9 **GARAGE**: NON RATED, EXPOSED CMU, STRUCK JOINTS, PAINTED. EXTERIOR 5/8" MIN.STUCCO

(2) HOUR RATED WALL AREA SEPARATION





T179 - LN	
UNIT SQ. FTG. TABLE	
1st FLOOR	714 SQ. FT.
2nd FLOOR	1094 SQ. FT.
TOTAL A/C	1808 SQ. FT.
GARAGE	408 SQ. FT.
ENTRY	22 SQ. FT.
TOTAL UR	2238 SQ. FT.

SECOND FLOOR PLAN - UNIT T179 (END) RIGHT HAND

22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

FIRST FLOOR PLAN - UNIT T179 (END) RIGHT HAND

22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

FLOOR PLAN NOTES:

[#] THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS:

1. FLUSH THE FACE OF FINISHES
2. LINE OF OVERHEAD GARAGE DOOR IN OPEN POSITION.
3. SLOPE GARAGE FLOOR 1/8" PER FOOT TOWARD OVERHEAD GARAGE DOOR OPENING.
4. 36" HIGH BOLLARD
5. STAIR PER GOVERNING CODE.
6. 2x4 W/ GYP. BOARD CLOSURE UNDER STAIR
7. SINK W/GARBAGE DISPOSAL.
8. DISHWASHER.
9. RANGE w/ HOOD OR MICRO ABOVE
10. REFRIGERATOR.
11. BASE CABINETS.
12. UPPER CABINETS.
13. PANTRY - (4) 12" D. SHELVES
14. HALF WALL +34 1/2" A.F.F. W/ COUNTERTOP PER PLAN.
15. OPTIONAL UPPER CABINETS.
16. OPTIONAL CABINETS.
17. PEDESTAL SINK.
18. TILED SHOWER W/TEMPERED GLASS ENCLOSURE.
19. 30" X 60" TUB/SHOWER
20. LINEN SHELVES.
21. WASHER SPACE W/ DRAIN PAN BELOW. PROVIDE DRAIN PAN TO EXTERIOR
22. DRYER SPACE w/ VENT TO EXTERIOR.
23. STACKED WASHER/ DRYER.
24. OPTIONAL LAUNDRY SINK.
25. HANSON BOX
26. ROD & SHELF.
27. ATTIC ACCESS (22"x36" U.N.O.).
28. ATTIC ACCESS W/ STAIRS (22 1/2"x54" U.N.O.).
29. GYPSUM BOARD OPENING.
30. OPTIONAL PRE-PLUMB FOR LAUNDRY SINK.
31. OPTIONAL COFFERED CEILING (AS NOTED PER PLAN)
32. 2X4 LOW WALL w/ GYPSUM BOARD & WOOD CAP - 42" HT. MIN.
33. 2X4 LOW WALL 42" A.F.F.
34. N/A
35. LOW WALL 32 1/2" A.F.F.
36. N/A
37. SOFFIT OR BEAM ABOVE, REFER TO STRUCTURAL & EXTERIOR ELEVATIONS FOR HEIGHTS & FINISHES.
38. PLANT SHELF
39. N/A
40. LINE OF FRAMING ABOVE.
41. LINE OF FRAMING WALL BELOW.
42. MASONRY, SEE EXTERIOR ELEVATIONS.
43. HANDRAIL AT +36" ABV. STAIR NOSING OR LANDING - PER CODE - ALSO REFER STAIR SECTIONS.
44. COORD. PLUMBING SUPPLY & VENT IN FRAME OR MASONRY WALL
45. COORD. TOILET SUPPLY IN MASONRY WALL OR THROUGH FLOOR
46. N/A
47. INSTALL 1/2" GYP. AT WALLS & CEILINGS OF ACCESSIBLE AREAS UNDER STAIRS
48. INSTALL 1/2" GYP. BD. ON GARAGE SIDE OF WALL BETWEEN GARAGE & LIVING, INSTALL 5/8" TYPE 'X' GYP BD. ON GARAGE CEILING AT AREA BETWEEN LIVING ABOVE AND GARAGE
49. DRAFTSTOPING, SEE DETAIL 5/AD-3.1

(1) GENERAL PLAN NOTES:

ALL INTERIOR DOORS ARE 6'-8" HEIGHT

DOOR WIDTH DESIGNATIONS: 20 = 2'-0"; 24 = 2'-4", ETC.

GARAGE DOORS SHALL BE SOLID CORE DOOR, A MIN. 1⅜" THICK w/ CLOSER.

WINDOWS MARKED WITH AN * MUST MEET EMERGENCY ESCAPE AND RESCUE (E.E.R.) REQUIREMENTS. WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS MEETS (E.E.R.) REQUIREMENTS.

FOR ADDITIONAL INFORMATION SEE GENERAL NOTES, TYPICAL FINISH MATERIAL SPECIFICATIONS, WALL SECTIONS AND DETAILS.

PLUMBING NOTE: OFFSET ALL PLUMBING VENTS, DRYER VENTS, AND BATH FAN EXHAUST MIN. 5'-0" FROM CENTER LINE OF PARTY WALL TO AVOID PENETRATING FIRE RESISTANT ROOF SHEATHING.

FALL PROTECTION

IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR AND GREATER THAN 72 INCHES (1829 MM) ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

1. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4-INCH-DIAMETER (102 MM) SPHERE TO PASS THROUGH THE OPENING WHERE THE OPENING IS IN ITS LARGEST OPENED POSITION.
2. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F2090.

THE WINDOW OPENING CONTROL DEVICE, AFTER OPERATION TO RELEASE THE CONTROL DEVICE ALLOWING THE WINDOW TO FULLY OPEN, **SHALL NOT REDUCE THE NET CLEAR OPENING AREA OF THE WINDOW UNIT**.

Townhome Window Schedule

Call Out	Type	Size	U-Factor	SHGC	Remarks
A 25 SH	Single Hung	3'0" X 5'0"	0.56	0.24	
B (2) 25 SH	Single Hung	6'-0" X 5'0"	0.56	0.24	
C 6080 S.G.D.	Sliding Glass	6'0" X 8'0"	0.69	0.22	tempered

DOOR SCHEDULE

MARK	MODEL	SIZE: WIDTH	HEIGHT	DESCRIPTION
1	6080	5'-0"	8'-0"	

Fieldstone

Michigan
3400 Auburn Rd
Suite 200
Auburn Hills, MI 48326
+1 248.622.4035

Florida
12906 Tampa Oaks Blvd.
Suite 150
Tampa, FL 33637
+1 813.466.3310

www.fieldstoneae.com

Meritage Homes

1127 Gateway Boulevard
Boynton Beach, FL 33426
561-847-7515 Phone

Control Date: 03-07-2022

Date/Issued for:

0	
1	03/13/2023 PERMIT REVIEW
-	-
-	-
-	-

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
Unit T179 (end) - R
Floor Plans

©Fieldstone A&E, LLC DO NOT SCALE DRAWINGS

Sheet No.
A1.4Re

P:\2280\DOC_MT\Master_TH_Unit_Nine_Units\1_DWG\A1\A1_Units.dwg Plot Date: Tuesday, March 07, 2023 2:01 PM, Plotted By: dcodrigue

DIVISION 01 / GENERAL REQUIREMENTS:

1. THE FLORIDA BUILDING CODE – RESIDENTIAL (FBC–R) W/LATEST ADOPTED AMENDMENTS, BULLETINS, AND INTERPRETATIONS AND ALL ADOPTED & REFERENCED SUB CODES, PUBLICATIONS, REPORTS (THE "CODE") APPLIES TO ALL CONSTRUCTION ACTIVITIES (THE "WORK") OF A NATURE AND INTENT INDICATED BY THESE CONSTRUCTION DRAWINGS, SPECIFICATIONS, ADDENDA, ETC. (THE "DOCUMENTS") AT THE STRUCTURE, BUILDING, AND/OR SITE (THE "PROJECT", THE "SITE") OR SPECIFICALLY–DESIGNATED PORTION OF THE PROJECT/SITE (THE "WORK AREA") REFERENCED HEREIN. THE GENERAL CONTRACTOR (THE "CONTRACTOR" OR "G.C.") SHALL VERIFY ALL CODE REQUIREMENTS BEFORE COMMENCEMENT OF WORK AND BRING ANY DISCREPANCIES BETWEEN CODE REQUIREMENTS AND THE CONSTRUCTION DOCUMENTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER. ALL TRADES, I.E. MECHANICAL, ELECTRICAL AND PLUMBING SUBCONTRACTORS OR INDEPENDENTLY CONTRACTED INDIVIDUAL TRADE CONTRACTORS (THE "CONTRACTORS"), SHALL PERFORM ALL WORK IN ACCORDANCE WITH ANY AND ALL APPLICABLE CODES CURRENTLY IN EFFECT AT THE TIME OF CONSTRUCTION.
2. OSHA REGULATIONS SHALL APPLY WHERE REQUIRED DURING THE COURSE OF THE WORK AS IT APPLIES TO WORKER SAFETY. CONTRACTOR SHALL DESIGNATE A "SAFETY DIRECTOR" OR "SAFETY POINT OF CONTACT" WHO SHALL BE RESPONSIBLE FOR ALL OSHA SAFETY REQUIREMENTS. NOTHING CONTAINED IN THESE DOCUMENTS IN ANY WAY REQUIRES THE ARCHITECT, ENGINEER OR OWNER TO BE RESPONSIBLE FOR ANY ASPECT OF SAFETY DURING CONSTRUCTION OR TO ENSURE THAT THE CONTRACTOR FOLLOWS WHATEVER SAFETY REGULATIONS MAY BE APPLICABLE.
3. ALL WORK SHALL BE IN CONFORMANCE WITH ALL FEDERAL, STATE AND LOCAL CODES AND ACTS, MANUF'S RECOMMENDATIONS & INDUSTRY STANDARDS OF GOOD PRACTICE.
4. ALL MATERIALS SHALL BE AS SPECIFIED AND/OR DETAILED, AND STORED AND INSTALLED IN A WORKMANLIKE MANNER, IN ACCORDANCE WITH APPLICABLE CODES, MANUF'S RECOMMENDATIONS, & INDUSTRY STDS OF GOOD PRACTICE (AS REQUIRED).
5. ALL CONTRACTORS SHALL MAINTAIN THE PREMISES CLEAN AND FREE OF ALL TRASH, DEBRIS AND SHALL PROTECT ALL ADJACENT WORK FROM DAMAGE, SOILING, PAINT OVER SPRAY, ETC. ALL FIXTURES, EQUIPMENT, GLAZING, FLOORS, ETC., SHALL BE LEFT CLEAN AND READY FOR OWNER'S USE UPON COMPLETION OF THE PROJECT.
6. GC SHALL BRING ERRORS AND OMISSIONS WHICH MAY OCCUR IN CONTRACT DOCUMENTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER AND INSTRUCTIONS SHALL BE OBTAINED BEFORE PROCEEDING WITH AFFECTED WORK. THE GC SHALL BE RESPONSIBLE FOR RECTIFYING UNACCEPTABLE RESULTS OF ANY ERRORS, DISCREPANCIES, OR OMISSIONS IN THE CONTRACT DOCUMENTS WHICH CAN READILY OR REASONABLY BE DETERMINED AND FOR WHICH THE CONTRACTOR FAILED TO NOTIFY THE ARCHITECT/ENGINEER BEFORE CONSTRUCTION AND/OR FABRICATION OF SUBJECT WORK. THE GC SHALL VERIFY ALL CONDITIONS AND DIMENSIONS WITHIN THE CONTRACT LIMITS. DEVIATIONS FROM THE CONTRACT DOCUMENTS NECESSITATED BY FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF AND REVIEWED BY THE ARCHITECT/ENGINEER AND INSTRUCTIONS SHALL BE OBTAINED BEFORE PROCEEDING WITH WORK. SEE RFI PROCESS BELOW.
7. GC TO COORDINATE ALL DIMENSIONS ON PREFABRICATED ITEMS WITH MANUFACTURER'S INSTRUCTIONS. ALL MANUFACTURER'S PRINTED WARNINGS FOR HANDLING OF PRODUCTS MUST BE OBSERVED. THE WORDS "OR EQUAL" ARE TO BE ASSUMED WHENEVER A SPECIFIC MANUFACTURER IS NOTED UNLESS "NO SUBSTITUTIONS PERMITTED".
8. GC RESPONSIBLE FOR SUPPLYING ALL RELATED ITEMS REQUIRED FOR CONSTRUCTION AND FULL PROJECT COMPLETION, UNLESS OTHER ARRANGEMENTS ARE MADE WITH OWNER. SPECIFIC ITEMS TO BE FURNISHED BY OWNER OR OTHERS ARE NOTED IN THESE DOCUMENTS AND SHOULD BE COORDINATED PRIOR TO CONSTRUCTION START.
9. THE GC SHALL PAY FOR ANY/ALL TEMPORARY UTILITIES DURING CONSTRUCTIONS INCLUDING (BUT NOT LIMITED TO) ELECTRICITY, HEAT, WATER, SEWER, ETC.
10. CIVIL ENGINEERING AND SITE IMPROVEMENTS, GEOTECHNICAL, ENVIRONMENTAL, TELECOM, AUDIO–VISUAL, LOW VOLTAGE, COMPUTER, AND SECURITY SYSTEMS, INTERIOR DESIGN & DOCUMENTATION PROVISIONS ARE NOT INCLUDED AS PART OF THE SCOPE OF THESE DOCUMENTS UNLESS SPECIFICALLY NOTED HEREIN. THE GC SHALL CONSULT WITH THE OWNER REGARDING THE COORDINATION OF THESE PROVISIONS WITH THE SCOPE OF WORK IDENTIFIED BY THESE DOCUMENTS AND ANY OTHER WORK REQUIRED BY THE OWNER RELATED TO THIS PROJECT.
11. THE ARCHITECT, ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR WORK COMPLETED BY CONTRACTOR(S) THAT DEVIATES FROM ADOPTED APPLICABLE CODES, OR THE INTENT OF THESE DOCUMENTS. THE GC SHALL RECTIFY ALL NON–CONFORMANCE ISSUES IN ORDER TO COMPLY WITH CODE AND THE INTENT OF THESE DOCUMENTS AT NO ADDITIONAL COST TO THE OWNER. ATTAINMENT OF A CERTIFICATE OF OCCUPANCY FOR THE OWNER IS REQUIRED BUT MAY NOT REPRESENT THE ENTIRETY OF THE SCOPE OF WORK THAT IS TO BE COMPLETED BY THE GC FOR THIS PROJECT.
12. ENLARGED DRAWINGS AND DETAILS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS AND DETAILS.
13. DO NOT SCALE DRAWINGS. MATERIALS, GRAPHIC CONDITIONS AND DISTANCES SHOWN SHALL BE SUPERSEDED BY WRITTEN TEXT AND DIMENSIONS.
14. DETAILS AND SECTIONS ON THE DRAWINGS ARE TAKEN AT SPECIFIC LOCATIONS AND ARE INTENDED TO SERVE AS A REPRESENTATION OF TYPICAL CONSTRUCTION METHODOLOGY FOR ALL SIMILAR CONDITIONS. MODIFICATIONS SHALL BE MADE BY THE CONTRACTORS TO ACCOMMODATE MINOR VARIATIONS. IF MAJOR VARIATIONS FROM TYPICAL DETAILS AND SECTIONS ARE REQUIRED, GC SHALL NOTIFY ARCHITECT PRIOR TO PERFORMING SUCH WORK.
15. GC SHALL INSURE STABILITY AND SAFETY OF STRUCTURE AT ALL TIMES DURING THE CONSTRUCTION PERIOD. GC SHALL NOT OCCUPY ADJACENT PROPERTIES, PARCELS, OR LANDS WITHOUT FIRST OBTAINING WRITTEN PERMISSION FROM PROPERTY OWNERS AND SUBMITTING A RECORD OF THIS PERMISSION TO THE OWNER FOR REVIEW & APPROVAL.
16. THE GC SHALL MAKE NO STRUCTURAL CHANGES TO THE PROJECT WITHOUT WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER. THIS INCLUDES (BUT IS NOT LIMITED TO) LINTELS, BEAMS, SLABS, FOOTINGS, ARCHED LINTELS (FRAMED vs POURED) ROOF FRAMING, AND ALL OTHER STRUCTURAL ELEMENTS.
17. PROVISIONS FOR RADON CONTROL HAVE NOT BEEN INCLUDED IN THE DESIGN OF THIS PROJECT. GC TO NOTIFY OWNER IF SITE CONDITIONS WARRANT THE INCLUSION OF POSITIVE RADON CONTROL SYSTEM IN THE SCOPE OF WORK FOR THIS PROJECT.
18. THE GC SHALL SECURE AND REMIT THE COST OF ALL REQUIRED PERMITS AND INSPECTIONS FOR THIS PROJECT AND SHALL COORDINATE ALL INSPECTIONS IN ORDER TO OBTAIN A CERTIFICATE OF OCCUPANCY PERMIT UPON COMPLETION OF THE WORK.
19. GC IS TO PROVIDE AN ENTIRELY FINISHED PRODUCT UPON COMPLETION OF CONSTRUCTION INCLUDING ANY FINAL REPAIRS OR WORK IDENTIFIED BY PUNCHLIST ITEMS TO THE SATISFACTION OF THE OWNER AND ENGINEER/ARCHITECT.
20. THE GC SHALL GUARANTEE ALL WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR MINIMUM OR AS OTHERWISE AGREED BY THE OWNER. ALL PRODUCTS INSTALLED WITH MANUFACTURER'S WRITTEN WARRANTIES SHALL BE GUARANTEED IN ACCORDANCE WITH EACH WARRANTY. A COMPLETE WARRANTY PACKAGE FOR ALL SUCH PRODUCTS SHALL BE DELIVERED TO OWNER BY CONTRACTOR AT TIME OF PROJECT COMPLETION.

DIVISION 01 / CONSTRUCTION ADMIN PROCEDURES:

1. PROJECT COMMUNICATION
   - 1.1. GC SHALL PARTICIPATE IN A CONSTRUCTION ADMINISTRATION KICK–OFF MEETING WITH OWNER, ARCHITECT, AND DESIGN TEAM TO DEVELOP AND IMPLEMENT A SYSTEM OF ROUTING AND DISTRIBUTION OF:
     - 1.1.1. PROJECT CORRESPONDENCE
     - 1.1.2. PROJECT MEMOS AND EMAILS
     - 1.1.3. SUBMITTALS AND SHOP DRAWINGS
     - 1.1.4. REQUESTS FOR INFORMATION
     - 1.1.5. FIELD SKETCHES
     - 1.1.6. DRAWING REVISIONS AND DELTAS
   - 1.2. GC SHALL PROVIDE AND INITIATE ALL COORDINATION EFFORTS DURING CONSTRUCTION TO ENSURE ALL RELEVANT CHANGES REQUIRED ON THE PROJECT ARE COMMUNICATED TO ALL TRADES, SUBCONTRACTORS, OWNER, ARCHITECT, ENGINEER AND ANY OTHER PROJECT TEAM MEMBER.
2. SUBMITTALS AND SHOP DRAWINGS
   - 2.1. SHOP DRAWINGS ARE REQUIRED FOR STRUCT, MECH, ELEC AND SPECIALIZED CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED BY THE GC FOR REVIEW FOR CONFORMANCE WITH THE DESIGN CONCEPT OF THE WORK IN AREAS WHERE THE DRAWINGS DO NOT ADDRESS METHODOLOGY, THE CONTRACTORS SHALL BE BOUND TO PERFORM IN COMPLIANCE WITH THE MANUFACTURER'S SPECS AND RECOMMENDATIONS.
   - 2.2. GC SHALL PREPARE A LIST AND LOG OF ANTICIPATED SUBMITTALS AND SHOP DRAWINGS REQUIRING OWNER AND/OR ARCHITECT AND/OR ENGINEER APPROVAL AS PER THE CONTRACT AGREEMENT PRIOR TO THE START OF CONSTRUCTION. LIST AND LOG SHALL BE DELIVERED TO OWNER/ARCHITECT FOR RECORD AND BE MAINTAINED BY GC THROUGHOUT THE CONSTRUCTION PHASE.
   - 2.3 ALL SUBMITTALS AND SHOP DRAWINGS WILL BE REVIEWED BY OWNER/ARCHITECT A MAX OF (2) REVIEWS. ADDITIONAL REVIEWS RESULTING FROM ERRORS OR INACCURATE SUBMITTAL DATA WILL BE AT GC'S EXPENSE FOR REVIEW TIME COSTS INCURRED.
3. REQUESTS FOR INFORMATION (RFIs)
   - 3.1 ALL RFIs FROM FIELD SHALL BE ISSUED TO THE OWNER AND ARCHITECT BY GC ALONE. RFIs ISSUED DIRECTLY FROM SUBCONTRACTORS OR TRADES TO ARCHITECT OR BY ANY OTHER MEANS WILL NOT BE ACCEPTED OR REVIEWED.
   - 3.2 RFIs SHALL BE SUBMITTED IN AN RFI TEMPLATE ISSUED BY THE OWNER AT THE START OF THE PROJECT. ANY OTHER QUESTIONS, PHONE CONVERSATIONS, EMAILS, OR OTHER CORRESPONDENCE WILL BE CONSIDERED UNOFFICIAL AND NOT BE A PART OF THE CONTRACT DOCUMENTS UNTIL AN OFFICIAL RFI IS ISSUED.
   - 3.3 GC SHALL PREPARE AND MAINTAIN A LIST AND LOG OF RFIs (INCLUDING 'OPEN', 'PENDING', 'CLOSED', ETC) FOR THE DURATION OF THE PROJECT.
4. FIELD SKETCHES
   - 4.1. IN THE EVENT OF A FIELD REQUESTED CHANGE TO THE DOCUMENTS, GC MAY BE ASKED TO PREPARE A FIELD SKETCH THAT ILLUSTRATES THE DESIRED ALTERED APPROACH TO CONSTRUCTION. GC IS RESPONSIBLE FOR ISSUING THIS SKETCH VIA EMAIL OR ELECTRONIC TRANSMISSION TO THE OWNER/ARCHITECT FOR REVIEW PRIOR TO CONSTRUCTING THE ALTERED DETAIL OR METHOD.
   - 4.2. ARCHITECT/ENGINEER MAY ISSUE REVISED DETAILS OR PLANS TO THE CONTRACTOR IN THE FORM OF FIELD SKETCHES. THESE RELEASES ARE CONSIDERED AN OFFICIAL PART OF THE CONTRACT DOCUMENTS ONCE RELEASED AND ALL GC'S CONTRACT TERMS AND RESPONSIBILITIES WILL THEN APPLY. DEVIATION FROM A FIELD SKETCH SHALL BE CONSIDERED EQUAL TO DEVIATIONS FROM THE CONTRACT DRAWINGS OR SPECIFICATIONS.
   - 4.3. ARCHITECT'S/ENGINEER'S GENERAL PRACTICE SHALL BE TO INCLUDE FIELD SKETCHES ON FULL DELTA REVISED DRAWINGS AT A LATER DATE FOR THE PURPOSE OF DOCUMENTATION FOR CODE AND INSPECTION PURPOSES. SEE BELOW FOR DRAWING REVISIONS AND DELTAS.
5. DRAWING REVISIONS AND DELTAS
   - 5.1. ARCHITECT/ENGINEER WILL RELEASE REVISED DRAWINGS AT KEY AND CRITICAL TIMES OF THE CONSTRUCTION PHASE AS NEEDED FOR ADDRESSING:
     - 5.1.1. INITIAL PERMIT REVIEW COMMENTS
     - 5.1.2. BIDDING RFIs
     - 5.1.3. OWNER REQUESTED CHANGES FROM BID RESULTS
     - 5.1.4. MAJOR CHANGES DURING CONSTRUCTION
     - 5.1.5. REQUESTS FROM JURISDICTION FOR PROGRESS SIGNED/SEALED
     - 5.1.6. FINAL CERTIFICATE OF OCCUPANCY OR PROJECT CLOSEOUT SETS
   - 5.2. REVISION SETS MAY RELEASED COMBINING MULTIPLE PURPOSES OUTLINED ABOVE (i.e. A DELTA #1 SET THAT CAPTURES BOTH THE INITIAL PERMIT REVIEW COMMENTS ALONG WITH THE BIDDING RFIs AND OWNER REQUESTED CHANGES FROM BID RESULTS ALL IN ONE REVISED SET – OFTEN LABELED AS "ISSUED FOR CONSTRUCTION").
   - 5.3. ALL REVISION SETS ISSUED BY THE ARCHITECT/ENGINEER WILL BE DONE WITH ALL CHANGES CLOUDED AND MARKED WITH A TRIANGLE 'DELTA' AND NUMBER INDICATING THE REVISION RELEASE. TITLE BLOCKS ON ALL SHEETS WILL ALSO HAVE THE DELTA NUMBER AND THE RELEASE DATE.
   - 5.4. GC IS RESPONSIBLE TO DISTRIBUTE REVISED SETS TO ALL TRADES AND ENSURE THAT ALL TRADES ARE WORKING FROM THE MOST RECENT SET OF DOCUMENTS. OWNER AND ARCHITECT/ENGINEER WILL NOT BE RESPONSIBLE FOR ERRORS, OMISSIONS, OR INCORRECT INSTALLATIONS THAT RESULT FROM GC OR ANY SUB CONTRACTORS NOT WORKING FROM THE MOST CURRENT SET OF DRAWINGS. CORRECTION OF SUCH ERRORS SHALL BE THE GCs RESPONSIBILITY AT NO COST TO THE OWNER/ARCHITECT AND AT THE DISCRETION OF THE OWNER.
6. SITE VISITS AND FIELD OBSERVATIONS
   - 6.1. GC SHALL COORDINATE WITH OWNER AND ARCHITECT AND INTERIOR DESIGNER (IF APPLICABLE TO THE PROJECT) FOR THE SCHEDULING OF ANY/ALL SITE VISITS DURING PLANNING, MOBILIZATION, CONSTRUCTION, AND/OR CLOSEOUT.
   - 6.2. SITE VISITS BY THE OWNER AND ARCHITECT MAY BE WITHOUT ADVANCE WARNING BUT WILL ALWAYS YIELD TO SITE CONDITIONS THAT MAY INTRODUCE SAFETY HAZARDS (i.e. VISITS MAY BE POSTPONED IF HAPPEN TO OVERLAP WITH TRUSS INSTALLATION DAY(S)).
   - 6.3. GC SHALL MAKE EVERY EFFORT POSSIBLE TO BE AVAILABLE ON DAYS OF SITE VISITS TO ACCOMPANY OWNER/ARCHITECT ON SITE WALK TO ANSWER QUESTIONS AND NOTE ANY AREAS OF CONCERN OR REQUIRED CORRECTIONS.
   - 6.4. GC SHALL FOLLOW–UP AFTER EACH SITE VISIT WITH A WRITTEN SUMMARY OF ITEMS DISCUSSED, ISSUES NOTED, AND A PLAN OF ACTION TO ADDRESS ANY/ALL ISSUES OR CORRECTIONS REQUIRED BASED ON THE SITE WALK.
   - 6.5. GC SHALL TAKE DIGITAL PHOTOGRAPHS OF CONSTRUCTION PROCESS ON A WEEKLY BASIS AS POST IMAGES TO AN ONLINE FILE–SHARING PLATFORM (i.e. DropBox OR OTHER ftp SHARING SITE) FOR OWNER/ARCHITECT REVIEW. IMAGES SHALL BE OF ALL ANGLES, INTERIOR AND EXTERIOR, CLOSE–UPS OF REBAR AND FORMS, ETC AS NECESSARY FOR THE OWNER AND DESIGN TEAM TO REVIEW AND COMMENT WITHOUT HAVING TO BE PHYSICALLY ON SITE.
7. PROJECT CLOSEOUT
   - 7.1. AT TIME OF SUBSTANTIAL PROJECT COMPLETION, GC SHALL DELIVER NOTICE TO OWNER AND ARCHITECT ALONG WITH A LIST OF ANY OUTSTANDING ITEMS TO BE COMPLETED OR CORRECTED AS A RESULT OF FINAL PUNCH–LIST WALK THROUGH OR PERMITTING "CERTIFICATE OF OCCUPANCY" INSPECTION(S).
   - 7.2. GC SHALL PREPARE AND DELIVER A FINAL FIELD INSPECTION REPORT TO THE OWNER AND ARCHITECT FOR RECORD.
   - 7.3. GC SHALL PREPARE, ASSEMBLE, AND DELIVER A COMPLETE SET OF MARKUPS AND FIELD DRAWINGS TO THE OWNER AND ARCHITECT IN BOTH HARD COPY AND FULL SIZE COLOR HI RESOLUTION SCANS FOR USE IN AS–BUILT DOCUMENTATION. INCLUDED SHALL BE LISTED ANY SUBSTITUTIONS OR VARIATIONS IMPLEMENTED (EITHER BY APPROVED RFI OR CHANGE ORDER OR BY GC'S FIELD DECISIONS BASED ON BEST PRACTICES) ALONG WITH ANY SKETCHES OF ALTERED DETAILS OR INSTALLATION PROCEDU

DIVISION 03 / CONCRETE:

1. REFER TO STRUCTURAL DRAWINGS FOR SPECS AND GENERAL INFORMATION.

DIVISION 04 / MASONRY:

1. REFER TO STRUCTURAL DRAWINGS FOR SPECS AND GENERAL INFORMATION.

DIVISION 05 / METALS:

1. REFER TO STRUCTURAL DRAWINGS FOR SPECS AND GENERAL INFORMATION.

DIVISION 06 / WOOD, PLASTICS, AND COMPOSITES:

1. ALL WOOD PRODUCTS AND MATERIALS SHALL BE STORED, STAGED, AND INSTALLED DRY AND SHALL BE PROTECTED FROM MOISTURE TO GREATEST EXTENT PRACTICABLE. STANDING WATER SHALL BE IMMEDIATELY REMOVED FROM WOOD MATERIALS EXPOSED TO MOISTURE DURING CONSTRUCTION. PT LUMBER SHALL BE "ARSENIC–FREE".
2. ALL METAL AND/OR WOOD FRAMING MATERIALS SHALL BE FREE OF VISUALLY OBSERVABLE WARPING, CUPPING, CHECKING, AND OTHER SUBSTANTIVE IMPERFECTIONS THAT ADVERSELY AFFECT STRUCTURAL PERFORMANCE OR THE PROVISION OF PLUMB AND TRUE CONNECTIONS WITH OTHER FRAMING MEMBERS.
3. ALL WOOD TRIM EXPOSED TO THE ELEMENTS, OR IN CONTACT WITH EARTH, CONCRETE, OR MASONRY, SHALL BE OF ARSENIC–FREE PRESSURE–TREATED LUMBER.
4. GC SHALL PROVIDE ADEQUATE SUPPORTS AND/OR BACKING MATERIAL IN NEW OR EXISTING WALLS FOR EQUIPMENT AND/OR ACCESSORIES ATTACHED THERETO.
5. FOAM TRIM
   - 5.1. BASIS OF DESIGN FOR THIS PROJECT SHALL BE THE FOLLOWING:
     - 5.1.1. LOCATIONS AT OR BELOW 5'–0" ABOVE GRADE: "STONE ON FOAM"
     - 5.1.2. LOCATIONS ABOVE 5'–0" ABOVE GRADE: HARDCOAT POLYURETHANE
   - 5.2. ALL FOAM TO HAVE SURFACE TEXTURE AND COLOR FINISH AS SELECTED BY OWNER OR ARCHITECT PER EXTERIOR COLOR BLOCKING PACKAGE.
   - 5.3. GC SHALL BE RESPONSIBLE TO PROCURE AND RECEIVE ALL FOAM TRIM TO THE SITE FREE OF DEFECT OR BLEMISH OR SHALL REPLACE BROKEN OR DAMAGED PIECES OF FOAM AS NEEDED. PUTTY OR SURFACE PATCH REPAIRS TO DEFECT FOAM PIECES IS PROHIBITED. STORE FOAM ON SITE IN A WEATHER PROTECTED LOCATION FOR MINIMUM 24–HOURS UNTIL INSTALLED.
   - 5.4. ADHERE FOAM TRIM TO BUILDING SUBSTRATE WITH ADHESIVE AS PER RECOMMENDED MANUF SPEC. PROVIDE FILLER AT JOINTS ONLY AND SMOOTH TO FINISH AS NOTED ON PLANS PRIOR TO FINAL PAINT/STUCCO.
   - 5.5. INSTALL FOAM IN ACCORDANCE WITH ALL MANUF INSTALLATION INSTRUCTIONS TO ENSURE PROPER FIT, FINISH, AND PROTECTION FROM UV DEGRADATION AS PER THE FOAM PRODUCT WARRANTY PACKAGE.

DIVISION 06 / WOOD, PLASTICS, AND COMPOSITES (CONT'D):

ALL TRIM SHALL BE TO SIZE, SHAPE, AND DIMENSION AS SHOWN ON PLANS.

- 5.5. NOTIFY OWNER/ARCHITECT IMMEDIATELY OF ANY UNACCEPTABLE CONDITIONS OR GEOMETRIC ISSUES PREVENTING FOAM INSTALLATION. DO NOT INSTALL ANY FOAM TRIM THAT DOES NOT MEETING THE DRAWING DESIGN OR ELEVATION INTENT. GC WILL BE RESPONSIBLE FOR CORRECTING ANY INCORRECT INSTALLATION OF FOAM TRIM THAT DOES NOT MATCH THE DRAWINGS.

DIVISION 07 / THERMAL AND MOISTURE PROTECTION:

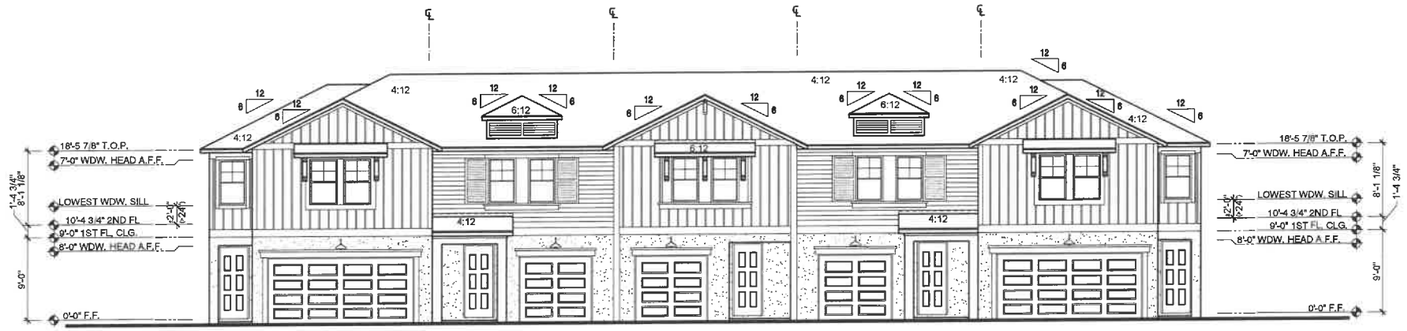
1. THE FOLLOWING SPECIFICATION SHALL GOVERN WITH MODIFICATIONS AS SPECIFIED HEREIN: AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS (ASHRAE) HANDBOOK OF FUNDAMENTALS.
2. FLASHING
   - 2.1. INSTALL FLASHING AND SHEET METAL IN COMPLIANCE WITH "ARCHITECTURAL SHEET METAL MANUAL" BY SMACNA.
   - 2.2. ALUMINUM FLASHING SHALL CONFORM TO ASTM B 209, AND BE MINIMUM 0.016" THICK STANDARD BUILDING SHEET OF PLAIN FINISH.
   - 2.3. GALVANIZED STEEL FLASHING SHALL CONFORM TO ASTM A 526, 0.20XXX COPPER, 26 GAGE (0.0179") ASTM A 525, DESIGNATION G 90 HOT–DIP GALVANIZED, MILL PHOSPHATIZED.
   - 2.4. NONREINFORCED FLEXIBLE BLACK ELASTIC SHEET FLASHING OF 50 TO 65 MILS THICKNESS SHALL COMPLY WITH THE FOLLOWING: SHORE A HARDNESS: ASTM D–2240 – TENSILE STRENGTH: ASTM D–412 TEAR RESISTANCE: ASTM D–624, DIE C – ULTIMATE ELONGATION: ASTM D–412 LOW TEMPERATURE BRITTLENESS: ASTM D–1149 – OZONE AGING: ASTM D–1149 HEAT AGING: ASTM D–573.
   - 2.5. BACKPAINT FLASHINGS WITH BITUMINOUS PAINT WHERE EXPECTED TO BE IN CONTACT WITH CEMENTITIOUS MATERIALS OR DISSIMILAR METALS.
   - 2.6. PROVIDE AND INSTALL FLASHING AT ALL ROOF TO WALL CONDITIONS, PROJECTIONS OF WOOD BEAMS THROUGH EXTERIOR WALLS, EXTERIOR OPENINGS, & ELSEWHERE AS REQ'D TO PROVIDE WATERTIGHT/WEATHERPROOF ENVELOPE.
3. VENTILATION OF ATTICS INSULATED W/ SPRAY FOAM INSULATION:
   - 3.1. THE HVAC SYSTEM DESIGN (BY OTHERS) SHALL ACCOUNT FOR AIR CHANGE IN AN INSULATED ATTIC SPACE TO AVOID MOISTURE BUILDUP OVER TIME. IT IS RECOMMENDED THAT THE HVAC DESIGNER OBTAIN THE RECOMMENDATIONS OF THE SPRAY INSULATION MANUFACTURER FOR THE PROJECT SPECIFIC CONDITIONS AND CONSIDER THEM FOR INCLUSION OF THEIR DESIGN.
4. INSULATION
   - 6.2. PROTECT ALL INSULATION MATERIALS FROM PHYSICAL DAMAGE FROM DETERIORATION BY MOISTURE, SOILING, AND OTHER SOURCES. STORE INSIDE AND IN A DRY LOCATION.
   - 6.3. INSULATION MATERIALS, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS AND VAPOR–PERMEABLE MEMBRANES INSTALLED WITHIN FLOOR/CEILING ASSEMBLIES, ROOF/CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES AND ATTICS SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25 WITH AN ACCOMPANYING SMOKE–DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 723 EXCEPT AS OTHERWISE PERMITTED PER CODE.
   - 6.6. PROVIDE AND INSTALL SPRAY APPLIED INSULATION WITH AN INSULATION–ONLY VALUE OF R–19 ON UNDERSIDE OF ROOF SHEATHING AND TRUSS TOP CHORDS AS SHOWN ON DRAWINGS.
   - 6.7. PROVIDE & INSTALL GLASS FIBER BATT INSULATION AT WINDOW SHIM SPACES.
   - 6.8. FIT INSULATION TIGHT WITHIN SPACES AND TIGHT TO AND BEHIND MECHANICAL AND ELECTRICAL SERVICES WITHIN THE PLANE OF INSULATION. LEAVE NO GAPS OR SPACES BEING SURE NOT TO COMPRESS GLASS INSULATION.
7. PROVIDE AND INSTALL GUTTERS AND DOWNSPOUTS AS PER SMACNA ARCHITECTURAL SHEET METAL MANUAL (WHEN SELECTED BY OWNER.)
   - 7.1. GUTTER – PER MATERIAL SPECIFICATION
   - 7.2. DOWNSPOUT – CONTINUOUS PER SPECIFICATION (ALUMINUM).
   - 7.3. CONNECT DOWNSPOUTS TO IN–GROUND PERIMETER DRAINAGE SYSTEM PIPING OR SPLASHING TO GRADE WITH CONIC SPLASHBLOCKS AS INDICATED ON DWGS.
   - 7.4. PROVIDE AND INSTALL RAINWATER CONDUCTORS PLUMB AND TRUE AND FASTEN TO SUBSTRATE AS REQUIRED FOR SECURE ATTACHMENT CONSIDERING POTENTIAL DYNAMIC THRUST CREATED BY STORMWATER FLOW AND VOLUME. ALL FASTENERS AND SUPPORT ACCESSORIES SHALL BE OF THE SAME MATERIAL AS THE CONDUCTOR AND SHALL BE PROVIDED TO ELIMINATE THE POSSIBILITY OF GALVANIC CORROSION DUE TO DISSIMILAR METALS.
8. EXTERIOR STUCCO TO BE 5/8" ON BLOCK, 7/8" ON WOOD FRAMING, (2) COAT SYSTEM AT 1/4" EACH (SCRATCH, AND FINISH.) STUCCO TO BE APPLIED OVER 2 LAYERS OF PAPER BACKED METAL LATH. USE APPROPRIATE CORNER BEADS, MOLDINGS, ETC, TO ENSURE PROPER INSTALLATION. COLOR TO BE SELECTED BY OWNER OR AS PER COLOR BLOCKING PROVIDED BY OWNER.
9. WHERE CEMENT PLASTER (STUCCO) IS TO BE APPLIED TO LATH OVER FRAME CONSTRUCTION, MEASURES SHALL BE TAKEN TO PREVENT BONDING BETWEEN THE CEMENT PLASTER AND THE WATER RESISTIVE BARRIER. A BOND BREAK SHALL BE PROVIDED BETWEEN THE WATER RESISTIVE BARRIER AND THE CEMENT PLASTER (STUCCO) CONSISTING OF ONE OF THE FOLLOWING:
   - 1.1. TWO LAYERS OF AN APPROVED WATER RESISTANT BARRIER or
   - 1.2. ONE LAYER OF AN APPROVED WATER RESISTANT BARRIER OVER AN APPROVED PLASTIC HOUSE WRAP, or
   - 1.3. OTHER APPROVED METHODS OR MATERIALS APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. MINIMUM THICKNESS OF STUCCO WEATHER COVERINGS (EXCLUSIVE OF TEXTURES)

COVERING TYPE	MINIMUM THICKNESS
THREE–COAT WORK OVER:	
METAL PLASTER BASE	0.875"
UNIT MASONRY, C.I.P. OR PRECAST CONCRETE	0.625"
TWO–COAT WORK OVER:	
UNIT MASONRY	0.500"
CAST–IN–PLACE OR PRECASE CONCRETE	0.375"

3. STUCCO, FLASHING, CONTROL JOINTS, & WEATHER BARRIERS SHALL BE INSTALLED W/ STRICT ADHERENCE TO ALL APPLICABLE ASTM STDS & BUILDING CODE REQUIREMENTS.

DIVISION 08 / OPENINGS:

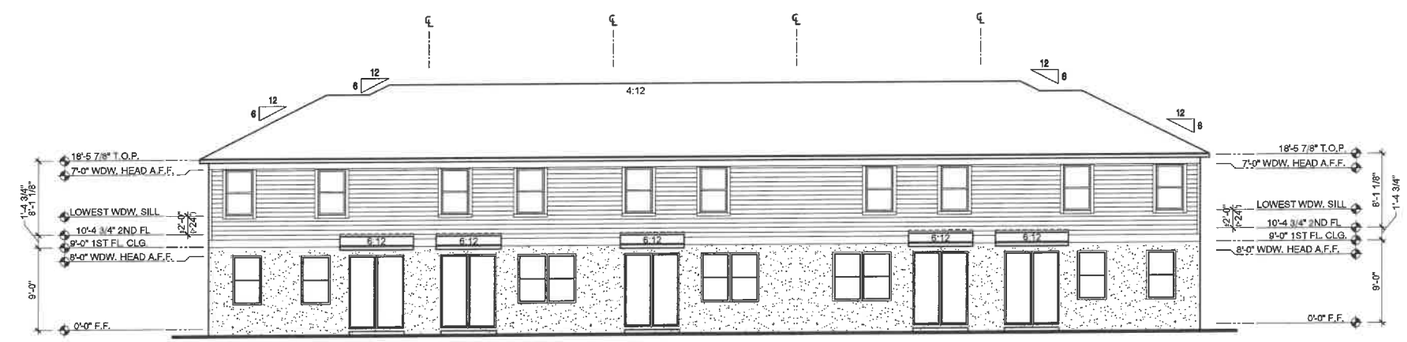
1. REFERENCE STANDARDS FOR METAL DOORS, WOOD DOORS, AND WINDOWS SHALL BE:
   - 1.1. UNDERWRITER'S LABORATORIES, INC.: BUILDING MATERIALS DIRECTORY.
   - 1.2. NATIONAL FIRE PROTECTION ASSOCIATION: PAMPHLET NO. 80 STANDARD FOR FIRE DOORS AND WINDOWS.
   - 1.3. THE REFERENCED STANDARDS OF FLORIDA BUILDING CODE – RESIDENTIAL
   - 1.4. IF CONSTRUCTION MATERIALS SPECIFIED IN THESE DOCUMENTS IS NOT REFERENCED IN THE "RESIDENTIAL" CODE THEN THE APPLICABLE REFERENCED STANDARDS OF THE FLORIDA BUILDING CODE SHALL BE USED.
   - 1.5. REFERENCED STANDARDS INCLUDE BUT ARE NOT LIMITED TO MANUFACTURING, TESTING, PERFORMANCE (INCLUDES STRUCTURAL, GLAZING, AIR INFILTRATION, WATER PENETRATION).
2. ALL DOORS AND WINDOWS SHALL COMPLY WITH THE CODE FOR THE SITE, LOCATION & GEOGRAPHIC SPECIFIC REQUIREMENTS AND AS SELECTED BY OWNER FROM BUILDER / DEVELOPER'S CODE APPROVED AND DESIGNATED BUILDING MATERIAL SPECIFICATIONS.
3. CONTRACTOR SHALL CONFORM TO THE ADOPTED ENERGY CODE AND VERIFY THAT MAXIMUM WINDOW AND DOOR INFILTRATION RATES ARE NOT EXCEEDED.
4. ALL DOORS, WINDOWS, TRANSOMS, SIDELIGHTS, ETC. OPENING TO THE EXTERIOR OR TO UNCONDITIONED AREAS SHALL BE FULLY WEATHER STRIPPED, GASKETED OR OTHERWISE TREATED TO LIMIT AIR FILTRATION.
5. DOORS
   - 5.1. GLAZING IN DOORS ARE CONSIDERED A HAZARDOUS LOCATION AN SHALL BE TEMPERED GLASS EXCEPT AS PERMITTED PER CODE.
   - 5.2. DOOR UNITS AND FRAMES SHALL BE PROTECTED DURING CONSTRUCTION. THE GENERAL CONTRACTOR SHALL REPAIR/REPLACE ANY DAMAGE TO SUCH MATERIALS AND PRODUCTS AT NO ADDITIONAL COST TO THE OWNER.
   - 5.3. ALL DOOR HEIGHTS TO BE AS INDICATED ON THE CONSTRUCTION DOCUMENTS. DOOR HEIGHT TO BE MODIFIED BY GC AS REQUIRED TO ACCOMMODATE VARIOUS FLOOR FINISHES, THRESHOLDS, ROUGH OPENINGS AND MECHANICAL DESIGN UNDERCUTS.
   - 5.4. REFER TO DRAWINGS FOR DOOR TYPES, SIZES, FRAME DETAILS, AND HARDWARE SET DESIGNATIONS AND APPROVED BUILDER / DEVELOPER'S CODE APPROVED AND DESIGNATED BUILDING MATERIAL SPECIFICATIONS.
   - 5.5. ALL DOORS SHALL BE STORED IN A THERMALLY CONTROLLED ENVIRONMENT ON SITE UNTIL INSTALLED. STORE DOORS UPRIGHT WITH HEADS UP AND BLOCKING BETWEEN DOORS TO PREVENT DAMAGE OR WARPING.
   - 5.6. ALL LOCKS AND LOCKSETS SHALL BE COORDINATED WITH THIRD PARTY SECURITY



UNIT - T179 GARAGE RIGHT | UNIT - T148 GARAGE RIGHT | UNIT - T148 GARAGE LEFT | UNIT - T148 GARAGE LEFT | UNIT - T179 GARAGE LEFT

ELEVATION - FRONT

SCALE: 1/8"=1'-0"



UNIT - T179 GARAGE LEFT | UNIT - T148 GARAGE LEFT | UNIT - T148 GARAGE LEFT | UNIT - T148 GARAGE RIGHT | UNIT - T179 GARAGE RIGHT

ELEVATION - REAR

SCALE: 1/8"=1'-0"

FIELDSTONE
ARCHITECTURE & ENGINEERING
Michigan: 3400 Auburn Rd. · Ste. 200 · Auburn Hills, MI. 48326
Florida: 12906 Tampa Oaks Blvd. · Ste.150 · Tampa, FL. 33637
248.822.4035 · FieldstoneAE.com · 813.466.3310

Meritage Homes

1127 Gateway Boulevard
Boynton Beach , FL 33426
561-847-7515 Phone

Control Date 02.12.2025

Date/Issued for:

0 –
– –
– –
– –
– –

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
BUILDING ELEVATIONS

©Fieldstone A&E, LLC
DO NOT SCALE DRAWINGS

Sheet No.
A3.1

C:\Users\rtouch\Desktop\Revit Models\Auburn_514693_Bldg_5Unit_CO_T148_T179_APC_Meter.rvt Plot Date: Wednesday, February 12, 2025 4:57 PM, Plotted By:rtouchner

DIVISION 01 / GENERAL REQUIREMENTS:

1. THE FLORIDA BUILDING CODE – RESIDENTIAL (FBC–R) W/LATEST ADOPTED AMENDMENTS, BULLETINS, AND INTERPRETATIONS AND ALL ADOPTED & REFERENCED SUB CODES, PUBLICATIONS, REPORTS (THE "CODE") APPLIES TO ALL CONSTRUCTION ACTIVITIES (THE "WORK") OF A NATURE AND INTENT INDICATED BY THESE CONSTRUCTION DRAWINGS, SPECIFICATIONS, ADDENDA, ETC. (THE "DOCUMENTS") AT THE STRUCTURE, BUILDING, AND/OR SITE (THE "PROJECT, THE "SITE") OR SPECIFICALLY–DESIGNATED PORTION OF THE PROJECT/SITE (THE "WORK AREA") REFERENCED HEREIN. THE GENERAL CONTRACTOR (THE "CONTRACTOR" OR "G.C.") SHALL VERIFY ALL CODE REQUIREMENTS BEFORE COMMENCEMENT OF WORK AND BRING ANY DISCREPANCIES BETWEEN CODE REQUIREMENTS AND THE CONSTRUCTION DOCUMENTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER. ALL TRADES, I.E. MECHANICAL, ELECTRICAL AND PLUMBING SUBCONTRACTORS OR INDEPENDENTLY CONTRACTED INDIVIDUAL TRADE CONTRACTORS (THE "CONTRACTORS"), SHALL PERFORM ALL WORK IN ACCORDANCE WITH ANY AND ALL APPLICABLE CODES CURRENTLY IN EFFECT AT THE TIME OF CONSTRUCTION.
2. OSHA REGULATIONS SHALL APPLY WHERE REQUIRED DURING THE COURSE OF THE WORK AS IT APPLIES TO WORKER SAFETY. CONTRACTOR SHALL DESIGNATE A "SAFETY DIRECTOR" OR "SAFETY POINT OF CONTACT" WHO SHALL BE RESPONSIBLE FOR ALL OSHA SAFETY REQUIREMENTS; NOTHING CONTAINED IN THESE DOCUMENTS IN ANY WAY REQUIRES THE ARCHITECT, ENGINEER OR OWNER TO BE RESPONSIBLE FOR ANY ASPECT OF SAFETY DURING CONSTRUCTION OR TO ENSURE THAT THE CONTRACTOR FOLLOWS WHATEVER SAFETY REGULATIONS MAY BE APPLICABLE.
3. ALL WORK SHALL BE IN CONFORMANCE WITH ALL FEDERAL, STATE AND LOCAL CODES AND ACTS, MANUF'S RECOMMENDATIONS & INDUSTRY STANDARDS OF GOOD PRACTICE.
4. ALL MATERIALS SHALL BE AS SPECIFIED AND/OR DETAILED, AND STORED AND INSTALLED IN A WORKMANLIKE MANNER, IN ACCORDANCE WITH APPLICABLE CODES. MANUF'S RECOMMENDATIONS, & INDUSTRY STDS OF GOOD PRACTICE (AS REQUIRED).
5. ALL CONTRACTORS SHALL MAINTAIN THE PREMISES CLEAN AND FREE OF ALL TRASH, DEBRIS AND SHALL PROTECT ALL ADJACENT WORK FROM DAMAGE, SOILING, PAINT OVER SPRAY, ETC. ALL FIXTURES, EQUIPMENT, GLAZING, FLOORS, ETC., SHALL BE LEFT CLEAN AND READY FOR OWNER'S USE UPON COMPLETION OF THE PROJECT.
6. GC SHALL BRING ERRORS AND OMISSIONS WHICH MAY OCCUR IN CONTRACT DOCUMENTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER AND INSTRUCTIONS SHALL BE OBTAINED BEFORE PROCEEDING WITH AFFECTED WORK. THE GC SHALL BE RESPONSIBLE FOR RECTIFYING UNACCEPTABLE RESULTS OF ANY ERRORS, DISCREPANCIES, OR OMISSIONS IN THE CONTRACT DOCUMENTS WHICH CAN READILY OR REASONABLY BE DETERMINED AND FOR WHICH THE CONTRACTOR FAILED TO NOTIFY THE ARCHITECT/ENGINEER BEFORE CONSTRUCTION AND/OR FABRICATION OF SUBJECT WORK. THE GC SHALL VERIFY ALL CONDITIONS AND DIMENSIONS WITHIN THE CONTRACT LIMITS. DEVIATIONS FROM THE CONTRACT DOCUMENTS NECESSITATED BY FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF AND REVIEWED BY THE ARCHITECT/ENGINEER AND INSTRUCTIONS SHALL BE OBTAINED BEFORE PROCEEDING WITH WORK. SEE RFI PROCESS BELOW.
7. GC TO COORDINATE ALL DIMENSIONS ON PREFABRICATED ITEMS WITH MANUFACTURER'S INSTRUCTIONS. ALL MANUFACTURER'S PRINTED WARNINGS FOR HANDLING OF PRODUCTS MUST BE OBSERVED. THE WORDS "OR EQUAL" ARE TO BE ASSUMED WHENEVER A SPECIFIC MANUFACTURER IS NOTED UNLESS "NO SUBSTITUTIONS PERMITTED".
8. GC RESPONSIBLE FOR SUPPLYING ALL RELATED ITEMS REQUIRED FOR CONSTRUCTION AND FULL PROJECT COMPLETION, UNLESS OTHER ARRANGEMENTS ARE MADE WITH OWNER. SPECIFIC ITEMS TO BE FURNISHED BY OWNER OR OTHERS ARE NOTED IN THESE DOCUMENTS AND SHOULD BE COORDINATED PRIOR TO CONSTRUCTION START.
9. THE GC SHALL PAY FOR ANY/ALL TEMPORARY UTILITIES DURING CONSTRUCTIONS INCLUDING (BUT NOT LIMITED TO) ELECTRICITY, HEAT, WATER, SEWER, ETC.
10. CIVIL ENGINEERING AND SITE IMPROVEMENTS, GEOTECHNICAL, ENVIRONMENTAL, TELECOM, AUDIO–VISUAL, LOW VOLTAGE, COMPUTER, AND SECURITY SYSTEMS, INTERIOR DESIGN & DOCUMENTATION PROVISIONS ARE NOT INCLUDED AS PART OF THE SCOPE OF THESE DOCUMENTS UNLESS SPECIFICALLY NOTED HEREIN. THE GC SHALL CONSULT WITH THE OWNER REGARDING THE COORDINATION OF THESE PROVISIONS WITH THE SCOPE OF WORK IDENTIFIED BY THESE DOCUMENTS AND ANY OTHER WORK REQUIRED BY THE OWNER RELATED TO THIS PROJECT.
11. THE ARCHITECT, ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR WORK COMPLETED BY CONTRACTOR(S) THAT DEVIATES FROM ADOPTED APPLICABLE CODES, OR THE INTENT OF THESE DOCUMENTS. THE GC SHALL RECTIFY ALL NON–CONFORMANCE ISSUES IN ORDER TO COMPLY WITH CODE AND THE INTENT OF THESE DOCUMENTS AT NO ADDITIONAL COST TO THE OWNER. ATTAINMENT OF A CERTIFICATE OF OCCUPANCY FOR THE OWNER IS REQUIRED BUT MAY NOT REPRESENT THE ENTIRETY OF THE SCOPE OF WORK THAT IS TO BE COMPLETED BY THE GC FOR THIS PROJECT.
12. ENLARGED DRAWINGS AND DETAILS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS AND DETAILS.
13. DO NOT SCALE DRAWINGS. MATERIALS, GRAPHIC CONDITIONS AND DISTANCES SHOWN SHALL BE SUPERSEDED BY WRITTEN TEXT AND DIMENSIONS.
14. DETAILS AND SECTIONS ON THE DRAWINGS ARE TAKEN AT SPECIFIC LOCATIONS AND ARE INTENDED TO SERVE AS A REPRESENTATION OF TYPICAL CONSTRUCTION METHODOLOGY FOR ALL SIMILAR CONDITIONS. MODIFICATIONS SHALL BE MADE BY THE CONTRACTORS TO ACCOMMODATE MINOR VARIATIONS. IF MAJOR VARIATIONS FROM TYPICAL DETAILS AND SECTIONS ARE REQUIRED, GC SHALL NOTIFY ARCHITECT PRIOR TO PERFORMING SUCH WORK.
15. GC SHALL INSURE STABILITY AND SAFETY OF STRUCTURE AT ALL TIMES DURING THE CONSTRUCTION PERIOD. GC SHALL NOT OCCUPY ADJACENT PROPERTIES, PARCELS, OR LANDS WITHOUT FIRST OBTAINING WRITTEN PERMISSION FROM PROPERTY OWNERS AND SUBMITTING A RECORD OF SUCH PERMISSION TO THE OWNER FOR REVIEW & APPROVAL.
16. THE GC SHALL MAKE NO STRUCTURAL CHANGES TO THE PROJECT WITHOUT WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER. THIS INCLUDES (BUT IS NOT LIMITED TO) LINTELS, BEAMS, SLABS, FOOTINGS, ARCHED LINTELS (FRAMED vs POURED) ROOF FRAMING, AND ALL OTHER STRUCTURAL ELEMENTS.
17. PROVISIONS FOR RADON CONTROL HAVE NOT BEEN INCLUDED IN THE DESIGN OF THIS PROJECT. GC TO NOTIFY OWNER IF SITE CONDITIONS WARRANT THE INCLUSION OF POSITIVE RADON CONTROL SYSTEM IN THE SCOPE OF WORK FOR THIS PROJECT.
18. THE GC SHALL SECURE AND REMIT THE COST OF ALL REQUIRED PERMITS AND INSPECTIONS FOR THIS PROJECT AND SHALL COORDINATE ALL INSPECTIONS IN ORDER TO OBTAIN A CERTIFICATE OF OCCUPANCY PERMIT UPON COMPLETION OF THE WORK.
19. GC IS TO PROVIDE AN ENTIRELY FINISHED PRODUCT UPON COMPLETION OF CONSTRUCTION INCLUDING ANY FINAL REPAIRS OR WORK IDENTIFIED BY PUNCHLIST ITEMS TO THE SATISFACTION OF THE OWNER AND ENGINEER/ARCHITECT.
20. THE GC SHALL GUARANTEE ALL WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR MINIMUM OR AS OTHERWISE AGREED BY THE OWNER. ALL PRODUCTS INSTALLED WITH MANUFACTURER'S WRITTEN WARRANTIES SHALL BE GUARANTEED IN ACCORDANCE WITH EACH WARRANTY; A COMPLETE WARRANTY PACKAGE FOR ALL SUCH PRODUCTS SHALL BE DELIVERED TO OWNER BY CONTRACTOR AT TIME OF PROJECT COMPLETION.

DIVISION 01 / CONSTRUCTION ADMIN PROCEDURES:

1. PROJECT COMMUNICATION
   - 1.1. GC SHALL PARTICIPATE IN A CONSTRUCTION ADMINISTRATION KICK–OFF MEETING WITH OWNER, ARCHITECT, AND DESIGN TEAM TO DEVELOP AND IMPLEMENT A SYSTEM OF ROUTING AND DISTRIBUTION OF:
     - 1.1.1. PROJECT CORRESPONDENCE
     - 1.1.2. PROJECT MEMOS AND EMAILS
     - 1.1.3. SUBMITTALS AND SHOP DRAWINGS
     - 1.1.4. REQUESTS FOR INFORMATION
     - 1.1.5. FIELD SKETCHES
     - 1.1.6. DRAWING REVISIONS AND DELTAS
   - 1.2. GC SHALL PROVIDE AND INITIATE ALL COORDINATION EFFORTS DURING CONSTRUCTION TO ENSURE ALL RELEVANT CHANGES REQUIRED ON THE PROJECT ARE COMMUNICATED TO ALL TRADES, SUBCONTRACTORS, OWNER, ARCHITECT, ENGINEER AND ANY OTHER PROJECT TEAM MEMBER.
2. SUBMITTALS AND SHOP DRAWINGS
   - 2.1. SHOP DRAWINGS ARE REQUIRED FOR STRUCT, MECH, ELEC AND SPECIALIZED CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED BY THE GC FOR REVIEW FOR CONFORMANCE WITH THE DESIGN CONCEPT OF THE WORK. IN AREAS WHERE THE DRAWINGS DO NOT ADDRESS METHODOLOGY, THE CONTRACTORS SHALL BE BOUND TO PERFORM IN COMPLIANCE WITH THE MANUFACTURER'S SPECS AND RECOMMENDATIONS.
   - 2.2. GC SHALL PREPARE A LIST AND LOG OF ANTICIPATED SUBMITTALS AND SHOP DRAWINGS REQUIRING OWNER AND/OR ARCHITECT AND/OR ENGINEER APPROVAL AS PER THE CONTRACT AGREEMENT PRIOR TO THE START OF CONSTRUCTION. LIST AND LOG SHALL BE DELIVERED TO OWNER/ARCHITECT FOR RECORD AND BE MAINTAINED BY GC THROUGHOUT THE CONSTRUCTION PHASE.
   - 2.3. ALL SUBMITTALS AND SHOP DRAWINGS WILL BE REVIEWED BY OWNER/ARCHITECT A MAX OF (2) REVIEWS. ADDITIONAL REVIEWS RESULTING FROM ERRORS OR INACCURATE SUBMITTAL DATA WILL BE AT GC'S EXPENSE FOR REVIEW TIME COSTS INCURRED.
3. REQUESTS FOR INFORMATION (RFIs)
   - 3.1. ALL RFIs FROM FIELD SHALL BE ISSUED TO THE OWNER AND ARCHITECT BY GC ALONE. RFIs ISSUED DIRECTLY FROM SUBCONTRACTORS OR TRADES TO ARCHITECT OR BY ANY OTHER MEANS WILL NOT BE ACCEPTED OR REVIEWED.
   - 3.2. RFIs SHALL BE SUBMITTED IN AN RFI TEMPLATE ISSUED BY THE OWNER AT THE START OF THE PROJECT. ANY OTHER QUESTIONS, PHONE CONVERSATIONS, EMAILS, OR OTHER CORRESPONDENCE WILL BE CONSIDERED UNOFFICIAL AND NOT BE A PART OF THE CONTRACT DOCUMENTS UNTIL AN OFFICIAL RFI IS ISSUED.
   - 3.3 GC SHALL PREPARE AND MAINTAIN A LIST AND LOG OF RFIs (INCLUDING 'OPEN', 'PENDING', 'CLOSED', ETC) FOR THE DURATION OF THE PROJECT.
4. FIELD SKETCHES
   - 4.1. IN THE EVENT OF A FIELD REQUESTED CHANGE TO THE DOCUMENTS, GC MAY BE ASKED TO PREPARE A FIELD SKETCH THAT ILLUSTRATES THE DESIRED ALTERED APPROACH TO CONSTRUCTION. GC IS RESPONSIBLE FOR ISSUING THIS SKETCH VIA EMAIL OR ELECTRONIC TRANSMISSION TO THE OWNER/ARCHITECT FOR REVIEW PRIOR TO CONSTRUCTING THE ALTERED DETAIL OR METHOD.
   - 4.2. ARCHITECT/ENGINEER MAY ISSUE REVISED DETAILS OR PLANS TO THE CONTRACTOR IN FORM OF FIELD SKETCHES. THESE RELEASES ARE CONSIDERED AN OFFICIAL PART OF THE CONTRACT DOCUMENTS ONCE RELEASED AND ALL GC'S CONTRACT TERMS AND RESPONSIBILITIES WILL THEN APPLY. DEVIATION FROM A FIELD SKETCH SHALL BE CONSIDERED EQUAL TO DEVIATIONS FROM THE CONTRACT DRAWINGS OR SPECIFICATIONS.
   - 4.3. ARCHITECT'S/ENGINEER'S GENERAL PRACTICE SHALL BE TO INCLUDE FIELD SKETCHES ON FULL DELTA REVISED DRAWINGS AT A LATER DATE FOR THE PURPOSE OF DOCUMENTATION FOR CODE AND INSPECTION PURPOSES. SEE BELOW FOR DRAWING REVISIONS AND DELTAS.
5. DRAWING REVISIONS AND DELTAS
   - 5.1. ARCHITECT/ENGINEER WILL RELEASE REVISED DRAWINGS AT KEY AND CRITICAL TIMES OF THE CONSTRUCTION PHASE AS NEEDED FOR ADDRESSING:
     - 5.1.1. INITIAL PERMIT REVIEW COMMENTS
     - 5.1.2. BIDDING RFIs
     - 5.1.3. OWNER REQUESTED CHANGES FROM BID RESULTS
     - 5.1.4. MAJOR CHANGES DURING CONSTRUCTION
     - 5.1.5. REQUESTS FROM JURISDICTION FOR PROGRESS SIGNED/SEALED
     - 5.1.6. FINAL CERTIFICATE OF OCCUPANCY OR PROJECT CLOSEOUT SETS
   - 5.2. REVISION SETS MAY RELEASED COMBINING MULTIPLE PURPOSES OUTLINED ABOVE (i.e. A DELTA #1 SET THAT CAPTURES BOTH THE INITIAL PERMIT REVIEW COMMENTS ALONG WITH THE BIDDING RFIs AND OWNER REQUESTED CHANGES FROM BID RESULTS ALL IN ONE REVISED SET – OFTEN LABELED AS "ISSUED FOR CONSTRUCTION").
   - 5.3. ALL REVISION SETS ISSUED BY THE ARCHITECT/ENGINEER WILL BE DONE WITH ALL CHANGES CLOUDED AND MARKED WITH A TRIANGLE 'DELTA' AND NUMBER INDICATING THE REVISION RELEASE. TITLE BLOCKS ON ALL SHEETS WILL ALSO HAVE THE DELTA NUMBER AND THE RELEASE DATE.
   - 5.4. GC IS RESPONSIBLE TO DISTRIBUTE REVISED SETS TO ALL TRADES AND ENSURE THAT ALL TRADES ARE WORKING FROM THE MOST RECENT SET OF DOCUMENTS. OWNER AND ARCHITECT/ENGINEER WILL NOT BE RESPONSIBLE FOR ERRORS, OMISSIONS, OR INCORRECT INSTALLATIONS THAT RESULT FROM GC OR ANY SUB CONTRACTORS NOT WORKING FROM THE MOST RECENT SET OF DRAWINGS. CORRECTION OF SUCH ERRORS SHALL BE THE GCs RESPONSIBILITY AT NO COST TO THE OWNER/ARCHITECT AND AT THE DISCRETION OF THE OWNER.
6. SITE VISITS AND FIELD OBSERVATIONS
   - 6.1. GC SHALL COORDINATE WITH OWNER AND ARCHITECT AND INTERIOR DESIGNER (IF APPLICABLE TO THE PROJECT) FOR THE SCHEDULING OF ANY/ALL SITE VISITS DURING PLANNING, MOBILIZATION, CONSTRUCTION, AND/OR CLOSEOUT.
   - 6.2. SITE VISITS BY THE OWNER AND ARCHITECT MAY BE WITHOUT ADVANCE WARNING BUT WILL ALWAYS YIELD TO SITE CONDITIONS THAT MAY INTRODUCE SAFETY HAZARDS (i.e. VISITS MAY BE POSTPONED IF HARPEN TO OVERLAP WITH TRUSS INSTALLATION DAY(S)).
   - 6.3. GC SHALL MAKE EVERY EFFORT POSSIBLE TO BE AVAILABLE ON DAYS OF SITE VISITS TO ACCOMPANY OWNER/ARCHITECT ON SITE WALK TO ANSWER QUESTIONS AND NOTE ANY AREAS OF CONCERN OR REQUIRED CORRECTIONS.
   - 6.4. GC SHALL FOLLOW–UP AFTER EACH SITE VISIT WITH A WRITTEN SUMMARY OF ITEMS DISCUSSED, ISSUES NOTED, AND A PLAN OF ACTION TO ADDRESS ANY/ALL ISSUES OR CORRECTIONS REQUIRED BASED ON THE SITE WALK.
   - 6.5. GC SHALL TAKE DIGITAL PHOTOGRAPHS OF CONSTRUCTION PROCESS ON A WEEKLY BASIS AN POST IMAGES TO AN ONLINE FILE–SHARING PLATFORM (i.e. DropBox OR OTHER flo SHARING SITE) FOR OWNER/ARCHITECT REVIEW. IMAGES SHALL BE OF ALL ANGLES, INTERIOR AND EXTERIOR, CLOSE–UPS OF REBAR AND FORMS, ETC AS NECESSARY FOR THE OWNER AND DESIGN TEAM TO REVIEW AND COMMENT WITHOUT HAVING TO BE PHYSICALLY ON SITE.
7. PROJECT CLOSEOUT
   - 7.1. AT TIME OF SUBSTANTIAL PROJECT COMPLETION, GC SHALL DELIVER NOTICE TO OWNER AND ARCHITECT ALONG WITH A LIST OF ANY OUTSTANDING ITEMS TO BE COMPLETED OR CORRECTED AS A RESULT OF FINAL PUNCH–LIST WALK THROUGH OR PERMITTING "CERTIFICATE OF OCCUPANCY" INSPECTION(S).
   - 7.2. GC SHALL PREPARE AND DELIVER A FINAL FIELD INSPECTION REPORT TO THE OWNER AND ARCHITECT FOR RECORD.
   - 7.3. GC SHALL PREPARE, ASSEMBLE, AND DELIVER A COMPLETE SET OF MARKUPS AND FIELD DRAWINGS TO THE OWNER AND ARCHITECT IN BOTH HARD COPY AND FULL SIZE COLOR HI RESOLUTION SCANS FOR USE IN AS–BUILT DOCUMENTATION. INCLUDED SHALL BE LISTED ANY SUBSTITUTIONS OR VARIATIONS IMPLEMENTED (EITHER BY APPROVED RFI OR CHANGE ORDER OR BY GC'S FIELD DECISIONS BASED ON BEST PRACTICES) ALONG WITH ANY SKETCHES OF ALTERED DETAILS OR INSTALLATION PROCEDU

DIVISION 03 / CONCRETE:

1. REFER TO STRUCTURAL DRAWINGS FOR SPECS AND GENERAL INFORMATION.

DIVISION 04 / MASONRY:

1. REFER TO STRUCTURAL DRAWINGS FOR SPECS AND GENERAL INFORMATION.

DIVISION 05 / METALS:

1. REFER TO STRUCTURAL DRAWINGS FOR SPECS AND GENERAL INFORMATION.

DIVISION 06 / WOOD, PLASTICS, AND COMPOSITES:

1. ALL WOOD PRODUCTS AND MATERIALS SHALL BE STORED, STAGED, AND INSTALLED DRY AND SHALL BE PROTECTED FROM MOISTURE TO GREATEST EXTENT PRACTICABLE. STANDING WATER SHALL BE IMMEDIATELY REMOVED FROM WOOD MATERIALS EXPOSED TO MOISTURE DURING CONSTRUCTION. PT LUMBER SHALL BE "ARSENIC–FREE".
2. ALL METAL AND/OR WOOD FRAMING MATERIALS SHALL BE FREE OF VISUALLY OBSERVABLE WARPING, CUPPING, CHECKING, AND OTHER SUBSTANTIVE IMPERFECTIONS THAT ADVERSELY AFFECT STRUCTURAL PERFORMANCE OR THE PROVISION OF PLUMB AND TRUE CONNECTIONS WITH OTHER FRAMING MEMBERS.
3. ALL WOOD TRIM EXPOSED TO THE ELEMENTS, OR IN CONTACT WITH EARTH, CONCRETE, OR MASONRY, SHALL BE OF ARSENIC–FREE PRESSURE–TREATED LUMBER.
4. GC SHALL PROVIDE ADEQUATE SUPPORTS AND/OR BACKING MATERIAL IN NEW OR EXISTING WALLS FOR EQUIPMENT AND/OR ACCESSORIES ATTACHED THERETO.
5. FOAM TRIM
   - 5.1. BASIS OF DESIGN FOR THIS PROJECT SHALL BE THE FOLLOWING:
     - 5.1.1. LOCATIONS AT OR BELOW 5'–0" ABOVE GRADE: 'STONE ON FOAM'
     - 5.1.2. LOCATIONS ABOVE 5'–0" ABOVE GRADE: HARDCOAT POLYURETHANE
   - 5.2. ALL FOAM TO HAVE SURFACE TEXTURE AND COLOR FINISH AS SELECTED BY OWNER OR ARCHITECT PER EXTERIOR COLOR BLOCKING PACKAGE.
   - 5.3. GC SHALL BE RESPONSIBLE TO PROCURE AND RECEIVE ALL FOAM TRIM TO THE SITE FREE OF DEFECT OR BLEMISH OR SHALL REPLACE BROKEN OR DAMAGED PIECES OF FOAM AS NEEDED. PUTTY OR SURFACE PATCH REPAIRS TO DEFECT FOAM PIECES IS PROHIBITED. STORE FOAM ON SITE IN A WEATHER PROTECTED LOCATION FOR MINIMUM 24–HOURS UNTIL INSTALLED.
   - 5.4. ADHERE FOAM TRIM TO BUILDING SUBSTRATE WITH ADHESIVE AS PER RECOMMENDED MANUF SPEC. PROVIDE FILLER AT JOINTS ONLY AND SMOOTH TO FINISH AS NOTED ON PLANS PRIOR TO FINAL PAINT/STUCCO.
   - 5.5. INSTALL FOAM IN ACCORDANCE WITH ALL MANUF INSTALLATION INSTRUCTIONS TO ENSURE PROPER FIT, FINISH, AND PROTECTION FROM UV DEGRADATION AS PER THE FOAM PRODUCT WARRANTY PACKAGE.

DIVISION 06 / WOOD, PLASTICS, AND COMPOSITES (CONT'D):

ALL TRIM SHALL BE TO SIZE, SHAPE, AND DIMENSION AS SHOWN ON PLANS.

- 5.5. NOTIFY OWNER/ARCHITECT IMMEDIATELY OF ANY UNACCEPTABLE CONDITIONS OR GEOMETRIC ISSUES PREVENTING FOAM INSTALLATION. DO NOT INSTALL ANY FOAM TRIM THAT DOES NOT MEETING THE DRAWING DESIGN OR ELEVATION INTENT. GC WILL BE RESPONSIBLE FOR CORRECTING ANY INCORRECT INSTALLATION OF FOAM TRIM THAT DOES NOT MATCH THE DRAWINGS.

DIVISION 07 / THERMAL AND MOISTURE PROTECTION:

1. THE FOLLOWING SPECIFICATION SHALL GOVERN WITH MODIFICATIONS AS SPECIFIED HEREIN: AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS (ASHRAE) HANDBOOK OF FUNDAMENTALS.
2. FLASHING
   - 2.1. INSTALL FLASHING AND SHEET METAL IN COMPLIANCE WITH "ARCHITECTURAL SHEET METAL MANUAL" BY SMACNA.
   - 2.2. ALUMINUM FLASHING SHALL CONFORM TO ASTM B 209, AND BE MINIMUM 0.016" THICK STANDARD BUILDING SHEET OF PLAIN FINISH.
   - 2.3. GALVANIZED STEEL FLASHING SHALL CONFORM TO ASTM A 526, 0.02XXX COPPER, 26 GAGE (0.0179") ASTM A 525, DESIGNATION G 90 HOT–DIP GALVANIZED, MILL PHOSPHATIZED.
   - 2.4. NONREINFORCED FLEXIBLE BLACK ELASTIC SHEET FLASHING OF 50 TO 65 MILS THICKNESS SHALL COMPLY WITH THE FOLLOWING: SHORE A HARDNESS: ASTM D–2240 – TENSILE STRENGTH: ASTM D–412 TEAR RESISTANCE: ASTM D–624, DIE C – ULTIMATE ELONGATION: ASTM D–412 LOW TEMPERATURE BRITTLENESS: ASTM D–1149 – OZONE AGING: ASTM D–1149 HEAT AGING: ASTM D–573.
   - 2.5. BACKPAINT FLASHINGS WITH BITUMINOUS PAINT WHERE EXPECTED TO BE IN CONTACT WITH CEMENTITIOUS MATERIALS OR DISSIMILAR METALS.
   - 2.6. PROVIDE AND INSTALL FLASHING AT ALL ROOF TO WALL CONDITIONS, PROJECTIONS OF WOOD BEAMS THROUGH EXTERIOR WALLS, EXTERIOR OPENINGS, & ELSEWHERE AS REQ'D TO PROVIDE WATERTIGHT/WEATHERPROOF ENVELOPE.
3. VENTILATION OF ATTICS INSULATED W/ SPRAY FOAM INSULATION:
   - 3.1. THE HVAC SYSTEM DESIGN (BY OTHERS) SHALL ACCOUNT FOR AIR CHANGE IN AN INSULATED ATTIC SPACE TO AVOID MOISTURE BUILDUP OVER TIME. IT IS RECOMMENDED THAT THE HVAC DESIGNER OBTAIN THE RECOMMENDATIONS OF THE SPRAY INSULATION MANUFACTURER FOR THE PROJECT SPECIFIC CONDITIONS AND CONSIDER THEM FOR INCLUSION OF THEIR DESIGN.
4. INSULATION
   - 6.2. PROTECT ALL INSULATION MATERIALS FROM PHYSICAL DAMAGE FROM DETERIORATION BY MOISTURE, SOILING, AND OTHER SOURCES. STORE INSIDE AND IN A DRY LOCATION.
   - 6.3. INSULATION MATERIALS, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS AND VAPOR–PERMEABLE MEMBRANES INSTALLED WITHIN FLOOR/CEILING ASSEMBLIES, ROOF/CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES AND ATTICS SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25 WITH AN ACCOMPANYING SMOKE–DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 723 EXCEPT AS OTHERWISE PERMITTED PER CODE.
   - 6.6. PROVIDE AND INSTALL SPRAY APPLIED INSULATION WITH AN INSULATION–ONLY VALUE OF R–19 ON UNDERSIDE OF ROOF SHEATHING AND TRUSS TOP CHORDS AS SHOWN ON DRAWINGS.
   - 6.7. PROVIDE & INSTALL GLASS FIBER BATT INSULATION AT WINDOW SHIM SPACES.
   - 6.8. FIT INSULATION TIGHT WITHIN SPACES AND TIGHT TO AND BEHIND MECHANICAL AND ELECTRICAL SERVICES WITHIN THE PLANE OF INSULATION. LEAVE NO GAPS OR SPACES BEING SURE NOT TO COMPRESS GLASS INSULATION.
7. PROVIDE AND INSTALL GUTTERS AND DOWNSPOUTS AS PER SMACNA ARCHITECTURAL SHEET METAL MANUAL. (WHEN SELECTED BY OWNER.)
   - 7.1. GUTTER – PER MATERIAL SPECIFICATION
   - 7.2. DOWNSPOUT – CONTINUOUS PER SPECIFICATION (ALUMINUM).
   - 7.3. CONNECT DOWNSPOUTS TO IN–GROUND PERIMETER DRAINAGE SYSTEM PIPING OR SPLASHING TO GRADE WITH CONC SPLASHBLOCKS AS INDICATED ON DWGS.
   - 7.4. PROVIDE AND INSTALL RAINWATER CONDUCTORS PLUMB AND TRUE AND FASTEN TO SUBSTRATE AS REQUIRED FOR SECURE ATTACHMENT CONSIDERING POTENTIAL DYNAMIC THRUST CREATED BY STORMWATER FLOW AND VOLUME. ALL FASTENERS AND SUPPORT ACCESSORIES SHALL BE OF THE SAME MATERIAL AS THE CONDUCTOR AND SHALL BE PROVIDED TO ELIMINATE THE POSSIBILITY OF GALVANIC CORROSION DUE TO DISSIMILAR METALS.
8. EXTERIOR STUCCO TO BE 5/8" ON BLOCK, 7/8" ON WOOD FRAMING, (2) COAT SYSTEM AT 1/4" EACH (SCRATCH, AND FINISH.) STUCCO TO BE APPLIED OVER 2 LAYERS OF PAPER BACKED METAL LATH. USE APPROPRIATE CORNER BEADS, MOLDINGS, ETC, TO ENSURE PROPER INSTALLATION. COLOR TO BE SELECTED BY OWNER OR AS PER COLOR BLOCKING PROVIDED BY OWNER.
9. WHERE CEMENT PLASTER (STUCCO) IS TO BE APPLIED TO LATH OVER FRAME CONSTRUCTION, MEASURES SHALL BE TAKEN TO PREVENT BONDING BETWEEN THE CEMENT PLASTER AND THE WATER RESISTIVE BARRIER. A BOND BREAK SHALL BE PROVIDED BETWEEN THE WATER RESISTIVE BARRIER AND THE CEMENT PLASTER (STUCCO) CONSISTING OF ONE OF THE FOLLOWING:
   - 1.1. TWO LAYERS OF AN APPROVED WATER RESISTANT BARRIER or
   - 1.2. ONE LAYER OF AN APPROVED WATER RESISTANT BARRIER OVER AN APPROVED PLASTIC HOUSE WRAP, or
   - 1.3. OTHER APPROVED METHODS OR MATERIALS APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. MINIMUM THICKNESS OF STUCCO WEATHER COVERINGS (EXCLUSIVE OF TEXTURES)

COVERING TYPE	MINIMUM THICKNESS
THREE–COAT WORK OVER:	
METAL PLASTER BASE	0.875"
UNIT MASONRY, C.I.P. OR PRECAST CONCRETE	0.625"
TWO–COAT WORK OVER:	
UNIT MASONRY	0.500"
CAST–IN–PLACE OR PRECASE CONCRETE	0.375"

3. STUCCO, FLASHING, CONTROL JOINTS, & WEATHER BARRIERS SHALL BE INSTALLED W/ STRICT ADHERENCE TO ALL APPLICABLE ASTM STDS & BUILDING CODE REQUIREMENTS.

DIVISION 08 / OPENINGS:

1. REFERENCE STANDARDS FOR METAL DOORS, WOOD DOORS, AND WINDOWS SHALL BE:
   - 1.1. UNDERWRITER'S LABORATORIES, INC.: BUILDING MATERIALS DIRECTORY.
   - 1.2. NATIONAL FIRE PROTECTION ASSOCIATION: PAMPHLET NO. 80 STANDARD FOR FIRE DOORS AND WINDOWS.
   - 1.3. THE REFERENCED STANDARDS OF FLORIDA BUILDING CODE – RESIDENTIAL
   - 1.4. IF CONSTRUCTION MATERIALS SPECIFIED IN THESE DOCUMENTS IS NOT REFERENCED IN THE 'RESIDENTIAL' CODE THEN THE APPLICABLE REFERENCED STANDARDS OF THE FLORIDA BUILDING CODE SHALL BE USED.
   - 1.5. REFERENCED STANDARDS INCLUDE BUT ARE NOT LIMITED TO MANUFACTURING, TESTING, PERFORMANCE (INCLUDES STRUCTURAL, GLAZING, AIR INFILTRATION, WATER PENETRATION).
2. ALL DOORS AND WINDOWS SHALL COMPLY WITH THE CODE FOR THE SITE, LOCATION & GEOGRAPHIC SPECIFIC REQUIREMENTS AND AS SELECTED BY OWNER FROM BUILDER / DEVELOPER'S CODE APPROVED AND DESIGNATED BUILDING MATERIAL SPECIFICATIONS.
3. CONTRACTOR SHALL CONFIRM SELECTION OF THE ADOPTED ENERGY CODE AND VERIFY THAT MAXIMUM WINDOW AND DOOR INFILTRATION RATES ARE NOT EXCEEDED.
4. ALL DOORS, WINDOWS, TRANSOMS, SIDELIGHTS, ETC OPENING TO THE EXTERIOR OR TO UNCONDITIONED AREAS SHALL BE FULLY WEATHER STRIPPED, GASKETED OR OTHERWISE TREATED TO LIMIT AIR FILTRATION.
5. DOORS
   - 5.1. GLAZING IN DOORS ARE CONSIDERED A HAZARDOUS LOCATION AN SHALL BE TEMPERED GLASS EXCEPT AS PERMITTED PER CODE.
   - 5.2. DOOR UNITS AND FRAMES SHALL BE PROTECTED DURING CONSTRUCTION. THE GENERAL CONTRACTOR SHALL REPAIR/REPLACE ANY DAMAGE TO SUCH MATERIALS AND PRODUCTS AT NO ADDITIONAL COST TO THE OWNER.
   - 5.3. ALL DOOR HEIGHTS TO BE AS INDICATED ON THE CONSTRUCTION DOCUMENTS. DOOR HEIGHT TO BE MODIFIED BY GC AS REQUIRED TO ACCOMODATE VARIOUS FLOOR FINISHES, THRESHOLDS, ROUGH OPENINGS AND MECHANICAL DESIGN UNDERCUTS.
   - 5.4. REFER TO DRAWINGS FOR DOOR TYPES, SIZES, FRAME DETAILS, AND HARDWARE SET DESIGNATIONS AND APPROVED BUILDER / DEVELOPER'S CODE APPROVED AND DESIGNATED BUILDING MATERIAL SPECIFICATIONS.
   - 5.5. ALL DOORS SHALL BE STORED IN A THERMALLY CONTROLLED ENVIRONMENT ON SITE UNTIL INSTALLED. STORE DOORS UPRIGHT WITH HEADS UP AND BLOCKING BETWEEN DOORS TO PREVENT DAMAGE OR WARPING.
   - 5.6. ALL LOCKS AND LOCKSETS SHALL BE COORDINATED WITH THIRD PARTY SEC

TYPICAL WALL TYPES

GENERAL NOTES - WALL TYPES

ALL INTERIOR PARTITIONS ARE WALL TYPE 1 U.N.O.

FOR ADDITIONAL INFORMATION ABOUT WALL ASSEMBLIES ALSO REFER TO SHEETS DESIGNATED AS:

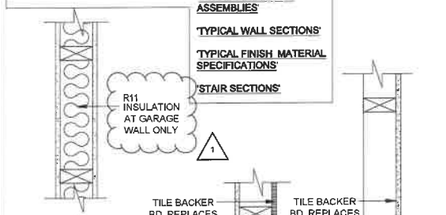
'FIRE RATING DETAILS'

'UL AND FIRE RATED ASSEMBLIES'

'TYPICAL WALL SECTIONS'

'TYPICAL FINISH MATERIAL SPECIFICATIONS'

'STAIR SECTIONS'



INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

-OR ALTERNATE-
METAL STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

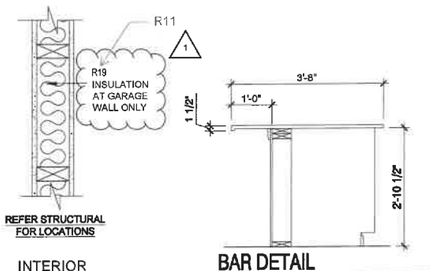
NON-RATED INTERIOR WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD BOTH SIDES.

NON-RATED INTERIOR FRAME WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD ONE SIDE. (P.T. WHEN AGAINST MASONRY)

NON-RATED INTERIOR FRAME WALL



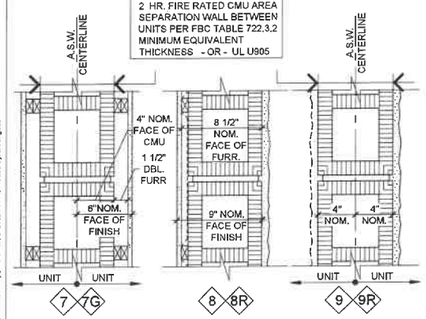
REFER STRUCTURAL FOR LOCATIONS

INTERIOR BEARING
2x4 (U.N.O.) STUDS @ 16" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

NON-RATED INT. BEARING WALL

BAR DETAIL
SCALE: N.T.S.

2 HR. FIRE RATED CMU AREA SEPARATION WALL BETWEEN UNITS PER FBC TABLE 722.3.2 MINIMUM EQUIVALENT THICKNESS - OR - UL U905



TYPICAL AREA SEPARATION WALL
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 1/2" GYP. BD. OVER DOUBLE FURRING (1X2 PT) @ 24" O.C. (FURR FOR ELECTRICAL INSTALLATION). ACOUSTICAL INSULATION PER COMMUNITY / DEVELOPERS SPEC.

7G **GARAGE**: EXPOSED CMU, STRUCK JOINTS, PAINTED, (NO FURRING OR GYPSUM BOARD).

(2) HOUR RATED WALL AREA SEPARATION

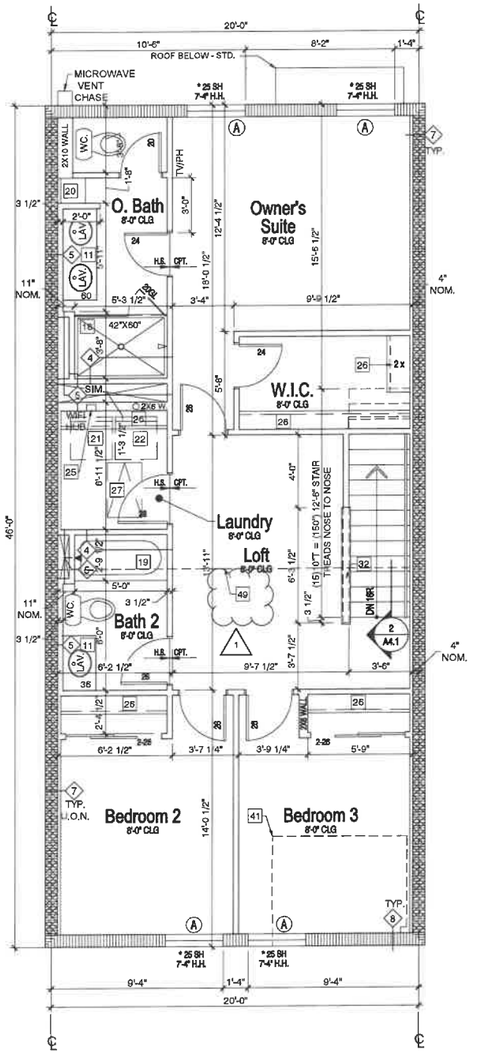
TYPICAL FIRST FL. EXTERIOR
8" CONCRETE BLOCK EXTERIOR WALL W/ 1/2" GYP. BD. OVER RADIANT BARRIER INSULATION OVER 1X2 PT. FURRING @ 24" O.C.ON INTERIOR FACE OF WALL. STUCCO ON EXTERIOR BLOCK
(1) HR RATED BY EQUIVALENT THICKNESS AT TYPE 8R

EXTERIOR CONC. BLOCK WALL

CMU - A.S.W. AT EXTERIOR 9R
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 5/8" MIN.STUCCO AT EXTERIOR CONDITIONS.

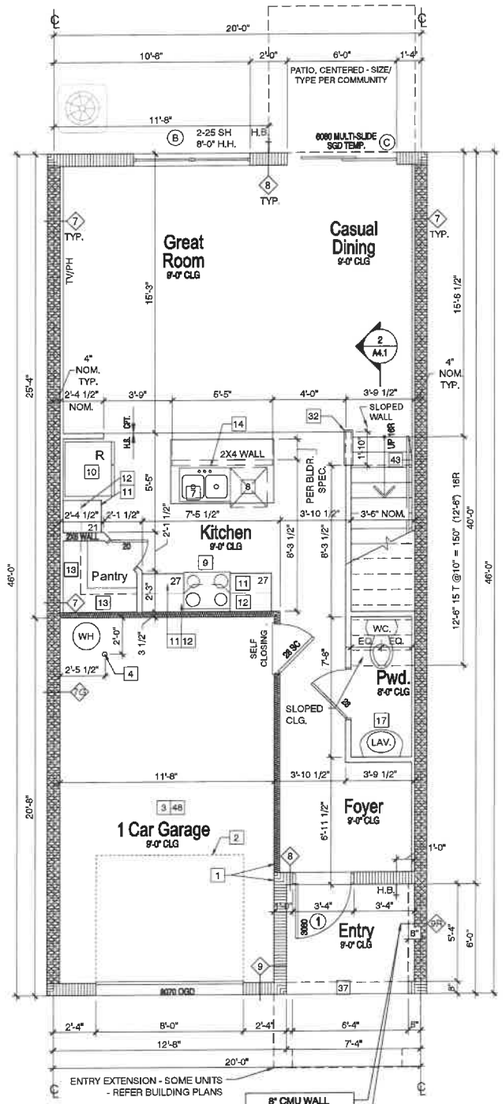
9 **GARAGE**: NON RATED, EXPOSED CMU, STRUCK JOINTS, PAINTED, EXTERIOR 5/8" MIN.STUCCO

(2) HOUR RATED WALL AREA SEPARATION



SECOND FLOOR PLAN - UNIT T148
22x34 SCALE: 1/8" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"
LEFT HAND

T148 - LN	
UNIT SQ. FTG. TABLE	
1st FLOOR	613 SQ. FT.
2nd FLOOR	872 SQ. FT.
TOTAL A/C	1485 SQ. FT.
GARAGE	249 SQ. FT.
ENTRY	44 SQ. FT.
TOTAL UR	1778 SQ. FT.



ENTRY EXTENSION - SOME UNITS - REFER BUILDING PLANS

8" CMU WALL LOCATION & RATING VARIES PER LOCATION IN THE BUILDING REFER BUILDING PLANS AND FIRE RATED DETAILS

2 HR. FIRE SEPARATION REQ'D WHEN ADJOINING UNIT IS PRESENT REFER BLDG. PLANS

FIRST FLOOR PLAN - UNIT T148
22x34 SCALE: 1/8" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"
LEFT HAND

FLOOR PLAN NOTES:

[#] THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS:

1. FLUSH THE FACE OF FINISHES
2. LINE OF OVERHEAD GARAGE DOOR IN OPEN POSITION.
3. SLOPE GARAGE FLOOR 1/8" PER FOOT TOWARD OVERHEAD GARAGE DOOR OPENING.
4. 36" HIGH BOLLARD
5. STAIR PER GOVERNING CODE.
6. 2x4 W/ GYP. BOARD CLOSURE UNDER STAIR
7. SINK W/GARBAGE DISPOSAL.
8. DISHWASHER.
9. RANGE w/ HOOD OR MICRO ABOVE
10. REFRIGERATOR.
11. BASE CABINETS.
12. UPPER CABINETS.
13. PANTRY - (4) 12" D. SHELVES
14. HALF WALL +34 1/2" A.F.F. W/ COUNTERTOP PER PLAN.
15. OPTIONAL UPPER CABINETS.
16. OPTIONAL CABINETS.
17. PEDESTAL SINK.
18. TILED SHOWER W/TEMPERED GLASS ENCLOSURE.
19. 30" X 60" TUB/SHOWER
20. LINEN SHELVES.
21. WASHER SPACE W/ DRAIN PAN BELOW. PROVIDE DRAIN PAN TO EXTERIOR
22. DRYER SPACE w/ VENT TO EXTERIOR.
23. STACKED WASHER/ DRYER.
24. OPTIONAL LAUNDRY SINK.
25. HANSON BOX
26. ROD & SHELF.
27. ATTIC ACCESS (22"x36" U.N.O.).
28. ATTIC ACCESS W/ STAIRS (22 1/2"x54" U.N.O.).
29. GYPSUM BOARD OPENING.
30. OPTIONAL PRE-PLUMB FOR LAUNDRY SINK.
31. OPTIONAL COFFERED CEILING (AS NOTED PER PLAN)
32. 2X4 LOW WALL w/ GYPSUM BOARD & WOOD CAP - 42" HT. MIN.
33. 2X4 LOW WALL 42" A.F.F.
34. N/A
35. LOW WALL 32 1/2" A.F.F.
36. N/A
37. SOFFIT OR BEAM ABOVE, REFER TO STRUCTURAL & EXTERIOR ELEVATIONS FOR HEIGHTS & FINISHES.
38. PLANT SHELF
39. N/A
40. LINE OF FRAMING ABOVE.
41. LINE OF FRAMING WALL BELOW.
42. MASONRY, SEE EXTERIOR ELEVATIONS.
43. HANDRAIL AT +36" ABV. STAIR NOSING OR LANDING - PER CODE - ALSO REFER STAIR SECTIONS.
44. COORD. PLUMBING SUPPLY & VENT IN FRAME OR MASONRY WALL
45. COORD. TOILET SUPPLY IN MASONRY WALL OR THROUGH FLOOR
46. N/A
47. INSTALL 1/2" GYP. AT WALLS & CEILINGS OF ACCESSIBLE AREAS UNDER STAIRS
48. INSTALL 1/2" GYP. BD. ON GARAGE SIDE OF WALL BETWEEN GARAGE & LIVING. INSTALL 5/8" TYPE 'X' GYP BD. ON GARAGE CEILING AT AREA BETWEEN LIVING ABOVE AND GARAGE
49. DRAFTSTOPING, SEE DETAIL 5/AD-3.1

1 **GENERAL PLAN NOTES:**

ALL INTERIOR DOORS ARE 6'-8" HEIGHT
DOOR WIDTH DESIGNATIONS: 20 = 2'-0"; 24 = 2'-4"; ETC.
GARAGE DOORS SHALL BE SOLID CORE DOOR, A MIN. 1⅜" THICK w/ CLOSER.

WINDOWS MARKED WITH AN * MUST MEET EMERGENCY ESCAPE AND RESCUE (E.E.R.) REQUIREMENTS. WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS MEETS (E.E.R.) REQUIREMENTS.

FOR ADDITIONAL INFORMATION SEE GENERAL NOTES, TYPICAL FINISH MATERIAL SPECIFICATIONS, WALL SECTIONS AND DETAILS.

PLUMBING NOTE: OFFSET ALL PLUMBING VENTS, DRYER VENTS, AND BATH FAN EXHAUST MIN. 5'-0" FROM CENTER LINE OF PARTY WALL TO AVOID PENETRATING FIRE RESISTANT ROOF SHEATHING.

FALL PROTECTION

IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR AND GREATER THAN 72 INCHES (1829 MM) ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

1. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4-INCH-DIAMETER (102 MM) SPHERE TO PASS THROUGH THE OPENING WHERE THE OPENING IS IN ITS LARGEST OPENED POSITION.
2. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F2090.

THE WINDOW OPENING CONTROL DEVICE, AFTER OPERATION TO RELEASE THE CONTROL DEVICE ALLOWING THE WINDOW TO FULLY OPEN, **SHALL NOT REDUCE THE NET CLEAR OPENING AREA OF THE WINDOW UNIT.**

Townhome Window Schedule

Call Out	Type	Size	U-Factor	SHGC	Remarks
A 25 SH	Single Hung	3'-0" X 5'-0"	0.56	0.24	
B (2) 25 SH	Single Hung	5'-0" X 5'-0"	0.56	0.24	
C 6080 S.G.D	Sliding Glass	6'-0" X 8'-0"	0.69	0.22	tempered

DOOR SCHEDULE

MARK	MODEL	SIZE WIDTH	SIZE HEIGHT	DESCRIPTION
1	3080	3'-0"	8'-0"	

1

Fieldstone

Michigan
3400 Auburn Rd
Suite 200
Auburn Hills, MI 48326
+1 248.622.4035

Florida
12906 Tampa Oaks Blvd.
Suite 150
Tampa, FL 33637
+1 813.466.3310

www.fieldstoneae.com

Meritage Homes
1127 Gateway Boulevard
Boynton Beach, FL 33426
561-847-7515 Phone

Control Date: 03-07-2022

Date/Issued for:

0	
1	03/13/2023 PERMIT REVIEW
1	--
1	--
1	--
1	--

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
UNIT T148 - L
Floor Plans

©Fieldstone A&E, LLC
DO NOT SCALE DRAWINGS

Sheet No.
A1.1L

P:\2205005_MFMeritage_TH_Lite_Reno_Lib-Vol1_2\WIP\Arch\1_Units\Long_Plot Date: Tuesday, March 07, 2023 2:59 PM, Plotted By:dbridgeuser

TYPICAL WALL TYPES

GENERAL NOTES - WALL TYPES

ALL INTERIOR PARTITIONS ARE WALL TYPE 1 U.N.O.

FOR ADDITIONAL INFORMATION ABOUT WALL ASSEMBLIES ALSO REFER TO SHEETS DESIGNATED AS:

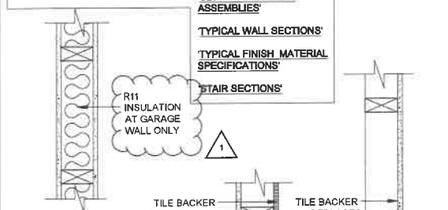
'FIRE RATING DETAILS'

'UL AND FIRE RATED ASSEMBLIES'

'TYPICAL WALL SECTIONS'

'TYPICAL FINISH MATERIAL SPECIFICATIONS'

'STAIR SECTIONS'



INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

-OR ALTERNATE-
METAL STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

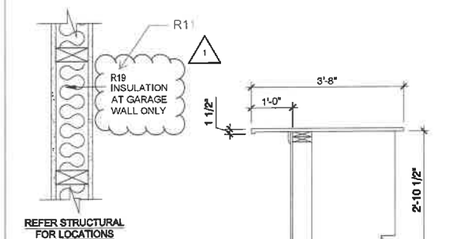
NON-RATED INTERIOR WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD BOTH SIDES.

NON-RATED INTERIOR FRAME WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD ONE SIDE. (P.T. WHEN AGAINST MASONRY)

NON-RATED INTERIOR FRAME WALL



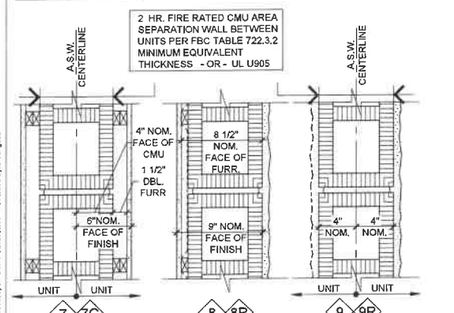
REFER STRUCTURAL FOR LOCATIONS

BAR DETAIL
SCALE: N.T.S.

INTERIOR BEARING
2x4 (U.N.O.) STUDS @ 16" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

NON-RATED INT. BEARING WALL

2 HR. FIRE RATED CMU AREA SEPARATION WALL BETWEEN UNITS PER FBC TABLE 722.3.2 MINIMUM EQUIVALENT THICKNESS - OR - UL U905



TYPICAL AREA SEPARATION WALL
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 1/2" GYP. BD. OVER DOUBLE FURRING (1X2 PT) @ 24" O.C. (FURR FOR ELECTRICAL INSTALLATION). ACOUSTICAL INSULATION PER COMMUNITY / DEVELOPERS SPEC.

7G GARAGE: EXPOSED CMU, STRUCK JOINTS, PAINTED, (NO FURRING OR GYPSUM BOARD).

(2) HOUR RATED WALL AREA SEPARATION

TYPICAL FIRST FL. EXTERIOR
8" CONCRETE BLOCK EXTERIOR WALL W/ 1/2" GYP. BD. OVER RADIANT BARRIER INSULATION OVER 1X2 PT. FURRING @ 24" O.C.ON INTERIOR FACE OF WALL. STUCCO ON EXTERIOR BLOCK (1) HR RATED BY EQUIVALENT THICKNESS AT TYPE 8R

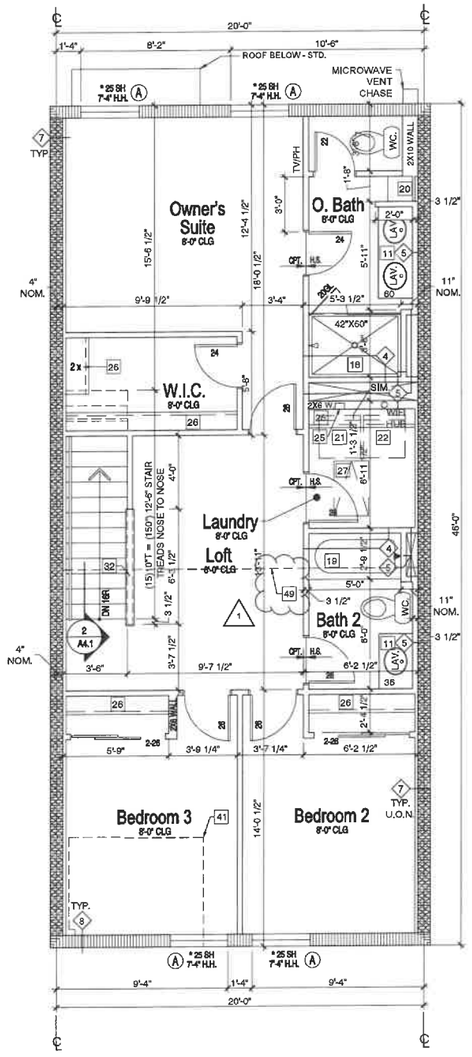
EXTERIOR CONC. BLOCK WALL

CMU - A.S.W. AT EXTERIOR 9R
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 5/8" MIN.STUCCO AT EXTERIOR CONDITIONS.

9

GARAGE: NON RATED, EXPOSED CMU, STRUCK JOINTS, PAINTED. EXTERIOR 5/8" MIN.STUCCO

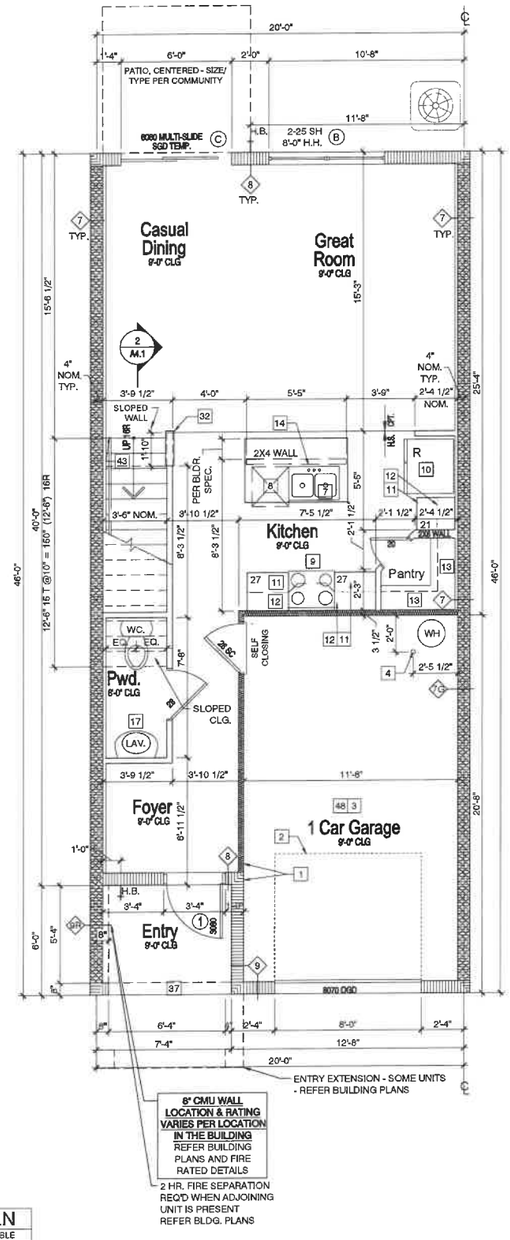
(2) HOUR RATED WALL AREA SEPARATION



SECOND FLOOR PLAN - UNIT T148
22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

RIGHT HAND

T148 - LN	
UNIT SQ. FTG. TABLE	
1st FLOOR	613 SQ. FT.
2nd FLOOR	872 SQ. FT.
TOTAL A/C	1485 SQ. FT.
GARAGE	249 SQ. FT.
ENTRY	44 SQ. FT.
TOTAL UR	1778 SQ. FT.



6" CMU WALL LOCATION & RATING VARIES PER LOCATION IN THE BUILDING
REFER BUILDING PLANS AND FIRE RATED DETAILS

2 HR. FIRE SEPARATION REQ'D WHEN ADJOINING UNIT IS PRESENT REFER BLDG. PLANS

FIRST FLOOR PLAN - UNIT T148
22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

RIGHT HAND

FLOOR PLAN NOTES:

THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS:

1. FLUSH THE FACE OF FINISHES
2. LINE OF OVERHEAD GARAGE DOOR IN OPEN POSITION.
3. SLOPE GARAGE FLOOR 1/8" PER FOOT TOWARD OVERHEAD GARAGE DOOR OPENING.
4. 36" HIGH BOLLARD
5. STAIR PER GOVERNING CODE.
6. 2x4 W/ GYP. BOARD CLOSURE UNDER STAIR
7. SINK W/GARBAGE DISPOSAL.
8. DISHWASHER.
9. RANGE w/ HOOD OR MICRO ABOVE
10. REFRIGERATOR.
11. BASE CABINETS.
12. UPPER CABINETS.
13. PANTRY - (4) 12" D. SHELVES
14. HALF WALL +34 1/2" A.F.F. W/ COUNTERTOP PER PLAN.
15. OPTIONAL UPPER CABINETS.
16. OPTIONAL CABINETS.
17. PEDESTAL SINK.
18. TILED SHOWER W/TEMPERED GLASS ENCLOSURE.
19. 30" X 60" TUB/SHOWER
20. LINEN SHELVES.
21. WASHER SPACE W/ DRAIN PAN BELOW. PROVIDE DRAIN PAN TO EXTERIOR
22. DRYER SPACE w/ VENT TO EXTERIOR.
23. STACKED WASHER/ DRYER.
24. OPTIONAL LAUNDRY SINK.
25. HANSON BOX
26. ROD & SHELF.
27. ATTIC ACCESS (22"x36" U.N.O.).
28. ATTIC ACCESS W/ STAIRS (22 1/2"x54" U.N.O.).
29. GYPSUM BOARD OPENING.
30. OPTIONAL PRE-PLUMB FOR LAUNDRY SINK.
31. OPTIONAL COFFERED CEILING (AS NOTED PER PLAN)
32. 2X4 LOW WALL w/ GYPSUM BOARD & WOOD CAP - 42" HT. MIN.
33. 2X4 LOW WALL 42" A.F.F.
34. N/A
35. LOW WALL 32 1/2" A.F.F.
36. N/A
37. SOFFIT OR BEAM ABOVE, REFER TO STRUCTURAL & EXTERIOR ELEVATIONS FOR HEIGHTS & FINISHES.
38. PLANT SHELF
39. N/A
40. LINE OF FRAMING ABOVE.
41. LINE OF FRAMING BELOW.
42. MASONRY, SEE EXTERIOR ELEVATIONS.
43. HANDRAIL AT +36" ABV. STAIR NOSING OR LANDING - PER CODE - ALSO REFER STAIR SECTIONS.
44. COORD. PLUMBING SUPPLY & VENT IN FRAME OR MASONRY WALL
45. COORD. TOILET SUPPLY IN MASONRY WALL OR THROUGH FLOOR
46. N/A
47. INSTALL 1/2" GYP. AT WALLS & CEILINGS OF ACCESSIBLE AREAS UNDER STAIRS
48. INSTALL 1/2" GYP. BD. ON GARAGE SIDE OF WALL BETWEEN GARAGE & LIVING. INSTALL 5/8" TYPE 'X' GYP BD. ON GARAGE CEILING AT AREA BETWEEN LIVING ABOVE AND GARAGE
49. DRAFTSTOPING, SEE DETAIL 5/AD-3.1

1 **GENERAL PLAN NOTES:**

ALL INTERIOR DOORS ARE 6'-8" HEIGHT

DOOR WIDTH DESIGNATIONS: 20 = 2'-0"; 24 = 2'-4"; ETC.

GARAGE DOORS SHALL BE SOLID CORE DOOR. A MIN. 1⅜" THICK w/ CLOSER.

WINDOWS MARKED WITH AN * MUST MEET EMERGENCY ESCAPE AND RESCUE (E.E.R.) REQUIREMENTS. WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS MEETS (E.E.R.) REQUIREMENTS.

FOR ADDITIONAL INFORMATION SEE GENERAL NOTES, TYPICAL FINISH MATERIAL SPECIFICATIONS, WALL SECTIONS AND DETAILS.

PLUMBING NOTE: OFFSET ALL PLUMBING VENTS, DRYER VENTS, AND BATH FAN EXHAUST MIN. 5'-0" FROM CENTER LINE OF PARTY WALL TO AVOID PENETRATING FIRE RESISTANT ROOF SHEATHING.

FALL PROTECTION

IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR AND GREATER THAN 72 INCHES (1829 MM) ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

1. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4-INCH-DIAMETER (102 MM) SPHERE TO PASS THROUGH THE OPENING WHERE THE OPENING IS IN ITS LARGEST OPENED POSITION.
2. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F2090.

THE WINDOW OPENING CONTROL DEVICE, AFTER OPERATION TO RELEASE THE CONTROL DEVICE ALLOWING THE WINDOW TO FULLY OPEN, **SHALL NOT REDUCE THE NET CLEAR OPENING AREA OF THE WINDOW UNIT.**

Townsome Window Schedule

Call Out	Type	Size	U-Factor	SHGC	Remarks
A 25 SH	Single Hung	3'0" X 5'0"	0.56	0.24	
B (2) 25 SH	Single Hung	6'-0" X 5'0"	0.56	0.24	
C 6080 S.G.D	Sliding Glass	6'0" X 8'0"	0.69	0.22	tempered

DOOR SCHEDULE

MARK	MODEL	SIZE WIDTH	SIZE HEIGHT	DESCRIPTION
1	3080	3'-0"	8'-0"	

1

Fieldstone

Michigan
3400 Auburn Rd
Suite 200
Auburn Hills, MI 48326
+1 248.622.4035

Florida
12906 Tampa Oaks Blvd.
Suite 150
Tampa, FL 33637
+1 813.466.3310

www.fieldstoneae.com

Meritage Homes
1127 Gateway Boulevard
Boynton Beach, FL 33426
561-847-7515 Phone

Control Date: 03-07-2022

Date/Issued for:

0	
1	03/13/2023 PERMIT REVIEW
-	-
-	-
-	-

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
UNIT T148 - R
Floor Plans

©Fieldstone A&E, LLC DO NOT SCALE DRAWINGS

Sheet No.
A1.1R

TYPICAL WALL TYPES

GENERAL NOTES - WALL TYPES

ALL INTERIOR PARTITIONS ARE WALL TYPE 1 U.N.O.

FOR ADDITIONAL INFORMATION ABOUT WALL ASSEMBLIES ALSO REFER TO SHEETS DESIGNATED AS:

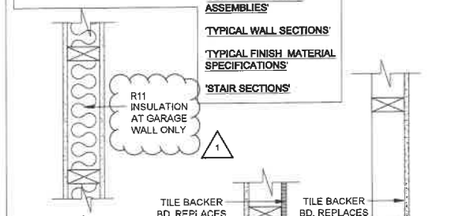
'FIRE RATING DETAILS'

'UL AND FIRE RATED ASSEMBLIES'

'TYPICAL WALL SECTIONS'

'TYPICAL FINISH MATERIAL SPECIFICATIONS'

'STAIR SECTIONS'



INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

-OR ALTERNATE-
METAL STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

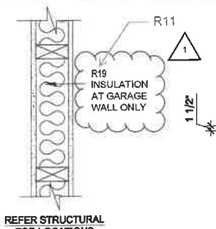
NON-RATED INTERIOR WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD BOTH SIDES.

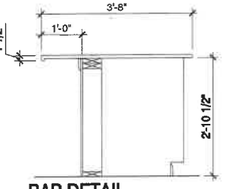
NON-RATED INTERIOR FRAME WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD ONE SIDE. (P.T. WHEN AGAINST MASONRY)

NON-RATED INTERIOR FRAME WALL



REFER STRUCTURAL FOR LOCATIONS

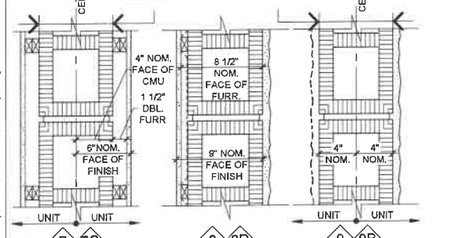


BAR DETAIL
SCALE: N.T.S.

INTERIOR BEARING
2x4 (U.N.O.) STUDS @ 16" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

NON-RATED INT. BEARING WALL

2 HR. FIRE RATED CMU AREA SEPARATION WALL BETWEEN UNITS PER FBC TABLE 722.3.2 MINIMUM EQUIVALENT THICKNESS - OR - UL U905



TYPICAL AREA SEPARATION WALL
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 1/2" GYP. BD. OVER DOUBLE FURRING (1X2 PT) @ 24" O.C. (FURR FOR ELECTRICAL INSTALLATION). ACOUSTICAL INSULATION PER COMMUNITY / DEVELOPERS SPEC.

7G **GARAGE**: EXPOSED CMU, STRUCK JOINTS, PAINTED, (NO FURRING OR GYPSUM BOARD).

(2) HOUR RATED WALL AREA SEPARATION

TYPICAL FIRST FL. EXTERIOR
8" CONCRETE BLOCK EXTERIOR WALL W/ 1/2" GYP. BD. OVER RADIANT BARRIER INSULATION OVER 1X2 PT. FURRING @ 24" O.C.ON INTERIOR FACE OF WALL. STUCCO ON EXTERIOR BLOCK

(1) HR RATED BY EQUIVALENT THICKNESS AT TYPE 8R

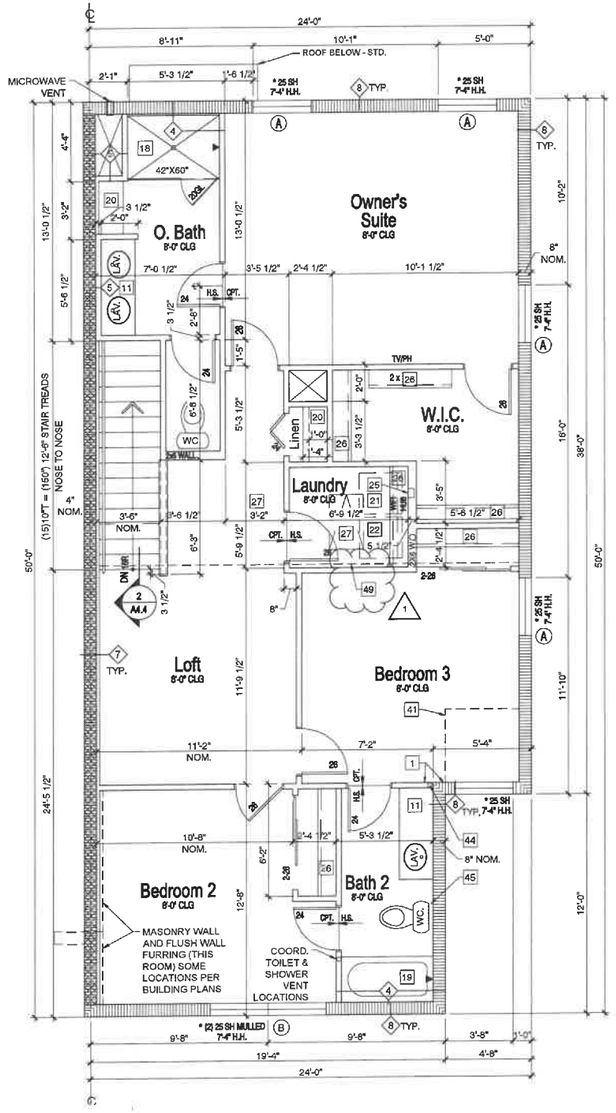
EXTERIOR CONC. BLOCK WALL

CMU - A.S.W. AT EXTERIOR 9R
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 5/8" MIN.STUCCO AT EXTERIOR CONDITIONS.

9 **GARAGE**: NON RATED, EXPOSED CMU, STRUCK JOINTS, PAINTED. EXTERIOR 5/8" MIN.STUCCO

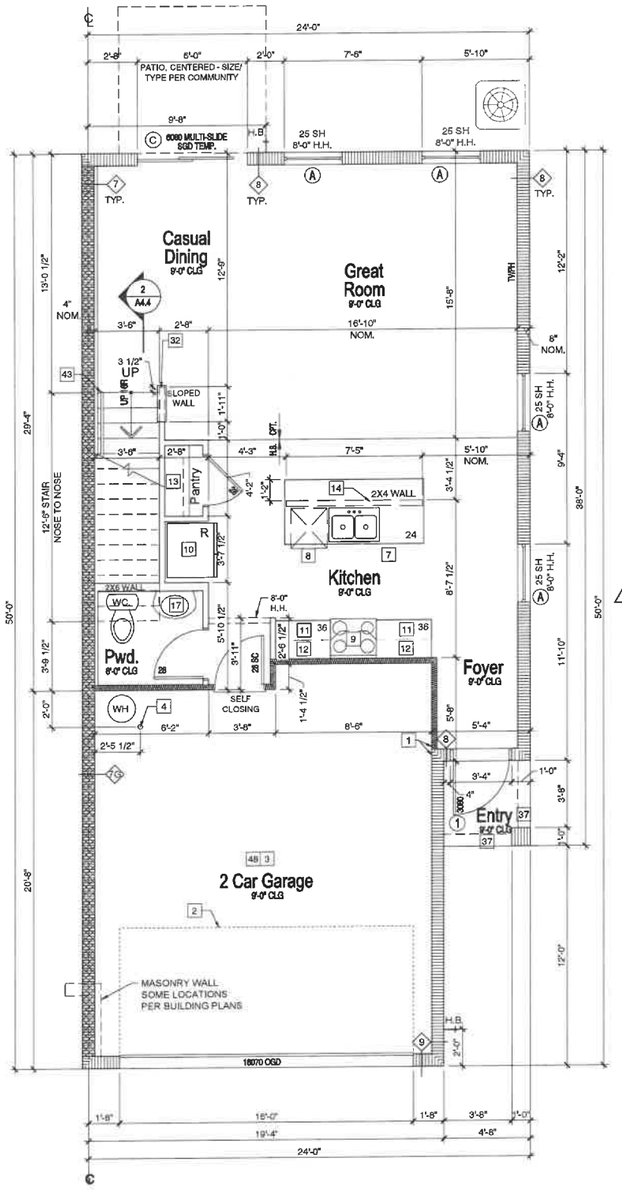
(2) HOUR RATED WALL AREA SEPARATION

P:\2206000s_MY\Master_TH_Lay_Now_Units_DWG\Arch\T_Units.dwg, Plot Date: Tuesday, March 07, 2023 2:00 PM, Plotted By: dmcdaniel



SECOND FLOOR PLAN - UNIT T179 (END) LEFT HAND
1/4x1/4 SCALE: 1/8" =1'-0"
1/4x1/7 SCALE: 1/8" =1'-0"

T179 - LN	
UNIT SQ. FTG. TABLE	
1st FLOOR	714 SQ. FT.
2nd FLOOR	1094 SQ. FT.
TOTAL A/C	1808 SQ. FT.
GARAGE	408 SQ. FT.
ENTRY	22 SQ. FT.
TOTAL UR	2238 SQ. FT.



FIRST FLOOR PLAN - UNIT T179 (END) LEFT HAND
1/4x1/4 SCALE: 1/8" =1'-0"
1/4x1/7 SCALE: 1/8" =1'-0"

FLOOR PLAN NOTES:

[#] THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS:

1. FLUSH THE FACE OF FINISHES
2. LINE OF OVERHEAD GARAGE DOOR IN OPEN POSITION.
3. SLOPE GARAGE FLOOR 1/8" PER FOOT TOWARD OVERHEAD GARAGE DOOR OPENING.
4. 36" HIGH BOLLARD
5. STAIR PER GOVERNING CODE.
6. 2x4 W/ GYP. BOARD CLOSURE UNDER STAIR
7. SINK W/GARBAGE DISPOSAL
8. DISHWASHER.
9. RANGE w/ HOOD OR MICRO ABOVE
10. REFRIGERATOR.
11. BASE CABINETS.
12. UPPER CABINETS.
13. PANTRY - (4) 12" D. SHELVES
14. HALF WALL +34 1/2" A.F.F. W/ COUNTERTOP PER PLAN.
15. OPTIONAL UPPER CABINETS.
16. OPTIONAL CABINETS.
17. PEDESTAL SINK.
18. TILED SHOWER W/TEMPERED GLASS ENCLOSURE.
19. 30" X 60" TUB/SHOWER
20. LINEN SHELVES.
21. WASHER SPACE W/ DRAIN PAN BELOW. PROVIDE DRAIN PAN TO EXTERIOR
22. DRYER SPACE w/ VENT TO EXTERIOR.
23. STACKED WASHER/ DRYER.
24. OPTIONAL LAUNDRY SINK.
25. HANSON BOX
26. ROD & SHELF.
27. ATTIC ACCESS (22"x36" U.N.O.).
28. ATTIC ACCESS W/ STAIRS (22 1/2"x54" U.N.O.).
29. GYPSUM BOARD OPENING.
30. OPTIONAL PRE-PLUMB FOR LAUNDRY SINK.
31. OPTIONAL COFFERED CEILING (AS NOTED PER PLAN)
32. 2X4 LOW WALL w/ GYPSUM BOARD & WOOD CAP - 42" HT. MIN.
33. 2X4 LOW WALL 42" A.F.F.
34. N/A
35. LOW WALL 32 1/2" A.F.F.
36. N/A
37. SOFFIT OR BEAM ABOVE, REFER TO STRUCTURAL & EXTERIOR ELEVATIONS FOR HEIGHTS & FINISHES.
38. PLANT SHELF
39. N/A
40. LINE OF FRAMING ABOVE.
41. LINE OF FRAMING WALL BELOW.
42. MASONRY, SEE EXTERIOR ELEVATIONS.
43. HANDRAIL AT +36" ABV. STAIR NOSING OR LANDING - PER CODE - ALSO REFER STAIR SECTIONS.
44. COORD. PLUMBING SUPPLY & VENT IN FRAME OR MASONRY WALL
45. COORD. TOILET SUPPLY IN MASONRY WALL OR THROUGH FLOOR
46. N/A
47. INSTALL 1/2" GYP. AT WALLS & CEILINGS OF ACCESSIBLE AREAS UNDER STAIRS
48. INSTALL 1/2" GYP. BD. ON GARAGE SIDE OF WALL BETWEEN GARAGE & LIVING. INSTALL 5/8" TYPE 'X' GYP BD. ON GARAGE CEILING AT AREA BETWEEN LIVING ABOVE AND GARAGE
49. DRAFTSTOPING, SEE DETAIL 5/AD-3.1

1 **GENERAL PLAN NOTES:**

ALL INTERIOR DOORS ARE 6'-8" HEIGHT

DOOR WIDTH DESIGNATIONS: 20 = 2'-0"; 24 = 2'-4"; ETC.

GARAGE DOORS SHALL BE SOLID CORE DOOR, A MIN. 1⅜" THICK w/ CLOSER.

WINDOWS MARKED WITH AN * MUST MEET EMERGENCY ESCAPE AND RESCUE (E.E.R.) REQUIREMENTS. WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS MEETS (E.E.R.) REQUIREMENTS.

FOR ADDITIONAL INFORMATION SEE GENERAL NOTES, TYPICAL FINISH MATERIAL SPECIFICATIONS, WALL SECTIONS AND DETAILS.

PLUMBING NOTE: OFFSET ALL PLUMBING VENTS, DRYER VENTS, AND BATH FAN EXHAUST MIN. 5'-0" FROM CENTER LINE OF PARTY WALL TO AVOID PENETRATING FIRE RESISTANT ROOF SHEATHING.

FALL PROTECTION

IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR AND GREATER THAN 72 INCHES (1829 MM) ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

1. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4-INCH-DIAMETER (102 MM) SPHERE TO PASS THROUGH THE OPENING WHERE THE OPENING IS IN ITS LARGEST OPENED POSITION.
2. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F2090.

THE WINDOW OPENING CONTROL DEVICE, AFTER OPERATION TO RELEASE THE CONTROL DEVICE ALLOWING THE WINDOW TO FULLY OPEN, **SHALL NOT REDUCE THE NET CLEAR OPENING AREA OF THE WINDOW UNIT.**

Townhome Window Schedule

	Call Out	Type	Size	U-Factor	SHGC	Remarks
A	25 SH	Single Hung	3'0" X 5'0"	0.56	0.24	
B	(2) 25 SH	Single Hung	6'-0" X 5'0"	0.56	0.24	
C	6080 S.G.D	Sliding Glass	6'0" X 8'0"	0.69	0.22	tempered

1

DOOR SCHEDULE

MARK	MODEL	SIZE WIDTH	SIZE HEIGHT	DESCRIPTION
1	3080	3'-0"	8'-0"	

Fieldstone

Michigan
3400 Auburn Rd
Suite 200
Auburn Hills, MI 48326
+1 248.622.4035

Florida
12906 Tampa Oaks Blvd.
Suite 150
Tampa, FL 33637
+1 813.466.3310

www.fieldstoneae.com

Meritage Homes
1127 Gateway Boulevard
Boynton Beach, FL 33426
561-847-7515 Phone

Control Date: 03-07-2022

Date/Issued for:

0	
1	03/13/2023 PERMIT REVIEW
–	–
–	–
–	–

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
Unit T179 (end) - L
Floor Plans

©Fieldstone A&E, LLC
DO NOT SCALE DRAWINGS

Sheet No.
A1.4Le

TYPICAL WALL TYPES

GENERAL NOTES - WALL TYPES

ALL INTERIOR PARTITIONS ARE WALL TYPE 1 U.N.O.

FOR ADDITIONAL INFORMATION ABOUT WALL ASSEMBLIES ALSO REFER TO SHEETS DESIGNATED AS:

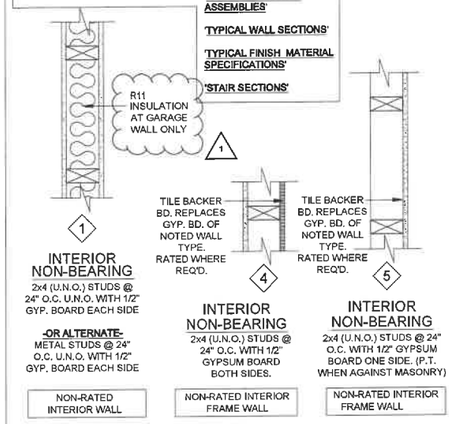
'FIRE RATING DETAILS'

'UL AND FIRE RATED ASSEMBLIES'

'TYPICAL WALL SECTIONS'

'TYPICAL FINISH MATERIAL SPECIFICATIONS'

'STAIR SECTIONS'



INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

-OR ALTERNATE-
METAL STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

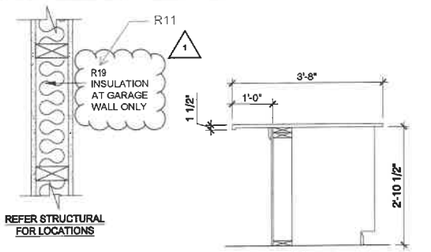
NON-RATED INTERIOR WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD BOTH SIDES.

NON-RATED INTERIOR FRAME WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD ONE SIDE. (P.T. WHEN AGAINST MASONRY)

NON-RATED INTERIOR FRAME WALL



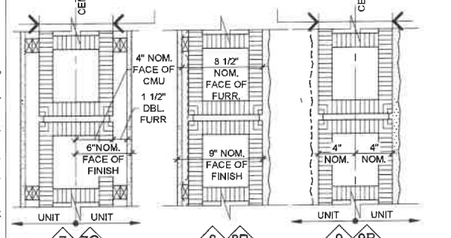
REFER STRUCTURAL FOR LOCATIONS

INTERIOR BEARING
2x4 (U.N.O.) STUDS @ 16" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

NON-RATED INT. BEARING WALL

BAR DETAIL
SCALE: N.T.S.

2 HR. FIRE RATED CMU AREA SEPARATION WALL BETWEEN UNITS PER FBC TABLE 722.3.2 MINIMUM EQUIVALENT THICKNESS - OR - UL U905



7 7G

TYPICAL AREA SEPARATION WALL
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 1/2" GYP. BD. OVER DOUBLE FURRING (1X2 PT) @ 24" O.C. (FURR FOR ELECTRICAL INSTALLATION). ACOUSTICAL INSULATION PER COMMUNITY / DEVELOPERS SPEC.

7G **GARAGE**: EXPOSED CMU, STRUCK JOINTS, PAINTED, (NO FURRING OR GYPSUM BOARD).

(2) HOUR RATED WALL AREA SEPARATION

8 8R

TYPICAL FIRST FL. EXTERIOR
8" CONCRETE BLOCK EXTERIOR WALL W/ 1/2" GYP. BD. OVER RADIANT BARRIER INSULATION OVER 1X2 PT. FURRING @ 24" O.C.ON INTERIOR FACE OF WALL. STUCCO ON EXTERIOR BLOCK

(1) HR RATED BY EQUIVALENT THICKNESS AT TYPE 8R

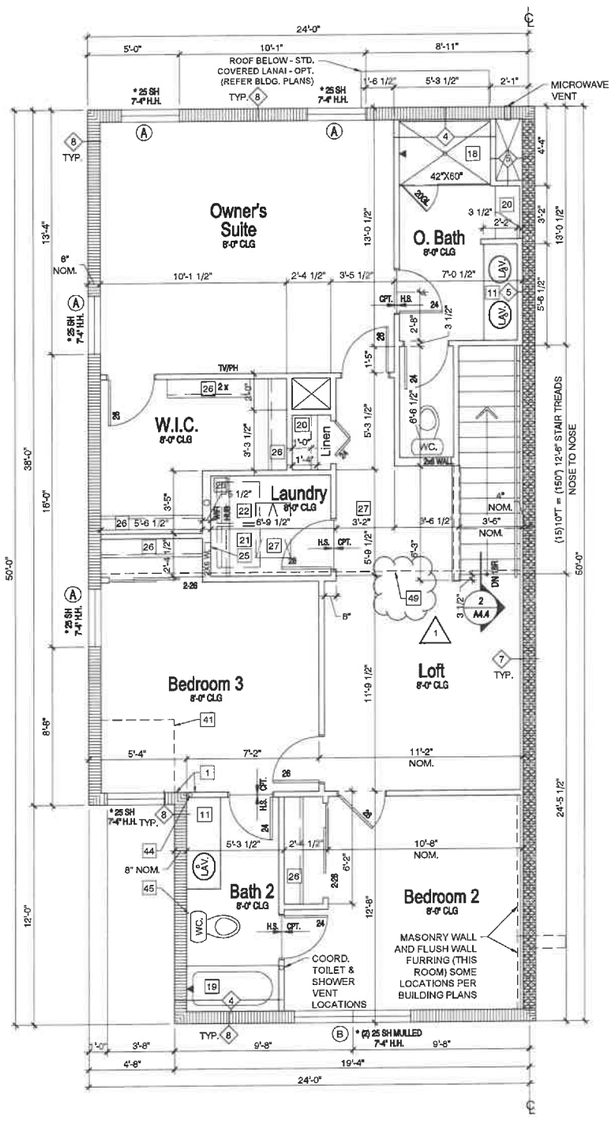
EXTERIOR CONC. BLOCK WALL

9 9R

CMU - A.S.W. AT EXTERIOR 9R
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 5/8" MIN.STUCCO AT EXTERIOR CONDITIONS.

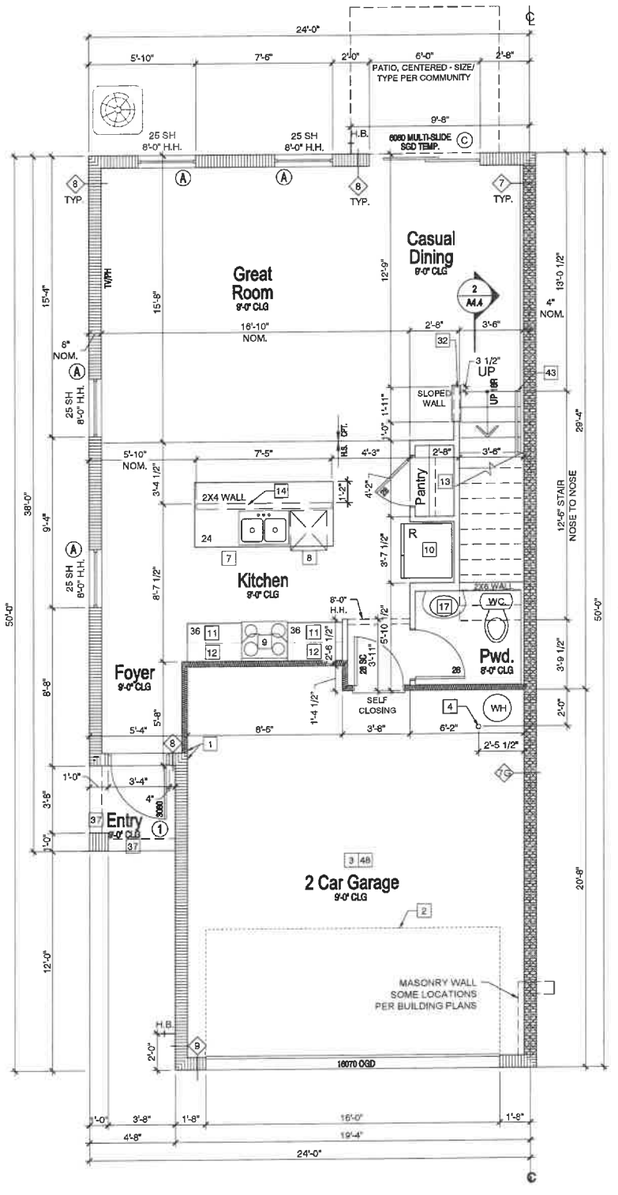
9 **GARAGE**: NON RATED, EXPOSED CMU, STRUCK JOINTS, PAINTED. EXTERIOR 5/8" MIN.STUCCO

(2) HOUR RATED WALL AREA SEPARATION



SECOND FLOOR PLAN - UNIT T179 (END) RIGHT HAND
22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

T179 - LN	
UNIT SQ. FTG. TABLE	
1st FLOOR	714 SQ. FT.
2nd FLOOR	1094 SQ. FT.
TOTAL A/C	1808 SQ. FT.
GARAGE	408 SQ. FT.
ENTRY	22 SQ. FT.
TOTAL UR	2238 SQ. FT.



FIRST FLOOR PLAN - UNIT T179 (END) RIGHT HAND
22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

FLOOR PLAN NOTES:

THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS:

1. FLUSH THE FACE OF FINISHES
2. LINE OF OVERHEAD GARAGE DOOR IN OPEN POSITION.
3. SLOPE GARAGE FLOOR 1/8" PER FOOT TOWARD OVERHEAD GARAGE DOOR OPENING.
4. 36" HIGH BOLLARD
5. STAIR PER GOVERNING CODE.
6. 2x4 W GYP. BOARD CLOSURE UNDER STAIR
7. SINK W/GARBAGE DISPOSAL.
8. DISHWASHER.
9. RANGE w/ HOOD OR MICRO ABOVE
10. REFRIGERATOR.
11. BASE CABINETS.
12. UPPER CABINETS.
13. PANTRY - (4) 12" D. SHELVES
14. HALF WALL +34 1/2" A.F.F. W/ COUNTERTOP PER PLAN.
15. OPTIONAL UPPER CABINETS.
16. OPTIONAL CABINETS.
17. PEDESTAL SINK.
18. TILED SHOWER W/TEMPERED GLASS ENCLOSURE.
19. 30" X 60" TUB/SHOWER
20. LINEN SHELVES.
21. WASHER SPACE W/ DRAIN PAN BELOW. PROVIDE DRAIN PAN TO EXTERIOR
22. DRYER SPACE w/ VENT TO EXTERIOR.
23. STACKED WASHER/ DRYER.
24. OPTIONAL LAUNDRY SINK.
25. HANSON BOX
26. ROD & SHELF.
27. ATTIC ACCESS (22"x36" U.N.O.).
28. ATTIC ACCESS W/ STAIRS (22 1/2"x54" U.N.O.).
29. GYPSUM BOARD OPENING.
30. OPTIONAL PRE-PLUMB FOR LAUNDRY SINK.
31. OPTIONAL COFFERED CEILING (AS NOTED PER PLAN)
32. 2X4 LOW WALL w/ GYPSUM BOARD & WOOD CAP - 42" HT. MIN.
33. 2X4 LOW WALL 42" A.F.F.
34. N/A
35. LOW WALL 32 1/2" A.F.F.
36. N/A
37. SOFFIT OR BEAM ABOVE, REFER TO STRUCTURAL & EXTERIOR ELEVATIONS FOR HEIGHTS & FINISHES.
38. PLANT SHELF
39. N/A
40. LINE OF FRAMING ABOVE.
41. LINE OF FRAMING WALL BELOW.
42. MASONRY, SEE EXTERIOR ELEVATIONS.
43. HANDRAIL AT +38" ABV. STAIR NOSING OR LANDING - PER CODE - ALSO REFER STAIR SECTIONS.
44. COORD. PLUMBING SUPPLY & VENT IN FRAME OR MASONRY WALL
45. COORD. TOILET SUPPLY IN MASONRY WALL OR THROUGH FLOOR
46. N/A
47. INSTALL 1/2" GYP. AT WALLS & CEILINGS OF ACCESSIBLE AREAS UNDER STAIRS
48. INSTALL 1/2" GYP. BD. ON GARAGE SIDE OF WALL BETWEEN GARAGE & LIVING, INSTALL 5/8" TYPE 'X' GYP BD. ON GARAGE CEILING AT AREA BETWEEN LIVING ABOVE AND GARAGE
49. DRAFTSTOPING, SEE DETAIL 5/AD-3.1

1 **GENERAL PLAN NOTES:**

ALL INTERIOR DOORS ARE 6'-8" HEIGHT

DOOR WIDTH DESIGNATIONS: 20 = 2'-0"; 24 = 2'-4"; ETC.

GARAGE DOORS SHALL BE SOLID CORE DOOR, A MIN. 1⅜" THICK w/ CLOSER.

WINDOWS MARKED WITH AN * MUST MEET EMERGENCY ESCAPE AND RESCUE (E.E.R.) REQUIREMENTS. WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS MEETS (E.E.R.) REQUIREMENTS.

FOR ADDITIONAL INFORMATION SEE GENERAL NOTES, TYPICAL FINISH MATERIAL SPECIFICATIONS, WALL SECTIONS AND DETAILS.

PLUMBING NOTE: OFFSET ALL PLUMBING VENTS, DRYER VENTS, AND BATH FAN EXHAUST MIN. 5'-0" FROM CENTER LINE OF PARTY WALL TO AVOID PENETRATING FIRE RESISTANT ROOF SHEATHING.

FALL PROTECTION

IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR AND GREATER THAN 72 INCHES (1829 MM) ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

1. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4-INCH-DIAMETER (102 MM) SPHERE TO PASS THROUGH THE OPENING WHERE THE OPENING IS IN ITS LARGEST OPENED POSITION.
2. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F2090.

THE WINDOW OPENING CONTROL DEVICE, AFTER OPERATION TO RELEASE THE CONTROL DEVICE ALLOWING THE WINDOW TO FULLY OPEN, **SHALL NOT REDUCE THE NET CLEAR OPENING AREA OF THE WINDOW UNIT.**

Townhome Window Schedule

Call Out	Type	Size	U-Factor	SHGC	Remarks
A 25 SH	Single Hung	3'0" X 5'0"	0.56	0.24	
B (2) 25 SH	Single Hung	6'-0" X 5'0"	0.56	0.24	
C 6080 S G D	Sliding Glass	6'0" X 8'0"	0.69	0.27	tempered

DOOR SCHEDULE

MARK	MODEL	SIZE WIDTH	SIZE HEIGHT	DESCRIPTION
1	3080	3'-0"	8'-0"	

1

Fieldstone

Michigan
3400 Auburn Rd
Suite 200
Auburn Hills, MI 48326
+1 248.622.4035

Florida
12906 Tampa Oaks Blvd.
Suite 150
Tampa, FL 33637
+1 813.466.3310

www.fieldstoneae.com

Meritage Homes

1127 Gateway Boulevard
Boynton Beach, FL 33426
561-847-7515 Phone

Control Date: 03-07-2022

Date/Issued for:

0	
1	03/13/2023 PERMIT REVIEW
–	–
–	–
–	–

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
Unit T179 (end) - R
Floor Plans

©Fieldstone A&E, LLC
DO NOT SCALE DRAWINGS

Sheet No.
A1.4Re

P:\2506009_MF\Master_TH_Inv_Xmls_UNITS\A1A1_Units.dwg _Plot Date: Tuesday, March 07, 2023 2:01 PM, Plotted By:dsodriguez

TYPICAL WALL TYPES

GENERAL NOTES - WALL TYPES

ALL INTERIOR PARTITIONS ARE WALL TYPE (1) U.N.O.

FOR ADDITIONAL INFORMATION ABOUT WALL ASSEMBLIES ALSO REFER TO SHEETS DESIGNATED AS:

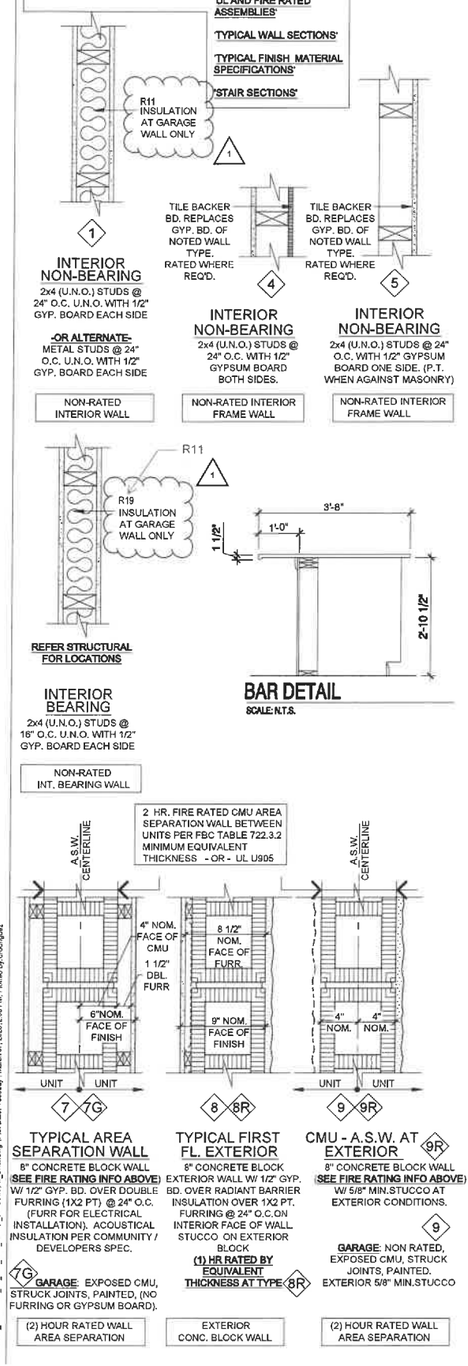
'FIRE RATING DETAILS'

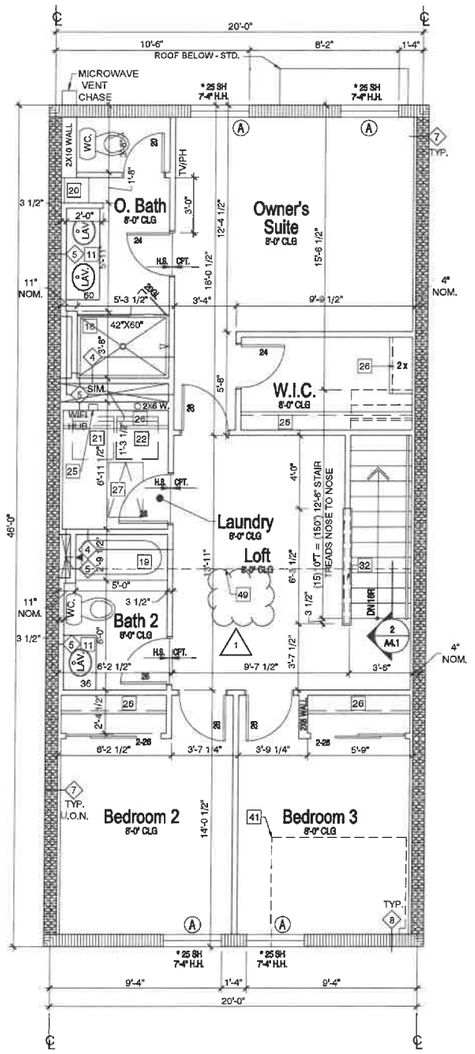
'UL AND FIRE RATED ASSEMBLIES'

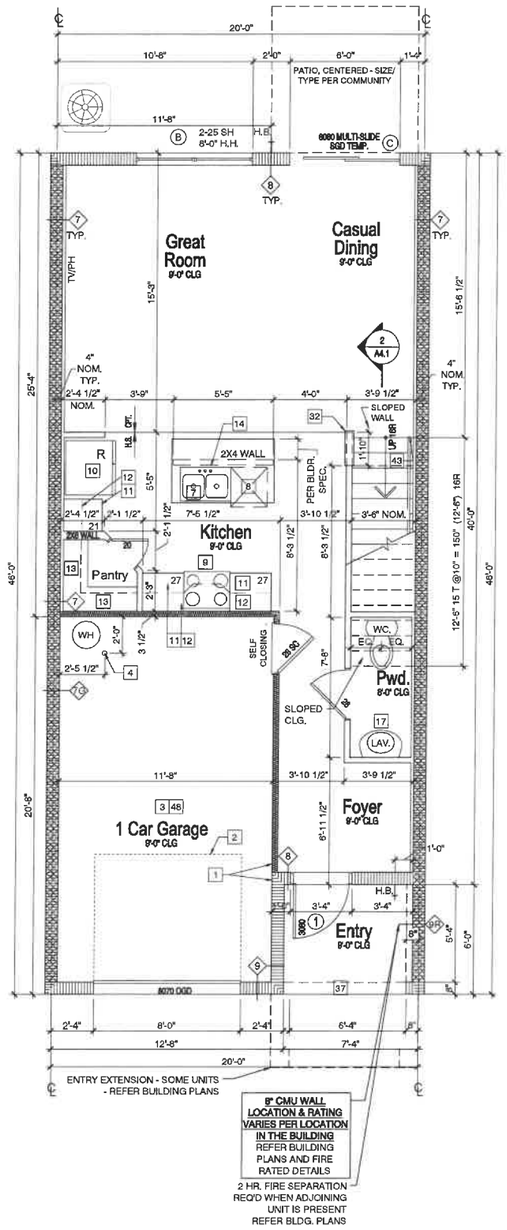
'TYPICAL WALL SECTIONS'

'TYPICAL FINISH MATERIAL SPECIFICATIONS'

'STAIR SECTIONS'







T148 - LN	
UNIT SQ. FTG. TABLE	
1st FLOOR	513 SQ. FT.
2nd FLOOR	872 SQ. FT.
TOTAL A/C	1485 SQ. FT.
GARAGE	249 SQ. FT.
ENTRY	44 SQ. FT.
TOTAL UR	1778 SQ. FT.

SECOND FLOOR PLAN - UNIT T148

22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

LEFT HAND

FIRST FLOOR PLAN - UNIT T148

22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

LEFT HAND

FLOOR PLAN NOTES:

THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS:

1. FLUSH THE FACE OF FINISHES
2. LINE OF OVERHEAD GARAGE DOOR IN OPEN POSITION.
3. SLOPE GARAGE FLOOR 1/8" PER FOOT TOWARD OVERHEAD GARAGE DOOR OPENING.
4. 36" HIGH BOLLARD
5. STAIR PER GOVERNING CODE.
6. 2x4 W/ GYP. BOARD CLOSURE UNDER STAIR
7. SINK W/GARBAGE DISPOSAL.
8. DISHWASHER.
9. RANGE w/ HOOD OR MICRO ABOVE
10. REFRIGERATOR.
11. BASE CABINETS.
12. UPPER CABINETS.
13. PANTRY - (4) 12" D. SHELVES
14. HALF WALL +34 1/2" A.F.F. W/ COUNTERTOP PER PLAN.
15. OPTIONAL UPPER CABINETS.
16. OPTIONAL CABINETS.
17. PEDESTAL SINK.
18. TILED SHOWER W/TEMPERED GLASS ENCLOSURE.
19. 30" X 60" TUB/SHOWER
20. LINEN SHELVES.
21. WASHER SPACE W/ DRAIN PAN BELOW. PROVIDE DRAIN PAN TO EXTERIOR
22. DRYER SPACE w/ VENT TO EXTERIOR.
23. STACKED WASHER/ DRYER.
24. OPTIONAL LAUNDRY SINK.
25. HANSON BOX
26. ROD & SHELF.
27. ATTIC ACCESS (22"x36" U.N.O.).
28. ATTIC ACCESS W/ STAIRS (22 1/2"x54" U.N.O.).
29. GYPSUM BOARD OPENING.
30. OPTIONAL PRE-PLUMB FOR LAUNDRY SINK.
31. OPTIONAL COFFERED CEILING (AS NOTED PER PLAN)
32. 2X4 LOW WALL w/ GYPSUM BOARD & WOOD CAP - 42" HT. MIN.
33. 2X4 LOW WALL 42" A.F.F.
34. N/A
35. LOW WALL 32 1/2" A.F.F.
36. N/A
37. SOFFIT OR BEAM ABOVE, REFER TO STRUCTURAL & EXTERIOR ELEVATIONS FOR HEIGHTS & FINISHES.
38. PLANT SHELF
39. N/A
40. LINE OF FRAMING ABOVE.
41. LINE OF FRAMING WALL BELOW.
42. MASONRY, SEE EXTERIOR ELEVATIONS.
43. HANDRAIL AT +36" ABV. STAIR NOSING OR LANDING - PER CODE - ALSO REFER STAIR SECTIONS.
44. COORD. PLUMBING SUPPLY & VENT IN FRAME OR MASONRY WALL
45. COORD. TOILET SUPPLY IN MASONRY WALL OR THROUGH FLOOR
46. N/A
47. INSTALL 1/2" GYP. AT WALLS & CEILINGS OF ACCESSIBLE AREAS UNDER STAIRS
48. INSTALL 1/2" GYP. BD. ON GARAGE SIDE OF WALL BETWEEN GARAGE & LIVING. INSTALL 5/8" TYPE 'X' GYP BD. ON GARAGE CEILING AT AREA BETWEEN LIVING ABOVE AND GARAGE
49. DRAFTSTOPING, SEE DETAIL 5/AD-3.1

(1) GENERAL PLAN NOTES:

ALL INTERIOR DOORS ARE 6'-8" HEIGHT

DOOR WIDTH DESIGNATIONS: 20 = 2'-0"; 24 = 2'-4"; ETC.

GARAGE DOORS SHALL BE SOLID CORE DOOR, A MIN. 1⅜" THICK w/ CLOSER.

WINDOWS MARKED WITH AN * MUST MEET EMERGENCY ESCAPE AND RESCUE (E.E.R.) REQUIREMENTS. WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS MEETS (E.E.R.) REQUIREMENTS.

FOR ADDITIONAL INFORMATION SEE GENERAL NOTES, TYPICAL FINISH MATERIAL SPECIFICATIONS, WALL SECTIONS AND DETAILS.

PLUMBING NOTE: OFFSET ALL PLUMBING VENTS, DRYER VENTS, AND BATH FAN EXHAUST MIN. 5'-0" FROM CENTER LINE OF PARTY WALL TO AVOID PENETRATING FIRE RESISTANT ROOF SHEATHING.

FALL PROTECTION

IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR AND GREATER THAN 72 INCHES (1829 MM) ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

1. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4-INCH-DIAMETER (102 MM) SPHERE TO PASS THROUGH THE OPENING WHERE THE OPENING IS IN ITS LARGEST OPENED POSITION.
2. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F2090.

THE WINDOW OPENING CONTROL DEVICE, AFTER OPERATION TO RELEASE THE CONTROL DEVICE ALLOWING THE WINDOW TO FULLY OPEN, **SHALL NOT REDUCE THE NET CLEAR OPENING AREA OF THE WINDOW UNIT.**

Townhome Window Schedule

Call Out	Type	Size	U-Factor	SHGC	Remarks
A 25 SH	Single Hung	3'0" X 5'0"	0.56	0.24	
B (2) 2S SH	Single Hung	6'-0" X 5'0"	0.56	0.24	
C 6080 S G D	Sliding Glass	6'0" X 8'0"	0.69	0.22	tempered

DOOR SCHEDULE

MARK	MODEL	SIZE WIDTH	SIZE HEIGHT	DESCRIPTION
1	3080	3'-0"	8'-0"	

Fieldstone

Michigan
3400 Auburn Rd
Suite 200
Auburn Hills, MI 48326
+1 248.622.4035

Florida
12906 Tampa Oaks Blvd.
Suite 150
Tampa, FL 33637
+1 813.466.3310

www.fieldstoneae.com

Meritage Homes

1127 Gateway Boulevard
Boynton Beach, FL 33426
561-847-7515 Phone

Control Date: 03-07-2022

Date/Issued for:

0	
1	03/13/2023 PERMIT REVIEW
-	-
-	-
-	-

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
UNIT T148 - L
Floor Plans

©Fieldstone A&E, LLC DO NOT SCALE DRAWINGS

Sheet No.
A1.1L

P:\3280\005_MF\Master_TH_Low_Rise_Units\1_DWG\Arch\A1_Units.dwg Plot Date: Tuesday, March 07, 2023 2:06 PM Plotted By: cmodriguez

TYPICAL WALL TYPES

GENERAL NOTES - WALL TYPES

ALL INTERIOR PARTITIONS ARE WALL TYPE 1 U.N.O.

FOR ADDITIONAL INFORMATION ABOUT WALL ASSEMBLIES ALSO REFER TO SHEETS DESIGNATED AS:

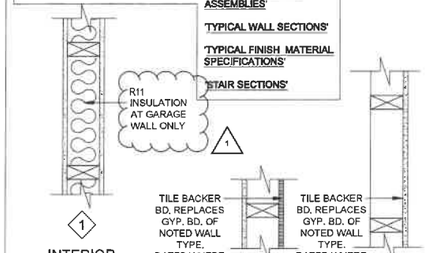
'FIRE RATING DETAILS'

'UL AND FIRE RATED ASSEMBLIES'

'TYPICAL WALL SECTIONS'

'TYPICAL FINISH MATERIAL SPECIFICATIONS'

'STAIR SECTIONS'



1 INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

-OR ALTERNATE-
METAL STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

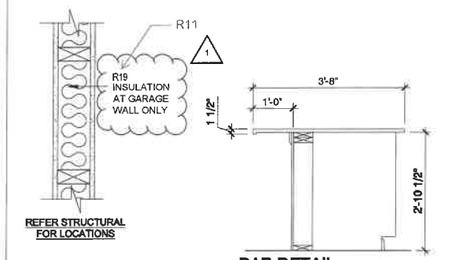
NON-RATED INTERIOR WALL

4 INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD BOTH SIDES.

NON-RATED INTERIOR FRAME WALL

5 INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD ONE SIDE. (P. T. WHEN AGAINST MASONRY)

NON-RATED INTERIOR FRAME WALL



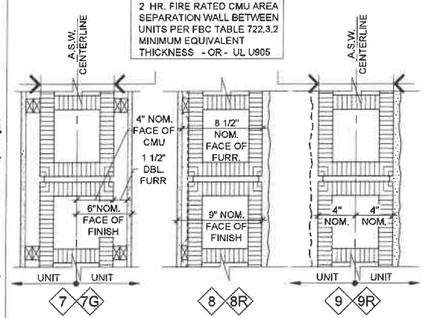
REFER STRUCTURAL FOR LOCATIONS

INTERIOR BEARING
2x4 (U.N.O.) STUDS @ 16" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

NON-RATED INT. BEARING WALL

BAR DETAIL
SCALE: N.T.S.

2 HR. FIRE RATED CMU AREA SEPARATION WALL BETWEEN UNITS PER FBC TABLE 722.3.2 MINIMUM EQUIVALENT THICKNESS - OR - UL U905



7 7G 8 8R 9 9R

TYPICAL AREA SEPARATION WALL
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 1/2" GYP. BD. OVER DOUBLE FURRING (1X2 PT) @ 24" O.C. (FURR FOR ELECTRICAL INSTALLATION), ACOUSTICAL INSULATION PER COMMUNITY / DEVELOPERS SPEC.

7G **GARAGE**: EXPOSED CMU, STRUCK JOINTS, PAINTED, (NO FURRING OR GYPSUM BOARD).

(2) HOUR RATED WALL AREA SEPARATION

TYPICAL FIRST FL. EXTERIOR
8" CONCRETE BLOCK EXTERIOR WALL W/ 1/2" GYP. BD. OVER RADIANT BARRIER INSULATION OVER 1X2 PT. FURRING @ 24" O.C.ON INTERIOR FACE OF WALL. STUCCO ON EXTERIOR BLOCK
(1) HR RATED BY EQUIVALENT THICKNESS AT TYPE 8R

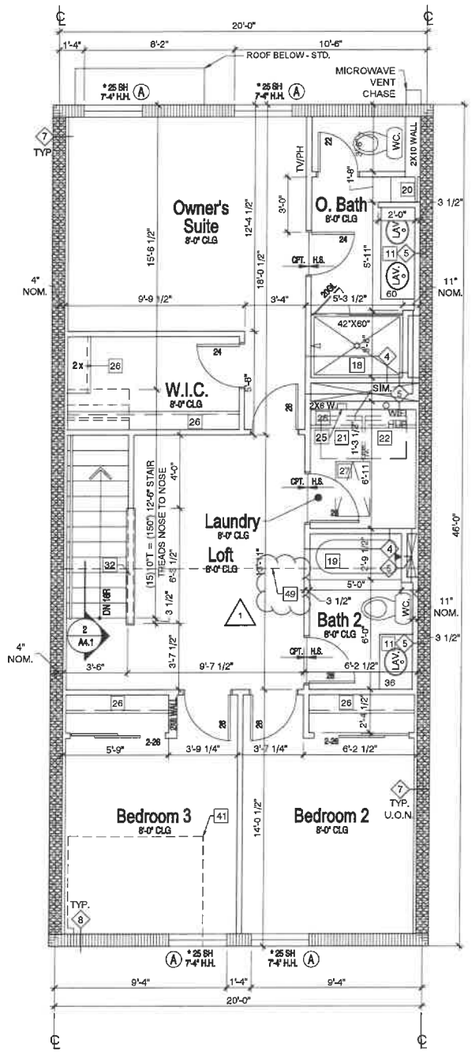
EXTERIOR CONC. BLOCK WALL

CMU - A.S.W. AT EXTERIOR 9R
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 5/8" MIN.STUCCO AT EXTERIOR CONDITIONS.

9 **GARAGE**: NON RATED, EXPOSED CMU, STRUCK JOINTS, PAINTED. EXTERIOR 5/8" MIN.STUCCO

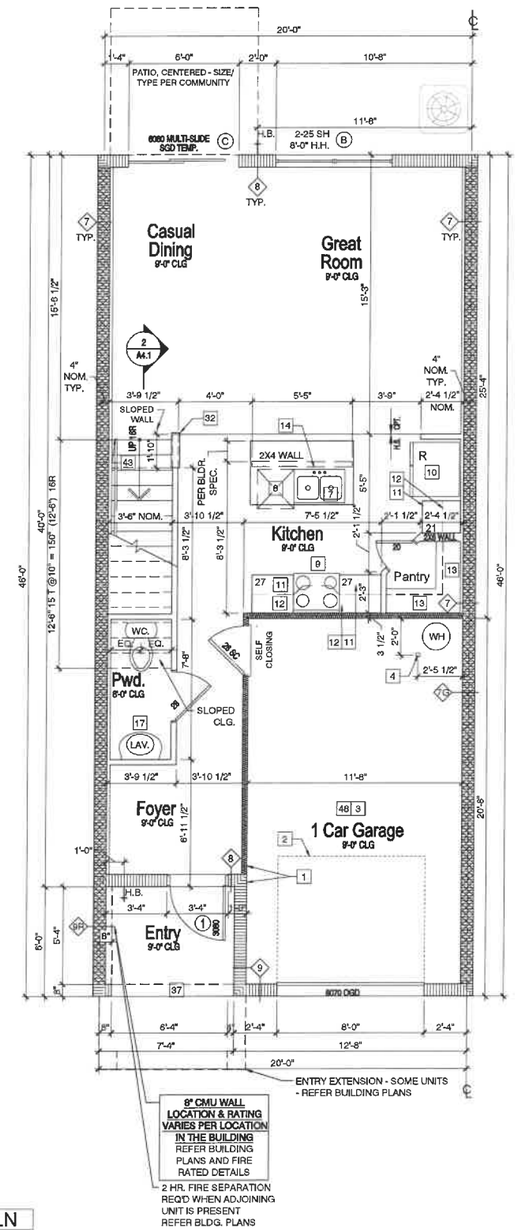
(2) HOUR RATED WALL AREA SEPARATION

P:\23785000_MP\Master_TH_Low_Nbrs_Units1_DWG\A1A1_Unit.dwg Plot Date: Tuesday, March 07, 2023, 2:00 PM, Plotted By:cbolojaus



SECOND FLOOR PLAN - UNIT T148
2024 CODE: 1/8" = 1'-0"
1317 CODE: 1/8" = 1'-0"
RIGHT HAND

T148 - LN	
UNIT SQ. FTG. TABLE	
1st FLOOR	613 SQ. FT.
2nd FLOOR	872 SQ. FT.
TOTAL A/C	1485 SQ. FT.
GARAGE	249 SQ. FT.
ENTRY	44 SQ. FT.
TOTAL UR	1778 SQ. FT.



ENTRY EXTENSION - SOME UNITS - REFER BUILDING PLANS

9R CMU WALL LOCATION & RATING VARIES PER LOCATION IN THE BUILDING REFER BUILDING PLANS AND FIRE RATED DETAILS

2 HR. FIRE SEPARATION REQ'D WHEN ADJOINING UNIT IS PRESENT REFER BLDG. PLANS

FIRST FLOOR PLAN - UNIT T148
2024 CODE: 1/8" = 1'-0"
1317 CODE: 1/8" = 1'-0"
RIGHT HAND

FLOOR PLAN NOTES:

THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS:

1. FLUSH THE FACE OF FINISHES
2. LINE OF OVERHEAD GARAGE DOOR IN OPEN POSITION.
3. SLOPE GARAGE FLOOR 1/8" PER FOOT TOWARD OVERHEAD GARAGE DOOR OPENING.
4. 36" HIGH BOLLARD
5. STAIR PER GOVERNING CODE.
6. 2x4 W/ GYP. BOARD CLOSURE UNDER STAIR
7. SINK W/GARBAGE DISPOSAL.
8. DISHWASHER.
9. RANGE w/ HOOD OR MICRO ABOVE
10. REFRIGERATOR.
11. BASE CABINETS.
12. UPPER CABINETS.
13. PANTRY - (4) 12" D. SHELVES
14. HALF WALL +34 1/2" A.F.F. W/ COUNTERTOP PER PLAN.
15. OPTIONAL UPPER CABINETS.
16. OPTIONAL CABINETS.
17. PEDESTAL SINK.
18. TILED SHOWER W/TEMPERED GLASS ENCLOSURE.
19. 30" X 60" TUB/SHOWER
20. LINEN SHELVES.
21. WASHER SPACE W/ DRAIN PAN BELOW. PROVIDE DRAIN PAN TO EXTERIOR
22. DRYER SPACE w/ VENT TO EXTERIOR.
23. STACKED WASHER/ DRYER.
24. OPTIONAL LAUNDRY SINK.
25. HANSON BOX
26. ROD & SHELF.
27. ATTIC ACCESS (22"x36" U.N.O.).
28. ATTIC ACCESS W/ STAIRS (22 1/2"x54" U.N.O.).
29. GYPSUM BOARD OPENING.
30. OPTIONAL PRE-PLUMB FOR LAUNDRY SINK.
31. OPTIONAL COFFERED CEILING (AS NOTED PER PLAN)
32. 2X4 LOW WALL w/ GYPSUM BOARD & WOOD CAP - 42" HT. MIN.
33. 2X4 LOW WALL 42" A.F.F.
34. N/A
35. LOW WALL 32 1/2" A.F.F.
36. N/A
37. SOFFIT OR BEAM ABOVE, REFER TO STRUCTURAL & EXTERIOR ELEVATIONS FOR HEIGHTS & FINISHES.
38. PLANT SHELF
39. N/A
40. LINE OF FRAMING ABOVE.
41. LINE OF FRAMING WALL BELOW.
42. MASONRY, SEE EXTERIOR ELEVATIONS.
43. HANDRAIL AT +36" ABV. STAIR NOSING OR LANDING - PER CODE - ALSO REFER STAIR SECTIONS.
44. COORD. PLUMBING SUPPLY & VENT IN FRAME OR MASONRY WALL
45. COORD. TOILET SUPPLY IN MASONRY WALL OR THROUGH FLOOR
46. N/A
47. INSTALL 1/2" GYP. AT WALLS & CEILINGS OF ACCESSIBLE AREAS UNDER STAIRS
48. INSTALL 1/2" GYP. BD. ON GARAGE SIDE OF WALL BETWEEN GARAGE & LIVING, INSTALL 5/8" TYPE 'X' GYP BD. ON GARAGE CEILING AREA BETWEEN LIVING ABOVE AND GARAGE
49. DRAFTSTOPING, SEE DETAIL 5/AD-3.1

1 **GENERAL PLAN NOTES:**

ALL INTERIOR DOORS ARE 6'-8" HEIGHT

DOOR WIDTH DESIGNATIONS: 20 = 2'-0"; 24 = 2'-4"; ETC.

GARAGE DOORS SHALL BE SOLID CORE DOOR, A MIN. 1⅜" THICK w/ CLOSER.

WINDOWS MARKED WITH AN * MUST MEET EMERGENCY ESCAPE AND RESCUE (E.E.R.) REQUIREMENTS. WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS MEETS (E.E.R.) REQUIREMENTS.

FOR ADDITIONAL INFORMATION SEE GENERAL NOTES, TYPICAL FINISH MATERIAL SPECIFICATIONS, WALL SECTIONS AND DETAILS.

PLUMBING NOTE: OFFSET ALL PLUMBING VENTS, DRYER VENTS, AND BATH FAN EXHAUST MIN. 5'-0" FROM CENTER LINE OF PARTY WALL TO AVOID PENETRATING FIRE RESISTANT ROOF SHEATHING.

FALL PROTECTION

IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR AND GREATER THAN 72 INCHES (1829 MM) ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

1. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4-INCH-DIAMETER (102 MM) SPHERE TO PASS THROUGH THE OPENING WHERE THE OPENING IS IN ITS LARGEST OPENED POSITION.
2. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F2090.

THE WINDOW OPENING CONTROL DEVICE, AFTER OPERATION TO RELEASE THE CONTROL DEVICE ALLOWING THE WINDOW TO FULLY OPEN, **SHALL NOT REDUCE THE NET CLEAR OPENING AREA OF THE WINDOW UNIT.**

Townhome Window Schedule

Call Out	Type	Size	U-Factor	SHGC	Remarks
A 25 SH	Single Hung	3'0" X 5'0"	0.56	0.24	
B (2) 25 SH	Single Hung	6'-0" X 5'0"	0.56	0.24	
C 6080 S.G.D	Sliding Glass	6'0" X 8'0"	0.69	0.22	tempered

DOOR SCHEDULE

MARK	MODEL	SIZE WIDTH	SIZE HEIGHT	DESCRIPTION
1	3080	3'-0"	8'-0"	

1

Fieldstone
Michigan
3400 Auburn Rd
Suite 200
Auburn Hills, MI 48326
+1 248.622.4035
Florida
12906 Tampa Oaks Blvd.
Suite 150
Tampa, FL 33637
+1 813.466.3310
www.fieldstoneae.com

Meritage Homes
1127 Gateway Boulevard
Boynton Beach, FL 33426
561-847-7515 Phone

Control Date: 03-07-2022

Date/Issued for:

0	
1	03/13/2023 PERMIT REVIEW
-	-
-	-
-	-

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
UNIT T148 - R
Floor Plans

©Fieldstone A&E, LLC
DO NOT SCALE DRAWINGS

Sheet No.
A1.1R

TYPICAL WALL TYPES

GENERAL NOTES - WALL TYPES

ALL INTERIOR PARTITIONS ARE WALL TYPE 1 U.N.O.

FOR ADDITIONAL INFORMATION ABOUT WALL ASSEMBLIES ALSO REFER TO SHEETS DESIGNATED AS:

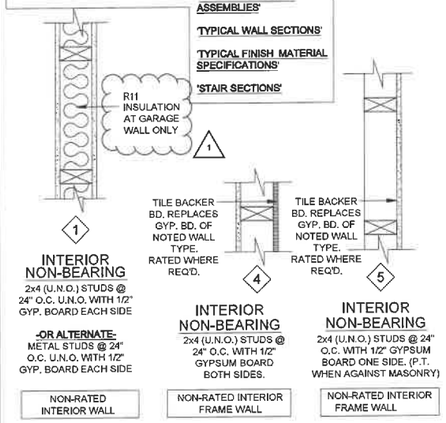
'FIRE RATING DETAILS'

'UL AND FIRE RATED ASSEMBLIES'

'TYPICAL WALL SECTIONS'

'TYPICAL FINISH MATERIAL SPECIFICATIONS'

'STAIR SECTIONS'



INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

-OR ALTERNATE-
METAL STUDS @ 24" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

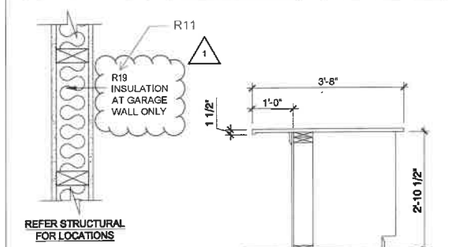
NON-RATED INTERIOR WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD BOTH SIDES.

NON-RATED INTERIOR FRAME WALL

INTERIOR NON-BEARING
2x4 (U.N.O.) STUDS @ 24" O.C. WITH 1/2" GYPSUM BOARD ONE SIDE. (P.T. WHEN AGAINST MASONRY)

NON-RATED INTERIOR FRAME WALL



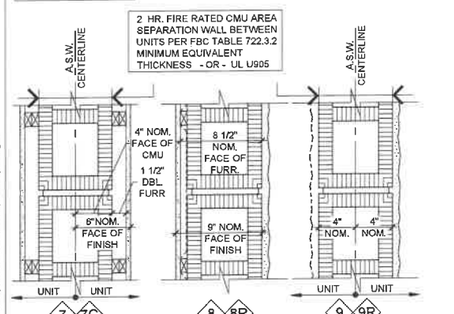
REFER STRUCTURAL FOR LOCATIONS

INTERIOR BEARING
2x4 (U.N.O.) STUDS @ 16" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

NON-RATED INT. BEARING WALL

BAR DETAIL
SCALE: N.T.S.

2 HR. FIRE RATED CMU AREA SEPARATION WALL BETWEEN UNITS PER FBC TABLE 722.3.2 MINIMUM EQUIVALENT THICKNESS - OR - UL U905



TYPICAL AREA SEPARATION WALL
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 1/2" GYP. BD. OVER DOUBLE FURRING (1X2 PT) @ 24" O.C. (FURR FOR ELECTRICAL INSTALLATION). ACOUSTICAL INSULATION PER COMMUNITY / DEVELOPERS SPEC.

7G **GARAGE:** EXPOSED CMU, STRUCK JOINTS, PAINTED, (NO FURRING OR GYPSUM BOARD).

(2) HOUR RATED WALL AREA SEPARATION

TYPICAL FIRST FL. EXTERIOR
8" CONCRETE BLOCK EXTERIOR WALL W/ 1/2" GYP. BD. OVER RADIANT BARRIER INSULATION OVER 1X2 PT. FURRING @ 24" O.C.ON INTERIOR FACE OF WALL. STUCCO ON EXTERIOR BLOCK

(1) HR RATED BY EQUIVALENT THICKNESS AT TYPE 8R

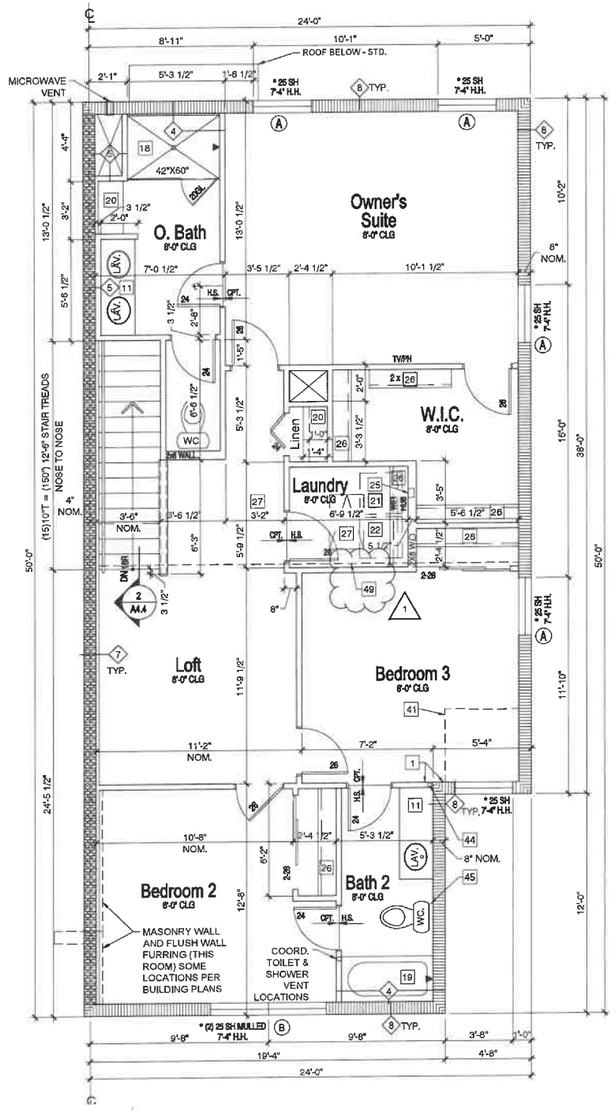
EXTERIOR CONC. BLOCK WALL

CMU - A.S.W. AT EXTERIOR 9R
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 5/8" MIN.STUCCO AT EXTERIOR CONDITIONS.

9 **GARAGE:** NON RATED, EXPOSED CMU, STRUCK JOINTS, PAINTED. EXTERIOR 5/8" MIN.STUCCO

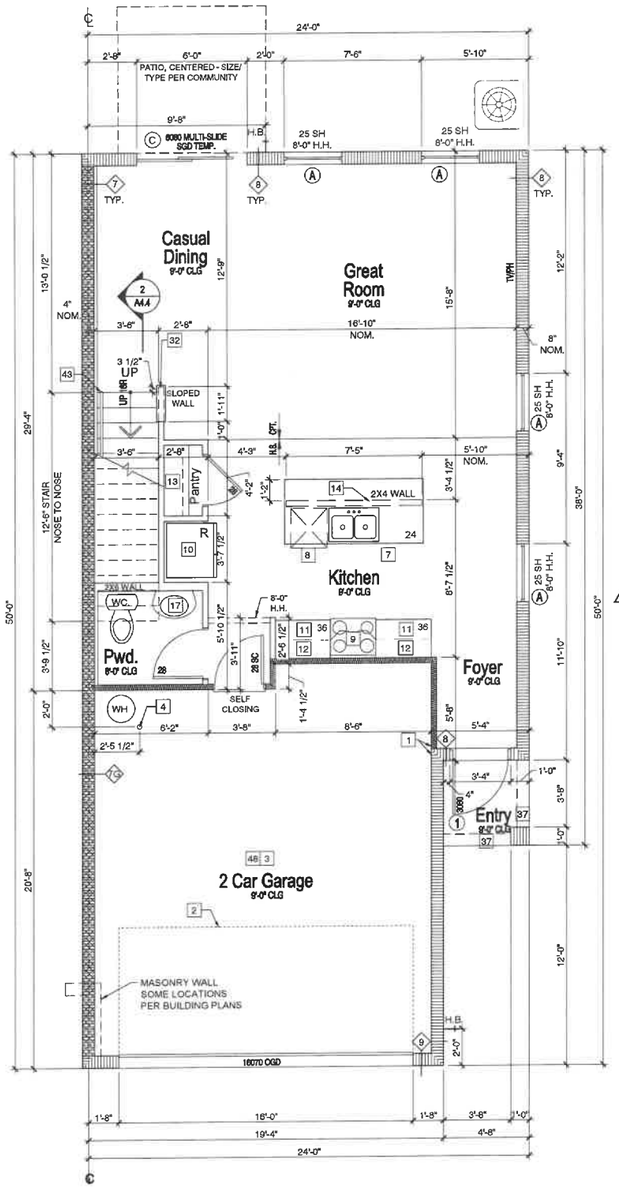
(2) HOUR RATED WALL AREA SEPARATION

P:\2025\050_MF\Master_TH_Line_Xrefs_DWGS\ASCA1_Units.dwg, Plot Date: Tuesday, March 07, 2023 2:53 PM, Plotted By:dsedlacek



SECOND FLOOR PLAN - UNIT T179 (END) LEFT HAND
22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

T179 - LN	
UNIT SQ. FTG. TABLE	
1st FLOOR	714 SQ. FT.
2nd FLOOR	1094 SQ. FT.
TOTAL A/C	1808 SQ. FT.
GARAGE	408 SQ. FT.
ENTRY	22 SQ. FT.
TOTAL UR	2238 SQ. FT.



FIRST FLOOR PLAN - UNIT T179 (END) LEFT HAND
22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

FLOOR PLAN NOTES:

THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS:

1. FLUSH THE FACE OF FINISHES
2. LINE OF OVERHEAD GARAGE DOOR IN OPEN POSITION.
3. SLOPE GARAGE FLOOR 1/8" PER FOOT TOWARD OVERHEAD GARAGE DOOR OPENING.
4. 36" HIGH BOLLARD
5. STAIR PER GOVERNING CODE.
6. 2x4 W/ GYP. BOARD CLOSURE UNDER STAIR
7. SINK W/GARBAGE DISPOSAL.
8. DISHWASHER.
9. RANGE w/ HOOD OR MICRO ABOVE
10. REFRIGERATOR.
11. BASE CABINETS.
12. UPPER CABINETS.
13. PANTRY - (4) 12" D. SHELVES
14. HALF WALL +34 1/2" A.F.F. W/ COUNTERTOP PER PLAN.
15. OPTIONAL UPPER CABINETS.
16. OPTIONAL CABINETS.
17. PEDESTAL SINK
18. TILED SHOWER W/TEMPERED GLASS ENCLOSURE.
19. 30" X 60" TUB/SHOWER
20. LINEN SHELVES.
21. WASHER SPACE W/ DRAIN PAN BELOW. PROVIDE DRAIN PAN TO EXTERIOR
22. DRYER SPACE w/ VENT TO EXTERIOR.
23. STACKED WASHER/ DRYER.
24. OPTIONAL LAUNDRY SINK.
25. HANSON BOX
26. ROD & SHELF.
27. ATTIC ACCESS (22"x36" U.N.O.).
28. ATTIC ACCESS W/ STAIRS (22 1/2"x54" U.N.O.).
29. GYPSUM BOARD OPENING.
30. OPTIONAL PRE-PLUMB FOR LAUNDRY SINK.
31. OPTIONAL COFFERED CEILING (AS NOTED PER PLAN)
32. 2X4 LOW WALL w/ GYPSUM BOARD & WOOD CAP - 42" HT. MIN.
33. 2X4 LOW WALL 42" A.F.F.
34. N/A
35. LOW WALL 32 1/2" A.F.F.
36. N/A
37. SOFFIT OR BEAM ABOVE, REFER TO STRUCTURAL & EXTERIOR ELEVATIONS FOR HEIGHTS & FINISHES.
38. PLANT SHELF
39. N/A
40. LINE OF FRAMING ABOVE.
41. LINE OF FRAMING WALL BELOW.
42. MASONRY, SEE EXTERIOR ELEVATIONS.
43. HANDRAIL AT +36" ABV. STAIR NOSING OR LANDING - PER CODE - ALSO REFER STAIR SECTIONS.
44. COORD. PLUMBING SUPPLY & VENT IN FRAME OR MASONRY WALL
45. COORD. TOILET SUPPLY IN MASONRY WALL OR THROUGH FLOOR
46. N/A
47. INSTALL 1/2" GYP. AT WALLS & CEILINGS OF ACCESSIBLE AREAS UNDER STAIRS
48. INSTALL 1/2" GYP. BD. ON GARAGE SIDE OF WALL BETWEEN GARAGE & LIVING. INSTALL 5/8" TYPE 'X' GYP BD. ON GARAGE CEILING AT AREA BETWEEN LIVING ABOVE AND GARAGE
49. DRAFTSTOPING, SEE DETAIL 5/AD-3.1

1 **GENERAL PLAN NOTES:**

ALL INTERIOR DOORS ARE 6'-8" HEIGHT

DOOR WIDTH DESIGNATIONS: 20 = 2'-0"; 24 = 2'-4"; ETC.

GARAGE DOORS SHALL BE SOLID CORE DOOR, A MIN. 1⅜" THICK w/ CLOSER.

WINDOWS MARKED WITH AN * MUST MEET EMERGENCY ESCAPE AND RESCUE (E.E.R.) REQUIREMENTS. WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS MEETS (E.E.R.) REQUIREMENTS.

FOR ADDITIONAL INFORMATION SEE GENERAL NOTES, TYPICAL FINISH MATERIAL SPECIFICATIONS, WALL SECTIONS AND DETAILS.

PLUMBING NOTE: OFFSET ALL PLUMBING VENTS, DRYER VENTS, AND BATH FAN EXHAUST MIN. 5'-0" FROM CENTER LINE OF PARTY WALL TO AVOID PENETRATING FIRE RESISTANT ROOF SHEATHING.

FALL PROTECTION

IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR AND GREATER THAN 72 INCHES (1829 MM) ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

1. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4-INCH-DIAMETER (102 MM) SPHERE TO PASS THROUGH THE OPENING WHERE THE OPENING IS IN ITS LARGEST OPENED POSITION.
2. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F2090.

THE WINDOW OPENING CONTROL DEVICE, AFTER OPERATION TO RELEASE THE CONTROL DEVICE ALLOWING THE WINDOW TO FULLY OPEN, **SHALL NOT REDUCE THE NET CLEAR OPENING AREA OF THE WINDOW UNIT.**

1

Townhome Window Schedule

	Cal Out	Type	Size	U-Factor	SHGC	Remarks
A	25 SH	Single Hung	3'0" X 5'0"	0.56	0.24	
B	(2) 25 SH	Single Hung	6'-0" X 5'0"	0.56	0.24	
C	6080 S.G.D	Sliding Glass	6'0" X 8'0"	0.69	0.22	tempered

DOOR SCHEDULE

MARK	MODEL	SIZE: WIDTH	HEIGHT	DESCRIPTION
1	3080	3'-0"	8'-0"	

Fieldstone

Michigan
3400 Auburn Rd
Suite 200
Auburn Hills, MI 48326
+1 248.622.4035

Florida
12906 Tampa Oaks Blvd.
Suite 150
Tampa, FL 33637
+1 813.466.3310

www.fieldstoneae.com

Meritage Homes

1127 Gateway Boulevard
Boynton Beach, FL 33426
561-847-7515 Phone

Control Date: 03-07-2022

Date/Issued for:

0	
1	03/13/2023 PERMIT REVIEW
--	--
--	--
--	--
--	--

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
Unit T179 (end) - L
Floor Plans

©Fieldstone A&E, LLC
DO NOT SCALE DRAWINGS

Sheet No.
A1.4Le

TYPICAL WALL TYPES

GENERAL NOTES - WALL TYPES

ALL INTERIOR PARTITIONS ARE WALL TYPE 1 U.N.O.

FOR ADDITIONAL INFORMATION ABOUT WALL ASSEMBLIES ALSO REFER TO SHEETS DESIGNATED AS:

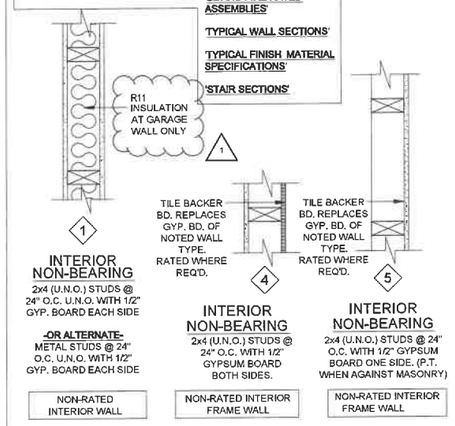
'FIRE RATING DETAILS'

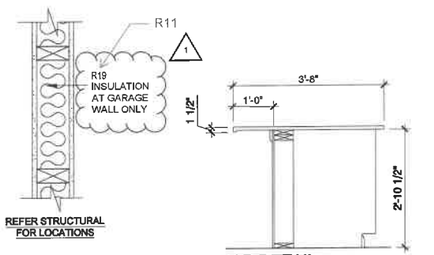
'UL AND FIRE RATED ASSEMBLIES'

'TYPICAL WALL SECTIONS'

'TYPICAL FINISH MATERIAL SPECIFICATIONS'

'STAIR SECTIONS'



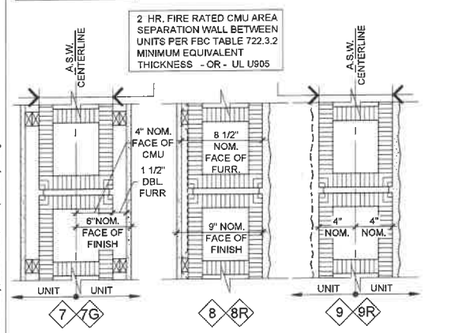


INTERIOR BEARING

2x4 (U.N.O.) STUDS @ 16" O.C. U.N.O. WITH 1/2" GYP. BOARD EACH SIDE

NON-RATED INT. BEARING WALL

2 HR. FIRE RATED CMU AREA SEPARATION WALL BETWEEN UNITS PER FBC TABLE 722.3.2 MINIMUM EQUIVALENT THICKNESS - OR - UL U905



TYPICAL AREA SEPARATION WALL

8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 1/2" GYP. BD. OVER DOUBLE FURRING (1X2 PT) @ 24" O.C. (FURR FOR ELECTRICAL INSTALLATION). ACOUSTICAL INSULATION PER COMMUNITY / DEVELOPERS SPEC.

7G **GARAGE**: EXPOSED CMU, STRUCK JOINTS, PAINTED, (NO FURRING OR GYPSUM BOARD).

(2) HOUR RATED WALL AREA SEPARATION

TYPICAL FIRST FL. EXTERIOR

8" CONCRETE BLOCK EXTERIOR WALL W/ 1/2" GYP. BD. OVER RADIANT BARRIER INSULATION OVER 1X2 PT. FURRING @ 24" O.C.ON INTERIOR FACE OF WALL STUCCO ON EXTERIOR BLOCK

(1) HR RATED BY EQUIVALENT THICKNESS AT TYPE 8R

EXTERIOR CONC. BLOCK WALL

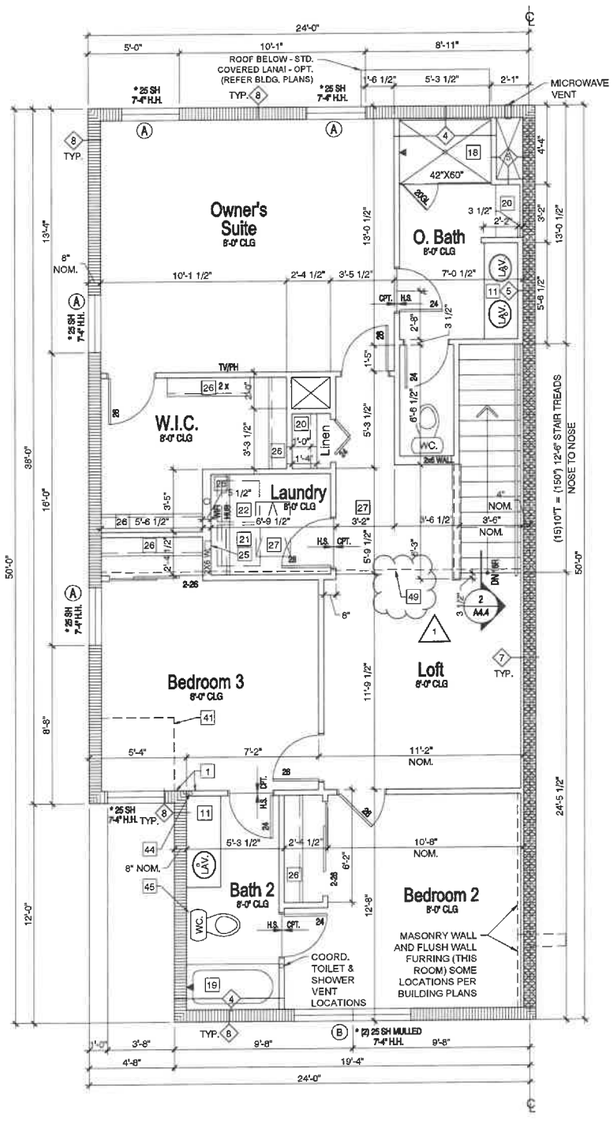
CMU - A.S.W. AT EXTERIOR 9R

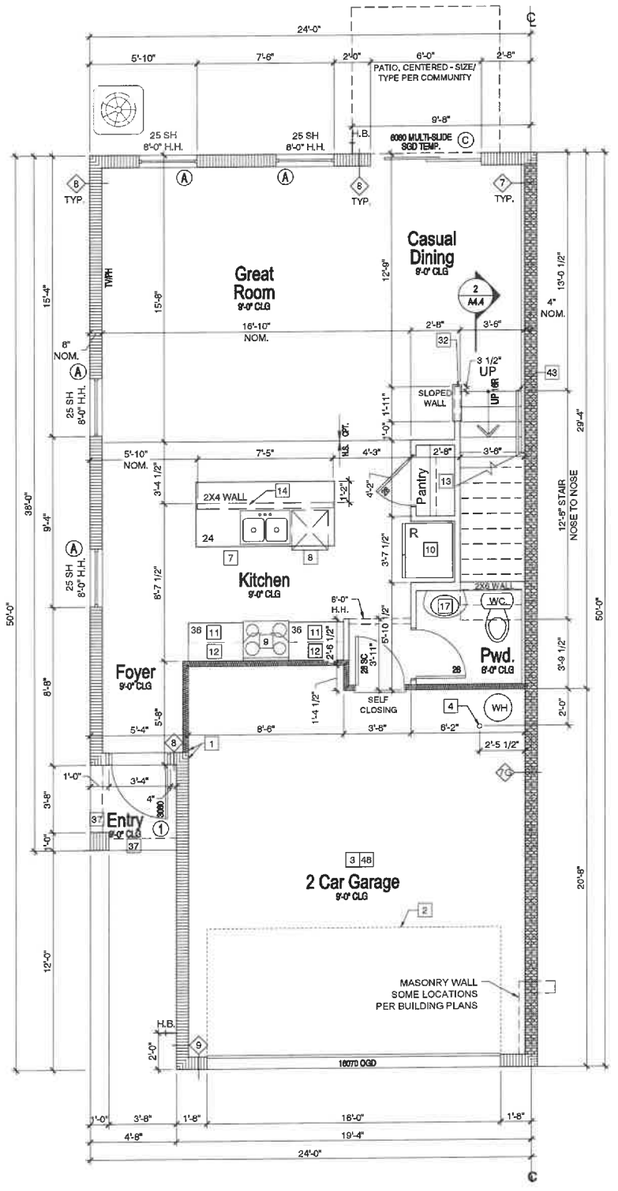
8" CONCRETE BLOCK WALL (SEE FIRE RATING INFO ABOVE) W/ 5/8" MIN.STUCCO AT EXTERIOR CONDITIONS.

9 **GARAGE**: NON RATED, EXPOSED CMU, STRUCK JOINTS, PAINTED. EXTERIOR 5/8" MIN.STUCCO

(2) HOUR RATED WALL AREA SEPARATION

P:\2021\2102_MF\Master_TH_Line_Now_Units\1_DWG\Arch\1_Units.dwg, Plot Date: Tuesday, March 07, 2023 2:01 PM, Plotted By:dodriguez





T179 - LN	
UNIT SQ. FTG. TABLE	
1st FLOOR	714 SQ. FT.
2nd FLOOR	1094 SQ. FT.
TOTAL A/C	1808 SQ. FT.
GARAGE	408 SQ. FT.
ENTRY	22 SQ. FT.
TOTAL UR	2238 SQ. FT.

SECOND FLOOR PLAN - UNIT T179 (END) RIGHT HAND

22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

FIRST FLOOR PLAN - UNIT T179 (END) RIGHT HAND

22x34 SCALE: 1/4" = 1'-0"
11x17 SCALE: 1/8" = 1'-0"

FLOOR PLAN NOTES:

#	

THE FOLLOWING KEYNOTES REFERENCE THE SYMBOLS AS SHOWN ON PLANS:

1. FLUSH THE FACE OF FINISHES
2. LINE OF OVERHEAD GARAGE DOOR IN OPEN POSITION.
3. SLOPE GARAGE FLOOR 1/8" PER FOOT TOWARD OVERHEAD GARAGE DOOR OPENING.
4. 36" HIGH BOLLARD
5. STAIR PER GOVERNING CODE.
6. 2x4 W/ GYP. BOARD CLOSURE UNDER STAIR
7. SINK W/GARBAGE DISPOSAL.
8. DISHWASHER.
9. RANGE w/ HOOD OR MICRO ABOVE
10. REFRIGERATOR.
11. BASE CABINETS.
12. UPPER CABINETS.
13. PANTRY - (4) 12" D. SHELVES
14. HALF WALL +34 1/2" A.F.F. W/ COUNTERTOP PER PLAN.
15. OPTIONAL UPPER CABINETS.
16. OPTIONAL CABINETS.
17. PEDESTAL SINK.
18. TILED SHOWER W/TEMPERED GLASS ENCLOSURE.
19. 30" X 60" TUB/SHOWER
20. LINEN SHELVES.
21. WASHER SPACE W/ DRAIN PAN BELOW. PROVIDE DRAIN PAN TO EXTERIOR
22. DRYER SPACE w/ VENT TO EXTERIOR.
23. STACKED WASHER/ DRYER.
24. OPTIONAL LAUNDRY SINK.
25. HANSON BOX
26. ROD & SHELF.
27. ATTIC ACCESS (22"x36" U.N.O.).
28. ATTIC ACCESS W/ STAIRS (22 1/2"x54" U.N.O.).
29. GYPSUM BOARD OPENING.
30. OPTIONAL PRE-PLUMB FOR LAUNDRY SINK.
31. OPTIONAL COFFERED CEILING (AS NOTED PER PLAN)
32. 2X4 LOW WALL w/ GYPSUM BOARD & WOOD CAP - 42" HT. MIN.
33. 2X4 LOW WALL 42" A.F.F.
34. N/A
35. LOW WALL 32 1/2" A.F.F.
36. N/A
37. SOFFIT OR BEAM ABOVE, REFER TO STRUCTURAL & EXTERIOR ELEVATIONS FOR HEIGHTS & FINISHES.
38. PLANT SHELF
39. N/A
40. LINE OF FRAMING ABOVE.
41. LINE OF FRAMING WALL BELOW.
42. MASONRY, SEE EXTERIOR ELEVATIONS.
43. HANDRAIL AT +36" ABV. STAIR NOSING OR LANDING - PER CODE - ALSO REFER STAIR SECTIONS.
44. COORD. PLUMBING SUPPLY & VENT IN FRAME OR MASONRY WALL
45. COORD. TOILET SUPPLY IN MASONRY WALL OR THROUGH FLOOR
46. N/A
47. INSTALL 1/2" GYP. AT WALLS & CEILINGS OF ACCESSIBLE AREAS UNDER STAIRS
48. INSTALL 1/2" GYP. BD. ON GARAGE SIDE OF WALL BETWEEN GARAGE & LIVING, INSTALL 5/8" TYPE 'X' GYP BD. ON GARAGE CEILING AT AREA BETWEEN LIVING ABOVE AND GARAGE
49. DRAFTSTOPING, SEE DETAIL 5/AD-3.1

1 **GENERAL PLAN NOTES:**

ALL INTERIOR DOORS ARE 6'-8" HEIGHT

DOOR WIDTH DESIGNATIONS: 20 = 2'-0"; 24 = 2'-4", ETC.

GARAGE DOORS SHALL BE SOLID CORE DOOR, A MIN. 1⅜" THICK w/ CLOSER.

WINDOWS MARKED WITH AN * MUST MEET EMERGENCY ESCAPE AND RESCUE (E.E.R.) REQUIREMENTS. WINDOW SUPPLIER TO VERIFY AT LEAST ONE WINDOW IN ALL BEDROOMS MEETS (E.E.R.) REQUIREMENTS.

FOR ADDITIONAL INFORMATION SEE GENERAL NOTES, TYPICAL FINISH MATERIAL SPECIFICATIONS, WALL SECTIONS AND DETAILS.

PLUMBING NOTE: OFFSET ALL PLUMBING VENTS, DRYER VENTS, AND BATH FAN EXHAUST MIN. 5'-0" FROM CENTER LINE OF PARTY WALL TO AVOID PENETRATING FIRE RESISTANT ROOF SHEATHING.

FALL PROTECTION

IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24 INCHES (610 MM) ABOVE THE FINISHED FLOOR AND GREATER THAN 72 INCHES (1829 MM) ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:

1. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4-INCH-DIAMETER (102 MM) SPHERE TO PASS THROUGH THE OPENING WHERE THE OPENING IS IN ITS LARGEST OPENED POSITION.
2. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F2090.

THE WINDOW OPENING CONTROL DEVICE, AFTER OPERATION TO RELEASE THE CONTROL DEVICE ALLOWING THE WINDOW TO FULLY OPEN, **SHALL NOT REDUCE THE NET CLEAR OPENING AREA OF THE WINDOW UNIT.**

Townhome Window Schedule

Call Out	Type	Size	U-Factor	SHGC	Remarks
A 25 SH	Single Hung	3'0" X 5'0"	0.56	0.24	
B (2) 25 SH	Single Hung	6'-0" X 5'0"	0.56	0.24	
C 6080 S G D	Sliding Glass	6'0" X 8'0"	0.69	0.22	tempered

DOOR SCHEDULE

MARK	MODEL	SIZE WIDTH	SIZE HEIGHT	DESCRIPTION
1	3080	3'-0"	8'-0"	

Fieldstone

Michigan
3400 Auburn Rd
Suite 200
Auburn Hills, MI 48326
+1 248.622.4035

Florida
12906 Tampa Oaks Blvd.
Suite 150
Tampa, FL 33637
+1 813.466.3310

www.fieldstoneae.com

Meritage Homes
1127 Gateway Boulevard
Boynton Beach, FL 33426
561-847-7515 Phone

Control Date: 03-07-2022

Date/Issued for:

0	
1	03/13/2023 PERMIT REVIEW
-	-
-	-
-	-

Project Title
FRONT LOAD TOWNHOMES

Sheet Title
Unit T179 (end) - R
Floor Plans

©Fieldstone A&E, LLC DO NOT SCALE DRAWINGS

Sheet No.
A1.4Re

PLANNING & ZONING AGENDA ITEM

Memo Date:	04/20/2026
Agenda Date:	5/6/2026
Prepared By:	Jennifer Webster, Senior Planner
Through:	Stockton Whitten, City Manager
Requested Action:	Consideration of a conceptual plan and Development Agreement for the 603 Brevard Avenue Hotel, affecting approximately .87 acres of property owned by the Cocoa Redevelopment Agency. The agreement calls for the development of an approximately seven (7) story, 68,310 square-foot, 104-room hotel with associated amenities and parking and establishes building elevations, floor plan, and related development regulation waivers for the future hotel. Generally located on Brevard Avenue and John Garren Lane, south of Factory Street, and is identified by Parcel IDs: 24-36-33-75-*-2 and 24-36-33-75-*-3.

BACKGROUND:

Staff is seeking approval of a Concept Plan and Development Agreement (DA) between the City of Cocoa and 360 Hospitality, LLC (Developer) to design and construct an approximately 68,310 square-foot hotel with at least 100, but no more than 110 hotel rooms with a cafe open to the public with an exterior entrance and exit for pedestrians on Brevard Avenue, a pool, and a rooftop bar and lounge.

The applicant and Developer, 360 Hospitality Group, LLC, is a Florida-based hotel development and management company specializing in operating and developing IHG, Marriott, and Hilton branded hotels.

This property (Property) is owned by the Cocoa Community Redevelopment Agency (Agency), and is located generally between Brevard Avenue and John Garren Lane, south of Factory Street. The property is zoned Central Business District-Cocoa Village Overlay (CBD-CVO, also part of the Waterfront Overlay District) and has a Mixed Use future land use category (see Map Package, Attachment 17).

OVERVIEW OF SURROUNDING AREA			
	Future Land Use	**Zoning**	**Land Use**
North	Mixed Use	CBD-CVO	Commercial (Chase Bank)
South	Mixed Use	CBD-CVO	Commercial (Misc. Retail and Professional Svcs.)
East	Mixed Use	CBD-CVO	Mixed (Misc. Retail and Professional Svcs, Resident
West	Mixed Use	CBD	Commercial (Bell South Communications)

PROJECT HISTORY

In February of 2024, the Agency issued a request for proposal (RFP) soliciting proposals from interested parties to redevelop the Property. The Developer responded to the RFP by submitting a proposal to redevelop the property as a mixed-use project (Project) consisting of not more than seven (7) stories. However, this height exceeds the 5 (five) story height limitation of the CBD-CVO.

The development concept for the hotel is considered a “Large Scale Commercial/Mixed-Use Building type”. This building type is one of a variety of types that are permitted in the Waterfront Overlay District according to the WOD Design Guidelines, with a maximum allowed height of eight (8) feet.

Back in October of 2018, the City adopted an ordinance to allow for Large Scale Commercial/Mixed-Use Buildings on specific, designated parcels in the CBD-CVO, including the subject Property. This effectively increased the allowed height on the subject Property. However, such maximum height and building type can only be achieved with approval of a Development Agreement with the City of Cocoa, after Cocoa City Council considers certain factors, such as:

> *“economic and social benefits to the City and Community Redevelopment Agency, aesthetic quality and character, architectural design, physical and visual scale, compatibility with the special and distinctive character of Cocoa Village and respective subdistrict, and other similar relevant factors.” (Appendix A, Zoning, ART XI, Sec. 22(G) – Regulating Plan.)*

REDEVELOPMENT PROJECT AGREEMENT & ECONOMIC IMPACT ANALYSIS

In July of 2025, the Agency (still owners of the Property) and the Developer entered into a Redevelopment Project Agreement (RDA), which established a schedule of four (4) development phases and goals for the project. The primary objectives of Phase I were a) the preparation and **execution of the subject Development Agreement** with the City of Cocoa to approve the requested commercial mixed-use large building type and maximum height of seven (7) stories on the Property and to b) approve a **Conceptual Development Plan**.

As part of Phase I of the RDA, the Developer was also required to submit an Economic and Fiscal Impact Analysis. The report was to predominately address the associated economic and fiscal impacts on Cocoa Village and the City of Cocoa, as its own economic system. The economic impact analysis portion of the report was also to address the impacts of the Project on jobs, economic output and wages in the City. While the report was able to address the economic impacts from a regional perspective, the data necessary to isolate Cocoa Village as its own self-contained economic system was difficult to isolate. A draft of the report is provided as Attachment 15. See also the Economic Impact Response Letter, Attachment 16.

Agency decision on Parking. It was determined in the RDA that constructing parking

garage would not be required for the Project. As an alternative, the parking would be a combination of on-site parking, public off-site parking, and off-site parking dedicated for the hotel. As a result of the hotel not providing garage parking, the Developer agreed to contribute $500,000 to the City to construct additional off-site parking in the Central Business District, to ensure that the Project will provide enhanced parking availability for both hotel guests and the public. This contribution is reiterated as a project enhancement in the Development Agreement.

Additional Phase I requirements and subsequent phases of the RDA, including the Developer's purchase of the Property from the Agency, are further detailed in the RDA in Attachment 1.

DEVELOPMENT AGREEMENT and CONCEPT PLAN

The Development Agreement outlines the Conceptual Development Plan, including Building Height (previously described), Building Elevations and Floor Plans, Project Enhancements, and the Variances and Waivers requested.

Conceptual Development Plan: Building Type/Building Height
The Conceptual Development Plan is intended to be the general blueprint which details key aspects of the future physical development of the Property. The Conceptual Development Plan shall also serve as a necessary guide for future permit applications and permitting necessary to complete the construction of the Project. In approving the Conceptual Development Plan (Attachment 2, Exhibit "B,") the City Council will approve a Large-Scale Commercial/Mixed-Use Building to be constructed on the Property, which may be a total of seven (7) stories in height.

Building Elevations and Floor Plans
The DA specifies that the building and related floor plans shall be constructed substantially in accordance with the building elevations and floor plans included in the DA (Attachment 2, Exhibit "C,") Some aspects of the building façade and roof lines, color scheme, and architectural features depicted on the building may be required to be adjusted during the City's final review and approval procedures to satisfy the requirements of the City Code.

Project Enhancements:
In accordance with Section 15-21 of the City Code and in consideration of the variances and waivers requested below, the Developer is being asked to incorporate several development enhancements into the Final Site Plan. This requires the Developer to

1) provide roadway, drainage, and sidewalk improvements to John Garren Lane and Factory Street, creating angled parking spaces for public use on John Garren.

2) as determined by the Agency's decision on parking, contribute $500,000 to the City to construct additional off-site parking in the Central Business District, to ensure that the Project will provide enhanced parking availability for both hotel guests and the public.

3) to construct utilities that will serve Property, including but not limited to electric, cable, phone and fiber optic, underground.

4) incorporate the use of energy efficient building methods and materials in the new hotel.

Variances and Waivers:
The Property, being located in the CBD-CVO district, is also part of the Waterfront Overlay District (WOD) of Cocoa Village, which makes it subject to the WOD development regulations including the typology of the Large Commercial Mixed Use Building, mentioned above.

Under the authority of the Florida Municipal Home Rule Powers and the City of Cocoa Code of Ordinances, Section 15-21, the City Council may approve Development Agreements which waive certain provisions of the City's land development regulations when in the public interest and is consistent with the Comprehensive Plan, provided the Developer demonstrates a bona fide need for the variance or waiver and agrees to provide significant enhancements to the Property in exchange for the variance or waiver, and if the City Council finds and declares that a Development Agreement serves a public purpose and serves the public health, safety and welfare of the citizens and visitors of Cocoa.

The variances or waivers from the current code that would be afforded the Developer include waivers for the minimum parking requirements, to the development regulations for the Waterfront Overlay District, and to the minimum landscape requirements, as such:

A. *Parking Waivers.* Pursuant to the requirements of the Redevelopment Agreement and subject to the approval of the Agency, 121 parking spaces shall be created to service the Project, as follows: 24 off-site angled parking spaces on Factory Street reserved exclusively for hotel patrons; 65 off-site angled parking spaces on John Garren Avenue which shall be reserved for public use without charge or fee to the public and which may be used by hotel guests on a first-come-first-served basis; and 26 on-site parking spaces. Five (5) of the required parking spaces shall be handicap-accessible parking. A parking garage shall not be required for this project. Applicable parking waivers granted for this parking plan are:

    1. *Appendix A, Zoning, Article XII, Section 1(C), Parking and Loading Regulations.* The minimum requirement of providing 114 on-site parking spaces may be decreased to allow the Developer to provide 26 on-site parking spaces plus an additional 89 off-site parking spaces, 24 of which shall be designated for private use on Factory Street and shall serve as a credit towards the on-site parking requirement, and 65 of which shall be reserved for public use on a first-come-first-served basis

on John Garren Avenue.

2. *Appendix A, Zoning, Article XII, Section 1(C), Parking and Loading Regulations.* The minimum requirement that parking stall size shall be ten feet by twenty feet (10'x20') shall be reduced. The new minimum requirement for parking stall size shall be nine feet by eighteen feet (9'x18'). Wheel stops shall be provided on all on-site parking spaces which do not overhang a landscaped area.

3. *Appendix A, Zoning, Article XII, Section 5(b), Location of Off-Site Parking Lots*. The Project may allow for parking located off-site on Factory Street in accordance with the terms of a subsequent license agreement to be approved by the City Council.

B. *Appendix A, Zoning, Article XI, Section 11 (I), Waterfront Overlay District.*

1. *Minimum Setback Requirement on Brevard Avenue*: The minimum setback from Brevard Avenue shall be reduced from five feet (5') to zero feet (0').

2. *Maximum Setback Requirement on Brevard Avenue*: The maximum setback from Brevard Avenue shall be increased from ten feet (10') to fourteen point five feet (14.5').

3. *Maximum Setback Requirement on John Garren Ln*: The maximum setback from John Garren Lane shall be increased from ten feet (10') to eighty-five feet (85').

4. *Maximum setback Requirement on Factory Street*: The maximum setback from Factory Street shall be increased from ten feet (10') to forty-nine point three feet (49.3').

5. *Frontage Buildout*: The minimum frontage buildout of ninety percent (90%) shall be reduced to seventy-two feet (72%).

6. *Maximum Door Recess*: The maximum door recess of five feet (5') shall be reduced to eight point thirty-three feet (8.33').

7. *Ground Floor Transparency*: The minimum ground floor transparency requirement shall be reduced from sixty percent (60%) to fifty percent (50%).

C. *Appendix A, Zoning, Article XIII, Section 22, Landscape Requirements.* Reduction of required landscaping adjacent to public rights-of-way, perimeter landscaping adjacent to abutting commercial properties, and interior parking area landscaping pursuant to Section 22(C)(4), (5), and (6), and rather providing landscaping in accordance with the conceptual landscaping plan provided with the Conceptual Development Plan. The

landscaping plan focuses on providing attractive street trees clustered at the corners of the Property and hedge rows where appropriate.

Consistency with the Comprehensive Plan:
The Development Agreement aligns with the goals, objectives, and policies of the City of Cocoa Comprehensive Plan's Future Land Use Element including:

FUTURE LAND USE ELEMENT

Objective 1.1.4: Redevelopment. The City shall encourage redevelopment of areas that are exhibiting evidence of decline (i.e., disproportionate number of vacant, dilapidated and/or substandard structures) through redevelopment programs and through maintaining land development regulations that contain standards and procedures to encourage redevelopment where desirable.

Policy 1.1.4.1: The City shall continue to promote vitality and redevelopment of the three community redevelopment areas established pursuant to Chapter163, F.S.: Cocoa (Downtown) Redevelopment Area, Diamond Square Redevelopment Area.

Staff concludes that adoption of the Development Agreement will support the City's and Cocoa Redevelopment Agency's long-standing goals while remaining consistent with the Comprehensive Plan and zoning policies. Staff further finds that the Project will contribute to the economic and social vitality of the City and Community Redevelopment Agency and enhance the aesthetic character of Cocoa Village. The Developer has also demonstrated through the height comparison (Attachment 6) that the hotel's scale and massing are compatible with surrounding buildings and the distinctive character of Cocoa Waterfront Overlay Districts and its subdistricts.

PRIORITY AREA CONNECTION:
Economic and Community Development

BUDGETARY IMPACT:
N/A

PREVIOUS ACTION:
July 07, 2025: Cocoa Community Redevelopment Agency entered into Redevelopment Project Agreement with 360 Development LLC to establish the development schedule for the Agency Property to be redeveloped as a mixed-use hotel project.

RECOMMENDED MOTION:
Staff requests the Planning and Zoning Board recommend **APPROVAL** to City Council of a Conceptual Plan and Development Agreement for the 603 Brevard Avenue Hotel, affecting approximately .87 acres of property owned by the Cocoa Redevelopment Agency. The agreement calls for the development of an approximately seven (7) story,

68,310 square foot, 104-room hotel with associated amenities and parking and establishes building elevations, floor plan, and related development regulation waivers for the future hotel. Generally located on Brevard Avenue and John Garren Lane, south of Factory Street, and is identified by Parcel IDs: 24-36-33-75-*-2 and 24-36-33-75-*-3.

Prepared by and return to:
Anthony A. Garganese, Agency Attorney
Garganese, Weiss, D'Agresta & Salzman, P.A.
P.O. Box 2873
Orlando, Florida 32802
(407) 425-9566

Executable Version

CITY OF COCOA REDEVELOPMENT AGENCY
REDEVELOPMENT PROJECT AGREEMENT

THIS REDEVELOPMENT PROJECT AGREEMENT (this "Agreement") is entered into as of the 7 day of July, 2025 (the "Effective Date"), by and between the **COCOA COMMUNITY REDEVELOPMENT AGENCY,** a Florida Community Redevelopment Agency formed pursuant to Section 163.330 et. seq., Florida Statutes, located in Brevard County, Florida (the **"Agency"),** and **360 HOSPITALITY GROUP, LLC**, a Florida limited liability company, with an address of 301 Tucker Lane, Cocoa, FL 32926 **("Developer"** or **"360 Hospitality Group").**

STATEMENT OF PURPOSE

WHEREAS, the Agency is the owner of certain property with an address of 603 Brevard Avenue, Cocoa, Florida, located at the intersection of Brevard Avenue and Factory Street, being more particularly described on **Exhibit "A"**, attached hereto and incorporated by this reference, consisting of Tax Parcel IDs 24-36-33-75-*-2 and 24-36-33-75-*-3 (the **"Property");** and

WHEREAS, the Agency acquired the Property for redevelopment purposes in accordance with the Florida Community Redevelopment Act of 1969 (the **"Act");** and

WHEREAS, on February 2, 2024, the Agency issued a request for proposal (which was titled *Request for the Purchase / Disposal of Real Estate and Development of a Mixed-Use Project at 603 Brevard Avenue (FKA OLD CITY HALL), Cocoa, Florida 32922, Situated in the Cocoa Community Redevelopment Area* (the **"RFP")),** soliciting proposals from interested parties to redevelop the Property; and

WHEREAS, 360 Hospitality Group, LLC responded to the RFP by submitting a proposal to the Agency titled "603 Brevard Avenue – RFP Response" (the **"Proposal");** and

WHEREAS, the Proposal proposed that the Property be redeveloped as a mixed-use hotel project consisting of not more than seven stories, which exceeds the height limitation of the Commercial Business District-Cocoa Village Overlay zoning district; and

WHEREAS, on May 6, 2024, the Agency at a duly held public meeting selected the Developer for purposes of commencing negotiations regarding an agreement for the redevelopment of the Property; and

WHEREAS, based on those negotiations, the Agency and Developer desire that the Property be

redeveloped into a mixed-use hotel project with a commercial coffee shop fronting Brevard Avenue, consistent and compatible with the aesthetic architectural and urban theme of Cocoa Village, and in furtherance of the Agency's Community Redevelopment Plan and the Act; and

WHEREAS, after multiple public hearings and workshops, the City of Cocoa (hereinafter **"City" or "City of Cocoa")** adopted via Ordinance No. 06-2018 on October 24, 2018, a zoning text amendment to allow for Large Scale Commercial/Mixed-Use Buildings on the Property, among other properties, which effectively increased the allowed height on the Property, though such maximum height may only be achieved with approval of a Development Agreement with the City of Cocoa, after Cocoa City Council consideration of certain factors; and

WHEREAS, the Agency and the Developer desire that the Property be expeditiously redeveloped for the betterment of the Redevelopment Area in accordance with the development schedule and time periods required by this Redevelopment Project Agreement; and

WHEREAS, in furtherance of this desire, the Agency herein establishes the conditions precedent that must be satisfied prior to the Agency's approval of the proposed conceptual plan and further establishes the redevelopment schedule and method of conveyance of the Property for purposes of redevelopment as provided herein.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and for other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged by all parties, the parties hereto agree as follows:

1. ***Recitals.*** The foregoing recitals are true and correct and are hereby fully incorporated herein by this reference.

2. ***Project Description.*** The Agency intends that the Property will serve as a catalyst development to reduce slum and blight and economically revitalize the Agency Redevelopment Area in furtherance of the Community Redevelopment Plan. In accordance with the process established below, the Developer will redevelop the Property, at its expense, into a mixed-use hotel project with commercial coffee shop fronting Brevard Avenue or an alternative commercial use approved by the Agency and City (the **"Project").** The Project, at a minimum, shall consist of at least 100 hotel rooms and no more than 110 hotel rooms with ancillary meeting space, coffee shop open to the public and with an exterior entrance and exit for pedestrians on Brevard Avenue (or approved alternative commercial use), pool, and a roof top bar and lounge. The minimum development program shall consist of a minimum of 60,000.00 square feet and a maximum of 75,000.00 square feet.

3. PHASE I: Development Agreement with City of Cocoa and Initial Approval of Conceptual Development Plan.

A. **Development Agreement with City of Cocoa.** The primary objective of the first phase in the development and preparation of the Project is for the Developer to obtain a Development Agreement with the City of Cocoa and to obtain initial approval of a Conceptual Development Plan from the Agency. Developer shall apply for a Development Agreement with the City to achieve an increase in allowed building height from five (5) stories to seven (7) stories. Pursuant to Ordinance No. 06-2018, a

Development Agreement with the City of Cocoa is required to construct a Large Scale Commercial/Mixed-Use Building on the Property, as described in the Zoning Ordinance of the City of Cocoa, Appendix A, Article XI, Sec. 22(1). The City Council may authorize execution of a Development Agreement to achieve up to seven (7) stories in building height, after consideration of certain factors, including the economic and social benefits to the City and Agency, aesthetic quality and character, architectural design, physical and visual scale, and compatibility with the special and distinctive character of the Cocoa Village. Accordingly, in order to satisfy the Development Agreement criteria in Appendix A, Article XI, Sec. 22(I), the Developer shall be required to demonstrate that the Property is sufficiently sized and suitable for the Project and that the Project will have a catalytic economic impact on the Cocoa Village. Subparagraph 3.C herein is intended to identify the minimum necessary studies and information that should be submitted with the Development Agreement application to demonstrate compliance with the Development Agreement criteria, but the parties agree that the City Council may require additional information in its discretion. In addition to establishing allowed building height, the City Council may also approve a Conceptual Development Plan through the Development Agreement, conditioned upon Agency approval, which shall further guide the development of the Property. Upon execution of a Development Agreement with the City and Agency approval of the Conceptual Development Plan, the Developer shall have written confirmation of City and Agency approval of the Project design and further have initially demonstrated that the Property is sufficiently sized and suitable for the Project. The execution of the Development Agreement and approval of the Conceptual Development Plan shall not be construed as binding the Agency to convey the Property to Developer, but merely constitutes initial approval of the Project design subject to other future conditions imposed by the City or Agency and assurances of the Developer.

B. **Agency Decision on Parking.** The Agency and Developer agree that constructing a parking garage shall not be required for this Project.

The Project's parking plan currently includes:

(1) Offsite Parking:

Factory Street:	**25 parking spots reserved exclusively for hotel patrons, angled**
John Garren Ave.:	**67 shared public spots, angled**
Onsite Parking:	**29 spots**
Total Parking:	**121 spots**
Handicap-Accessible (HC) Parking:	**5 spaces provided**, meeting the total required HC parking.

The Project's parking requirement under the City Code, as currently calculated without consideration of the coffee shop, is 111 spaces.

(2) As a result, Developer agrees to contribute $500,000.00 for the City to construct additional offsite parking not required by this Agreement for the Project. This commitment ensures that the Project will provide enhanced parking availability for both hotel guests and the public. The parking contribution shall be paid to the City at closing conveying the Property to the Developer.

C. Development Agreement Application Submittals. The following studies and information shall be intended as the minimum application submittals for the Development Agreement described in Paragraph 3.A:

(1) Site Development Suitability Analysis. Analysis of the Property's suitability for the Project must be provided, analyzing the following elements:

i. Utilities and Stormwater Analysis. A utilities and stormwater engineering assessment is needed to determine if existing utility pipes and infrastructure can adequately handle the anticipated estimated flows (including consumption and fire flow), sewerage, and stormwater runoff for the Project. The assessment must further demonstrate how stormwater runoff will be retained on- or off-site and, if underground vaults will be used, identification of any existing utility pipes and infrastructure that must be relocated.

ii. Floor Area Ratio (FAR) Analysis. The Developer shall identify the proposed minimum and maximum square footage of each use in the mixed-use Project, including, if applicable, retail, office, restaurant, banquet/bar, and hotel. The maximum square footage for the Project may not exceed the 2.0 FAR established for the Property in the City of Cocoa's Comprehensive Plan. The Agency will determine, in its sole discretion, whether the square footage proposed for each individual use will serve the Agency goals of economic revitalization and elimination of slum and blight. As part of the FAR Analysis, the Developer must provide the following proof, survey, analysis and documentation:

a. The total size of the property upon which the Project shall be built directly determines the maximum square footage of the Project, given the 2.0 FAR. Accordingly, the Developer must provide proof of ownership of or written, binding contractual options to purchase any additional parcels that it intends to combine with the Property to form the total development area.

b. The Developer must provide a survey of the area of Factory Street proposed to be licensed for use.

c. The Developer shall prepare a Traffic Impact Analysis, determining the impact of the City licensing portions of Factory Street and transforming John Garren Lane and Factory Street into one-way streets. The Traffic Impact Analysis must provide professional recommendations regarding the best way to configure traffic direction and control within the Cocoa Village area following the proposed licensing of portions of the street to support the hotel development and, the transformation and addition of angled parking.

d. The Developer must obtain from the City of Cocoa City Manager or his designee a written confirmation of the feasibility of licensing the specific areas identified in the

survey and the City's intent to recommend licensing of the rights-of- way to the City Council. The Developer shall cooperate and provide all necessary assistance to the City of Cocoa when the City investigates the feasibility of the proposed licensing with all relevant utility providers. The terms and conditions of any licensing agreement shall be subject to the City Council's approval.

iii. Parking Analysis. The Developer shall submit a detailed parking plan, consistent with Subsection B, indicating specifically where all spaces are to be located, whether on or off site and identification of parking waivers needed from the City of Cocoa

(2) Economic Impact Analysis. An Economic and Fiscal Impact Analysis shall be submitted. The report shall be prepared by a duly qualified expert that details the associated economic and fiscal impacts of any proposed Project on the City. Although the City recognizes that the Project may have a regional economic and fiscal impact as well, said report shall predominantly address the economic and fiscal impacts on the Cocoa Village and the City of Cocoa, as its own economic system. The economic impact analysis portion of the report shall address the impacts of the Project on jobs, economic output, and wages. The fiscal impact analysis portion shall pertain to the net fiscal impact of the Project over a period of years which is the sum of those revenues (such as ad valorem taxes, public service taxes, sales taxes, and charges for service) directly received by the City minus the sum of expenditures incurred by the City (such as general government expenses, law enforcement, roads, and parks and recreation).

(3) Eco-Friendly. Developer shall provide to the Agency a plan to incorporate into the Project processes and technology that are environmentally responsible, resource- efficient and sustainable throughout the Project's life-cycle, including whether the Developer will endeavor to have the proposed building LEED certified. At minimum, the Project shall incorporate the use of energy efficient lighting systems, insulation and ENERGY STAR rated windows, low-flow water fixtures, and energy efficient HVAC systems.

(4) Conceptual Development Plan. The Developer shall prepare a Conceptual Development Plan, including a complete set of proposed interior and exterior architectural renderings and building elevations of the Project and a preliminary site plan based on the Site Development and Suitability Analysis. Said renderings and elevations shall contain significant and realistic preliminary detail, be in color, be drawn to scale and shall reflect proposed color and design schemes for the Project. In addition, the Conceptual Development Plan must include scaled renderings of the Project in the context of the surrounding buildings and utilities. For example, the renderings should demonstrate how the Project will be viewed in comparison to the AT&T tower site and adjacent buildings for height comparison purposes.

D. **Timeline for Development Agreement and Initial Approval of Conceptual Development Plan by City Council; Effect of Approval.** The Development Agreement application submittals as described in Paragraph 3.C., including the Site Development Suitability Analysis (with the Utilities and Stormwater Analysis, FAR Analysis with determination of the total project site and right-of-way licensing confirmation, and Parking Analysis), Economic Impact Analysis, Eco-Friendly Plan and Conceptual Development Plan (collectively, the **"Development Agreement Application Submittals")**, shall be completed and submitted to the City **within four (4) months** of execution of this Amendment. Upon receipt of a complete Development Agreement application, the application will be

scheduled for a public hearing before the Planning and Zoning Board and City Council on the Development Agreement.

E. **Agency Consideration of Development Agreement and Conceptual Plan Approved by the City Council; Preliminary Financial Information from Developer.**

(1) If the City Council approves the Conceptual Plan and Development Agreement, the Developer shall submit to the Agency **within thirty (30) days** the following information for purposes of providing the Agency with preliminary assurances that the Project is financially feasible:

(i) Soft commitment letter from the Project lender who intends to provide Project financing pursuant to Section 4(A)(3) [if known and available].

(ii) Current Pro forma Financial Projections for the proposed Project (including estimated construction and soft costs; Revenue projections; Equity; Debt; O & M expenses, etc.).

(iii) Developer's financial statements approved by CPA (last 3 years if available).

(iv) Letter from a licensed surety company in Florida evidencing Developer's bonding capacity for the Project.

(v) Loan document evidencing a previous loan take by the Developer for a comparable project within the last 5-years (if available).

(vi) Proof of Financing Capacity including a capital stack summary itemizing all sources of funding to complete the Project, and the following supporting documentation:

a. Proof of equity that the Developer and its investors or partners intend to contribute to the Project (bank or brokerage statements; equity commitment letters from investors or partners).

b. Debt: Bank letters of credit or pre-approval commitments for financing; line of credits, etc.

c. Any grants or special financial contributions.

(2) Upon receipt of the financial update from the Developer, the Agency shall schedule and conduct a public meeting to consider the Development Agreement and the Conceptual Development Plan which was approved by the City Council, and the financial update provided by the Developer.

(3) The Agency shall either grant approval of the initial Conceptual Development Plan and Development Agreement, request additional information and extend applicable timelines, or decline to approve the Project and Conceptual Development Plan and Development Agreement. The City and Agency's approval of the Development Agreement and Conceptual Development Plan shall be considered an express condition precedent to the Developer's and Agency's responsibility to perform the remaining obligations of this Agreement. Should the City or Agency decline to approve the Development Agreement and Conceptual Development Plan in Phase I, the Developer shall have no further right or obligation to develop the Property, this Agreement shall terminate, and each party shall bear their own costs and expenses incurred since receipt of the Proposal.

4. PHASE II: Hotel Brand Adjustments and Financing; Approval of Revisions to Conceptual Development Plan.

Upon Agency approval of the Project's Conceptual Development Plan and Development Agreement, the Developer shall have demonstrated initial suitability of the Property for the Project and obtained initial City and Agency approval of the Project design. With the Development Agreement and Conceptual Development Plan in hand, the Developer will be able to pursue and obtain further approval of the Project from the desired national hotel brand. The chosen national hotel brand is anticipated to request or require further revisions and adjustments to the Development Agreement and Conceptual Development Plan to ensure consistency with its corporate development standards. Therefore, the Developer acknowledges and agrees that the City and the Agency must consider and either accept or deny the proposed adjustments, as they may change fundamental elements of the Project, including the architectural design, square footage of internal spaces, or floor plan. In addition, the City and Agency must approve the national hotel brand itself. Nothing herein shall be construed or interpreted as requiring the City or Agency to approve any proposed adjustments or the Developer's chosen national hotel brand. Accordingly, the primary objective of the second phase in the development and preparation of the Project is for the Developer to obtain and present for approval to the City and Agency: (A) any revisions to the Conceptual Development Plan deemed necessary by the chosen national hotel brand; (B) the national hotel brand's written approval of the Project; (C) written evidence of a binding project financing commitment; and (D) a market feasibility study, as further specified herein.

A. **Hotel Brand Approval; Financing.** After Phase I, the Developer shall proceed with obtaining the necessary national hotel brand approval and construction financing for the Project. Specifically, the Developer shall provide the Agency with the following:

(1) Hotel Brand. Written approval to utilize the selected hotel brand for the Project from the relevant corporate entity, which shall be a Fairfield Inn and Suites or similar upscale national brand.

(2) Market Feasibility Study. During the process of obtaining the national hotel brand approval, the Developer shall either complete or have the hotel brand complete a market feasibility study for the Project, demonstrating that the market will support and sustain the Project.

(3) Evidence of Project Financing. Adequate written evidence of Project financing shall be submitted from a lending institution, private lender or equity group indicating that the Project has been fully financed, or will be fully financed, to commence and complete construction in accordance with the terms and conditions of this Agreement. Such proof shall be in the form of a binding loan commitment consistent with commercial lending practices and standards and shall also include any documentation and proof of any personal or business guarantees or collateral to be used to obtain the financing commitment.

(4) Hotel Revisions to the Conceptual Development Plan. During the course of obtaining national hotel brand approval, it is anticipated that some adjustments may be required to the Conceptual Development Plan by the national hotel brand, including to the architectural design elements of the Project to conform to corporate brand specifications. If adjustments are required by the hotel brand,

these adjustments must be enumerated and presented in a proposed, revised Conceptual Development Plan to the Agency and City Council, if necessary.

B. **Agency Consideration of Hotel Brand, Market Feasibility, Revisions to the Conceptual Development Plan and Project Financing; Timeline for Consideration.**

(1) Purpose of Agency and City Phase II Consideration. The Developer acknowledges and agrees that because the Agency acquired the Property for purposes of economic development and revitalization, the Agency must be afforded a final opportunity to review the Developer's selection of the national hotel brand and that brand's written approval of the Project; the Market Feasibility Study; Evidence of Project Financing; and, if necessary, the revisions to the Conceptual Development Plan (collectively, the **"Hotel Approvals"),** prior to committing to convey the Property to Developer. In addition, because the Development Agreement Application Submittals may have been adjusted to accommodate the national hotel brand's corporate development standards, the City must be afforded another opportunity to review the adjustments, if necessary, where a height increase was premised upon such Submittals.

(2) Timing of Agency and City Phase II Consideration. The Developer shall obtain the Hotel Approvals, which must be either approved or denied by the Agency and, if necessary, the City **within twelve (12) months** of execution of this Agreement.

(3) Effect of Agency and City Phase II Consideration. Upon receipt of the Hotel Approvals, the Agency and, if necessary, the City shall each consider such Hotel Approvals and either grant approval of the mixed-use hotel Project, request additional information and extend the timeline for completion of the Hotel Approvals, or decline to approve the Project. The Developer shall be required to obtain this final Agency approval of the Project and, if necessary, City Council approval of the Project, prior to the remaining performance obligations of the Agency and the Developer set forth in this Agreement becoming effective. The Agency's Phase II approval of the Project shall be considered an express condition precedent to the Developer's and the Agency's responsibilities to perform the remaining obligations as provided herein, including conveyance of the Property. Should the Agency or the City decline to approve the Project, the Developer shall have no further right or obligation to develop the Property, this Agreement shall terminate, and each party shall bear their own costs and expenses incurred since receipt of the Proposal.

(4) Revised Conceptual Development Plan. If the City and Agency approve revisions to the Conceptual Development Plan arising from the national hotel brand's demands, the revisions shall be incorporated therein and shall thereafter be considered part of the Conceptual Development Plan. References in this Agreement to the "Conceptual Development Plan" following City and Agency approval of hotel brand revisions to such Plan shall be inclusive of the revisions.

(5) Developer's Obligation following Agency and City Phase II Approval. If the Agency and, if necessary, the City approve the Phase II Hotel Approvals, the Developer represents and warrants to the Agency that it shall expeditiously redevelop the Property thereafter, at its expense, consistent with the Conceptual Development Plan, which shall become automatically fully incorporated herein as if it were presently attached hereto. The Conceptual Development Plan shall be subject to final engineering, site

plan approval, site development permit, and/or a unity of title agreement by the City of Cocoa or a subdivision to the extent that portions of additional parcels may be added to the total Project area. The Conceptual Development Plan may be subject to reasonable adjustments by the City of Cocoa in order to bring the project into compliance with the City Code of Cocoa (the **"City Code"),** but the Project shall be developed consistent with and in substantial conformance to the Conceptual Development Plan. In addition, development of the Project shall be consistent and compatible with the aesthetic architectural and urban theme of Cocoa Village, and in compliance with the Agency's Community Redevelopment Plan, the City Code, and the Act. The Conceptual Development Plan is intended to be the general blueprint which depicts key aspects of the future physical development of the Property. The Conceptual Development Plan shall also serve as a necessary guide for future permit applications and permitting.

5. ***Phase III: Future Permitting.*** For purposes of the future permitting and construction timelines herein, the last date upon which the Agency and, if necessary, the City, have both approved the Hotel Approvals shall be referred to as the **"Phase III Commencement Date." Within four (4) months** from the Phase III Commencement Date, the Developer, at its expense, shall prepare and file all required applications, information, and engineering plans with the City of Cocoa that are necessary to obtain final site plan approval for the Project, consistent with the Conceptual Development Plan and to obtain final approval for all off-site parking improvements required and represented in the Conceptual Development Plan and/or Parking Analysis. The Developer shall diligently pursue and obtain, in good faith, final approval of the site plan and off-site parking improvements **within six (6) months** of the approval of the Phase III Commencement Date. If the Developer fails to obtain such final approval from the City (a/k/a - a final development order) within the aforesaid six (6) months, the Agency shall have the right to declare the Developer in default pursuant to Paragraph 11 of this Agreement. If the Developer does not cure the default within the cure period, the Agency shall have the right, but not obligation to, terminate this Agreement without penalty.

In addition, should a replat or unity of title agreement be necessary to combine or split the Property or other parcels that may be added to the total development area reflected in the Conceptual Development Plan and the site plan application, the Developer shall, at its expense, prepare and file such necessary replat or unity of title applications and all required information and engineering plans with the City of Cocoa in conjunction with submittal of the final site plan. The Developer shall obtain final site plan approval and approval of the necessary replat or unity of title applications contingent upon closing on the other parcels and the Property. The Agency's conveyance of the Property as provided in Paragraph 8 herein shall be contingent upon the Developer first closing on any other required real property conveyances necessary to effectuate the final site plan approved by the City and to finalize the replat or unity of title for recording in the Official Records of Brevard County. The replat or unity of title shall be recorded simultaneously with the Agency's conveyance of the Property required by Paragraph 8; at that point, the Project shall be ready for construction and development by the Developer.

6. ***Phase IV: Construction/Development Schedule.*** The Project shall be permitted and constructed by the Developer in accordance with the following construction/development schedule:

A. **Infrastructure and Off-Site Improvement Development. Within eight (8) months** of the Phase III Commencement Date, the Developer shall substantially commence construction of all utility improvements for potable water, reuse, sewage, stormwater, electrical and other utility services required

by the City for the Project. In addition, in conjunction with the utility improvements, the Developer shall also substantially commence construction of the off-site parking improvements. The utility improvements and off-site parking improvements shall be constructed at Developer's expense. Further, all utility and off-site parking shall comply with applicable local and state regulations and the City Code. If the Developer fails to substantially commence construction (defined as the utility infrastructure and off-site parking improvements actually being constructed and installed on or for the benefit of the Property pursuant to applicable City building permits beyond excavation) within said time period, the Agency shall have the right to declare the Developer in default of this Agreement. Termination shall automatically become effective at the end of the cure period as provided in Paragraph 11 in the event the Developer fails to substantially commence such construction during said period, and the Agency may exercise its security option for payment of the Purchase Price pursuant to Paragraph 7 of this Agreement.

B. **Mixed-Use Hotel.** Within **twelve (12) months** of the Phase III Commencement Date, the Developer shall substantially commence vertical construction (defined as the hotel building and vertical structural elements thereof being constructed on the Property pursuant to applicable City building permits beyond foundation footings, pilings and slabs, utility infrastructure, and outside improvements such as streetscape and landscaping). The Developer shall obtain a final certificate of occupancy issued by the City for the Project **within thirty-six (36) months** of the Phase III Commencement Date. If the Developer fails to substantially commence vertical construction of, or obtain a final certificate occupancy for, the mixed-use hotel within said time periods, the Agency shall have the right to declare the Developer in default pursuant to Paragraph 11 of this Agreement. If the Developer does not cure the default within the cure period, the Agency shall have the right, but not the obligation, to terminate this Agreement and exercise its security option for payment of the Purchase Price pursuant to Paragraph 7 of this Agreement.

C. **Other Permits.** The Developer shall be solely responsible for obtaining any and all necessary local and state permits including, but not limited to, a site development permit, a building permit, and environmental permit approvals which are required in order to allow the Developer to satisfy the construction/development schedule and other terms and conditions of this Agreement.

D. **Schedule of Major Performance Obligations.** A Schedule of Major Performance Obligations required by this Agreement is attached as **Exhibit "B"** (the "**Schedule of Major Performance Obligations**"). The Schedule of Major Performance Obligations is intended to summarize several major benchmarks set forth in the Agreement and is set forth for convenience purposes only. To the extent of any conflict between any provision set forth in this Agreement and the Schedule of Major Performance Obligations, the conflicting provision in the Agreement shall control.

7. ***Purchase Price of Property; Agency Security.***

A. **Purchase Price- Valuation.** The Agency and the Developer agree that the purchase price of the Property shall be either one million five-hundred and fiftythousand dollars ($1,550,00.00), the market value of the Property at the time of the last appraisal, or the appraised value of the Property prior to its conveyance, whichever is greater (the **"Purchase Price"**).

B. **Conditional Contribution of Property to Project.** The Agency agrees to contribute the Property to the Project, at no cost to the Developer, under the condition that the Developer completes construction of the mixed-use hotel Project, and provides the parking contribution of $500,000.00.

C. **Securitization of the Agency's Public Interest in the Redevelopment of the Property.**

The Developer agrees that in consideration of the Agency's real property contribution to the Project, the Agency has an overriding and legitimate public interest in ensuring that the Property be redeveloped in accordance with the terms and conditions of this Agreement. Therefore, the Developer agrees to provide the Agency assurances that it will fulfill its commitment to develop the Property once the Agency conveys any portion thereof to the Developer by providing the Agency with financial security equal to the Purchase Price. The Purchase Price security will be tied to the Developer's development of the Project in accordance with the terms and conditions of this Paragraph 7.

D. **Letter of Credit Security.** At the time the Agency conveys the Property to the Developer, the Developer, at its expense, shall secure the Purchase Price by providing the Agency with an irrevocable stand-by letter of credit in the amount of the Purchase Price. The letter of credit shall be in favor of the Agency and shall be issued by a bank mutually agreed to by the parties and shall be in a form acceptable to the Agency to effectuate the purpose of this Agreement. The letter of credit shall be subject to being drawn upon by the Agency in the event that the Developer fails to complete timely construction of the Project in accordance with the Schedule of Major Performance Obligations. Upon failure to complete timely construction of the Project and expiration of any cure periods, the Developer agrees to pay the Agency the Purchase Price. Said payment shall be made **within thirty (30) days** of the demand by the Agency, but in no case beyond the term of the letter of credit. If the Developer fails to make such payment, the Agency shall have the right to immediately draw upon the letter of credit by presenting it to the bank for payment of the amount due the Agency. Upon payment of the Purchase Price by the Developer or the bank issuing the Letter of Credit, this Agreement shall be considered terminated. The letter of credit shall remain in effect until such time either the Developer timely completes construction and obtains final certificate of occupancies for the Project or the Agency receives payment of the Purchase Price from the Developer, whichever occurs sooner.

8. ***Conveyance of Property; Closing Terms.*** No sooner than the date that the Developer obtains final site plan approval for the Project from the City, the Developer may request that the Agency convey the Property. Conveyance shall be required before the Developer commences any construction on the Project and shall occur under the following conditions:

A. **Notice.** The Developer shall provide the Agency a written notice requesting conveyance of the Property (the **"Conveyance Notice"**).

B. **Financing and Construction Commitments.** As a condition precedent to the Agency's obligation to convey the Property, or any portion thereof, as required by this Paragraph 8, the Developer shall provide and deliver to the Agency the following prior to closing:

(1) **Financing.** Written proof of a binding financing commitment to construct the Project from a lending institution, private lender or equity group indicating that the Project has been financed to commence and complete construction in accordance with the terms and conditions of this Agreement. Such proof shall also include any documentation of proof of pre-leasing associated with the financing secured as referenced above and of any personal or business guarantees or collateral to be used to obtain the financing commitment.

(2) **Performance Bonds.** Written proof of a performance bond or other surety by the Project's general contractor for the completion of the construction of the applicable portion of the Project, in

a form acceptable to the lending institution, private lender, or equity group financing the Project construction. Further, to the extent that the general contractor will be making public improvements on the Property or right-of-way (the public parking portion of the project), proof of a performance bond or other surety by the general contractor listing the Agency and/or the City as an oblige/beneficiary, as their interests may appear, securing the completion of the construction of the public improvements shall be required. Such bond or other surety shall be in a form acceptable to the Agency and/or City as their interests may appear.

C. **Closing Terms.** The following closing terms shall apply with respect to the conveyances:

(1) Unless otherwise agreed to by the parties in writing, the closing date for conveyance of the Property by the Agency to the Developer shall be **sixty (60) days** from the applicable Conveyance Notice unless the Developer fails to satisfy the condition precedents set forth in this Paragraph 8. If the Developer fails to satisfy the condition precedents **within said sixty (60) day** time period, the Agency shall have the right to declare the Developer in default pursuant to Paragraph 11 of this Agreement. If the Developer does not cure said default within the cure period, the Agency shall have the option to terminate the conveyance and/or this Agreement without penalty. The Agency shall convey the Property to the Developer at no cost pursuant to a special warranty deed subject only to the Purchase Price security provided by the Developer pursuant to Paragraph 8 of this Agreement. Said deed shall set forth the development covenants required by Paragraph 10 of this Agreement which shall be binding upon the Property. Documentary stamps on the special warranty deed shall be the expense of the Developer. The Developer shall pay for the cost of recording curative instruments, the title insurance commitment, and the Owner's policy if issued, and recording of the deed. Each party shall pay their respective attorney's fees.

(2) Except as otherwise provided for herein, the Developer shall accept the Property in "as-is" condition subject to the development covenants required by Paragraph 10 of this Agreement. The Agency shall not be liable to the Developer for any condition of the Property.

(3) The Developer shall obtain at the Developer's expense **within fifteen (15) days** from the Notice Date, a commitment for an Owner's Title Insurance Policy (ALTA FORM B- 1970) from a title insurance company ("Title Company") acceptable to the Developer, agreeing to insure title to the Property in an amount equal to the Purchase Price, and subject to: no exceptions other than those matters herein permitted; those which will be discharged prior to or at Closing; and the standard printed exceptions and exclusions from coverage customarily contained in an Owner's Policy from the Title Company. The Developer shall provide the Agency a copy of the title commitment upon receipt of same. The Agency shall have twenty (20) days to examine the commitment and tender any objections thereto. At closing, Title Company shall provide the Developer standard "gap" coverage in the custom as established by title insurance practices in Florida. Subsequent to closing, Title Company, at the Developer's expense, shall provide an owner's title policy showing title up to and including the recording of the deed delivered at closing, said policy showing the continuation of good and marketable title in the Agency to the moment of recording the special warranty deed and subject only to the Permitted Exceptions and any matters created at closing.

(4) If the title commitment discloses unpermitted exceptions or matters that render the title non-marketable, Agency, at its option, **shall have forty-five (45) days** from the date of receiving written notice of defects from the Developer within which to have the exceptions removed from the commitment or the defects cured to the reasonable satisfaction of the Developer. In such event, the time of closing shall

be **thirty (30) days** after delivery of the commitment or the time expressly specified in this Agreement, whichever is later. If the Agency fails to have the commitment exceptions removed or the defects cured within the specified time, the Developer may terminate this Agreement or the Developer may elect, upon notice to the Agency **within ten (10) days** after the expiration of the ninety (90) day curative period, to take title as it then is notwithstanding such exceptions or title defects.

(5) Notwithstanding anything herein contained to the contrary, the Agency shall exercise reasonable diligence in the curing of any defects in title, including the payment and discharge of any liens or encumbrances affecting the title status of the Property.

(6) The Developer shall take title subject to zoning, restrictions and prohibitions imposed by governmental authority which would not inhibit, restrict or prohibit redevelopment of the Property consistent with the Conceptual Development Plan. No other restrictions and/or easements shall affect the title except for the development covenants required by Paragraph 8 of this Agreement.

9. ***Agency Obligations.*** In consideration of the Developer undertaking the Project, and provided the Developer shall not be in default of this Agreement, the Agency shall undertake the actions set forth in this Paragraph. Unless otherwise provided below, the Agency shall undertake actions at its sole cost.

A. **Application authorization; Interim Property Maintenance/Use.** The Agency, as owner of the Property during the permitting process, shall authorize the Developer to file and pursue any pre-construction application for development orders or permits associated with redevelopment of the Property consistent with the Conceptual Development Plans and this Agreement, including, but not limited to, applications for final site plan approval and stormwater permits. The Agency shall maintain the Property in its current condition less reasonable wear and tear during the term of this Agreement prior to conveyance of the Property. However, this Agreement shall not be construed to prohibit the Agency from using the Property, or any portion thereof, for any temporary government purpose deemed necessary by the Agency so long as said use will not prohibit or prevent the redevelopment of the Property in accordance with the Conceptual Development Plans and this Agreement.

B. **Licensing Parking Agreement.** At such time the Developer files all required applications, information, and engineering plans with the City of Cocoa that are necessary to obtain final site plan approval for the Project consistent with the Conceptual Development Plan, the Agency shall request that the City enter into a licensing agreement for the angled parking on Factory Streetimmediately abutting the Property, in accordance with the survey initially required by the Agency prior to approval of the Conceptual Development Plan. The Agency shall request that the licensing agreement have a conditional effective date of no sooner than date the Developer commences construction under Paragraph 6 herein. The City shall complete the approval process for the licensing agreement in conjunction with the City's consideration and final approval of the aforementioned applications and subject to the conditional effective date. If the Agency delays pursuing, or the City delays taking final action, on the licensing agreement beyond the date that the City grants final approval of the aforementioned applications, the time period for the Developer to perform under this Agreement shall be tolled by the amount of time equal to the delay until such time the City takes final action on the licensing agreement. Furthermore, if the licensing agreement is not approved by the City in conjunction with or prior to the City granting final approval on the Developer's application for site plan approval, the Developer shall have the option of either: (i) terminating this Agreement by providing written notice to the Agency **within ten (10) days** of the City's decision not to license the right-of-way, or (ii) redesigning the

Project without incorporation of the Factory Street exclusive parking and filing all required applications, information, and engineering plans with the City of Cocoa that are necessary to obtain final site plan approval for the redesigned Project **within six (6) months** of the City's decision not to license the right-of-way. The aforesaid filing shall be treated in the same manner as the original filing pursuant to Paragraph 3 of this Agreement and shall reset the development order approval time periods and construction/development schedule stated herein for purposes of requiring the Developer to expeditiously complete the Project.

C. **Conveyance of the Property.** The Agency shall convey to the Developer the Property in accordance with the terms and conditions of this Agreement.

10. ***Development Covenants.*** The following development covenants in favor of the Agency and the City of Cocoa shall be set forth in the special warranty deed conveying any portion of the Property from the Agency to the Developer:

A. The Property shall be maintained and used as a mixed-use hotel development consistent and compatible with the aesthetic architectural and urban theme of Cocoa Village, and that the owner of the Property shall be obligated to devote the Property to the uses specified in the Agency's Community Redevelopment Plan, as may be amended from time to time. The use of the Property shall not be permitted to be converted to efficiency or one-bedroom multi- family or condominium dwelling units without the written approval of the Agency and City.

B. The Property shall be subject to a final development order issued by the City of Cocoa for the Project including, but not limited to, any development agreement that is entered into between the Developer and the City of Cocoa.

C. The covenants shall provide that the Developer is without the power to sell, lease, or otherwise transfer the Property without the prior written consent of the Agency until such time that the Developer has completed the construction of any or all improvements which the Developer has obligated itself to complete pursuant to this Agreement.

D. Except for the first mortgage required by the Developer's primary lender on the Project, the Developer shall not encumber the Property with any other mortgage, lien, or other encumbrance without the prior written consent of the Agency until such time the City issues a final certificate of occupancy for the Project on the Property.

E. The covenants shall run with the land and be binding upon any subsequent owners of the Property. Further, the covenants shall provide that the Agency and/or the City of Cocoa shall have the right to enforce the covenants against any owner of the Property in accordance with any and all applicable legal or equitable remedies afforded the Agency and/or the City of Cocoa by law. Such remedies shall include the Agency's and City of Cocoa's right to seek reimbursement for reasonable attorney's fees and costs incurred by the Agency and/or the City of Cocoa to enforce the covenants in a court of competent jurisdiction through all appellate court proceedings.

11. ***Default.***

A. **The Developer's Default.** In the event that the Developer shall fail to satisfy any of

its obligations set forth in this Agreement, the Agency shall provide the Developer written notice of such default. The Developer shall then have **thirty (30) days** from receipt of such notice to cure such default. If the Developer shall fail to cure such default **within the thirty (30) day time period**, then the Agency may, in its sole discretion and without penalty, exercise any of its rights and remedies provided by law including, but not limited to, exercising any applicable rights and remedies expressly set forth in this Agreement such as (i) terminating this Agreement in its entirety; (ii) exercising the security obligations pursuant to Paragraph 7; or (iii) terminating the Agency's obligation to convey the Property. Upon termination of the Agreement or specific Agency obligation, as the case may be under the terms and conditions of this Agreement, the Developer and the Agency will no longer have any obligations or rights regarding the Agreement or specific Agency obligation terminated hereunder.

B. **Agency Default.** Except as otherwise provided herein, in the event that the Agency shall fail to satisfy the obligations under this Agreement, the Developer shall provide the Agency written notice of such default. The Agency shall have **thirty (30) days** from receipt of such notice to cure such default. If the Agency shall fail to cure such default within the **thirty (30) day** time period, then the Developer may, in its sole discretion, terminate this Agreement. However, in the event that the Agency shall fail to convey the Property as set forth in Paragraph 8 of this Agreement, and the Developer shall not otherwise be in default of this Agreement, then the Developer shall provide the Agency written notice of such default. The Agency shall have **thirty (30) days** from receipt of such notice to cure said default. If the Agency shall fail to cure such default within the **thirty (30) day** time period, then the Developer' sole remedy shall be to terminate this Agreement and be reimbursed for all actual out-of-pocket geotechnical, engineering, construction, architectural, permitting, and title examination costs (excluding attorney's fees and related costs) related to the Property which were incurred subsequent to the Agency's approval of the Conceptual Development Plan and prior to the Agency's failure to convey the Property. The Agency shall reimburse the Developer **within sixty (60) days** of written termination of this Agreement. At time of payment, the Developer shall deliver to the Agency all original plans, reports, permits, and other documents provided to the Developer by any company, consultant, or agency related to the Agency's reimbursement payment required under this subparagraph.

C. **Force Majeure.** The foregoing notwithstanding, neither party shall be held in default of this Agreement for any delay or failure of such party in performing its obligations pursuant to this Agreement if such delay or failure is caused by Acts of God, court imposed order, wars, insurrections, acts of terrorism, and/or any other public emergencies beyond the reasonable control of the party whose performance is effected. In the event of a force majeure event, the affected party shall notify the other party within five (5) business days after becoming aware of the force majeure event, identifying the nature of the event, its expected duration, and the obligations affected. The affected party shall also use commercially reasonable efforts and act in good faith to mitigate the impact of the force majeure event and to resume performance as soon as reasonably practicable, and to keep the other party reasonably informed of any material changes or progress toward resumption of full performance. The suspension of performance shall be limited to the scope and duration reasonably necessary to the force majeure event. If the force majeure event continues for more than ninety (90) days, either party may exercise their respective remedies set forth in this Paragraph 11.

D. **Administrative Extension.** Upon good cause shown, the City Manager may grant

an extension of up to **sixty (60) days** for any completion deadline related to required Development Agreement Application Submittals, Hotel Approvals, future permitting, and development or construction schedules. Any further extensions shall require approval by the Agency.

12. ***Notice.*** Whenever either party desires to give notice to the other, notice shall be sent by hand delivery or certified mail, return receipt requested, and shall be sent to:

For the Agency:

City Manager
City of Cocoa
65 Stone Street
Cocoa, FL 32922

For the Developer:
360 Hospitality, LLC
301 Tucker Lane
Cocoa, FL 32926
ATTN:_____

Either party may freely modify their respective contact person and address contained in this Paragraph by providing written notice of the modification to the other party. Any Notice given as provided herein shall be deemed received as follows: if delivered by personal service, on the date so delivered; and if mailed, on the third business day after mailing.

13. ***City's Police and Permit Powers.*** The Developer acknowledges and agrees that this Agreement is not binding on the City of Cocoa. As such, nothing in this Agreement shall serve to affect or limit any power of the City of Cocoa including, but not limited to, the City's police, legislative, quasi-judicial, permitting, zoning, land use and development, and building code powers in the exercise of its decision making authority associated with the proposed redevelopment of the Property or any related application associated therewith. If the Developer is in default under any of its material obligations to complete the construction of the Project after the Property has been conveyed to the Developer, the Developer agrees that the City shall have the right to withhold, suspend, or terminate any and all certificates of occupancy for any building or unit being constructed in furtherance of this Agreement until such time the breach is cured.

14. ***Assignment; Recordation -Agreement to Run with the Land.***

A. The Developer shall be entitled to assign its rights and obligations under this Agreement to a parent, subsidiary, or affiliated entity in which the Developer or its members are members or interest holders. Such assignment shall require the assignee to be a formal signatory to this Agreement and fully assume all of the Developer' obligations, commitments, representations, and warranties under this Agreement. Such assignment shall also require the written approval of the Agency by amendment to this Agreement, which shall not require a public hearing and shall not be unreasonably withheld. In any assignment, the rights and obligations contained herein shall be

binding on successors in interest to the Property, and the terms and conditions of this Agreement shall bind and inure to the benefit of the parties hereto and any respective successors and assigns.

B. The Developer shall record this Agreement in the Official Records of Brevard County, Florida. This Agreement shall run with the land and be binding upon the Property and successors in interest to the Property unless amended or terminated by mutual agreement of the Parties or in accordance with Paragraph 11.

15. ***Sovereign Immunity.*** Notwithstanding any other provision set forth in this Agreement, nothing contained in this Agreement shall be construed as a waiver of the Agency's or the City's right to sovereign immunity under Section 768.28, Florida Statutes, or other limitations imposed on the Agency's or the City's potential liability under state or federal law. As such, neither the Agency nor the City shall be liable under this Agreement for punitive damages or interest for the period before judgment. Further, the Agency and the City shall not be liable for any claim or judgment, or portion thereof, to any one person or more than two hundred thousand dollars ($200,000.00), or any claim or judgment, or portion thereof, which, when totaled, with all other claims or judgments paid by the State or its agencies and subdivisions arising out of the same incident or occurrence, exceeds the sum of three hundred thousand dollars ($300,000.00). This paragraph shall survive termination of this Agreement.

16. ***Indemnification by Developer.*** Developer shall be solely responsible for designing, permitting, constructing and maintaining the Project required by this Agreement. Accordingly, to the extent allowed by law, the Developer agrees to indemnify and hold the Agency and its employees, officers, attorneys and contractors harmless from and against any and all damages, losses or claims, including but not limited to legal fees and expenses, to the extent that such damages, losses or claims are attributable to actions, omissions or negligence of the Developer and its employees, members, agents and contractors in the exercise of the rights arising under this Agreement. This paragraph shall survive termination of this Agreement.

17. ***Miscellaneous.*** The effective date of this Agreement shall be July___, 2025 (the ***"Effective Date").*** The execution of this Agreement has been duly authorized by the appropriate body of each of the parties hereto. Each party has complied with all the applicable requirements of law and has full power and authority to comply with the terms and conditions of this Agreement. In the event any of the parties hereto are required to enforce this Agreement by court proceedings or otherwise, each party involved in such enforcement proceedings shall bear its own attorneys' fees, whether incurred at trial, on appeal, or in conjunction with any alternative dispute resolution or bankruptcy proceeding. The venue of any litigation arising out of this Agreement shall be Brevard County, Florida. The exhibits attached hereto and incorporated by reference herein are by such attachment and incorporation made a part of this Agreement for all purposes. The fact that one of the parties to this Agreement may be deemed to have drafted or structured the provisions of this Agreement, whether in whole or in part, shall not be considered in construing or interpreting any particular provision hereof, whether in favor of or against such party. This Agreement is solely for the benefit of the parties hereto and their respective successors and assigns, and no right or cause of action shall accrue upon or result by reason hereof to or for the benefit of any third party not a formal party hereto except for the benefits granted the City of Cocoa hereunder; in which case, the City of Cocoa shall be deemed a third party beneficiary under this Agreement with full rights and privileges to enforce the benefits bestowed hereunder by the parties. Nothing in this Agreement, whether express or implied, is intended or shall be construed to confer upon any person other than the parties hereto any right, remedy, or claim under or by reason

of this Agreement or any of the provisions hereof. Each party agrees to deal with the other party hereto in good faith. This Agreement may not be changed, amended, or modified in any respect whatsoever, nor may any covenant, condition, agreement, requirement, provision, or obligation contained herein be waived, except in writing signed by all of the parties hereto.

IN WITNESS WHEREOF, the parties hereto attached their hands and seals on the dates set forth below.

Signed, sealed and delivered in the presence of the following witnesses:

COCOA COMMUNITY REDEVELOPMENT AGENCY

Signature of Witness 65 Stone St., Cocoa, FL 32922

Printed Name of Witness

By: _____
Michael C. Blake, Chairman

Date: 7/22/25

Signature of Witness

Printed Name of Witness 65 Stone St., Cocoa, FL 32922

ATTEST:

By: _____
Monica Arsenault, Agency Clerk

APPROVED AS TO FORM AND LEGALITY

By: _____
Anthony A. Garganese, Agency Attorney

STATE OF FLORIDA
COUNTY OF BREVARD

The foregoing instrument was acknowledged before me by means of (✓) physical presence or (___) online notarization, this 22 day of July, 2025, by Michael C. Blake, the Chairperson of the Cocoa Community Redevelopment Agency, on behalf of the Agency, who is personally known to me ✓ or produced _____ as identification.

(NOTARY SEAL)

MONICA R ARSENAULT
Commission # HH 498592
Expires June 16, 2028

(Notary Public Signature)

Monica Arsenault
(Print Name)
Notary Public, State of FL
Commission No.:
My Commission Expires: 6.16.28

EXHIBIT A

(Legal Description for the Property)

Lots 2 and 3, SINGLETON'S FIRST ADDITION TO COCOA, according to the plat thereof, as recorded in Plat Book 1, Page 28, of the Public records of Brevard County, Florida.

Lot 2 Property Appraiser's ID No.: 24-36-33-75-*-2
Lot 2 Tax Account No.: 2426228

Lot 3 Property Appraiser's ID No.: 24-36-33-75-*-3
Lot 3 Tax Account No.: 2426229

EXHIBIT B

(Schedule of Major Performance Obligations)

Schedule below is provided for convenience purposes only and does not take precedent over the terms and conditions stated in the body of the Agreement. The Schedule assumes an Effective Date of July _____, 2025.

Time for Performance	Phase	Action	Section Reference
July ____, 2025 ("Effective Date" or "ED")	N/A	Execution by Developer and Agency of Redevelopment Project Agreement ("RPA")	Top of RPA 17
November ___, 2025 (4 months from ED)	I	Development Agreement Application Submittals must be filed with City	3.D
Public hearing dates TBD	I	Development Agreement considered by Planning and Zoning Board, City Council	3.D
Within 30 days from date the City Council approves Development Agreement		If City Council approves Development Agreement and Conceptual Development Plan, Developer must submit information regarding the project's financial feasibility to the Agency	3.E
Public hearing TBD	I	Agency considers Conceptual Development Plan and Development Agreement approved by the City, and information submitted by Developer regarding the project's financially feasible. If Agency approves, project proceeds to Phase II. If Agency declines approval, RPA is terminated and parties have no further rights or obligations.	3.E(2)(3)
July ___, 2026 (12 months from ED)	II	Developer must obtain Hotel Approvals, and also obtain Agency and, if necessary, City Council approval of the Hotel Approvals. If Agency and City Council approve the Hotel Approvals ("Phase III Commencement Date"), project proceeds to Phase III. If Agency or City Council decline approval, RPA is terminated and	4.B 4.B(3)

		parties have no further rights or obligations.to obtain final Phase II Approval NOTE: If Hotel Approvals require adjustments to the Development Agreement and Conceptual Development Plan, City Council approval will be required, and public hearings must be advertised and scheduled.	
Within four (4) months from the Phase III Commencement Date	III	Site plan application filed by Developer with City Agency applies to City for licensing of right of way.	5 9B
Within six (6) months from the Phase III Commencement Date	III	Developer must obtain final site plan approval from City.	5
After final site plan approval by City		Developer may request Agency begin conveyance process for the Property ("Notice of Conveyance")	8
Within sixty (60) days of Notice of Conveyance		Closing on Property including Developer providing Agency a letter of credit for Purchase Price ($1,550,000 or last appraised market value) Developer pays City $500,000 to construct off-site parking for both hotel guest and the public. **NOTE: Closing must occur before Developer can commence construction**	8.C(1) 3.B(2) and 7.B
Within eight (8) months from the Phase III Commencement Date	IV	Developer shall substantially commence construction of all utility improvements for potable water, reuse, sewage, stormwater, electrical, and other utility services required by City for project.	6.A
Within twelve (12) months from the Phase III Commencement Date	IV	Developer shall substantially commence vertical construction of hotel and vertical elements.	6.B
Within thirty-six (36) months from the Phase III Commencement Date	IV	Developer must obtain final certificate of occupancy for the Project.	6.B

Signed, sealed and delivered in the presence of the following witnesses:

360 HOSPITALITY GROUP, LLC

By: _____

Print Name/Title: Dilesh Patidar, COO

Date: 7.15.2025

_____
Signature of Witness

April Scramlin
Printed Name of Witness

_____
Signature of Witness

Sean Koch
Printed Name of Witness

STATE OF FLORIDA
COUNTY OF BREVARD

The foregoing instrument was acknowledged before me by means of (✓) physical presence or (___) online notarization, this 15 day of July, 2025, by Dilesh Patidar, the COO of 360 Hospitality Group, LLC, a Florida limited liability company, on behalf of the company, who is personally known to me ✓ or produced _____ as identification.

(NOTARY SEAL)

Notary Public State of Florida
April Joy Scramlin
My Commission HH 512280
Expires 5/6/2028

_____
(Notary Public Signature)

April Joy Scramlin
(Print Name)
Notary Public, State of Florida
Commission No.: HH 512280
My Commission Expires: 5.6.2028

THIS INSTRUMENT WAS PREPARED BY
AND SHOULD BE RETURNED TO:

Anthony A. Garganese
City Attorney of Cocoa
Garganese, Weiss, D'Agresta & Salzman, P.A.
111 N. Orange Avenue, Suite 2000
Orlando, FL 32802
(407) 425-9566

FOR RECORDING DEPARTMENT USE ONLY

CITY OF COCOA
DEVELOPMENT AGREEMENT
603 BREVARD AVENUE HOTEL

THIS DEVELOPMENT AGREEMENT ("**Agreement**") is made and entered this _____ day of _____, 2026, by and between the **CITY OF COCOA**, a Florida municipal corporation whose address is 65 Stone Street, Cocoa, Florida 32922 ("**City**"), and **360 HOSPITALITY, LLC**, a Florida limited liability company with a principal address at 301 Tucker Lane, Cocoa, Florida 32926 ("**Developer**").

WITNESSETH:

WHEREAS, the Cocoa Community Redevelopment Agency ("**Agency**") is the owner of certain property with an address of 603 Brevard Avenue, Cocoa, Florida, located at the intersection of Brevard Avenue and Factory Street, being more particularly described on **Exhibit "A"**, attached hereto and incorporated herein by this reference, consisting of Tax Parcel IDs 24-36-33-75-*-2 and 24-36-33-75-*-3 (the "**Agency Property**"); and

WHEREAS, the Agency acquired the Agency Property for redevelopment purposes in accordance with the Florida Community Redevelopment Act of 1969 (the "**Act**"); and

WHEREAS, on February 2, 2024, the Agency issued a request for proposal (titled *Request for the Purchase / Disposal of Real Estate and Development of a Mixed-Use Project at 603 Brevard Avenue (FKA OLD CITY HALL), Cocoa, Florida 32922, Situated in the Cocoa Community Redevelopment Area* (the "**RFP**")), soliciting proposals from interested parties to redevelop the Agency Property; and

WHEREAS, the Developer responded to the RFP by submitting a proposal to the Agency titled "603 Brevard Avenue – RFP Response" (the "**Proposal**"); and

WHEREAS, the Proposal proposed that the property be redeveloped as a mixed-use hotel project consisting of not more than seven (7) stories, which exceeds the height limitations of the Commercial Business District – Cocoa Village Overlay zoning district; and

WHEREAS, after multiple public hearings and workshops, the City adopted via Ordinance No. 06-2018 on October 24, 2018, a zoning text amendment to allow for Large Scale Commercial/Mixed-Use Buildings on the Agency Property, among other properties, which effectively increased the allowed height on the Agency Property, though such maximum height could only be achieved with approval of a Development Agreement with the City of Cocoa, after Cocoa City Council consideration of certain factors; and

WHEREAS, on May 6, 2024, the Agency at a duly held public meeting selected the Developer for purposes of commencing negotiations regarding an agreement for the redevelopment of the Agency Property; and

WHEREAS, based on those subsequent negotiations, the Agency and Developer desire the property to be redeveloped into a mixed-use hotel project consistent and compatible with the aesthetic architectural and urban theme of Cocoa Village, and in furtherance of the Agency's Community Redevelopment Plan and the Act; and

WHEREAS, on July 7, 2025, the Agency and the Developer entered into that certain City of Cocoa Redevelopment Agency Redevelopment Project Agreement ("**Redevelopment Agreement**"), which established the development schedule for the Agency Property to be expeditiously redeveloped as a mixed-use hotel project for the betterment of the Cocoa Community Redevelopment Area; and

WHEREAS, the Redevelopment Agreement further established four development "phases" for the Project: (1) Phase I, the primary objective of which is the preparation and execution of a Development Agreement with the City of Cocoa to approve the maximum height on the Agency Property and to approve a Conceptual Development Plan; (2) Phase II, which involves a second round of review of the Project by the City and Agency, including the Developer's chosen national hotel brand, project financing commitments, a market feasibility study, and any revisions to the Conceptual Development Plan required by the national hotel brand; (3) Phase III, which includes the Developer finalizing its final engineering plans with the City and obtaining final approval of the site plan and off-site parking improvements, completing any other pre-construction permitting which may be necessary, and finalizing closing for the Developer's purchase of the Agency Property, including Developer providing the Agency a letter of credit for the Purchase Price; and (4) Phase IV, which includes the actual permitting and construction of the Project; and

WHEREAS, upon the City Council and Agency's approval of this Agreement, the Developer shall have demonstrated initial suitability of the Agency Property for the Project and shall have obtained initial City and Agency approval of the Project's design, subject to additional conditions stated in the Redevelopment Agreement and development permits; and

WHEREAS, this Agreement is intended to fulfill the requirements of Phase I of the Project, as described in the Redevelopment Agreement, which includes conditional approval of a seven-story (7) mixed-use hotel and the Conceptual Development Plan; and

WHEREAS, the City, Agency, and Developer desire that the Agency Property be expeditiously redeveloped for the betterment of the Community Redevelopment Area in accordance with the Redevelopment Agreement and this Development Agreement; and

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. Recitals. The foregoing recitals are true and correct and are hereby incorporated herein by this reference.

2. Authority. This Agreement is entered into pursuant to the Florida Municipal Home Rule Powers Act and Section 15-21 of the City Code.

3. Redevelopment Agreement. The City and Developer recognize and agree that the City is not a party to the Redevelopment Agreement and that the Agency – not the City – is the owner of the Agency Property. Accordingly, this Agreement is not intended to alter the terms and obligations of the Redevelopment Agreement, including but not limited to, future permitting requirements, permitting schedule, effect of City and Agency approvals, and property acquisition schedule and requirements. Rather, this Agreement is intended to supplement the Redevelopment Agreement and refine any requirements that may be necessary from the City's perspective as the regulatory and permitting authority for the Property. Should any term or condition of the Agreement conflict with any term or condition of the Redevelopment Agreement, the Redevelopment Agreement shall control.

4. Condition – Acquisition of Agency Property by Developer. The Developer represents and warrants to the City that it is empowered to negotiate and enter into this Agreement. If Developer fails to complete the closing by the Closing Date and the Agency does not convey the Agency's Property to the Developer as required by the Redevelopment Agreement, the City Council shall have the right, but not obligation, to terminate this Agreement by written notice. The City in its reasonable and sole discretion may declare any such impediment as a default, and Developer shall be afforded an opportunity to cure said default as provided in this Agreement. If the Developer fails to cure said default, the City Council, in its sole discretion and by written notice, shall have the right to terminate this Agreement.

5. Project Description and Requirements. Developer shall, at its expense, design, permit, and construct an approximately 68,310 square-foot mixed-use hotel project and associated parking improvements. The project shall consist of a hotel with at least 100 but no more than 110 hotel rooms with ancillary meeting space, a cafe open to the public with an exterior entrance and exit for pedestrians on Brevard Avenue, a pool, and a rooftop bar and lounge.

(Hereinafter the project description and requirements are referred to as the "**Project**").

The Developer shall be specifically required to develop the Project to incorporate all amenities described above and as further required in this Agreement into the final site plan, and such amenities shall be maintained in good working condition and operation throughout the life of the Project. The Project is generally depicted on the Conceptual Design Plan, which consists of a proposed concept site plan that is attached hereto as **Exhibit "B"** and fully incorporated herein by this reference (the "**Conceptual Development Plan**").

6. **Conceptual Development Plan; Building Height.** The Project shall be substantially developed in accordance with the Conceptual Development Plan which is attached hereto **Exhibit B.** The Conceptual Development Plan is intended to be the general blueprint which details key aspects of the future physical development of the Property. The Conceptual Development Plan shall also serve as a necessary guide for future permit applications and permitting necessary to complete the construction of the Project. Developer shall have the obligation to further submit and obtain the City's approval of a final site plan and final engineering plans ("**Final Site Plan**") consistent with the Conceptual Development Plan in all material respects and in compliance with the City Code. The City and Developer expressly acknowledge and agree that the Conceptual Development Plan attached as **Exhibit "B**" was prepared prior to application for and submittal of attendant engineering plans, including detailed engineering analysis of required stormwater retention and fire flow for the Project. During the Final Site Plan process, the Project shall be duly engineered and provided to the City for consideration under applicable City Codes, which must be observed and compliance achieved. Developer acknowledges and agrees that Developer shall proceed with Phase II of the Project at its own risk given that a full engineering analysis of the Property's suitability for the Project has not been performed.

While the City recognizes this Conceptual Development Plan may be reasonably modified to accommodate necessary changes associated with final engineering of the Project, any such modification may not include: (a) a different use of the Property; (b) an increase in the building height as approved herein; (c) a reduction in the required amenities as provided herein; or (d) a deviation from any condition provided in this Agreement. The Conceptual Development Plan shall be subject to reasonable adjustments at the Final Engineering Plan phase in order to bring the Project into full compliance with the City Code, and as a result, the exact location, layout and dimensions of the building, landscaping, entrances, utilities, parking and other site improvements may vary slightly between Conceptual Development Plan approval and approval of the Final Engineering Plans. These changes shall be allowed as long as the changes are consistent with the development standards noted in this Agreement and preserve the general character of the development shown on the Conceptual Development Plan.

In approving the Conceptual Development Plan attached hereto as **Exhibit "B,"** the City Council expressly authorizes herein through this Agreement as provided in Appendix A, *Zoning*, Article XI, Section 22(I), a Large-Scale Commercial/Mixed-Use Building to be constructed on the Property, which may be a total of seven (7) stories in height. The City Council has considered the factors described in Section 22(I), including the economic and social benefits to the City and the Agency, aesthetic quality and character, architectural design, physical and visual scale in

comparison with the surrounding buildings, and compatibility with the special and distinctive character of the Cocoa Village.

The City and Developer recognize and agree that, in accordance with the Redevelopment Agreement, Section 3(E), the Developer must submit to the Agency within thirty (30) days after the City Council's approval of this Development Agreement and Conceptual Plan, certain preliminary assurances that the Project is financially feasible and obtain Agency approval of the Conceptual Plan. Should the Agency decline to approve the Conceptual Plan and this Development Agreement, the Developer shall have no further right or obligation to develop the Property, and this Development Agreement shall automatically terminate without proceeding to Phase II. Each party shall bear their own costs and expenses incurred in the event of such automatic termination.

Further, should the City determine that the Conceptual Development Plan cannot be achieved while maintaining compliance with the City Code during the Final Site Plan process the City shall have the right to deny Final Site Plan approval and may terminate this Agreement at its discretion. Upon termination, the City shall have revoked any approval of the Conceptual Development Plan obtained in either Phase I or Phase II of the Project, which is expressly required as a condition of redeveloping the Property in accordance with the Redevelopment Agreement. In effect, upon termination, the Developer shall have no further right or obligation to develop the Property. As further described below in Sections 20.0 and 25.0, the City further reserves its right to process any Final Site Plan application in accordance with its police power and regulatory authority, which may result in denial of the application should compliance with City Codes and this Agreement not be achieved. In either the case of termination or denial of Final Site Plan approval, each Party shall bear their own costs and expenses incurred up to such date.

The execution of this Agreement and approval of the Conceptual Development Plan herein shall not be construed under any circumstances as binding the Agency to convey the Agency Property to the Developer, but merely constitutes initial approval of the Project design subject to future conditions imposed by the City or Agency and assurances of the Developer.

7. **Building Elevations and Floor Plans.** The building and related floor plans shall be constructed substantially in accordance with the building elevations and floor plans depicted and set forth in **Exhibit "C,"** which is attached hereto and incorporated herein by this reference ("**Building Plans**"). Further, other aspects of the building façade and roof lines, color scheme, and architectural features depicted on the building may be required to be adjusted during the City's final review and approval procedures to satisfy the requirements of the City Code.

8. **Project Enhancements.** In accordance with Section 15-21 of the City Code, and in consideration of the variances and waivers granted in Section 9, below and, further, as a condition of the approval of a Large-Scale Commercial/Mixed-Use Building on the Property, the Developer agrees to incorporate the following development enhancements into the Final Site Plan:

A. *Improvements to John Garren Lane and Factory Street*. The Developer shall mill and resurface John Garren Lane and Factory Street along the entire length of the Project

frontage, including all travel lanes and shoulders on both sides of each street. The Developer shall install and pave drain system along both sides of John Garren Lane. Sidewalks shall also be installed on both sides of John Garren Lane and Factory Street along the length of the Project frontage. All angled parking spaces created on John Garren Lane shall be public parking spaces.

B. *Contribution for Additional Off-site Parking*. As provided in the Redevelopment Agreement, the Developer shall contribute $500,000.00 to the City to construct additional off-site parking not required by the Redevelopment Agreement or this Agreement for the Project. This commitment ensures that the Project will provide enhanced parking availability for both hotel guests and the public. The parking contribution shall be paid to the City at closing conveying the Property to the Developer.

C. *Utilities*. All utilities constructed on the Property to service the Property including, but not limited to, electric, water, sewer, cable, phone, fiber optics, natural gas, and other similar kinds of utilities shall be constructed underground unless otherwise necessary and approved by the City.

D. *Energy Efficiency*. The Project shall incorporate the use of energy efficient lighting systems, insulation, and ENERGY STAR rated windows, low-flow water fixtures, modern heat pumps, and energy efficient HVAC systems.

9. <u>Variances and Waivers.</u> In accordance with Section 15-21 of the City Code, and in exchange for the significant project enhancements described above, the City Council hereby approves the following variances and waivers from the City Code:

A. *Parking Waivers.* Pursuant to the requirements of the Redevelopment Agreement and subject to the approval of the Agency, 121 parking spaces shall be created to service the Project, as follows: 24 off-site angled parking spaces on Factory Street reserved exclusively for hotel patrons; 65 off-site angled parking spaces on John Garren Avenue which shall be reserved for public use without charge or fee to the public and which may be used by hotel guests on a first-come-first-served basis; and 26 on-site parking spaces. Five (5) of the required parking spaces shall be handicap-accessible parking. A parking garage shall not be required for this project. Applicable parking waivers granted for this parking plan are:

(1) *Appendix A, Zoning, Article XII, Section 1(C), Parking and Loading Regulations.* The minimum requirement of providing 114 on-site parking spaces may be decreased to allow the Developer to provide 26 on-site parking spaces plus an additional 89 off-site parking spaces, 24 of which shall be designated for private use on Factory Street and shall serve as a credit towards the on-site parking requirement, and 65 of which shall be reserved for public use on a first-come-first-served basis on John Garren Avenue.

(2) *Appendix A, Zoning, Article XII, Section 1(C), Parking and Loading Regulations.* The minimum requirement that parking stall size shall be ten feet by twenty feet (10'x20') shall be reduced. The new minimum requirement for parking stall size shall be nine feet by eighteen feet (9'x18'). Wheel stops shall be provided on all on-site parking spaces which do not overhang a landscaped area.

(3) *Appendix A, Zoning, Article XII, Section 5(b), Location of Off-Site Parking Lots*. The Project may allow for parking located off-site on Factory Street in accordance with the terms of a subsequent license agreement to be approved by the City Council.

B. *Appendix A, Zoning, Article XI, Section 11 (I), Waterfront Overlay District.*

(1) *Minimum Setback Requirement on Brevard Avenue*: The minimum setback from Brevard Avenue shall be reduced from five feet (5') to zero feet (0').

(2) *Maximum Setback Requirement on Brevard Avenue*: The maximum setback from Brevard Avenue shall be increased from ten feet (10') to fourteen point five feet (14.5').

(3) *Maximum Setback Requirement on John Garren Ln*: The maximum setback from John Garren Lane shall be increased from ten feet (10') to eighty-five feet (85').

(4) *Maximum setback Requirement on Factory Street*: The maximum setback from Factory Street shall be increased from ten feet (10') to forty-nine point three feet (49.3').

(5) *Frontage Buildout*: The minimum frontage buildout of ninety percent (90%) shall be reduced to seventy-two percent (72%).

(6) *Maximum Door Recess*: The maximum door recess of five feet (5') shall be reduced to eight point thirty-three feet (8.33').

(7) *Ground Floor Transparency*: The minimum ground floor transparency requirement shall be reduced from sixty percent (60%) to fifty percent (50%).

C. *Appendix A, Zoning, Article XIII, Section 22, Landscape Requirements.* Reduction of required landscaping adjacent to public rights-of-way, perimeter landscaping adjacent to abutting commercial properties, and interior parking area landscaping pursuant to Section 22(C)(4), (5), and (6), and rather providing landscaping in accordance with the conceptual landscaping plan provided with the Conceptual Development Plan. The landscaping plan focuses on providing attractive street trees clustered at the corners of the Property and hedge rows where appropriate.

10. Representations of the Parties. The City and Developer hereby each represent and warrant to the other that it has the power and authority to execute, deliver and perform the terms and provisions of this Agreement and has taken all necessary action to authorize the execution, delivery and performance of this Agreement. This Agreement will, when duly executed and delivered by the City and Developer, constitute a legal, valid and binding obligation enforceable against the parties hereto. Upon acquisition of the Property by the Developer and the recording of this Agreement in the Public Records of Brevard County, Florida, the Agreement shall be a binding obligation upon the Property in accordance with the terms and conditions of this Agreement. Developer represents that it has voluntarily and willfully executed this Agreement for purposes of binding himself and the Property to the terms and conditions set forth in this Agreement.

11. Successors and Assigns. This Agreement shall automatically be binding upon and shall inure to the benefit of the City and Developer and their respective successors and assigns. The terms and conditions of this Agreement similarly shall be binding upon the Property and shall run with title to the same upon being duly recorded against the Property by the City.

12. Applicable Law; Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida. The venue for any action arising out of this Agreement shall be in Brevard County, Florida, for state court actions, or, for federal court actions, the Middle District of Florida, Orlando Division.

13. Amendments. This Agreement shall not be modified or amended except by written agreement duly executed by both parties hereto (or their successors or assigns) and approved by the City Council.

14. Entire Agreement; Exhibits. This Agreement and all attached exhibits hereto supersede any other agreement, oral or written, regarding the Property and contain the entire agreement between the City and Developer as to the subject matter hereof. The Exhibits attached hereto and referenced herein are hereby fully incorporated herein by this reference.

15. Severability. If any provision of this Agreement shall be held to be invalid or unenforceable to any extent by a court of competent jurisdiction, the same shall not affect in any respect the validity or enforceability of the remainder of this Agreement.

16. Effective Date. This Agreement shall become effective upon approval by the City Council and execution of this Agreement by both parties hereto.

17. Recordation. Upon full execution by the Parties and closing on the Property conveyance to the Developer, this Agreement shall be recorded in the Public Records of Brevard County, Florida by the City.

18. Relationship of the Parties. The relationship of the parties to this Agreement is contractual and Developer is an independent contractor and not an agent of the City. Nothing herein shall be deemed to create a joint venture or principal-agent relationship between the parties,

and neither party is authorized to, nor shall either party act toward third persons or the public in any manner, which would indicate any such relationship with the other.

19. Sovereign Immunity. Notwithstanding any other provision set forth in this Agreement, nothing contained in this Agreement shall be construed as a waiver of the City's right to sovereign immunity under section 768.28, Florida Statutes, or other limitations imposed on the City's potential liability under state or federal law. As such, the City shall not be liable under this Agreement for punitive damages or interest for the period before judgment. Further, the City shall not be liable for any claim or judgment, or portion thereof, to any one person for more than two hundred thousand dollars ($200,000.00), or any claim or judgment, or portion thereof, which, when totaled with all other claims or judgments paid by the State or its agencies and subdivisions arising out of the same incident or occurrence, exceeds the sum of three hundred thousand dollars ($300,000.00).

20. City's Police Power. Developer agrees and acknowledges that the City hereby reserves all police powers granted to the City by law. In no way shall this Agreement be construed as the City bargaining away or surrendering its police powers.

21. Interpretation. The parties hereby agree and acknowledge that they have both participated equally in the drafting of this Agreement and no party shall be favored or disfavored regarding the interpretation to this Agreement in the event of a dispute between the parties.

22. Third-Party Rights. This Agreement is not a third-party beneficiary contract and shall not in any way whatsoever create any rights on behalf of any third party.

23. Specific Performance. Strict compliance shall be required with each and every provision of this Agreement. The parties agree that failure to perform the obligations provided by this Agreement shall result in irreparable damage and that specific performance of these obligations may be obtained by a suit in equity.

24. Attorney's Fees. In connection with any arbitration or litigation arising out of this Agreement, each party shall be responsible for their own attorney's fees and costs.

25. Development Permits. Nothing herein shall limit the City's authority to grant or deny any development permit applications or requests subsequent to the effective date of this Agreement. The failure of this Agreement to address any particular City, County, State and/or Federal permit, condition, term or restriction shall not relieve Developer or the City of the necessity of complying with the law governing said permitting requirement, condition, term or restriction. Without imposing any limitation on the City's police powers, the City reserves the right to withhold, suspend or terminate any and all certificates of occupancy for any building, trailer, structure or unit if Developer is in breach of any term and condition of this Agreement.

26. Default. Failure by either party to perform each and every one of its obligations hereunder shall constitute a default, entitling the non-defaulting party to pursue whatever remedies are available to it under Florida law or equity including, without limitation, termination of this

Agreement or an action for specific performance and/or injunctive relief. Prior to any party filing any action as a result of a default under this Agreement, the non-defaulting party shall first provide the defaulting party with written notice of said default. Upon receipt of said notice, the defaulting party shall be provided a thirty (30) day opportunity in which to cure the default to the reasonable satisfaction of the non-defaulting party prior to filing said action.

27. Termination. In addition to those circumstances allowing termination as already expressly provided herein, the City shall have the unconditional right, but not obligation, to terminate this Agreement, without notice or penalty, if Developer fails to adhere to the development schedule and deadlines as established in the Redevelopment Agreement. In addition, the City shall have the right, but not obligation, to terminate the Agreement if Developer permanently abandons construction of the Project, provided, however, the City shall first deliver written notice and an opportunity to cure to the defaulting party as set forth in Section 26.0 above. If the City terminates this Agreement, the City shall record a notice of termination against the Property in the public records of Brevard County, Florida. This Agreement may otherwise be terminated by mutual written agreement of the Parties.

28. Indemnification and Hold Harmless. Developer shall be solely responsible for designing, permitting, constructing, operating and maintaining this Project. As such, Developer hereby agrees to indemnify, release, and hold harmless the City and its elected officials, employees and attorneys from and against all claims, losses, damages, personal injuries (including, but not limited to, death), or liability (including reasonable attorney's fees and costs through all appellate proceedings), directly or indirectly arising from, out of, or caused by Developer and Developer's contractor's and subcontractor's performance of design, permit and construction activities in furtherance of constructing the Project under this Agreement and the operation and maintenance of the Project thereafter. This indemnification shall survive the termination of this Agreement.

29. Trafficking. As a condition of this contract, the Developer shall attest under penalty of perjury, that the Developer does not use coercion for labor or services as defined in Section 787.06(2), Florida Statutes. Attestations shall be documented using a Human Trafficking Affidavit as provided by the City.

30. Notice. Whenever either party desires to give notice to the other, notice shall be sent by hand delivery or certified mail, return receipt requested, and shall be sent to:

For the City:

City of Cocoa
Attn: City Manager
65 Stone Street
Cocoa, FL 32922

For Developer:

360 Hospitality, LLC

Attn: Dilesh Patidar, Registered Agent
301 Tucker Lane
Cocoa, FL 32926

Either party may freely modify their respective contact person and address contained in this Paragraph by providing written notice of the modification to the other party. Any Notice given as provided herein shall be deemed received as follows: if delivered by personal service, on the date so delivered; and if mailed, on the third business day after mailing.

31. **Assignment.** Prior to completing the construction of the Project and reaching final build-out of the Project, Developer shall not assign this Agreement without the prior written consent of the City. However, Developer shall be entitled to assign its rights and obligations under this Agreement to a parent, subsidiary, or affiliated entity in which Developer or its members are members or interest holders. Any assignment authorized by this subparagraph shall require the assignee to be a formal signatory to this Agreement and fully assume all of Developer's obligations, commitments, representations, and warranties under this Agreement. Such assignment shall also require the written approval of the City by amendment to this Agreement, which shall not require a public hearing and shall not be unreasonably withheld. In any assignment, the rights and obligations contained herein shall be binding on successors in interest to the Property, and the terms and conditions of this Agreement shall bind and inure to the benefit of the parties hereto and any respective successors and assigns.

IN WITNESS WHEREOF, the parties hereto attached their hands and seals on the dates set forth below.

Signed, sealed and delivered in the
Presence of the following witnesses:

CITY OF COCOA

_____
Signature of Witness

_____
Printed Name of Witness

_____
Stockton Whitten, City Manager

Date: _____

_____
Address of Witness

_____
Signature of Witness

_____
Printed Name of Witness

_____
Address of Witness

ATTEST:

APPROVED AS TO FORM

AND LEGALITY

_____	_____
Monica Arsenault, City Clerk	Anthony A. Garganese, City Attorney

CITY SEAL

STATE OF FLORIDA
COUNTY OF BREVARD

The foregoing instrument was acknowledged before me by means of (___) physical presence or (___) online notarization, this _____ day of _____, 2026, by Stockton Whitten, the City Manager of the City of Cocoa, a Florida municipal corporation, on behalf of the corporation, who is personally known to me or produced _____ _____ as identification.

(NOTARY SEAL)

_____
(Notary Public Signature)

_____
(Print Name)

Notary Public, State of _____
Commission No.: _____
My Commission Expires: _____

360 HOSPITALITY, LLC

_____
Signature of Witness

_____
Printed Name of Witness

_____
Address of Witness

_____
Print: _____
Title: _____
Date: _____

_____
Signature of Witness

_____
Printed Name of Witness

_____
Address of Witness

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of (___) physical presence or (___) online notarization, this _____ day of _____, 2026, by_____, the _____of 360 Hospitality, LLC**,** a foreign corporation, on behalf of the corporation, who is personally known to me or produced _____ as identification.

(NOTARY SEAL)

_____
(Notary Public Signature)

_____
(Print Name)

Notary Public, State of _____
Commission No.: _____
My Commission Expires: _____

EXHIBIT A

LEGAL DESCRIPTION OF AGENCY PROPERTY

LOTS 2 AND 3 OF THE PLAT OF SINGLETON'S ADDITION TO COCOA, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 1, PAGE 28 OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.

EXHIBIT B **CONCEPTUAL SITE PLAN**

COCOA VILLAGE HOTEL
COCOA, FLORIDA
603 BREVARD AVE.

DEVELOPMENT TEAM

LAND OWNER
COCOA REDEVELOPMENT AGENCY
603 BREVARD AVE.
COCOA, FL 32922

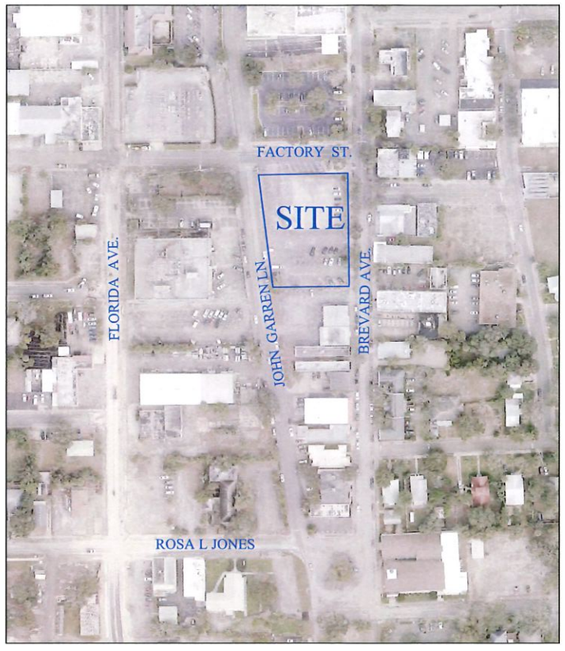
DEVELOPER
360 HOSPITALITY GROUP, LLC
DILESH PATIDAR,
321-537-6382
EMAIL: dilesh@360hospitalitygroup.com

ARCHITECT
CONSTRUCTION DESIGN GROUP OF FLORIDA
DALE PARSONS
1615 EDGEWATER DR., SUITE 200A
ORLANDO, FL 32804
407-709-0497
EMAIL: dparsons@cdgfla.com

RK ENGINEERING & ASSOCIATES, INC.
RICHARD KERN, PE
3206 S. HOPKINS, UNIT 70
TITUSVILLE, FL 32780
321-544-7466
EMAIL: rick@rkcivildesign.com

TABLE OF CONTENTS

C 1.1	COVER SHEET
C 2.1	EXISTING CONDITIONS TOPOGRAPHY
C 2.2	EXISTING CONDITIONS WATER, SEWER, REUSE, ELECTRIC AND STORMWATER
C 2.3	EXISTING AERIAL NORTH
C 2.4	EXISTING AERIAL SOUTH
C 2.5	EXISTING AERIAL ENTIRE SITE
C 3.1	CONCEPTUAL SITE PLAN
C 3.1A	SITE PLAN SOUTH END
C 3.1B	OVERALL SITE PLAN
C 3.1C	OVERALL SITE PLAN OVERLAID ON AERIAL
C 3.2	CONCEPTUAL DRAINAGE PLAN
C 3.3	POTABLE WATER AND SEWER PLAN
C 4.1	AUTOTURN PLAN ENTER
C4.2	AUTOTURN PLAN BACKUP
C4.3	AUTOTURN PLAN EXIT



VICINITY MAP

ZONING: CBD-CVO CENTRAL BUSINESS DISTRICT
COCOA VILLAGE OVERLAY

DESCRIPTION:

LOTS 2,3 and 4 OF **PLAT OF SINGLETON'S ADDITION TO COCOA**, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 1, PAGE 28 OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.

SITE DATA

			(sf)	(ac)	(%)
SITE AREA			37,890	0.87	
BUILDING FOOTPRINT			10,394	0.24	27.4%
GROSS FLOOR AREA			68,310	1.57	
				-	
NUMBER OF DWELLING UNITS	units	104		-	
BUILDING HEIGHT	ft	71'2"		-	
NUMBER OF FLOORS		7		-	
PROPOSED BUILDING USE		HOTEL		-	
				-	

BUILDING USE AND FLOOR TO AREA RATIO

FLOOR	ROOMS	USE	AREA (sf)
1ST	0	LOBBY	10,394
2ND	21	HOTEL ROOMS	10,279
3RD	21	HOTEL ROOMS	10,279
4TH	21	HOTEL ROOMS	10,279
5TH	21	HOTEL ROOMS	10,279
6TH	20	HOTEL ROOMS	10,279
7TH	0	ROOF TOP BAR	6,521
	104	TOTAL AREA	68,310
SITE AREA:			37,890
FAR			1.80

DRAWN R. KERN
DESIGN R. KERN
CHECKED R. KERN
APPROVED
O.C.

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT RAISED SIGNATURE AND SEAL
FOR REVIEW ONLY
3-17-2026

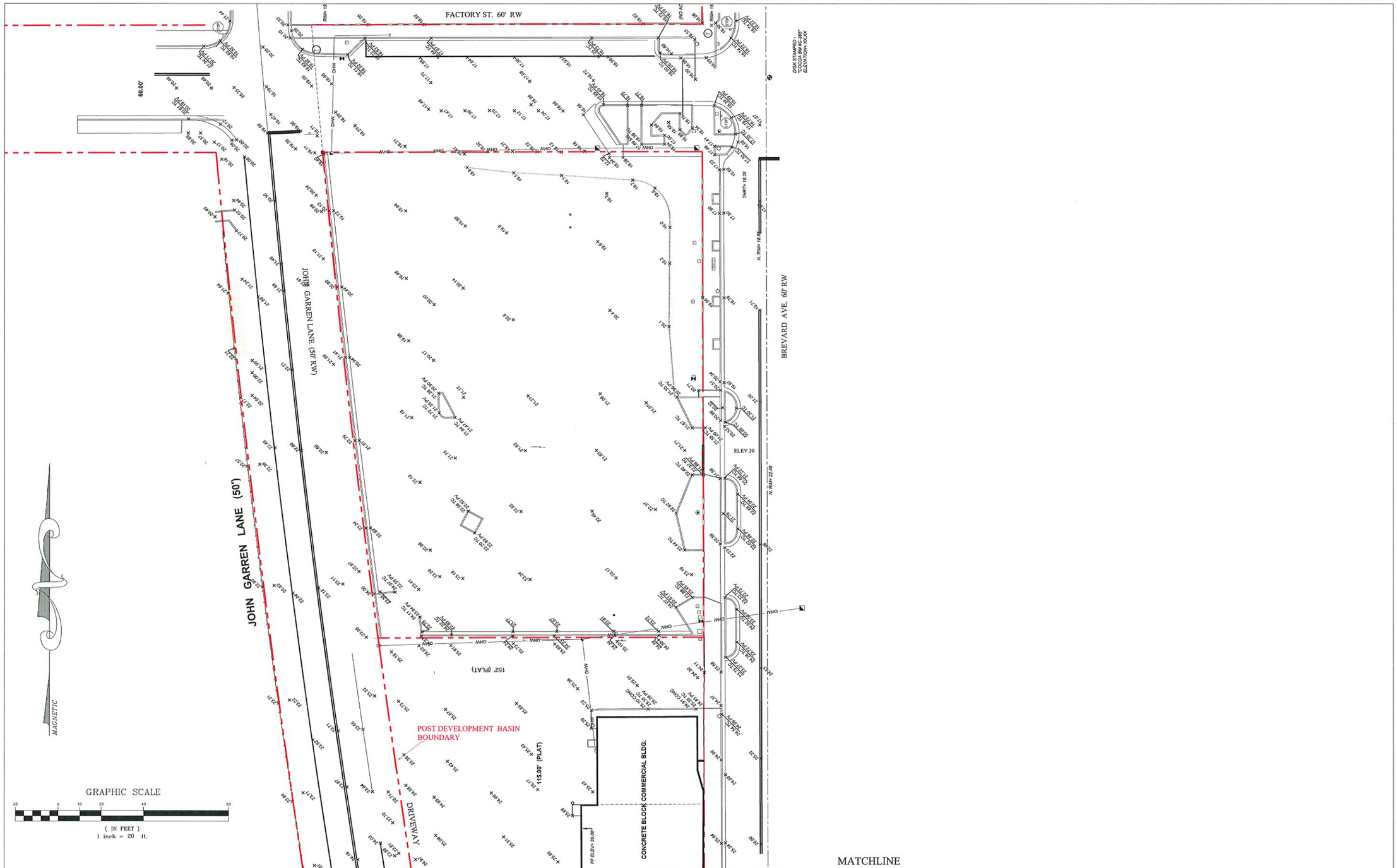
RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

COVER SHEET

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SH. C 1.1 OF



DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
O.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY

11-22-25

RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

EXISTING CONDITIONS TOPOGRAPHY,
PAVMENT AND PAVEMENT MARKINGS PLAN

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT. C2.1 OF

FACTORY ST. 60' RW

EX. CURB INLET TO REMAIN

EX. 6" WATER MAIN

EX. 8" VCP SANITARY SEWER LINE

EX. 6" WATER MAIN

60.00'

N. RIM= 20.18

EX. 24" RCP

GRT= 17.46
INV. 11.37

EX. 24" RCP

12" RCP

N. RIM= 16.78
N. INV= 9.98
S. INV= 9.98
NW. INV. 12.95
W. INV= 9.98

EX. FIRE HYDRANT

EX. 8" VCP SANITARY SEWER LINE

OHW

MHO

EX. CONCRETE POWER POLE

EX. CONCRETE POWER POLE

EX. CONCRETE POWER POLE

JOHN GARREN LANE (50' RW)

EX. CONCRETE POWER POLE

12" VCP STORM

BREVARD AVE. 60' RW

EX. SANITARY SEWER SERVICE, (PREVIOUSLY SERVED CITY HALL)

ELEV 20

JOHN GARREN LANE (50')

MAGNETIC

EX. 6" WATER MAIN

OHW

MHO

EX. WOOD POWER POLE

152' (PLAT)

POST DEVELOPMENT BASIN BOUNDARY

115.00' (PLAT)

CONCRETE BLOCK COMMERCIAL BLDG.

EX. 8" VCP SANITARY SEWER LINE

EX. 6" WATER MAIN

DRIVEWAY

MATCHLINE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

DRAWN R. KERN
DESIGN R. KERN
CHECKED R. KERN
APPROVED
D.C.

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY

11-22-25

RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

EXISTING CONDITIONS WATER, SEWER, REUSE, ELECTRIC AND STORMSEWER PLAN

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT. C2.2 OF



DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
O.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
3-17-2024

RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

EXISTING AERIAL NORTH

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT. C 23 OF



DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
D.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
3-17-2026

RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

EXISTING AERIAL SOUTH

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT. C 2.4 OF ____



MAGNETIC

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
O.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
3-17-2026

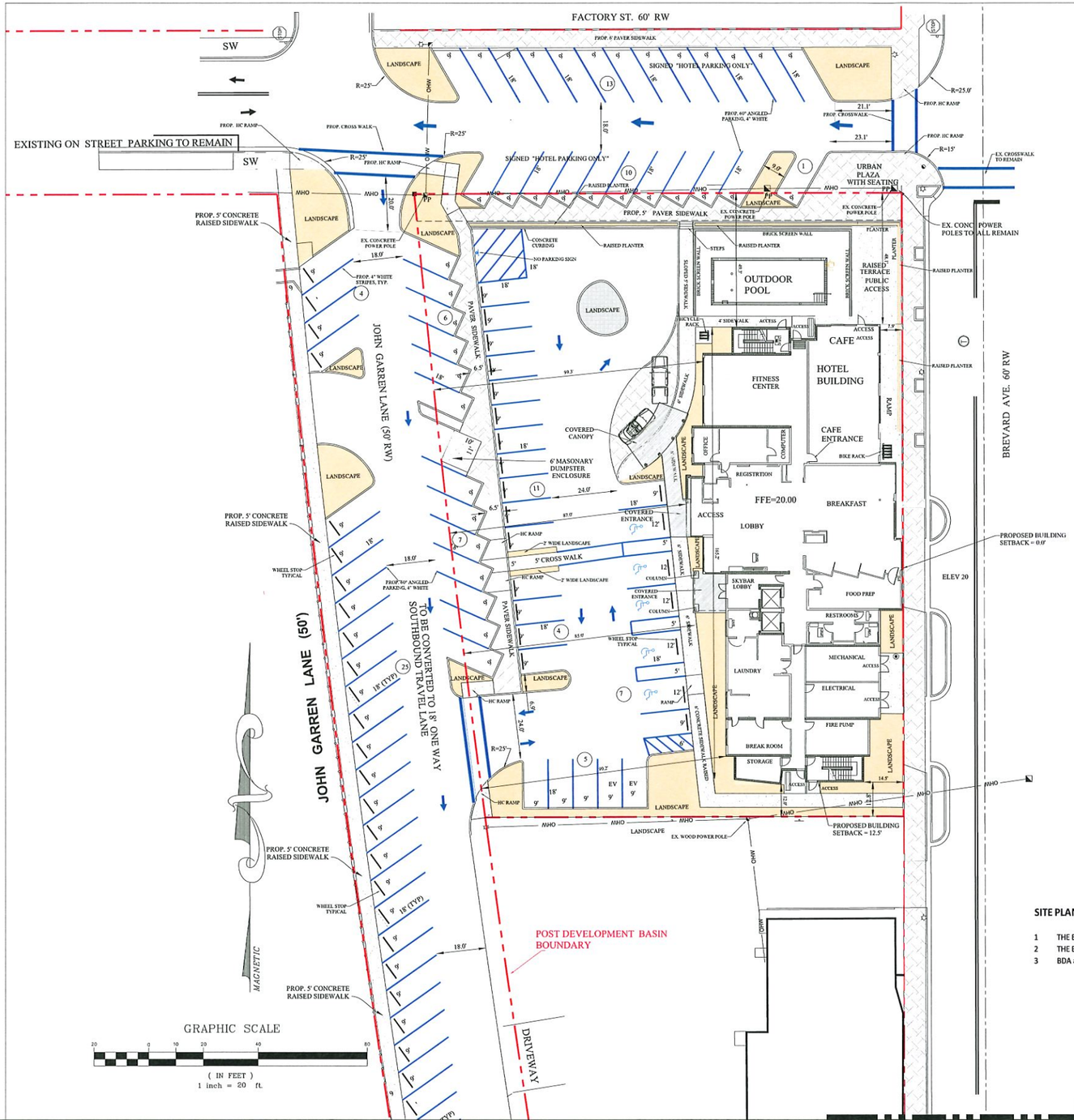
RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

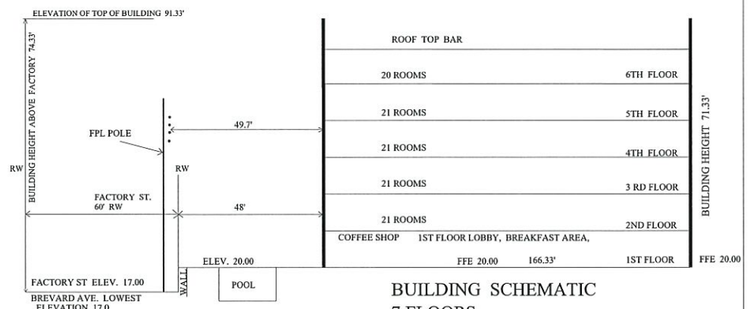
COCOA VILLAGE HOTEL
COCOA, FLORIDA

EXISTING AERIAL
ENTIRE SITE

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT. C 2.5 OF





BUILDING SCHEMATIC
7 FLOORS
104 ROOMS

SITE DATA

			(sf)	(ac)	(%)
SITE AREA			37,890	0.87	
BUILDING FOOTPRINT			10,394	0.24	27.4%
GROSS FLOOR AREA			68,310	1.57	
				-	
NUMBER OF DWELLING UNITS	units	104		-	
BUILDING HEIGHT	ft	71'2"		-	
NUMBER OF FLOORS		7		-	
PROPOSED BUILDING USE		HOTEL			
				-	

HOTEL PARKING REQUIREMENTS

USE	RATIO	UNIT	QUANTITY	REDUCTION ALLOWED	TOTAL PARKING REQUIRED
ROOMS	1/ROOM	ROOM	104		104
MANAGER	1/MANA	EACH	1		1
EMPLOYEES	1 PER 3 EMP.	EACH	9		3
ROOFTOP BAR	1 PER 4	SEATS	16	50%	2
COFFEE SHOP	1 PER 4	SEATS	16	50%	2
HOTEL PARKING REQUIRED					112
TOTAL PARKING PROVIDED					115

LAND USE TABLE

LAND USE			(sf)	(ac)	(%)
BUILDING FOOTPRINT			10,394	0.239	27.4%
PAVING AND SIDEWALKS			22,317	0.512	58.9%
POOL/RECREATIONAL AREA			1,745	0.040	4.6%
LANDSCAPE AREA			3,434	0.079	9.1%
TOTAL SITE AREA			37,890	0.870	100.0%
TOTAL IMPERVIOUS			34,466	0.791	91.0%
TOTAL PERVIOUS , OPEN SPACE			3,424	0.079	9.0%

PARKING PROVIDED

PARKING LOCATION	SPACES	
FACTORY ST.	24	DEDICATED TO HOTEL
ONSITE PARKING	26	DEDICATED TO HOTEL
JOHN GARREN	65	PUBLIC PARKING
TOTAL PROVIDED	115	

TOTAL HANDICAP REQUIRED 5
TOTAL HANDICAP PROVIDED 5

BUILDING SETBACK TABLE

BUILDING SETBACKS FROM RW	CODE MIN (ft)	CODE MAX (ft)	PROPOSED MIN (ft)	PROPOSED MAX (ft)
JOHN GARREN	5	10		85
FACTORY ST.	0	10	48.1	49.3
BREVARD AVE.	5	10	0	14.5

	CODE MIN	CODE MAX	PROPOSED	
MINIMUM FRONTAGE BUILDOUT (1)	90%			72%
MAXIMUM DOOR RECESS		5'		8.33'
GROUND FLOOR TRANSPARENCY	60%			

(1) 165.2' / 229.4' = 72%

BUILDING USE AND FLOOR TO AREA RATIO

FLOOR	ROOMS	USE	AREA (sf)
1ST	0	LOBBY	10,394
2ND	21	HOTEL ROOMS	10,279
3RD	21	HOTEL ROOMS	10,279
4TH	21	HOTEL ROOMS	10,279
5TH	21	HOTEL ROOMS	10,279
6TH	20	HOTEL ROOMS	10,279
7TH	0	ROOF TOP BAR	6,521
	104	TOTAL AREA	68,310
SITE AREA:			37,890
FAR			1.80

WAIVERS AND VARIANCES REQUESTED

	APPENDIX A, ZONING, ART. XII, SECTION 1 C PARKING AND LOADING REGULATIONS
1	A WAIVER TO ALLOW 9' WIDE PARKING SPACES IN LIEU OF 10' REQUIRED BY CODE
2	A WAIVER TO ALLOW THE REDUCTION OF 62 ONSITE PARKING SPACES 112 SPACES REQUIRED LESS (26 ONSITE + 24 FACTORY STREET) = WAIVER OF 62 SPACES
	APPENDIX A, ZONING, ART. XI, SECTION 22 (I) WATERFRONT OVERLAY DISTRICT
3	TO ALLOW A REDUCTION OF THE MINIMUM BUILDING SETBACK ON BREVARD AVE. FROM 5' TO 0'
4	TO ALLOW AN INCREASE IN THE MAXIMUM SETBACK FROM BREVARD AVE. FROM 10.0' TO 14.5'
5	TO ALLOW AN INCREASE IN THE MAXIMUM SETBACK FROM JOHN GARREN LN. FROM 10.0' TO 85.0'
6	TO ALLOW AN INCREASE IN THE MAXIMUM SETBACK FROM FACTORY ST. FROM 10.0' TO 49.3'
7	TO ALLOW THE MINIMUM BUILDING FRONTAGE TO BE REDUCED FROM 90% TO 72%.
8	TO ALLOW THE MAXIMUM DOOR RECESS TO BE INCREASED FROM 5.0' TO 8.33'
9	TO ALLOW THE MINIMUM GROUND FLOOR TRANSPARENCY TO BE REDUCED FROM 60% TO 50%
10	TO ALLOW A REDUCTION IN PERIMETER LANDSCAPE BUFFER REQUIREMENTS, ON THE NORTH, WEST AND EAST PERIMETERS, SEE SHEET L-1 OF THE LANDSCAPE PLAN

SITE PLAN NOTES

1 THE ENTIRE BUILDING SHALL HAVE A FULLY AUTOMATIC FIRE SPRINKLER SYSTEM
2 THE BUILDING SHALL MEET L.S.C. CHAPTER 28 in its entirety.
3 BDA applicatiion shall be completed and submitted to Brevard County

DRAWN R. KERN
DESIGN R. KERN
CHECKED R. KERN
APPROVED
O.C.

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
3-17-2026

RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

CONCEPTUAL SITE PLAN

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT. C 3.1 OF

MATCHLINE

EX. 6" WATER MAIN

EX. 6" WATER MAIN

EX. FIRE HYDRANT

DERBY ST.

PROP. 5' CONCRETE RAISED SIDEWALK

LANDSCAPE

LANDSCAPE

18.0'

JOHN GARREN LANE (50' R/W) TO BE CONVERTED TO 18' ONE WAY SOUTHBOUND TRAVEL LANE

18' (TYP)

DRIVEWAY

DRIVEWAY

DRIVEWAY

DRIVEWAY

PROP. 5' CONCRETE RAISED SIDEWALK

18.0'

PROP. 60° ANGLED PARKING, 4" WHITE

LANDSCAPE

JOHN GARREN LANE (50' R/W)

DRIVEWAY

DRIVEWAY

EX. FIRE HYDRANT

LANDSCAPE

PROP. 5' CONCRETE RAISED SIDEWALK

18.0'

18' (TYP)

WHEEL STOP TYPICAL

DRIVEWAY

18.0'

CONNECT TO EX. SIDEWALK

LANDSCAPE

MAGNETIC

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

ROSA L. JONES DR.

DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
D.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY

3-17-2026

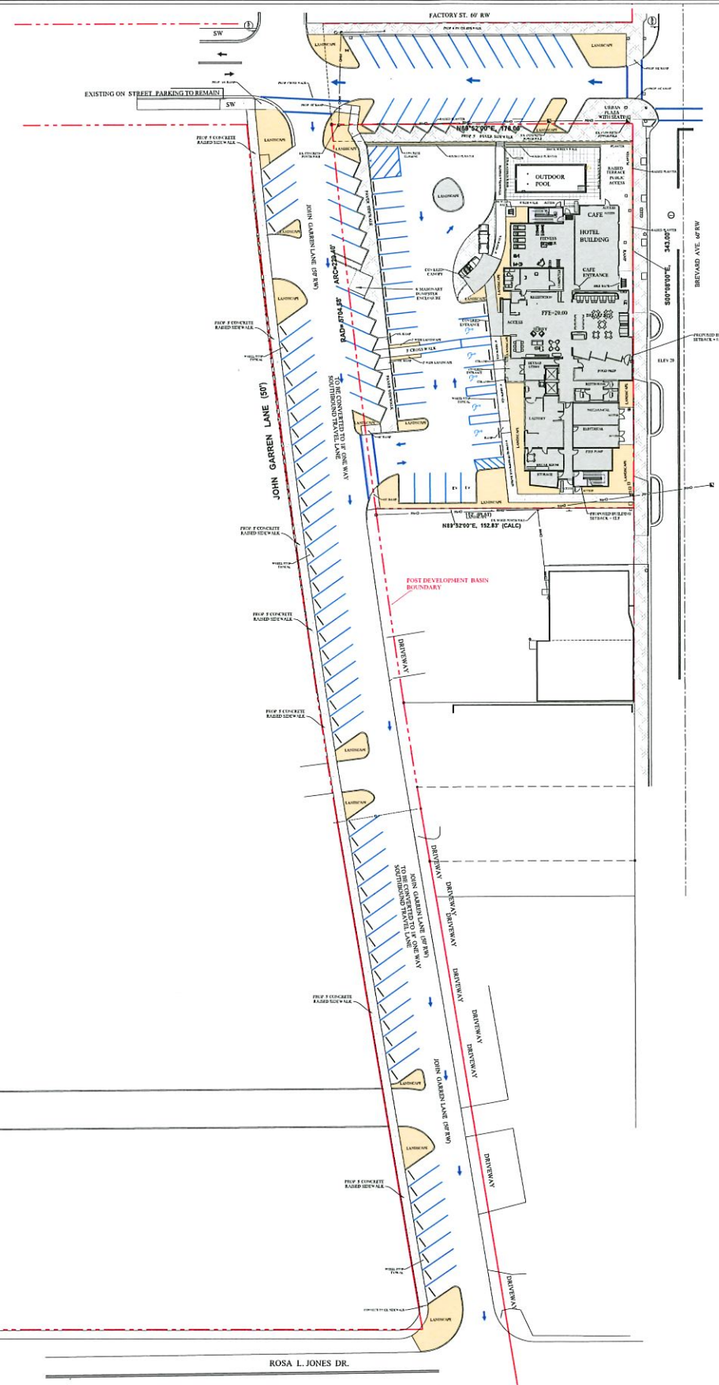
RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

SITE PLAN
SOUTH END

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

C 3.1A





GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
O.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
3-17-2026

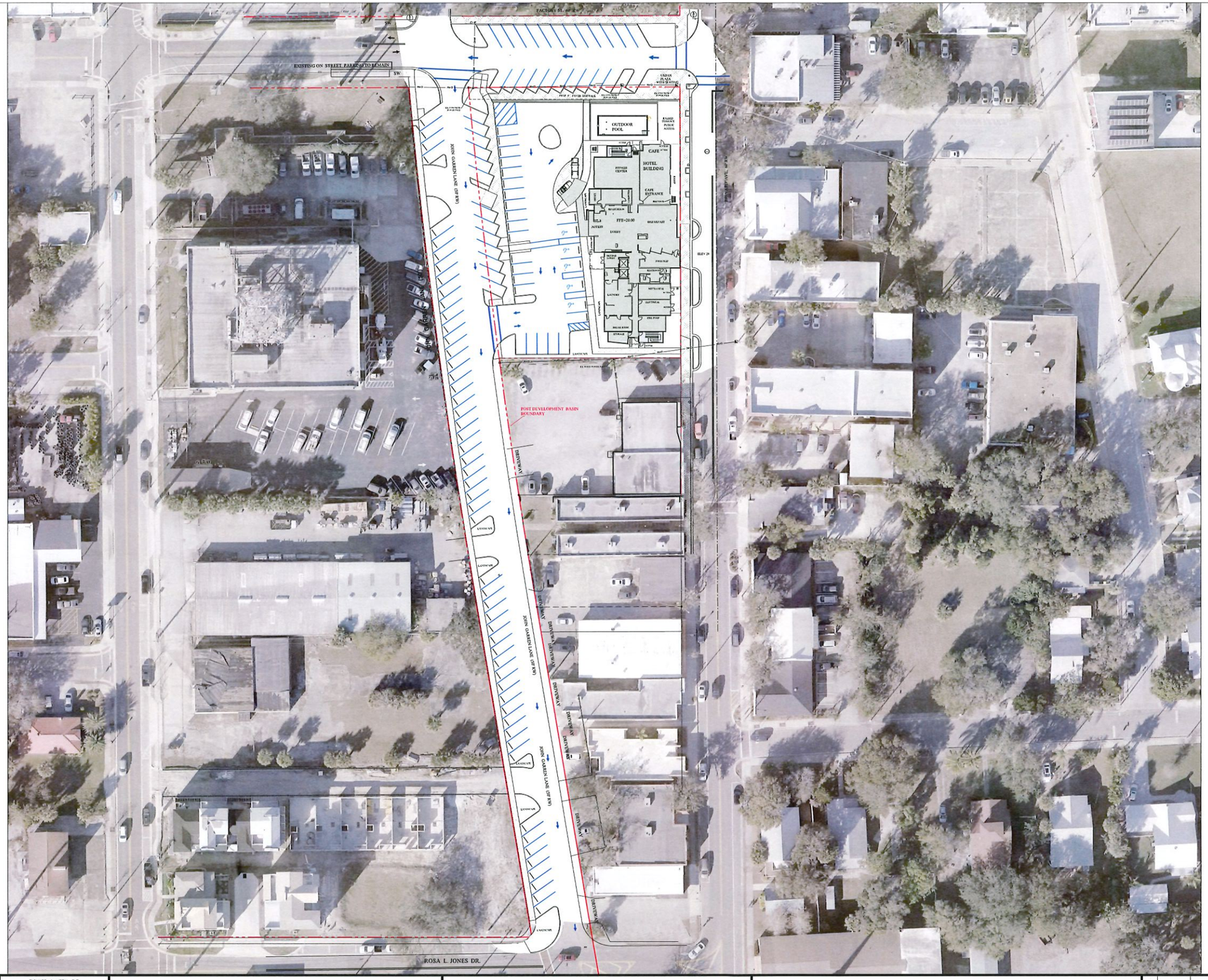
RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

CONCEPTUAL OVERALL
SITE PLAN

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

C 3.1B



MAGNETIC

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
O.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
3-17-2026

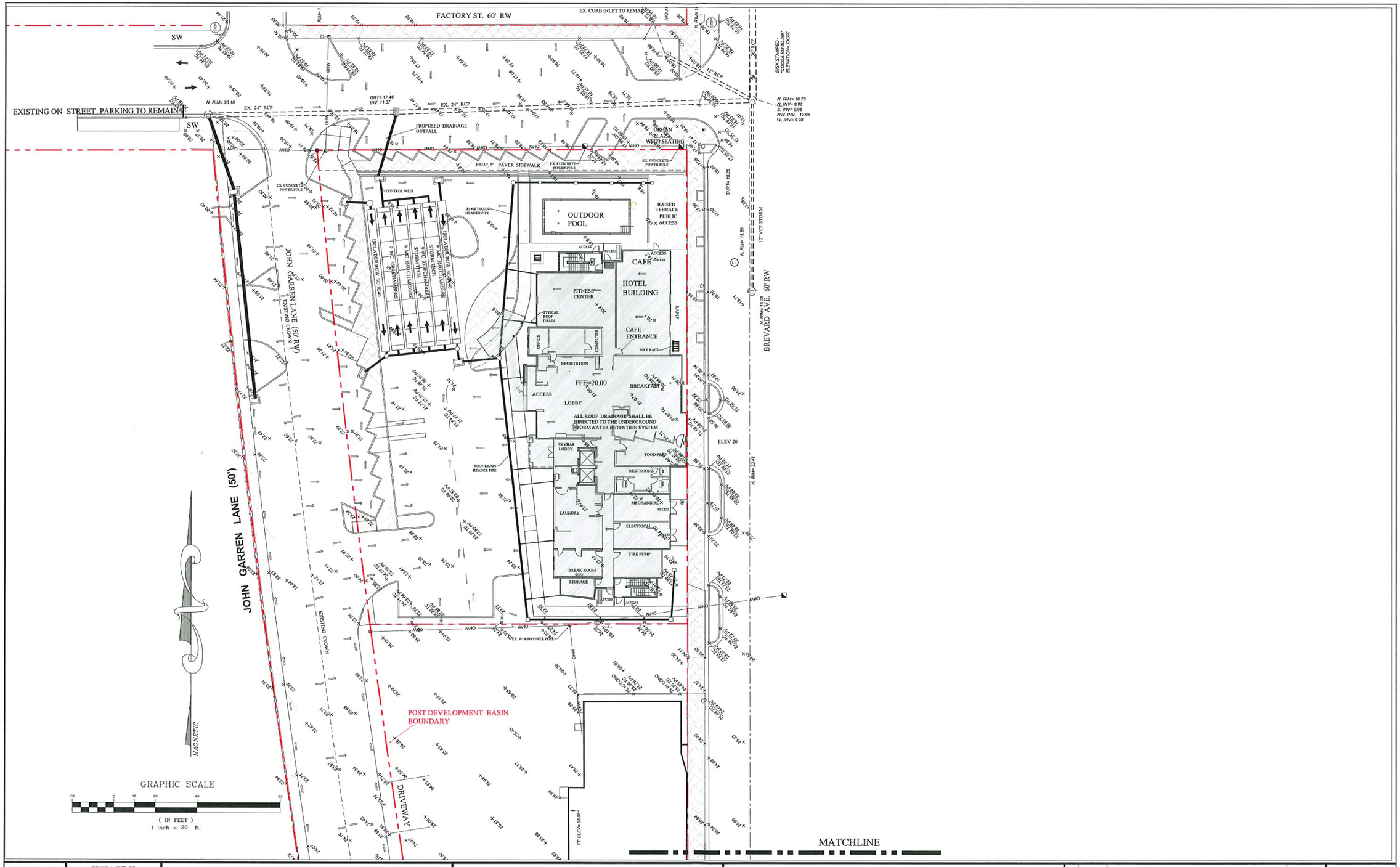
RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

OVERALL SITE PLAN OVERLAID ON AERIAL

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT. C 3.1C OF



DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
O.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
3-17-2026

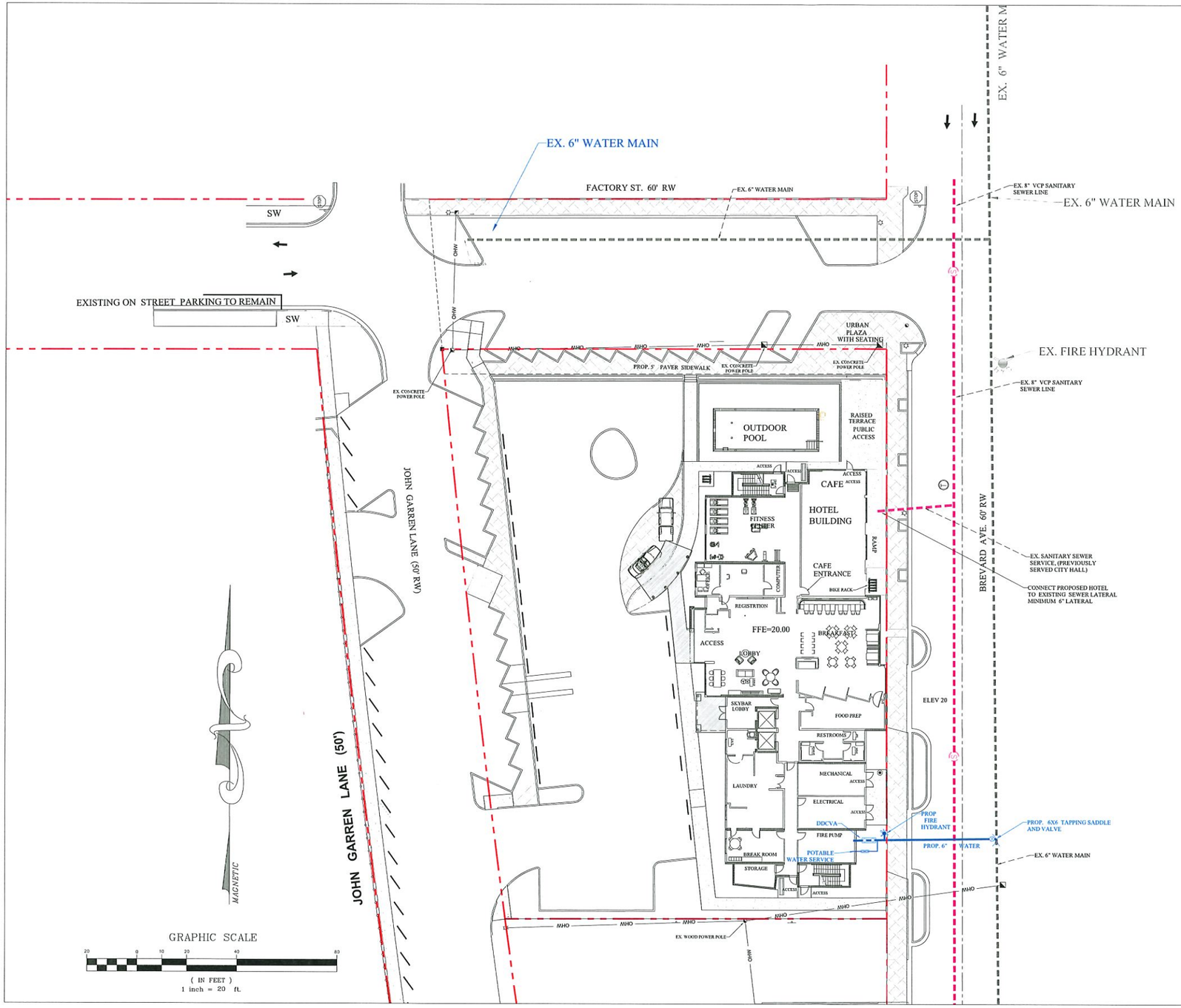
RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

CONCEPTUAL DRAINAGE PLAN

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT. C 3.2 OF



FIRE DEMAND

Fairfield Hotel – Cocoa Village
Fire Flow Calculation

Reference: NFPA 1 (2021), Chapter 18

Building Square footage:

1st Floor	10,697 SF
2nd Floor	10,279 SF
3rd Floor	10,279 SF
4th Floor	10,279 SF
5th Floor	10,279 SF
6th Floor	10,279 SF
Rooftop Bar	3,247 SF
Total Square Footage	65,339 SF

Building Type Chosen: FBC Type IB; NFPA 220 Type II (222)

Total Fire Flow Area = Area of 3 largest successive floors (18.4.4.2) = 31,255 SF

Table 18.4.5.2.1:
Fire flow per table: 2000 GPM
Reduced 75% in sprinklered building (18.4.4.3.2): 2750 × .75 = 1,500
2000 – 1500 = 500
Required fire flow: (With quick response sprinkler): 600 GPM (18.4.5.3.3)
Required fire flow:(Without quick response sprinkler): 1000 GPM (18.4.5.3.2)

FIRE HYDRANT LOCATIONS

LOCATION OF FIRE HYDRANT	DISTANCE FROM HOTEL BUILDING (ft)
MARLAND AND BREVARD AVE.	67
FLORIDA AVE. AND FACTORY ST.	360
JOHN GARREN 150 NORTH OF ROSA L JONES	460
BREVARD AVE. AND DERBY ST.	325

DRAWN R. KERN
DESIGN R. KERN
CHECKED R. KERN
APPROVED
D.C.

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #35797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
3-17-26

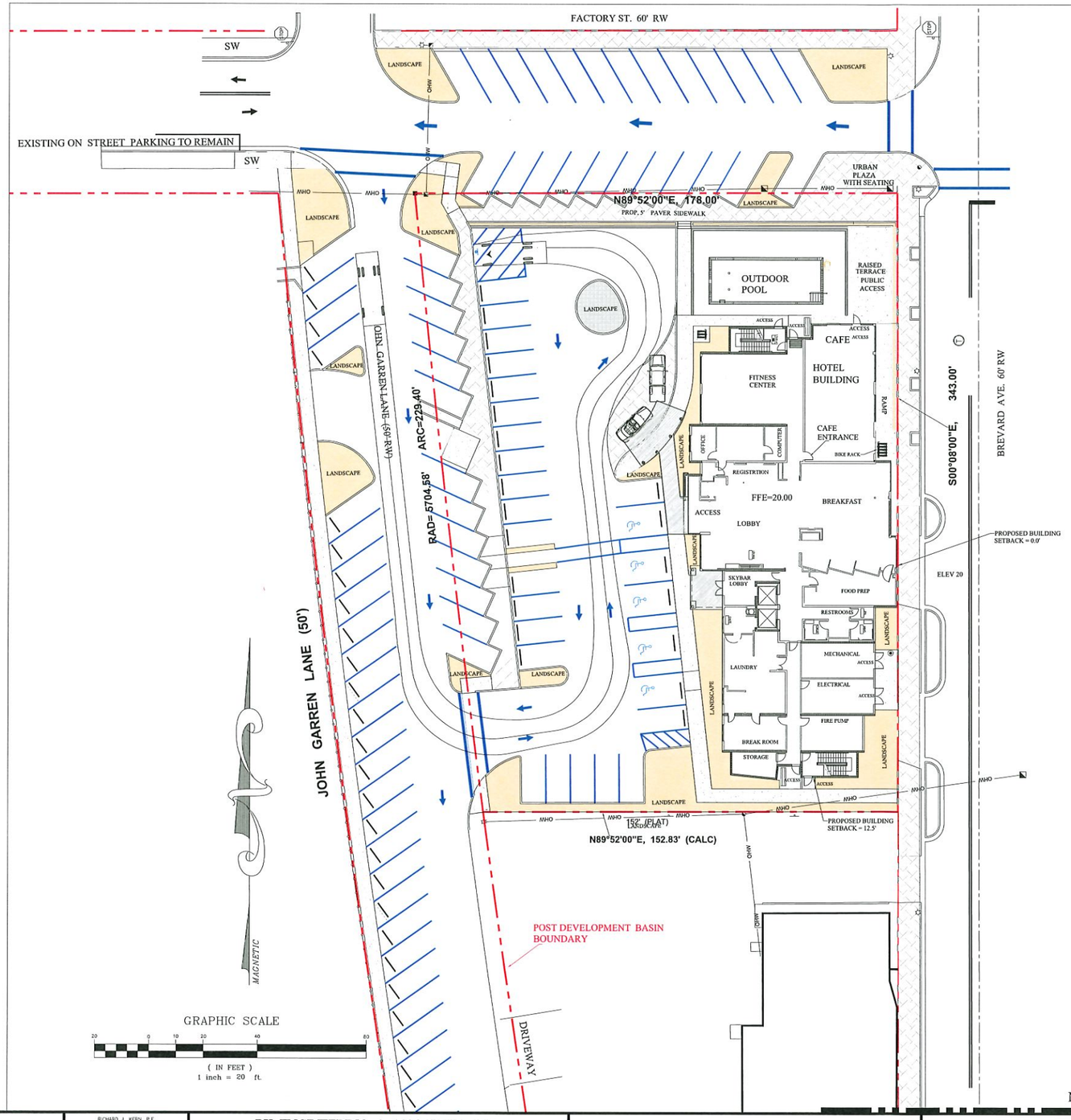
RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

POTABLE WATER AND SEWER PLAN

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT. C 3.3 OF



DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
D.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
3-17-26

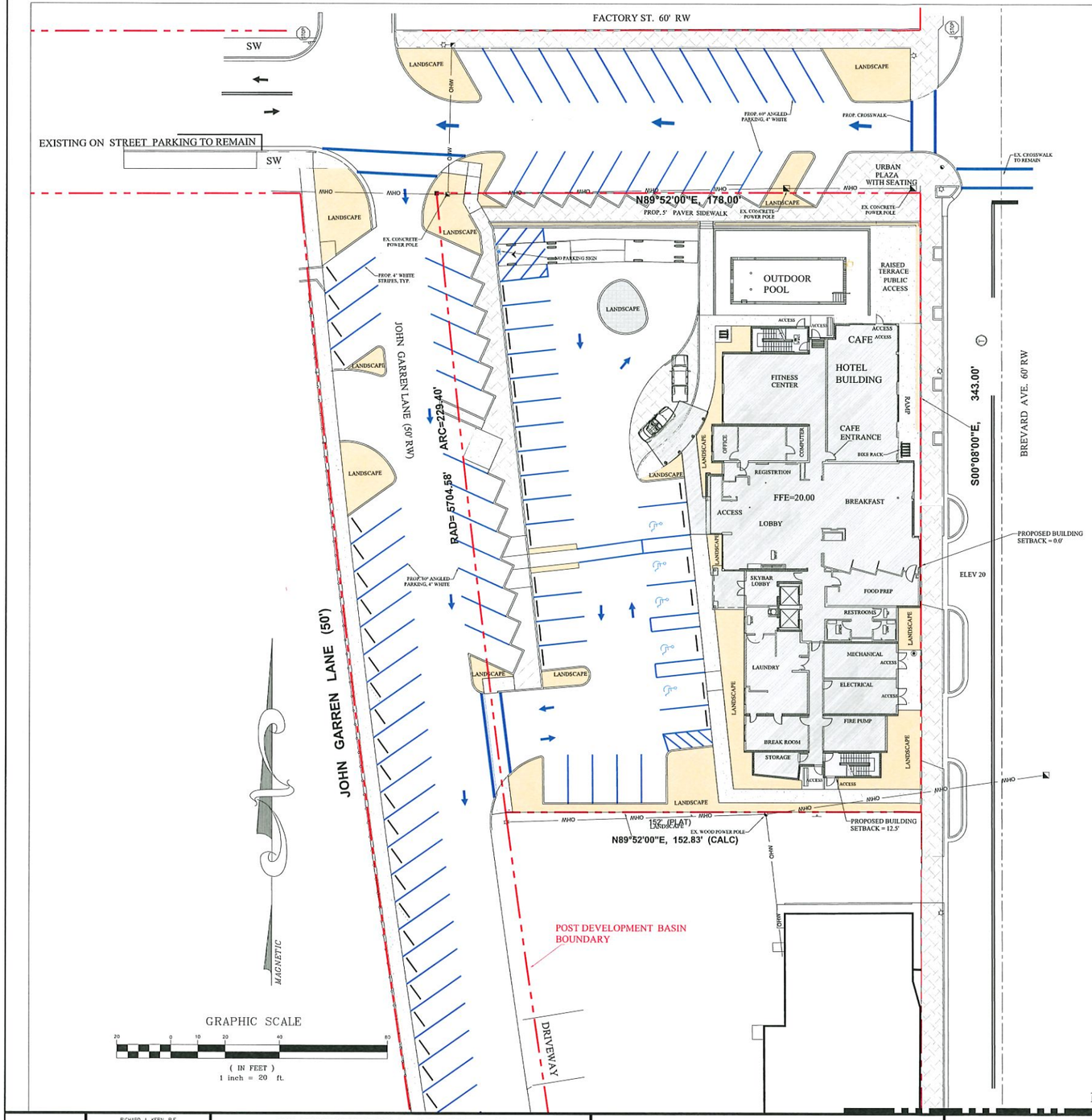
RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

AUTOTURN ENTRY EXHIBIT
AMBULANCE

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT. C 4.1 OF



DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
D.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39737
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
3-17-26

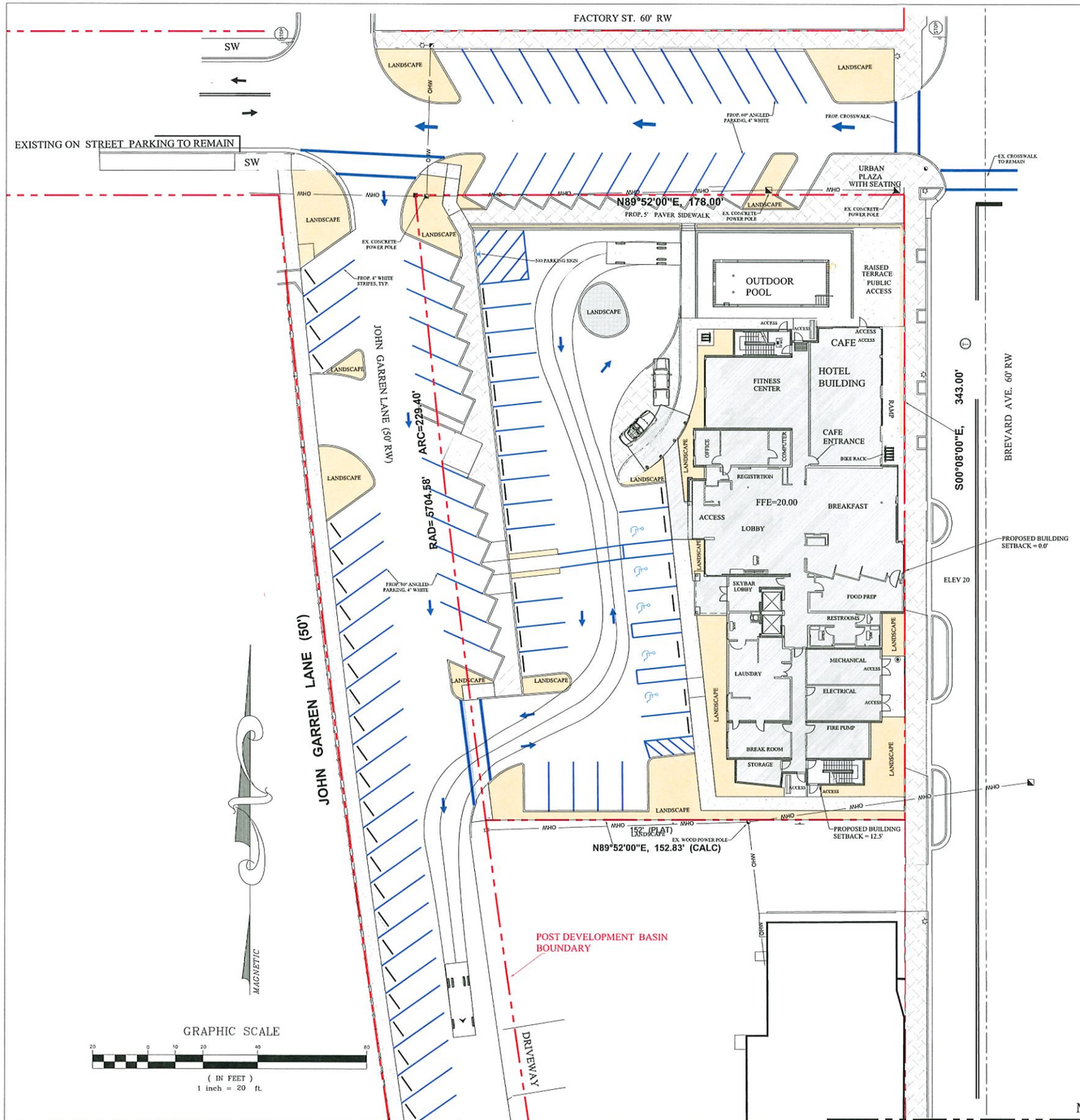
RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

AUTOTURN BACKUP EXHIBIT
AMBULANCE

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHEET C4.2 OF



DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
O.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
3-17-2026

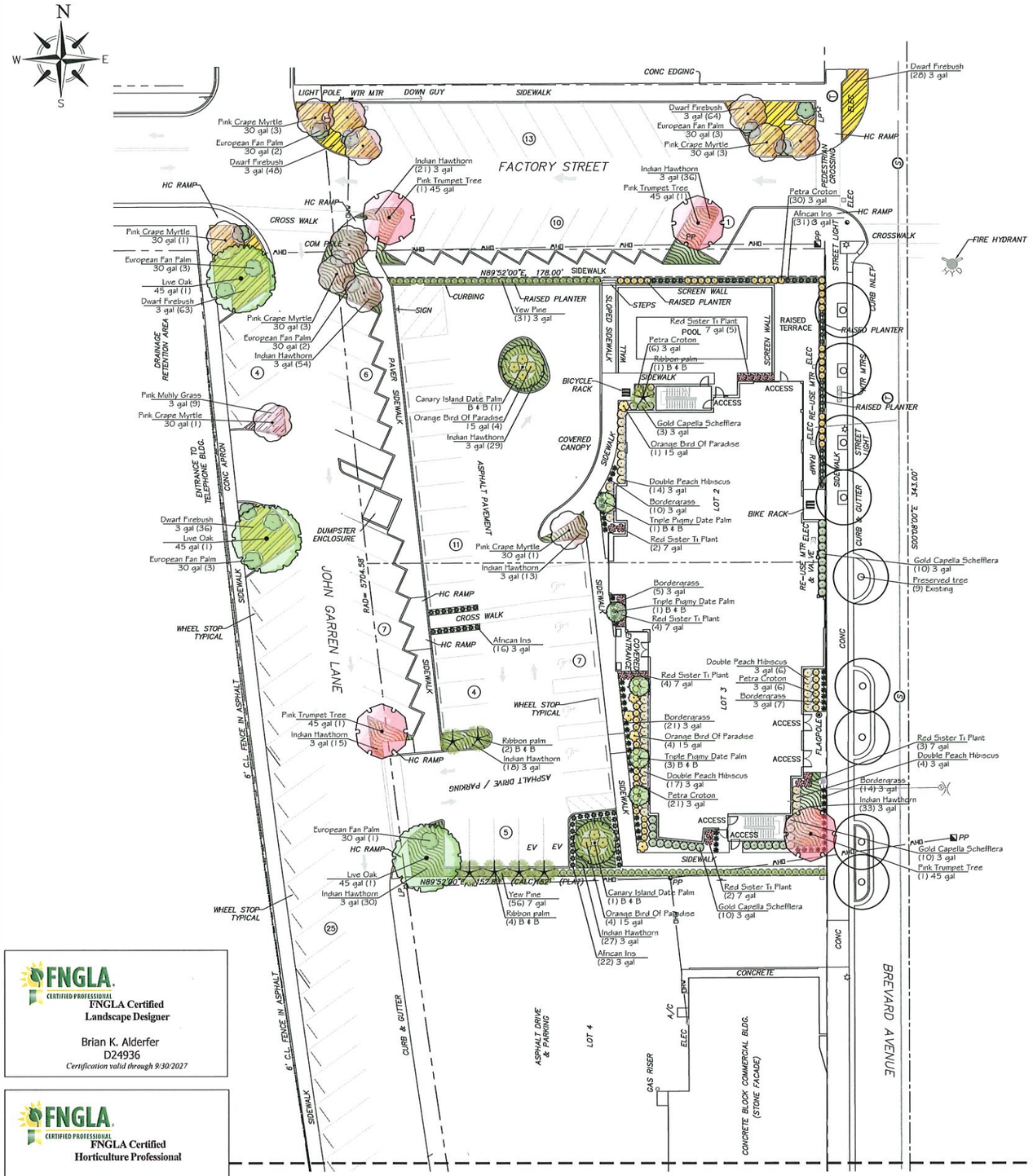
RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

AUTOTURN EXIT EXHIBIT
AMBULANCE

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT. C4.3 OF ____



FNGLA CERTIFIED PROFESSIONAL
FNGLA Certified Landscape Designer
Brian K. Alderfer
D24936
Certification valid through 9/30/2027

FNGLA CERTIFIED PROFESSIONAL
FNGLA Certified Horticulture Professional
Brian K. Alderfer
H02184
Certification valid through 9/30/2027

Sunshine 811

Landscape Calculations

R.O.W. buffers

Required (one tree per fifty lineal feet	**Provided**	
North perimeter (along Factory Street)		
178 l.f. / 50 = 4 trees	3 trees	Waiver requested
Continuous minimum 24" height hedge along parking lot	No	Waiver requested
South perimeter (abutting commercial property)		
153 l.f. / 50 = 4 trees	4 trees	
Continuous minimum 24" height hedge along parking lot	Yes	
West perimeter (abutting industrial zoned property)		
230 l.f. / 50 = 5 trees	4 trees	Waiver requested
Continuous minimum 24" height hedge along parking lot	No	Waiver requested
East perimeter (abutting industrial zoned property)		
229 l.f. / 50 = 5 trees	3 trees	Waiver requested
Continuous minimum 24" height hedge along parking lot	No	Waiver requested

Interior parking area landscape

Required	**Provided**
5 parking islands X 1 tree per island = 5 trees	5 trees

General Requirements

Required	**Provided**
Minimum 6 trees per acre- .87 acres x 6 = 6 trees	45 trees

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

Plans are not to be used for construction purposes unless marked "approved" by the City of Cocoa.

Environmental Design Services
Landscape and Irrigation Design and Consulting
141 East Dover Street
Satellite Beach, FL 32937
Phone: (321) 288-6143
Fax: (321) 779-9953

Original Drawing Issue Date: 3-12-26

REVISIONS:

No.	Date	By	Description
1.			
2.			
3.			
4.			
5.			
6.			
7.			

Project:

Cocoa Village Hotel

Location:

Cocoa, Florida

Landscape Plan

This Drawing and The Designs Represented Herein are The Exclusive Property of Environmental Design Services, and May Not Be Reproduced, Used, or Disseminated Without Written Permission.

Sheet #: L-1

Project No.	00-0000
Drawn By:	BKA
Designed By:	BKA
Checked By:	BKA
Drawing Scale:	1"=20'

Sheet 1 of 4

PLANT SCHEDULE

SYMBOL	COMMON / BOTANICAL NAME	CONT	CAL	SIZE	QTY	REMARKS
TREES						
	Preserved tree /	Existing			9	
	Pink Crape Myrtle / Lagerstroemia indica 'Sioux'	30 gal	Multi-trunk	8' ht x 3' sprd.	14	
	Live Oak / Quercus virginiana	45 gal	2.5"Cal	12' ht. x 4' sprd.	5	
	Pink Trumpet Tree / Tabebuia heterophylla	45 gal	2.5"Cal	12' ht. x 4' sprd.	4	
PALM TREES						
	European Fan Palm / Chamaerops humilis	30 gal	Multi-trunk	3'-4' O.A.	17	minimum 3 trunks
	Ribbon palm / Livistona decipiens	B & B	Heavy	8' C.T.	7	
	Canary Island Date Palm / Phoenix canariensis	B & B	Heavy	6' C.T.	2	specimen
	Triple Pigmy Date Palm / Phoenix roebelenii	B & B	Triple	5'-6' O.A.	5	
	Sabal Palm / Sabal palmetto	B & B	Debooted	12' C.T.	5	staggered heights

SYMBOL	COMMON / BOTANICAL NAME	SIZE	QTY	REMARKS
SHRUBS				
	Petra Croton / Codiaeum variegatum 'Petra'	3 gal	63	15"-18"
	Red Sister TI Plant / Cordyline terminalis 'Red Sister'	7 gal	20	30", full
	African Iris / Dietes vegeta	3 gal	69	full
	Double Peach Hibiscus / Hibiscus rosa-sinensis ' Double Peach'	3 gal	41	18"-24"
	Bordergrass / Liriope muscari	3 gal	57	
	Yew Pine / Podocarpus macrophyllus	3 gal	31	24"-28"
	Yew Pine / Podocarpus macrophyllus	7 gal	56	36"-40"
	Gold Capella Schefflera / Schefflera arboricola 'Gold Capella'	3 gal	33	18"-24"
	Orange Bird Of Paradise / Strelitzia reginae	15 gal	13	24"-24"

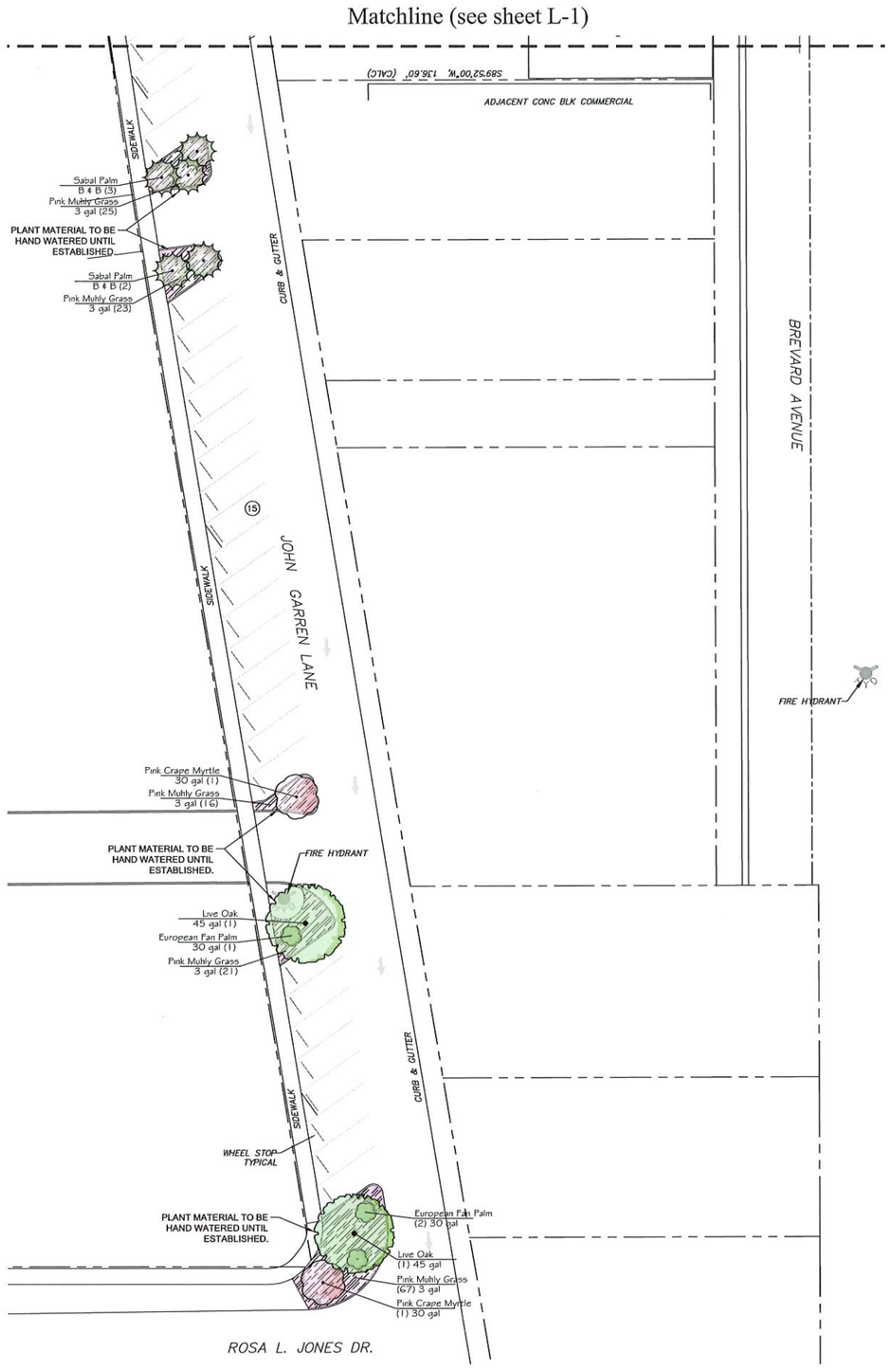
SYMBOL	COMMON / BOTANICAL NAME	CONT	SPACING	QTY	REMARKS
SHRUB AREAS					
	Dwarf Firebush / Hamelia patens 'Compacta'	3 gal	30" o.c.	239	15"-18"
	Pink Muhly Grass / Muhlenbergia capillaris	3 gal	36" o.c.	161	18\"-24\"
	Indian Hawthorn / Rhaphiolepis indica	3 gal	30" o.c.	276	12"-15"

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Plans are not to be used for construction purposes unless marked "approved" by the City of Cocoa.



Enviromental Design Services
Landscape and Irrigation Design and Consulting
141 East Dover Street
Satellite Beach, FL 32937
Phone: (321) 288-6143
Fax: (321) 779-9953

Original Drawing Issue Date: 3-12-26

REVISIONS:

No.	Date	By	Description
1.			
2.			
3.			
4.			
5.			
6.			
7.			

Project:

Cocoa Village Hotel

Location:

Cocoa, Florida

Landscape Plan

This Drawing and The Designs Represented Herein are The Exclusive Property of Enviromental Design Services, and May Not Be Reproduced, Used, or Disseminated Without Written Permission.

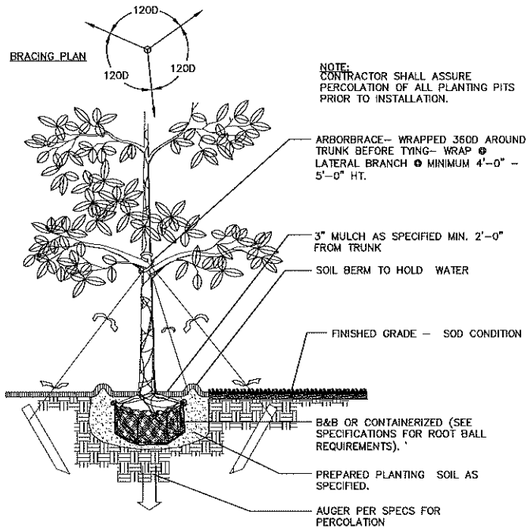
Sheet #: L-2

Project No.	00-0000
Drawn By:	BKA
Designed By:	BKA
Checked By:	BKA
Drawing Scale:	1"=20'

Sheet 2 of 4

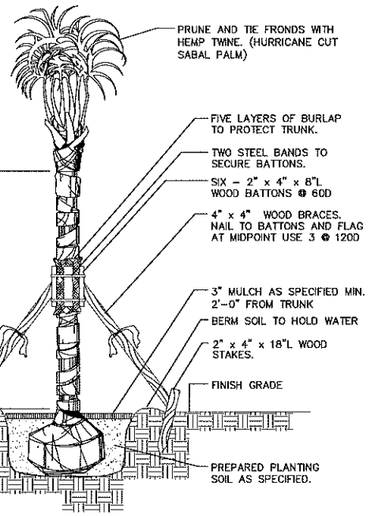
Landscape Bid Notes

1. ANY DISCREPANCIES CONCERNING THE MATERIALS OR CONDITIONS OF THE SITE THAT SHALL INHIBIT THE INSTALLATION AS DRAWN SHALL BE BROUGHT TO THE ATTENTION OF THE OWNERS REPRESENTATIVES. ISSUES FOUND PRIOR TO BID WILL BECOME A CONDITION OF THE BID AFTER THE AWARD OF THE CONTRACT.
2. AFTER THE AWARD OF THE CONTRACT, ANY DISCREPANCIES IN THE PLANS OR ADDITIONAL MATERIALS AND COSTS BECAUSE OF PRE-EXISTING CONDITIONS AT THE SITE SHALL NOT BE A REASON FOR ANY ADDITIONAL CHARGES TO THE OWNERS.
3. THESE BID CONDITIONS ARE NOT TO BE CONSIDERED ALL INCLUSIVE. THERE MAY BE ADDITIONAL CONDITIONS INCLUDED IN OTHER DOCUMENTS OF THE CONSTRUCTION AGREEMENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE HIMSELF AND HIS SUBCONTRACTORS AWARE OF ANY OTHER SUCH CONDITIONS.
4. THE QUANTITIES ON THE MATERIALS SCHEDULE ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND NOT TO BE CONSIDERED AS THE FINAL QUANTITY FOR BID AND INSTALLATION. THE CALLOUTS AND ENTITIES DRAWN ON THE PLANS TAKE PRECEDENCE OVER THE PLANT LIST.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN TAKEOFFS OF THE PLANTINGS AS DRAWN.
6. THE CONTRACTOR SHALL BE EXPECTED TO VISIT THE SITE PRIOR TO BID. THE CONTRACTOR SHALL HAVE AN UNDERSTANDING OF THE ON SITE CONDITIONS TO PREPARE HIS BID. CONDITIONS EXISTING PRIOR TO BID WILL BECOME A CONDITION OF THE BID AFTER THE BID IS ACCEPTED BY THE CLIENT.



LARGE TREE PLANTING/STAKING DETAIL

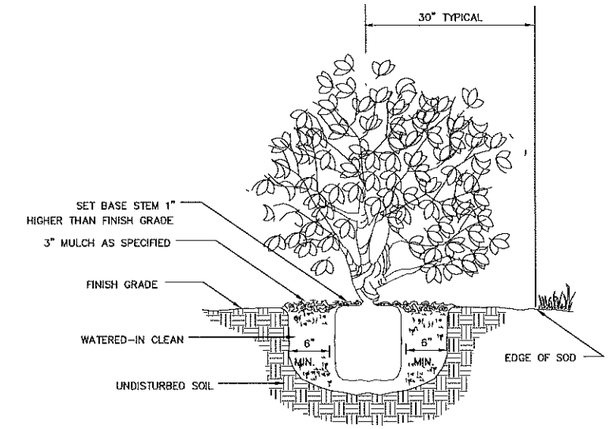
SCALE: N.T.S.



NOTES:
1. SABAL PALMS W/ BOOTS REMOVED
2. SEE PLANS AND SPECS. FOR PALMS W/ BOOTS TO REMAIN ON TRUNK.
3. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY LANDSCAPE DESIGNER.
4. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.

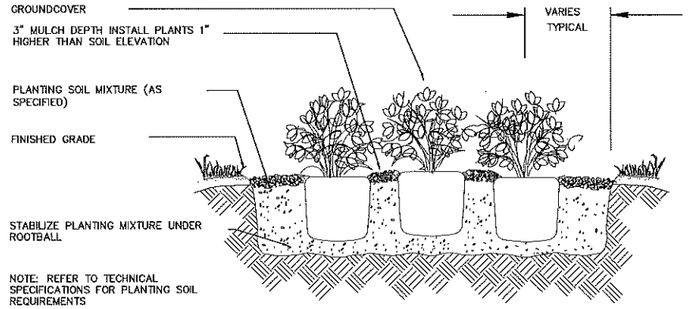
PALM TREE PLANTING/STAKING DETAIL

SCALE: N.T.S.



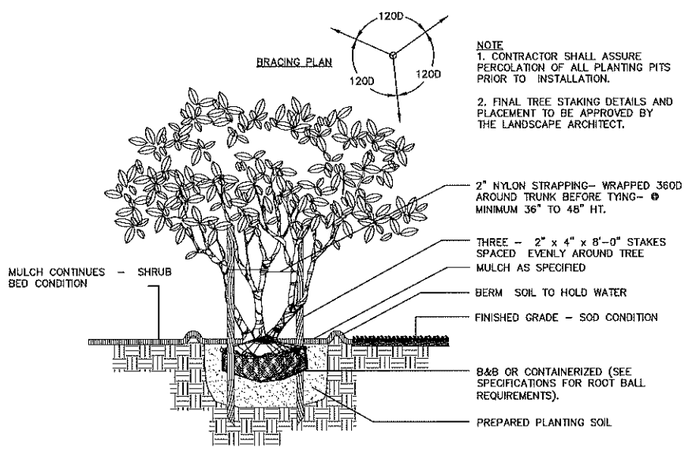
SHRUB PLANTING DETAIL

SCALE: N.T.S.



GROUNDCOVER PLANTING DETAIL

SCALE: N.T.S.



MULT–TRUNK TREE PLANTING/STAKING DETAIL

SCALE: N.T.S.

Plans are not to be used for construction purposes unless marked "approved" by the City of Cocoa.

Enviromental Design Services
Landscape and Irrigation Design and Consulting
141 East Dover Street
Satellite Beach, Fl. 32937
Phone: (321) 288-6143
Fax: (321) 779-9953

Original Drawing
Issue Date: 3-12-26

REVISIONS:

No.	Date	By	Description
1.			
2.			
3.			
4.			
5.			
6.			
7.			

Project:

Cocoa Village Hotel

Location:

Cocoa, Florida

Landscape Plan

This Drawing and The Designs Represented Herein are The Exclusive Property of Environmental Design Services, and May Not Be Reproduced, Used, or Disseminated Without Written Permission.

Sheet #: L-3

Project No.	00-0000
Drawn By:	BKA
Designed By:	BKA
Checked By:	BKA
Drawing Scale:	none

Sheet 3 of 4

LANDSCAPE PLANTING

PART 1 – GENERAL
1.01 WORK INCLUDED

A. THE WORK INCLUDED IN THIS SECTION CONSISTS OF FURNISHING, PLANTING, WATERING, FERTILIZING AND MULCHING ALL PLANTS AND LAWN AREAS OF THE SPECIES, SIZE AND QUALITY IN THE LOCATIONS INDICATED ON THE DRAWINGS OR AS DISCUSSED WITH THE LANDSCAPE DESIGNER.

1.02 DELIVERY, STORAGE AND HANDLING

A. TRANSPORTATION AND INSPECTION: PLANT TRANSPORTATION SHALL COMPLY WITH ALL FEDERAL AND STATE REGULATIONS.

1.03 GUARANTEE

A. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTING WORK FOR A PERIOD OF SIX MONTHS AND ALL SOD FOR THREE MONTHS AFTER THE DATE OF FINAL ACCEPTANCE. DURING THIS PERIOD, THE LANDSCAPE CONTRACTOR SHALL CONTINUE THE OBSERVATION OF PLANTS AND GUARANTEED WORK. THE LANDSCAPE CONTRACTOR SHALL SUBMIT MONTHLY OBSERVATION REPORTS TO THE OWNERS WITH A COPY TO THE LANDSCAPE DESIGNER DURING THE GUARANTEE PERIOD. THE PURPOSE OF THESE REPORTS IS TO STATE ANY MAINTENANCE DEFICIENCIES OBSERVED. IT IS THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO REPORT THESE TO PROTECT HIS GUARANTEE. FAILURE TO SUBMIT REPORTS ELIMINATES ANY CLAIMS THAT THE GUARANTEE IS NOT VALID DUE TO IMPROPER MAINTENANCE BY THE OWNER.

B. REPLACEMENT OF DEFECTIVE PLANTS: ANY DEAD PLANTS OR PLANTS SHOWING INDICATION OF PROBABL NO–SURVIVAL OR LACK OF HEALTH AND VIGOR, OR WHICH DO NOT EXHIBIT THE CHARACTERISTICS TO MEET SPECIFICATIONS, SHALL BE REPLACED WITHIN TWO WEEKS OF NOTICE FROM OWNER OR LANDSCAPE DESIGNER. ALL REPLACEMENT PLANTS SHALL BE FURNISHED/INSTALLED AT NO ADDITIONAL COST TO THE OWNER AND SHALL BE GUARANTEED FOR SIX MONTHS. ALL REPLACEMENTS SHALL MEET ORIGINAL SPECIFICATIONS.

C. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER AND LANDSCAPE DESIGNER TEN DAYS PRIOR TO THE END OF THE GUARANTEE PERIOD AND SUCH GUARANTEE SHALL BE EXTENDED UNTIL NOTIFICATION IS RECEIVED.

D. AT THE END OF THE GUARANTEE PERIOD, ALL PLANTS THAT ARE DEAD OR UNSATISFACTORY SHALL BE REPLACED WITHIN TWO WEEKS.

1.04 JOB CONDITIONS

A. PROTECTION: THE LANDSCAPE CONTRACTOR SHALL PROTECT ALL MATERIALS AND WORK AGAINST INJURY FROM ANY CAUSES AND SHALL PROVIDE AND MAINTAIN ALL NECESSARY SAFEGUARDS FOR THE PROTECTION OF THE PUBLIC. HE SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE OR INJURY TO PERSON OR PROPERTY THAT MAY OCCUR AS A RESULT OF THE NEGLIGENCE IN THE PROSECUTION OF THE WORK.

B. EXISTING CONDITIONS:

1. THE LANDSCAPE CONTRACTOR SHALL EXERCISE CARE IN DIGGING AND OTHER WORK SO AS NOT TO DAMAGE EXISTING WORK, INCLUDING UNDERGROUND PIPES AND CABLES, AND THE PIPES AND HYDRANTS OF WATERING SYSTEMS. SHOULD SUCH OVERHEAD OR UNDERGROUND OBSTRUCTIONS BE ENCOUNTERED WHICH INTERFERE WITH PLANTING, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIR OF ANY DAMAGE CAUSED BY HIS WORK. (SEE SECTION 3.01)

2. SHOULD ANY OBJECTIONABLE MATERIAL SUCH AS OLD CONCRETE, BRICKS OR OTHER DEBRIS BE ENCOUNTERED DURING PLANTING OPERATIONS, THEY SHALL BE REMOVED FROM THE SITE BY THE LANDSCAPE CONTRACTOR.

3. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER PLANT GROWTH IN EXISTING ON–SITE SOILS. PRIOR TO COMMITMENT OF PLANT SHIPMENTS, THE LANDSCAPE CONTRACTOR SHALL EXAMINE THE SOILS IN ALL AREAS OF WORK BY CONDUCTING SOIL TESTS AND FILLING TEST HOLES WITH WATER TO DETERMINE IF SOIL CHEMISTRY AND DRAINAGE ARE SATISFACTORY. ANY UNSATISFACTORY CONDITIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE LANDSCAPE DESIGNER FOR POSSIBLE CORRECTIVE ACTION OR PLANT MATERIAL SUBSTITUTIONS. THE OWNER/LANDSCAPE DESIGNER RESERVES THE RIGHT TO MAKE CHANGES OR SUBSTITUTIONS IN PLANT TYPE OR QUANTITIES FOR THE PURPOSES OF INSURING PROPER PLANT GROWTH.

4. PRIOR TO WORK, LANDSCAPE CONTRACTOR SHALL BECOME FULLY FAMILIAR WITH THE SITE AND THE WORK OF ALL OTHER TRADES, INCLUDING HARDSCAPE AND GRADING, IN ORDER TO UNDERSTAND THE FULL EXTENT OF THE WORK.

1.05 QUALITY CONTROL

A. THE LANDSCAPE DESIGNER / OWNER SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND MATERIAL THAT, IN HIS/HER OPINION, DO NOT MEET THE REQUIREMENTS OF THESE SPECIFICATIONS.

B. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURE AND UNDER THE SUPERVISION OF A QUALIFIED PLANTING FOREMAN.

C. ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND REGULATIONS.

D. THE WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS.

1.06 QUANTITIES

A. IN THE EVENT OF A CONFLICT BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND PLANS, THE PLANS SHALL CONTROL.

PART 2 – PRODUCTS
2.01 MATERIALS
A. GENERAL:

1. NOMENCLATURE: ALL TREES, SHRUBS AND PLANTS SHALL BE TRUE TO NAME AS ESTABLISHED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE PUBLICATION "STANDARD PLANTS NAMES". THE DESIGNATED AUTHORITY FOR THE IDENTIFICATION OF ALL MATERIAL SHALL BE THE TWO PUBLICATIONS OF L.H. BAILY, "HORTUS III" AND "MANUAL OF CULTIVATED PLANTS", AND ALL SPECIMENS SHALL BE TRUE TO TYPE, NAME, ETC., AS DESCRIBED THEREIN.

2. GRADE STANDARDS AND QUALITY: ALL PLANTS SHALL BE NURSERY GROWN, AND SHALL COMPLY WITH ALL REQUIRED INSPECTION, GRADING STANDARDS AND PLANT REGULATIONS AS SET FORTH IN THE FLORIDA DEPARTMENT OF AGRICULTURE. "GRADES AND STANDARDS FOR NURSERY PLANTS," PARTS 1 AND 2 INCLUDING REVISIONS.

A. THE MINIMUM GRADE FOR ALL TREES AND SHRUBS SHALL BE FLORIDA NO. 1 UNLESS OTHERWISE INDICATED AND ALL PLANTS SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL HAVE HEALTHY, WELL–DEVELOPED ROOT SYSTEMS AND SHALL BE FREE OF DISEASE AND INSECT PESTS, EGGS OR LARVAE.

3. MEASUREMENTS: THE MINIMUM ACCEPTABLE SIZE OF PLANTS, MEASURED AFTER PRUNING, WITH BRANCHES IN NORMAL POSITIONS, SHALL CONFORM TO THE SPECIFIED SIZES AS SHOWN ON THE PLANS. SIZES SPECIFIED ARE MINIMUM STANDARDS. PLANTS SHALL BE EQUAL TO OR LARGER THAT ALL CATEGORIES (HEIGHT, SPREAD, CALIPER) OF SIZE SPECIFICATION. SUBSTANTIAL DEVIATIONS FROM THESE MEASUREMENTS MUST BE APPROVED BY LANDSCAPE DESIGNER. CALIPER OF TREE TRUNKS SHALL BE MEASURED ONE FOOT ABOVE ROOTBALL FOR TREES OVER 6 INCHES IN CALIPER, AND SHALL BE MEASURED 6 INCHES ABOVE THE ROOT BALL FOR TREES UNDER 6 INCHES IN CALIPER.

4. PLANT PROTECTION: PLANTS SHALL BE PROTECTED UPON ARRIVAL AT THE SITE, BY BEING THOROUGHLY WATERED, KEPT MOIST, AND PROPERLY MAINTAINED UNTIL PLANTED.

B. PLANT MATERIALS: WITH REFERENCE TO METHOD OF CULTIVATION, ROOT SYSTEM STATUS, ETC., PLANTS FOR LANDSCAPING SHALL BE CLASSIFIED UNDER THE FOLLOWING DESIGNATIONS:

1. BALLED AND BURLAPPED: PLANTS SO CLASSIFIED SHALL BE DUG WITH FIRM NATURAL ROOT BALLS OF EARTH COMING FROM SINGULAR CLIMATIC AND SOIL CONDITIONS AS THOSE ON PROJECT SITE AND OF SUFFICIENT DIAMETER AND DEPTH TO INCLUDE MOST OF THE FIBROUS ROOTS. THE ROOT BALL OF THESE PLANTS SHALL BE PROPERLY WRAPPED WITH BURLAP SACK MATERIAL AND REMAIN PROTECTED AND WET UNTIL THEY ARE PLANTED. THE PLANTS SHALL BE HANDLED ONLY BY THE EARTH BALL AND NOT BY THE PLANT ITSELF. ALL BALLED AND BURPED PLANTS WHICH CANNOT BE PLANTED IMMEDIATELY UPON DELIVERY SHALL BE SET ON THE GROUND AND SHALL BE WELL PROTECTED WITH SOIL, WET SOIL, WET MOSS, OR OTHER ACCEPTABLE MATERIAL. THE PLANTS SHALL BE SET WITH THE BURLAP COVER INTACT AND WITH THE BURLAP SHOWING, UNTIL INSPECTION. AT FINAL INSPECTION THE BURLAP MAY BE CUT AWAY TO GROUND LEVEL AND THEN COMPLETELY COVERED WITH SOIL.

BURLAP: SHALL BE PURE BURLAP, ORGANIC FIBER WITH THE ABILITY TO DECOMPOSE.

2. CONTAINER GROWN PLANTS:

A. CONTAINER GROWN PLANTS SHALL HAVE BEEN GROWN IN CONTAINERS LARGE ENOUGH AND FOR SUFFICIENT TIME FOR THE ROOT SYSTEM TO HAVE DEVELOPED WELL ENOUGH TO HOLD ITS SOIL TOGETHER FIRM AND WHOLE. NO PLANTS SHALL BE LOOSE IN THE CONTAINER. PLANTS THAT HAVE BECOME ROOT BOUND OR FOR WHICH THE TOP SYSTEM IS TOO LARGE FOR THE SIZE OF THE CONTAINER, WILL NOT BE ACCEPTABLE.

B. ALL CONTAINERS SHALL BE CUT AND OPENED FULLY, IN A MANNER SUCH AS WILL NOT DAMAGE THE ROOT SYSTEM. CONTAINER GROWN PLANTS SHALL NOT BE REMOVED FROM THE CONTAINER UNTIL IMMEDIATELY BEFORE PLANTING, WHEN ALL DUE CARE SHALL BE TAKEN TO PREVENT DAMAGE TO THE ROOT SYSTEM.

3. BARE ROOT PLANTS: NO BARE ROOT PLANTS SHALL BE USED, UNLESS SPECIFICALLY SPECIFIED.

4. GROW BAG PLANTS: NO GROW–BAG PLANTS SHALL BE USED UNLESS SPECIFIED.

C. PLANTING MATERIALS:

1. TOPSOIL:

A. TOPSOIL SHALL BE FRIABLE LOAM, TYPICAL OF CULTIVATED TOPSOIL LOCALLY, CONTAINING AT LEAST 5 PERCENT OF DECAYED ORGANIC MATTER (HUMUS). IT SHALL OCCUR AS ON–SITE NATURAL TOPSOIL WITH GOOD CHARACTERISTICS OR BE TAKEN FROM A WELL DRAINED, ARABLE SITE. IT SHALL BE REASONABLY FREE OF WEEDS, SUBSOIL, STONES, CLODS, STICKS, ROOTS OR OTHER OBJECTIONABLE EXTRANEOUS MATTER OR DEBRIS. IT SHALL NOT CONTAIN TOXIC MATERIALS AND SHALL HAVE ACIDITY RANGE OF PH 6.0 TO 7.0. TOPSOIL FROM NUT GRASS INFESTED AREAS WILL NOT BE ACCEPTABLE.

B. IF REQUESTED BY THE OWNER, SOIL TESTING SHALL BE PERFORMED AND ANALYZED BY A LABORATORY REGISTERED BY THE STATE. TESTING SHALL INCLUDE FERTILITY AND SUITABILITY ANALYSIS WITH WRITTEN RECOMMENDATIONS FOR FERTILIZER OR AMENDMENTS THAT SHALL TAKE PRECEDENCE OVER RATES OR ANALYSIS SPECIFIED IN THIS SECTION. SOIL TESTING SHALL BE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY. SUBMIT TEST RESULTS TO THE OWNER FOR REVIEW.

C. PARTICLE SIZE DISTRIBUTION IN TOP 6"–12" OF SOIL:
COARSE SAND (1–2mm)/MEDIUM SAND (.25–.5mm)MIN. OF 60% OF PARTICLES SHALL FALL WITHIN THIS RANGE.
FINE SAND (.15–.25mm)NOT MORE THAN 20% OF PARTICLES SHALL FALL IN THIS RANGE.
VERY FINE SAND (.05–.15mm): NOT MORE THAN 5% OF PARTICELS SHALL FALL IN THIS RANGE.
SILT (.002–.05mm): NOT MORE THAN 5% OF PARTICELS SHALL FALL IN THIS RANGE.
CLAY (LESS THAN .002mm): NOT MORE THAN 3% OF PARTICELS SHALL FALL IN THIS RANGE.
(SOIL ANALYSIS FOR PARTICLE SIZE SHALL BE OBTAINED THROUGH PR OJECT GEOTECHNICAL ENGINEER)

D. INFILTRATION OR PERCOLATION RATE OF SOIL: DESIRED LEVEL IS 2" PER HOUR.

E. SOIL PREPARATION: PRIOR TO COMMENCING WITH PLANTING, ROTOTILL ANY OR ALL AREAS THAT HAVE BEEN PREVIOUSLY COMPACTED OVER 90 PERCENT FOR OTHER CONSTRUCTION PURPOSES.

2. FERTILIZER: FERTILIZER SHALL BE A COMPLETE BALANCED BLEND FORMULA, OF WHICH PART OF THE ELEMENTS SHALL BE DERIVED FROM ORGANIC SOURCES. IT SHALL CONTAIN NITROGEN, PHOSPHORUS AND POTASSIUM AS WELL AS RECOMMENDED MICRONUTRIENTS SUCH AS MAGNESIUM, IRON, COPPER, ZINC, BORON, AND MANGANESE IN SULFATE FORM.

NITROGEN SHALL BE APPLIED OVER ALL TURF, SHRUB AND TREE AREAS AT A RATE OF 1 1/2 POUNDS PER 1,000 SQUARE FEET. THE COMPLETE FERTILIZER ANALYSIS SHALL BE APPROVED BY THE LANDSCAPE DESIGNER.

3. MULCH: PINE STRAW MULCH SHALL BE INSTALLED IN ALL NATURAL, NON–SODDED AREAS AT A DEPTH OF 4" AND SHALL BE CLEAN, BRIGHT AND FREE OF WEEDS, MOSS, STICKS AND OTHER DEBRIS.

PINE BARK MINI NUGGETS SHALL BE INSTALLED TO A DEPTH OF 3"–4" ALL BEDDING AREAS. MULCH SHALL BE RAKED TO PROVIDE A FINISHED APPEARANCE.

4. WATER: SUITABLE WATER FOR THE IRRIGATION OF THE NEW PLANTINGS DURING THE PROGRESS OF CONSTRUCTION SHALL BE PROVIDED AND PAID FOR BY THE LANDSCAPE CONTRACTOR, WHO SHALL ALSO FURNISH ADEQUATE WATERING EQUIPMENT.

5. STAKES AND TIES: STAKES AND TREE TIES SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF PARAGRAPH 3.02.B HEREINAFTER.

PART 3 – EXECUTION
3.01 PREPARATION

A. UNDERGROUND OBSTRUCTIONS:

1. THE LANDSCAPE CONTRACTOR, PRIOR TO CONSTRUCTION, SHALL VERIFY ALL UTILITIES.

2. UPON REQUEST FROM THE LANDSCAPE CONTRACTOR, THE OWNER SHALL PROVIDE PLANS SHOWING LOCATIONS OF UNDERGROUND UTILITIES AND/OR WILL ASSIST THE LANDSCAPE CONTRACTOR IN SECURING UNDERGROUND LOCATIONS FROM OTHER PUBLIC UTILITY COMPANIES, SUCH AS TELEPHONE, ELECTRICITY, ETC.

3. IN THE EVENT THAT ROCK, UNDERGROUND CONSTRUCTION WORK, UTILITY LINES OR OBSTRUCTION OUT OF THE ORDINARY ARE ENCOUNTERED IN ANY PLANT PIT EXCAVATION; ALTERNATIVE LOCATIONS SHALL BE SELECTED BY THE LANDSCAPE DESIGNER OR OWNER. WHERE LOCATIONS CANNOT BE CHANGED AND THE OBSTRUCTIONS MAY BE REMOVED, THE OBSTRUCTIONS SHALL BE REMOVED TO A DEPTH OF NOT LESS THAN 3–FEET BELOW GRADE AND NO LESS THAN 6–INCHES BELOW BOTTOM OF BALLS OR ROOTS WHEN PLANT IS PROPERLY SET AT THE REQUIRED GRADE.

B. EXCAVATION OF PLANTING BEDS AND/OR PLANT HOLES:

1. WHERE EXCAVATION ENCOUNTERS MATERIAL WHICH ARE SUITABLE FOR PLANT GROWTH, THE PLANT HOLE EXCAVATIONS SHALL BE ROUGHLY CYLINDRICAL IN SHAPE, WITH THE SIDES APPROXIMATELY VERTICAL. PLANTS SHALL BE CENTERED IN THE HOLE, WITH THE TRUNK LOCATION AS SHOWN IN THE DRAWINGS. BOTTOMS OF THE HOLES SHALL BE UNDISTURBED NATURAL SUBGRADE PREVENTING THE TREE FROM SETTLING.

C. PROTECTION OF EXISTING TREES: THE LANDSCAPE CONTRACTOR SHALL PROTECT EXISTING TREES FROM DAMAGE. WHERE DAMAGE DOES OCCUR, THE LANDSCAPE CONTRACTOR SHALL REMOVE THE DAMAGED TREE, THEN REPLACE IT IN KIND AND SIZE IN ACCORDANCE WITH THE INSTRUCTION OF THE LANDSCAPE DESIGNER AND THE APPROPRIATE SPECIFICATIONS, ALL AT NO ADDITIONAL COST TO THE OWNER.

D. GRADES: IT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO FINISH (FINE) GRADE ALL LANDSCAPE AREAS ELIMINATING ALL SURFACE IRREGULARITIES, DEPRESSIONS, STICKS, STONES AND OTHER DEBRIS TO THE SATISFACTION OF THE LANDSCAPE DESIGNER OR OWNER. NO PLANT MATERIAL SHALL BE PLANTED UNTIL FINAL GRADE HAS BEEN ESTABLISHED, ENSURING POSITIVE DRAINAGE, COMPACTED TO THE REQUIRED DEPTH, AND APPROVED BY THE LANDSCAPE DESIGNER OR OWNER.

E. ON SITES WHERE EXISTING VEGETATION EXISTS, THE CONTRACTOR SHALL PROVIDE A ONE TIME HERBICIDE APPLICATION TO ALL AREAS TO BE PLANTED PRIOR TO THE INSTALLATION OF THE NEW PLANTINGS. IF VEGETATION OR AREAS OF VEGETATION ARE NOT KILLED AFTER THE INITIAL APPLICATION, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RETREAT THE AREAS AT NO ADDITIONAL COST TO THE OWNER.

3.02 PLANTING

A. SETTING OF PLANTS:

1. WHEN LOWERING INTO THE HOLE, THE PLANT SHALL REST ON A PREPARED HOLE BOTTOM SUCH THAT THE ROOTS ARE LEVEL WITH, OR SLIGHTLY ABOVE, THE LEVEL OF THEIR PREVIOUS GROWTH AND SO ORIENTED SUCH AS TO PRESENT THE BEST APPEARANCE. THE LANDSCAPE CONTRACTOR, WHEN SETTING PLANTS IN HOLES, SHALL MAKE ALLOWANCES OF ANY ANTICIPATED SETTLING OF THE PLANTS. IF WET CONDITIONS ARE ANTICIPATED, PLANTS SHALL BE SET 2 INCHES TO 3 INCHES HIGHER THAN NORMAL.

2. THE BACKFILL SHALL BE MADE WITH NATIVE TOPSOIL, AND SHALL BE FIRMLY RODDED AND WATERED–IN, SO THAT NO AIR POCKETS REMAIN. THE QUANTITY OF WATER APPLIED IMMEDIATELY UPON PLANTING SHALL BE SUFFICIENT TO THOROUGHLY MOISTEN ALL OF THE BACKFILLED EARTH. PLANTS SHALL BE KEPT IN A MOISTENED, BUT NOT SATURATED, CONDITION FOR THE DURATION OF THE ESTABLISHMENT PERIOD.

B. STAKING AND GUYING: IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO MAINTAIN ALL PLANTS IN A PLUMB, UPRIGHT POSITION UNTIL THE END OF THE GUARANTEE PERIOD. TYPE OF STAKING SHALL BE THE OPTION OF THE LANDSCAPE CONTRACTOR, ALTHOUGH ALL DAMAGED PLANTS RESULTING FROM THE LACK OF PROPER STAKING AND GUYING SHALL BE REPLACED BY THE LANDSCAPE CONTRACTOR AT NO EXPENSE TO THE OWNER. ALL THREE GUY WIRES SHALL BE FLAGGED WITH YELLOW SAFETY RIBBON.

C. PRUNING:

1. ALL BROKEN OR DAMAGED ROOTS SHALL BE CUT OFF SMOOTHLY AND THE TOPS OF ALL TREES SHALL BE PRUNED IN A MANNER COMPLYING WITH STANDARD HORTICULTURAL PRACTICE. AT THE TIME PRUNING IS COMPLETED, ALL REMAINING WOOD SHALL BE ALIVE. FINE PRUNING FOR TREE SHAPE AND APPEARANCE SHALL BE DONE ONLY UNDER THE DIRECTION OF THE LANDSCAPE DESIGNER OR OWNER.

2. AT THE END OF THE GUARANTEE PERIOD, AT LEAST 80 PERCENT OF THE WOOD REMAINING SHALL BE ALIVE.

D. MULCHING: WITHIN ONE WEEK AFTER THE PLANTING, MULCH MATERIAL SHALL BE UNIFORMLY APPLIED TO A MINIMUM LOOSE THICKNESS OF 3 INCHES OVER THE ENTIRE AREA OF THE BACKFILLED HOLE OR BED. THE MULCH SHALL BE MAINTAINED CONTINUOUSLY IN PLACE UNTIL THE TIME OF FINAL INSPECTION.

E. WATERING: THE LANDSCAPE CONTRACTOR SHALL CONTINUE WATERING FOR AS LONG AS IS NECESSARY TO PROPERLY ESTABLISH THE NEW PLANTINGS. CARE SHALL BE TAKEN TO PREVENT STAINING OF NEW CONSTRUCTION WHERE TEMPORARY WELL WATER IS USED.

F. PEST CONTROL: PRIOR TO FINAL ACCEPTANCE, OCCURRENCE OF SCALES, BORERS, FOLIAR FEEDERS, APHIDS, MITES, LEAF–SPOT AND DIEBACK, NEMATODES AND CANKER–PRODUCING FUNGI, SHALL BE TREATED WITH APPROPRIATE PESTICIDE.

G. ALL PLANTS SHALL RECEIVE THE SPECIFIED FERTILIZER PRIOR TO FINAL ACCEPTANCE.

3.03 BERMING

A. FILL DIRT SHALL BE LOCALLY OBTAINED MATERIAL FROM NATURALLY DRAINED SOURCES, FREE FROM DRY, ORGANIC DEBRIS, STONES LARGER THAN 1–INCH DIAMETER AND OTHER MATERIALS HARMFUL TO SUCCESSFUL DRAINAGE AND PLANT GROWTH. SOIL SHALL BE WELL MIXED AND CONTAIN NO MORE THAN 25 PERCENT MUCK.

B. GRADE AREAS INDICATED WITH UNIFORM LEVELS OR SLOPES WITH NO MORE THAN 4:1 MAXIMUM SLOPE. BERMS SHALL BE GENTLY ROLLING AND PARABOLIC.

C. REPAIR AND RE–ESTABLISH GRADES IN SETTLED, ERODED, RUTTED, OR OTHERWISE DAMAGED AREAS.

3.04 SODDING

A. THE SOD SHALL BE OF FIRM, TOUGH TEXTURE HAVING A COMPACT GROWTH OF GRASS WITH GOOD ROOT DEVELOPMENT. IT SHALL CONTAIN NO BERMUDA GRASS, WEEDS OR ANY OTHER OBJECTIONABLE VEGETATION. THE SOIL EMBEDDED IN THE SOD SHALL BE GOOD CLEAN EARTH, FREE FROM STONES AND DEBRIS. THE SOD SHALL BE FREE FROM FUNGUS, VERMIN AND OTHER DISEASES. FINAL TURF SHALL HAVE NO AREA GREATER THAN 6 SQUARE INCHES OF UNSODDED AREA.

B. SOLID SOD SHALL BE LAID WITH CLOSELY ABUTTING JOINTS WITH A EVEN SURFACE. IT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO BRING THE SOD EDGE IN A NEAT, CLEAN MANNER TO THE EDGE OF ALL PAVING AND SHRUB AREAS. AFTER THE SOD IS LAID, IF AN EVEN SURFACE IS NOT ACHIEVED, A TOP DRESSING OF CLEAN SAND WILL BE EVENLY APPLIED OVER THE ENTIRE SURFACE AND THOROUGHLY WASHED IN, IF DETERMINED NECESSARY. PEG SOD ON SLOPES AS REQUIRED TO PREVENT SLIPPAGE. FERTILIZE ALL SOD: 1 POUND NITROGEN PER 1,000 SQUARE FEET.

C. ON SITES WHERE EXISTING VEGETATION EXISTS, THE CONTRACTOR SHALL PROVIDE A ONE TIME HERBICIDE APPLICATION TO ALL AREAS TO BE SODDED PRIOR TO THE INSTALLATION OF THE NEW SOD. IF VEGETATION OR AREAS OF VEGETATION ARE NOT KILLED AFTER THE INITIAL APPLICATION, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RETREAT THE AREAS AT NO ADDITIONAL COST TO THE OWNER.

3.05 FIELD QUALITY CONTROL

A. MAINTENANCE PRIOR TO FINAL ACCEPTANCE:

1. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS PLANTED AND SHALL CONTINUE UNTIL FINAL ACCEPTANCE. PLANTS SHALL BE WATERED, MULCHED, WEEDED, PRUNED, SPRAYED, FERTILIZED, CULTIVATED AND OTHERWISE MAINTAINED AND PROTECTED FOR THE PERIOD OF TIME STATED ABOVE. SOD SHALL BE MOWED, IF REQUIRED.

2. SETTLED PLANTS SHALL BE RESET TO PROPER GRADE POSITION, PLANTING SAUCER RESTORED AND DEAD MATERIAL REMOVED. GUYS SHALL BE TIGHTENED AND REPAIRED.

3. DEFECTIVE WORK SHALL BE CORRECTED AS SOON AS POSSIBLE AFTER IT BECOMES APPARENT AND WEATHER AND SEASON PERMIT. UPON COMPLETION OF PLANTING, THE LANDSCAPE CONTRACTOR SHALL REMOVE FROM THE SITE EXCESS SOIL AND DEBRIS, AND REPAIR ANY DAMAGE TO STRUCTURES, ETC., RESULTING FROM PLANTING OPERATIONS.

4. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AGAINST MECHANICAL DAMAGE. THIS SHALL INCLUDE PROVIDING PROTECTION FROM VEHICLES, INCLUDING THE POSTING OF APPROVED WARNING SIGNS AND BARRICADES, AS NEEDED. THE LANDSCAPE CONTRACTOR SHALL REPAIR, RESTORE OR REPLACE ANY PLANTS OR PLANTING AREAS WHICH MIGHT BECOME DAMAGED AS A RESULT OF ANY NEGLIGENCE BY THE LANDSCAPE CONTRACTOR IN COMPLYING WITH THESE REQUIREMENTS. AS A SPECIFIC REQUIREMENT OF THESE CONDITIONS, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL PLANTS AT THE TIME OF FINAL ACCEPTANCE, EXHIBIT THE CHARACTERISTICS AND QUALIFICATIONS REQUIRED FOR THE GRADE OF PLANT AS ORIGINALLY SPECIFIED.

5. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL WATERING REQUIRED IF IRRIGATION PROVES TO BE INADEQUATE FOR FRESHLY PLANTED MATERIAL.

6. EXCEPT AS OTHERWISE SPECIFIED, THE LANDSCAPE CONTRACTOR'S WORK SHALL CONFORM TO ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE.

B. FINAL ACCEPTANCE:

1. UPON COMPLETION OF ALL WORK, INCLUDING MAINTENANCE, THE LANDSCAPE CONTRACTOR SHALL ARRANGE FOR A FINAL REVIEW. THE LANDSCAPE WORK MAY BE REVIEWED FOR ACCEPTANCE IN PARTS, PROVIDED THE WORK COMPRISES OF ONE FULL UNIT OR AREA OF SUBSTANTIAL SIZE.

2. DATE OF FINAL ACCEPTANCE SHALL MARK THE BEGINNING OF THE GUARANTEE PERIOD.

C. GUARANTEE REVIEW: AT THE END OF THE GUARANTEE PERIOD, REVIEW OF PLANTS WILL BE MADE BY THE LANDSCAPE DESIGNER OR OWNER UPON WRITTEN NOTICE REQUESTING SUCH REVIEW, SUBMITTED BY THE LANDSCAPE CONTRACTOR AT LEAST TEN DAYS BEFORE THE ANTICIPATED WALK–THRU. ALL DEFECTS DISCOVERED SHALL BE REPAIRED OR REPLACED BY THE LANDSCAPE CONTRACTOR.

3.06 ADJUSTMENT AND CLEANING

A. CLEANING UP THE SITE: UPON COMPLETION OF ANY LANDSCAPE PROJECT, THE LANDSCAPE CONTRACTOR MUST THOROUGHLY CLEAN UP THE PROJECT SITE. IN ADDITION TO REMOVING ALL EQUIPMENT, UNUSED MATERIALS, DELETERIOUS MATERIAL, AND SURPLUS EXCAVATED MATERIAL, THE LANDSCAPE CONTRACTOR SHALL FINE GRADE ALL DISTURBED AREAS AND THE AREAS ADJACENT TO THE NEW PLANTINGS TO PROVIDE A NEAT AND UNIFORM SITE. ALL DAMAGED OR ALTERED EXISTING STRUCTURES, AS A RESULT OF THE LANDSCAPE WORK, SHALL BE CORRECTED.

Plans are not to be used for construction purposes unless marked "approved" by the City of Cocoa.

Environmental Design Services
Landscape and Irrigation Design and Consulting
141 East Dover Street
Satellite Beach, Fl. 32937
Phone: (321) 288-6143
Fax: (321) 779-9953

Original Drawing
Issue Date: 3-12-26

REVISIONS:

No.	Date	By	Description
1.			
2.			
3.			
4.			
5.			
6.			
7.			

Project:

Cocoa Village Hotel

Location:

Cocoa, Florida

Landscape Plan

This Drawing and The Designs Represented Herein are The Exclusive Property of Environmental Design Services, and May Not Be Reproduced, Used, or Disseminated Without Written Permission.

Sheet #:

L-4

Project No.	00-0000
Drawn By:	BKA
Designed By:	BKA
Checked By:	BKA
Drawing Scale:	none
Sheet	4 of 4

TREES



Pink Crape Myrtle



Live Oak



Pink Trumpet Tree

PALM TREES



European Fan Palm



Ribbon palm



Canary Island Date Palm



Triple Pigmy Date Palm



Sabal Palm

SHRUBS



Petra Croton



Red Sister Ti Plant



African Iris



Double Peach Hibiscus



Bordergrass



Yew Pine



Gold Capella Schefflera



Orange Bird Of Paradise

SHRUB AREAS



Dwarf Firebush



Pink Muhly Grass



Indian Hawthorn

Environmental Design Services
Landscape and Irrigation Design and Consulting
141 East Dover Street
Satellite Beach, Fl. 32937
Phone: (321) 288-6143
Fax: (321) 779-9953

Original Drawing
Issue Date: 3-12-26

REVISIONS:

No.	Date	By	Description
1.			
2.			
3.			
4.			
5.			
6.			
7.			

Project:

Cocoa Village Hotel

Location:

Cocoa, Florida

Plant Photos

This Drawing and The Designs Represented Herein are The Exclusive Property of Environmental Design Services, and May Not Be Reproduced, Used, or Disseminated Without Written Permission.

Sheet #:

LP-1

Project No.	00-0000
Drawn By:	BKA
Designed By:	BKA
Checked By:	BKA
Drawing Scale:	none

Sheet 1 of 1

EXHIBIT C
BUILDING PLANS



Front Left View

Revised 11/25/25

Fairfield Hotel Concept Plan

Cocoa Village, FL

CONSTRUCTION & DESIGN GROUP OF FLORIDA

CONSTRUCTION / DESIGN & BUILD SOLUTIONS



Brevard Ave View

Revised 11/25 /25

Fairfield Hotel Concept Plan

Cocoa Village, FL

CONSTRUCTION & DESIGN GROUP OF FLORIDA

CONSTRUCTION / DESIGN & BUILD SOLUTIONS



Context View

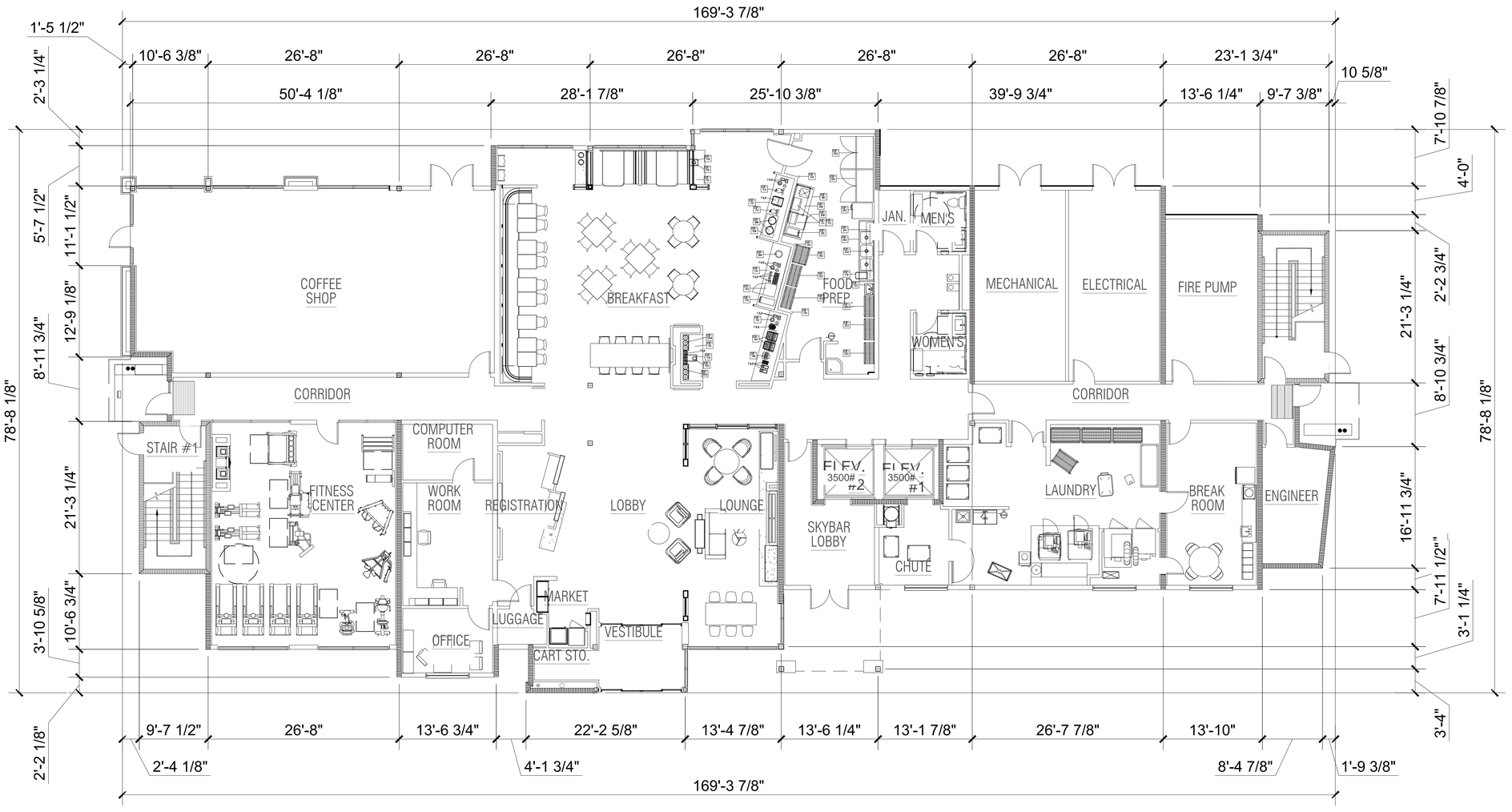
Revised 10/2 / 25

Fairfield Hotel Concept Plan

Cocoa Village, FL

CONSTRUCTION & DESIGN GROUP OF FLORIDA

CONSTRUCTION / DESIGN & BUILD SOLUTIONS



TOTAL ROOMS: 104

1st Floor Plan

Scale: 1/16" = 1'-0"

Revised 10 / 2 / 25

Hotel Concept Plan

Cocoa Village, FL

EXHIBIT C

BUILDING PLANS

Development Agreement Application

City Manager's Office
Planning and Zoning
65 Stone Street
Cocoa, Florida 32922

Phone: (321) 433-8535
Fax: (321) 433-8543
Web: http://www.cocoafl.org

For Office Use Only - Date Received
Note: Applications received after 3:00 pm will be date stamped the next day.

This form is divided into steps, which will help you prepare your application and provide supplemental items. A pre-application meeting with Staff is **required**.

Please TYPE or PRINT this application legibly.

1. **Project Name:** Fairfield Inn by Marriott

2. **Applicant Information:**

Company (if applicable): 603 Brevard LLC

Name: Dilesh Patidar

Mailing Address: 301 Tucker Ln

City: Cocoa State: FL Zip Code: 32926

Phone #: 321-336-8093 Fax #:

Mobile #: 321-537-6382 E-mail:

3. **Property Owner Information:** * *Check here if same as Applicant* →
* *If more than one owner, attach additional sheet with names and addresses.*

Company (if applicable):

Name:

Mailing Address:

City: State: Zip Code:

Phone #: Fax #:

Mobile #: E-mail:

Engineer/Architect/Planner: * *Check here if same as Applicant* → ☐

Company (if applicable): Construction & Design Group of FL

Name: Dale Parsons

Mailing Address: 1615 Edgewater Drive

City: Orlando State: FL Zip Code: 32804

Phone #: _____ Fax #: _____

Mobile #: 407-709-0497 E-mail: _____

4. Attorney:

Company (if applicable): Brevard Law Group

Name: Victor Watson

Mailing Address: 3490 N US Highway 1

City: Cocoa State: FL Zip Code: 32926

Phone #: _____ Fax #: _____

Mobile #: 321-631-1550 E-mail: _____

5. Property Information:

Street Address and Location: 603 Brevard Ave Cocoa, FL

Parcel ID: * *If more than two Parcel IDs, attach additional sheet with Parcel IDs.*

24-36-33-75-00000.0-0003.00

☐☐-☐☐-☐☐-☐☐-☐☐☐☐☐.☐-☐☐☐☐.☐☐

Tax Account Numbers: * *If more than two Tax Account #s, attach additional sheet with Tax Account #s.*

☐☐☐☐☐☐☐ ☐☐☐☐☐☐☐

Land Area: _____ square feet or 0.8 acres

Future Land Use *(to be completed by City)*: _____

Zoning District *(to be completed by City)*: _____

Existing Use(s) on Property: Parking

Proposed Use(s) on Property: Hotel

6. Economic Impact: (for economic development information purposes only)

Estimated Total Value of Project: $ 25 million Estimated Number of Construction Jobs: 25

Estimated Number of Employees: 100 Estimated Completion Date: December 1st 2029

7. **Please submit the following items:**

a. ☒ **Notarized application.**

b. ☒ **List of owners within 500 feet.** A "radius map package" from Brevard County containing a certified mailing list with mailing labels and a map of all property owners of record who reside within a 500-foot radius of the subject property is required for public notice. It is the applicant's responsibility to request these materials with the Brevard County GIS Department that are available free of charge. Inquiries need to be emailed to **servicedesk@brevardfl.gov** and forwarded to the **City of Cocoa Planning and Zoning Department** when available.

c. ☐ **Applications Fee.** The fee is $____ plus Advertisement fees. Please make checks payable to the 'City of Cocoa' and submit payment **ONLY** to the Community Services Department.

d. ☒ **Proof of ownership.** A copy of the most recent recorded warranty deed is required.

e. ☐ **Letter of authorization.** If the applicant is not the property owner, a notarized letter of authorization or agent affidavit is required, unless the applicant is the Attorney of the owner. Each property owner must complete a separate authorization form or other suitable documentation to allow the agent to act upon his/her behalf.

f. ☒ **Corporate documents.** If the applicant/owner is representing a company, articles of incorporation which show the applicant/owner is authorized to represent the company is required. A data record printout from the Florida Department of State, Division of Corporations website may also be provided (http://www.sunbiz.org/corpweb/inquiry/search.html).

g. ☒ **Legal description.** Submit an electronic copy of the legal description in MS Word format.

h. ☒ ***Boundary survey.*** Provide a current boundary survey.

i. ☐ **Conceptual site plan data table.** See details listed below.

j. ☒ **Conceptual site plan.** Submit 2 paper copies (minimum 11"x17") and 1 electronic file in pdf format of a plan drawn to scale, using the land survey as a base and showing the required site plan elements listed below.

k. ☒ **Architectural renderings and elevations.** Submit 2 paper copies (minimum 11"x17") and 1 electronic file in pdf format of architectural renderings and building elevations of all buildings included in the project. These must match the building(s) depicted in the conceptual site plan.

l. ☐ **Additional information (optional).** Submit any information that may be helpful in understanding the request. This may include photos, sketches, etc.

Conceptual Site Plan Data Table: (list or table/chart format):

- ☐ Tabulation of gross acreage and square footage
- ☐ Tabulation of density (*City of Cocoa Comprehensive Plan, Chapter 1 Future Land Use Element*)
- ☐ Number of dwelling units / hotel rooms proposed
- ☐ Floor area of all uses by type of use
- ☐ Area and percentage of lot covered by structures
- ☐ Gross floor area (area of lot covered by structure times number of floors)
- ☐ Floor area ratio (total floor area in square feet divided by gross acre of lot in square feet) (*Appendix A, Art. V Definitions*)
- ☐ Height of structures and number of floors, including parking garages (*Appendix A, Art. XI, Zoning District Regulations*)
- ☐ Number of required and proposed parking spaces with formulas and calculations (*Appendix A, Art. XII Off-Street Parking*)
- ☐ Impervious surface area (*City of Cocoa Comprehensive Plan, Chapter 1, Figure FLU-1*)
- ☐ Location and acreage of open space and recreational areas
- ☐ If the project is divided into phases, provide a Site Plan Data Table for the entire project and for each individual phase

Conceptual Site Plan Elements Checklist:

- ☐ Property and right of way lines
- ☐ Depiction of abutting aprons
- ☐ Existing and proposed easements
- ☐ Right-of-way improvements
- ☐ Open water bodies (lakes, rivers, ponds, canals, etc.)
- ☐ Jurisdictional wetlands boundary as determined by the St. Johns River Water Management District
- ☐ Uplands buffer from wetlands (*City of Cocoa Comprehensive Plan, Chapter 6 Conservation Element, Policy 6.4.16(E)*)
- ☐ On and off-site sidewalks (*Chapter 18, Art. III and Appendix A, Art. XII, Sec. 3*)
- ☐ Trash receptacles/dumpsters and enclosures (*Chapter 9, Art. II, Division 3, Sec. 9-29*)
- ☐ All structures and major features fully labeled and dimensioned including (*Depends on Zoning District from Appendix A, Art. XI, Sections 1 thru 20*):
  - i. Setbacks
  - ii. Distances between structures
- ☐ Proposed parking and circulation plan including (*Appendix A, Art. XII, Sec. 3*):
  - i. Width of driveways and access aisles
  - ii. Parking spaces, including dimensions
  - iii. Existing and proposed points of ingress to and egress from the site
  - iv. Handicap accessible parking spaces and required access aisles
- ☐ Location and dimension of all landscape buffers

Signatures and Notarization.

STATE OF FL COUNTY OF Brevard. I, Dilesh Patidar being first duly sworn, depose and say that:

☑ I am the applicant, or if corporation, I am the officer of the corporation authorized to act on this request.

☐ I am the legal representative of the applicant of this application and a notarized Letter of Authorization form or agent affidavit accompanies this application giving written, unless the applicant is the Attorney representing the owner.

I hereby certify that I have read, completed and understand this application and understand that if my application and all associated attachments are not complete and accurate in all respects, the application will not be scheduled for a public hearing. I further understand that this application must be complete and accurate prior to the legal advertising of a public hearing.

(APPLICANT SIGNATURE)

(Print, Type, or Stamp Commissioned Name of Notary Public)

Personally Known ☒ OR Produced Identification ☐

Type of I.D. Produced _____

Notary Public State of Florida
April Joy Scramlin
My Commission HH 512280
Expires 5/6/2028

(NOTARY PUBLIC SIGNATURE)

STATE OF FLORIDA, COUNTY OF BREVARD

Sworn and subscribed to before me this 3 day of November, 20 25

The Surveyor has reviewed all survey-related items contained in Schedule B-II of that certain Commitment for Title Insurance issued by Ardent National Title Insurance Company with Commitment Number: 20170087, Issuing Office File Number: 25-6815 and an Effective Date of November 06, 2025 at 8:00 A.M. and has the following comments:

1. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attaching subsequent to the effective date hereof but prior to the date the Proposed Insured acquires for value of record the estate or interest or mortgage thereon covered by this Commitment. Not applicable for Surveyor's review.
2. Rights or Claims of parties in possession not shown by the public records. Not applicable for Surveyor's review.
3. Easements or claims of easements not shown by the public records. Not applicable for Surveyor's review.
4. Discrepancies, conflicts in boundary lines, encroachments, overlaps, variations or shortage in area or content, party walls and any other matters that would be disclosed by a correct survey and/or physical inspection of the land. Not applicable for Surveyor's review.
5. Any lien, or right to a lien, for services, labor, or materials heretofore or hereafter furnished, imposed by law and not shown by the public records. Not applicable for Surveyor's review.
6. All taxes, assessments, levies and charges, which constitute liens or are due or payable including unredeemed tax sales. Not applicable for Surveyor's review.
7. Taxes and assessments for the year 2026 and subsequent years which are not yet due and payable. Not applicable for Surveyor's review.
8. Any lien provided by Chapter 159, Florida Statutes, in favor of any city, town, village, or port authority for unpaid service charges for service by any water systems, sewer systems or gas systems serving the lands described hereon. Not applicable for Surveyor's review.
9. Restrictions, reservations, covenants, easements, conditions and all other matters as shown on Plat recorded in Plat Book 1, Page 28, of the Public Records of Brevard County, Florida. Subject to, and is shown hereon.
10. Development Agreement as contained in that certain instrument recorded in Official Records Book 6969, Page 1969, of the Public Records of Brevard County, Florida. Not applicable for Surveyor's review.

NOTE: Taxes for the year 2025 under Tax ID 24-36-33-75-*-2 are totally exempt from tax.

ALTA/NSPS LAND TITLE SURVEY

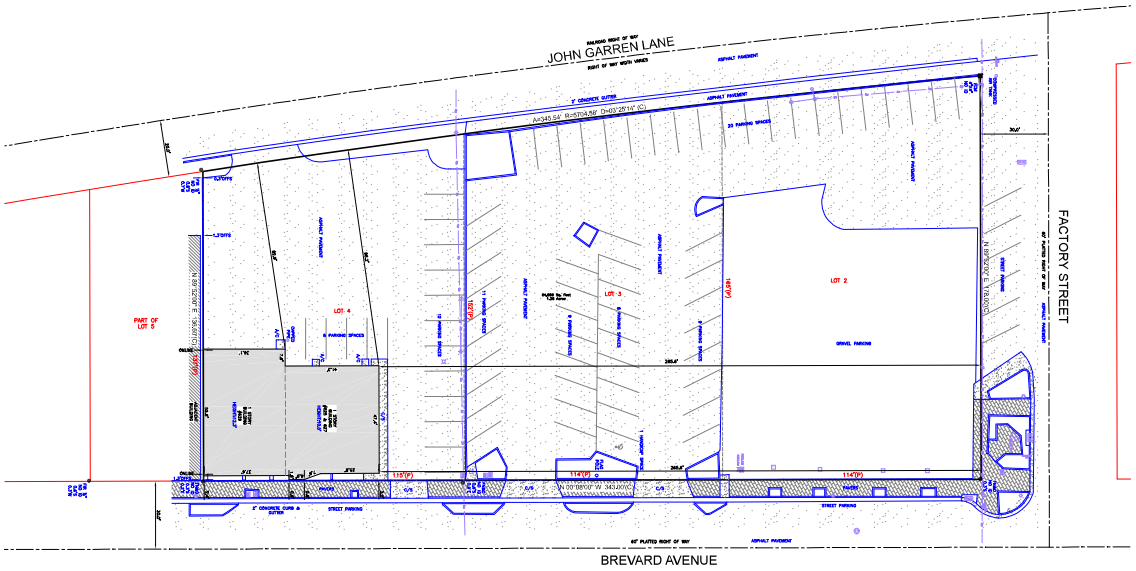
This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 7a, 8, 9 and 13 of Table A thereof. The field work was completed on 11/17/25.



VICINITY MAP
NOT TO SCALE



603 & 625 BREVARD AVENUE
COCOA, FL. 32922
(Pid:24-36-33-75-*-2 & 24-36-33-75-*-4)



NOTES:

– SUBJECT PROPERTY IS 54,556 sqft (1.25 acres), MORE OR LESS

– THERE ARE 74 REGULAR SPACES AND 1 HANDICAP SPACE, FOR A TOTAL OF 75 MARKED PARKING SPACES

L E G E N D

A/C	= AIR CONDITIONING
C/S	= CONCRETE
D	= IDENTIFICATION
LB	= LICENSED BUSINESS
LS	= LAND SURVEYOR
F/C	= FENCE CORNER
C/L	= CHAIN LINK FENCE
VF	= VINYL FENCE
WF	= WOOD FENCE
(C)	= CALCULATED
(D)	= DEED
(M)	= MEASURED DIMENSION
(P)	= PLAT DIMENSION
PP	= POLE
R/W	= RIGHT-OF-WAY
FIP	= FOUND IRON PIPE
FIR	= FOUND IRON ROD
C	= CENTRAL ANGLE
L	= ARC LENGTH
R	= RADIUS
(C)	= CALCULATED DIMENSION
(D)	= DEED DIMENSION
CA	= COVERED AREA
NCF	= NO CORNER SET OR FOUND
P/E	= POOL EQUIPMENT
ORB	= OFFICIAL RECORDS BOOK
CBP	= COVERED BRICK PAVERS
FN&D	= FOUND NAIL & DISK
BP	= BRICK PAVERS
COB	= COVERED WOOD DECK
CO	= CLEANOUT
FH	= FIRE HYDRANT
GA	= GUY ANCHOR
LP	= LIGHT POLE
WM	= WATER METER
WV	= WATER VALVE
BO	= BOLLARD
CB	= CABLE BOX
EB	= ELECTRIC BOX
TB	= TELEPHONE BOX
TR	= TRANSFORMER
UP	= UTILITY POLE
OHU	= OVERHEAD UTILITIES
WM	= WELL
ME	= MITERED END SECTION
DI	= DRAINAGE INLET
UB	= UTILITY BOX
SIGN	= SIGN
IC	= IRRIGATION CONTROL VALVE
SM	= SANITARY MANHOLE
DM	= DRAINAGE MANHOLE
AE	= AESTHETIC AREA
FCM	= FOUND CONCRETE MONUMENT
SN&D	= SET NAIL & DISK LB#8516
SIR	= SET 5/8" IRON ROD & CAP LB#8516
PLS	= PROFESSIONAL LAND SURVEYOR
PSM	= PROFESSIONAL SURVEYOR AND MAPPER
SCEA	= SCREEN ENCLOSED COVERED AREA

1" = 20'0"
NORTH

CLIENT REFERENCE #25-6815	
FIELD DATE:	ORDER #: 25-1785
BOUNDARY SURVEY: 11-17-25	DRAFTER: TSD
REVISION DATE:	FIELD CREW: JB

BUYER'S ACKNOWLEDGMENT

BUYER'S ACKNOWLEDGMENT

CERTIFIED TO:
360 HOSPITALITY GROUP, LLC

FLOOD ZONE:
According to the Federal Emergency Management Agency Flood Insurance Rate Map Panel# 12009C0428H, Dated 01-29-21 the residence does not lie within the established 100 year flood plain per flood zone(s) "X".

LIST OF POSSIBLE ENCROACHMENTS
SOME UTILITIES LIE WITHIN SUBJECT PROPERTY. PAVERS, CONCRETE AND CURBS CROSS PROPERTY LINES. OWNERSHIP OF PAVERS, CONCRETE AND CURBS NOT DETERMINED.

LEGAL DESCRIPTION (as furnished):
Lots 2, 3 and 4, SINGLETON'S 1ST ADDITION TO COCOA, according to the map or plat thereof, recorded in Plat Book 1, Page(s) 28, of the Public Records of Brevard County, Florida.

GENERAL NOTES:

1) Unless digitally signed in accordance with Florida statutes this survey is not valid without the original signature and seal of the Surveyor shown hereon and under no circumstances shall be supplanted by any other graphic or digital form.

2) Additions or deletions to this survey by any party other than the signing Surveyor is prohibited without the written consent of the signing Surveyor.

3) The Surveyor has no knowledge nor has seen physical evidence of human cemeteries and/or burial grounds located within the subject property, unless shown or noted otherwise.

4) Only visible above ground improvements have been located hereon. The Surveyor has made no attempt to locate the extents of underground utilities, foundations or other improvements.

5) All distances shown hereon are in feet, tenths and hundredths of a foot unless noted otherwise.

6) This survey only depicts survey related information such as easements and setbacks that are shown on a record plat or have been furnished to the Surveyor. There may be additional restrictions not shown on the survey that may be found in the public records of this county.

7) Building ties and dimensions for improvements should not be used to reconstruct boundary lines.

8) Bearings are based on the West right of way line of Brevard Avenue which has an assumed bearing of N 00°00'00" W.

4M SURVEYING & MAPPING SERVICES, INC.
3630 STAR COURT, MIMS, FL. 32754
PH: (321) 210-0446
Licensed Business #8516

SURVEYOR'S CERTIFICATE:
This survey meets and/or exceeds the standards of practice set forth by the State of Florida Department of Agriculture and Consumer Services, Board of Professional Surveyors and Mappers in Chapter 5J-17.050 through 5J-17.052 Florida Administrative Code for the type of survey stated hereon.

GREGORY S LOCKLIN Digitally signed by GREGORY S LOCKLIN Date: 2025.11.25 07:58:33 -05'00'

SIGN DATE: 11-24-25

JOSEPH E. WILLIAMSON, PSM 6573
GREGORY S. LOCKLIN, PSM 5619













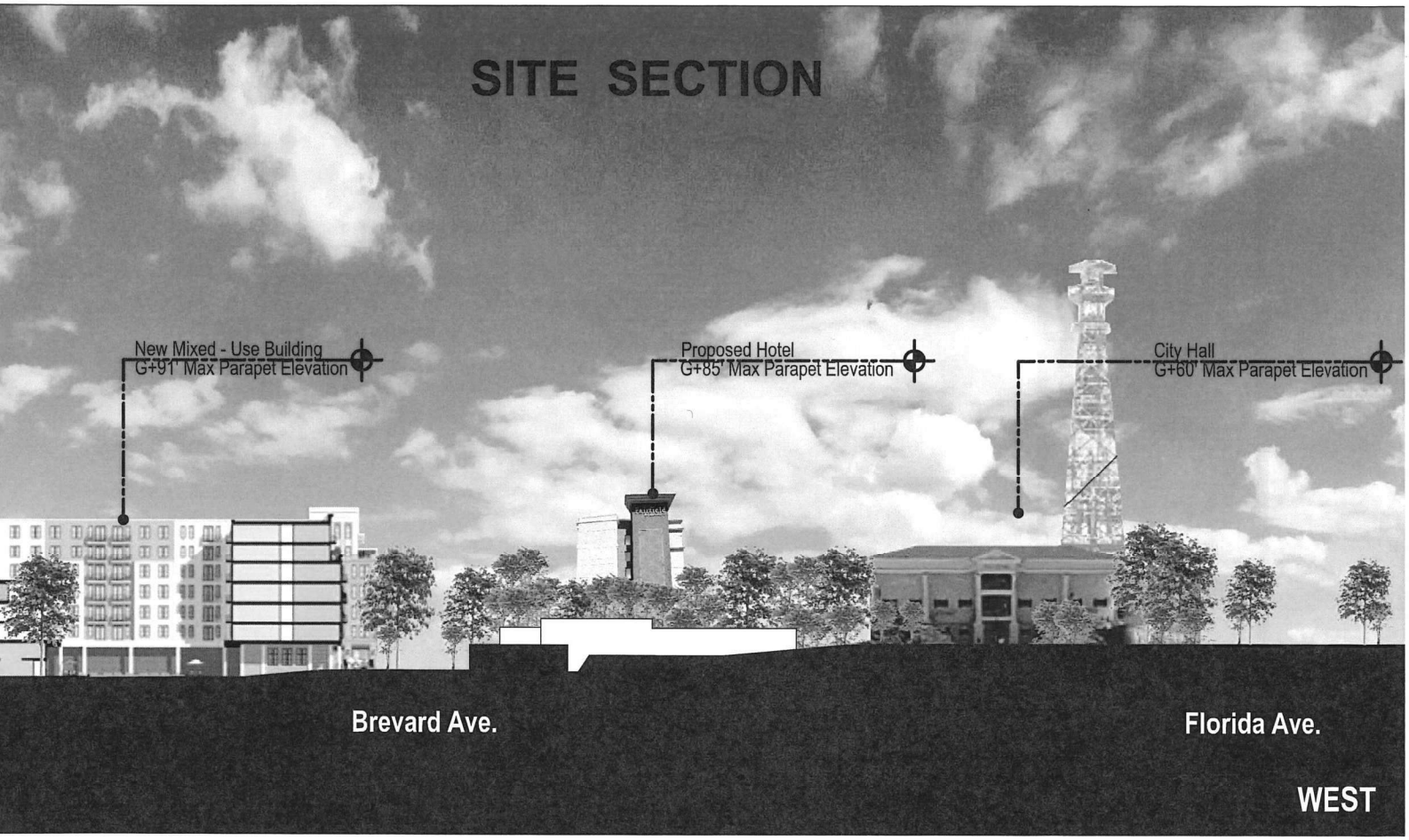



LESS
MONDAY
MORE
SUMMER
Hot Chocolate


LESS
MONDAY
MORE
SUMMER






SITE SECTION
New Mixed - Use Building
G+91' Max Parapet Elevation
Proposed Hotel
G+85' Max Parapet Elevation
City Hall
G+60' Max Parapet Elevation
Brevard Ave.
Florida Ave.
WEST



RK ENGINEERING & ASSOCIATES, INC.

3206 S. Hopkins Ave, Unit 70, Titusville, Florida 32780
321-544-7466 Email: rick@rkcivildesign.com

November 21, 2025

Ms Charlene Neuterman
Community Services Director
City of Cocoa Redevelopment Agency
65 Stone St.
Cocoa, Fl 32922

RE: COCOA VILLAGE HOTEL, 603 BREVARD AVE.
WATER, SEWER DRAINAGE PRELIMINARY STUDY

APPENDIX A	64E-6 STANDARDS FOR ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS
APPENDIX B	FIRE FLOW CALCULATION
APPENDIX C	EXISTING CITY OF COCOA WATER MAINS
APPENDIX D	PROPOSED WATER AND SEWER CONNECTIONS

Dear Ms. Neuterman:

The purpose of this report is to provide a preliminary study for the water and sewer above referenced hotel.

PROJECT DESCRIPTION
The proposed project consists of a 7 story hotel, 86 feet high, at 603 Brevard Ave., the former site of the city of Cocoa city hall. The hotel will have 104 rooms, swimming pool, administrative offices, laundry, lounge, fitness center, breakfast area, food preparation, a roof top bar and an outdoor coffee shop open to the public.

Access will be from the internal onsite parking lot which has a two way driveway on John Garren Lane. John Garren will be converted to one way south bound. Factory St. will be converted to one way west bound.

The building will have a fully automatic sprinkler system.

WATER DEMAND

The report will estimate domestic water usage and fire flow needed.

SITE FIRE FLOW

Attached is a fire flow calculation per NFPA 1 (2021) Chapter 18. The conclusion of this calculation is that the required fire flow for needed for this site is 600 gpm if quick response sprinklers are used or 1,000 gpm without quick response sprinklers.

DOMESTIC FLOW

Domestic average gpd was determined using State of Florida Dept. of Health 64E-6.
Use
Hotel 100 gpd per room x 104 rooms = 10,400 gpd
Apply a peak factor of 4x to determine peak hour flow = 41,600 gpd = 29 gpm

FIRE FLOW PLUS MAX DAY FLOW

Site fire flow should be designed for the required fire flow plus the max day flow.
Max day flowrate is 2x average day = 10,400 x 2= 20,800 gpd = 14.5 gpm

Required fire flow + max day =
Either
600 gpm + 14.5 gpm = 614.5 gpm quick response sprinklers
Or
1000 gpm + 14.5 gpm = 1,014.5 gpm without quick response sprinklers

WATER SUPPLY

The city sewer atlas of this area is attached to this report. There is an existing 6" water main on Brevard Ave. that is looped, connected at both the north and south ends. There is a dead end 6" water main on Factory St. that connects to the 6" main on Brevard Ave. There is an existing 8" water main on Orange St. , and on Brevard Ave. north of Church st.

At this time the project does not have a recent fire hydrant flow test. One is being ordered. A fire flow test would be needed to determine if adequate flow and pressure exists in the city system to service this project.

However even without a fire flow test a reasonable estimate can be made to determine if the city system can support this hotel project. Due to the height of the hotel, 86 feet, a fire pump internal to the hotel will be required to provide the pressure needed. With a fire pump being provided to insure enough pressure to run the automatic sprinkler system, the project will only need the street hydrants to have the required fire flow plus the max day, (either 614.5 gpm or 1,014.5 gpm).

A 6 inch water system that is looped, if the peak velocity is limited to 10 fps, theoretically can provide (850 gpm + 850 gpm) = 1,700 gpm. A fire flow test would be needed to confirm this. However based on a max flow velocity of 10 fps, there would be ample capacity for either the 614.5 gpm or 1,014.5

gpm scenarios described above. In the event that the 1,104 gpm could not be met, the project would be designed with the quick response sprinklers and only need the 614.5 gpm.

At this time, we do not think that a water main extension from Factory street running north in John Garren Ln. up to Orange street will be needed. However if during the final design process this becomes required, then it would be added to the project requirements.

The proposed water service will come from the 6" looped water main on Brevard Ave. See Appendix D. It will be a 6" main brought into the site. It will have a double detector check valve for the automatic sprinkler system, a proposed public fire hydrant, and a domestic water service. This will connect direct to the fire pump room on the hotel.

SANITARY SEWER

There is an existing 8 inch gravity sewer main located in Brevard Ave. as shown in Exhibit B. There is an existing sanitary sewer service to the site from Brevard Ave. that previously served the city hall at this location.

The average daily flowrate for sewage for a hotel per 64E-6 is 100 gpd per room x 104 rooms = 10,400 gpd. A factor of 4 X is applied for the peak rate. 4 x 10,400 = 41,600 gpm = 29 gpm. This would be the additional flow rate added to the 8" vcp in Brevard Ave. If the city is not already experiencing any over load problems with their sewer system in Brevard Ave., them it is not likely adding this small amount of additional flow will cause any overload.

See the attached sewer atlas.

Sincerely,

Richard J. Kern PE
RK ENGINEERING & ASSOCIATES, INC.

APPENDIX A 64E-6 STANDARDS FOR ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

(3) Setbacks in subsections 64E-6.005(1), (2), (3) and (4), F.A.C., are met.

(4) The site of the installation and the additional required unobstructed land referred to in subsection 64E-6.005(4), F.A.C., shall not be covered with asphalt or concrete, or be subject to vehicular traffic or other activity as defined in subsection 64E-6.002(41), F.A.C., which would adversely affect the soil, or the operation of the system.

(5) The site of the installation and the additional required unobstructed land referred to in subsection 64E-6.005(4), F.A.C., is not subject to saturation from sources such as artificial drainage of ground surfaces, driveways, roads or roof drains.

(6) The existing lot elevation at the site of the proposed system installation and any contiguous land referred to in subsection 64E-6.005(4), F.A.C., shall not be subject to frequent flooding. Except for areas affected by Section 381.0065(4)(t), F.S., fill material, if permitted, shall be placed in the area for the system and contiguous unobstructed area to raise the lot elevation above the 2 year flood.

(7) All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.

Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a) FS. Law Implemented 381.0065, 381.00655 FS. History–New 12-22-82, Amended 2-5-85, Formerly 10D-6.47, Amended 3-17-92, 4-16-92, 1-3-95, Formerly 10D-6.047, Amended 3-22-00, 11-26-06.

64E-6.008 System Size Determinations.

(1) Minimum design flows for systems serving any structure, building or group of buildings shall be based on the estimated daily sewage flow as determined from Table I or the following:

(a) The DOH county health department shall accept, for other than residences and food operations, metered water use data in lieu of the estimated sewage flows set forth in Table I. For metered flow consideration, the applicant shall provide authenticated monthly water use data documenting water consumption for the most recent 12 month period for at least six similar establishments. Similar establishments are those like size operations engaged in the same type of business or service, which are located in the same type of geographic environment, and which have approximately the same operating hours. Metered flow values will not be considered to be a reliable indicator of typical water use where one or more of the establishments utilized in the sample has exceeded the monthly flow average for all six establishments by more than 25 percent or where the different establishments demonstrate wide variations in monthly flow totals. When metered flow data is accepted in lieu of estimated flows found in Table I, the highest flow which occurred in any month for any of the six similar establishments shall be used for system sizing purposes. Except for food operations which exceed domestic sewage waste quality parameters as defined in subsection 64E-6.002(15), F.A.C., where an existing establishment which has been in continuous operation for the previous 24 months seeks to utilize its own metered flows, the applicant shall provide authenticated monthly water use data documenting water consumption for the most recent 24 month period. The highest monthly metered flow value for an existing establishment shall be used for system sizing purposes.

(b) When onsite systems use multiple strategies to reduce the total estimated sewage flow or the drainfield size, only one reduction method shall be credited.

TABLE I
For System Design
ESTIMATED SEWAGE FLOWS

TYPE OF ESTABLISHMENT	GALLONS PER DAY
COMMERCIAL:	
Airports, bus terminals, train stations, port & dock facilities,	
Bathroom waste only	
(a) Per passenger	4
(b) Add per employee per 8 hour shift	15
Barber & beauty shops per service chair	75
Bowling alley bathroom waste only	
Per lane	50
Country club	
(a) Per resident	100
(b) Add per member or patron	25
(c) Add per employee per 8 hour shift	15
Doctor and Dentist offices	
(a) Per practitioner	250
(b) Add per employee per 8 hour shift	15
Factories, exclusive of industrial wastes	
gallons per employee per 8 hour shift	

(a) No showers provided……...…...15
(b) Showers provided……...25
Flea Market open 3 or less days per week
(a) Per non-food service vendor space……15
(b) Add per food service establishment
using single service articles only per
100 Square feet of floor space…… 50
(c) Per limited food service establishment……...25
(d) For flea markets open more than
3 days per week estimated flows
shall be doubled
Food operations
(a) Restaurant operating 16 hours or less
per day per seat……..…….. 40
(b) Restaurant operating more than 16 hours
per day per seat…… 60
(c) Restaurant using single service articles only
and operating 16 hours or less per day
per seat……20
(d) Restaurant using single service articles only
and operating more than 16 hours per day
per seat……35
(e) Bar and cocktail lounge per seat…… 20
add per pool table or video game……15
(f) Drive-in restaurant per car space…… 50
(g) Carry out only, including caterers
1. Per 100 square feet of floor space……50
2. Add per employee per 8 hour shift…….. 15
(h) Institutions per meal……...5
(i) Food Outlets excluding delis,
bakery, or meat department
per 100 square feet of floor space……10
1. Add for deli per 100 square feet of deli
floor space……40
2. Add for bakery per 100 square feet of bakery
floor space……..……..40
3. Add for meat department per
100 square feet of meat
department floor space……..…...75
4. Add per water closet…… 200
Hotels & motels
(a) Regular per room……100
(b) Resort hotels, camps, cottages
per room……..……200
(c) Add for establishments with self service
laundry facilities per machine…….…….750
Mobile Home Park
(a) Per single wide mobile home
space, less than 4 single wide
spaces connected to a shared
onsite system……..……...250
(b) Per single wide mobile home
space, 4 or more single
wide spaces are connected to a
shared onsite system……..... 225
(c) Per double wide mobile home
space, less than 4 double wide
mobile home spaces connected to a

APPENDIX B FIRE FLOW CALCULATION

Fairfield Hotel – Cocoa Village

Fire Flow Calculation

Reference: NFPA 1 (2021), Chapter 18

Building Square footage:

1st Floor	10,697 SF
2nd Floor	10,279 SF
3rd Floor	10,279 SF
4th Floor	10,279 SF
5th Floor	10,279 SF
6th Floor	10,279 SF
Rooftop Bar	3,247 SF
Total Square Footage	65,339 SF

Building Type Chosen: FBC Type IB; NFPA 220 Type II (222)

Total Fire Flow Area = Area of 3 largest successive floors (18.4.4.2) = 31,255 SF

Table 18.4.5.2.1:

Fire flow per table:	2000 GPM
Reduced 75% in sprinklered building (18.4.4.3.2):	2750 x .75 = 1,500
	2000 – 1500 = 500
Required fire flow: (With quick response sprinkers):	**600 GPM (18.4.5.3.3)**
Required fire flow:(Without quick response sprinkers):	**1000 GPM (18.4.5.3.2)**

Code Reference

18.4 Fire Flow Requirements for Buildings.
18.4.1* Scope.
18.4.1.1* The procedure determining fire flow requirements for buildings hereafter constructed or moved into the jurisdiction shall be in accordance with Section 18.4.
18.4.1.2 Section 18.4 shall not apply to structures other than buildings.
18.4.2 Definitions. See definitions 3.3.14.4, Fire Flow Area, and 3.3.124, Fire Flow.
18.4.3 Modifications.
18.4.3.1 Decreases in Fire Flow Requirements.
18.4.3.1.1* Fire flow requirements shall be permitted to be decreased by the AHJ for isolated buildings or a group of buildings in rural areas or suburban areas where the development of full fire flow requirements is impractical as determined by the AHJ.
18.4.3.1.2 The AHJ shall be authorized to establish conditions on fire flow reductions approved in accordance with 18.4.3.1.1 including, but not limited to, fire sprinkler protection, type of construction of the building, occupancy, development density, building size, and setbacks.
18.4.3.2 Increases in Fire Flow Requirements. The minimum required fire flow shall be permitted to be increased by the AHJ where conditions indicate an unusual susceptibility to group fires or conflagrations. An upward modification shall not be more than twice that required for the building under consideration.

18.4.4 Fire Flow Area.
18.4.4.1 General. The fire flow area shall be the total floor area of all floor levels of a building except as modified in 18.4.4.2.
18.4.4.2 Type I (443), Type I (332), and Type II (222) Construction. The fire flow area of a building constructed of Type I (443), Type I (332), and Type II (222) construction shall be the area of the three largest successive floors.

18.4.5.3 Buildings Other Than One- and Two-Family Dwellings.
18.4.5.3.1 The minimum fire flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in Table 18.4.5.2.1.
18.4.5.3.2 Required fire flow shall be reduced by 75 percent when the building is protected throughout by an approved automatic sprinkler system. The resulting fire flow shall not be less than 1000 gpm.

Table 18.4.5.2.1 Minimum Required Fire Flow and Flow Duration for Buildings

Fire Flow Area ft² (× 0.0929 for m²)					Fire Flow gpm† (× 3.785 for L/min)	Flow Duration (hours)
I(443), I(332), II(222)*	II(111), III(211)*	IV(2HH), V(111)*	II(000), III(200)*	V(000)*		
0–22,700	0–12,700	0–8200	0–5900	0–3600	1500	2
22,701–30,200	12,701–17,000	8201–10,900	5901–7900	3601–4800	1750	
30,201–38,700	17,001–21,800	10,901–12,900	7901–9800	4801–6200	2000	
38,701–48,300	21,801–24,200	12,901–17,400	9801–12,600	6201–7700	2250	
48,301–59,000	24,201–33,200	17,401–21,300	12,601–15,400	7701–9400	2500	
59,001–70,900	33,201–39,700	21,301–25,500	15,401–18,400	9401–11,300	2750	
70,901–83,700	39,701–47,100	25,501–30,100	18,401–21,800	11,301–13,400	3000	3
83,701–97,700	47,101–54,900	30,101–35,200	21,801–25,900	13,401–15,600	3250	
97,701–112,700	54,901–63,400	35,201–40,600	25,901–29,300	15,601–18,000	3500	
112,701–128,700	63,401–72,400	40,601–46,400	29,301–33,500	18,001–20,600	3750	
128,701–145,900	72,401–82,100	46,401–52,500	33,501–37,900	20,601–23,300	4000	4
145,901–164,200	82,101–92,400	52,501–59,100	37,901–42,700	23,301–26,300	4250	
164,201–183,400	92,401–103,100	59,101–66,000	42,701–47,700	26,301–29,300	4500	
183,401–203,700	103,101–114,600	66,001–73,300	47,701–53,000	29,301–32,600	4750	
203,701–225,200	114,601–126,700	73,301–81,100	53,001–58,600	32,601–36,000	5000	
225,201–247,700	126,701–139,400	81,101–89,200	58,601–65,400	36,001–39,600	5250	
247,701–271,200	139,401–152,600	89,201–97,700	65,401–70,600	39,601–43,400	5500	
271,201–295,900	152,601–166,500	97,701–106,500	70,601–77,000	43,401–47,400	5750	
Greater than 295,900	Greater than 166,500	106,501–115,800	77,001–83,700	47,401–51,500	6000	
		115,801–125,500	83,701–90,600	51,501–55,700	6250	
		125,501–135,500	90,601–97,900	55,701–60,200	6500	
		135,501–145,800	97,901–106,800	60,201–64,800	6750	
		145,801–156,700	106,801–113,200	64,801–69,600	7000	
		156,701–167,900	113,201–121,300	69,601–74,600	7250	
		167,901–179,400	121,301–129,600	74,601–79,800	7500	
		179,401–191,400	129,601–138,300	79,801–85,100	7750	
		Greater than 191,400	Greater than 138,300	Greater than 85,100	8000	

*Types of construction are based on NFPA 220.
†Measured at 20 psi (139.9 kPa).

18.4.5.3.3 Required fire flow shall be reduced by 75 percent when the building is protected throughout by an approved automatic sprinkler system, which utilizes quick response sprinklers throughout. The resulting fire flow shall not be less than 600 gpm.
18.4.5.3.4* Required fire flow for buildings protected by an approved automatic sprinkler system shall not exceed 2000 gpm for 2 hours.

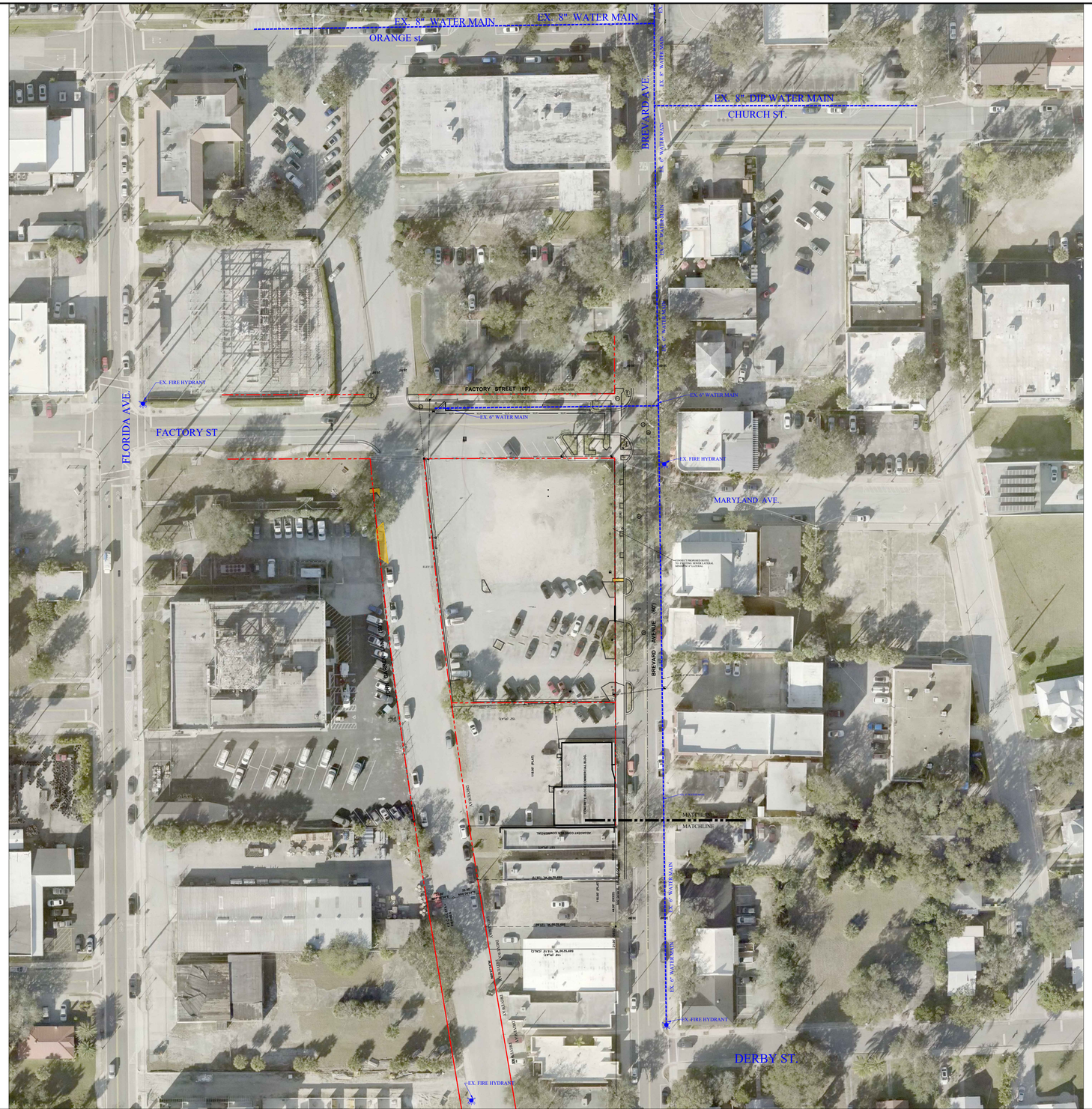
APPENDIX C EXISTING CITY OF COCOA WATER MAINS

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

MAGNETIC



DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
O.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
11-21-25

RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

EXISTING CONDITIONS PLAN
POTABLE WATER PLAN

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

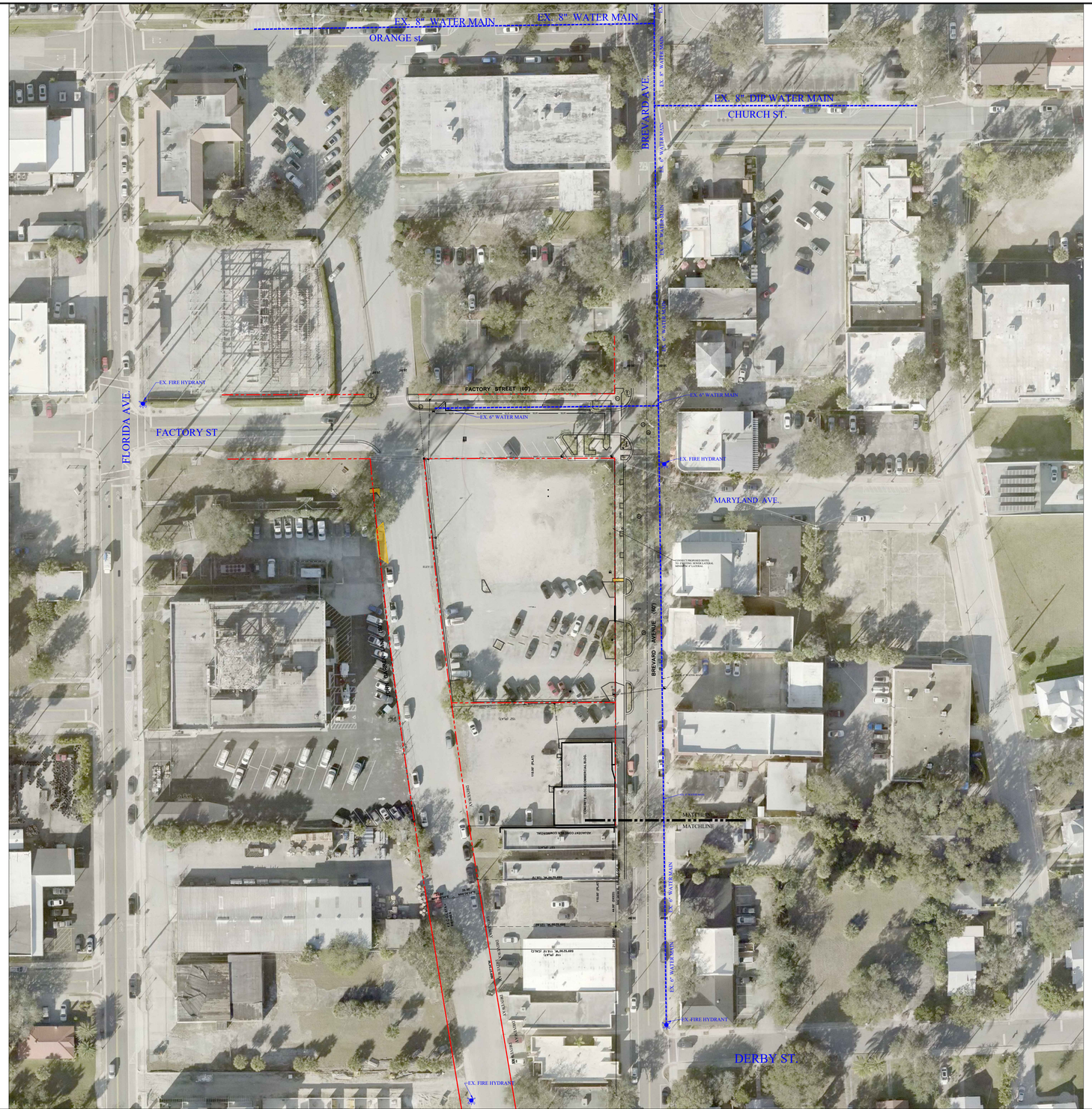
SHT. 2.3 OF ____

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

MAGNETIC



DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
O.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
11-21-25

RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

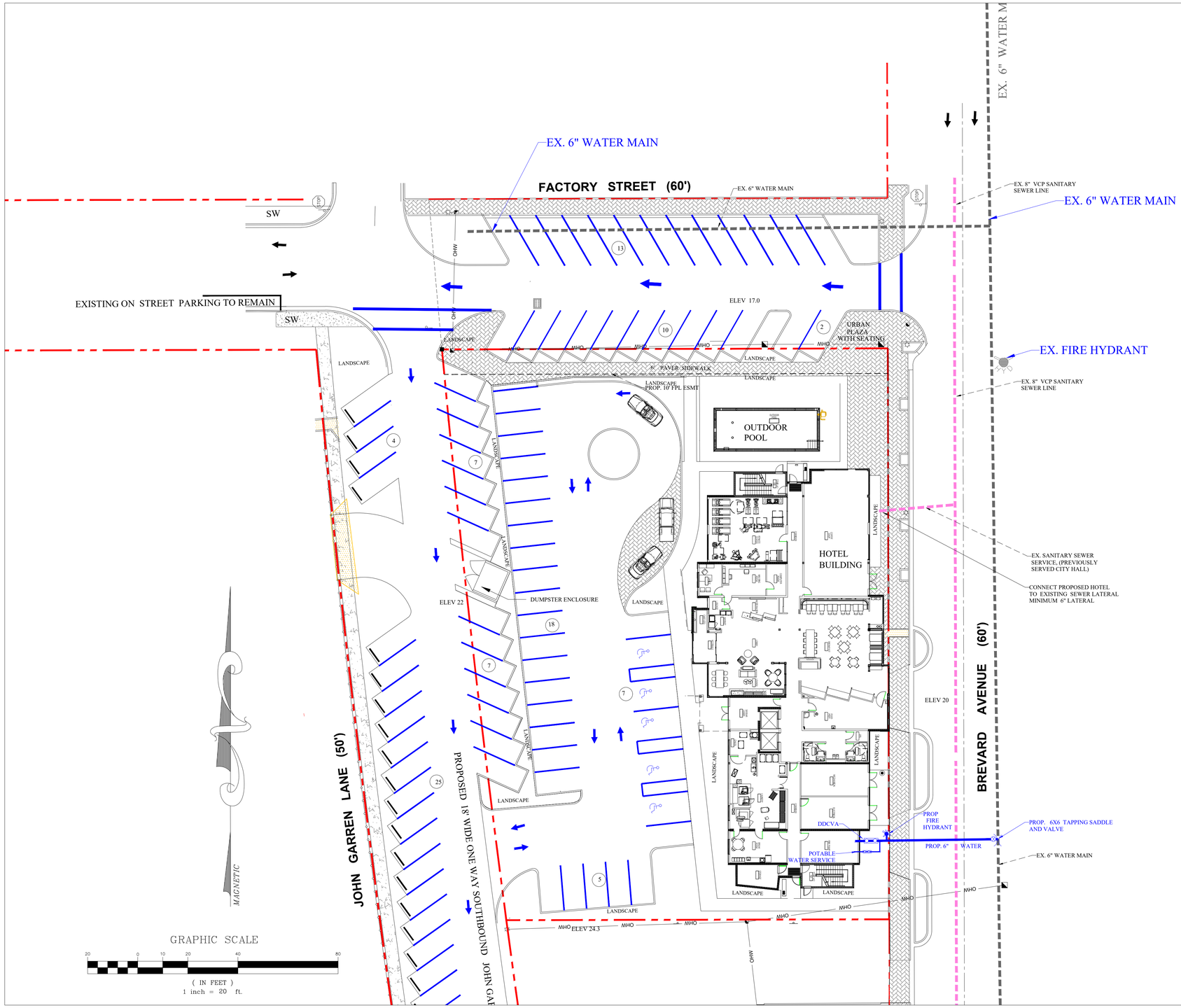
COCOA VILLAGE HOTEL
COCOA, FLORIDA

EXISTING CONDITIONS PLAN
POTABLE WATER PLAN

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT. 2.3 OF ____

APPENDIX D PROPOSED WATER AND SEWER CONNECTIONS



FIRE DEMAND

Fairfield Hotel – Cocoa Village
Fire Flow Calculation

Reference: NFPA 1 (2021), Chapter 18

Building Square footage:

1st Floor	10,697 SF
2nd Floor	10,279 SF
3rd Floor	10,279 SF
4th Floor	10,279 SF
5th Floor	10,279 SF
6th Floor	10,279 SF
Rooftop Bar	3,247 SF
Total Square Footage	65,339 SF

Building Type Chosen: FBC Type IB; NFPA 220 Type II (222)

Total Fire Flow Area = Area of 3 largest successive floors (18.4.4.2) = 31,255 SF

Table 18.4.5.2.1:

Fire flow per table:	2000 GPM
Reduced 75% in sprinklered building (18.4.4.3.2):	2750 x .75 = 1,500
	2000 – 1500 = 500
Required fire flow: (With quick response sprinkers):	**600 GPM (18.4.5.3.3)**
Required fire flow:(Without quick response sprinkers):	**1000 GPM (18.4.5.3.2)**

FIRE HYDRANT LOCATIONS

LOCATION OF FIRE HYDRANT	DISTANCE FROM HOTEL BUIILDING (ft)
MARLAND AND BREVARD AVE.	67
FLORIDA AVE. AND FACTORY ST.	360
JOHN GARREN 150 NORTH OF ROSA L JONES	460
BREVARD AVE. AND DERBY ST.	325

DRAWN R. KERN
DESIGN R. KERN
CHECKED R. KERN
APPROVED
O.C.

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
11-21-25

RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

POTABLE WATER AND SEWER PLAN

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT. C 3.3 OF

RK ENGINEERING & ASSOCIATES, INC.

3206 S. Hopkins Ave, Unit 70, Titusville, Florida 32780
321-544-7466 Email: rick@rkcivildesign.com

November 21, 2025

Ms Charlene Neuterman
Community Services Director
City of Cocoa Redevelopment Agency
65 Stone St.
Cocoa, Fl 32922

RE: COCOA VILLAGE HOTEL, 603 BREVARD AVE.
WATER, SEWER DRAINAGE PRELIMINARY STUDY

APPENDIX A	EXISTING TOPO
APPENDIX B	POST DEVELOPMENT BASIN PLAN
APPENDIX C	DRAINAGE PLAN
APPENDIX D	STORM TECH DETAILS
APPENDIX E	CITY STORMSEWER ATLAS, OUTFALL

Dear Ms. Neuterman:

The purpose of this report is to provide a preliminary study for the water and sewer above referenced hotel.

PROJECT DESCRIPTION
The proposed project consists of a 7 story hotel, 86 feet high, at 603 Brevard Ave., the former site of the city of Cocoa city hall. See Appendix A for existing topo.

The project will convert Factory st from a 2 way street to a one way west bound street with 60 degree angled parking and an 18' wide drive aisle. John Garren Ln. will be converted from a 2 way street to a south bound one way street with angled parking and a 18' wide drive asile.

EXISTING SITE CONDITIONS
The proposed hotel site is the former site of the Cocoa city hall and is now used for a parking lot. It is almost 100% impervious cover. Factory street and is almost 100% impervious cover, with only 532 sf of pervious landscape islands. John Garren Lane is mostly all impervious cover with about 2,700 sf in pervious areas on the edges of the right of way.

PROPOSED SITE CONDITIONS
The hotel site will have 4,160 sf of pervious cover, (11.0%) .
Proposed Factory St. will have 1,122 sf of pervious cover compared to 532 sf in the existing condition.
John Garren will have about 3,880 sf of pervious area in the modified condition compared to about 2,700 sf in the existing condition. See Appendix C.

PROPOSED STORMWATER WATER QUALITY TREATMENT
The required treatment for the onsite improvements is 1 inch of retention over the entire site. This equals the site area 37,800 x 1" = 3,150 cf. This will be provided onsite in underground Stormtech chambers.

Since Factory St. and John Garren are public right of way and the total impervious cover proposed is a decrease compared to the existing condition, no water quality treatment should be required. However, that being said John Garren is a crowned road. The hotel project is proposing diverting the runoff from the east half of John Garren into the onsite stormwater retention system. See the post development basin map in Appendix B. The John Garren runoff intermingles with the onsite runoff between the crown of John Garren and the hotel site. Therefore treatment will be provided for it in the underground treatment system.

The total post development basin area including the east side of John Garren is 45,837 sf. The stormwater system retention volume required based on this area is 45,837 sf x 1" = 3,820 cf.

PEAK ATTENUTION
Since the onsite impervious cover is decreasing and since the impervious cover on both Factory St. and John Garren are decreasing, no additional stormwater storage should be required. The onsite underground stormwater retention will provide a significant amount of peak attenuation for the existing site to be developed as the hotel.

OUTFALL
The outfall from the underground stormwater system will be connected to the existing inlet on Factory St. This inlet is on a 24" rcp which is part of a stormwater system that has direct discharge to the Indian River. See Appendix E for the storm sewer map of the existing outfall to the river.

STORMWATER RETENTION
The proposed stormwater retention will be underground and use the Stormtech arch chambers. The MC-3500 chambers will be used. See Appendix D of this report for details. Each chamber is 77" wide, 45" high and 84" long, holding 109.9 cf of storage. The end caps each hold 14.9 cf of storage.

There will be four rows of 9 chamber each, with end caps on each row.
Total volume is
36 x 109.9 cf + 6 x 14.9 cf = 4,046 cf >3,820 cf required. OK

Sincerely,

Richard J. Kern PE
RK ENGINEERING & ASSOCIATES, INC.

APPENDIX A EXISTING TOPOGRPHIC MAP



DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
O.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY

5-23-24

RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

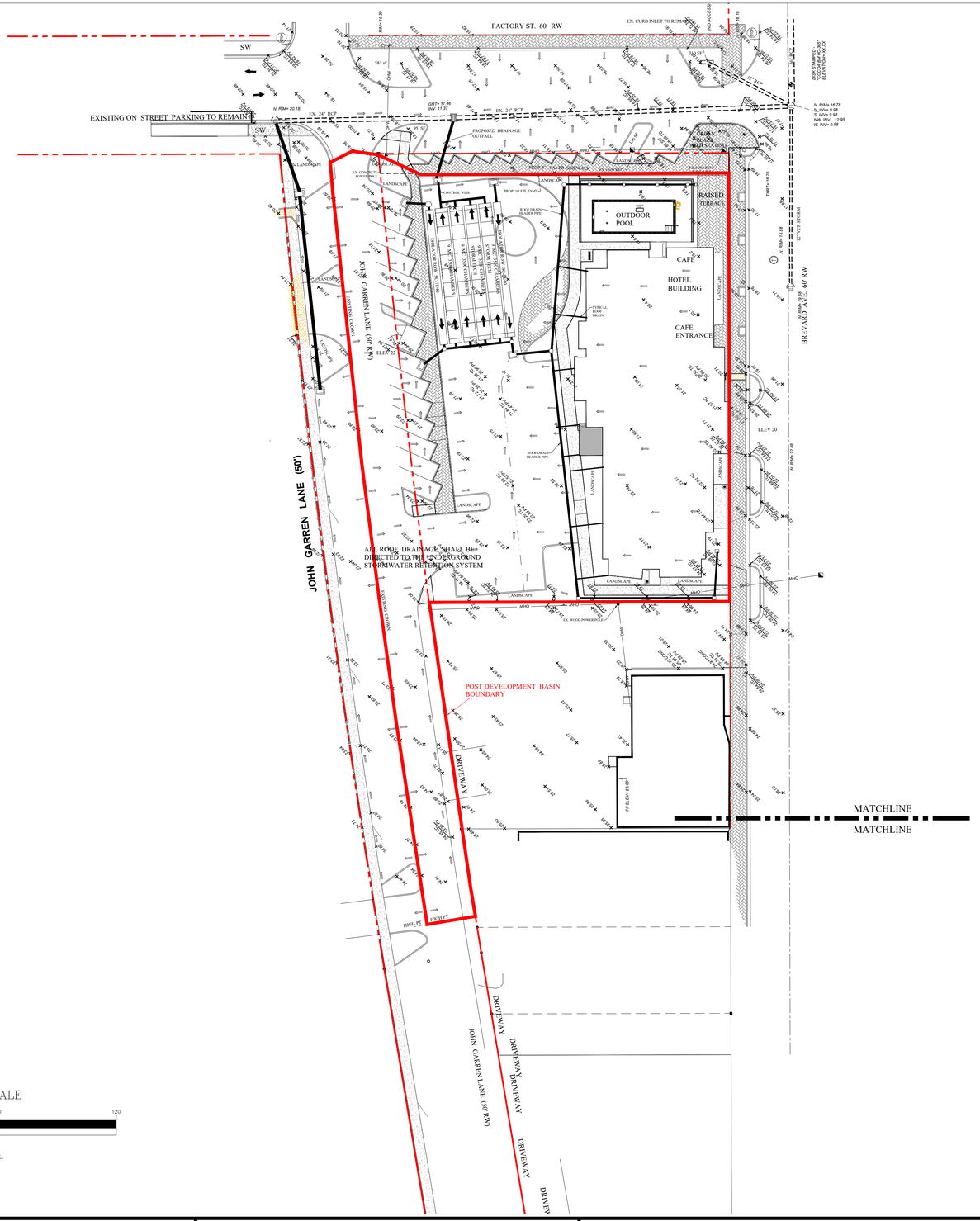
COCOA VILLAGE HOTEL
COCOA, FLORIDA

EXISTING CONDITIONS TOPOGRAPHY,
PAVMENT AND PAVEMENT MARKINGS PLAN

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT C2.1 OF

APPENDIX B POST DEVELOPMENT BASIN PLAN



DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
O.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
11-15-24

RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

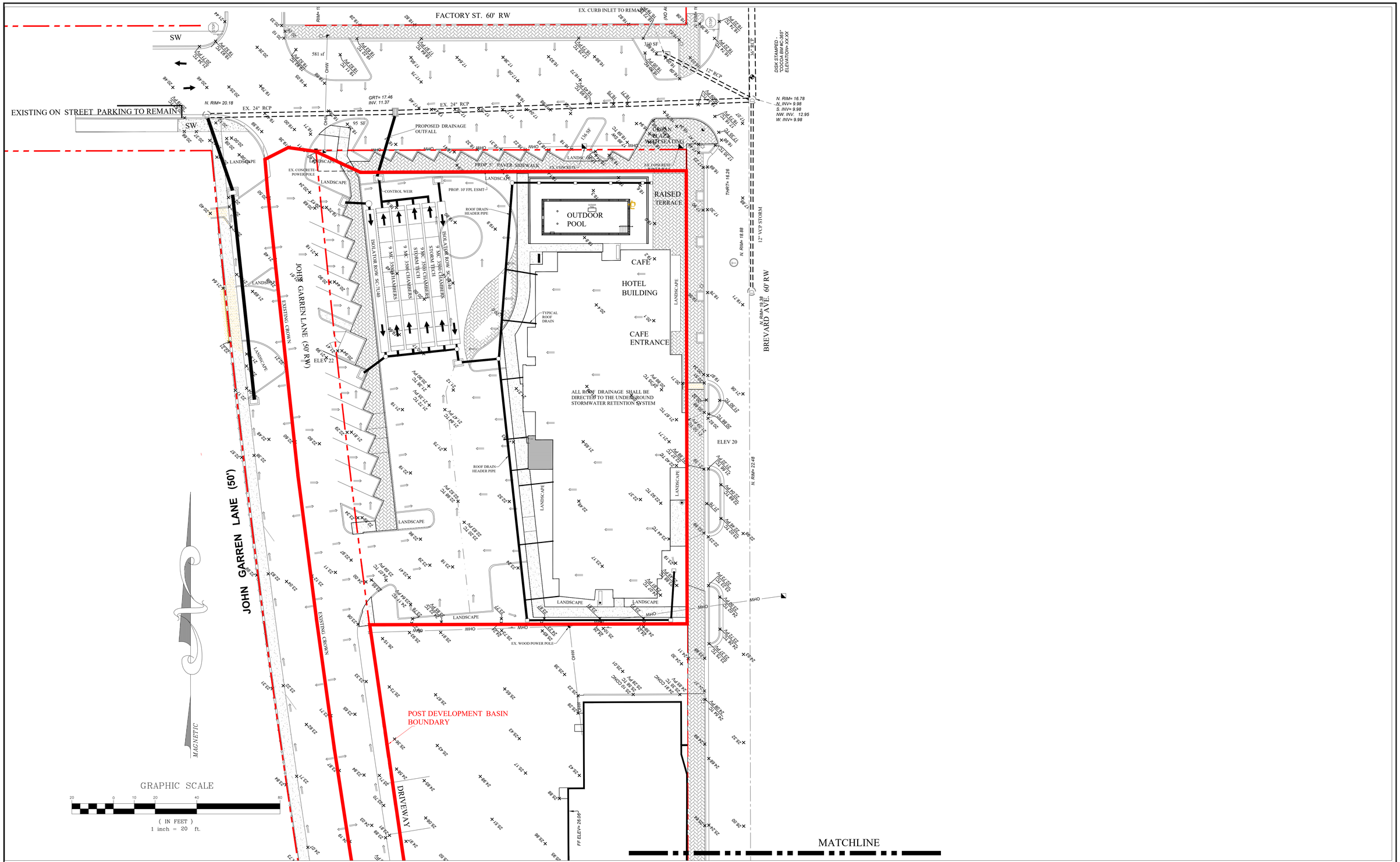
COCOA VILLAGE HOTEL
COCOA, FLORIDA

POST DEVELOPMENT BASIN PLAN

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHT. ____ OF ____

APPENDIX C DRAINAGE PLAN



DRAWN	R. KERN
DESIGN	R. KERN
CHECKED	R. KERN
APPROVED	
O.C.	

RICHARD J. KERN, P.E.
FLORIDA REGISTRATION #39797
NOT VALID WITHOUT DATE, SIGNATURE AND SEAL
FOR REVIEW ONLY
11-15-24

RK ENGINEERING & ASSOCIATES, INC.
CONSULTING ENGINEERING AND LAND PLANNING
3206 S. HOPKINS AVE., UNIT 70
TITUSVILLE, FLORIDA 32780
PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com

COCOA VILLAGE HOTEL
COCOA, FLORIDA

CONCEPTUAL DRAINAGE PLAN

NO	DATE	REVISIONS	APPROVED BY
5			
4			
3			
2			
1			

SHEET C 3.3 OF ____

APPENDIX D STORM TECH DETAILS

Advanced Drainage Systems, Inc.

SiteAssist™
FOR STORMTECH INSTALLATION INSTRUCTIONS VISIT OUR APP

MC-3500 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH MC-3500.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

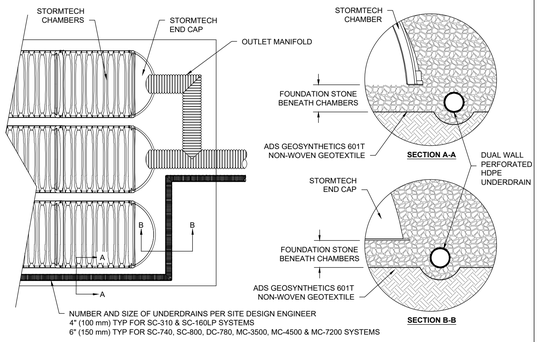
1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
10. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

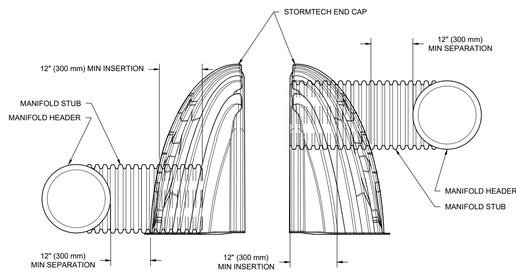
1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

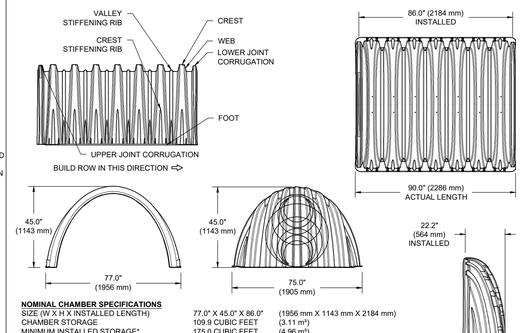


5 UNDERDRAIN DETAIL



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

6 MC-SERIES END CAP INSERTION DETAIL



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	109.9 CUBIC FEET	(3.11 m³)
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET	(4.96 m³)
WEIGHT	134 lbs.	(60.8 kg)

NOMINAL END CAP SPECIFICATIONS

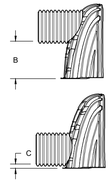
SIZE (W X H X INSTALLED LENGTH)	75.0" X 45.0" X 22.2"	(1905 mm X 1143 mm X 564 mm)
END CAP STORAGE	14.9 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	45.1 CUBIC FEET	(1.28 m³)
WEIGHT	49 lbs.	(22.2 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION, 6" (152 mm) STONE BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"
END CAPS WITH A WELDED CROWN PLATE END WITH "C"

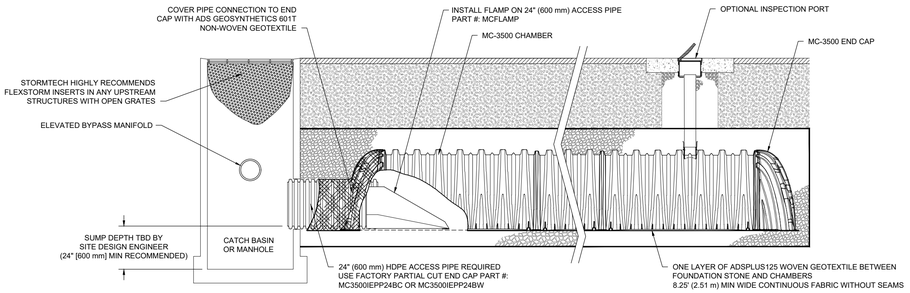
PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	---
MC3500IEPP06B		---	0.66" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.16" (791 mm)	---
MC3500IEPP08B		---	0.81" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	---
MC3500IEPP10B		---	0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	---
MC3500IEPP12B		---	1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.39" (594 mm)	---
MC3500IEPP15B		---	1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	---
MC3500IEPP18TW			
MC3500IEPP18BC		---	1.77" (45 mm)
MC3500IEPP18BW			
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	---
MC3500IEPP24TW			
MC3500IEPP24BC		---	2.06" (52 mm)
MC3500IEPP24BW			
MC3500IEPP30BC	30" (750 mm)	---	2.75" (70 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL

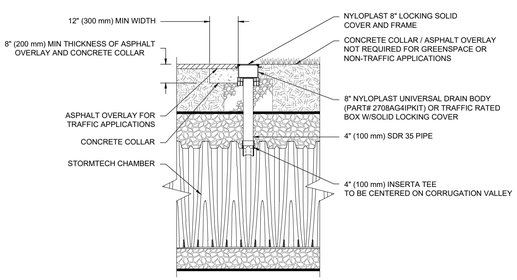


CUSTOM PARTIAL CUT INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

2 MC-3500 TECHNICAL SPECIFICATIONS



3 MC-3500 ISOLATOR ROW PLUS DETAIL



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

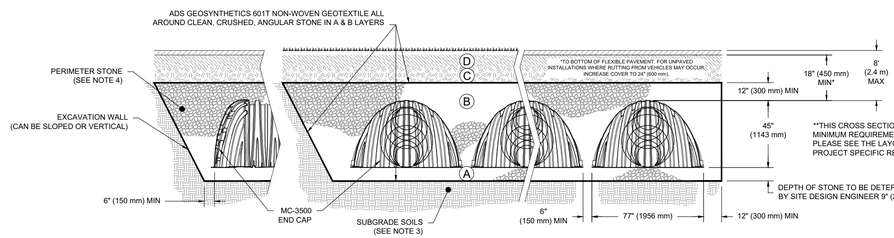
1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

4 4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER)

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[4] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 18" (450 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

1 MC-3500 CROSS SECTION DETAIL

DRAWN: JLM | DATE: 01/10/24
REVIEWED: JLM | PROJECT NO:
REV: | NOT TO SCALE

MC-3500 STANDARD DETAILS

StormTech® Chamber System
888-892-2694 | WWW.STORMTECH.COM

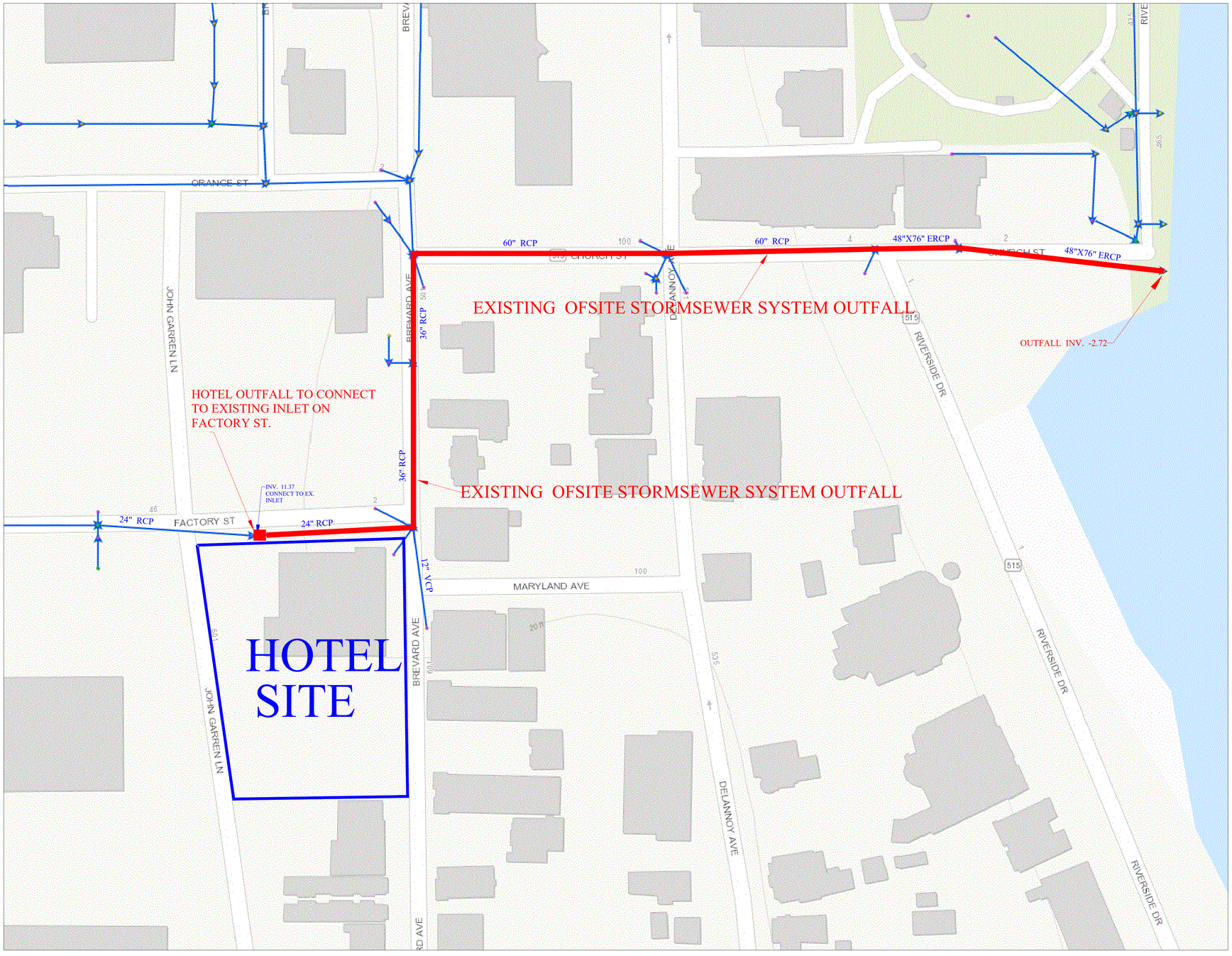
4640 TRUEMAN BLVD
HILLIARD, OH 43026

Advanced Drainage Systems, Inc.

SHEET 1

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON REFERENCED STANDARDS. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. UNLESS THE PLANS ARE SIGNED AND SEALED BY THE SITE DESIGN ENGINEER, THE SITE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

APPENDIX E CITY STORMSEWER ATLAS, OUTFALL



DRAWN R. KERN DESIGN R. KERN CHECKED R. KERN APPROVED O.C.	RICHARD J. KERN, P.E. FLORIDA REGISTRATION #39797 NOT VALID WITHOUT DATE, SIGNATURE AND SEAL FOR REVIEW ONLY 11-21-25	RK ENGINEERING & ASSOCIATES, INC. CONSULTING ENGINEERING AND LAND PLANNING 3206 S. HOPKINS AVE., UNIT 70 TITUSVILLE, FLORIDA 32780 PHONE: (321) 544-7466 EMAIL: rick@rkcivildesign.com	COCOA VILLAGE HOTEL COCOA, FLORIDA	EXISTING STORMSEWER OUTFALL FOR HOTEL	NO / DATE / REVISIONS / APPROVED BY 5 4 3 2 1 SHT. ____ OF ____

TRAFFIC IMPACT ANALYSIS

COCOA VILLAGE HOTEL

BREVARD COUNTY, FLORIDA

Prepared for:

Harding Development, LLC
12386 SR 535, Unit 231
Orlando, Florida 32836

Prepared by:

Traffic Planning and Design, Inc.
535 Versailles Drive
Maitland, Florida 32751
407-628-9955

November 2024
November 2025

Revised
February 2026

TPD №: 6016

PROFESSIONAL ENGINEERING CERTIFICATION

I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic Planning & Design, Inc., a corporation authorized to operate as an engineering business, EB-3702, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

PROJECT: Cocoa Village Hotel

LOCATION: Brevard County, Florida

CLIENT: Harding Development, LLC

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.

NAME: Turgut Dervish, P.E.

P.E. NO.: 20400

DATE: February 24, 2026

SIGNATURE:

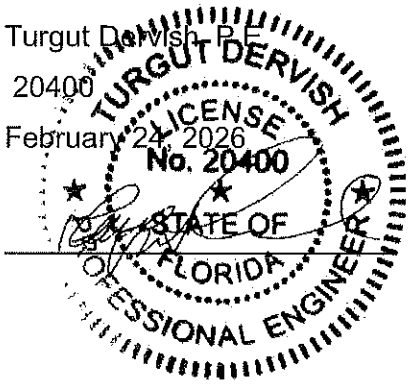


TABLE OF CONTENTS

Page

INTRODUCTION 1

PROPOSED DEVELOPMENT AND TRIP GENERATION 4

Trip Generation
Trip Distribution
Impact Area

EXISTING TRAFFIC CONDITIONS ANALYSIS 8

Existing Roadway Capacity Analysis
Existing Intersection Capacity Analysis

PROJECTED TRAFFIC CONDITIONS 11

Projected Roadway Capacity Analysis
Projected Intersection Capacity Analysis
Multi-Modal Analysis

CONCLUSIONS 15

APPENDICES

A ITE Trip Generation Worksheets
B CFRPM Model Output
C Turning Movement Counts, Intersection Geometries, FDOT Seasonal Factors
D Existing Intersection Capacity Analysis Worksheets
E Trends Analysis Worksheets
F Projected Intersection Capacity Analysis Worksheets

LIST OF TABLES

Page

Table 1 Trip Generation Summary 4
Table 2 Significance Analysis 7
Table 3 Existing Roadway Capacity Analysis 9
Table 4 Existing Intersection Capacity Analysis 9
Table 5 Projected Roadway Capacity Analysis 11
Table 6 Projected Intersection Capacity Analysis 12

LIST OF FIGURES

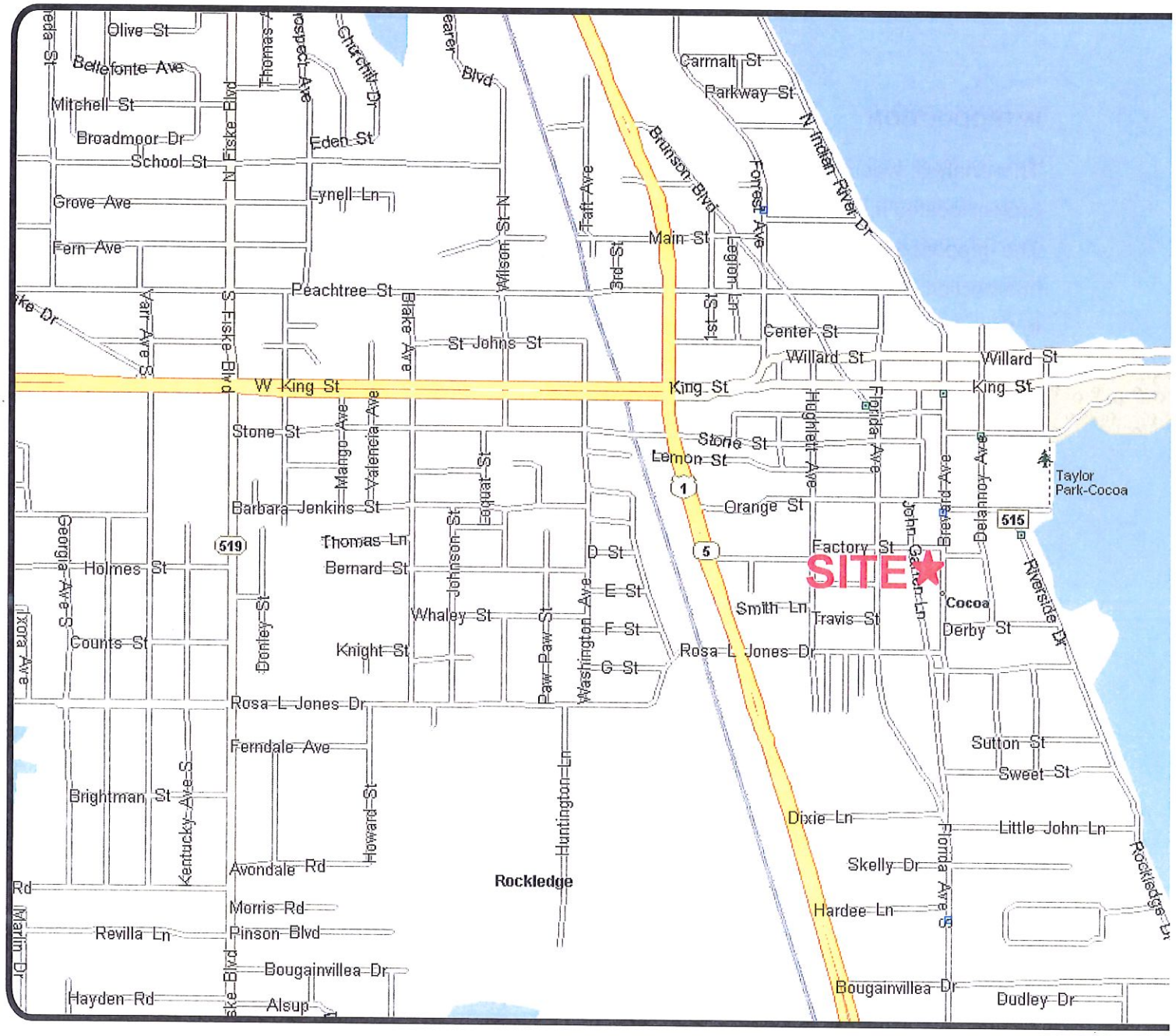
Page

Figure 1 – Site Location 2
Figure 2 – Site Plan 3
Figure 3 – Project Trip Distribution 5
Figure 4 – Existing P.M. Peak Hour Traffic Volumes 10
Figure 5 – Projected P.M. Peak Hour Traffic Volumes 14

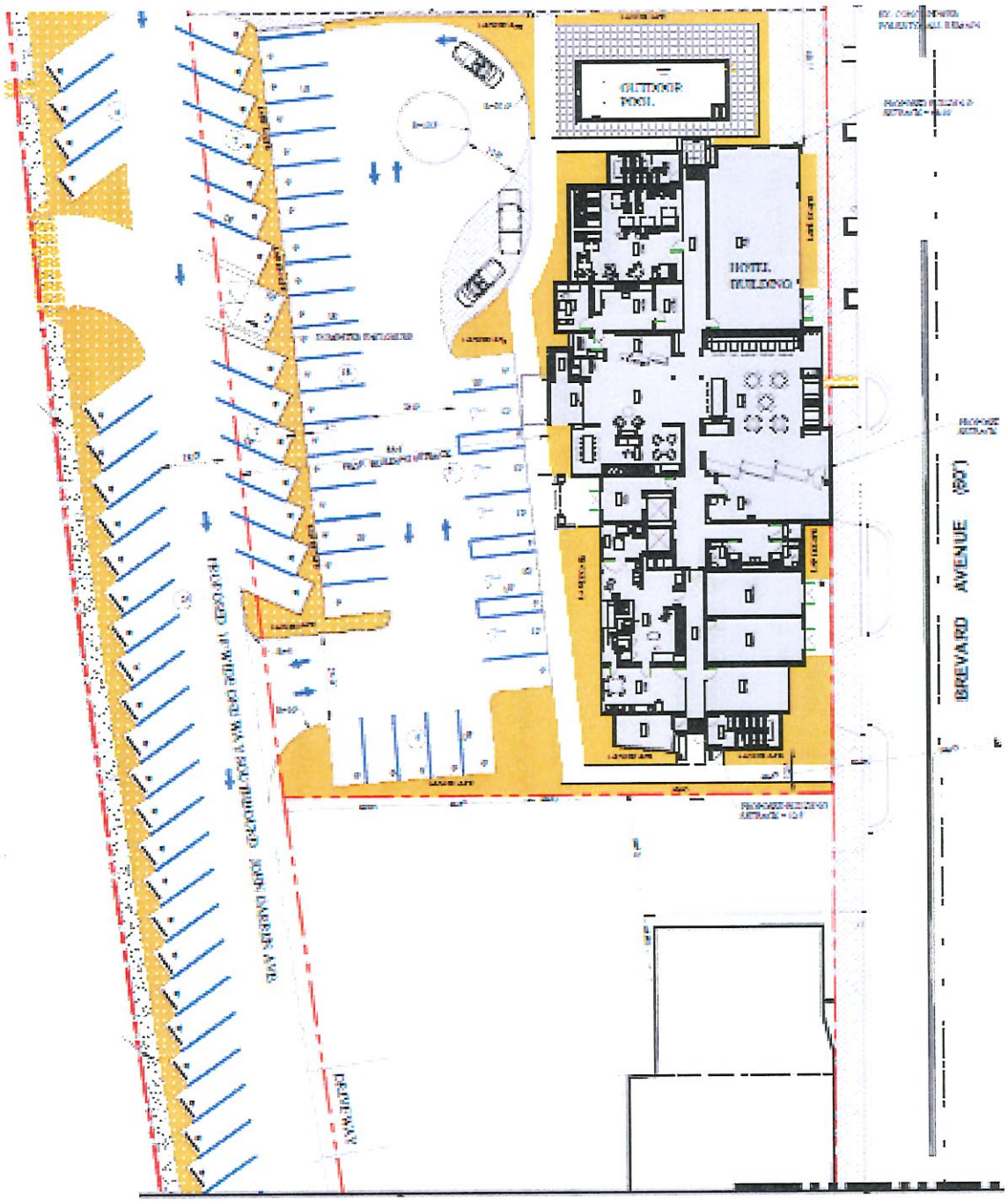
INTRODUCTION

This analysis was performed in order to assess the impact of the proposed Cocoa Village Hotel project located in the Community Redevelopment Area (CRA) of Cocoa Village, Brevard County. The proposed project is for a 104-room hotel to be located in the southeast corner of the intersection of Factory Street and John Garren Lane. **Figure 1** depicts the site location. Access to the site is proposed via a full access driveway on John Garren Lane. It should be noted that it is proposed that the segment of John Garren Lane south of Factory Street be converted to a one-way street in the southbound direction. Additionally, it is proposed that the segment of Factory Street from John Garren Lane to Brevard Avenue be converted to a one-way street in the westbound direction. **Figure 2** depicts the site plan. The project will be completed by the end of 2026.

The analysis was conducted in accordance with the City of Cocoa and Brevard County Traffic Impact Analysis guidelines. Data used in the analysis consisted of site plan/development information provided by the Project Engineers, roadway segment data obtained from the Space Coast TPO's Historical Traffic Volumes database, and P.M. peak hour turning movement count data collected at the study intersections by TPD personnel for use in the analysis.



Cocoa Village Hotel
Project № 6016
Figure 1



Cocoa Village Hotel
Project № 6016

Figure 2

Site Plan

N

NTS

PROPOSED DEVELOPMENT AND TRIP GENERATION

The proposed development is for a 104-room hotel to be completed by the end of 2026. In order to determine the impact of the proposed development in the area, an analysis of its trip generation characteristics was conducted. This included the determination of the trips to be generated as well as their distribution and assignment to the area roadways.

Trip Generation

The trip generation of the proposed development was calculated with the use of the Institute of Transportation Engineers (ITE) data, as published in the *Trip Generation Manual, 11th Edition*. The trip generation calculation is summarized in **Table 1**, which shows that the proposed development is projected to generate 704 daily trips, of which 45 will occur during the A.M. peak hour and 49 during the P.M. peak hour. The project will generate less than 100 peak hour trips, therefore according to the City of Cocoa and Brevard County guidelines, a Traffic Impact Analysis (TIA) for a "small project" is required. The detailed ITE trip generation worksheets are included in **Appendix A.**

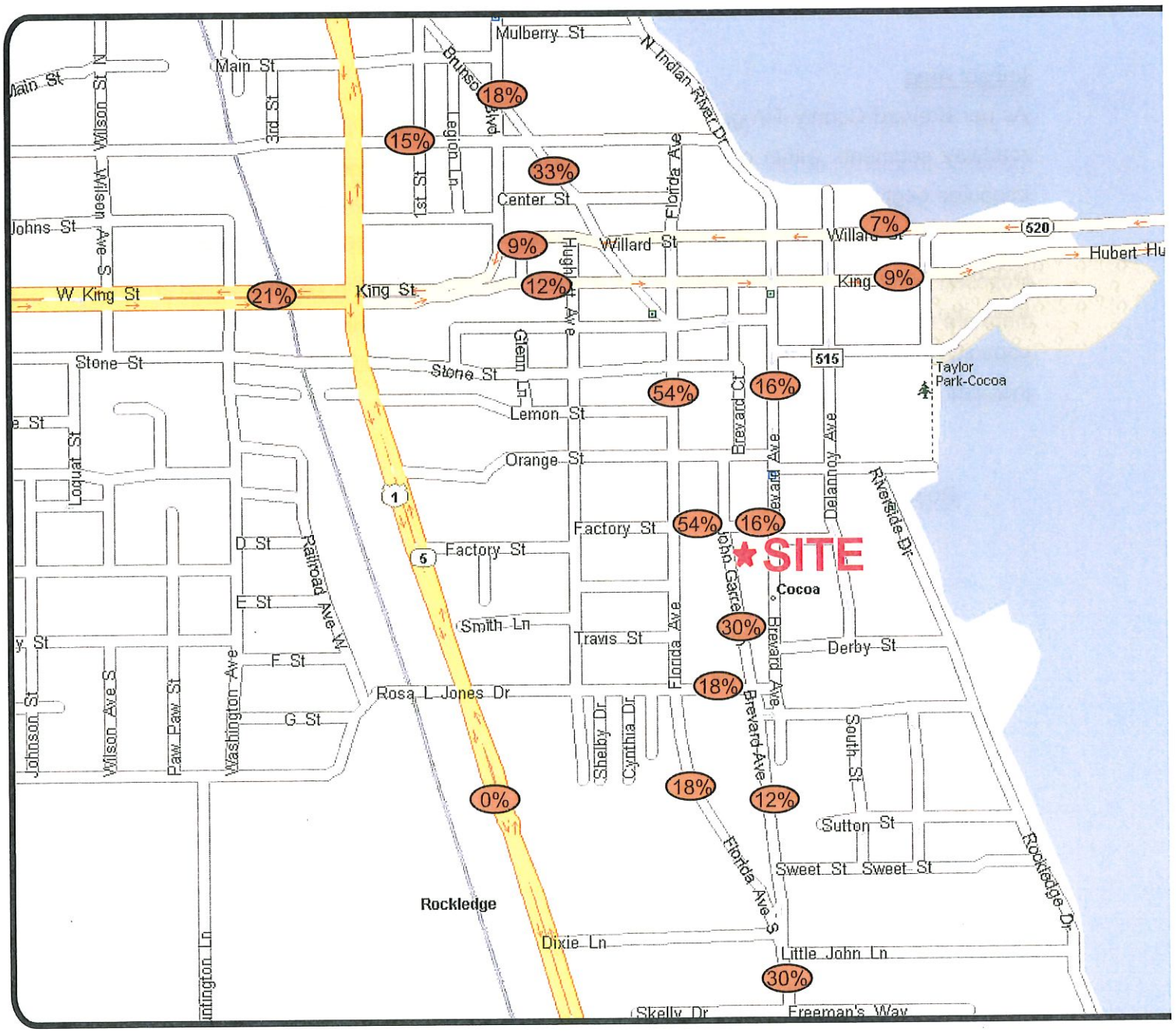
Table 1
Trip Generation Summary

ITE Code	Land Use	Size	Daily		A.M. Peak Hour				P.M. Peak Hour			
			Rate*	Trips	Rate*	Enter	Exit	Total	Rate*	Enter	Exit	Total
310	Hotel	104 Rooms	6.77	704	0.43	25	20	45	0.47	25	24	49

* More than 20 studies available or $R^2 > 0.75$; therefore, Equations used

Trip Distribution

A trip distribution pattern was determined for the proposed project with the use of the latest version of the Central Florida Regional Planning Model (CFRPM). A Select Zone Analysis (SZA) was conducted by modifying the 2035 interim year model network to include a Traffic Analysis Zone (TAZ) representing the proposed project, and the model's socio-economic data was updated to reflect the proposed project buildout. The CFRPM model output was reviewed for reasonableness, and minor adjustments were made to ensure the adjacent roadway segments and intersections are all considered in the distribution of the project trips. The project trip distribution as displayed in **Figure 3** was used to distribute the project trips to the study roadway segments and intersections. The unadjusted model distribution plots are included in **Appendix B.**



Cocoa Village Hotel
Project № 6016
Figure 3

Impact Area

As per Brevard County TIA guidelines, the impact area for a small project includes all impacted roadway segments within one-half mile of the development's access point, as well as those impacted segments where the project trips consume 5.00% or more of the daily capacity of the segment. A significance analysis was conducted in order to determine the impact area of the proposed development. The results of the analysis are summarized in **Table 2,** which shows that there are no roadway segments where the project trips will consume 5.00% or more of the daily capacity. Therefore, the following roadway segments and intersections in the project vicinity were included in the analysis:

Roadway segments:

- Florida Avenue,
  - SR 520 to Rosa Jones Dr
- John Garren Lane,
  - Orange St to Rosa Jones Dr
- Factory Street,
  - Hughlett Ave to Brevard Ave
- Brevard Avenue,
  - SR 520 to Brevard Ave

Intersections:

- Factory Street & Florida Ave
- Factory Street & John Garren Ln
- Factory Street & Brevard Ave
- Site Access driveway

Table 2
Significance Analysis

Segment ID	Segment	Lanes	LOS Std	Daily MAV	Project Trips*		Significance
					%	Volume	
Florida Avenue							
52	Peachtree St to SR 520	2U	E	15,600	33%	232	1.49%
54	SR 520 to Rosa Jones Dr	2U	E	15,600	54%	380	2.44%
55	Rosa Jones Dr to US 1	2U	E	15,600	18%	127	0.81%
John Garren Lane							
--	Orange St to Rosa Jones Dr	2U	E	12,480	30%	211	1.69%
--	Rosa Jones Dr to Florida Ave	2U	E	12,480	12%	85	0.68%
Factory Street							
--	US 1 to Hughlett Ave	2U	E	12,480	0%	0	0.00%
--	Hughlett Ave to Brevard Ave	2U	E	12,480	54%	380	3.04%
Brevard Avenue							
--	SR 520 to Factory St	2U (One-Way)	E	9,360	16%	113	1.21%
--	Factory St to Rosa Jones Dr	2U	E	12,480	0%	0	0.00%
Rosa L. Jones							
---	Hughlett Ave to Brevard Ave	2U	E	12,480	18%	125	1.00%

* Highest on Segment

EXISTING TRAFFIC CONDITIONS ANALYSIS

Capacity analysis was conducted for the study roadway segments and intersections in order to establish their current operating conditions in terms of Levels of Service. The analysis was conducted in accordance with the procedures of the *Highway Capacity Manual (HCM)*.

Existing Roadway Capacity Analysis

Roadway capacity analysis was conducted for the study roadway segments by comparing their existing P.M. peak hour traffic volumes with their corresponding capacities. The existing volumes on each study segment were obtained from the turning movement counts, and the capacities were obtained by converting the daily MAV's to peak hour two-way capacities. The results of the analysis are summarized in **Table 3**, which shows that the study roadway segments are all currently operating at satisfactory Levels of Service, with excess capacity available.

Existing Intersection Capacity Analysis

Intersection capacity analysis was conducted for the study intersections in order to assess their current operating conditions in terms of Levels of Service. The analysis was conducted using *Highway Capacity Software (HCS)* in accordance with the procedures of the *HCM*. The analysis utilized the existing P.M. peak hour traffic volumes, intersection geometries, and controls. Turning movement counts at the study intersections were collected on November 13th and November 19th, 2024, when the FDOT Seasonal Factor for Brevard County was 1.04 and 1.03, respectively. Therefore, the counts were adjusted by these factors. The adjusted P.M. peak hour volumes used in the analysis are displayed in **Figure 4.** The turning movement counts, geometries, and FDOT Seasonal Factors are included in **Appendix C.**

The results of the analysis are summarized below in **Table 4.** As can be seen from the table, the study intersections are currently operating at overall satisfactory Levels of Service. The detailed intersection capacity analysis worksheets are included in **Appendix D.**

Table 3
Existing Roadway Capacity Analysis

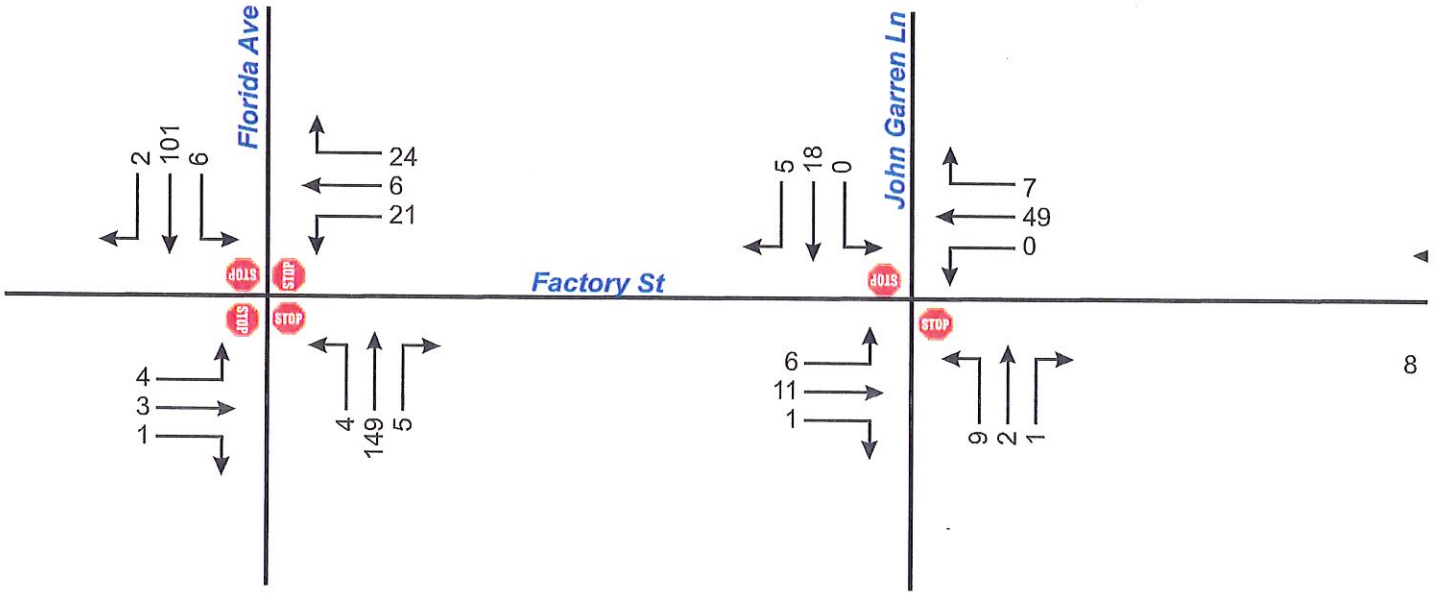
Segment ID	Segment	Adopted			Existing Volume**	Available Capacity	LOS
		Lanes	LOS Std	2-Way Capacity*			
Florida Avenue							
54	SR 520 to Rosa Jones Dr	2U	E	1,410	284	1,126	C
John Garren Lane							
--	Orange St to Rosa Jones Dr	2U	E	1,152	35	1,117	C
Factory Street							
--	Hughlett Ave to Brevard Ave	2U	E	1,152	57	1,095	C
Brevard Avenue							
--	SR 520 to Factory St	2U (One-Way)	E	864	198	666	C

* Daily MAV's converted to peak hour 2-way capacities

** Existing volumes obtained from turning movement counts

Table 4
Existing Intersection Capacity Analysis

Intersection	Control	EB		WB		NB		SB	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Florida Ave & Factory St	Stop	7.7	A	7.7	A	8.2	A	7.9	A
John Garren Ln & Factory St	Stop	7.3	A	7.2	A	9.2	A	9.4	A
Brevard Ave & Factory St	Stop	6.9	A	0.0	A	7.5	A	8.4	A



Cocoa Village Hotel
Project № 6016
Figure 4

Ex

PROJECTED TRAFFIC CONDITIONS

Projected traffic conditions were analyzed in order to assess the impact of the proposed development on the study roadway segments and intersections. The analysis was conducted for the total projected peak hour traffic volumes, which consist of the project trips combined with the background growth of the existing traffic. In order to determine the background growth of the existing traffic, historical trends analysis was conducted using AADT's obtained from the nearest Brevard County count station, located on Florida Avenue. The results of the trends analysis indicated a negative annual growth rate of -7.89%; therefore, the minimum 2.00% annual growth rate was used to determine the background growth of the existing traffic. The detailed trends analysis worksheet is included in **Appendix E.**

Projected Roadway Capacity Analysis

Roadway capacity analysis was conducted for the study roadway segments by comparing their total projected traffic volumes with their corresponding capacities, similar to the existing conditions analysis. The results of the analysis are summarized below in **Table 5,** which shows that the study roadway segments will continue to operate satisfactorily upon the addition of the project trips.

Table 5
Projected Roadway Capacity Analysis

Segment ID	Segment	Adopted			Bkgd Volume*	Project Trips**		Total Volume	Available Capacity	LOS
		Lanes	LOS Std	2-Way Capacity		%	Vol			
Florida Avenue										
54	SR 520 to Rosa Jones Dr	2U	E	1,410	295	54%	27	322	1,088	C
John Garren Lane										
--	Orange St to Rosa Jones Dr	2U (one-Way)	E	864	36	30%	15	51	813	C
Factory Street										
--	Hughlett Ave to Brevard Ave	2U (One-Way)	E	864	59	54%	27	86	778	C
Brevard Avenue										
--	SR 520 to Factory St	2U (One-Way)	E	864	206	16%	8	214	650	C

* Existing volume X 1.04

** Highest on Segment

Projected Intersection Capacity Analysis

In order to assess the projected operating conditions at the study intersections and site access driveway, intersection capacity analysis was conducted for the total projected traffic volumes, including the project trips. Similar to the existing conditions analysis, the study intersections were analyzed using *HCS* software in accordance with the procedures of the *HCM*. The total projected traffic volumes used in the analysis are displayed in **Figure 5.** The results of the analysis are summarized below in **Table 6**, which shows that the study intersections and the site access driveway will continue to operate at satisfactory Levels of Service upon the completion of the project. The detailed capacity analysis worksheets are included in **Appendix F.**

Table 6
Projected Intersection Capacity Analysis

Intersection	Control	EB		WB		NB		SB	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Florida Ave & Factory St	Stop	7.8	A	7.8	A	8.5	A	8.2	A
John Garren Ln & Factory St	Stop	7.3	A	7.2	A	--	--	9.7	A
Brevard Ave & Factory St	Stop	--	--	0.0	A	7.5	A	8.5	A
John Garren Ln & Site Access	Stop	--	--	9.1	A	--	--	8.2	A

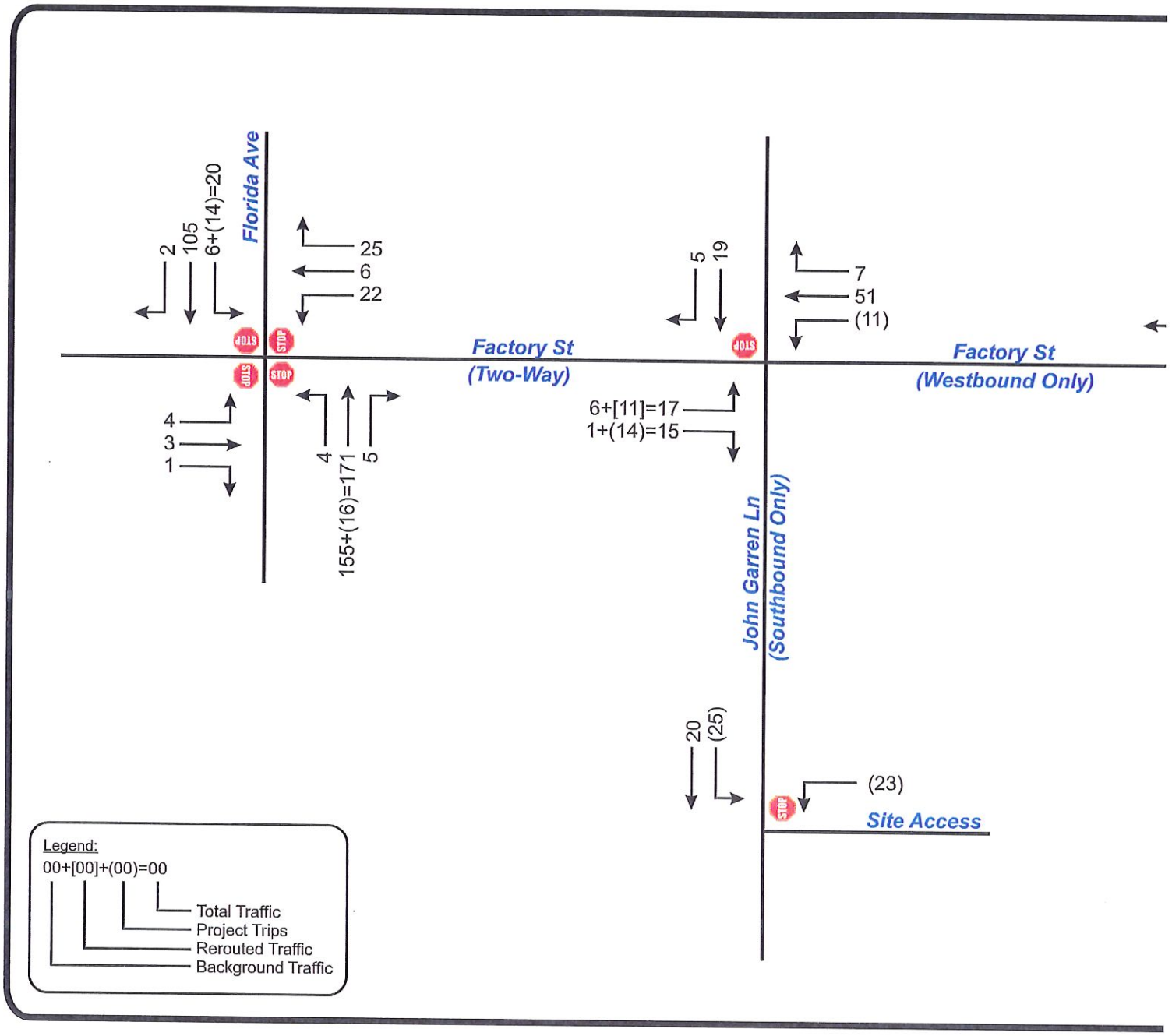
The conversion of segments of Factory Street and John Garren Lane adjacent to the site to one-way operation will impact two of the study intersections. Factory Street, from Brevard Avenue to John Garren Lane, will operate as a one-way westbound segment for one block. This is a short local street that currently carries low traffic volumes, with only eight (8) PM peak-hour trips in the eastbound direction, which would be distributed to the surrounding street network.

Similarly, John Garren Lane south of Factory Street will operate as a one-way southbound roadway to Ross Jones Drive. Only twelve (12) AM peak-hour trips in the northbound direction would be diverted to Brevard Avenue, the parallel facility.

These modifications are necessary to facilitate redevelopment of the site as a hotel, which requires additional parking. Angled parking along the proposed one-way segments will provide the required parking supply. Given the low traffic volumes on these roadways, one-way operation with angled parking is appropriate and would improve parking availability while maintaining safe and efficient traffic circulation.

Multi-Modal Analysis

Transit service in the area is provided by Space Coast Ara Transit which operates Route 6 on Florida Avenue 250 feet west of John Garren Lane. There are no dedicated bicycle lanes on the area roadways but bicycles are allowed to use existing traffic lanes on Florida Avenue. There are sidewalks on both sides of Brevard Avenue and Factory Street. The project is proposing a sidewalk on the west side of John Garren Lane. Sidewalk connectivity is provided from the site to the sidewalks.



Cocoa Village Hotel
Project № 6016
Figure 5

CONCLUSIONS

This traffic analysis was performed in order to assess the impact of the proposed Cocoa Village Hotel project located in the Community Redevelopment Area (CRA) of Cocoa Village, Brevard County. The development is for a 104-room hotel to be located in the southeast corner of the intersection of Factory Street and John Garren Lane. It is proposed that the segment of John Garren Lane south of Factory Street be converted to a one-way street in the southbound direction, and the segment of Factory Street from John Garren Lane to Brevard Avenue be converted to one-way in the westbound direction. The project is anticipated to be completed by the end of 2026. The results of the analysis as documented herein are summarized below:

- The proposed development will generate 704 daily trips, of which 45 will occur in the A.M. peak hour and 49 in the P.M. peak hour.

- The study roadway segments currently operate at satisfactory Levels of Service with excess capacity available and will continue to do so upon the addition of the project trips.

- The study intersections currently operate at overall satisfactory Levels of Service and will continue to do so upon the addition of the project trips.

- Access to the site is proposed via one right in right at driveway a full access driveway on John Garren Lane. The site access driveway will operate satisfactorily upon the completion of the project.

- The project is providing a sidewalk on the west side of John Garen Lane and sidewalk connectivity is provided to the sidewalks on adjacent roadways.

- Segments of Factory Street and John Gareen Lane adjacent to the project site is proposed to be converted to one-way with angled parking. Given the low traffic volumes on these roadways, one-way operation with angled parking is appropriate and would improve parking availability while maintaining safe and efficient traffic circulation.

APPENDICES

APPENDIX A

ITE Trip Generation Worksheets

Hotel
(310)

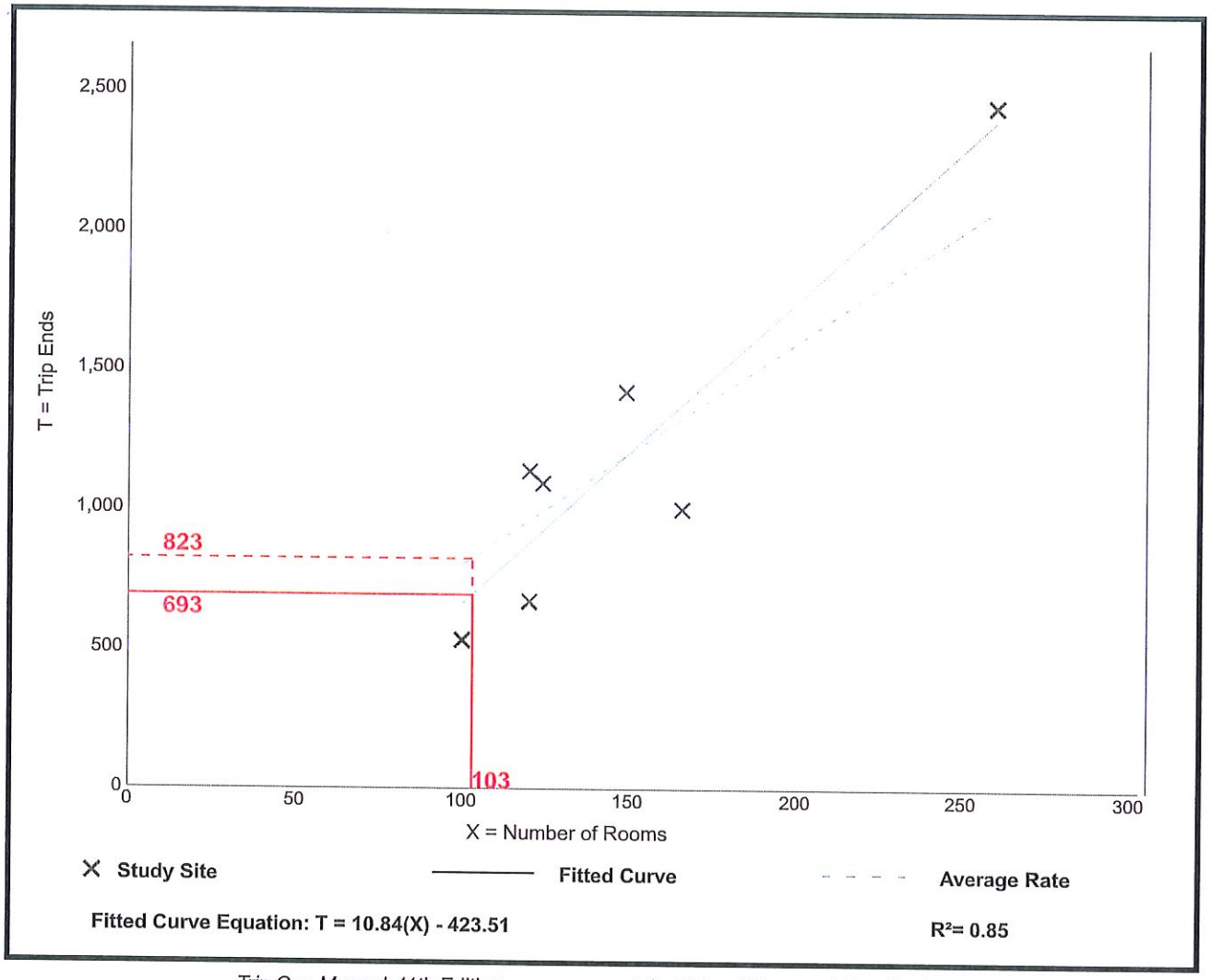
Vehicle Trip Ends vs: **Rooms**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 7
Avg. Num. of Rooms: 148
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
7.99	5.31 - 9.53	1.92

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

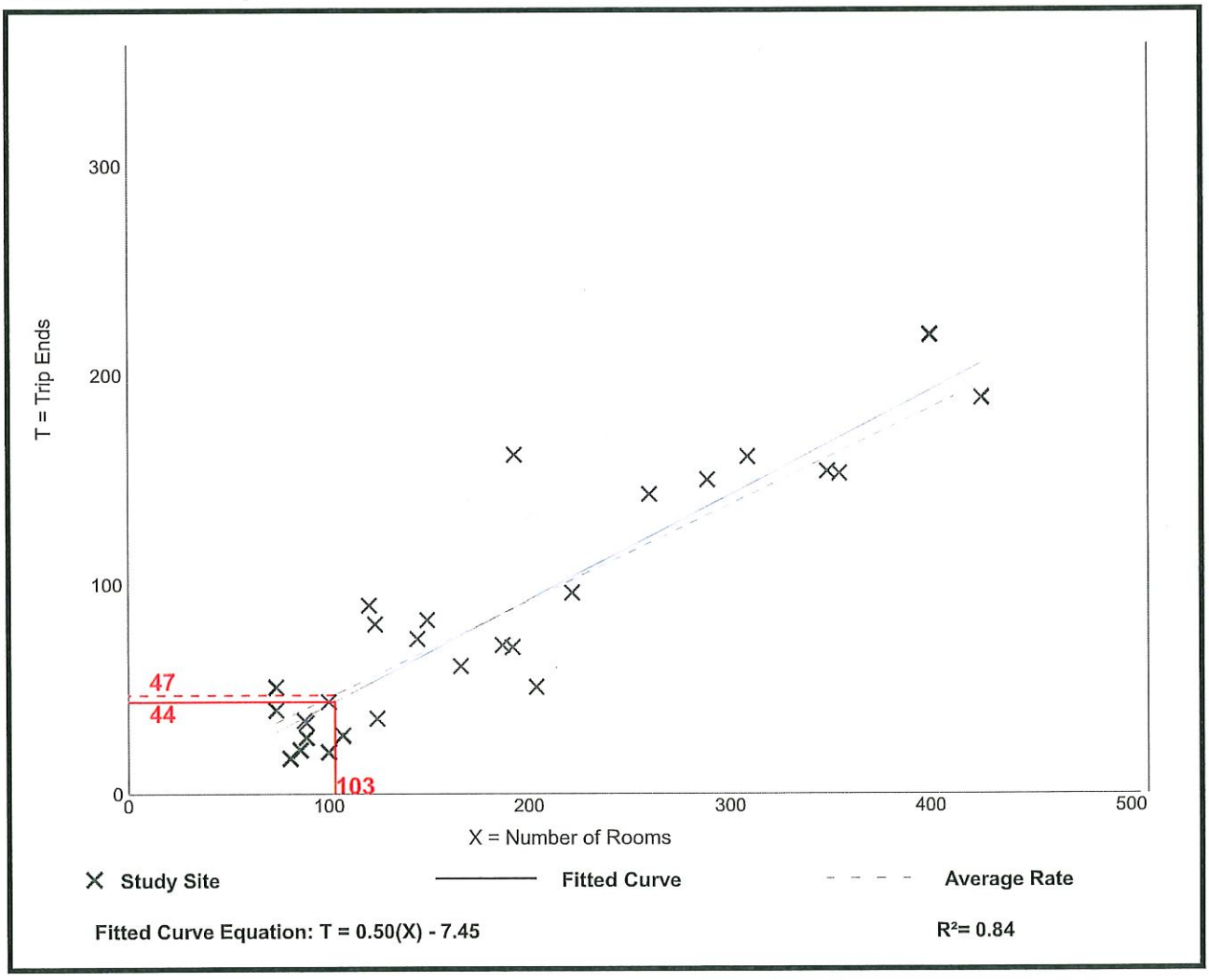
Hotel
(310)

Vehicle Trip Ends vs: **Rooms**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 28
Avg. Num. of Rooms: 182
Directional Distribution: 56% entering, 44% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.46	0.20 - 0.84	0.14

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

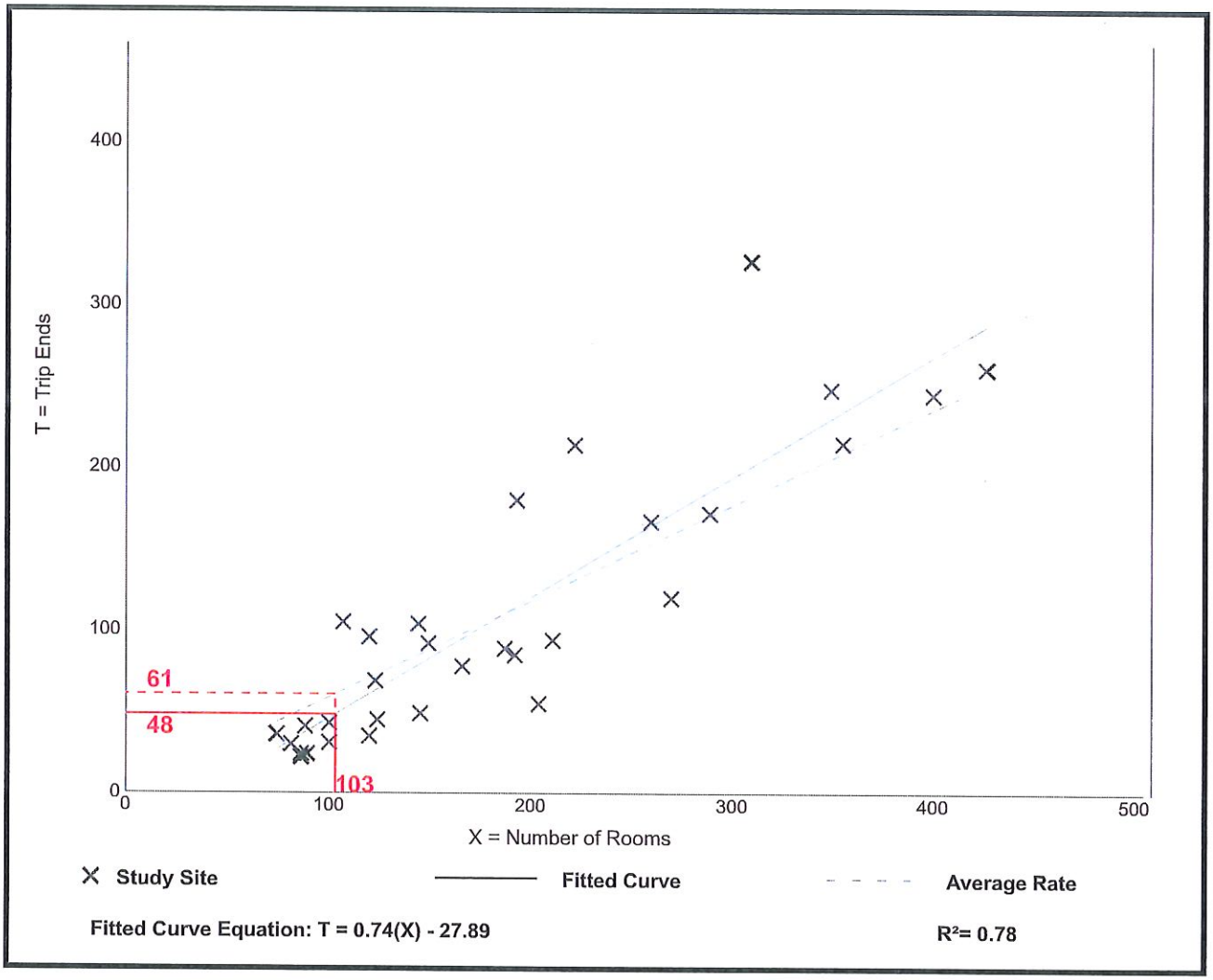
Hotel
(310)

Vehicle Trip Ends vs: **Rooms**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 31
Avg. Num. of Rooms: 186
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.59	0.26 - 1.06	0.22

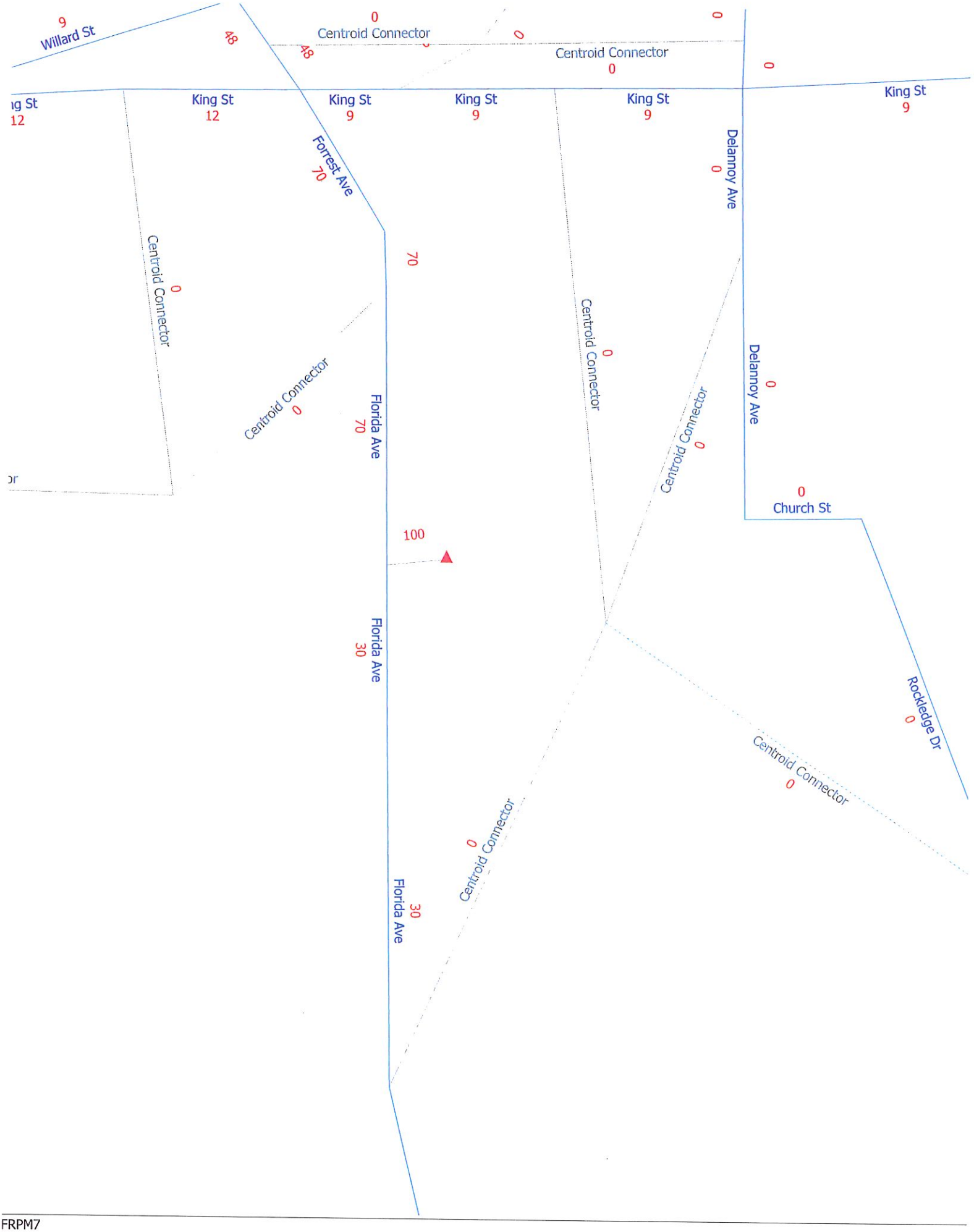
Data Plot and Equation



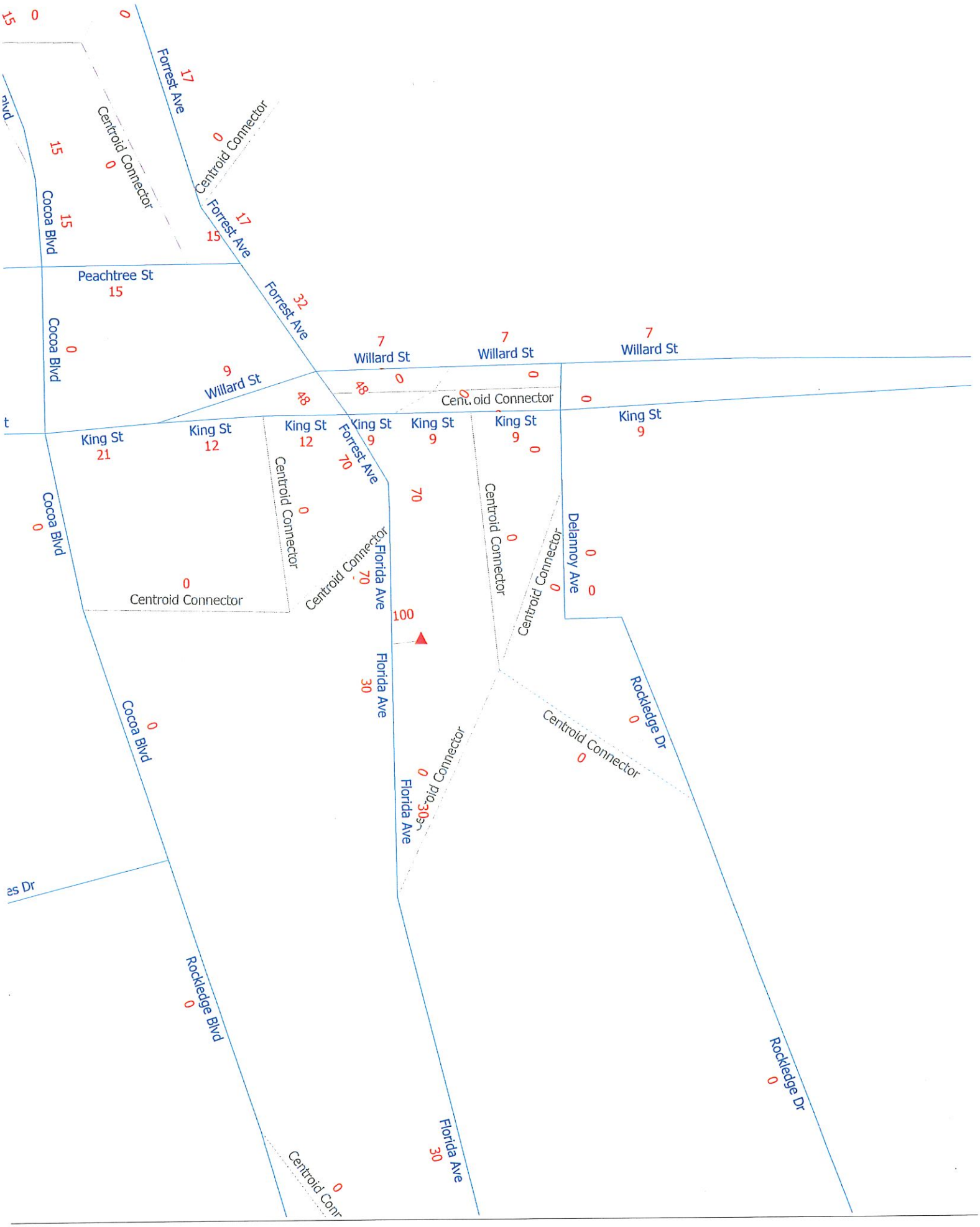
Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

APPENDIX B

CFRPM Model Output


Willard St
9
48
0
Centroid Connector
0
48
Centroid Connector
0
0
0
King St
12
King St
12
King St
9
King St
9
King St
9
King St
9
Forrest Ave
70
Delannoy Ave
0
70
Centroid Connector
0
Centroid Connector
0
Florida Ave
70
Centroid Connector
0
Centroid Connector
0
Delannoy Ave
0
Centroid Connector
0
0
Church St
100
Florida Ave
30
Rockledge Dr
0
Centroid Connector
0
Centroid Connector
0
Florida Ave
30

FRPM7
R2035


Forrest Ave
Centroid Connector
Cocoa Blvd
Peachtree St
Willard St
King St
Florida Ave
Delannoy Ave
Rockledge Dr
Rockledge Blvd

APPENDIX C

Turning Movement Counts, Intersection Geometries, FDOT Seasonal Factors

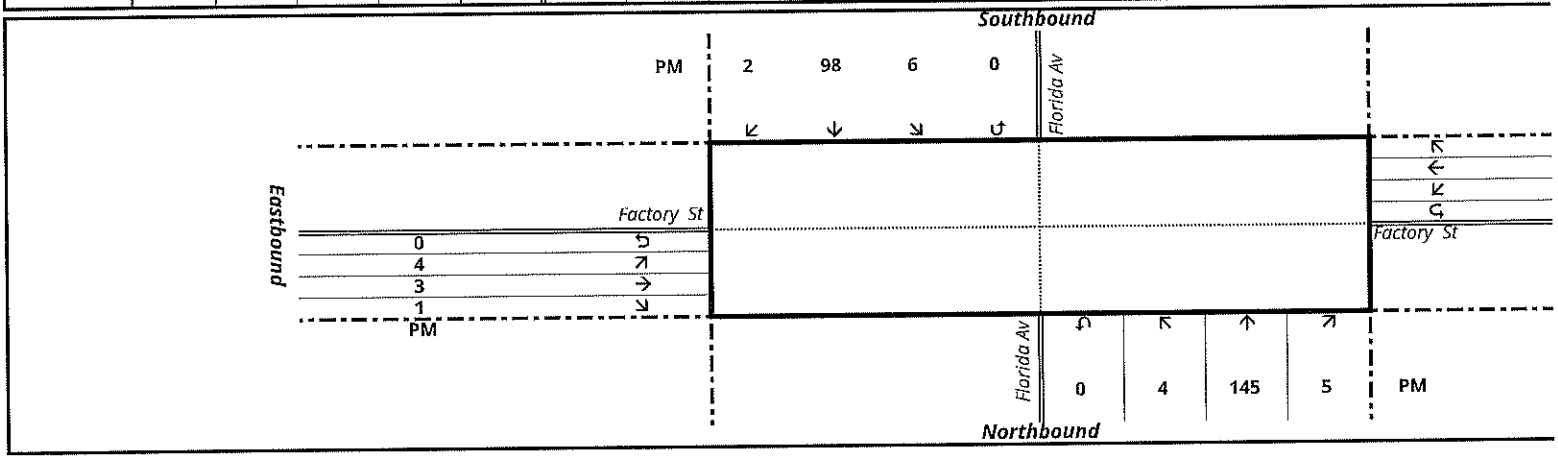
15 MINUTE TURNING MOVEMENT COUNTS

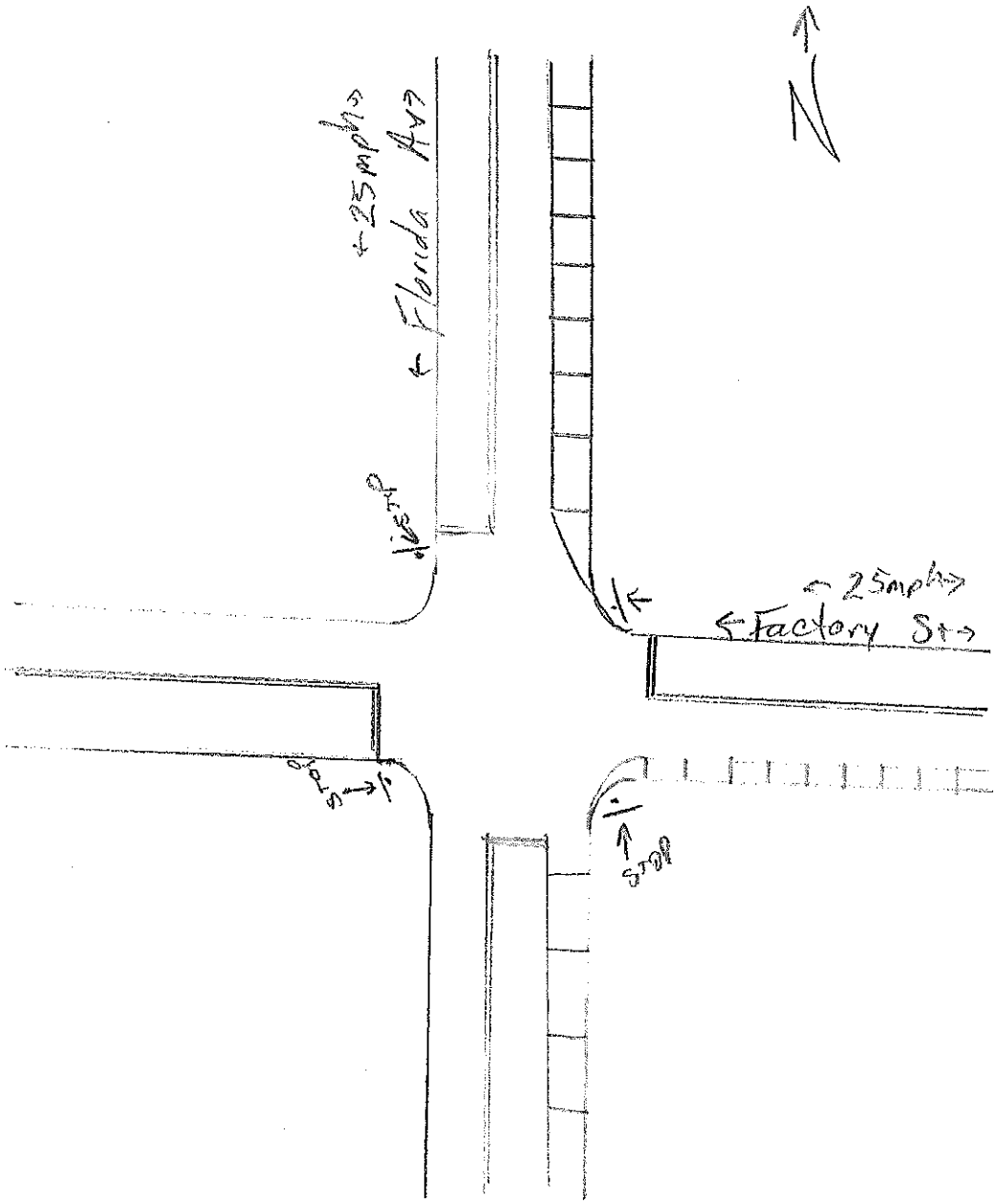
(Cars and Trucks)

DATE: November 19, 2024 (Tuesday) **CITY:** Cocoa **LATIT**

LOCATION: Florida Av & Factory St **COUNTY:** Brevard **LONGIT**

	Florida Av					Florida Av						Factory St					
TIME	NORTHBOUND					SOUTHBOUND					N/S	EASTBOUND					
BEGIN	L	T	R	*U-turn*	TOTAL	L	T	R	*U-turn*	TOTAL	TOTAL	L	T	R	*U-turn*	TOTAL	L
04:00 PM	0	40	1	0	**41**	0	15	0	0	**15**	**56**	1	0	0	0	**1**	5
04:15 PM	0	39	2	0	**41**	3	22	0	0	**25**	**66**	1	1	0	0	**2**	5
04:30 PM	2	38	1	0	**41**	1	20	0	0	**21**	**62**	2	1	1	0	**4**	6
04:45 PM	1	34	1	0	**36**	0	21	0	0	**21**	**57**	1	1	0	0	**2**	4
TOTAL	3	151	5	0	**159**	4	78	0	0	**82**	**241**	5	3	1	0	**9**	20
05:00 PM	1	34	1	0	**36**	2	35	2	0	**39**	**75**	0	0	0	0	**0**	5
05:15 PM	0	37	1	0	**38**	0	22	2	0	**24**	**62**	0	1	1	0	**2**	4
05:30 PM	0	42	0	0	**42**	1	25	0	0	**26**	**68**	0	0	1	0	**1**	3
05:45 PM	1	28	0	0	**29**	2	14	0	0	**16**	**45**	1	0	0	0	**1**	6
TOTAL	2	141	2	0	**145**	5	96	4	0	**105**	**250**	1	1	2	0	**4**	18
PM Peak 04:15 PM to 05:15 PM	4	145	5	0	154	6	98	2	0	106	260	4	3	1	0	8	20




N
← 25mph →
← Florida Ave →
Stop
← 25mph →
← Factory St →
Stop
Stop

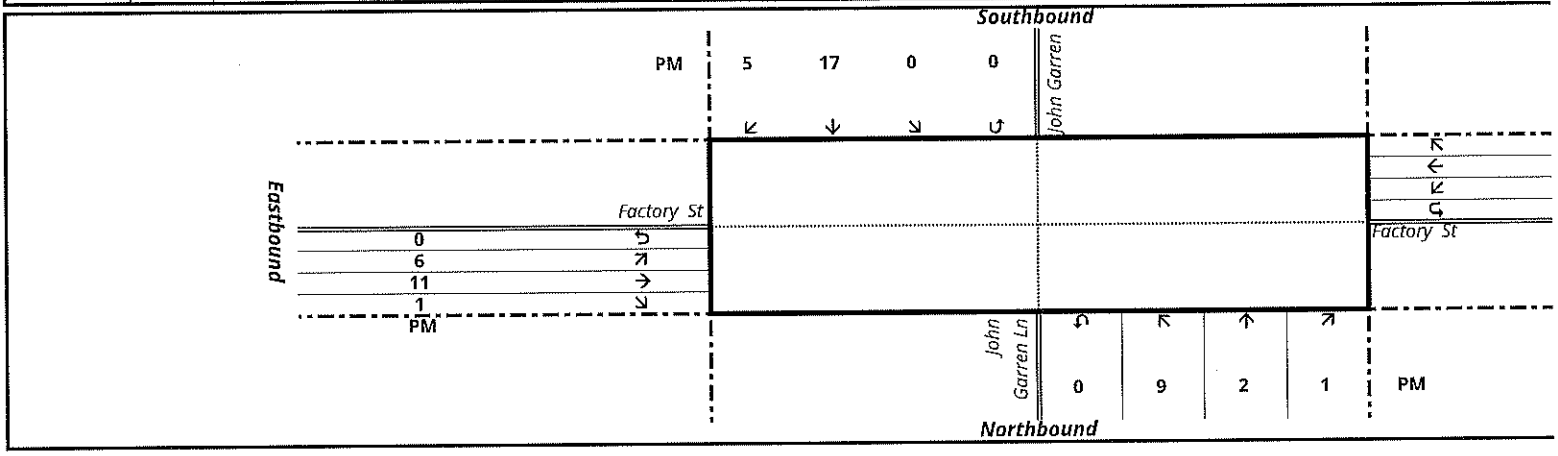
15 MINUTE TURNING MOVEMENT COUNTS

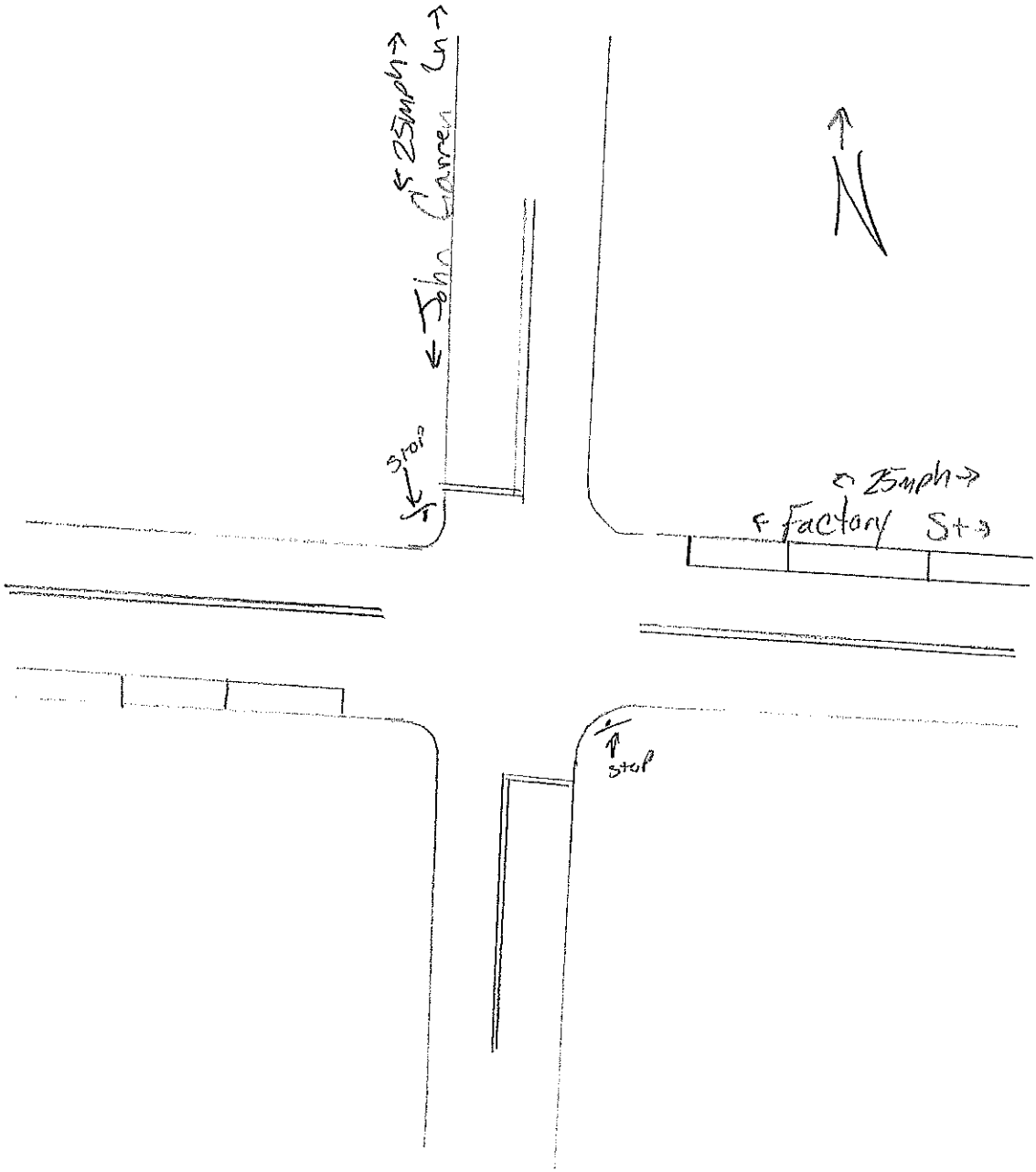
(Cars and Trucks)

DATE: November 13, 2024 (Wednesday) **CITY:** Cocoa **LATIT**

LOCATION: John Garren Ln & Factory St **COUNTY:** Brevard **LONGIT**

	John Garren Ln					John Garren Ln						Factory St					
TIME	NORTHBOUND					SOUTHBOUND					N/S	EASTBOUND					
BEGIN	L	T	R	*U-turn*	TOTAL	L	T	R	*U-turn*	TOTAL	TOTAL	L	T	R	*U-turn*	TOTAL	L
04:00 PM	0	3	0	0	**3**	0	2	1	0	**3**	**6**	3	1	0	0	**4**	0
04:15 PM	0	0	2	0	**2**	0	4	3	0	**7**	**9**	0	2	0	0	**2**	1
04:30 PM	3	0	0	0	**3**	0	2	2	0	**4**	**7**	3	4	1	0	**8**	0
04:45 PM	3	0	0	0	**3**	0	1	1	0	**2**	**5**	2	2	0	0	**4**	0
TOTAL	6	3	2	0	**11**	0	9	7	0	**16**	**27**	8	9	1	0	**18**	1
05:00 PM	3	1	0	0	**4**	0	8	0	0	**8**	**12**	1	2	0	0	**3**	0
05:15 PM	0	1	1	0	**2**	0	6	2	0	**8**	**10**	0	3	0	0	**3**	0
05:30 PM	0	1	0	0	**1**	0	1	1	0	**2**	**3**	0	3	0	0	**3**	0
05:45 PM	1	0	0	0	**1**	1	0	2	0	**3**	**4**	1	1	0	0	**2**	0
TOTAL	4	3	1	0	**8**	1	15	5	0	**21**	**29**	2	9	0	0	**11**	0
PM Peak 04:30 PM to 05:30 PM	9	2	1	0	**12**	0	17	5	0	**22**	**34**	6	11	1	0	**18**	0




25mph
John Carver
Stop
N
25mph
Factory St
Stop

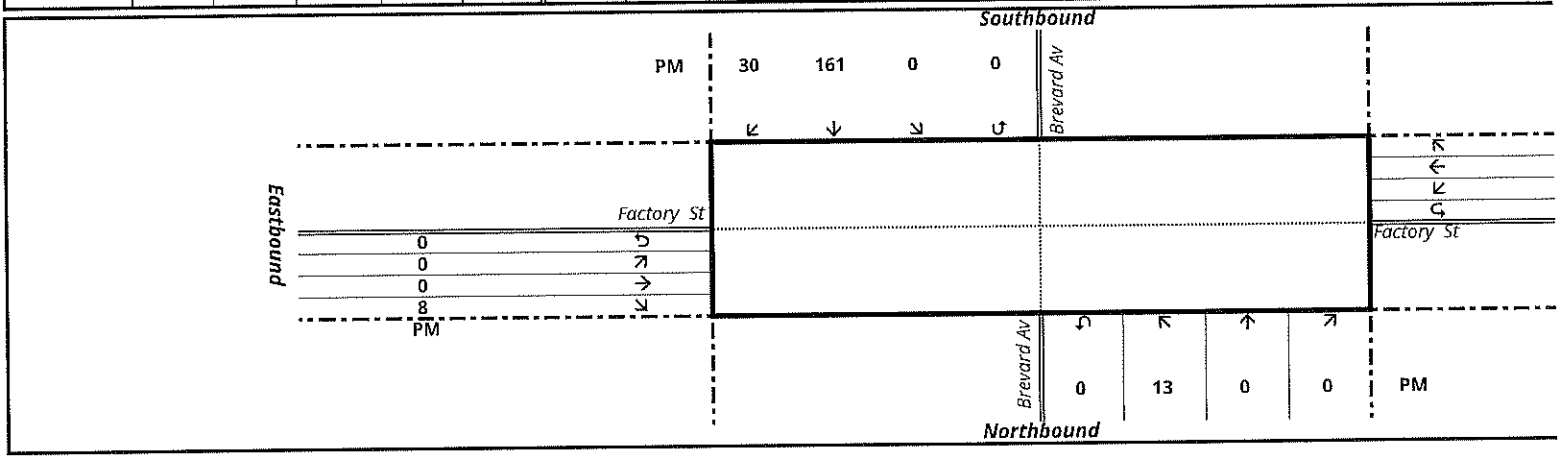
15 MINUTE TURNING MOVEMENT COUNTS

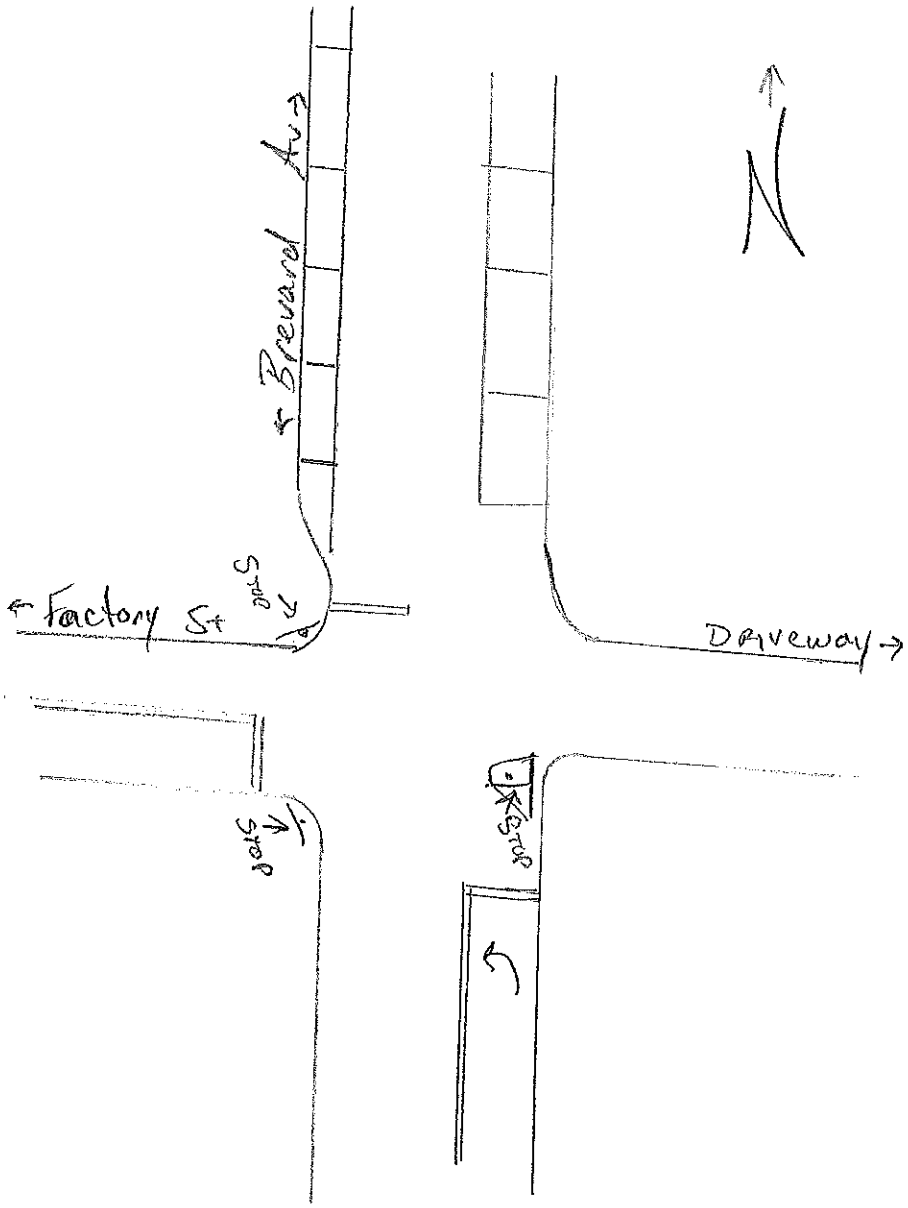
(Cars and Trucks)

DATE: November 13, 2024 (Wednesday) **CITY:** Cocoa **LATI1**

LOCATION: Brevard Av & Factory St **COUNTY:** Brevard **LONGI1**

	Brevard Av					Brevard Av						Factory St					
TIME	NORTHBOUND					SOUTHBOUND					N/S	EASTBOUND					
BEGIN	L	T	R	*U-turn*	TOTAL	L	T	R	*U-turn*	TOTAL	TOTAL	L	T	R	*U-turn*	TOTAL	L
04:00 PM	3	0	0	0	**3**	0	58	9	0	**67**	**70**	0	0	4	0	**4**	0
04:15 PM	3	0	0	0	**3**	0	29	5	0	**34**	**37**	0	0	1	0	**1**	0
04:30 PM	4	0	0	0	**4**	0	28	7	0	**35**	**39**	0	0	1	0	**1**	0
04:45 PM	3	0	0	0	**3**	0	46	9	0	**55**	**58**	0	0	2	0	**2**	0
TOTAL	13	0	0	0	**13**	0	161	30	0	**191**	**204**	0	0	8	0	**8**	0
05:00 PM	5	0	0	0	**5**	0	36	6	0	**42**	**47**	0	0	1	0	**1**	0
05:15 PM	7	0	0	0	**7**	0	31	8	0	**39**	**46**	0	0	3	0	**3**	0
05:30 PM	3	0	0	0	**3**	0	19	4	0	**23**	**26**	0	0	4	0	**4**	0
05:45 PM	3	0	0	0	**3**	0	40	10	0	**50**	**53**	0	0	2	0	**2**	0
TOTAL	18	0	0	0	**18**	0	126	28	0	**154**	**172**	0	0	10	0	**10**	0
PM Peak																	
04:00 PM to 05:00 PM	13	0	0	0	**13**	0	161	30	0	**191**	**204**	0	0	8	0	**8**	0




Brevard Ave
Factory St
Stop
Driveway
Stop
Stop

2023 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 7000 BREVARD COUNTYWIDE

MOCF: 0.94

WEEK	DATES	SF	PSCF
1	01/01/2023 - 01/07/2023	1.03	1.10
2	01/08/2023 - 01/14/2023	1.01	1.07
3	01/15/2023 - 01/21/2023	0.98	1.04
4	01/22/2023 - 01/28/2023	0.97	1.03
5	01/29/2023 - 02/04/2023	0.96	1.02
* 6	02/05/2023 - 02/11/2023	0.94	1.00
* 7	02/12/2023 - 02/18/2023	0.93	0.99
* 8	02/19/2023 - 02/25/2023	0.93	0.99
* 9	02/26/2023 - 03/04/2023	0.92	0.98
*10	03/05/2023 - 03/11/2023	0.92	0.98
*11	03/12/2023 - 03/18/2023	0.91	0.97
*12	03/19/2023 - 03/25/2023	0.92	0.98
*13	03/26/2023 - 04/01/2023	0.93	0.99
*14	04/02/2023 - 04/08/2023	0.94	1.00
*15	04/09/2023 - 04/15/2023	0.95	1.01
*16	04/16/2023 - 04/22/2023	0.95	1.01
*17	04/23/2023 - 04/29/2023	0.96	1.02
*18	04/30/2023 - 05/06/2023	0.96	1.02
19	05/07/2023 - 05/13/2023	0.96	1.02
20	05/14/2023 - 05/20/2023	0.96	1.02
21	05/21/2023 - 05/27/2023	0.98	1.04
22	05/28/2023 - 06/03/2023	1.00	1.06
23	06/04/2023 - 06/10/2023	1.02	1.09
24	06/11/2023 - 06/17/2023	1.04	1.11
25	06/18/2023 - 06/24/2023	1.04	1.11
26	06/25/2023 - 07/01/2023	1.04	1.11
27	07/02/2023 - 07/08/2023	1.05	1.12
28	07/09/2023 - 07/15/2023	1.05	1.12
29	07/16/2023 - 07/22/2023	1.05	1.12
30	07/23/2023 - 07/29/2023	1.05	1.12
31	07/30/2023 - 08/05/2023	1.05	1.12
32	08/06/2023 - 08/12/2023	1.06	1.13
33	08/13/2023 - 08/19/2023	1.06	1.13
34	08/20/2023 - 08/26/2023	1.06	1.13
35	08/27/2023 - 09/02/2023	1.06	1.13
36	09/03/2023 - 09/09/2023	1.06	1.13
37	09/10/2023 - 09/16/2023	1.06	1.13
38	09/17/2023 - 09/23/2023	1.06	1.13
39	09/24/2023 - 09/30/2023	1.05	1.12
40	10/01/2023 - 10/07/2023	1.05	1.12
41	10/08/2023 - 10/14/2023	1.04	1.11
42	10/15/2023 - 10/21/2023	1.04	1.11
43	10/22/2023 - 10/28/2023	1.04	1.11
44	10/29/2023 - 11/04/2023	1.04	1.11
45	11/05/2023 - 11/11/2023	1.04	1.11
46	11/12/2023 - 11/18/2023	1.04	1.11
47	11/19/2023 - 11/25/2023	1.03	1.10
48	11/26/2023 - 12/02/2023	1.03	1.10
49	12/03/2023 - 12/09/2023	1.03	1.10
50	12/10/2023 - 12/16/2023	1.03	1.10
51	12/17/2023 - 12/23/2023	1.01	1.07
52	12/24/2023 - 12/30/2023	1.00	1.06
53	12/31/2023 - 12/31/2023	0.98	1.04

* PEAK SEASON

09-MAR-2024 18:41:41 830UPD 5_7000_PKSEASON.TXT

APPENDIX D

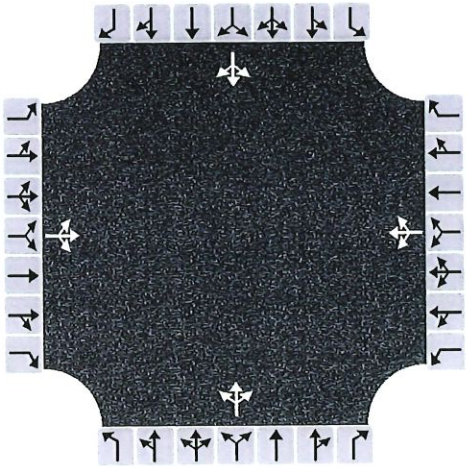
Existing Intersection Capacity Analysis Worksheets

HCS All-Way Stop Control Report

General and Site Information

Analyst	SS
Agency/Co.	TPD, Inc.
Date Performed	11/21/2024
Analysis Year	2024
Analysis Time Period (hrs)	0.25
Time Analyzed	Existing PM
Project Description	6016
Intersection	Florida Ave & Factory St
Jurisdiction	Brevard County
East/West Street	Factory St
North/South Street	Florida Ave
Peak Hour Factor	0.89

Lanes



Turning Movement Demand Volumes

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume (veh/h)	4	3	1	21	6	24	4	149	5	6	101	2
% Thrus in Shared Lane												

Lane Flow Rate and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR			LTR			LTR			LTR		
Flow Rate, v (veh/h)	9			57			178			122		
Percent Heavy Vehicles	0			0			0			0		
Initial Departure Headway, h_d (s)	3.20			3.20			3.20			3.20		
Initial Degree of Utilization, x	0.008			0.051			0.158			0.109		
Final Departure Headway, h_d (s)	4.64			4.36			4.16			4.23		
Final Degree of Utilization, x	0.012			0.069			0.205			0.144		
Move-Up Time, m (s)	2.0			2.0			2.0			2.0		
Service Time, t_s (s)	2.64			2.36			2.16			2.23		

Capacity, Delay and Level of Service

Approach	Eastbound			Westbound			Northbound			Southbound		
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR			LTR			LTR			LTR		
Flow Rate, v (veh/h)	9			57			178			122		
Capacity (veh/h)	776			826			865			851		
95% Queue Length, Q_{95} (veh)	0.0			0.2			0.8			0.5		
95% Queue Length, Q_{95} (ft)	0.0			5.0			20.0			12.5		
Control Delay (s/veh)	7.7			7.7			8.2			7.9		
Level of Service, LOS	A			A			A			A		
Approach Delay (s/veh) | LOS	7.7	A		7.7	A		8.2	A		7.9	A	
Intersection Delay (s/veh) | LOS	8.0						A					

Copyright © 2024 University of Florida. All Rights Reserved.

HCS Two-Way Stop-Control Report

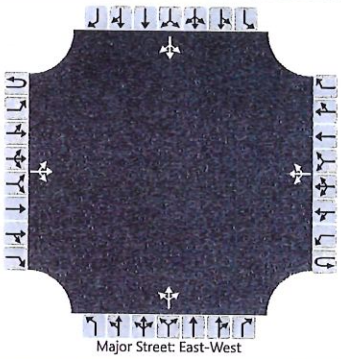
General Information

Analyst	SS
Agency/Co.	TPD, Inc.
Date Performed	11/21/2024
Analysis Year	2024
Time Analyzed	Existing PM
Intersection Orientation	East-West
Project Description	6016

Site Information

Intersection	John Garren Ln & Factory St
Jurisdiction	Brevard County
East/West Street	Factory St
North/South Street	John Garren Ln
Peak Hour Factor	0.91
Analysis Time Period (hrs)	0.25

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		6	11	1		0	49	7		9	2	1		0	18	5
Percent Heavy Vehicles (%)		0				0				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.10				4.10				7.10	6.50	6.20		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.20				3.50	4.00	3.30		3.50	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		7				0					13				25	
Capacity, c (veh/h)		1554				1618					865				844	
v/c Ratio		0.00				0.00					0.02				0.03	
95% Queue Length, Q_{95} (veh)		0.0				0.0					0.0				0.1	
95% Queue Length, Q_{95} (ft)											0.0				2.5	
Control Delay (s/veh)		7.3	0.0	0.0		7.2	0.0	0.0			9.2				9.4	
Level of Service (LOS)		A	A	A		A	A	A			A				A	
Approach Delay (s/veh)	2.5				0.0				9.2				9.4			
Approach LOS	A				A				A				A			

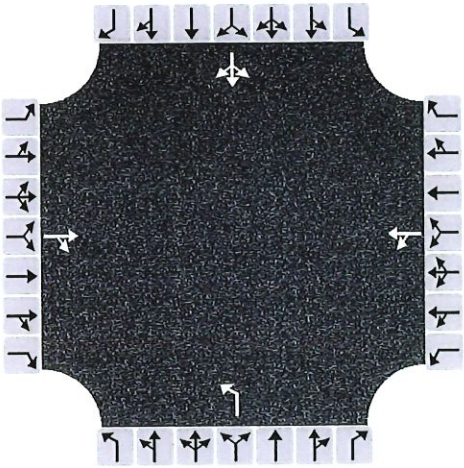
Copyright © 2024 University of Florida. All Rights Reserved.

HCS All-Way Stop Control Report

General and Site Information

Analyst	SS
Agency/Co.	TPD, Inc.
Date Performed	11/21/2024
Analysis Year	2024
Analysis Time Period (hrs)	0.25
Time Analyzed	Existing PM
Project Description	6016
Intersection	Brevard Ave & Factory St
Jurisdiction	Brevard County
East/West Street	Factory St
North/South Street	Brevard Ave
Peak Hour Factor	0.72

Lanes



Turning Movement Demand Volumes

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume (veh/h)		0	8	0	0		14			0	167	31
% Thrus in Shared Lane												

Lane Flow Rate and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	TR			LT			L			LTR		
Flow Rate, v (veh/h)	11			0			19			275		
Percent Heavy Vehicles	0			0			0			0		
Initial Departure Headway, h_d (s)	3.20			3.20			3.20			3.20		
Initial Degree of Utilization, x	0.010			0.000			0.017			0.244		
Final Departure Headway, h_d (s)	3.90			4.52			4.37			3.85		
Final Degree of Utilization, x	0.012			0.000			0.024			0.294		
Move-Up Time, m (s)	2.0			2.0			2.0			2.0		
Service Time, t_s (s)	1.90			2.52			2.37			1.85		

Capacity, Delay and Level of Service

Approach	Eastbound			Westbound			Northbound			Southbound		
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	TR			LT			L			LTR		
Flow Rate, v (veh/h)	11			0			19			275		
Capacity (veh/h)	923			0			824			935		
95% Queue Length, Q_{95} (veh)	0.0			0.0			0.1			1.2		
95% Queue Length, Q_{95} (ft)	0.0			0.0			2.5			30.0		
Control Delay (s/veh)	6.9			7.5			7.5			8.4		
Level of Service, LOS	A						A			A		
Approach Delay (s/veh) | LOS	6.9	A		0.0	A		7.5	A		8.4	A	
Intersection Delay (s/veh) | LOS	8.3						A					

Copyright © 2024 University of Florida. All Rights Reserved.

APPENDIX E

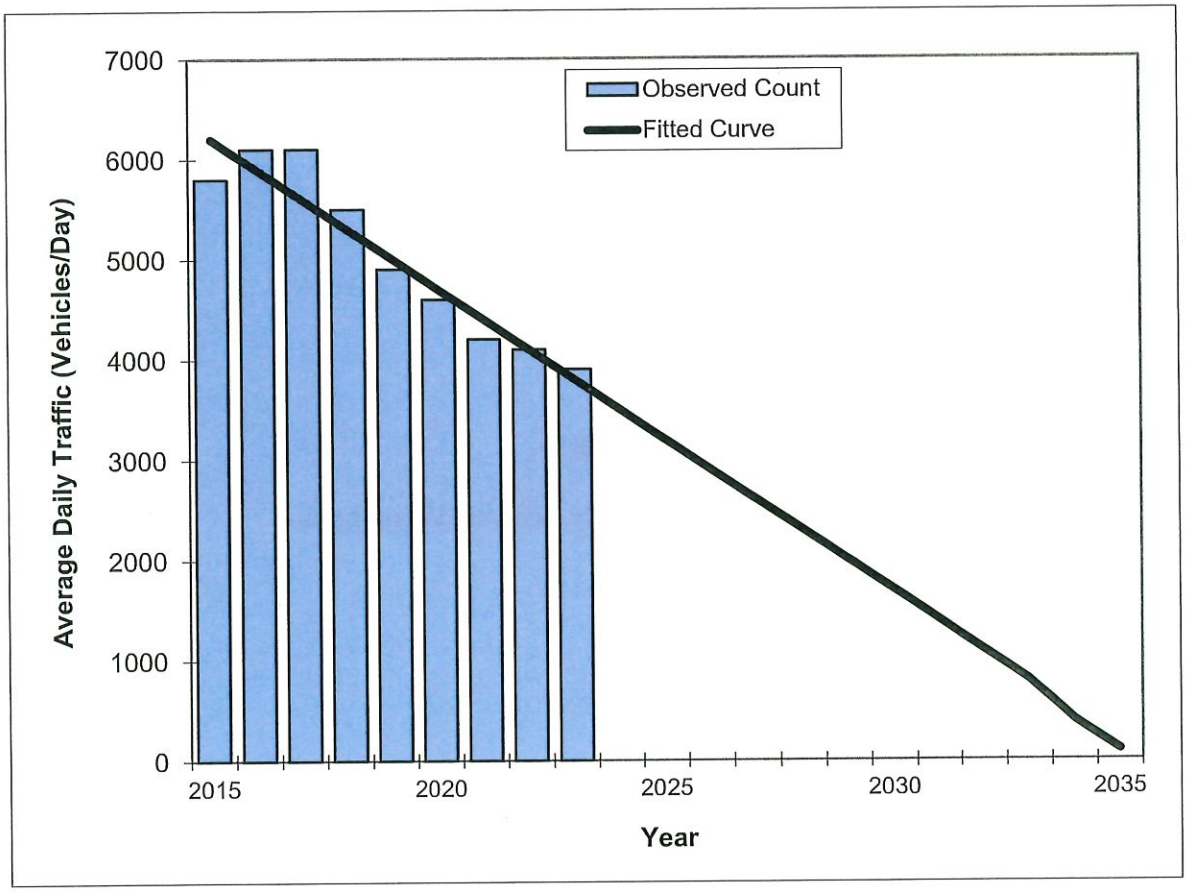
Trends Analysis Worksheets

Traffic Trends - V3.0

FLORIDA AVE -- Rosa Jones Dr to SR 520

FIN#	1234
Location	1

County:	Bı
Station #:	
Highway:	FL(



Year	Tr C
2015	5
2016	6
2017	6
2018	5
2019	4
2020	4
2021	4
2022	4
2023	3
2025 Ope	
2025	
2027 M	
2027	
2029 De	
2029	
TRANPLAN	

** Annual Trend Increase:	-305
Trend R-squared:	90.97%
Trend Annual Historic Growth Rate:	-4.84%
Trend Growth Rate (2023 to Design Year):	-7.89%
Printed:	14-Nov-24

Straight Line Growth Option

*Axle-Adjusted

APPENDIX F

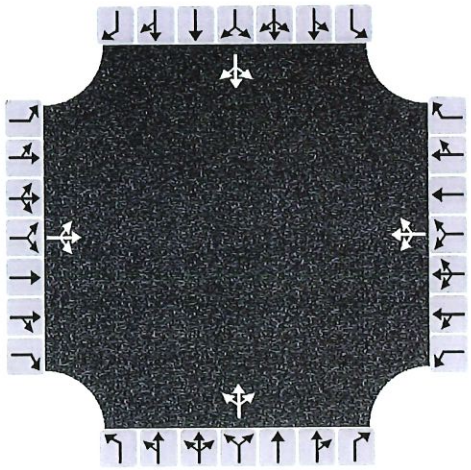
Projected Intersection Capacity Analysis Worksheets

HCS All-Way Stop Control Report

General and Site Information

Analyst	SS
Agency/Co.	TPD, Inc.
Date Performed	11/21/2024
Analysis Year	2026
Analysis Time Period (hrs)	0.25
Time Analyzed	Projected PM
Project Description	6016
Intersection	Florida Ave & Factory St
Jurisdiction	Brevard County
East/West Street	Factory St
North/South Street	Florida Ave
Peak Hour Factor	0.89

Lanes



Turning Movement Demand Volumes

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume (veh/h)	4	3	1	22	6	25	4	171	5	20	105	2
% Thrus in Shared Lane												

Lane Flow Rate and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR			LTR			LTR			LTR		
Flow Rate, v (veh/h)	9			60			202			143		
Percent Heavy Vehicles	0			0			0			0		
Initial Departure Headway, h_d (s)	3.20			3.20			3.20			3.20		
Initial Degree of Utilization, x	0.008			0.053			0.180			0.127		
Final Departure Headway, h_d (s)	4.75			4.46			4.20			4.29		
Final Degree of Utilization, x	0.012			0.074			0.236			0.170		
Move-Up Time, m (s)	2.0			2.0			2.0			2.0		
Service Time, t_s (s)	2.75			2.46			2.20			2.29		

Capacity, Delay and Level of Service

Approach	Eastbound			Westbound			Northbound			Southbound		
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LTR			LTR			LTR			LTR		
Flow Rate, v (veh/h)	9			60			202			143		
Capacity (veh/h)	759			808			858			840		
95% Queue Length, Q_{95} (veh)	0.0			0.2			0.9			0.6		
95% Queue Length, Q_{95} (ft)	0.0			5.0			22.5			15.0		
Control Delay (s/veh)	7.8			7.8			8.5			8.2		
Level of Service, LOS	A			A			A			A		
Approach Delay (s/veh) | LOS	7.8	A		7.8	A		8.5	A		8.2	A	
Intersection Delay (s/veh) | LOS	8.3						A					

Copyright © 2024 University of Florida. All Rights Reserved.

HCS Two-Way Stop-Control Report

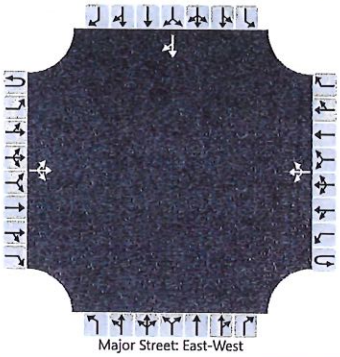
General Information

Analyst	SS
Agency/Co.	TPD, Inc.
Date Performed	11/21/2024
Analysis Year	2026
Time Analyzed	Projected PM
Intersection Orientation	East-West
Project Description	6016

Site Information

Intersection	John Garren Ln & Factory St
Jurisdiction	Brevard County
East/West Street	Factory St
North/South Street	John Garren Ln
Peak Hour Factor	0.91
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration			LTR				LTR									TR
Volume (veh/h)		17	0	15		11	51	7							19	5
Percent Heavy Vehicles (%)		0				0									0	0
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1									6.5	6.2
Critical Headway (sec)		4.10				4.10									6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2									4.0	3.3
Follow-Up Headway (sec)		2.20				2.20									4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		19				12										26
Capacity, c (veh/h)		1552				1614										785
v/c Ratio		0.01				0.01										0.03
95% Queue Length, Q_{95} (veh)		0.0				0.0										0.1
95% Queue Length, Q_{95} (ft)																2.5
Control Delay (s/veh)		7.3	0.1	0.1		7.2	0.1	0.1								9.7
Level of Service (LOS)		A	A	A		A	A	A								A
Approach Delay (s/veh)	3.9				1.2								9.7			
Approach LOS	A				A								A			

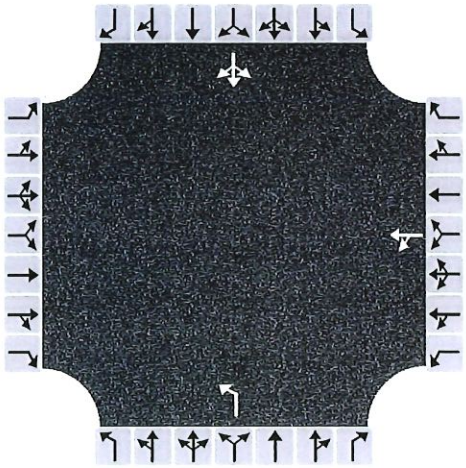
Copyright © 2024 University of Florida. All Rights Reserved.

HCS All-Way Stop Control Report

General and Site Information

Analyst	SS
Agency/Co.	TPD, Inc.
Date Performed	11/21/2024
Analysis Year	2026
Analysis Time Period (hrs)	0.25
Time Analyzed	Projected PM
Project Description	6016
Intersection	Brevard Ave & Factory St
Jurisdiction	Brevard County
East/West Street	Factory St
North/South Street	Brevard Ave
Peak Hour Factor	0.72

Lanes



Turning Movement Demand Volumes

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume (veh/h)				0	0		22			0	174	36
% Thrus in Shared Lane												

Lane Flow Rate and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration				LT			L			LTR		
Flow Rate, v (veh/h)				0			31			292		
Percent Heavy Vehicles				0			0			0		
Initial Departure Headway, h_d (s)				3.20			3.20			3.20		
Initial Degree of Utilization, x				0.000			0.027			0.259		
Final Departure Headway, h_d (s)				4.56			4.36			3.83		
Final Degree of Utilization, x				0.000			0.037			0.310		
Move-Up Time, m (s)				2.0			2.0			2.0		
Service Time, t_s (s)				2.56			2.36			1.83		

Capacity, Delay and Level of Service

Approach	Eastbound			Westbound			Northbound			Southbound		
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration				LT			L			LTR		
Flow Rate, v (veh/h)				0			31			292		
Capacity (veh/h)				0			827			941		
95% Queue Length, Q_{95} (veh)				0.0			0.1			1.3		
95% Queue Length, Q_{95} (ft)				0.0			2.5			32.5		
Control Delay (s/veh)				7.6			7.5			8.5		
Level of Service, LOS							A			A		
Approach Delay (s/veh) | LOS				0.0	A		7.5	A		8.5	A	
Intersection Delay (s/veh) | LOS	8.4						A					

Copyright © 2024 University of Florida. All Rights Reserved.

HCS Two-Way Stop-Control Report

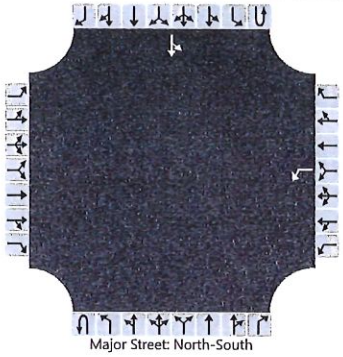
General Information

Analyst	SS
Agency/Co.	TPD, Inc.
Date Performed	11/21/2024
Analysis Year	2026
Time Analyzed	Projected PM
Intersection Orientation	North-South
Project Description	6016

Site Information

Intersection	John Garren Ln & Site Access
Jurisdiction	Brevard County
East/West Street	Site Access
North/South Street	John Garren Ln
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		1	0	0	0	0	0	0	0	0	1	0
Configuration						L								LT		
Volume (veh/h)						23								25	20	
Percent Heavy Vehicles (%)						3								3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1								5.3		
Critical Headway (sec)						6.43								5.33		
Base Follow-Up Headway (sec)						3.5								3.1		
Follow-Up Headway (sec)						3.53								3.13		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						25								27		
Capacity, c (veh/h)						903								1151		
v/c Ratio						0.03								0.02		
95% Queue Length, Q_{95} (veh)						0.1								0.1		
95% Queue Length, Q_{95} (ft)						2.6								2.6		
Control Delay (s/veh)						9.1								8.2	0.2	
Level of Service (LOS)						A								A	A	
Approach Delay (s/veh)					9.1								4.6			
Approach LOS					A								A			

Copyright © 2024 University of Florida. All Rights Reserved.

RK ENGINEERING & ASSOCIATES, INC.
3206 S. Hopkins Ave, Unit 70, Titusville, Florida 32780
321-544-7466 Email: rick@rkcivildesign.com

November 7, 2024

Ms Charlene Neuterman
Community Services Director
City of Cocoa Redevelopment Agency
65 Stone St.
Cocoa, Fl 32922

RE: COCOA VILLAGE HOTEL, 603 BREVARD AVE.
WATER, SEWER DRAINAGE PRELIMINARY STUDY

The purpose of this report is to provide a preliminary study for the water, sewer and drainage services for the above referenced hotel.

DRAINAGE
The existing and proposed site plan both have about the same amount of impervious cover and have about 95% coverage. The drainage system will provide treatment of at least the first 1 inch of runoff from the project. The proposed drainage system will be located under the exterior parking lot. See the attached Exhibit A and have its outfall connected to the drainage system in Factory St. The peak post development discharge will be kept below the pre development peak discharge rate for the 25 year 24 hour storm event.

WATER
There is an existing 6 inch water line along the north and east boundaries of the site. There is an existing 8 inch water line located 1 block north on Orange St. See exhibit B. A proposed 8 inch water line will need to be extended from Orange St. south along John Garren Lane to Factory, then east along Factory st and tie in to the existing 6 inch existing water main located in Brevard Ave. See Exhibit C. Based on the current concept plan, this loop will provide sufficient potable water to the proposed hotel. The proposed 8 story building will include a stand pipe and pumping unit to meet fire demand.

SANITARY SEWER
There is an existing 8 inch gravity sewer main located in Brevard Ave. as shown in Exhibit B. This main is adequate to serve this hotel project.

Sincerely,

Richard J. Kern PE
RK ENGINEERING & ASSOCIATES, INC.

EXHIBIT A
CONCEPTUAL DRAINAGE STUDY

FACTORY STREET (60')

N STREET PARKING TO REMAIN

PROPOSED DRAINAGE OUTFALL

ELEV 17.0

URBAN PLAZA WITH SEATING

6' PAVER SIDEWALK

ENTRANCE

LOBBY 1ST FLOOR ELEV. 18.00

COFFEE SHOP

ELEV . 18

8' SIDEWALK

69.50' WALL ABOVE

STAIRS

1ST FLOOR LOBBY

ELEVATOR

ELEV. 18.00

BREAKFAST AREA
GYM
LOBBY
1ST FLOOR

POOL 20' 35'

1ST FLOOR
ELEV. 18.00

11 ROOMS

1ST FLOOR

UNDERGROUND STORMWATER MANAGEMENT SYSTEM

LANDSCAPE

7' SIDEWALK

DUMPSTER ENCLOSURE

ELEV 24.2

ELEV 24.3

ELEV 23

ELEV 22

ELEV 18

ELEV 19

ELEV 20

PROPOSED 18' WIDE ONE WAY SOUTHBOUND JOHN GARREN AVE.

JOHN GARREN LANE (50')

BREVARD AVENUE (60')

DRIVEWAY

OHW

MHO

SW

STOP

MAGNETIC

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

EXHIBIT B

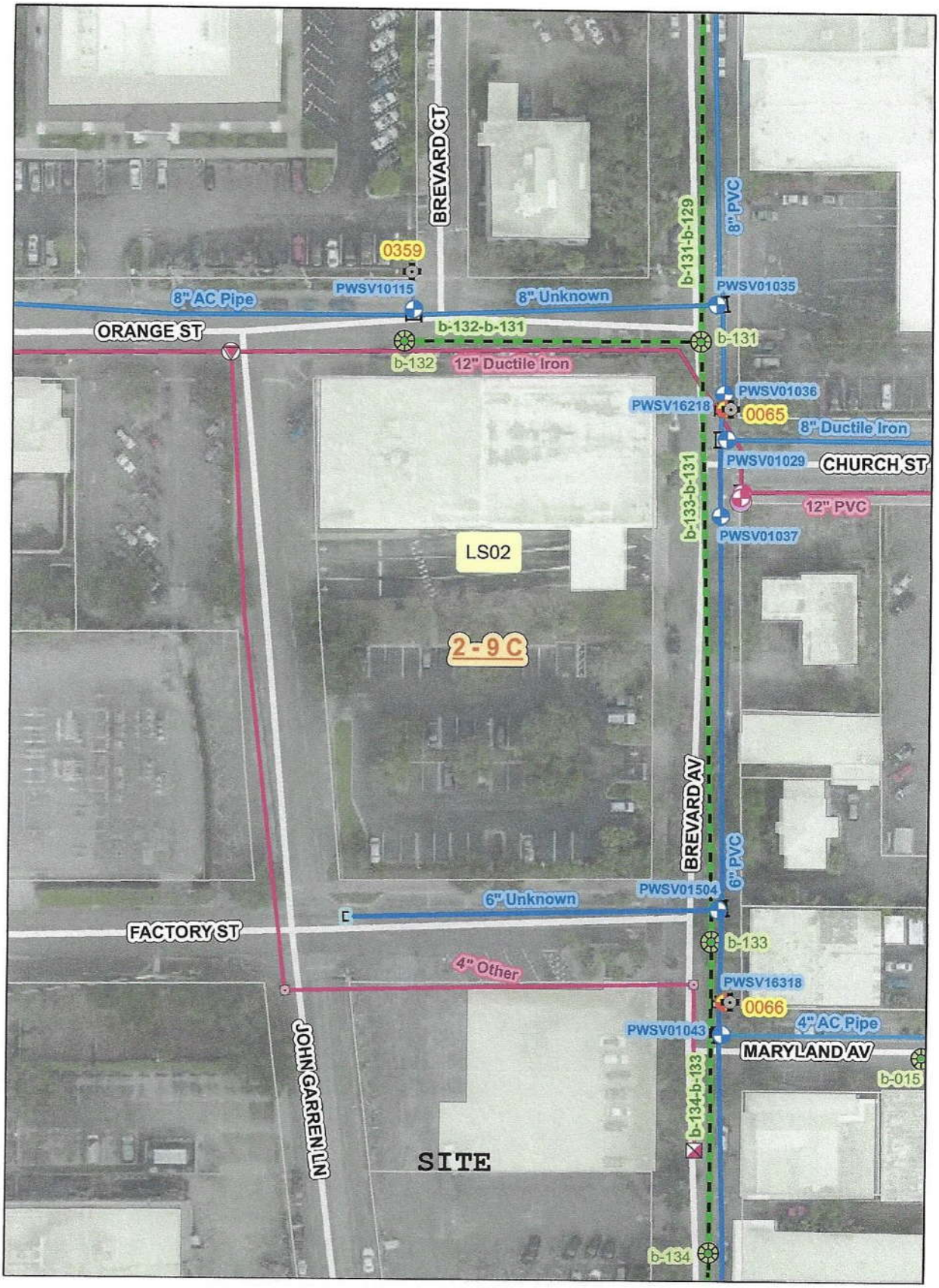
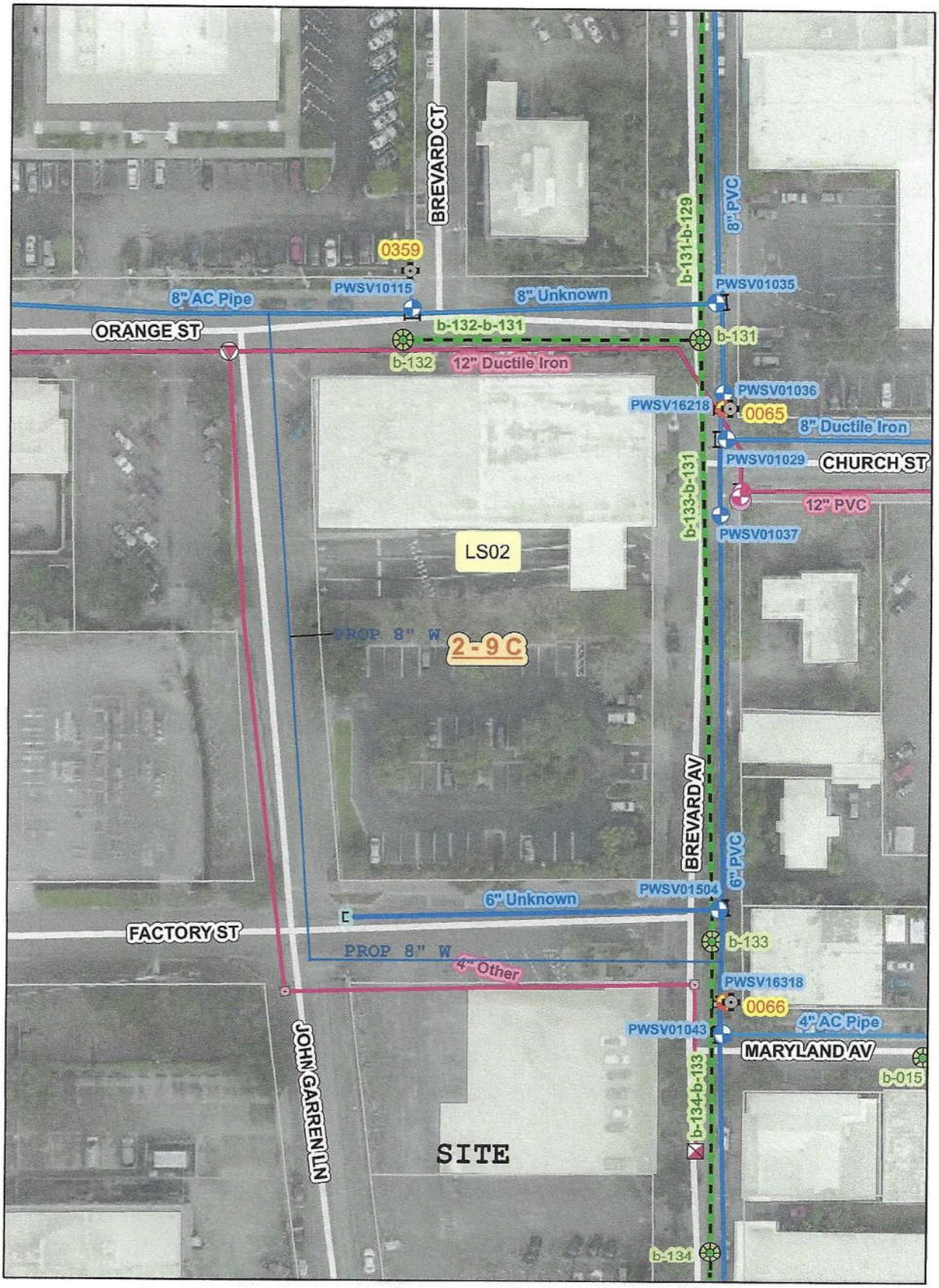

BREVARD CT
0359
PWSV10115
8" AC Pipe
8" Unknown
PWSV01035
b-131-b-129
8" PVC
ORANGE ST
b-132-b-131
b-131
b-132
12" Ductile Iron
PWSV01036
PWSV16218
0065
8" Ductile Iron
PWSV01029
CHURCH ST
b-133-b-131
12" PVC
PWSV01037
LS02
2-9C
BREVARD AV
6" PVC
PWSV01504
6" Unknown
FACTORY ST
b-133
4" Other
PWSV16318
0066
4" AC Pipe
PWSV01043
MARYLAND AV
b-015
b-134-b-133
JOHN GARREN LN
SITE
b-134

EXHIBIT C


BREVARD CT
0359
PWSV10115
8" AC Pipe
8" Unknown
b-131-b-129
8" PVC
PWSV01035
ORANGE ST
b-132-b-131
b-131
b-132
12" Ductile Iron
PWSV01036
PWSV16218
0065
8" Ductile Iron
PWSV01029
CHURCH ST
b-133-b-131
12" PVC
PWSV01037
LS02
PROP 8" W
2-9C
BREVARD AV
6" PVC
PWSV01504
6" Unknown
FACTORY ST
b-133
PROP 8" W
4" Other
PWSV16318
0066
4" AC Pipe
PWSV01043
MARYLAND AV
b-015
JOHN GARREN LN
b-134-b-133
SITE
b-134

FAIRFIELD INN AT COCOA VILLAGE

ENERGY CONSCIOUS DESIGN ELEMENTS

This building is not an LEED certified building

1. Exterior building envelope
   The exterior envelope will consist of an exterior finish insulating system providing insulating valves in excess of minimum code requirements.

2. Roofing System
   The roofing system will consist of light weight insulating concrete over hollow core precast slabs with a white TPO membrane exceeding minimum code requirements.

3. Hot water System
   High efficiency gas closed combustion water heaters with recirculating system

4. High efficiency 100% outside air A/C systems

5. Lighting
   LED high efficiency light fixtures with motion sensor controls

6. Windows
   Low E insulating glass system

7. Water conserving plumbing fixtures per Marriott specifications

SKETCH AND DESCRIPTION

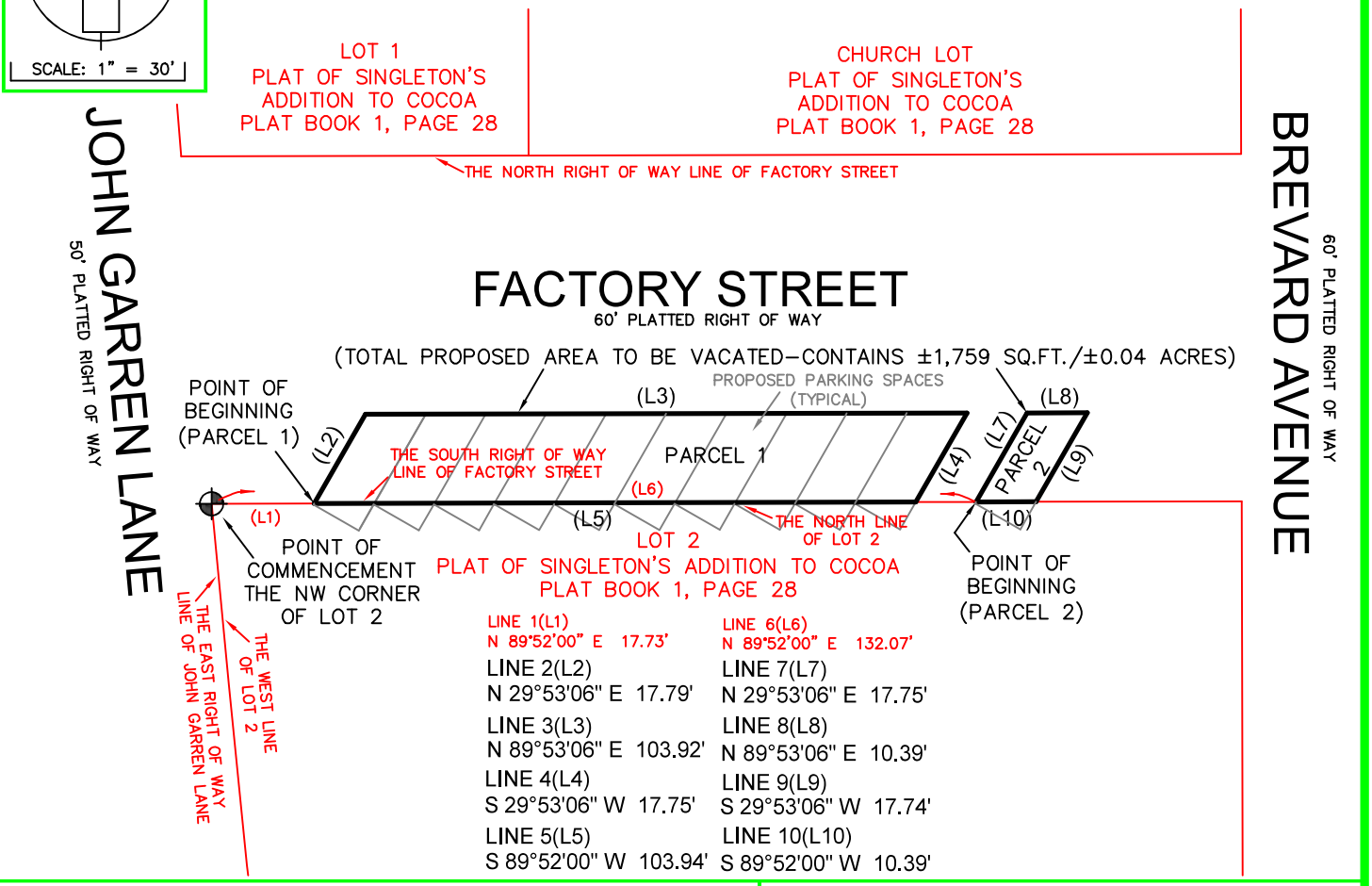
(NOT A SURVEY)

PAGE 1 OF 2 (NOT VALID WITHOUT PAGE 2)

ORDER # 26-0766A

NORTH

SCALE: 1" = 30'



GENERAL NOTES:

1) Unless digitally signed in accordance with Florida statutes this sketch is not valid without the original signature and seal of the Surveyor shown hereon and under no circumstances shall be supplanted by any other graphic or digital form.

2) Additions or deletions to this sketch by any party other than the signing Surveyor is prohibited without the written consent of the signing Surveyor.

3) All distances shown hereon are in feet, tenths and hundredths of a foot unless noted otherwise.

4) Bearings are based on the North line of Lot 2 which has an assumed bearing of S 89°52'00" W.

CERTIFIED TO:

RK Engineering & Associates Inc.

SURVEYOR'S CERTIFICATE:

This survey meets and/or exceeds the standards of practice set forth by the State of Florida Department of Agriculture and Consumer Services, Board of Professional Surveyors and Mappers in Chapter 5J–17.051 through 5J–17.053 Florida Administrative Code for the type of survey stated hereon.

GREGORY S LOCKLIN

Digitally signed by GREGORY S LOCKLIN
Date: 2026.04.15 11:04:53 -04'00'

SIGN DATE: 4/15/26

JOSEPH E. WILLIAMSON, PSM 6573
GREGORY S. LOCKLIN, PSM 5619

DRAFTER CC | APPROVED JW

4M SURVEYING & MAPPING SERVICES, INC.

3630 STAR COURT,
MIMS, FL. 32754
PH: (321) 210–0446

Licensed Business #8516

SKETCH AND DESCRIPTION

(NOT A SURVEY)

PAGE 2 OF 2 (NOT VALID WITHOUT PAGE 1)

PROPOSED LEGAL DESCRIPTION

Being a portion of Factory Street (a 60 foot platted right of way) as shown on Plat of Singleton's Addition to Cocoa, according to the plat thereof as recorded in Plat Book 1, Page 28, of the Public Records of Brevard County, Florida, being more particularly described as follows:

Parcel 1:

Commence at the Northwest corner of Lot 2, Plat of Singleton's Addition to Cocoa, according to the plat thereof as recorded in Plat Book 1, Page 28, of the Public Records of Brevard County, Florida, said point also being the intersection of the South right of way line of Factory Street (a 60 foot platted right of way) and the East right of way line of John Garren Lane (a 50 foot platted right of way), run N89°52'00"E, along the North line of said Lot 2, a distance of 17.73 feet to the Point of Beginning; thence N29°53'06"E, a distance of 17.79 feet; thence N89°53'06"E, a distance of 103.92 feet; thence S29°53'06"E, a distance of 17.75 feet to the North line of said Lot 2; thence S89°52'00"W, along said line, a distance of 103.94 feet to the Point of Beginning.

And

Parcel 2

Commence at the Northwest corner of Lot 2, Plat of Singleton's Addition to Cocoa, according to the plat thereof as recorded in Plat Book 1, Page 28, of the Public Records of Brevard County, Florida, said point also being the intersection of the South right of way line of Factory Street (a 60 foot platted right of way) and the East right of way line of John Garren Lane (a 50 foot platted right of way), run N89°52'00"E, along the North line of said Lot 2, a distance of 132.07 feet to the Point of Beginning; thence N29°53'06"E, a distance of 17.75 feet; thence N89°53'06"E, a distance of 10.39 feet; thence S29°53'06"E, a distance of 17.74 feet to the North line of said Lot 2; thence S89°52'00"W, along said line, a distance of 10.39 feet to the Point of Beginning

Containing ±1,759 square feet or 0.04 acres more or less.

4M SURVEYING & MAPPING SERVICES, INC.

3630 STAR COURT,
MIMS, FL. 32754
PH: (321) 210-0446

Licensed Business #8516

SKETCH AND DESCRIPTION

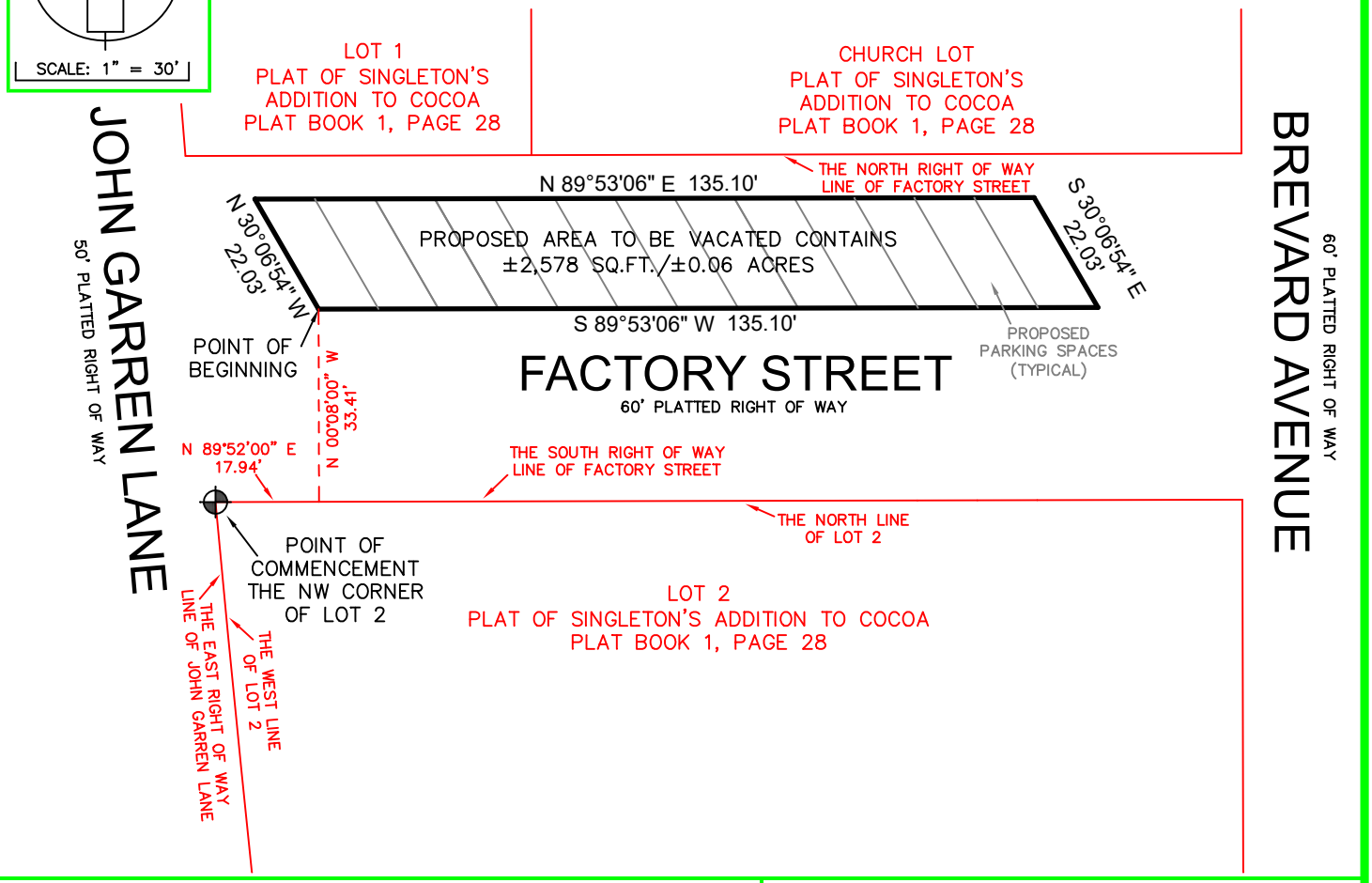
(NOT A SURVEY)

PAGE 1 OF 2 (NOT VALID WITHOUT PAGE 2)

ORDER # 26-0766B

NORTH

SCALE: 1" = 30'



GENERAL NOTES:

1) Unless digitally signed in accordance with Florida statutes this sketch is not valid without the original signature and seal of the Surveyor shown hereon and under no circumstances shall be supplanted by any other graphic or digital form.

2) Additions or deletions to this sketch by any party other than the signing Surveyor is prohibited without the written consent of the signing Surveyor.

3) All distances shown hereon are in feet, tenths and hundredths of a foot unless noted otherwise.

4) Bearings are based on the North line of Lot 2 which has an assumed bearing of N 89°52'00" E.

CERTIFIED TO:

RK Engineering & Associates Inc.

SURVEYOR'S CERTIFICATE:

This survey meets and/or exceeds the standards of practice set forth by the State of Florida Department of Agriculture and Consumer Services, Board of Professional Surveyors and Mappers in Chapter 5J-17.051 through 5J-17.053 Florida Administrative Code for the type of survey stated hereon.

GREGORY S. LOCKLIN License Number 5619 STATE OF FLORIDA Professional Surveyor and Mapper

SIGN DATE: 4/15/26

JOSEPH E. WILLIAMSON, PSM 6573
GREGORY S. LOCKLIN, PSM 5619

4M SURVEYING & MAPPING SERVICES, INC.

3630 STAR COURT,
MIMS, FL. 32754
PH: (321) 210-0446

Licensed Business #8516

DRAFTER	APPROVED
CC	JW

SKETCH AND DESCRIPTION

(NOT A SURVEY)

PAGE 2 OF 2 (NOT VALID WITHOUT PAGE 1)

PROPOSED LEGAL DESCRIPTION

Being a portion of Factory Street (a 60 foot platted right of way) as shown on Plat of Singleton's Addition to Cocoa, according to the plat thereof as recorded in Plat Book 1, Page 28, of the Public Records of Brevard County, Florida, being more particularly described as follows:
Commence at the Northwest corner of Lot 2, Plat of Singleton's Addition to Cocoa, according to the plat thereof as recorded in Plat Book 1, Page 28, of the Public Records of Brevard County, Florida, said point also being the intersection of the South right of way line of Factory Street (a 60 foot platted right of way) and the East right of way line of John Garren Lane (a 50 foot platted right of way), run N89°52'00"E, along the North line of said Lot 2, a distance of 17.94 feet; thence N00°08'00"W, a distance of 33.41 feet to the Point of Beginning; thence N30°06'54"W, a distance of 22.03 feet; thence N89°53'06"E, a distance of 135.10 feet; thence S30°06'54"E, a distance of 22.03 feet; thence S89°53'06"W, a distance of 135.10 feet to the Point of Beginning.
Containing ±2,578 square feet or 0.06 acres more or less.

4M SURVEYING & MAPPING SERVICES, INC.
3630 STAR COURT,
MIMS, FL. 32754
PH: (321) 210-0446
Licensed Business #8516

5-YEAR ECONOMIC IMPACT STUDY RESULTS

PROPOSED FAIRFIELD INN & SUITES BY MARRIOTT COCOA

603 Brevard Avenue
Cocoa, Florida 37355

Economic Indicators by Impact

IMPLAN

Impact	Employment	Labor Income	Value Added	Output
1 - Direct	419.57	$19,151,697.43	$30,974,169.39	$52,900,102.56
2 - Indirect	59.41	$3,039,541.48	$4,897,676.52	$9,968,455.54
3 - Induced	78.94	$3,685,549.20	$7,695,383.19	$12,991,885.17
Totals	557.91	$25,876,788.11	$43,567,229.10	$75,860,443.27

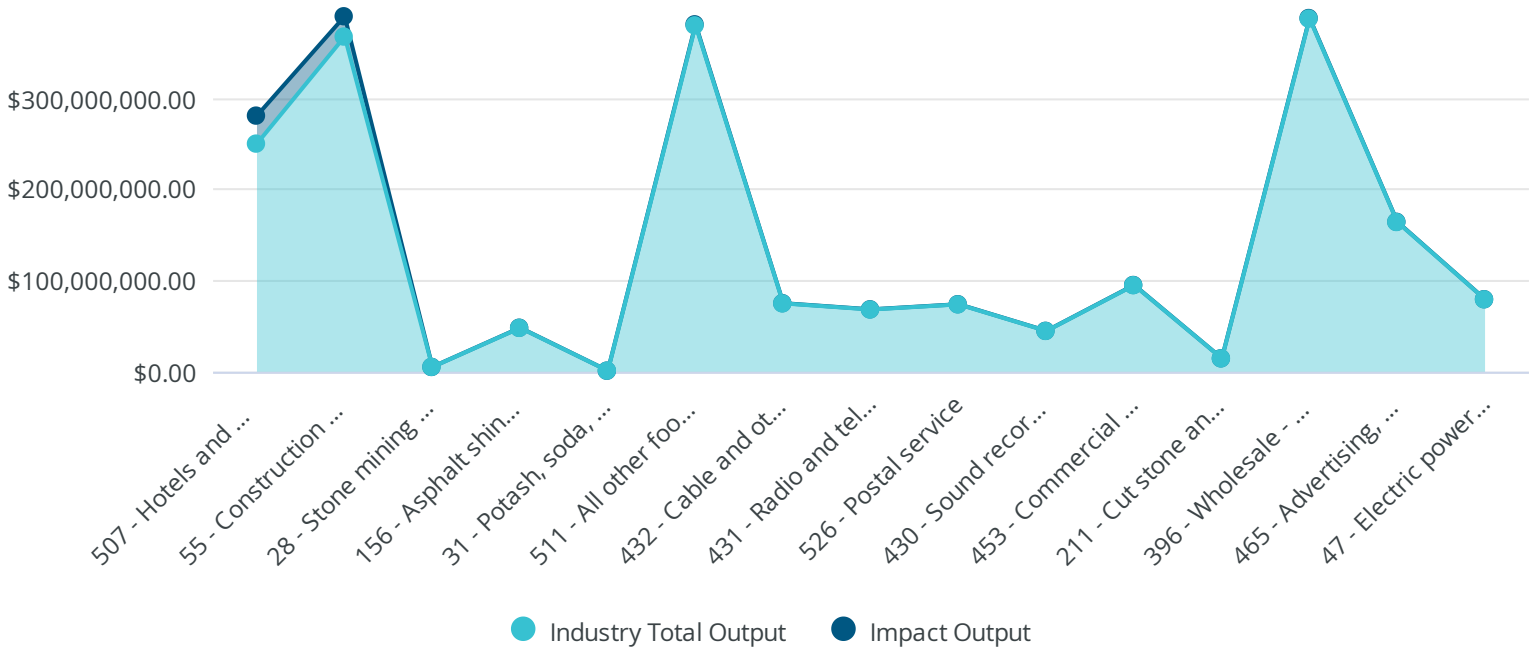
Tax Results

IMPLAN

Impact	Sub County General	Sub County Special Districts	County	State	Federal	Total
1 - Direct	$524,703.76	$656,916.25	$794,989.65	$2,462,593.37	$4,955,492.91	$9,394,695.93
2 - Indirect	$54,305.39	$68,008.48	$82,285.11	$260,660.14	$787,527.91	$1,252,787.03
3 - Induced	$97,978.09	$122,667.34	$148,449.01	$474,767.98	$1,025,914.61	$1,869,777.03
Totals	$676,987.24	$847,592.06	$1,025,723.77	$3,198,021.48	$6,768,935.43	$12,517,259.99

Top 15 Industries by Estimated Growth Percentage

IMPLAN



Industries by Estimated Growth Percentage

IMPLAN

	Display Code	Display Description	Industry Total Output	Impact Output	Estimated Growth Percentage
1	507	Hotels and motels, in...	$249,779,511.15	$30,655,993.27	12.27%
2	55	Construction of new ...	$366,985,881.46	$22,244,816.39	6.06%
3	28	Stone mining and qu...	$5,246,845.50	$19,837.65	.38%
4	156	Asphalt shingle and ...	$48,018,694.04	$152,833.92	.32%
5	31	Potash, soda, and bo...	$1,161,792.69	$3,652.71	.31%
6	511	All other food and dri...	$379,309,661.40	$1,076,756.01	.28%
7	432	Cable and other sub...	$74,838,172.88	$208,676.53	.28%
8	431	Radio and television ...	$68,127,706.81	$178,594.57	.26%
9	526	Postal service	$73,753,672.48	$161,793.25	.22%
10	430	Sound recording ind...	$44,669,014.43	$88,838.84	.20%
11	453	Commercial and ind...	$94,777,133.46	$181,193.89	.19%
12	211	Cut stone and stone ...	$14,647,945.51	$23,638.39	.16%
13	396	Wholesale - Other du...	$386,708,417.81	$557,950.13	.14%
14	465	Advertising, public re...	$163,918,319.51	$228,980.85	.14%
15	47	Electric power trans...	$79,288,784.50	$97,985.83	.12%
16	139	Other millwork, inclu...	$13,940,669.07	$17,154.84	.12%
17	34	Other nonmetallic mi...	$1,110,196.18	$1,358.57	.12%
18	476	Services to buildings	$313,019,428.75	$381,832.80	.12%
19	205	Concrete block and b...	$34,966,326.83	$41,718.09	.12%
20	519	Dry-cleaning and lau...	$19,279,447.23	$22,646.69	.12%
21	479	Waste management ...	$187,141,691.24	$211,861.80	.11%
22	515	Commercial and ind...	$47,175,480.46	$53,305.77	.11%
23	207	Other concrete prod...	$6,731,275.60	$7,514.04	.11%
24	423	Newspaper publishers	$15,348,744.40	$16,836.41	.11%
25	438	Internet publishing a...	$164,690,483.32	$174,554.87	.11%
26	477	Landscape and horti...	$246,570,159.90	$247,700.50	.10%
27	426	Directory, mailing lis...	$22,947,564.12	$21,678.49	.09%
28	424	Periodical publishers	$4,460,239.85	$4,146.27	.09%
29	32	Phosphate rock mini...	$432,878.97	$392.71	.09%
30	417	Truck transportation	$430,878,196.17	$379,570.79	.09%
31	474	Travel arrangement ...	$70,316,484.74	$61,728.76	.09%
32	320	Blank magnetic and ...	$13,292,093.97	$11,634.18	.09%
33	395	Wholesale - Machine...	$249,274,266.80	$215,550.24	.09%
34	499	Independent artists, ...	$49,524,628.15	$42,069.10	.08%
35	497	Commercial Sports E...	$36,344,138.90	$30,748.69	.08%
36	456	Accounting, tax prep...	$166,558,527.63	$137,915.28	.08%
37	401	Wholesale - Wholesa...	$59,816,506.68	$48,848.14	.08%
38	439	Nondepository credit...	$97,814,357.92	$78,604.87	.08%
39	450	Automotive equipme...	$92,984,162.32	$74,619.50	.08%
40	496	Performing arts com...	$23,358,274.35	$18,386.65	.08%
41	523	Business and profes...	$30,331,397.29	$23,615.14	.08%
42	463	Environmental and o...	$102,987,749.85	$78,359.09	.08%
43	154	Petroleum refineries	$34,002,702.00	$25,640.51	.08%
44	49	Water, sewage and o...	$27,796,106.24	$20,568.79	.07%

	Display Code	Display Description	Industry Total Output	Impact Output	Estimated Growth Percentage
45	399	Wholesale - Petroleu...	$206,909,942.89	$151,003.69	.07%
46	470	Office administrative...	$111,552,825.95	$81,211.02	.07%
47	500	Promoters of perfor...	$56,089,168.50	$40,769.29	.07%
48	451	General and consum...	$73,085,900.79	$49,274.34	.07%
49	505	Fitness and recreatio...	$24,260,219.73	$16,232.78	.07%
50	534	Other local governm...	$193,785,470.56	$128,339.99	.07%
51	441	Monetary authorities...	$473,245,210.00	$310,984.78	.07%
52	400	Wholesale - Other no...	$238,591,105.79	$155,598.14	.07%
53	418	Transit and ground p...	$61,943,403.78	$40,053.23	.06%
54	398	Wholesale - Grocery ...	$165,849,136.42	$106,796.15	.06%
55	466	Photographic services	$24,025,360.31	$15,422.56	.06%
56	440	Securities and comm...	$361,083,283.64	$231,404.84	.06%
57	514	Electronic and precis...	$115,374,173.81	$73,349.92	.06%
58	462	Management consul...	$572,427,020.30	$363,294.75	.06%
59	48	Natural gas distributi...	$55,562,630.51	$34,883.61	.06%
60	415	Rail transportation	$13,835,274.51	$8,484.64	.06%
61	235	Prefabricated metal ...	$4,205,586.57	$2,571.32	.06%
62	403	Retail - Furniture and...	$139,685,340.89	$84,525.28	.06%
63	469	Management of com...	$633,235,737.21	$381,636.26	.06%
64	412	Retail - Miscellaneou...	$148,115,468.05	$89,221.27	.06%
65	516	Personal and househ...	$65,045,284.49	$39,091.56	.06%
66	458	Specialized design s...	$62,135,879.89	$37,069.73	.06%
67	60	Maintenance and re...	$424,190,519.44	$252,855.53	.06%
68	447	Other real estate	$2,476,725,491.02	$1,473,246.00	.06%
69	413	Retail - Nonstore ret...	$868,024,164.74	$515,229.14	.06%
70	455	Legal services	$348,292,605.06	$203,586.76	.06%
71	434	Wireless telecommu...	$270,587,626.06	$156,303.32	.06%
72	429	Motion picture and vi...	$78,881,515.79	$45,467.99	.06%
73	442	Other financial inves...	$195,662,682.79	$110,651.36	.06%
74	472	Employment services	$595,412,535.64	$335,670.09	.06%
75	494	Child day care servic...	$112,805,524.14	$63,033.98	.06%
76	137	Wood windows and d...	$6,250,093.56	$3,457.79	.06%
77	404	Retail - Electronics a...	$112,630,947.94	$62,260.12	.06%
78	410	Retail - Sporting goo...	$104,000,308.54	$57,184.09	.05%
79	478	Other support servic...	$43,528,283.23	$23,927.87	.05%
80	405	Retail - Building mat...	$410,363,856.70	$225,066.99	.05%
81	508	Other accommodati...	$38,444,309.69	$21,071.56	.05%
82	421	Couriers and messe...	$165,320,175.44	$89,449.86	.05%
83	444	Insurance carriers, e...	$585,095,773.81	$315,626.99	.05%
84	525	Private households	$20,827,881.41	$11,119.81	.05%
85	520	Other personal servi...	$110,969,957.90	$58,806.74	.05%
86	411	Retail - General mer...	$514,338,389.73	$271,090.82	.05%
87	517	Personal care services	$93,598,019.37	$49,288.73	.05%
88	408	Retail - Gasoline stor...	$202,198,781.10	$105,737.29	.05%
89	493	Individual and family ...	$60,816,780.58	$31,791.89	.05%
90	449	Owner-occupied dwe...	$4,921,178,780.72	$2,566,762.83	.05%

	Display Code	Display Description	Industry Total Output	Impact Output	Estimated Growth Percentage
91	512	Automotive repair a...	$412,205,207.25	$214,659.30	.05%
92	392	Wholesale - Motor v...	$72,495,957.30	$37,713.33	.05%
93	488	Home health care se...	$186,336,879.71	$96,758.35	.05%
94	443	Direct life insurance ...	$5,565,723.39	$2,888.82	.05%
95	485	Offices of other healt...	$204,189,036.86	$105,870.42	.05%
96	506	Bowling centers	$5,542,390.08	$2,866.93	.05%
97	454	Lessors of nonfinanc...	$20,101,835.96	$10,373.47	.05%
98	509	Full-service restaura...	$1,176,955,339.96	$606,167.84	.05%
99	483	Offices of physicians	$1,259,928,078.80	$648,263.01	.05%
100	420	Scenic and sightseei...	$164,544,839.23	$84,476.66	.05%
101	461	Other computer rela...	$136,194,321.85	$69,880.13	.05%
102	407	Retail - Health and p...	$223,051,613.11	$114,155.02	.05%
103	486	Outpatient care cent...	$206,528,814.22	$105,017.97	.05%
104	475	Investigation and sec...	$97,490,375.30	$49,312.86	.05%
105	436	Data processing, hos...	$315,487,858.04	$159,104.00	.05%
106	61	Maintenance and re...	$184,386,591.48	$92,968.85	.05%
107	402	Retail - Motor vehicle...	$314,287,271.21	$158,016.48	.05%
108	510	Limited-service resta...	$882,435,087.53	$443,268.86	.05%
109	433	Wired telecommunic...	$360,248,931.90	$180,474.92	.05%
110	489	Other ambulatory he...	$90,871,977.04	$45,265.51	.05%
111	490	Hospitals	$1,293,698,946.74	$643,158.75	.05%
112	409	Retail - Clothing and ...	$225,079,118.94	$111,869.37	.05%
113	446	Funds, trusts, and ot...	$244,805,445.53	$121,510.79	.05%
114	406	Retail - Food and bev...	$512,993,841.73	$252,172.07	.05%
115	425	Book publishers	$7,014,926.40	$3,397.78	.05%
116	414	Air transportation	$357,297,986.98	$172,509.29	.05%
117	484	Offices of dentists	$273,648,762.26	$130,072.19	.05%
118	199	Flat glass manufactu...	$575,384.57	$270.67	.05%
119	452	Video tape and disc r...	$24,823,607.65	$11,562.50	.05%
120	445	Insurance agencies, ...	$648,164,931.17	$300,003.83	.05%
121	467	Veterinary services	$71,130,696.85	$32,805.57	.05%
122	504	Other amusement a...	$94,479,423.05	$42,820.54	.05%
123	524	Labor and civic orga...	$123,812,306.29	$55,633.82	.04%
124	422	Warehousing and st...	$112,829,466.48	$50,631.30	.04%
125	513	Car washes	$283,285,808.43	$126,605.78	.04%
126	481	Junior colleges, colle...	$130,925,665.27	$58,376.40	.04%
127	437	News syndicates, libr...	$9,205,514.84	$4,090.28	.04%
128	10	All other crop farming	$1,719,364.94	$760.57	.04%
129	397	Wholesale - Drugs a...	$123,930,969.96	$53,949.46	.04%
130	393	Wholesale - Professi...	$497,266,022.70	$216,432.84	.04%
131	468	Marketing research ...	$178,699,896.33	$77,505.68	.04%
132	204	Ready-mix concrete ...	$62,048,897.62	$26,847.39	.04%
133	480	Elementary and seco...	$106,463,938.98	$45,668.20	.04%
134	498	Racing and Track Op...	$24,379,024.34	$10,383.55	.04%
135	487	Medical and diagnos...	$181,304,309.66	$77,191.81	.04%
136	492	Residential intellectu...	$65,906,145.50	$27,623.59	.04%

	Display Code	Display Description	Industry Total Output	Impact Output	Estimated Growth Percentage
137	503	Gambling industries ...	$115,271,548.02	$48,062.18	.04%
138	213	Mineral wool manuf...	$13,520,152.82	$5,585.25	.04%
139	428	Software publishers	$228,200,048.25	$92,393.51	.04%
140	419	Pipeline transportati...	$19,621,828.05	$7,875.67	.04%
141	482	Other educational se...	$287,051,134.84	$114,852.98	.04%
142	448	Tenant-occupied hou...	$473,894,755.79	$187,557.76	.04%
143	435	Satellite, telecommu...	$186,575,327.54	$72,324.75	.04%
144	473	Business support ser...	$278,688,363.25	$106,021.85	.04%
145	152	Printing	$56,661,080.86	$19,862.29	.04%
146	502	Amusement parks a...	$5,978,766.98	$2,086.56	.03%
147	394	Wholesale - Househ...	$895,300,300.86	$311,399.74	.03%
148	518	Death care services	$24,061,617.47	$8,272.07	.03%
149	143	All other miscellaneo...	$3,481,519.70	$1,095.71	.03%
150	385	Sign manufacturing	$26,055,595.16	$8,137.99	.03%
151	416	Water transportation	$179,711,229.61	$54,473.48	.03%
152	132	Sawmills	$13,883,119.22	$3,988.91	.03%
153	491	Nursing and commu...	$441,358,394.34	$124,643.65	.03%
154	238	Metal window and d...	$4,304,991.68	$1,185.28	.03%
155	495	Community food, ho...	$96,834,636.69	$26,330.84	.03%
156	457	Architectural, engine...	$1,734,823,413.29	$463,564.26	.03%
157	240	Ornamental and arc...	$10,309,004.83	$2,733.92	.03%
158	522	Grantmaking, giving,...	$164,760,088.21	$41,860.13	.03%
159	236	Fabricated structural...	$126,953,868.09	$32,135.32	.03%
160	133	Wood preservation	$17,548,590.66	$4,259.02	.02%
161	460	Computer systems d...	$377,627,567.09	$89,682.61	.02%
162	501	Museums, historical ...	$24,579,981.02	$5,653.97	.02%
163	214	Miscellaneous nonm...	$1,199,249.18	$275.55	.02%
164	528	Other federal govern...	$61,406,051.41	$13,860.35	.02%
165	202	Glass product manuf...	$3,145,569.15	$554.46	.02%
166	188	Plastics pipe and pip...	$29,769,105.54	$5,033.37	.02%
167	135	Engineered wood m...	$27,543,566.27	$4,386.40	.02%
168	105	Manufactured ice	$899,795.69	$137.35	.02%
169	17	Commercial fishing	$27,868,218.34	$4,054.81	.01%
170	29	Sand and gravel mini...	$3,550,818.70	$498.87	.01%
171	239	Sheet metal work m...	$38,860,627.33	$5,456.88	.01%
172	258	Fabricated pipe and ...	$3,546,272.36	$473.85	.01%
173	117	Carpet and rug mills	$6,664,681.52	$879.90	.01%
174	18	Commercial hunting ...	$12,947,533.98	$1,700.52	.01%
175	194	Tire manufacturing	$3,862,911.71	$473.92	.01%
176	230	Crown and closure ...	$2,981,252.53	$318.55	.01%
177	259	Other fabricated met...	$21,076,279.38	$2,244.42	.01%
178	2	Grain farming	$121,262.19	$12.68	.01%
179	521	Religious organizatio...	$411,239,145.71	$40,566.49	.01%
180	197	Pottery, ceramics, an...	$1,841,710.80	$176.02	.01%
181	104	Bottled and canned s...	$73,262,128.24	$6,964.60	.01%
182	39	Electric power gener...	$481,982.43	$45.69	.01%

	Display Code	Display Description	Industry Total Output	Impact Output	Estimated Growth Percentage
183	42	Electric power gener...	$25,130,688.14	$2,382.37	.01%
184	40	Electric power gener...	$442,063,696.56	$41,907.26	.01%
185	190	Polystyrene foam pr...	$17,325,960.93	$1,616.23	.01%
186	383	Doll, toy, and game ...	$15,122,639.21	$1,381.89	.01%
187	151	All other converted p...	$7,676,426.96	$640.94	.01%
188	3	Vegetable and melo...	$7,667,908.97	$625.24	.01%
189	13	Poultry and egg prod...	$632,583.37	$50.90	.01%
190	459	Custom computer pr...	$543,415,494.27	$42,808.67	.01%
191	365	Wood kitchen cabine...	$75,858,360.32	$5,266.63	.01%
192	14	Animal production, e...	$5,577,377.20	$378.86	.01%
193	20	Oil and gas extraction	$49,921,600.36	$3,326.71	.01%
194	348	Motor vehicle electri...	$10,840,759.77	$629.95	.01%
195	89	Animal, except poult...	$3,076,096.60	$176.38	.01%
196	92	Seafood product pre...	$9,466,111.88	$537.20	.01%
197	275	Air conditioning, refri...	$69,799,999.17	$3,957.84	.01%
198	193	Other plastics produ...	$44,273,917.96	$2,481.88	.01%
199	19	Support activities for...	$6,978,255.12	$383.82	.01%
200	353	Motor vehicle steeri...	$48,106,525.85	$2,616.50	.01%
201	106	Breweries	$53,742,106.81	$2,768.61	.01%
202	94	Cookie and cracker ...	$2,142,360.39	$107.07	.00%
203	160	Industrial gas manuf...	$102,979,874.41	$5,120.72	.00%
204	246	Spring and wire prod...	$1,969,548.63	$97.27	.00%
205	384	Office supplies (exce...	$27,226,213.66	$1,324.79	.00%
206	153	Support activities for...	$946,724.69	$44.55	.00%
207	93	Bread and bakery pr...	$54,772,874.96	$2,517.58	.00%
208	346	Travel trailer and ca...	$6,482,685.76	$294.62	.00%
209	237	Plate work manufact...	$64,599,204.31	$2,670.59	.00%
210	471	Facilities support ser...	$936,753,233.87	$38,570.64	.00%
211	247	Machine shops	$90,152,351.86	$3,551.74	.00%
212	97	Roasted nuts and pe...	$18,467,720.43	$713.11	.00%
213	86	Ice cream and froze...	$9,726,687.13	$351.57	.00%
214	99	Coffee and tea manu...	$11,398,160.03	$405.37	.00%
215	200	Other pressed and bl...	$326,213.61	$11.44	.00%
216	90	Meat processed fro...	$2,372,122.61	$80.67	.00%
217	147	Paperboard containe...	$33,890,118.80	$1,097.76	.00%
218	6	Greenhouse, nurser...	$35,554,435.34	$960.49	.00%
219	251	Electroplating, anodi...	$21,182,224.81	$571.75	.00%
220	371	Custom architectural...	$4,311,239.25	$115.04	.00%
221	98	Other snack food ma...	$8,466,347.00	$225.89	.00%
222	352	Other motor vehicle ...	$20,571,427.90	$537.64	.00%
223	381	Jewelry and silverwa...	$32,779,477.91	$837.51	.00%
224	252	Valve and fittings, ot...	$20,420,464.96	$517.67	.00%
225	321	Software and other p...	$7,365,050.73	$184.20	.00%
226	250	Metal coating and no...	$21,802,024.21	$535.84	.00%
227	361	Boat building	$140,713,077.89	$3,279.56	.00%
228	175	Paint and coating ma...	$108,920,381.14	$2,527.86	.00%

	Display Code	Display Description	Industry Total Output	Impact Output	Estimated Growth Percentage
229	87	Frozen cakes and ot...	$34,054,464.54	$741.26	.00%
230	191	Urethane and other f...	$12,536,797.52	$267.92	.00%
231	464	Scientific research a...	$1,998,177,103.70	$39,087.23	.00%
232	64	Other animal food m...	$7,312,485.11	$141.98	.00%
233	4	Fruit farming	$3,600,854.73	$63.21	.00%
234	360	Ship building and rep...	$34,035,325.36	$568.99	.00%
235	248	Turned product and ...	$1,573,332.91	$26.05	.00%
236	376	Surgical and medical...	$12,438,644.81	$198.50	.00%
237	340	Automobile manufac...	$2,737,367.44	$43.49	.00%
238	367	Nonupholstered woo...	$1,452,275.70	$23.02	.00%
239	196	Other rubber produc...	$7,568,338.80	$118.83	.00%
240	387	Musical instrument ...	$1,797,830.95	$27.49	.00%
241	38	Other nonmetallic mi...	$4,408,146.04	$66.18	.00%
242	177	Soap and other dete...	$12,384,753.50	$184.88	.00%
243	184	Photographic film an...	$2,191,486.05	$30.65	.00%
244	287	Elevator and moving ...	$23,934,080.42	$328.23	.00%
245	187	Unlaminated plastics...	$28,921,334.63	$392.64	.00%
246	391	All other miscellaneo...	$22,332,402.03	$297.96	.00%
247	178	Polish and other sani...	$7,745,958.98	$99.41	.00%
248	16	Commercial logging	$3,862,701.94	$49.21	.00%
249	37	Metal mining services	$4,642,990.07	$58.95	.00%
250	121	Other textile product...	$5,848,712.19	$71.85	.00%
251	74	Nonchocolate confec...	$4,540,561.87	$53.60	.00%
252	233	Cutlery, utensil, pot, ...	$3,540,034.47	$41.24	.00%
253	245	Hardware manufact...	$2,363,472.42	$27.14	.00%
254	183	Custom compoundin...	$2,125,423.58	$23.42	.00%
255	118	Curtain and linen mills	$1,581,201.29	$17.07	.00%
256	341	Light truck and utility...	$2,661,624.90	$28.20	.00%
257	103	All other food manuf...	$4,791,168.28	$50.29	.00%
258	189	Laminated plastics pl...	$11,785,059.08	$122.04	.00%
259	366	Upholstered househ...	$3,869,356.61	$38.19	.00%
260	185	Other miscellaneous...	$30,186,745.78	$277.07	.00%
261	5	Tree nut farming	$14,455.90	$0.13	.00%
262	101	Mayonnaise, dressin...	$45,473,761.15	$396.17	.00%
263	63	Dog and cat food ma...	$6,002,070.86	$52.03	.00%
264	186	Plastics packaging m...	$19,411,637.65	$161.38	.00%
265	335	Fiber optic cable ma...	$10,086,195.16	$80.26	.00%
266	76	Confectionery manuf...	$1,497,769.21	$11.53	.00%
267	163	Other basic organic ...	$170,976,260.20	$1,218.90	.00%
268	119	Textile bag and canv...	$40,449,310.39	$277.48	.00%
269	368	Other household non...	$9,624,952.56	$62.71	.00%
270	91	Rendering and meat ...	$2,215,415.43	$14.26	.00%
271	176	Adhesive manufactu...	$10,468,672.60	$59.76	.00%
272	234	Handtool manufactu...	$1,234,594.18	$7.05	.00%
273	272	Other commercial se...	$294,616,269.70	$1,512.91	.00%
274	162	Other basic inorgani...	$59,278,748.47	$304.01	.00%

	Display Code	Display Description	Industry Total Output	Impact Output	Estimated Growth Percentage
275	70	Fats and oils refining...	$7,361,520.96	$36.39	.00%
276	180	Toilet preparation m...	$12,506,001.46	$61.46	.00%
277	261	Lawn and garden eq...	$1,404,502.75	$6.49	.00%
278	323	Lighting fixture man...	$30,852,205.97	$140.70	.00%
279	126	Women's and girls' c...	$816,435.52	$3.72	.00%
280	362	Motorcycle, bicycle, ...	$1,163,636.95	$4.62	.00%
281	33	Other chemical and f...	$740,271.60	$2.86	.00%
282	123	Other apparel knittin...	$541,926.07	$2.06	.00%
283	255	Small arms ammunit...	$5,488,095.10	$20.03	.00%
284	1	Oilseed farming	$55,882.19	$0.18	.00%
285	108	Distilleries	$7,342,128.59	$23.68	.00%
286	125	Men's and boys' cut ...	$477,926.80	$1.52	.00%
287	11	Beef cattle ranching ...	$7,603,841.02	$23.40	.00%
288	127	Other cut and sew a...	$492,850.91	$1.44	.00%
289	195	Rubber and plastics ...	$4,473,454.56	$12.54	.00%
290	128	Apparel accessories ...	$567,496.05	$1.59	.00%
291	164	Plastics material and...	$40,202,761.43	$107.67	.00%
292	292	Welding and solderin...	$5,068,243.85	$11.95	.00%
293	276	Industrial mold man...	$58,033,757.33	$131.85	.00%
294	124	Cut and sew apparel ...	$380,798.27	$0.84	.00%
295	122	Hosiery and sock mills	$508,506.64	$1.12	.00%
296	303	Other communicatio...	$173,973,688.70	$381.57	.00%
297	257	Small arms, ordnanc...	$210,118,108.29	$449.75	.00%
298	380	Dental laboratories	$17,068,132.32	$31.70	.00%
299	297	Scales, balances, an...	$14,336,003.12	$26.44	.00%
300	349	Motor vehicle trans...	$24,009,737.12	$42.89	.00%
301	382	Sporting and athletic...	$98,021,300.05	$171.12	.00%
302	339	All other miscellaneo...	$48,274,551.75	$83.88	.00%
303	379	Ophthalmic goods m...	$1,700,289.03	$2.82	.00%
304	347	Motor vehicle gasoli...	$25,307,526.30	$40.56	.00%
305	324	Small electrical appli...	$2,618,161.84	$3.98	.00%
306	227	Ferrous metal found...	$20,882,699.27	$29.88	.00%
307	181	Printing ink manufac...	$3,666,891.97	$5.19	.00%
308	328	Other major househ...	$734,809.13	$0.98	.00%
309	264	Oil and gas field mac...	$2,632,941.53	$3.17	.00%
310	172	Pharmaceutical prep...	$95,065,784.61	$109.76	.00%
311	243	Metal cans manufact...	$26,806,735.69	$30.11	.00%
312	278	Cutting tool and mac...	$7,496,214.11	$8.12	.00%
313	300	Computer terminals ...	$12,797,506.85	$13.78	.00%
314	62	Maintenance and re...	$74,406,990.35	$73.20	.00%
315	141	Manufactured home ...	$5,616,938.46	$5.06	.00%
316	331	Switchgear and switc...	$26,217,787.15	$22.73	.00%
317	262	Construction machin...	$2,577,617.84	$2.19	.00%
318	113	Nonwoven fabric mills	$5,572,436.45	$4.72	.00%
319	111	Broadwoven fabric ...	$3,928,680.47	$3.33	.00%
320	296	Fluid power pump an...	$11,699,741.75	$9.67	.00%

	Display Code	Display Description	Industry Total Output	Impact Output	Estimated Growth Percentage
321	130	Footwear manufactu...	$1,869,341.11	$1.54	.00%
322	285	Pump and pumping ...	$12,419,661.25	$10.10	.00%
323	314	Industrial process va...	$10,722,262.81	$8.34	.00%
324	222	Other aluminum rolli...	$61,742,546.49	$47.35	.00%
325	377	Surgical appliance a...	$1,294,722.78	$0.99	.00%
326	173	In-vitro diagnostic su...	$5,706,879.54	$4.18	.00%
327	327	Household laundry e...	$1,583,287.80	$1.13	.00%
328	298	Electronic computer ...	$170,894,485.76	$119.87	.00%
329	290	Industrial truck, trail...	$115,510,563.49	$76.73	.00%
330	309	Electronic connector ...	$61,414,380.36	$40.41	.00%
331	319	Watch, clock, and oth...	$57,449,845.26	$36.85	.00%
332	289	Overhead cranes, ho...	$168,500,153.68	$105.90	.00%
333	115	Textile and fabric fini...	$7,533,598.76	$4.68	.00%
334	364	All other transportati...	$6,994,202.13	$4.17	.00%
335	326	Household refrigerat...	$1,684,235.12	$0.92	.00%
336	15	Forestry, forest prod...	$2,382,257.04	$1.25	.00%
337	378	Dental equipment an...	$211,157.13	$0.11	.00%
338	332	Relay and industrial ...	$13,153,162.52	$6.13	.00%
339	269	All other industrial m...	$47,388,498.97	$20.54	.00%
340	305	Printed circuit assem...	$42,325,848.24	$16.13	.00%
341	363	Military armored veh...	$16,795,145.66	$6.02	.00%
342	171	Medicinal and botani...	$2,784,075.64	$0.99	.00%
343	304	Audio and video equi...	$39,420,961.64	$13.14	.00%
344	356	Other aircraft parts ...	$200,671,264.72	$63.76	.00%
345	308	Capacitor, resistor, c...	$41,796,639.55	$11.88	.00%
346	325	Household cooking a...	$1,279,869.92	$0.35	.00%
347	344	Truck trailer manufa...	$715,756.56	$0.18	.00%
348	271	Photographic and ph...	$23,625,301.73	$5.78	.00%
349	306	Bare printed circuit b...	$315,317,217.25	$64.20	.00%
350	311	Electromedical and e...	$7,308,908.44	$1.45	.00%
351	282	Speed changer, indu...	$8,573,096.30	$1.69	.00%
352	36	Support activities for...	$8,074,937.47	$1.58	.00%
353	307	Semiconductor and r...	$5,244,190,946.34	$1,015.18	.00%
354	301	Telephone apparatu...	$95,182,021.06	$18.04	.00%
355	310	Other electronic com...	$53,121,545.99	$9.73	.00%
356	268	Printing machinery a...	$4,878,257.69	$0.72	.00%
357	358	Propulsion units and ...	$71,137,899.00	$8.97	.00%
358	284	Other engine equip...	$38,521,981.31	$4.77	.00%
359	342	Heavy duty truck ma...	$63,475,245.79	$5.35	.00%
360	355	Aircraft engine and e...	$5,095,866.32	$0.41	.00%
361	317	Analytical laboratory...	$6,893,972.80	$0.54	.00%
362	270	Optical instrument a...	$93,772,067.54	$5.25	.00%
363	35	Drilling oil and gas w...	$10,395,864.69	$0.55	.00%
364	302	Broadcast and wirel...	$141,837,210.77	$6.76	.00%
365	312	Search, detection, an...	$2,454,047,570.72	$80.97	.00%
366	354	Aircraft manufacturi...	$272,731,180.35	$7.23	.00%

	Display Code	Display Description	Industry Total Output	Impact Output	Estimated Growth Percentage
367	267	Sawmill, woodworkin...	$3,568,194.75	$0.08	.00%
368	316	Electricity and signal ...	$15,580,500.75	$0.30	.00%
369	281	Turbine and turbine ...	$12,224,605.22	$0.15	.00%
370	318	Irradiation apparatu...	$7,338,654.23	$0.07	.00%
371	357	Guided missile and s...	$2,646,785,722.25	$9.82	.00%
372	59	Construction of othe...	$715,620,940.94	$0.00	.00%
373	167	Nitrogenous fertilize...	$0.00	$0.00	.00%
374	102	Spice and extract ma...	$0.00	$0.00	.00%
375	165	Synthetic rubber ma...	$0.00	$0.00	.00%
376	120	Rope, cordage, twine...	$0.00	$0.00	.00%
377	78	Frozen specialties m...	$0.00	$0.00	.00%
378	277	Special tool, die, jig, ...	$0.00	$0.00	.00%
379	150	Sanitary paper prod...	$0.00	$0.00	.00%
380	146	Paperboard mills	$0.00	$0.00	.00%
381	537	* Not an industry (Re...	$0.00	$0.00	.00%
382	179	Surface active agent ...	$0.00	$0.00	.00%
383	253	Plumbing fixture fitti...	$0.00	$0.00	.00%
384	58	Construction of new ...	$185,859,754.13	$0.00	.00%
385	388	Fasteners, buttons, n...	$0.00	$0.00	.00%
386	372	Office furniture, exce...	$0.00	$0.00	.00%
387	546	* Employment and p...	$1,168,386,875.98	$0.00	.00%
388	56	Construction of othe...	$211,207,093.57	$0.00	.00%
389	386	Gasket, packing, and...	$0.00	$0.00	.00%
390	158	All other petroleum ...	$0.00	$0.00	.00%
391	373	Showcase, partition, ...	$0.00	$0.00	.00%
392	369	Institutional furniture...	$0.00	$0.00	.00%
393	138	Cut stock, resawing l...	$0.00	$0.00	.00%
394	322	Electric lamp bulb an...	$0.00	$0.00	.00%
395	170	Pesticide and other a...	$0.00	$0.00	.00%
396	294	Industrial process fu...	$0.00	$0.00	.00%
397	21	Coal mining	$0.00	$0.00	.00%
398	210	Abrasive product ma...	$0.00	$0.00	.00%
399	148	Paper bag and coate...	$0.00	$0.00	.00%
400	81	Dehydrated food pro...	$0.00	$0.00	.00%
401	7	Tobacco farming	$0.00	$0.00	.00%
402	544	* Employment and p...	$698,200,575.76	$0.00	.00%
403	374	Mattress manufactu...	$0.00	$0.00	.00%
404	529	State government pa...	$0.00	$0.00	.00%
405	330	Motor and generator...	$0.00	$0.00	.00%
406	224	Copper rolling, drawi...	$0.00	$0.00	.00%
407	145	Paper mills	$0.00	$0.00	.00%
408	25	Silver ore mining	$0.00	$0.00	.00%
409	223	Nonferrous metal (e...	$0.00	$0.00	.00%
410	242	Metal tank (heavy ga...	$0.00	$0.00	.00%
411	221	Aluminum sheet, pla...	$0.00	$0.00	.00%
412	228	Nonferrous metal fo...	$0.00	$0.00	.00%

	Display Code	Display Description	Industry Total Output	Impact Output	Estimated Growth Percentage
413	52	Construction of new ...	$259,334,340.71	$0.00	.00%
414	543	* Employment and p...	$74,380,355.77	$0.00	.00%
415	299	Computer storage d...	$0.00	$0.00	.00%
416	329	Power, distribution, a...	$0.00	$0.00	.00%
417	129	Leather and hide tan...	$0.00	$0.00	.00%
418	41	Electric power gener...	$0.00	$0.00	.00%
419	192	Plastics bottle manuf...	$0.00	$0.00	.00%
420	217	Rolled steel shape m...	$0.00	$0.00	.00%
421	159	Petrochemical manu...	$0.00	$0.00	.00%
422	107	Wineries	$0.00	$0.00	.00%
423	83	Dry, condensed, and ...	$0.00	$0.00	.00%
424	256	Ammunition, except ...	$0.00	$0.00	.00%
425	244	Metal barrels, drums...	$0.00	$0.00	.00%
426	315	Totalizing fluid meter...	$0.00	$0.00	.00%
427	225	Nonferrous metal, e...	$0.00	$0.00	.00%
428	77	Frozen fruits, juices ...	$0.00	$0.00	.00%
429	131	Other leather and all...	$0.00	$0.00	.00%
430	112	Narrow fabric mills a...	$0.00	$0.00	.00%
431	23	Iron ore mining	$0.00	$0.00	.00%
432	265	Semiconductor mac...	$0.00	$0.00	.00%
433	96	Tortilla manufacturing	$0.00	$0.00	.00%
434	209	Gypsum product ma...	$0.00	$0.00	.00%
435	168	Phosphatic fertilizer ...	$0.00	$0.00	.00%
436	350	Motor vehicle seatin...	$0.00	$0.00	.00%
437	155	Asphalt paving mixtu...	$0.00	$0.00	.00%
438	293	Packaging machiner...	$0.00	$0.00	.00%
439	30	Other clay, ceramic, ...	$0.00	$0.00	.00%
440	110	Fiber, yarn, and thre...	$0.00	$0.00	.00%
441	538	* Not an industry (N...	$0.00	$0.00	.00%
442	359	Railroad rolling stock...	$0.00	$0.00	.00%
443	136	Reconstituted wood ...	$0.00	$0.00	.00%
444	313	Automatic environm...	$0.00	$0.00	.00%
445	85	Creamery butter ma...	$0.00	$0.00	.00%
446	231	Iron and steel forging	$0.00	$0.00	.00%
447	531	Other state governm...	$0.00	$0.00	.00%
448	51	Construction of new ...	$172,439,249.77	$0.00	.00%
449	218	Steel wire drawing	$0.00	$0.00	.00%
450	286	Air and gas compres...	$0.00	$0.00	.00%
451	273	Air purification and v...	$0.00	$0.00	.00%
452	337	Wiring device manuf...	$0.00	$0.00	.00%
453	71	Breakfast cereal ma...	$0.00	$0.00	.00%
454	283	Mechanical power tr...	$0.00	$0.00	.00%
455	69	Soybean and other o...	$0.00	$0.00	.00%
456	351	Motor vehicle metal ...	$0.00	$0.00	.00%
457	527	Federal electric utiliti...	$0.00	$0.00	.00%
458	43	Electric power gener...	$0.00	$0.00	.00%

	Display Code	Display Description	Industry Total Output	Impact Output	Estimated Growth Percentage
459	334	Primary battery man...	$0.00	$0.00	.00%
460	533	Local government el...	$0.00	$0.00	.00%
461	220	Secondary smelting ...	$0.00	$0.00	.00%
462	169	Fertilizer mixing	$0.00	$0.00	.00%
463	260	Farm machinery and...	$0.00	$0.00	.00%
464	149	Stationery product m...	$0.00	$0.00	.00%
465	65	Flour milling	$0.00	$0.00	.00%
466	53	Construction of new ...	$206,949,845.42	$0.00	.00%
467	157	Petroleum lubricatin...	$0.00	$0.00	.00%
468	88	Poultry processing	$0.00	$0.00	.00%
469	54	Construction of new ...	$306,572,203.37	$0.00	.00%
470	50	Construction of new ...	$104,046,832.66	$0.00	.00%
471	166	Artificial and syntheti...	$0.00	$0.00	.00%
472	161	Synthetic dye and pi...	$0.00	$0.00	.00%
473	530	State government el...	$0.00	$0.00	.00%
474	46	Electric power gener...	$0.00	$0.00	.00%
475	208	Lime manufacturing	$0.00	$0.00	.00%
476	288	Conveyor and conve...	$0.00	$0.00	.00%
477	22	Copper, nickel, lead, ...	$0.00	$0.00	.00%
478	254	Ball and roller bearin...	$0.00	$0.00	.00%
479	338	Carbon and graphite...	$0.00	$0.00	.00%
480	27	Other metal ore mini...	$0.00	$0.00	.00%
481	100	Flavoring syrup and ...	$0.00	$0.00	.00%
482	215	Iron and steel mills a...	$0.00	$0.00	.00%
483	8	Cotton farming	$0.00	$0.00	.00%
484	216	Iron, steel pipe and t...	$0.00	$0.00	.00%
485	12	Dairy cattle and milk ...	$0.00	$0.00	.00%
486	67	Malt manufacturing	$0.00	$0.00	.00%
487	389	Broom, brush, and m...	$0.00	$0.00	.00%
488	174	Biological product (e...	$0.00	$0.00	.00%
489	375	Blind and shade man...	$0.00	$0.00	.00%
490	84	Fluid milk manufactu...	$0.00	$0.00	.00%
491	370	Wood office furnitur...	$0.00	$0.00	.00%
492	95	Dry pasta, mixes, an...	$0.00	$0.00	.00%
493	279	Machine tool manuf...	$0.00	$0.00	.00%
494	26	Uranium-radium-van...	$0.00	$0.00	.00%
495	75	Chocolate and confe...	$0.00	$0.00	.00%
496	142	Prefabricated wood ...	$0.00	$0.00	.00%
497	274	Heating equipment (...	$0.00	$0.00	.00%
498	333	Storage battery man...	$0.00	$0.00	.00%
499	72	Beet sugar manufact...	$0.00	$0.00	.00%
500	9	Sugarcane and suga...	$0.00	$0.00	.00%
501	280	Rolling mill and other...	$0.00	$0.00	.00%
502	68	Wet corn milling	$0.00	$0.00	.00%
503	198	Brick, tile, and other ...	$0.00	$0.00	.00%
504	427	Greeting card publis...	$0.00	$0.00	.00%

	Display Code	Display Description	Industry Total Output	Impact Output	Estimated Growth Percentage
505	140	Wood container and ...	$0.00	$0.00	.00%
506	229	Custom roll forming	$0.00	$0.00	.00%
507	182	Explosives manufact...	$0.00	$0.00	.00%
508	532	Local government pa...	$0.00	$0.00	.00%
509	249	Metal heat treating	$0.00	$0.00	.00%
510	541	* Employment and p...	$128,498,271.22	$0.00	.00%
511	114	Knit fabric mills	$0.00	$0.00	.00%
512	134	Veneer and plywood ...	$0.00	$0.00	.00%
513	116	Fabric coating mills	$0.00	$0.00	.00%
514	144	Pulp mills	$0.00	$0.00	.00%
515	203	Cement manufacturi...	$0.00	$0.00	.00%
516	232	Nonferrous forging	$0.00	$0.00	.00%
517	206	Concrete pipe manuf...	$0.00	$0.00	.00%
518	82	Cheese manufacturi...	$0.00	$0.00	.00%
519	44	Electric power gener...	$0.00	$0.00	.00%
520	226	Secondary processin...	$0.00	$0.00	.00%
521	57	Construction of new ...	$849,866,598.81	$0.00	.00%
522	343	Motor vehicle body ...	$0.00	$0.00	.00%
523	24	Gold ore mining	$0.00	$0.00	.00%
524	535	* Not an industry (Us...	$0.00	$0.00	.00%
525	542	* Employment and p...	$689,206,055.92	$0.00	.00%
526	539	* Employment and p...	$86,328,063.56	$0.00	.00%
527	336	Other communicatio...	$0.00	$0.00	.00%
528	345	Motor home manufa...	$0.00	$0.00	.00%
529	201	Glass container man...	$0.00	$0.00	.00%
530	79	Canned fruits and ve...	$0.00	$0.00	.00%
531	73	Sugar cane mills and...	$0.00	$0.00	.00%
532	66	Rice milling	$0.00	$0.00	.00%
533	266	Food product machin...	$0.00	$0.00	.00%
534	295	Fluid power cylinder ...	$0.00	$0.00	.00%
535	241	Power boiler and he...	$0.00	$0.00	.00%
536	219	Alumina refining and...	$0.00	$0.00	.00%
537	80	Canned specialties	$0.00	$0.00	.00%
538	291	Power-driven handto...	$0.00	$0.00	.00%
539	109	Tobacco product ma...	$0.00	$0.00	.00%
540	263	Mining machinery an...	$0.00	$0.00	.00%
541	390	Burial casket manuf...	$0.00	$0.00	.00%
542	212	Ground or treated m...	$0.00	$0.00	.00%
543	45	Electric power gener...	$0.00	$0.00	.00%
544	540	* Employment and p...	$0.00	$0.00	.00%
545	536	* Not an industry (Sc...	$0.00	$0.00	.00%
546	545	* Employment and p...	$315,167,617.89	$(0.00)	.00%

DEFINITIONS	
Direct	Direct effects are first-hand expenditures estimated by IMPLAN software made as a result of construction efforts for the development of the subject hotel, as well as increases in production to the local economy following the opening of the property in the form of new revenue generated, new employment, and new taxes realized.
Indirect	Indirect effects are both business-to-business purchases made in the regional supply chain as a result of the subject property opening, such as operating supplies, as well as purchases made in the community by hotel guests directly because of their stay at the subject property, including meals consumed and retail shopping expenditures estimated by IMPLAN software.
Induced	Induced effects are expenditures estimated by IMPLAN software stemming from newly created employment household Income, after removal of taxes, savings, and commuter income. The induced effects are generated by the spending of the employees within the business supply chain.
Employment	Employment in IMPLAN is an Industry-specific mix of full-time, part-time, and seasonal employment. It is an annual average that accounts for seasonality and follows the same definition used by the BLS and BEA. IMPLAN Employment is not equal to full time equivalents. Includes wage and salary employment and proprietors.
Labor Income	All forms of Employment income, including Employee Compensation (wages, salaries, and benefits) and Proprietor Income.
Value Added	The difference between an Industry's or establishment's total Output and the cost of its Intermediate Inputs; it is a measure of the contribution to GDP. Value Added is a large portion of Output, as it encompasses Labor Income (LI), Other Property Income (OPI), and Taxes on Production and Imports (TOPI). Learn more at Understanding Value Added.
Output	For all Industries, output equals the value of Industry production, which is equal to sales plus net inventory change. In IMPLAN these are annual production estimates for the year of the dataset in producer prices. Note that for wholesale and retail sectors, Output is equal to gross wholesale margin or gross retail margin, respectively, not gross sales. The value of production for wholesale and retail sectors is the value of the services they provide; it does not include the value of the items sold within their establishment.

See article for more understanding: https://blog.implan.com/understanding-implan-effects

Jai B. Patel

1420 Adams Street, Suite 555
Nashville, TN 37208
jai.patel@sparkhva.com

PROFESSIONAL EXPERIENCE

SPARK HOTEL VALUATION & ADVISORY, NASHVILLE TN
President & CEO, Apr. 2021 – Present

HVS CONSULTING & VALUATION / U.S. HOTEL APPRAISALS, NASHVILLE, TN
Director, Nov. 2012 – Feb. 2020

COUNTRY INN & SUITES BY RADISSON, NASHVILLE, TN
General Manager/Revenue Manger, May 2009 – Nov. 2012

WELLS FARGO FINANCIAL, HERMITAGE, TN
Credit Manager, Jan. 2009 – May 2009

EDUCATION

THE UNIVERSITY OF TENNESSEE, KNOXVILLE
B.S. Finance, B.S. Enterprise Management, International Business Collateral

MAI Candidate, Other Specialized Training Classes Completed:
Advanced Income Capitalization – 35 hours
Advanced Concepts and Case Studies – 40 hours
Advanced Market Analysis & HBU – 30 hours
Basic Appraisal Procedures – 30 hours
Basic Appraisal Principles – 30 hours
OH Fair Housing Class – 3 hours
Residential Report Writing and Case Studies – 15 hours
General Appraiser Income Approach (Parts I and II) – 60 hours
General Appraiser Market Analysis and HBU – 30 hours
General Appraiser Report Writing and Case Studies – 30 hours
General Appraiser Sales Comparison Approach – 30 hours
General Appraiser Site Valuation and Cost Approach – 30 hours
Quantitative Analysis – 30 hours
Statistics, Modeling and Finance – 15 hours
Uniform Standards of Professional Appraisal Practice – 15 hours
Annual USPAP Updates

PUBLISHED OR FEATURED ARTICLES

Invest: Nashville,* July 2021:** ***"*Great long-term outlook + short-term bumps = hungry investors"*

***HospitalityNet,* Nov. 2017:** *"HVS Market Pulse: Indianapolis, IN"*

***Commercial Property Executive,* Feb. 2017:** *"JW Marriott to Make Sweet Music in Nashville"*

***Hotel News Now,* Sept. 2014:** *"In Focus: Nashville, Tennessee"*

***Hotel News Now,* Oct. 2013:** *"Market Intelligence Report 2013: Cleveland"*

AWARDS & ACHIEVEMENTS

Founder & Executive Board Member, Middle Tennessee Hotel Association
Awarded "Business Leaders of the Year for 2012" in Nashville by *Business Leader Magazine*

EXAMPLES OF PROPERTIES APPRAISED OR EVALUATED:

ALABAMA
Comfort Inn & Suites, Birmingham
The Hotel Highland, Birmingham
Comfort Suites, Cullman
Sleep Inn & Suites, Cullman
La Quinta Inn, Fultondale
Proposed Holiday Inn Express, Huntsville
Sleep Inn, Oxford
Red Roof Inn, Mobile
Holiday Inn Express, Montgomery
Quality Roof Inn & Suites, Montgomery
Best Western, Troy
Courtyard by Marriott, Troy
Hampton Inn by Hilton, Troy

ARKANSAS
Holiday Inn Express, Forrest City
Candlewood Suites, Hot Springs
Proposed Holiday Inn Express & Suites, Jonesboro
Holiday Inn Presidential Conference Center, Little Rock
Proposed Embassy Suites & Conference Center, Jonesboro
Proposed Compass by Margaritaville, Jonesboro
Proposed Holiday Inn Express, Jonesboro
Proposed Holiday Inn, West Memphis

FLORIDA
Turnberry Isle, Miami

GEORGIA
Hilton Garden Inn, Atlanta
SpringHill Suites Buckhead, Atlanta
Parkway Inn, Augusta
Proposed Residence Inn by Marriott, Augusta
Red Roof Inn, Brunswick
Hotel Indigo Atlanta Airport, College Park
Regency Inn, East Point
SpringHill Suites by Marriott, Lithia Springs
Comfort Inn, Smyrna
Best Western, Union City
Ramada Inn, Warner Robins

INDIANA
Fairfield Inn by Marriott, Bloomington
TownePlace Suites by Marriott, Bloomington
Proposed Hotel, Brownsburg
Proposed Fairfield Inn & Suites by Marriott, Fishers
Courtyard by Marriott Downtown, Indianapolis
Fairfield Inn & Suites by Marriott Airport, Indianapolis
Hampton Inn NE Castleton, Indianapolis
Hilton North, Indianapolis
Holiday Inn Express Downtown, Indianapolis
Motel 6 Indianapolis East, Indianapolis
Motel 6 Indianapolis South, Indianapolis
Proposed Boutique Hotel Downtown, Indianapolis
Proposed Canopy by Hilton Hotel Downtown, Indianapolis
Proposed Curio by Hilton Hotel Downtown, Indianapolis
Proposed Hotel at Keystone Crossing, Indianapolis
Proposed Hyatt Place/Hyatt House, Indianapolis
Proposed Hyatt-Branded Hotel, Indianapolis
Proposed InterContinental Downtown, Indianapolis
Proposed Iron Works Hotel, Indianapolis
Residence Inn by Marriott Indianapolis Airport, Indianapolis
Sleep Inn Airport West, Indianapolis
SpringHill Suites by Marriott Downtown, Indianapolis
Staybridge Suites Downtown, Indianapolis
Staybridge Suites Indianapolis City Centre, Indianapolis
Proposed Hotel, Jeffersonville
Proposed La Quinta Inn & Suites, Jeffersonville
Best Western, Merrillville
Holiday Inn Express & Suites, Noblesville
Proposed Embassy Suites & Conference Center, Noblesville
Proposed Holiday Inn Express & Suites, Noblesville
Proposed Embassy Suites Hotel & Conference Center
Indianapolis Airport, Plainfield
WoodSpring Suites, Plainfield
Holiday Inn Express, Tell City

KENTUCKY
Proposed Hampton Inn by Hilton, Berea
Courtyard by Marriott Convention Center, Bowling Green
Proposed Home2 Suites by Hilton, Bowling Green
TownePlace Suites by Marriott, Bowling Green
Americas Best Value Inn, Elizabethtown
WoodSpring Suites, Florence
Comfort Inn, Glascow
Embassy Suites by Hilton UK Cold Stream, Lexington
Hyatt Place, Lexington
Marriott Griffin Gate Golf Resort, Lexington
Motel 6 Lexington East, Lexington
Aloft Downtown, Louisville
Courtyard by Marriott, Louisville
Hilton Garden Inn East, Louisville
Holiday Inn Louisville Airport Fair Expo, Louisville
Proposed Boutique Hotel, Louisville
Proposed Tru by Hilton East, Louisville
Proposed WoodSpring Suites, Louisville
WoodSpring Suites Louisville South, Louisville
Candlewood Suites Fort Campbell Oak Grove, Oak Grove
Proposed Best Western Plus, Owensboro
Motel 6, Paducah

LOUISIANA
Proposed Element by Westin, Baton Rouge
Holiday Inn Express, Covington
Comfort Suites, Gonzales
Holiday Inn Express New Orleans Airport South, Saint Rose
Holiday Inn Express East, New Orleans
Candlewood Suites North Shore, Slidell

MISSISSIPPI
Comfort Suites, Biloxi
Holiday Inn Express, Canton
Hampton Inn & Suites, Hernando
Best Western Goodman, Horn Lake
Cottage Inn Tunica, Robinsonville
Hilton Garden Inn, Tupelo

MISSOURI
Holiday Inn (Conversion to DoubleTree), Joplin
Hotel Joplin, Joplin

SOUTH CAROLINA
Quality Inn, Aiken
Airport Inn, Cayce
Holiday Inn, Rock Hill

TENNESSEE
La Quinta Inn & Suites Downtown, Chattanooga
Super 8, Chattanooga
Hampton Inn & Suites Nashville Franklin, Franklin
Hyatt Place Nashville Franklin Cool Springs, Franklin
Proposed Candlewood Suites, Franklin
Proposed Residence Inn Berry Farms, Franklin
TownePlace Suites by Marriott Cool Springs, Franklin
Holiday Inn Express, Gatlinburg
Proposed Gateway Village, Gatlinburg
Motel 6 Nashville Goodlettsville, Goodlettsville
Old Hickory Inn, Jackson
Proposed Fairfield Inn & Suites, Johnson City
Courtyard by Marriott East Bill Morris Parkway, Memphis
Holiday Inn Downtown, Memphis
Madison Hotel, Memphis
Residence Inn by Marriott Downtown, Memphis
Proposed Holiday Inn Southwind, Memphis
Proposed Marriott-Branded Hotel, Mt. Juliet
Aloft Nashville West End, Nashville
Bobby, Nashville
Courtyard by Marriott Green Hills, Nashville
Courtyard by Marriott Nashville Downtown, Nashville
Courtyard by Marriott West End, Nashville
DoubleTree by Hilton Downtown, Nashville
Fairfield Inn & Suites by Marriott Airport, Nashville
Hampton Inn & Suites by Hilton Airport, Nashville
Hampton Inn & Suites by Hilton Downtown, Nashville
Hampton Inn Nashville by Hilton Vanderbilt, Nashville
Hampton Inn & Suites by Hilton Elliston Place, Nashville
Holston House, Nashville
Hotel Indigo, Nashville
Proposed 1 Hotel & Embassy Suites, Nashville
Proposed Best Western GLo Airport, Nashville
Proposed Bobby, Nashville
Proposed Cambria Suites Downtown, Nashville
Proposed Fairmont Hotel & Residences, Nashville
Proposed Four Seasons & Residences, Nashville
Proposed Graduate Hotel, Nashville
Proposed Margaritaville Hotel, Nashville
Proposed Moxy by Marriott Downtown, Nashville
Proposed Printing House, Nashville
Proposed Staybridge Suites, Nashville
Proposed The Joseph, Nashville
Proposed Virgin Hotel, Nashville
Proposed W Hotel, Nashville
Renaissance Hotel, Nashville
Thompson Hotel, Nashville
Westin, Nashville
WoodSpring Suites Nashville Southeast, Nashville
Proposed Holiday Inn, Pigeon Forge
Proposed Staybridge Suites, Pigeon Forge
Rodeway Inn, Pigeon Forge
Candlewood Suites, Smyrna

TEXAS
Proposed Holiday Inn, The Colony
DoubleTree Dallas near the Galleria, Dallas
Fairmont Hotel, Dallas
SpringHill Suites Downtown West End, Dallas
La Quinta Inn El Paso Cielo Vista, El Paso
Proposed Best Western Premier, Farmers Branch
Proposed TownePlace Suites by Marriott, Farmers Branch
Homewood Suites Fort Worth at Fossil Creek, Fort Worth
SpringHill Suites Fort Worth University, Fort Worth
Proposed Westin Irving Convention Center, Irving
Candlewood Suites, Midland
Comfort Inn, Midland
Candlewood Suites, Monahans
Holiday Inn Express, Monahans
Proposed Microtel Inn & Suites, Monahans
Comfort Suites, Pecos
Courtyard Dallas Plano Parkway, Plano
Proposed La Quinta Inn & Suites, Plano
Wingate Inn, Richardson
Baymont Inn & Suites, Snyder
Land Appraisal, Southlake
Comfort Inn, Stanton
Candlewood Suites, Texarkana

WEST VIRGINA
Comfort Inn West Cross Lanes, Charleston
Comfort Inn Charleston/Cross Lanes, Cross Lanes
Econo Lodge, Triadelphia

WISCONSIN
Proposed Fairfield Inn & Suites by Marriott, Pleasant Prairie
Radisson, Pleasant Prairie

SUMMARY FEASIBILITY STUDY

PROPOSED FAIRFIELD INN & SUITES DOWNTOWN COCOA VILLAGE

603 Brevard Avenue
Cocoa, Florida 37922

ASSIGNMENT NUMBER

2024310004



PREPARED FOR

Deep Patel
Partner
360 Hospitality Group
301 Tucker Lane,
Cocoa, Florida 32926

+ (321) 863-6985

PREPARED BY

Jai B. Patel
President
Spark Hotel Valuation & Advisory LLC
1420 Adams Street, Suite 555
Nashville, TN 37208

+1 (615) 473-2447

SPARK
HOTEL VALUATION & ADVISORY

November 24, 2024

Deep Patel
Partner
360 Hospitality Group
301 Tucker Lane,
Cocoa, Florida 32926

RE: Summary Feasibility Study - Proposed Fairfield Inn & Suites Downtown Cocoa Village, 603 Brevard Avenue, Cocoa, TN, 37922

Mr. Patel:

Pursuant to your request, we herewith submit our feasibility study pertaining to the above-captioned property located at our concluded most favorable development site. We have studied the local real estate and analyzed the market conditions in the Cocoa, Florida area.

We hereby certify that we have no undisclosed interest in this proposed property nor any familiar relation to the property developers, and our employment and compensation are not contingent upon our findings. This study is subject to the comments made throughout this report and to all assumptions and limiting conditions set forth herein.

If there are any specific questions or concerns regarding the attached feasibility report, or if Spark Hotel Valuation & Advisory LLC can be of additional assistance, please contact the individuals listed below.

Respectfully Submitted,

SPARK HOTEL VALUATION & ADVISORY LLC



Jai B. Patel, President
jai.patel@sparkhva.com, +1 (615) 473-2447

TABLE OF CONTENTS

LETTER OF TRANSMITTAL

EXECUTIVE SUMMARY
- Objective 5
- Scope of Work 5
- Subject of the Feasibility Study 7
- Summary of Market Trends 8
- Property Forecast Summary 12
- Feasibility Conclusion 15
- Assignment Conditions 16

SITE DESCRIPTION
- Introduction to Subject Site 17
- Accessibility & Visibility 21
- Flood Zone 21
- Zoning 23

NEIGHBORHOOD ANALYSIS
- Introduction to Neighborhood 26
- Demographics 29
- Surrounding Land Uses 31

PROPOSED IMPROVEMENTS DESCRIPTION
- Proposed Improvements Overview 39
- Facility Summary 40
- Guestroom Areas 51
- Back-of-the-House Space 54

MARKET AREA ANALYSIS
- Market Area Definition 55
- Unemployment 59
- Major Business and Industry 60
- Airport Traffic 62
- Tourist Attractions 63

SUPPLY & DEMAND ANALYSIS
- Historical Hotel Market Performance 65
- Seasonality 67
- Primary Competitors 70
- Secondary Competitors 80
- Demand Analysis Using Market Segmentation 85
- Base Demand Growth Rates 87
- Projection of Market-wide Occupancy 87

PROJECTION OF OCCUPANCY & AVERAGE RATE
- Subject Property's Rate Penetration Analysis 89
- Forecast of Subject Property's Occupancy 89
- Average Rate Analysis 91
- Average Rate Forecast 92

PROJECTION OF REVENUE & EXPENSE
- Comparable Operating Statements 95
- Forecast of Revenue & Expense 99

FEASIBILITY ANALYSIS
Total Development Budget 110
Terminal Capitalization Rate 113
Internal Rates of Return for Debt & Equity Components 115
Feasibility Conclusion 117

ECONOMIC IMPACT ANALYSIS
Overall Economic Effects 120
Industry Composition of Economic Growth 121
Fiscal Impacts 123
Economic Impact Conclusion 124

ADDENDA **127**

OBJECTIVE

The objective of this assignment is to perform a feasibility study for the purpose of evaluating the market demand, analyzing the economics, projecting income and expense, and determining the feasibility of the Proposed Fairfield Inn & Suites Downtown Cocoa Village.

SCOPE OF WORK

In order to accomplish the objective outlined in this assignment, we conducted the following work steps during our fieldwork.

1. An onsite inspection of the subject site was attempted. The physical orientation of the subject site with respect to access and visibility to highways, other forms of transportation, and the local demand for accommodations was analyzed. We reviewed the supportive nature of surrounding land uses as they relate to the subject site.
2. The demand for lodging accommodations was investigated to identify the various generators of visitation operating within the local market. The current and anticipated potential of each of these demand segments were evaluated to determine the extent of existing and future demand. Market interviews, as well as statistical data collected during the fieldwork, were used in locating and quantifying transient demand. In conjunction with the identification of potential demand, an investigation was made of the respective strengths of these segments in terms of seasonality, weekly demand fluctuations, vulnerability to economic trends and changes in travel patterns, and other related factors.
3. The market orientation of nearby lodging facilities was evaluated remotely to determine their competitive position with respect to the proposed subject property. Those properties displaying similar market attributes received selective management phone interviews, to estimate levels of occupancy, room rates, market segmentation, and other pertinent operational characteristics. Some of the competitive factors that we specifically reviewed include location, type and quality of facilities, physical condition, management expertise, and chain affiliation.
4. Statistical data relating to general economic and demographic trends often foreshadow future potential for market areas and neighborhoods. Interviews with local Chambers of Commerce, economic development agencies, and other related organizations, along with an investigation of the proposed subject property's primary market area, typically reveal patterns reflecting growth, stability, or decline.
5. Through interviews with hotel operators, developers, governmental officials, and others, we ascertained the status of projects under construction, proposed, or rumored that might be competitive with the proposed subject property.

We then performed a supply-and-demand analysis for the proposed subject property to forecast its market orientation and competitive position with respect to other lodging facilities, as outlined in steps six through thirteen.

6. Using the occupancy levels and market segmentations of the competitive properties, the number of room nights accommodated in each segment was calculated by multiplying each property's room count by its occupancy, market segmentation, and 365 days, which yielded the accommodated-room-night demand. The annual number of room nights occupied per

room in each segment was also calculated (room nights occupied per year divided by the room count), and the resulting figure served as a competitive index.

7. Latent demand (unaccommodated and induced demand) was estimated for each market segment, if applicable.
8. Growth rates were then projected for each of the market segments.
9. The total usable room-night demand, which consists of usable latent demand and accommodated demand, was projected.
10. The area's guestroom supply and total room nights available were quantified for each projection year.
11. The overall competitive occupancy was calculated for each projection year.
12. Using competitive indexes, the relative competitiveness of each of the area hotels was evaluated.
13. This analysis resulted in a quantification and documentation of probable future trends in the proposed subject property's occupancy, average rate, and overall rooms revenues. Subsequently, with the use of comparable operating statements, a detailed ten-year projection of income and expense was created in accordance with the Uniform System of Accounts for the Lodging Industry (USALI).

Finally, after assessing total development costs and applying an appropriate terminal capitalization rate, we completed a return-on-investment (ROI) analysis to determine the internal rates of return (IRR) on the debt and equity components of the project. With consideration of the current market conditions for hotel/motel transfers, mortgage rates, and equity investment requirements, an opinion of feasibility was concluded.

SOURCES OF INFORMATION

All information analyzed by Spark Hotel Valuation & Advisory was supplied by the sources described below. The absence of certain items could affect the results of this analysis. As part of the general assumptions and limiting conditions, the proposed subject property is assumed to have no adverse easements or be impacted by adverse environmental conditions.

INFORMATION PROVIDED	
Property/Tax	Brevard County Assessor
Zoning	City of Cocoa Zoning
Site Size	Brevard County Assessor
Building Size	Not Applicable
Supply & Demand	CoStar/STR
Flood Map	FEMA
Demographics	CoStar
Comparable Information	CoStar, Spark HVA, Local Agents
INFORMATION NOT PROVIDED	
Title Report	
Phase I Environmental Report	
Purchase & Sale Document	

SUBJECT OF THE FEASIBILITY STUDY

The proposed Fairfield Inn & Suites by Marriott in Historic Cocoa Village is planned as a seven-story, 104-room select-service hotel that combines a contemporary lodging program with an activated streetscape at the northern edge of the district. Concept plans show a ground floor organized around a lobby lounge and registration area, brand-standard breakfast room, fitness center, and a street-facing coffee shop that opens to widened sidewalks, a small urban plaza, and improved connectivity along Brevard Avenue, Factory Street, and the newly reconfigured one-way John Garren Avenue. Guestrooms will occupy levels two through six around an efficient double-loaded corridor, while an elevated outdoor pool terrace provides a leisure-oriented amenity that is uncommon in the immediate neighborhood. A rooftop lounge is planned to feature a full bar with terrace seating and flexible meeting or event space, positioned to capture views over the surrounding village and riverfront, which should help the hotel function as both a lodging option and a new social venue for residents and visitors. Parking for 121 vehicles is planned through a combination of 30 onsite stalls and 91 newly dedicated on-street spaces, integrating the project into the existing urban fabric while addressing the current void of lodging accommodations within walking distance of Cocoa Village's restaurants, shops, waterfront parks, and cultural attractions. The proposed subject property is expected to open on November 1, 2026.

The property is planned for location at 603 Brevard Avenue in Cocoa, Florida, 37922. The subject site is located within the popular Historic Cocoa Village district in Downtown Cocoa, southwest of the intersection formed by Brevard Avenue and Factory Street. The greater development site's Brevard County parcel numbers are: 24-36-33-75-00000.0-0002.00, which has yet to be subdivided as planned by the developer described herein.

EXTERIOR RENDERING OF THE PROPOSED FAIRFIELD INN & SUITES



PROPERTY IDENTIFICATION

Name	Proposed Fairfield Inn & Suites Downtown Cocoa Village
Property	Lodging & Hospitality - Select-Service Lodging
City, State Zip	Cocoa, Florida 37922
County	Brevard County
MSA	Palm Bay-Melbourne-Titusville, FL MSA
Market / Submarket	Brevard County / Cocoa

PLANNED IMPROVEMENT DESCRIPTION

Guestrooms	104
Total Buildings	1
Hotel Amenities	a fitness room, a lobby workstation, a market pantry, an outdoor pool and sundeck, and an outdoor patio

FRANCHISE & MANAGEMENT ASSUMPTIONS

The proposed subject hotel will reportedly operate under a franchise agreement with Marriott International as a Fairfield Inn & Suites; the agreement is expected to span 20 years.

Details pertaining to management terms were not yet determined at the time of this report; however, we assume that the proposed hotel will be managed by a professional hotel-operating company, with fees deducted at rates consistent with current market standards.

SUMMARY OF MARKET TRENDS

The Cocoa competitive set shows a long climb from the last cycle into a new price peak after the pandemic. From 2007 through 2014, occupancy hovered near the low 60s with ADR around $100, then accelerated from 2014 to 2019 as beach, space-coast, and cruise activity deepened; occupancy reached a pre-COVID high near 77 percent in 2019 with ADR in the mid-$130s and RevPAR a little above $100. The clear valley arrived in 2020 as travel halted and two Cape Canaveral openings hit the market, pulling occupancy to the high 40s and ADR to the low $120s, while the room base jumped roughly 20%. Recovery arrived in two stages. Demand rebuilt in 2021, then pricing surged in 2022 and 2023 as cruise embarkations resumed and launch-related visitation and events returned; ADR set a new full-year high near $170 and RevPAR reached the mid-$120s in 2023 with occupancy back to the mid-70s, despite the larger room base. Supply growth has been substantial, rising from roughly 780 rooms in 2019 to about 1,350 rooms by 2024 with the late-2023 opening of the 150-room Holiday Inn Express Cape Canaveral. Even with this expansion, year-to-date 2024 performance sits at roughly 76% occupancy, an ADR near $180, and a RevPAR in the high $130s, all slightly above the same period last year. For a proposed Fairfield Inn & Suites in Cocoa Village, the data point to a market that absorbed significant new capacity, reached new price highs, and continues to benefit from steady cruise demand, recurring space-launch draw, and improving event calendars, with the Village's limited in-district lodging offering a positioning advantage.

The following table provides a historical perspective on the supply and demand trends for a selected set of hotels, as provided by STR.

HISTORICAL HOTEL MARKET PERFORMANCE

Year	Average Daily Room	Available Room	Change	Occupied Room	Change	Occupancy	Average Rate	Change	RevPAR	Change
2007	814	297,110	—	175,564	—	59.1 %	$108.11	—	$63.88	—
2008	814	297,110	0.0 %	170,758	(2.7) %	57.5	102.21	(5.5) %	58.74	(8.0) %
2009	814	297,110	0.0	177,129	3.7	59.6	98.97	(3.2)	59.00	0.4
2010	751	274,160	(7.7)	159,431	(10.0)	58.2	98.45	(0.5)	57.25	(3.0)
2011	758	276,757	0.9	161,929	1.6	58.5	99.79	1.4	58.39	2.0
2012	801	292,522	5.7	184,498	13.9	63.1	98.17	(1.6)	61.92	6.1
2013	814	297,110	1.6	187,506	1.6	63.1	99.75	1.6	62.95	1.7
2014	814	297,110	0.0	197,574	5.4	66.5	103.71	4.0	68.96	9.5
2015	813	296,835	(0.1)	203,488	3.0	68.6	111.96	8.0	76.75	11.3
2016	813	296,745	(0.0)	216,328	6.3	72.9	121.89	8.9	88.86	15.8
2017	738	269,513	(9.2)	205,770	(4.9)	76.3	127.82	4.9	97.59	9.8
2018	731	266,860	(1.0)	199,470	(3.1)	74.7	133.82	4.7	100.03	2.5
2019	782	285,430	7.0	218,908	9.7	76.7	135.03	0.9	103.56	3.5
2020	939	342,864	20.1	161,360	(26.3)	47.1	121.38	(10.1)	57.13	(44.8)
2021	1,137	414,925	21.0	251,987	56.2	60.7	128.94	6.2	78.31	37.1
2022	1,199	437,788	5.5	321,241	27.5	73.4	157.81	22.4	115.80	47.9
2023	1,238	451,800	3.2	335,117	4.3	74.2	170.40	8.0	126.39	9.1
Year-to-Date Through September										
2023	1,200	327,600	—	249,546	—	76.2 %	$175.74	—	$133.87	—
2024	1,350	368,550	12.5 %	280,868	12.6 %	76.2	179.99	2.4 %	137.17	2.5 %
Average Annual Compounded Change:										
2015 - 2023			2.7 %		4.1 %			2.9 %		4.4 %
2014 - 2017			(3.2)		1.4			7.2		12.3
2017 - 2023			9.0		8.5			4.9		4.4

Source: STR

Hotels Included in Sample	Class	Competitive Status	Number of Rooms	Meeting Space	Year Opened
Hilton Garden Inn Cocoa Beach Oceanfront	Upscale	*Primary*	150	9,252	May 1987
Hampton Inn Cocoa Beach/Cape Canaveral	Upper Midscale	*Primary*	150	728	Feb 1999
Holiday Inn Express & Suites Cocoa Beach	Upper Midscale	*Primary*	60	180	Aug 2000
Courtyard Cocoa Beach Cape Canaveral	Upscale	*Primary*	156	7,602	Jan 2001
Holiday Inn Express & Suites Cocoa	Upper Midscale	*Primary*	75	1,100	Jun 2003
Four Points by Sheraton Cocoa Beach	Upscale	*Primary*	75	400	Jan 2006
Country Inn & Suites Port Canaveral	Upper Midscale	*Secondary*	151	1,335	May 2006
Fairfield Inn & Suites Melbourne Viera Town Center	Upper Midscale	*Secondary*	116	550	May 2018
Hampton Inn & Suites Cape Canaveral Cruise Port	Upper Midscale	*Secondary*	116	1,100	Apr 2020
SpringHill Suites Cape Canaveral Cocoa Beach	Upscale	*Secondary*	151	914	Jul 2020
Holiday Inn Express Cape Canaveral	Upper Midscale	*Secondary*	150	350	Oct 2023
		Total	**1,350**	**23,511**	

Source: STR

The following tables reflect our estimates of operating data for hotels on an individual basis. These trends are presented in detail in the Supply and Demand Analysis chapter of this report.

PRIMARY COMPETITORS - FACILITY SUMMARY

Property	Number of Rooms	Year Opened	Last Major Renovation(s)	Food and Beverage Outlets	Indoor Meeting Space (SF)	Meeting Space per Room	Facilities & Amenities
HOLIDAY INN EXPRESS & SUITES COCOA 301 Tucker Lane, Cocoa	75	2003	2025	Breakfast Dining Area	720	9.6	Business Center; Fitness Center; Market Pantry; Outdoor Hot Tub; Outdoor Swimming Pool
COURTYARD COCOA BEACH CAPE CANAVERAL 3435 North Atlantic Avenue, Cocoa Beach	156	1999	2015	The Bistro	3,344	21.4	Airport/Local Shuttle; Business Center; Fitness Center; Gift Shop; Outdoor Hot Tub; Outdoor Patio & Fire Pit; Outdoor Swimming Pool; Vending Area
FOUR POINTS BY SHERATON COCOA BEACH 4001 North Atlantic Avenue, Cocoa Beach	75	2006	—	Shark Pit Bar & Grill	400	5.3	Business Center; Fitness Center; Gift Shop; Outdoor Swimming Pool
HILTON GARDEN INN COCOA BEACH OCEANFRONT 2080 North Atlantic Avenue, Cocoa Beach	150	1987	2021	Starlite Restaurant & Pool Bar	9,262	61.7	Business Center; Fitness Center; Game Room; Outdoor Swimming Pool
HAMPTON INN COCOA BEACH CAPE CANAVERAL 3425 North Atlantic Avenue, Cocoa Beach	150	1999	2008	Breakfast Dining Area	728	4.9	Business Center; Fitness Center; Outdoor Swimming Pool
HOLIDAY INN EXPRESS & SUITES COCOA BEACH 5575 North Atlantic Avenue, Cocoa Beach	60	2000	2010	Breakfast Dining Area	180	3.0	Business Center; Fitness Center; Outdoor Hot Tub; Outdoor Swimming Pool

PRIMARY COMPETITORS - OPERATING PERFORMANCE

		SEGMENTATION (EST.)			ESTIMATED 2023				ESTIMATED 2024					
Property	Number of Rooms	Commercial/Government	Leisure	Group	Weighted Annual Room Count	Occ.	Average Rate	RevPAR	Weighted Annual Room Count	Occ.	Average Rate	RevPAR	Occupancy Penetration	Yield Penetration
Holiday Inn Express & Suites Cocoa	75	45 %	50 %	5 %	75	70 - 75 %	$140 - $150	$105 - $110	75	75 - 80 %	$140 - $150	$110 - $115	100 - 110 %	85 - 90 %
Courtyard Cocoa Beach Cape Canaveral	156	40	50	10	156	70 - 75	180 - 190	130 - 140	156	70 - 75	180 - 190	130 - 140	95 - 100	100 - 110
Four Points by Sheraton Cocoa Beach	75	45	50	5	75	75 - 80	170 - 180	130 - 140	75	75 - 80	170 - 180	130 - 140	100 - 110	100 - 110
Hilton Garden Inn Cocoa Beach Oceanfront	150	35	45	20	150	70 - 75	180 - 190	130 - 140	150	70 - 75	190 - 200	130 - 140	95 - 100	100 - 110
Hampton Inn Cocoa Beach Cape Canaveral	150	40	50	10	150	70 - 75	170 - 180	130 - 140	150	70 - 75	180 - 190	130 - 140	95 - 100	100 - 110
Holiday Inn Express & Suites Cocoa Beach	60	45	50	5	60	75 - 80	170 - 180	130 - 140	60	75 - 80	170 - 180	130 - 140	100 - 110	100 - 110
SUB-TOTALS/AVERAGES	**666**	**41 %**	**49 %**	**11 %**	**666**	**75.0**	**$176.04**	**$131.99**	**666**	**73.8 %**	**$180.16**	**$132.90**	**100.4**	**103.3 %**
Secondary Competitors	684	48 %	45 %	7 %	429	73.3	$163.60	$119.91	513	73.0 %	$168.59	$123.11	99.4	95.7 %
TOTALS/AVERAGES	**44**	**44 %**	**47 %**	**9 %**	**1,095**	**74.3**	**$171.24**	**$127.26**	**1,179**	**73.4 %**	**$175.16**	**$128.64**	**100.0**	**100.0 %**

** Specific occupancy and average rate data were utilized in our analysis, but are presented in ranges in the above table for the purposes of confidentiality.*

SECONDARY COMPETITORS - OPERATING PERFORMANCE

		SEGMENTATION (EST.)				ESTIMATED 2023				ESTIMATED 2024			
Property	Number of Rooms	Commercial/Government	Leisure	Group	Total Competitive Level	Weighted Annual Room Count	Occ.	Average Rate	RevPAR	Weighted Annual Room Count	Occ.	Average Rate	RevPAR
Hampton Inn & Suites Cape Canaveral Cruise Port	116	40 %	55 %	5 %	75 %	87	75 - 80 %	$160 - $170	$125 - $130	87	70 - 75 %	$170 - $180	$125 - $130
Country Inn & Suites Port Canaveral	151	35	55	10	75	113	70 - 75	140 - 150	105 - 110	113	70 - 75	140 - 150	105 - 110
SpringHill Suites Cape Canaveral Cocoa Beach	151	50	40	10	75	113	70 - 75	170 - 180	130 - 140	113	70 - 75	180 - 190	130 - 140
Holiday Inn Express Cape Canaveral	150	55	40	5	75	28	35 - 40	170 - 180	65 - 70	113	65 - 70	170 - 180	120 - 125
Fairfield Inn & Suites Melbourne Viera Town Center	116	60	35	5	75	87	75 - 80	160 - 170	125 - 130	87	70 - 75	160 - 170	125 - 130
TOTALS/AVERAGES	**684**	**48 %**	**45 %**	**7 %**	**75 %**	**429**	**73.3 %**	**$163.60**	**$119.91**	**513**	**73.0 %**	**$168.59**	**$123.11**

** Specific occupancy and average rate data was utilized in our analysis, but is presented in ranges in the above table for the purposes of confidentiality.*

SUMMARY FORECAST OF OCCUPANCY AND AVERAGE RATE

Based on our analysis presented in the Projection of Occupancy and Average Rate chapter, we have chosen to use a stabilized occupancy level of 76% and a base-year rate position of $170.00 for the proposed subject hotel. The following table reflects a summary of our market-wide and proposed subject hotel occupancy and average rate projections.

PROPOSED SUBJECT PROPERTY AVERAGE RATE FORECAST

	POSITIONED	FORECAST						
CALENDAR YEAR	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Market ADR	$175.16	$178.66	$181.34	$187.69	$195.20	$201.05	$207.08	$213.30
Projected Market ADR Growth Rate	—	2.0%	1.5%	3.5%	4.0%	3.0%	3.0%	3.0%
PROPOSED SUBJECT PROPERTY AVERAGE RATE BEFORE DISCOUNT	**$170.00**	**$173.40**	**$176.00**	**$182.16**	**$189.45**	**$195.13**	**$200.98**	**$207.01**
ADR Growth Rate	—	2.0%	1.5%	3.5%	4.0%	3.0%	3.0%	3.0%
Proposed Subject ADR Penetration (Before Discount)	97%	97%	97%	97%	97%	97%	97%	97%
FISCAL YEAR			**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Proposed Subject Property Average Rate			$181.13	$188.23	$194.18	$200.01	$206.01	$212.19
Opening Discount			3.0%	1.0%	0.0%	0.0%	0.0%	0.0%
PROPOSED SUBJECT PROPERTY AVERAGE RATE AFTER DISCOUNT			**$175.70**	**$186.35**	**$194.18**	**$200.01**	**$206.01**	**$212.19**
Real Average Rate Growth			—	6.1%	4.2%	3.0%	3.0%	3.0%
Market ADR			$186.63	$193.94	$200.07	$206.08	$212.26	$218.63
Proposed Subject ADR Penetration (After Discount)			94%	96%	97%	97%	97%	97%
ADR Expressed in Base-Year Dollars Deflated @ Inflation Rate			$163.23	$168.08	$170.04	$170.04	$170.04	$170.04

SUMMARY FORECAST OF REVENUE AND EXPENSE

Our positioning of each revenue and expense level is supported by comparable operations or trends specific to this market. The following table presents a forecast through the first five projection years, including amounts per available room and per occupied room. The second table illustrates our ten-year forecast of income and expense, presented with a lesser degree of detail. The forecasts pertain to years that begin on November 1, 2026, expressed in inflated dollars for each year.

FIVE-YEAR DETAILED FORECAST - PROPOSED FAIRFIELD INN & SUITES DOWNTOWN COCOA VILLAGE

	YEAR 1 2026/27 BEGINS NOVEMBER				YEAR 2 2027/28				YEAR 3 2028/29				YEAR 4 STABILIZED				YEAR 5 2030/31			
Number of Rooms:	**104**				**104**				**104**				**104**				**104**			
Occupancy (Paid Rooms):	**64%**				**73%**				**76%**				**76%**				**76%**			
Average Rate:	**$175.70**				**$186.35**				**$194.18**				**$200.01**				**$206.01**			
RevPAR:	**$112.45**				**$136.03**				**$147.58**				**$152.00**				**$156.57**			
Days Open:	**365**				**365**				**365**				**365**				**365**			
Occupied Rooms (Paid):	**24,294**			**POR**	**27,711**				**28,850**				**28,850**				**28,850**			
CATEGORIES		**%GROSS**	**PAR**	**POR**		**%GROSS**	**PAR**	**POR**		**%GROSS**	**PAR**	**POR**		**%GROSS**	**PAR**	**POR**		**%GROSS**	**PAR**	**POR**
OPERATING REVENUE																				
Rooms	$4,268	85.6 %	$41,038	$175.68	$5,164	85.5 %	$49,654	$186.35	$5,602	85.1 %	$53,865	$194.18	$5,770	85.1 %	$55,481	$200.00	$5,943	85.1 %	$57,144	$206.00
Food & Beverage	661	13.3	6,358	27.22	809	13.4	7,782	29.21	904	13.7	8,695	31.34	931	13.7	8,956	32.28	959	13.7	9,224	33.25
Other Operated Departments	41	0.8	396	1.70	48	0.8	457	1.72	52	0.8	502	1.81	54	0.8	517	1.86	55	0.8	532	1.92
Miscellaneous Income	16	0.3	159	0.68	19	0.3	183	0.69	21	0.3	201	0.72	21	0.3	207	0.75	22	0.3	213	0.77
TOTAL OPERATING REVENUES	**4,987**	**100.0 %**	**47,952**	**205.27**	**6,040**	**100.0 %**	**58,076**	**217.96**	**6,579**	**100.0 %**	**63,263**	**228.06**	**6,777**	**100.0 %**	**65,160**	**234.89**	**6,980**	**100.0 %**	**67,114**	**241.94**
DEPARTMENTAL EXPENSES *																				
Rooms	$1,088	25.5 %	$10,465	$44.80	1,178	22.8 %	$11,324	$42.50	1,232	22.0 %	$11,850	$42.72	1,269	22.0 %	$12,206	$44.00	1,308	22.0 %	$12,572	$45.32
Food & Beverage	659	99.7	6,337	27.13	728	90.0	7,005	26.29	778	86.0	7,478	26.96	801	86.0	7,702	27.76	825	86.0	7,933	28.60
Other Operated Departments	26	62.4	247	1.06	27	57.5	263	0.99	29	55.0	276	0.99	30	55.0	284	1.02	30	55.0	293	1.06
TOTAL DEPARTMENTAL EXPENSES	1,773	35.6	17,049	72.99	1,933	32.0	18,591	69.77	2,039	31.0	19,604	70.67	2,100	31.0	20,192	72.79	2,163	31.0	20,798	74.97
DEPARTMENTAL INCOME	**3,214**	**64.4 %**	**30,902**	**132.29**	**4,106**	**68.0 %**	**39,485**	**148.19**	**4,540**	**69.0 %**	**43,659**	**157.38**	**4,677**	**69.0 %**	**44,968**	**162.10**	**4,817**	**69.0 %**	**46,316**	**166.96**
UNDISTRIBUTED OPERATING EXPENSES																				
Administrative & General	$427	8.6 %	$4,107	$17.58	456	7.6 %	$4,387	$16.46	476	7.2 %	$4,581	$16.51	491	7.2 %	$4,718	$17.01	505	7.2 %	$4,860	$17.52
Info & Telecom Systems	51	1.0	486	2.08	54	0.9	520	1.95	56	0.9	542	1.96	58	0.9	559	2.01	60	0.9	576	2.07
Marketing	260	5.2	2,496	10.69	265	4.4	2,546	9.55	263	4.0	2,532	9.13	271	4.0	2,608	9.40	279	4.0	2,686	9.68
Franchise Fee	341	6.8	3,283	14.05	413	6.8	3,972	14.91	448	6.8	4,309	15.53	462	6.8	4,438	16.00	475	6.8	4,572	16.48
Prop. Operations & Maint.	143	2.9	1,378	5.90	184	3.0	1,766	6.63	213	3.2	2,049	7.39	220	3.2	2,111	7.61	226	3.2	2,174	7.84
Utilities	180	3.6	1,729	7.40	192	3.2	1,847	6.93	201	3.0	1,929	6.95	207	3.0	1,987	7.16	213	3.0	2,046	7.38
TOTAL UNDISTRIBUTED OPERATING EXP.	1,402	28.1	13,479	57.70	1,564	25.9	15,038	56.44	1,658	25.1	15,943	57.47	1,708	25.1	16,421	59.20	1,759	25.1	16,913	60.97
GROSS HOUSE PROFIT	**1,812**	**36.3 %**	**17,423**	**74.58**	**2,542**	**42.1 %**	**24,447**	**91.75**	**2,882**	**43.9 %**	**27,716**	**99.91**	**2,969**	**43.9 %**	**28,547**	**102.91**	**3,058**	**43.9 %**	**29,402**	**105.99**
Management Fee	$150	3.0 %	$1,439	$6.16	181	3.0 %	$1,742	$6.54	197	3.0 %	$1,898	$6.84	203	3.0 %	$1,955	$7.05	209	3.0 %	$2,013	$7.26
INCOME BEFORE FIXED CHARGES	**1,662**	**33.3 %**	**15,984**	**68.43**	**2,361**	**39.1 %**	**22,704**	**85.21**	**2,685**	**40.9 %**	**25,818**	**93.07**	**2,766**	**40.9 %**	**26,592**	**95.86**	**2,848**	**40.9 %**	**27,389**	**98.73**
FIXED CHARGES																				
Property Taxes	$132	2.6 %	$1,267	$5.42	213	3.5 %	$2,050	$7.69	216	3.3 %	$2,081	$7.50	220	3.2 %	$2,114	$7.62	226	3.2 %	$2,178	$7.85
Insurance	77	1.5	739	3.16	79	1.3	761	2.86	81	1.2	784	2.82	84	1.2	807	2.91	86	1.2	831	3.00
Reserve for Replacement	100	2.0	959	4.11	181	3.0	1,742	6.54	263	4.0	2,531	9.12	271	4.0	2,606	9.40	279	4.0	2,685	9.68
TOTAL FIXED CHARGES	308	6.2	2,964	12.69	474	7.8	4,553	17.09	561	8.5	5,395	19.45	575	8.5	5,528	19.93	592	8.5	5,693	20.52
EBITDA LESS RESERVE	**$1,354**	**27.1 %**	**13,020**	**55.74**	**$1,888**	**31.3 %**	**18,151**	**68.12**	**$2,124**	**32.4 %**	**20,423**	**73.62**	**$2,191**	**32.4 %**	**21,064**	**75.93**	**$2,256**	**32.4 %**	**21,696**	**78.21**

*Departmental expenses are expressed as a percentage of departmental revenues.

TEN-YEAR FORECAST - PROPOSED FAIRFIELD INN & SUITES DOWNTOWN COCOA VILLAGE

	YEAR 1 2026/27		YEAR 2 2027/28		YEAR 3 2028/29		YEAR 4 2029/30		YEAR 5 2030/31		YEAR 6 2031/32		YEAR 7 2032/33		YEAR 8 2033/34		YEAR 9 2034/35		YEAR 10 2035/36	
Number of Rooms:	**104**		**104**		**104**		**104**		**104**		**104**		**104**		**104**		**104**		**104**	
Occupied Rooms:	**24,294**		**27,711**		**28,850**		**28,850**		**28,850**		**28,850**		**28,850**		**28,850**		**28,850**		**28,850**	
Occupancy:	**64%**		**73%**		**76%**		**76%**		**76%**		**76%**		**76%**		**76%**		**76%**		**76%**	
Average Rate:	**$175.70**	**% of**	**$186.35**	**% of**	**$194.18**	**% of**	**$200.01**	**% of**	**$206.01**	**% of**	**$212.19**	**% of**	**$218.55**	**% of**	**$225.11**	**% of**	**$231.86**	**% of**	**$238.82**	**% of**
RevPAR:	**$112.45**	**Gross**	**$136.03**	**Gross**	**$147.58**	**Gross**	**$152.00**	**Gross**	**$156.57**	**Gross**	**$161.26**	**Gross**	**$166.10**	**Gross**	**$171.08**	**Gross**	**$176.22**	**Gross**	**$181.50**	**Gross**
OPERATING REVENUE																				
Rooms	$4,268	85.6 %	$5,164	85.5 %	$5,602	85.1 %	$5,770	85.1 %	$5,943	85.1 %	$6,122	85.1 %	$6,305	85.1 %	$6,494	85.1 %	$6,689	85.1 %	$6,890	85.1 %
Food & Beverage	661	13.3	809	13.4	904	13.7	931	13.7	959	13.7	988	13.7	1,018	13.7	1,048	13.7	1,080	13.7	1,112	13.7
Other Operated Departments	41	0.8	48	0.8	52	0.8	54	0.8	55	0.8	57	0.8	59	0.8	60	0.8	62	0.8	64	0.8
Miscellaneous Income	16	0.3	19	0.3	21	0.3	21	0.3	22	0.3	23	0.3	23	0.3	24	0.3	25	0.3	26	0.3
TOTAL OPERATING REVENUE	**4,987**	**100.0 %**	**6,040**	**100.0 %**	**6,579**	**100.0 %**	**6,777**	**100.0 %**	**6,980**	**100.0 %**	**7,190**	**100.0 %**	**7,405**	**100.0 %**	**7,627**	**100.0 %**	**7,856**	**100.0 %**	**8,092**	**100.0 %**
DEPARTMENTAL EXPENSES *																				
Rooms	$1,088	25.5 %	$1,178	22.8 %	$1,232	22.0 %	1,269	22.0 %	$1,308	22.0 %	1,347	22.0 %	$1,387	22.0 %	1,429	22.0 %	$1,472	22.0 %	1,516	22.0 %
Food & Beverage	659	99.7	728	90.0	778	86.0	801	86.0	825	86.0	850	86.0	875	86.0	902	86.0	929	86.0	956	86.0
Other Operated Departments	26	62.4	27	57.5	29	55.0	30	55.0	30	55.0	31	55.0	32	55.0	33	55.0	34	55.0	35	55.0
TOTAL DEPARTMENTAL EXPENSES	1,773	35.6	1,933	32.0	2,039	31.0	2,100	31.0	2,163	31.0	2,228	31.0	2,295	31.0	2,364	31.0	2,434	31.0	2,507	31.0
DEPARTMENTAL INCOME	**3,214**	**64.4 %**	**4,106**	**68.0 %**	**4,540**	**69.0 %**	**4,677**	**69.0 %**	**4,817**	**69.0 %**	**4,962**	**69.0 %**	**5,110**	**69.0 %**	**5,263**	**69.0 %**	**5,422**	**69.0 %**	**5,584**	**69.0 %**
UNDISTRIBUTED OPERATING EXPENSES																				
Administrative & General	$427	8.6 %	$456	7.6 %	$476	7.2 %	491	7.2 %	$505	7.2 %	521	7.2 %	$536	7.2 %	552	7.2 %	$569	7.2 %	586	7.2 %
Info & Telecom Systems	51	1.0	54	0.9	56	0.9	58	0.9	60	0.9	62	0.9	64	0.9	65	0.9	67	0.9	69	0.9
Marketing	260	5.2	265	4.4	263	4.0	271	4.0	279	4.0	288	4.0	296	4.0	305	4.0	314	4.0	324	4.0
Franchise Fee	341	6.8	413	6.8	448	6.8	462	6.8	475	6.8	490	6.8	504	6.8	520	6.8	535	6.8	551	6.8
Prop. Operations & Maint.	143	2.9	184	3.0	213	3.2	220	3.2	226	3.2	233	3.2	240	3.2	247	3.2	254	3.2	262	3.2
Utilities	180	3.6	192	3.2	201	3.0	207	3.0	213	3.0	219	3.0	226	3.0	233	3.0	240	3.0	247	3.0
TOTAL UNDISTRIBUTED OPERATING EXP.	1,402	28.1	1,564	25.9	1,658	25.1	1,708	25.1	1,759	25.1	1,812	25.1	1,866	25.1	1,922	25.1	1,980	25.1	2,039	25.1
GROSS HOUSE PROFIT	**1,812**	**36.3 %**	**2,542**	**42.1 %**	**2,882**	**43.9 %**	**2,969**	**43.9 %**	**3,058**	**43.9 %**	**3,150**	**43.9 %**	**3,244**	**43.9 %**	**3,341**	**43.9 %**	**3,442**	**43.9 %**	**3,545**	**43.9 %**
Management Fee	$150	3.0	$181	3.0	$197	3.0	203	3.0	$209	3.0	216	3.0	$222	3.0	229	3.0	$236	3.0	243	3.0
INCOME BEFORE FIXED CHARGES	**1,662**	**33.3 %**	**2,361**	**39.1 %**	**2,685**	**40.9 %**	**2,766**	**40.9 %**	**2,848**	**40.9 %**	**2,935**	**40.9 %**	**3,022**	**40.9 %**	**3,113**	**40.9 %**	**3,206**	**40.9 %**	**3,303**	**40.9 %**
FIXED CHARGES																				
Property Taxes	$132	2.6 %	$213	3.5 %	$216	3.3 %	220	3.2 %	$226	3.2 %	233	3.2 %	$240	3.2 %	247	3.2 %	$255	3.2 %	263	3.2 %
Insurance	77	1.5	79	1.3	81	1.2	84	1.2	86	1.2	89	1.2	92	1.2	94	1.2	97	1.2	100	1.2
Reserve for Replacement	100	2.0	181	3.0	263	4.0	271	4.0	279	4.0	288	4.0	296	4.0	305	4.0	314	4.0	324	4.0
TOTAL EXPENSES	308	6.1	474	7.8	561	8.5	575	8.4	592	8.4	610	8.4	628	8.4	647	8.4	666	8.4	686	8.4
EBITDA LESS RESERVE	**$1,354**	**27.2 %**	**$1,888**	**31.3 %**	**$2,124**	**32.4 %**	**$2,191**	**32.5 %**	**$2,256**	**32.5 %**	**$2,325**	**32.5 %**	**$2,394**	**32.5 %**	**$2,465**	**32.5 %**	**$2,540**	**32.5 %**	**$2,616**	**32.5 %**

*Departmental expenses are expressed as a percentage of departmental revenues.

TOTAL DEVELOPMENT BUDGET

Spark Hotel Valuation & Advisory has also estimated construction costs for the 104-room proposed subject property. Our cost budget, which is illustrated below, is based on building costs provided by the Marshall & Swift cost estimator, as well as FF&E, soft costs, and pre-opening costs supported by HVS's published 2023 *Development Cost Survey*.

TOTAL DEVELOPMENT COST - SPARK HVA ESTIMATE

Item	Cost	%	Cost/Room
Hard Costs, Soft Costs, Pre-Opening, & Working Capital	$21,112,000	88.9 %	$203,000
Furniture, Fixtures, & Equipment	2,288,000	9.6	22,000
Site Acquisition	0	-	0
Entrepreneurial Incentive	351,000	1.5	3,375
Total Development Cost (rounded)	**$23,751,000**	**100.0 %**	**$228,375**

We note, however, that we are not experts in estimating construction costs, and that these can vary widely based on location and specific attributes of the site. As such, we recommend our development cost estimate be verified by a credible third-party estimator.

FEASIBILITY CONCLUSION

The Feasibility Analysis chapter of this report converts these cash flows into a net present value indication assuming set-forth debt and equity requirements. The conclusion of this analysis indicates that an equity investor contributing $8,313,000 (roughly 35% of the $23,751,000 development cost) could expect to receive a 12.5% internal rate of return over a ten-year holding period, assuming that the investor obtains financing at the time of the project's completion at the loan-to-value ratio and interest rate set forth.

The proposed subject hotel would offer a modern, select service hotel product to serve a currently underserved area in Downtown Cocoa, which does not offer any current hotel lodging options. Our review of HVS' investor survey indicates equity returns ranging from 15.4% to 22.5%, with an average of 18.3%. In consideration of these parameters and an estimated total development cost of $23,800,000 ($229,000 per key), the calculated return to the equity investor is 12.5%. Although the derived equity yield is just below the range of market-level returns for a property of this type, it is in line with PwC's Yield Indicator (PYI), which represents a composite IRR average of all real estate assets, excluding hotels, development land, self storage, and student housing. We note our feasibility conclusion is subject to change based on changes in development costs. As such, we recommend obtaining actual construction bids or getting these costs validated by a third party.

ECONOMIC IMPACT SUMMARY

Our IMPLAN findings suggest that the development and operation of the proposed Fairfield Inn & Suites in Cocoa Village will function as a meaningful economic engine for the City of Cocoa and its surrounding regional economic system. The project is estimated to support approximately 560 jobs, $25.9 million in annual labor income, $43.6 million in value added, and $75.9 million in total economic output within the area, with impacts concentrated in the hotel, construction, real estate, restaurant, and related service sectors.

On the fiscal side, the model indicates that the project could generate roughly $1.5 million per year in tax revenues for the City of Cocoa and its special districts, about $1.0 million for Brevard County, and an additional

combined $10.0 million for state and federal governments. While the ultimate net fiscal impact will depend on the City's incremental service costs, the scale and composition of the projected revenues suggest a favorable fiscal outcome for local jurisdictions.

ASSIGNMENT CONDITIONS

Key assumption

This feasibility study relies on the following key assumption: the hotel improvements described herein are completed substantially as planned by the modeled opening date. If this assumption proves false, the study's conclusions, including market capture, financial projections, and economic-impact estimates, could change.

Scope and limits

This document is a feasibility study prepared for underwriting and development decision-making as of November 24, 2024. It is not an appraisal, it does not develop an opinion of market value, and it is not represented as compliant with USPAP. The analysis reflects information available as of November 24, 2024 and does not account for unforeseen events, regulatory or financing changes, or material cost or schedule variances beyond those discussed in this report.

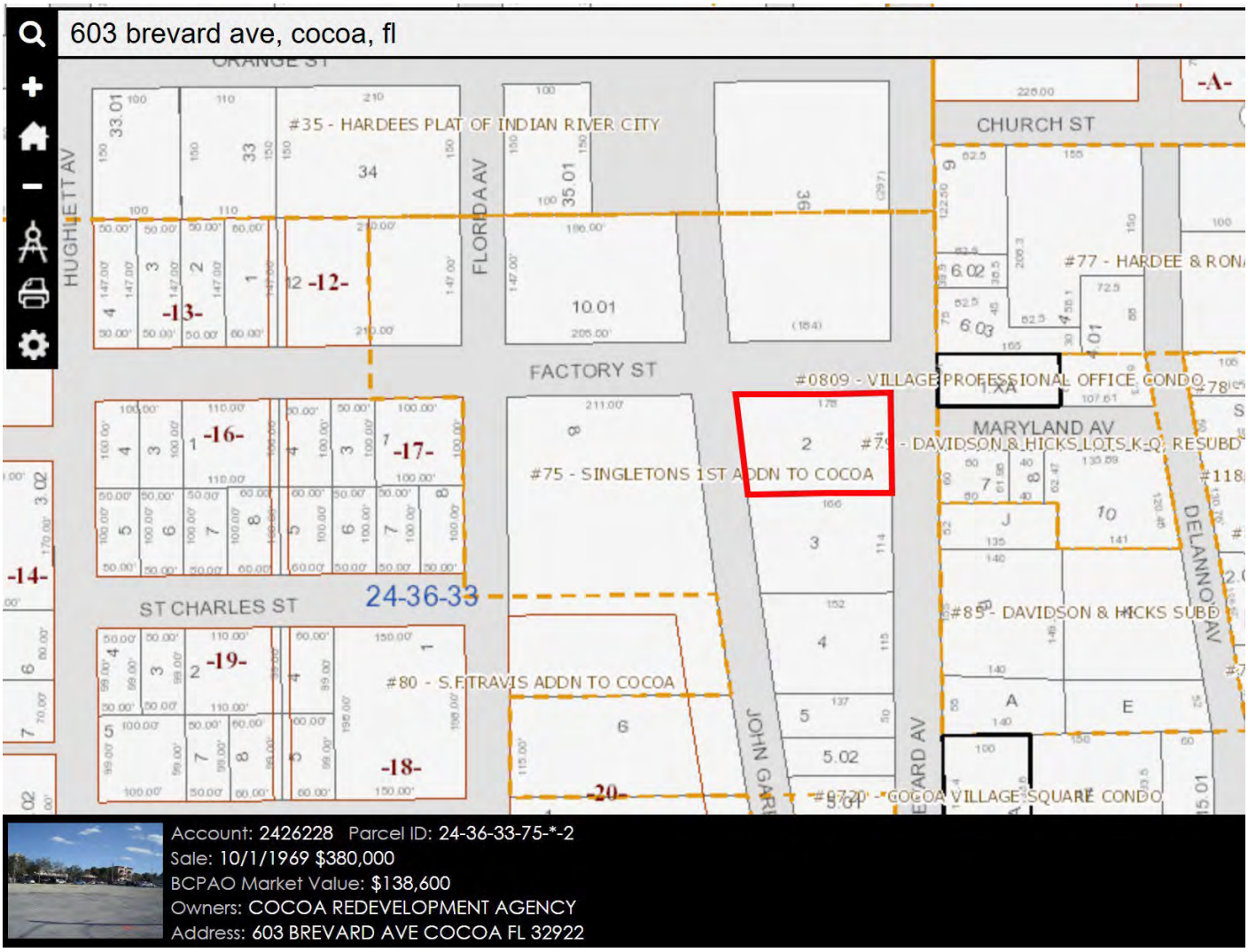
Site Description

Introduction to Subject Site

The suitability of the land for the operation of a lodging facility is an important consideration affecting the economic viability of a property and its ultimate marketability. Factors such as size, topography, access, visibility, and the availability of utilities have a direct impact on the desirability of a particular site.

The property is planned for location at 603 Brevard Avenue in Cocoa, Florida. The subject site is located within the popular Historic Cocoa Village district in Downtown Cocoa, southwest of the intersection formed by Brevard Avenue and Factory Street. The greater development site's Brevard County Assessor's parcel numbers are: 24-36-33-75-00000.0-0002.00.

The subject site consists of two parcels and has 37,897 SF (0.8700 AC) of land area. The size of the site area was estimated based on the assessor's parcel map. It is perceived that there is no surplus or excess land at the subject. If a professional survey is provided then precise measurements may be available. Unless otherwise noted, the usable site area has been utilized herein. The following summarizes the salient characteristics of the subject site.

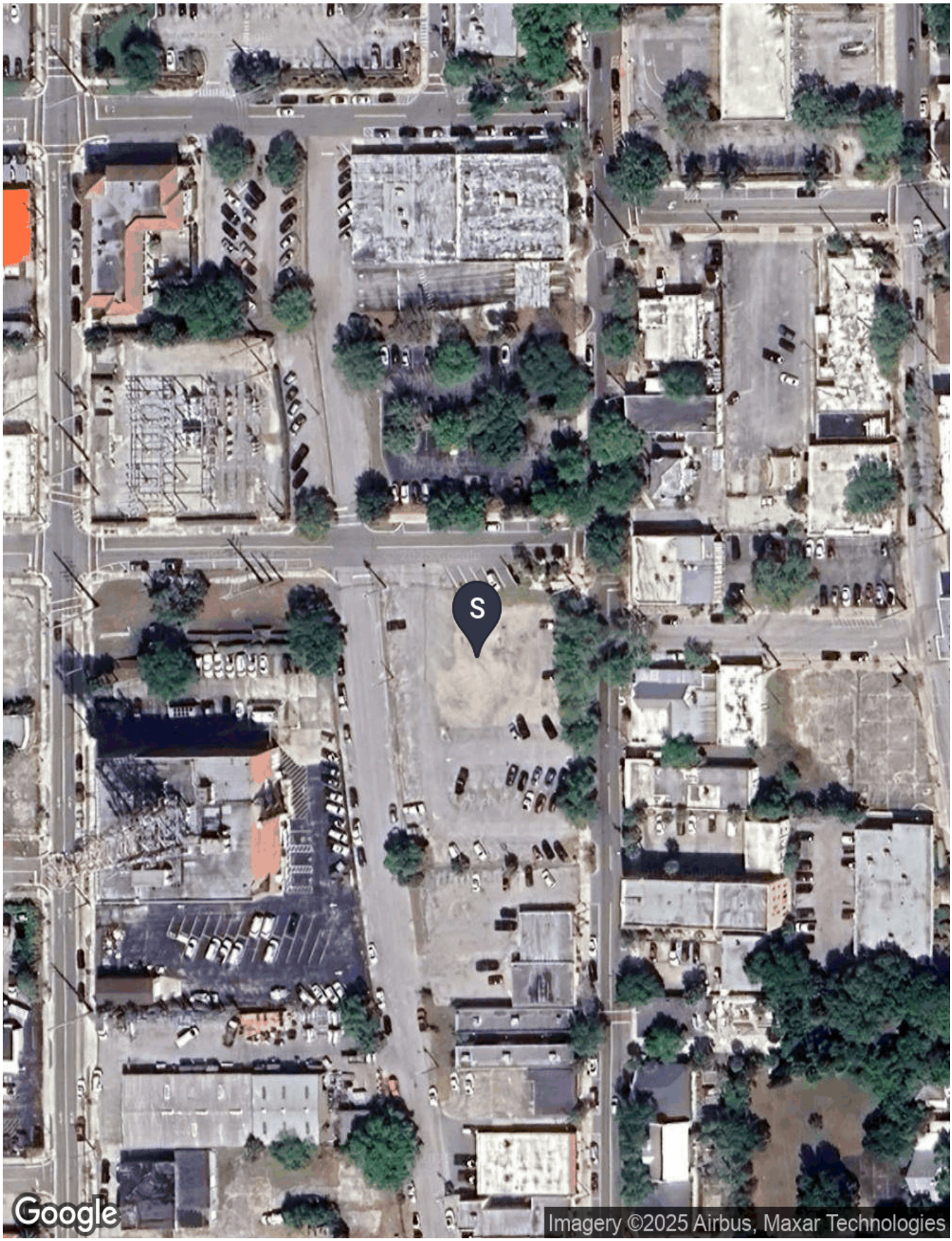


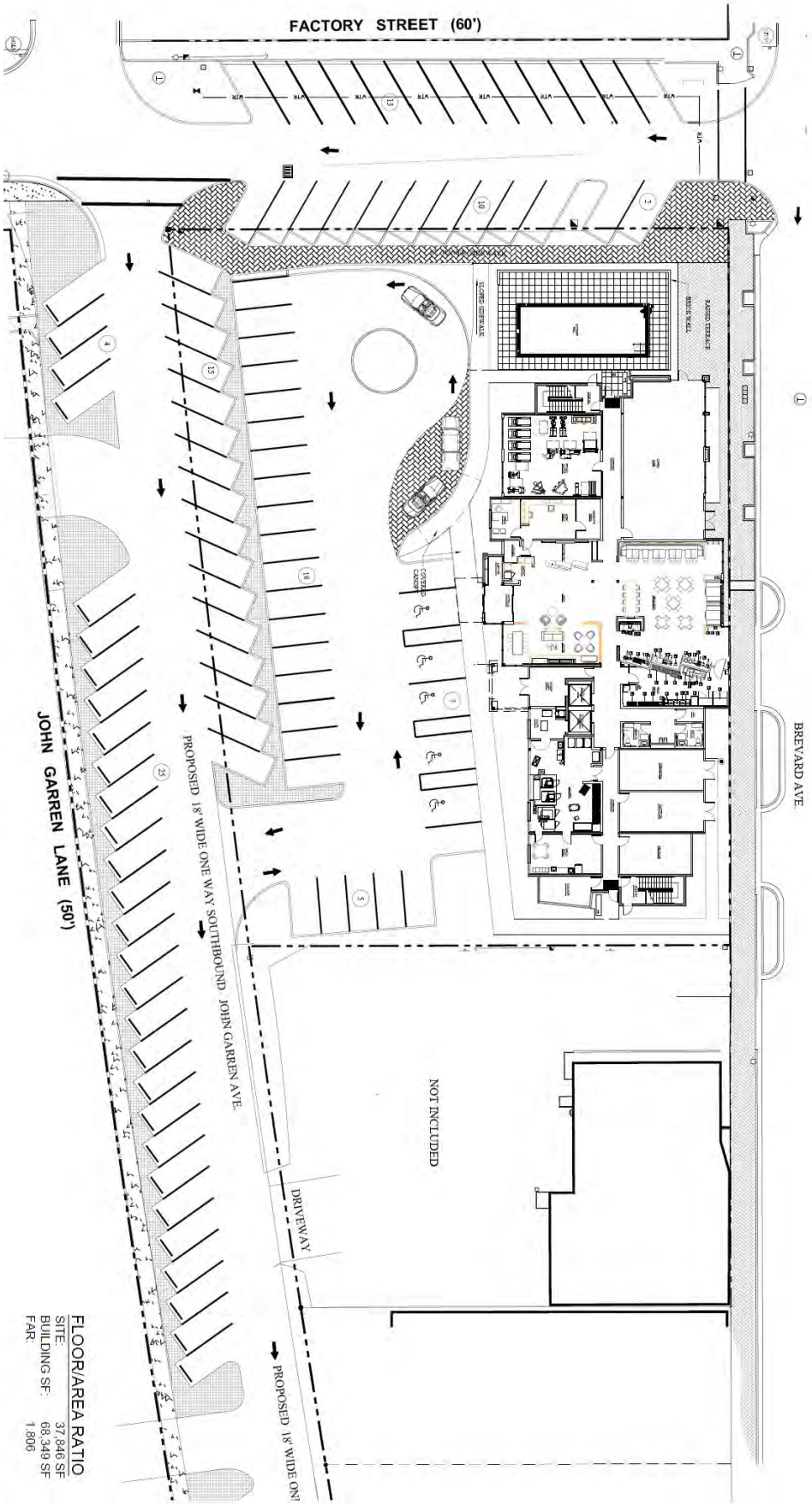
SITE DETAILS		
Number of Parcels	2	
Assessor Parcels	24-36-33-75-00000.0-0002.00, 24-36-33-75-00000.0-0003.00	
	Square Feet	Acres
Total Land Area	37,897	0.87
Excess/Surplus Land	No	
Floor Area Ratio (FAR)	Not Available	
Site Topography	Generally Level At street grade	
Site Shape	Trapezoid	
Site Quality	Very Good	
Site Access	Very Good	
Site Exposure	Very Good	
Site Utility	Very Good	
Utilities	All Available	

ADJACENT PROPERTIES

ADJACENT USE	
DIRECTION	ADJACENT USE
North	Factory Street
South	The Big Bang Studio
East	Brevard Avenue
West	John Garren Lane

Aerial Map




FACTORY STREET (60')
BREVARD AVE.
JOHN GARREN LANE (50')
PROPOSED 18' WIDE ONE WAY SOUTHBOUND JOHN GARREN AVE.
NOT INCLUDED
DRIVEWAY
PROPOSED 18' WIDE ONE
FLOOR/AREA RATIO
SITE: 37,846 SF
BUILDING SF: 68,349 SF
FAR 1.806

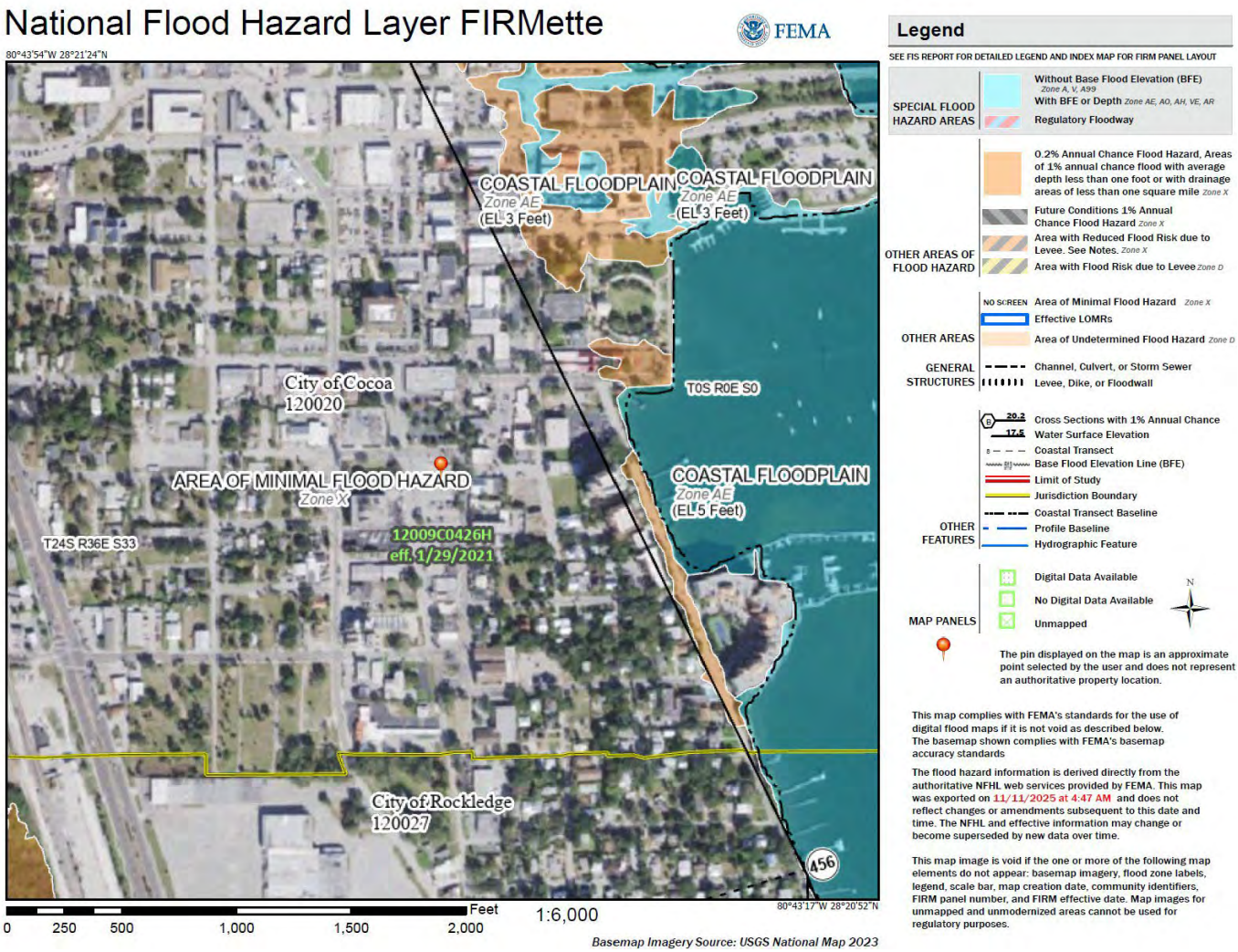
ACCESSIBILITY & VISIBILITY

Regional access to/from the City of Cocoa and the subject site, in particular, is considered very good. The subject market is served by a variety of additional local highways, which are illustrated on the map.

Vehicular access to the subject site is provided by Brevard Avenue, Factory Street, and John Garren Lane. The subject site is located at a busy intersection and is relatively simple to locate from the area's primary transportation corridors and Interstate 95, which is the nearest major highway. The proposed subject hotel is anticipated to have adequate signage at the street, as well as on its façade. Overall, the subject site benefits from very good accessibility, and the proposed hotel is expected to enjoy very good visibility from within its local neighborhood.

FLOOD ZONE

Zone X (Unshaded). This is referenced by Panel Number 12009C0426H, dated January 29, 2021. Zone X (unshaded) is a moderate and minimal risk area. Areas of moderate or minimal hazard are studied based upon the principal source of flood in the area. However, buildings in these zones could be flooded by severe, concentrated rainfall coupled with inadequate local drainage systems. Local storm water drainage systems are not normally considered in a community's flood insurance study. The failure of a local drainage system can create areas of high flood risk within these zones. Flood insurance is available in participating communities, but is not required by regulation in these zones. Nearly 25% of all flood claims filed are for structures located within these zones. Minimal risk areas outside the 1% and 0.2% annual chance floodplains. No BFEs or base flood depths are shown within these zones. (Zone X (unshaded) is used on new and revised maps in place of Zone C.)

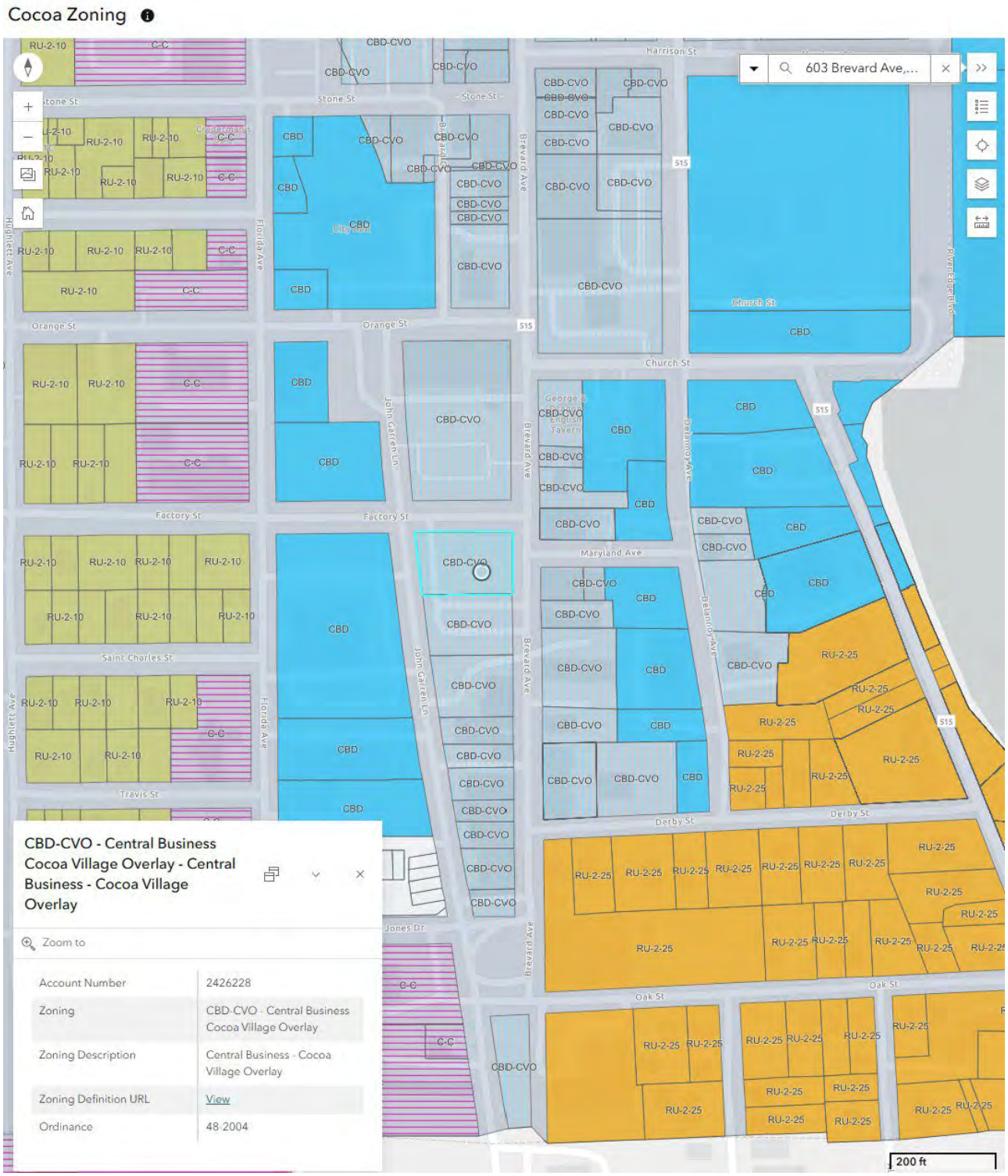

National Flood Hazard Layer FIRMette
FEMA
80°43'54"W 28°21'24"N
COASTAL FLOODPLAIN
Zone AE
(EL 3 Feet)
COASTAL FLOODPLAIN
Zone AE
(EL 3 Feet)
City of Cocoa
120020
T0S R0E S0
AREA OF MINIMAL FLOOD HAZARD
Zone X
COASTAL FLOODPLAIN
Zone AE
(EL 5 Feet)
T24S R36E S33
12009C0426H
eff. 1/29/2021
City of Rockledge
120027
A56
Feet
0
250
500
1,000
1,500
2,000
1:6,000
80°43'17"W 28°20'52"N
Basemap Imagery Source: USGS National Map 2023
Legend
SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT
SPECIAL FLOOD HAZARD AREAS
Without Base Flood Elevation (BFE) Zone A, V, A99
With BFE or Depth Zone AE, AO, AH, VE, AR
Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD
0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
Future Conditions 1% Annual Chance Flood Hazard Zone X
Area with Reduced Flood Risk due to Levee. See Notes. Zone X
Area with Flood Risk due to Levee Zone D
OTHER AREAS
NO SCREEN Area of Minimal Flood Hazard Zone X
Effective LOMRs
Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES
Channel, Culvert, or Storm Sewer
Levee, Dike, or Floodwall
OTHER FEATURES
20.2
17.5
Cross Sections with 1% Annual Chance
Water Surface Elevation
Coastal Transect
Base Flood Elevation Line (BFE)
Limit of Study
Jurisdiction Boundary
Coastal Transect Baseline
Profile Baseline
Hydrographic Feature
MAP PANELS
Digital Data Available
No Digital Data Available
Unmapped
N
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/11/2025 at 4:47 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

ZONING

According to the local planning office, the subject property is located in the Central Business, Cocoa Village Overlay (CBD-CVO) zoning area. Additional details pertaining to the subject property's zoning regulations are summarized in the following table.

ZONING	
Designation	Central Business, Cocoa Village Overlay (CBD-CVO)
Zoning Authority	City of Cocoa
Permitted Uses	Retail Shops, Restaurants, Fueling Stations, Healthcare Facilities, Transient Habiation
Proposed Use	Proposed Hotel
Proposed Use Legally Permitted	Yes
Conforming Use	The proposed improvements conform to the bulk and parking requirements of the ordinance.
Conforming Lot	The proposed improvements conform to the bulk and parking requirements of the ordinance.
Zoning Change	No
Proposed Use Legally Permitted	Yes

Source: City of Cocoa Planning & Zoning Department



ZONING CONCLUSION

The current use for the subject property is proposed hotel and is a permitted use based on the current zoning guidelines. No zoning change is believed to be imminent. Based on the foregoing, it appears that the subject's improvements are a legally conforming use of the subject site.

SEISMIC

The subject is in a low risk area.

EASEMENTS

We are not aware of any easements or encroachments encumbering the property that would significantly affect its utility or marketability.

UTILITIES

The subject site will reportedly be served by all necessary utilities.

SOILS

Geological and soil reports were not provided to us or made available for our review during the preparation of this report. We are not qualified to evaluate soil conditions other than by a visual inspection of the surface; no extraordinary conditions were apparent.

HAZARDOUS WASTE

We were not informed of any site-specific nuisances or hazards, and there were no visible signs of toxic ground contaminants at the time of our inspection. Because we are not experts in this field, we do not warrant the absence of hazardous waste and urge the reader to obtain an independent analysis of these factors.

SITE CONCLUSION

We have analyzed the issues of size, topography, access, visibility, and the availability of utilities. The subject site is favorably located within the highly desirable Historic Cocoa Village district in Downtown Cocoa, near North Cocoa Boulevard (U.S. Route 1) and King Street, which are two of the area's primary transportation corridors, and connect to Interstate 95. In general, the site should be well suited for future hotel use, with acceptable access, visibility, and topography for an effective operation.

INTRODUCTION TO NEIGHBORHOOD ANALYSIS

In order to understand the proposed subject's position in the area or region, we have undertaken a brief analysis in order to determine how trends—both historical and projected—in population, employment, personal income, consumer spending, and housing impact supply and demand and influence the subject's area directly and indirectly. This analysis first begins as we undertake a narrowly focused study of the aforementioned attributes as they relate directly to the subject and the subject's neighborhood. This discussion is presented in the forthcoming Neighborhood Analysis. We then focus on the encompassing market on a broader spectrum, which is highlighted in the Market Area Analysis.

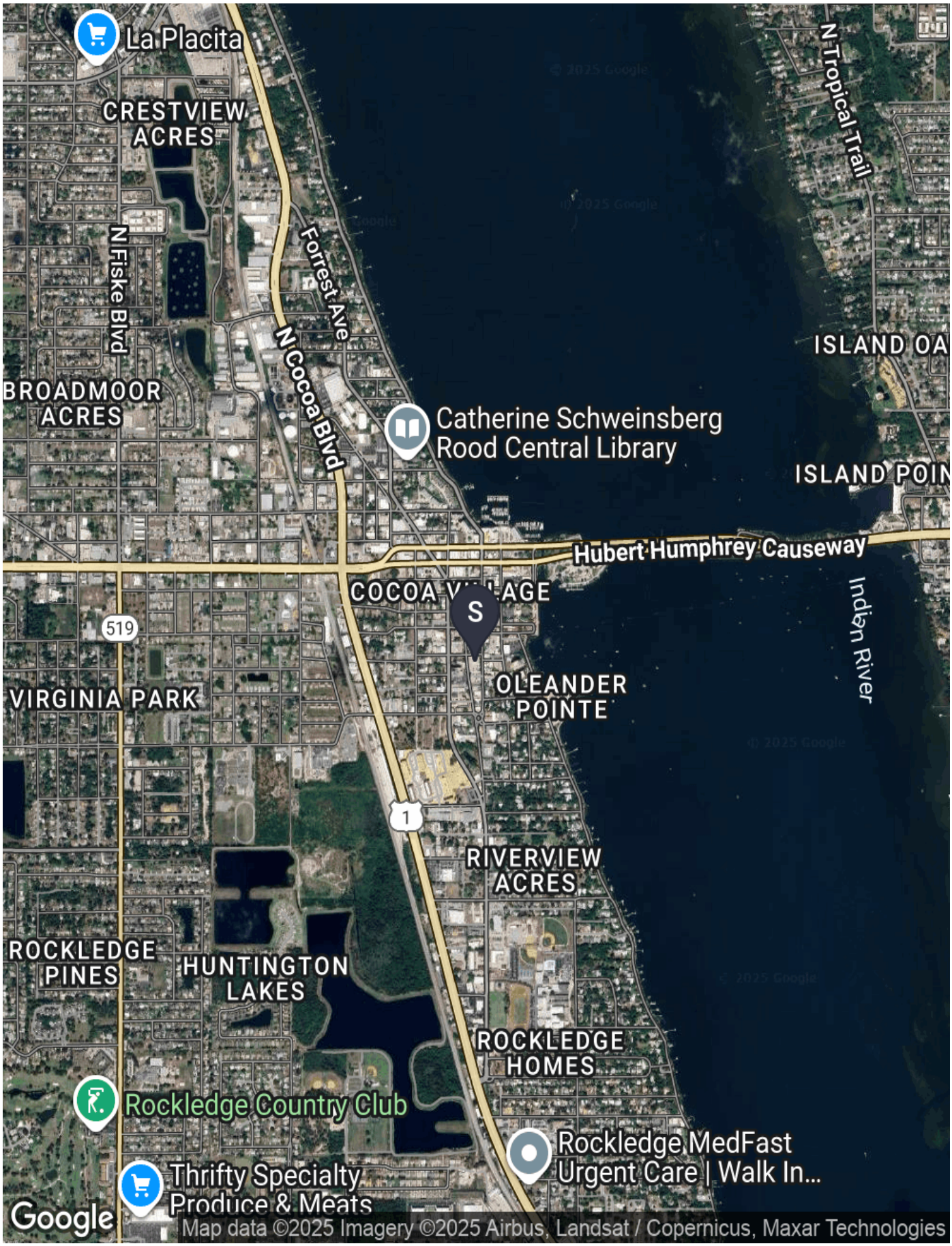
NEIGHBORHOOD

The proposed subject property is to be located in the city of Cocoa in the Cocoa submarket. Anchoring Florida's Space Coast along the Indian River Lagoon, the greater Cocoa area spans the City of Cocoa, Cocoa Beach, and Cape Canaveral, connected by State Roads 520, 528, and 524 and by U.S. 1, with direct access to I-95 and to Orlando via the Beachline Expressway; this transportation network places residents and businesses minutes from Kennedy Space Center and the Atlantic beaches. Cocoa's historic riverfront core in Cocoa Village blends independent shops, dining, and parks with cultural anchors such as the Historic Cocoa Village Playhouse, and it hosts more than 65 annual events that draw well over 100,000 visitors. Cocoa Beach adds a nationally known surf culture, miles of public shoreline, and a legacy of spaceflight viewing that stretches from early Mercury launches through the Apollo era, while the City of Cape Canaveral contributes launch viewing, maritime and cruise activity tied to Port Canaveral, and a civic focus on quality of life and environmental stewardship. Together, these assets give the market a diverse visitor base, a growing ecosystem of small businesses and hospitality operators, and an enduring aerospace identity that supports long-run demand and steady investment.

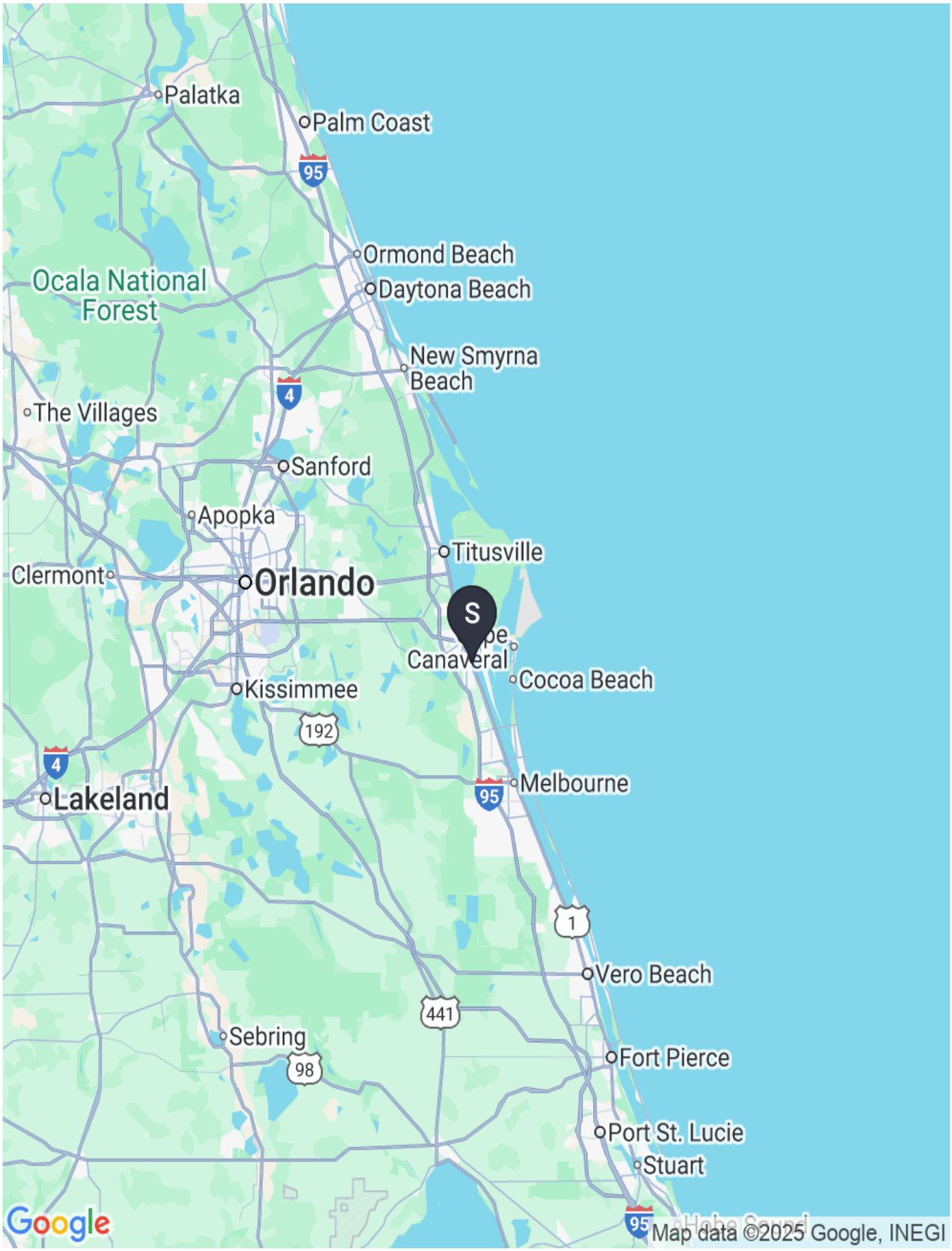
Historic Cocoa Village is a compact, walkable riverfront district centered on Brevard Avenue along the Indian River, anchored by the City of Cocoa Civic Center, Historic Cocoa Village Playhouse, Riverfront and Lee Warner Parks, and a concentrated mix of independent retail, dining, galleries, and event venues. The district's programming and historic fabric drive steady visitation, including the Playhouse's centennial season and ongoing productions, while the City of Cocoa and Main Street partners continue preservation-based revitalization in the core.

The maps presented on the subsequent pages illustrates the subject property's location within its neighborhood.

Neighborhood Map



Market Area Map



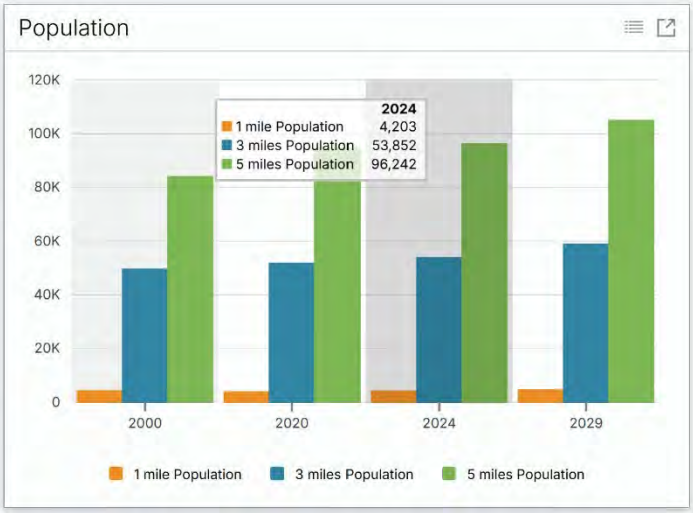
DEMOGRAPHICS

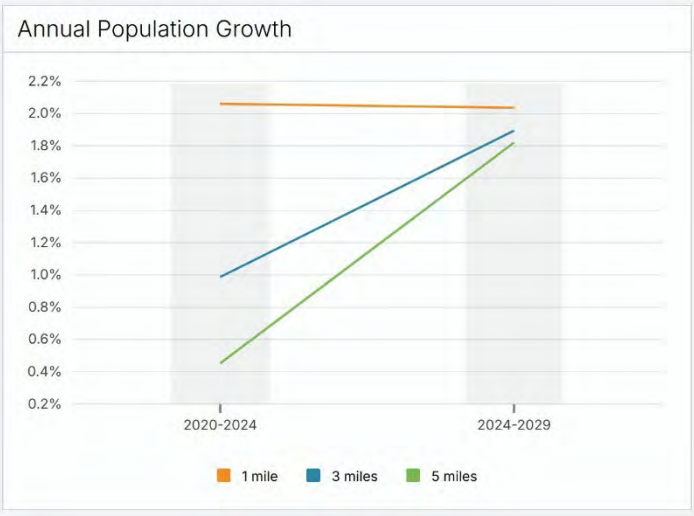
The following information reflects the demographics for our subject site, located at 603 Brevard Avenue, Cocoa, Florida, 37922.

Population

Population

	1 mile	3 miles	5 miles
2020 Population	3,883	51,808	94,530
2024 Population	4,203	53,852	96,242
2029 Population Projection	4,631	58,953	105,000
Annual Growth 2020-2024	2.1%	1.0%	0.5%
Annual Growth 2024-2029	2.0%	1.9%	1.8%
Median Age	48.2	43.6	45.7
Bachelor's Degree or Higher	28%	24%	28%
U.S. Armed Forces	3	191	308





Households

Households	1 mile	3 miles	5 miles
2020 Households	1,841	21,934	39,968
2024 Households	1,976	22,776	40,542
2029 Household Projection	2,174	24,907	44,166
Annual Growth 2020-2024	1.1%	1.0%	0.5%
Annual Growth 2024-2029	2.0%	1.9%	1.8%
Owner Occupied Households	1,070	14,563	29,779
Renter Occupied Households	1,104	10,344	14,387
Avg Household Size	2.1	2.3	2.3
Avg Household Vehicles	2	2	2
Total Specified Consumer Spending ($)	$51.6M	$613.5M	$1.2B

Income

Income	1 mile	3 miles	5 miles
Avg Household Income	$83,614	$71,483	$86,764
Median Household Income	$46,250	$51,722	$64,230
< $25,000	676	5,621	7,997
$25,000 - 50,000	396	5,495	8,540
$50,000 - 75,000	265	3,777	6,469
$75,000 - 100,000	190	2,569	4,931
$100,000 - 125,000	120	2,175	4,065
$125,000 - 150,000	24	1,194	2,824
$150,000 - 200,000	32	1,015	2,791
$200,000+	273	930	2,924

Neighborhood Analysis Conclusion

Based on our observation and the data provided by CoStar, it is perceived that the income and population demographics for the subject neighborhood exhibit above average characteristics in terms of reported population growth and income levels.

SURROUNDING LAND USES

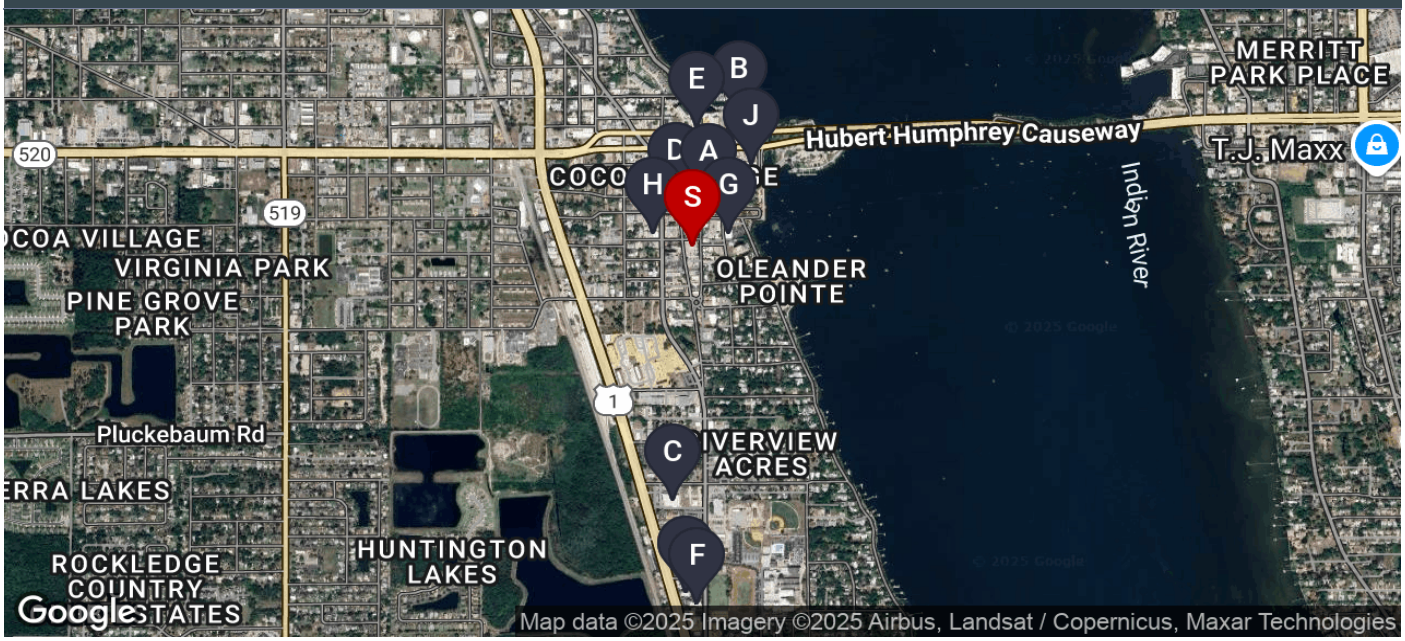
The following tables and maps highlight the development in and around the subject.

LOCAL AREA OFFICE - ONE-MILE RADIUS

CLASS	RBA	YEAR BUILT	PERCENT LEASED	PROPERTIES
A	0 SF	-	-	0
B	255,693 SF	1974	95.5	45
C	315,316 SF	1965	95.0	40
TOTAL	571,009 SF	1969	95.1	87

Source: CoStar

LARGEST OFFICE DEVELOPMENTS - ONE-MILE RADIUS



PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	BUILT	CLASS	%LEASED
A		430 Brevard Ave, Cocoa	0.1 mi	35,487	1973	C	100
B	Mariner's Square	96 Willard St, Cocoa	0.3 mi	30,000	1985	B	100
C		201 Bougainvillea Dr, Rockledge	0.6 mi	28,660	1982	C	100
D	Cocoa City Hall	32 Orange St, Cocoa	0.1 mi	25,992	1965	C	100
E	Real Estate Center	200 Willard St, Cocoa	0.3 mi	20,000	1959	C	100
F	Brevard Professional Center	1264 Rockledge Blvd, Rockledge	0.9 mi	17,500	1977	C	31.02
G		11 Riverside Dr, Cocoa	0.1 mi	16,210	1968	B	100
H		625 Florida Ave, Cocoa	0.1 mi	14,735	1939	C	100
I		1260 Rockledge Blvd, Rockledge	0.9 mi	14,507	1978	C	100
J		317 River Edge Blvd, Cocoa	0.2 mi	12,000	1973	B	100

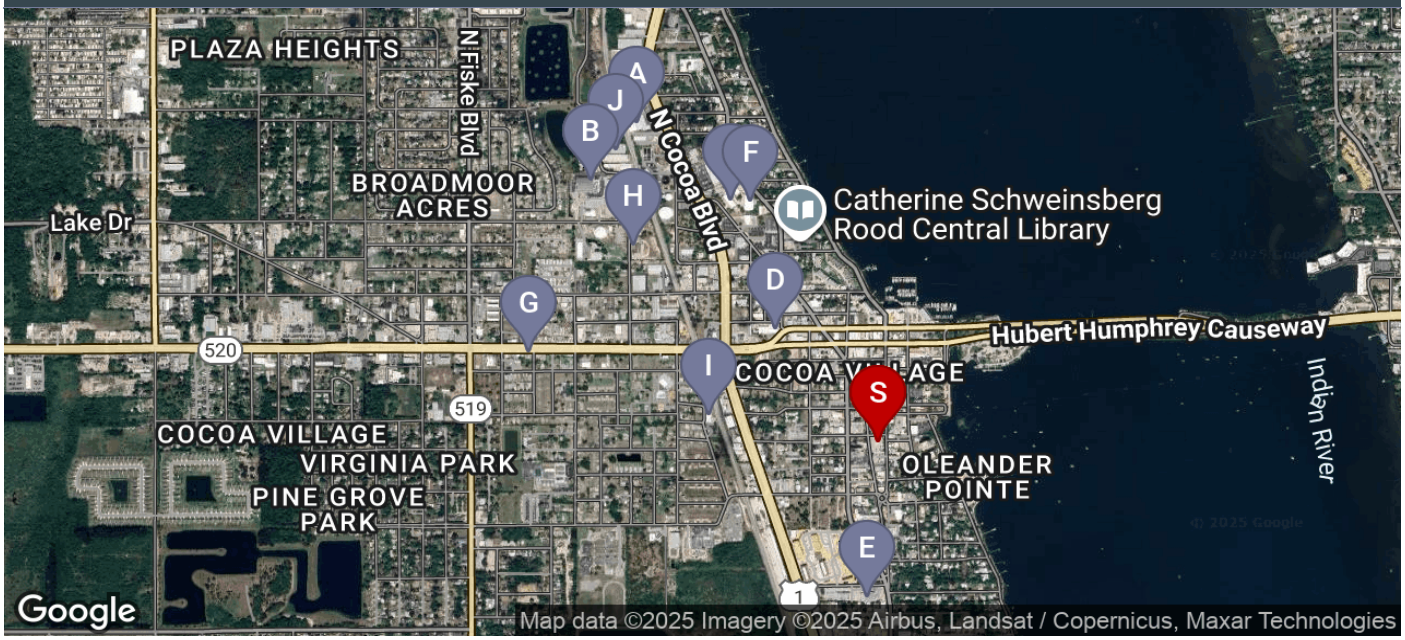
Source: CoStar

LOCAL AREA INDUSTRIAL - ONE-MILE RADIUS

TYPE	RBA	YEAR BUILT	PERCENT LEASED	PROPERTIES
Flex	105,591 SF	1985	99	7
Gen-Ind <25,000 FT	419,565 SF	1969	90	58
Gen-Ind >25,000 FT	161,049 SF	1977	100	4
TOTAL	686,205 SF	1974	93.5	69

Source: CoStar

LARGEST INDUSTRIAL DEVELOPMENTS - ONE-MILE RADIUS



PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	BUILT	TYPE	%LEASED
A	Inland Plywood Company	256 Olive St, Cocoa	1.0 mi	55,105	1964	Industrial	100
B	Water Field Operations Center	351 Shearer Blvd, Cocoa	0.9 mi	53,549	2010	Industrial	100
C	Cocoa Town Plaza	310 Brunson Blvd, Cocoa	0.7 mi	46,623	1990	Flex	100
D		31 Ridgeway Ave, Cocoa	0.4 mi	26,680	1951	Industrial	100
E		213 Dixie Ln, Rockledge	0.4 mi	25,715	1961	Industrial	100
F	Cocoa Town Plaza	463 Forrest Ave, Cocoa	0.7 mi	22,972	1992	Flex	100
G		805 King St, Cocoa	0.9 mi	22,000	N/A	Industrial	100
H		150 N Wilson Ave, Cocoa	0.8 mi	20,226	1961	Industrial	100
I		440 Railroad Ave, Cocoa	0.4 mi	19,968	1963	Industrial	0
J	NEELCO	420 Shearer Blvd, Cocoa	1.0 mi	19,170	1974	Industrial	100

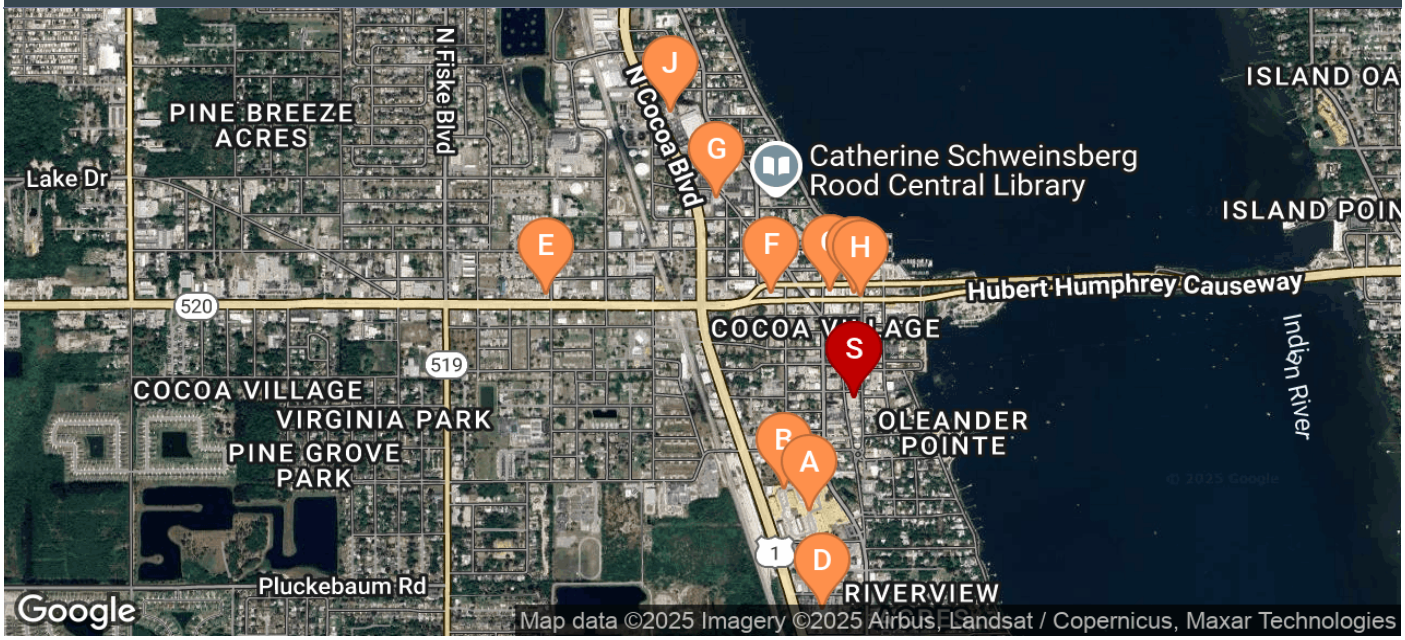
Source: CoStar

LOCAL AREA RETAIL - ONE-MILE RADIUS

SIZE	RBA	YEAR BUILT	PERCENT LEASED	PROPERTIES
<5,000 FT	291,724 SF	1958	96.0	113
>5,000 FT-<20,000 FT	567,490 SF	1955	94.4	62
>20,000 FT	277,551 SF	1965	38.5	6
TOTAL	1,136,765 SF	1958	81.2	183

Source: CoStar

LARGEST RETAIL DEVELOPMENTS - ONE-MILE RADIUS



PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	BUILT	CLASS	%LEASED
A	City Mall	940 Rockledge Blvd, Rockledge	0.3 mi	146,607	1965	C	0
B	City Line Mall	876-908 S Rockledge Blvd, Rockledge	0.3 mi	31,450	1965	B	100
C	Perrone Cocoa Village	226-234 King St, Cocoa	0.3 mi	29,000	1954	B	100
D		1030 US Route 1, Rockledge	0.5 mi	25,489	1989	B	100
E		701 W King St, Cocoa	0.8 mi	24,048	1960	C	0
F		117-137 Hughlett Ave, Cocoa	0.3 mi	20,957	1956	C	100
G		300 N Cocoa Blvd, Cocoa	0.6 mi	19,531	1984	B	100
H		107 Brevard Ave, Cocoa	0.3 mi	17,000	1923	C	100
I		105-113 Brevard Ave, Cocoa	0.3 mi	16,976	1923	B	100
J		510 N Cocoa Blvd, Cocoa	0.8 mi	16,284	1966	B	100

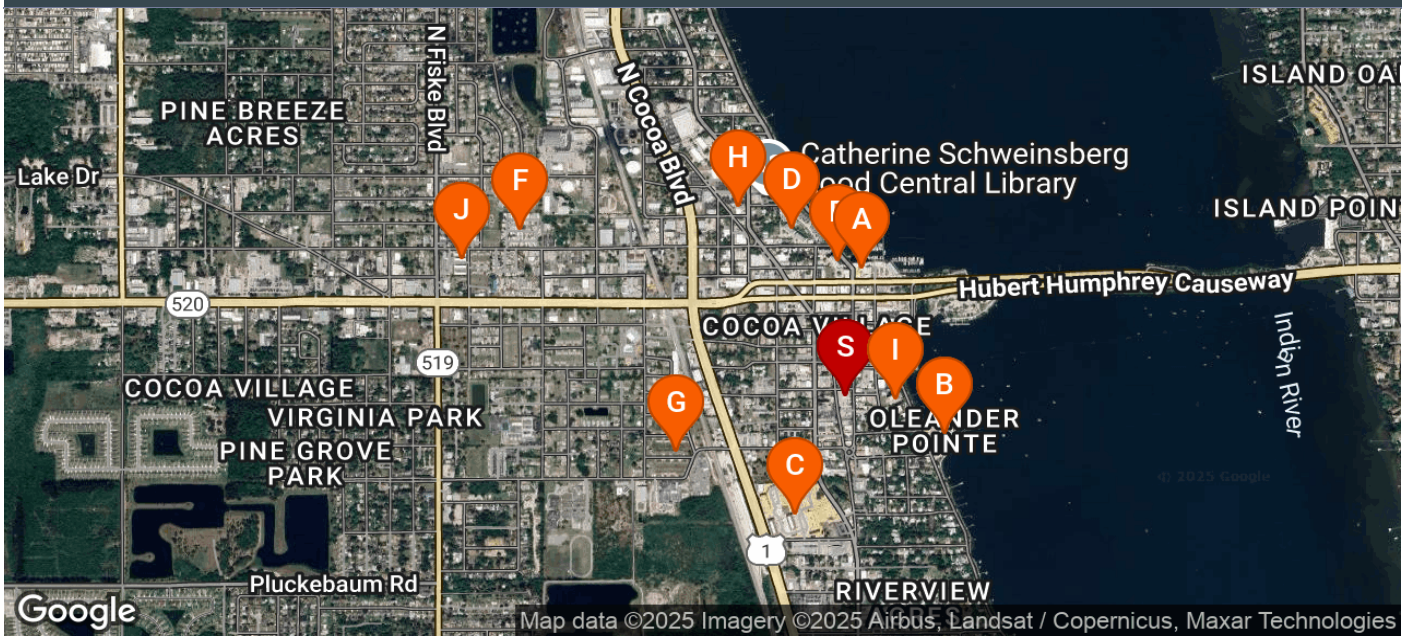
Source: CoStar

LOCAL AREA MULTIFAMILY - ONE-MILE RADIUS

CLASS	RBA	YEAR BUILT	PERCENT LEASED	PROPERTIES
A	46,500 SF	1980	0	1
B	1,126,054 SF	2001	0	15
C	1,051,305 SF	1979	0	48
TOTAL	2,223,859 SF	1990	0	68

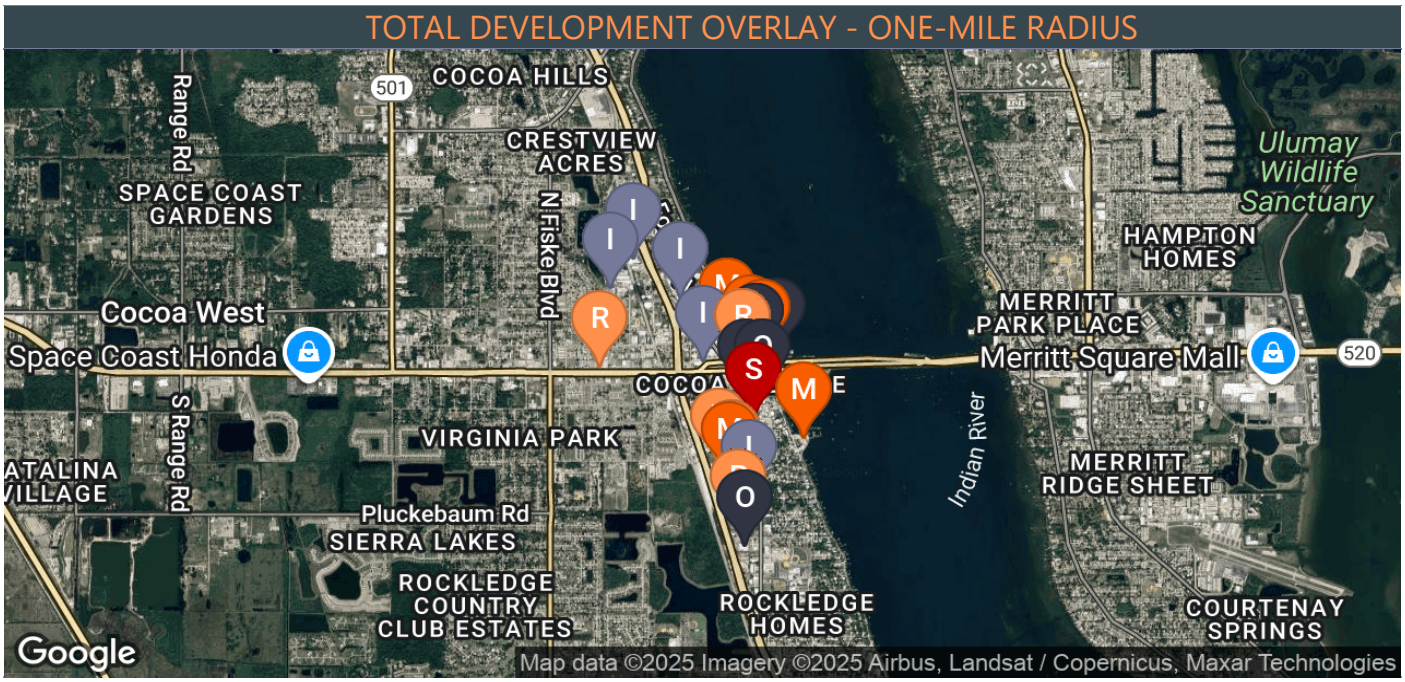
Source: CoStar

LARGEST MULTIFAMILY DEVELOPMENTS - ONE-MILE RADIUS



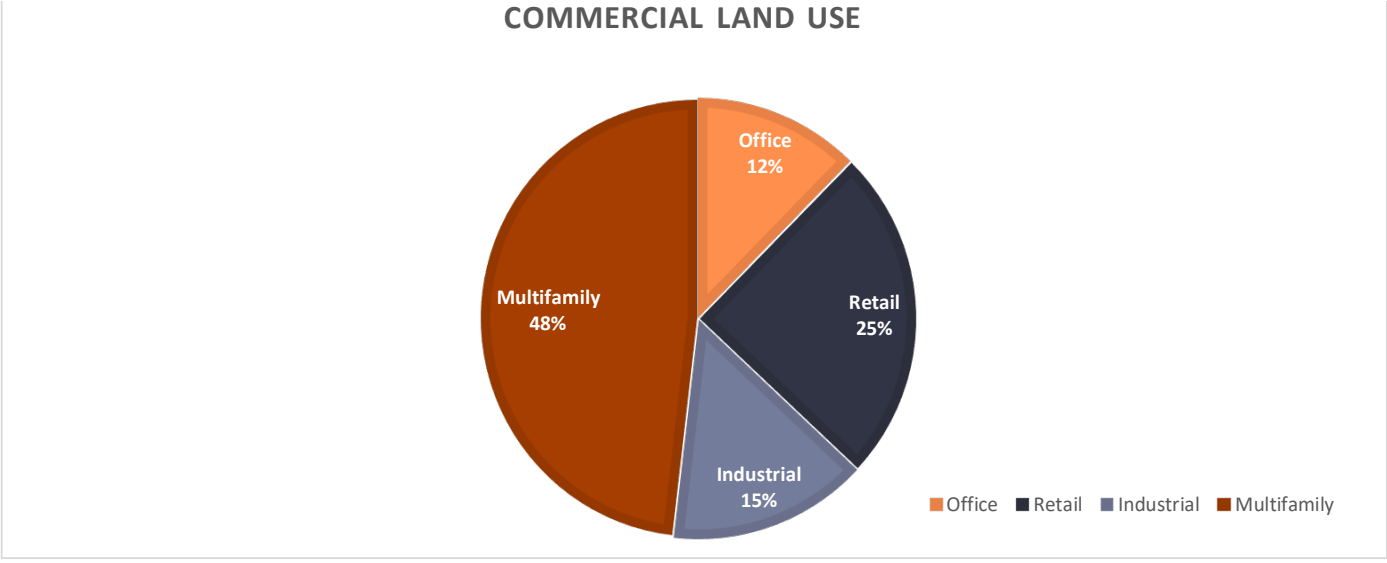
PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	BUILT	NAME	STORIES
A	Whitley Bay	93 Delannoy Ave, Cocoa	0.3 mi	493,471	2004	Whitley Bay	13
B	Oleander Pointe Condominums	100-104 Riverside Dr, Cocoa	0.3 mi	384,450	1998	r Pointe Condc	9
C	Madison Grove	295 Royal Tern Cir, Rockledge	0.3 mi	292,000	2025	Madison Grove	4
D	One Fifteen River Drive	115 N Indian River Dr, Cocoa	0.4 mi	190,210	1980	Fifteen River D	4
E	Whitley Bay West	15 N Indian River Dr, Cocoa	0.3 mi	131,102	2004	Whitley Bay Wes	9
F	Central Map	810 Peachtree St, Cocoa	0.9 mi	126,153	1951	Central Map	1
G		408-410 G St, Cocoa	0.4 mi	65,172	1962		1
H	Cocoa Village Flats	301 Forrest Ave, Cocoa	0.5 mi	46,500	1980	ocoa Village Fla	1
I	Twenty-One Riverside Drive	21 Riverside Dr, Cocoa	0.1 mi	45,000	2004	y-One Riverside	10
J	Veterans Village	5 Pineapple Ave, Cocoa	1.0 mi	35,248	1964	Veterans Village	2

Source: CoStar



Source: CoStar

The land use in the subject's immediate neighborhood consists of a well-distributed mix of property types, as illustrated below.

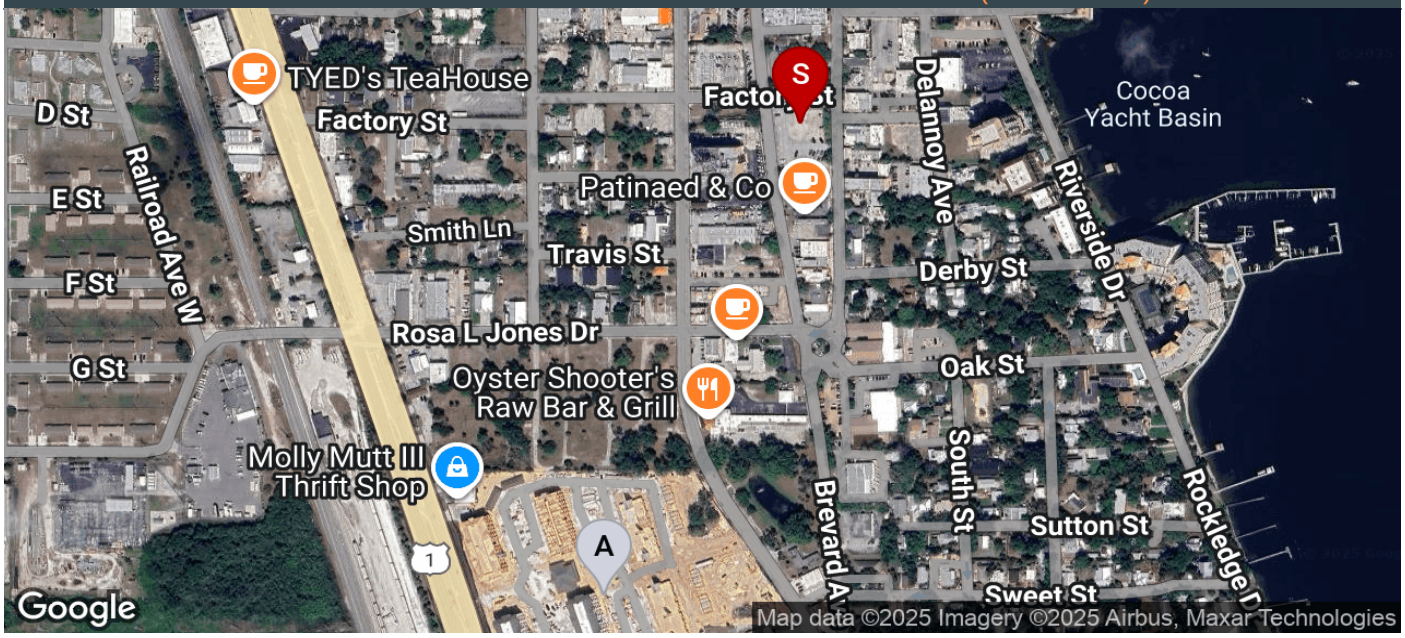


RECENT DEVELOPMENT

Based on CoStar's research, there appears to be about 1 projects that have been recently developed. All of these projects are perceived to be within 0.3 miles of the subject. The range in size of developments is 292,000 SF to the largest development of 292,000 SF. Overall, the average size of recent developments in the area is 292,000 SF. Further, it appears that most of the developments are varied in nature.

The following table details our findings:

RECENT DEVELOPMENTS IN A ONE-MILE RADIUS (2024-2025)



PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	TYPE	CLASS
A	Madison Grove	295 Royal Tern Cir, Rockledge	0.3 mi	292,000	Multifamily	B

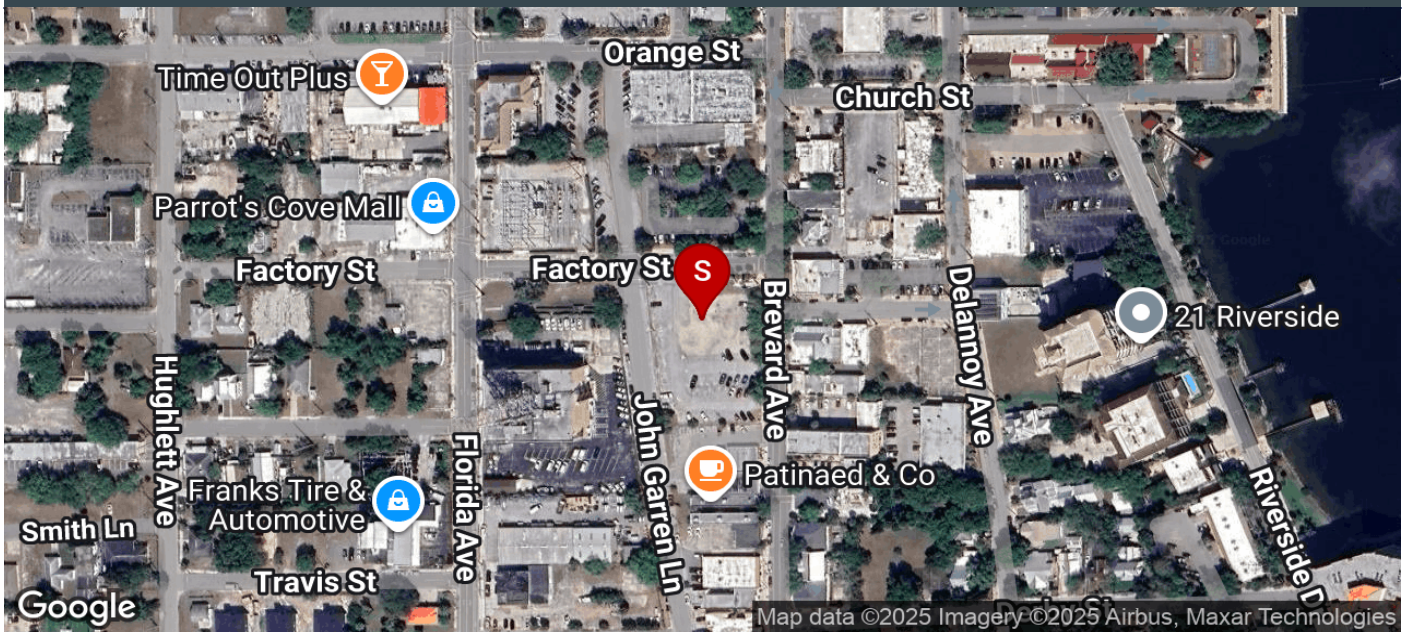
Source: CoStar

DEVELOPMENT PIPELINE

Under Construction

There do not appear to be any developments under construction within the immediate market area within one-mile of the subject site.

CURRENT DEVELOPMENTS UNDER CONSTRUCTION IN A ONE-MILE RADIUS



PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	TYPE	CLASS
A						

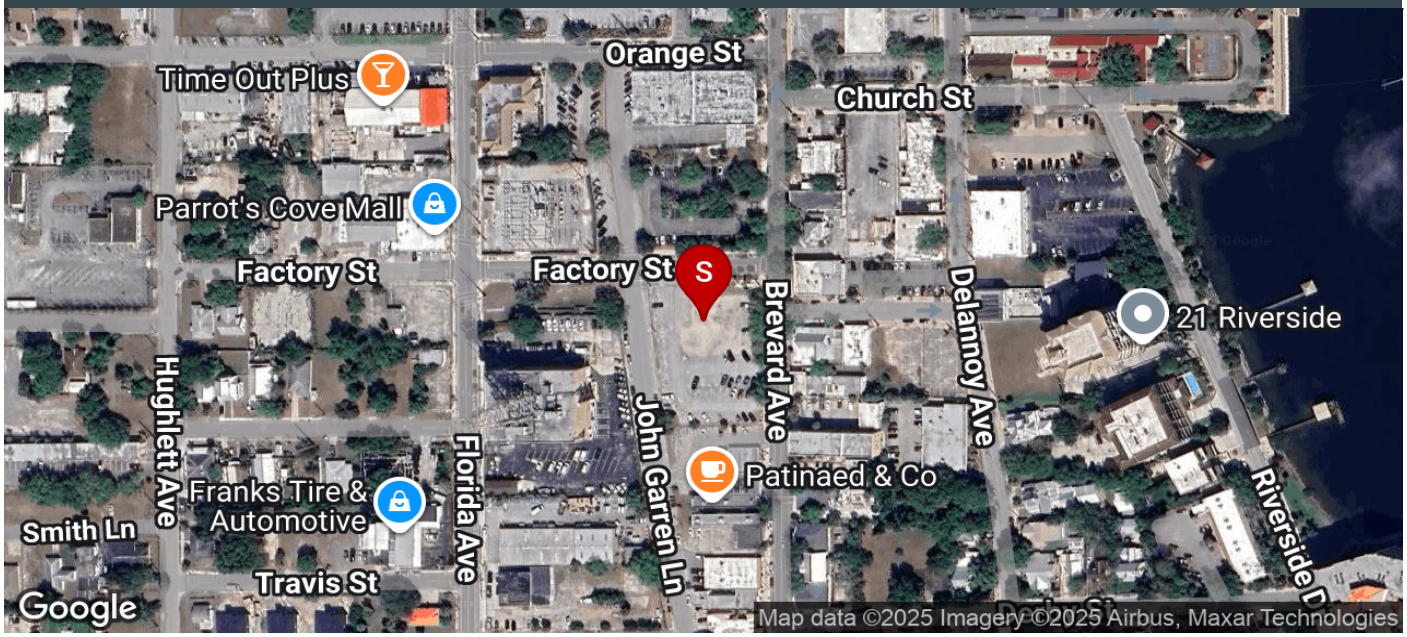
Source: CoStar

Proposed

There do not appear to be any proposed developments within the market area.

The following table details our findings:

CURRENTLY PROPOSED DEVELOPMENT IN A ONE-MILE RADIUS



PIN	NAME	ADDRESS, CITY	DIST TO SUBJ	RBA	TYPE	CLASS
A						

Source: CoStar

ECONOMIC INFLUENCES

The local area economic status is important to recognize as the measurement of income levels provides an indication of the ability of the area population to buy, rent and maintain property. The economic status of an area also provides an indication of the population's appetite for goods and services. Relevant economic information includes income levels, property ownership vs. rent, property rent levels, rent level trends, property vacancy and new construction.

The vast majority of the housing units within the area are owner occupied, which contrasts with relative similarity to other parts of Cocoa.

GOVERNMENT INFLUENCE

Governmental considerations relate to zoning, building codes, regulations, flood plain restrictions, special assessment, property tax and empowerment zones.

Zoning in the area is mixed, including commercial, residential and industrial designations. Zoning code is enforced by the municipality and enforcement in all areas of City of Cocoa is considered to be strong. Rezoning is typically discouraged and requires public input in all municipalities. Building codes are in force and require a certain standard of construction quality and design. This is a typical influence on properties similar to the subject and falls in line with the zoning classification.

Property taxes in the area are established by Brevard County and are assessed based on valuation. Considering broad authority of the county administration, the assessments in the neighborhood are similar to other neighborhoods in the metropolitan area. There are no known special assessments that affect property in the neighborhood.

ACCESS/PUBLIC TRANSPORTATION

Regional access to/from the City of Cocoa and the subject site, in particular, is considered very good. The subject market is served by a variety of additional local highways, which are illustrated on the map.

Vehicular access to the subject site is provided by Brevard Avenue, Factory Street, and John Garren Lane. The subject site is located at a busy intersection and is relatively simple to locate from the area's primary transportation corridors and Interstate 95, which is the nearest major highway. The proposed subject hotel is anticipated to have adequate signage at the street, as well as on its façade. Overall, the subject site benefits from very good accessibility, and the proposed hotel is expected to enjoy very good visibility from within its local neighborhood.

ENVIRONMENTAL INFLUENCES

The subject area is considered to be a typical neighborhood with average building size and density. There are no extraordinary topographical features, nuisances of hazards. Public utilities are available in most all areas in quantities from public and private sources. The area has both public and private schools in adequate supply and quality.

INTRODUCTION TO PROPOSED IMPROVEMENTS DESCRIPTION

The quality of a lodging facility's physical improvements has a direct influence on marketability, attainable occupancy, and average room rate. The design and functionality of the structure can also affect operating efficiency and overall profitability. This section investigates the subject property's proposed physical improvements and personal property in an effort to determine how they are expected to contribute to attainable cash flows.

PROPOSED IMPROVEMENTS OVERVIEW

The proposed Fairfield Inn & Suites by Marriott in Historic Cocoa Village is planned as a seven-story, 104-room select-service hotel that combines a contemporary lodging program with an activated streetscape at the northern edge of the district. Concept plans show a ground floor organized around a lobby lounge and registration area, brand-standard breakfast room, fitness center, and a street-facing coffee shop that opens to widened sidewalks, a small urban plaza, and improved connectivity along Brevard Avenue, Factory Street, and the newly reconfigured one-way John Garren Avenue. Guestrooms will occupy levels two through six around an efficient double-loaded corridor, while an elevated outdoor pool terrace provides a leisure-oriented amenity that is uncommon in the immediate neighborhood. A rooftop lounge is planned to feature a full bar with terrace seating and flexible meeting or event space, positioned to capture views over the surrounding village and riverfront, which should help the hotel function as both a lodging option and a new social venue for residents and visitors. Parking for 121 vehicles is planned through a combination of 30 onsite stalls and 91 newly dedicated on-street spaces, integrating the project into the existing urban fabric while addressing the current void of lodging accommodations within walking distance of Cocoa Village's restaurants, shops, waterfront parks, and cultural attractions.

EXTERIOR RENDERING OF PROPOSED FAIRFIELD INN & SUITES



SUMMARY OF THE FACILITIES

BREVARD STREET EXTERIOR RENDERING OF PROPOSED FAIRFIELD INN & SUITES



Based on information provided by the proposed subject hotel's development representatives, the following table summarizes the facilities that are expected to be available at the proposed subject property.

FACILITY PROGRAM

GUESTROOM CONFIGURATION	NUMBER OF UNITS
Total Guestrooms	104
FOOD & BEVERAGE FACILITIES	**EST. SEATING CAPACITY**
Breakfast Dining Room	60
Coffee Shop	40
Rooftop Lounge	100
MEETING & BANQUET FACILITIES	**EST. SQUARE FOOTAGE**
Rooftop Meeting Room	1,326

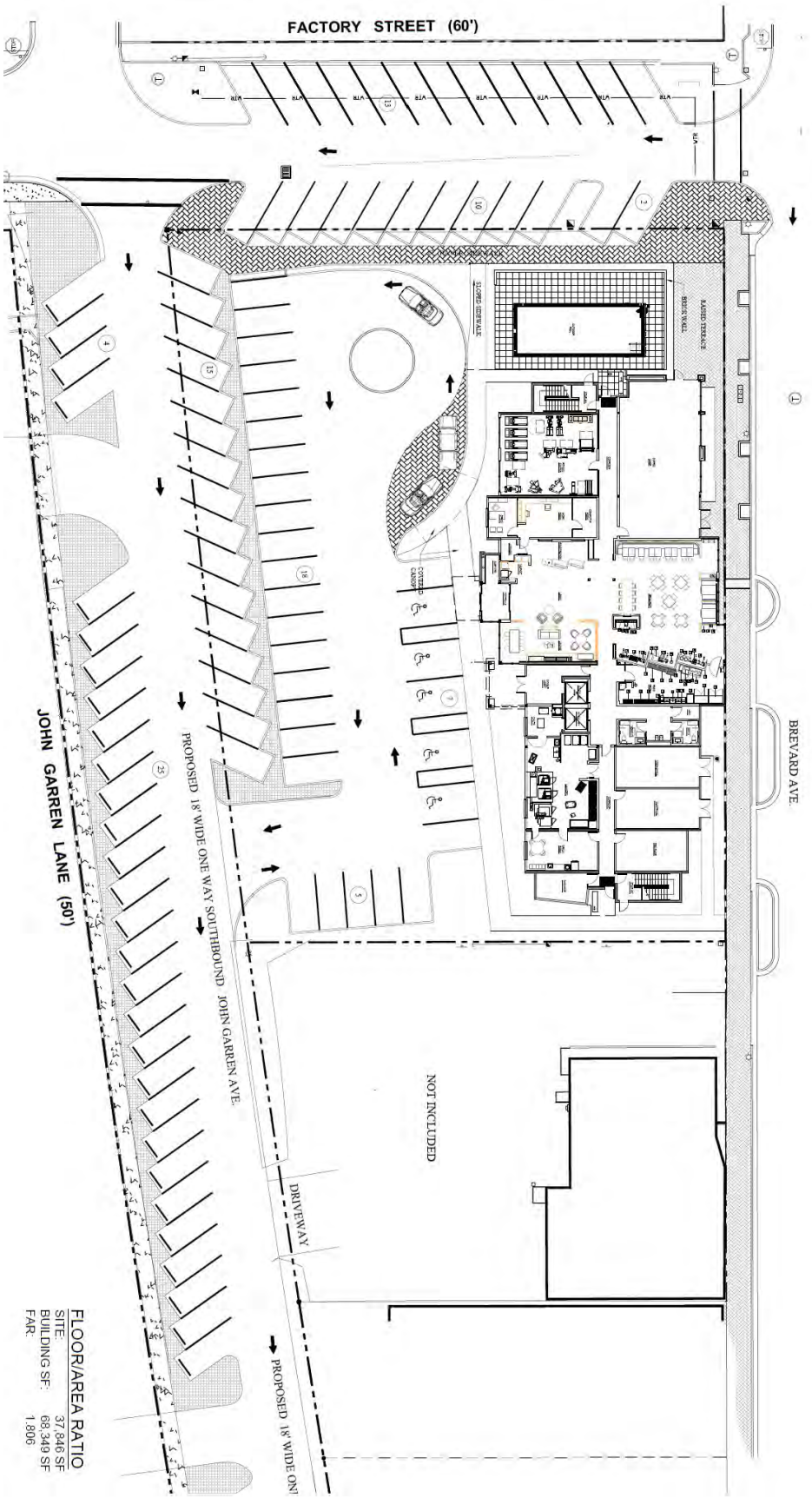
AMENITIES & SERVICES	
Fitness Center	Market Pantry
Outdoor Pool & Sundeck	Outdoor Patio
Lobby Workstation	

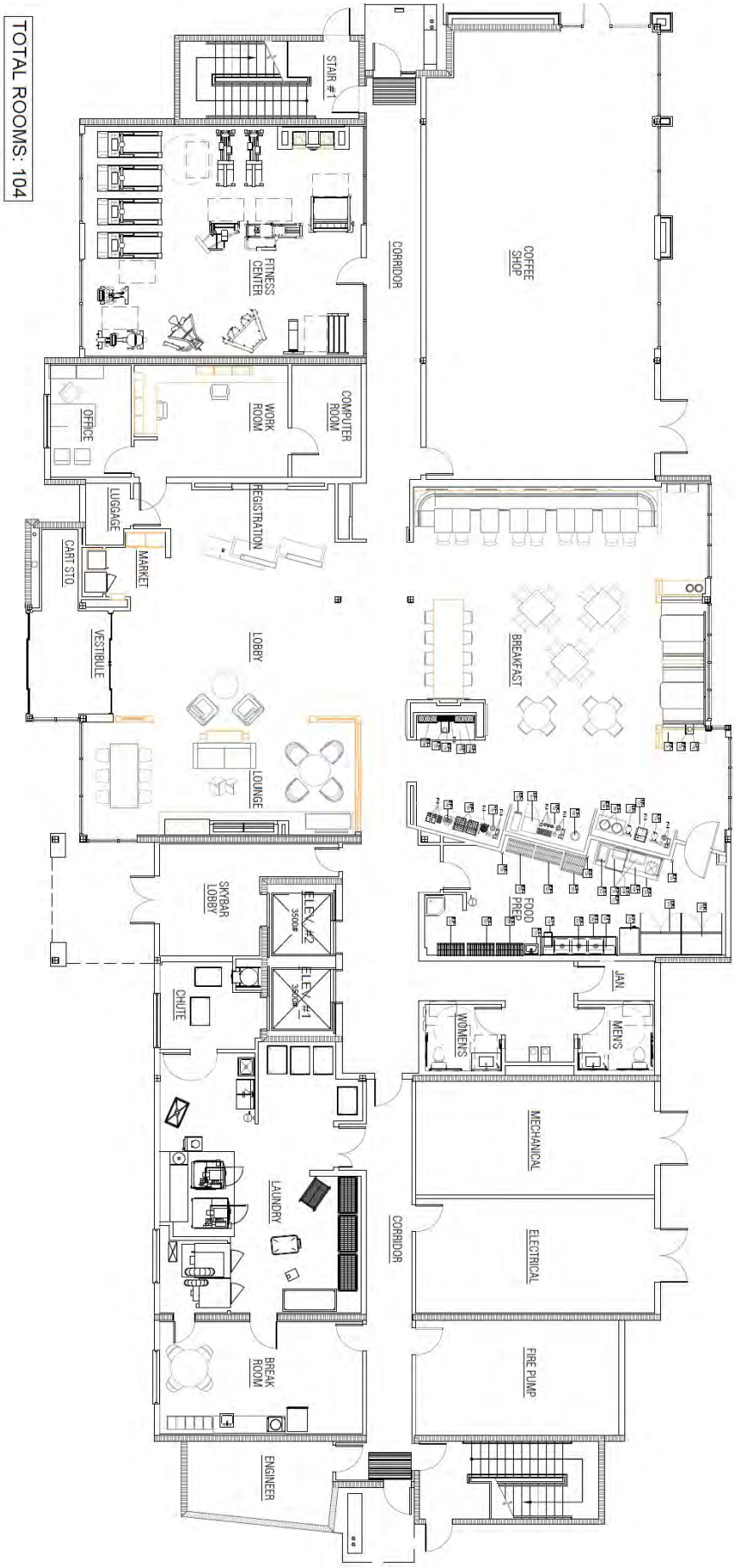
INFRASTRUCTURE	
Parking Spaces	121 (30 onsite, 91 offsite)
Elevators	2 Guest
Life-Safety Systems	Sprinklers, Smoke Detectors
Construction Details	Steel Frame, Concrete Slab

The proposed upper-midscale, select-service hotel is expected to comprise one seven-story building with surface parking located around its structure. Other site improvements are expected to include freestanding

signage, located at the main entrance to the site, as well as landscaping and sidewalks. Additional signage is expected to be placed on the exterior of the building. The hotel's main entrance is expected to lead into a vestibule that opens into the lobby, and the first (ground) floor houses most of the public areas and the back-of-the-house space. Guestrooms are expected to be located on the second through sixth floors, with a seventh-floor rooftop featuring a rooftop lounge and meeting space. The site and building components are expected to be normal for a hotel of this type and should meet the standards for this secondary market.

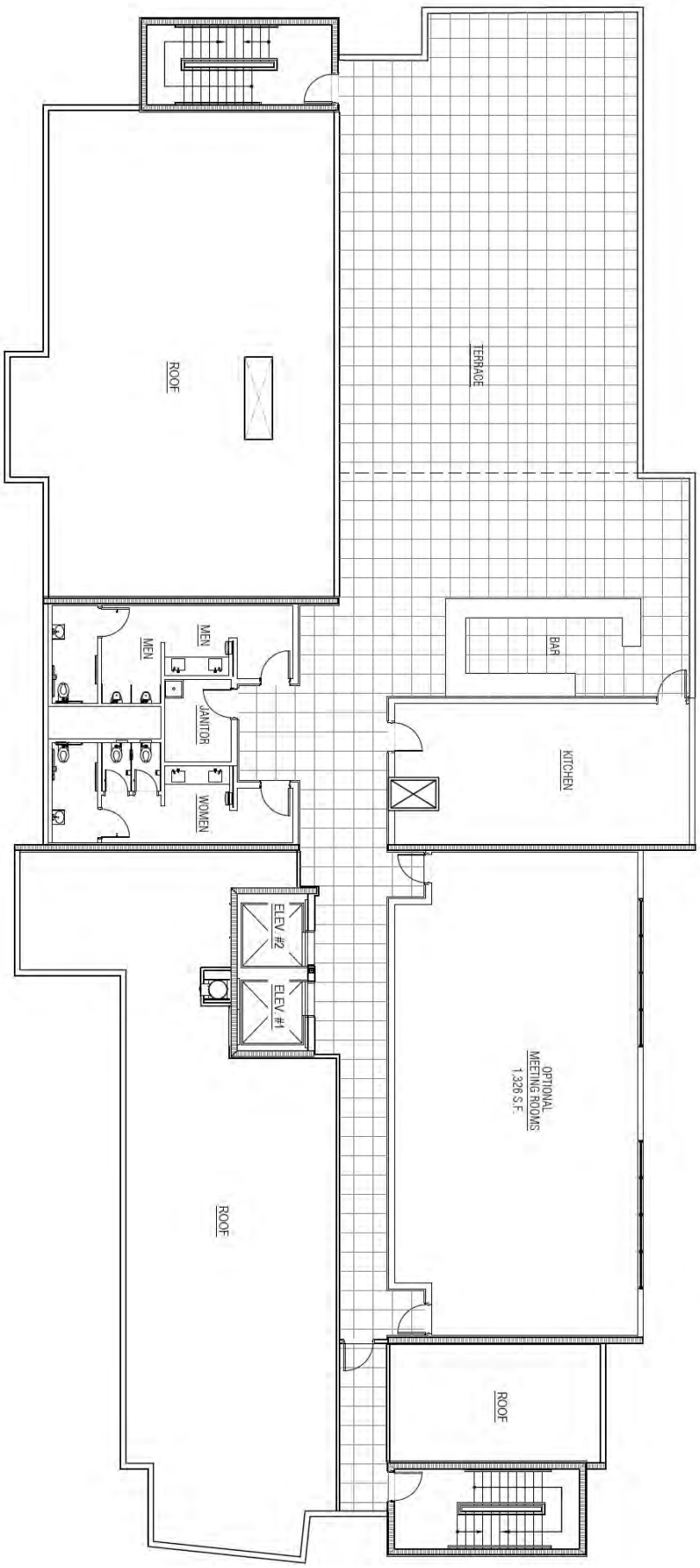
SITE PLAN


FACTORY STREET (60')
JOHN GARREN LANE (50')
PROPOSED 18' WIDE ONE WAY SOUTHBOUND JOHN GARREN AVE.
BREVARD AVE.
NOT INCLUDED
DRIVEWAY
PROPOSED 18' WIDE ONE
FLOOR/AREA RATIO
SITE: 37,646 SF
BUILDING SF: 68,349 SF
FAR: 1.806


TOTAL ROOMS: 104
STAIR #1
FITNESS CENTER
CORRIDOR
COFFEE SHOP
OFFICE
WORK ROOM
COMPUTER ROOM
LUGGAGE
REGISTRATION
CART STO
MARKET
VESTIBULE
LOBBY
BREAKFAST
LOUNGE
SKYBAR LOBBY
ELEV. #2
3500#
ELEV. #1
5400#
FOOD PREP
JAN.
CHUTE
WOMENS
MENS
MECHANICAL
LAUNDRY
CORRIDOR
ELECTRICAL
BREAK ROOM
FIRE PUMP
ENGINEER

TYPICAL GUESTROOM FLOOR PLAN




ROOF
TERRACE
MEN
MEN
JANITOR
WOMEN
BAR
KITCHEN
ELEV #2
ELEV #1
OPTIONAL MEETING ROOMS 1,326 S.F.
ROOF
ROOF

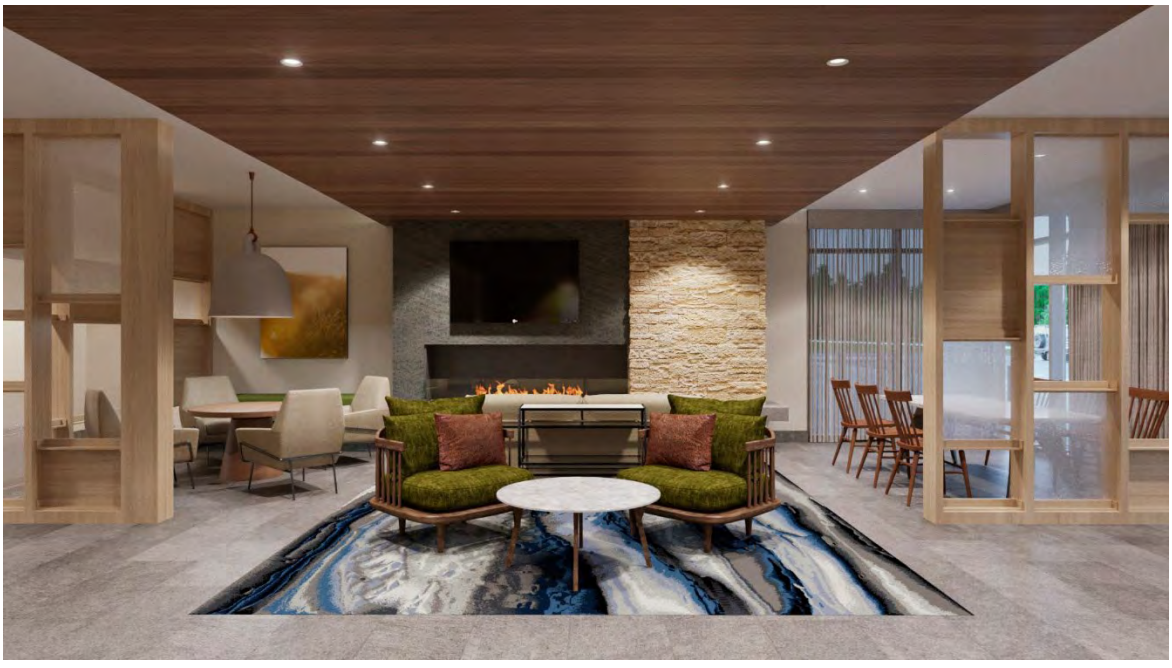
LOBBY

Guests will enter the hotel through a single set of automatic doors, which will open to a vestibule, and then through a second set of automatic doors. The lobby will be spacious and feature an open layout, in accordance of the latest Fairfield Inn & Suites by Marriott design standards. The lobby will include a front desk reception area, a lobby lounge area, a market pantry, and a lobby workstation. We assume that all property management and guestroom technology will be appropriately installed for the effective management of hotel operations.

TYPICAL FAIRFIELD INN & SUITES OPEN-CONCEPT LOBBY



TYPICAL FAIRFIELD INN & SUITES LOBBY LOUNGE AREA



TYPICAL FAIRFIELD INN & SUITES RECEPTION AREA



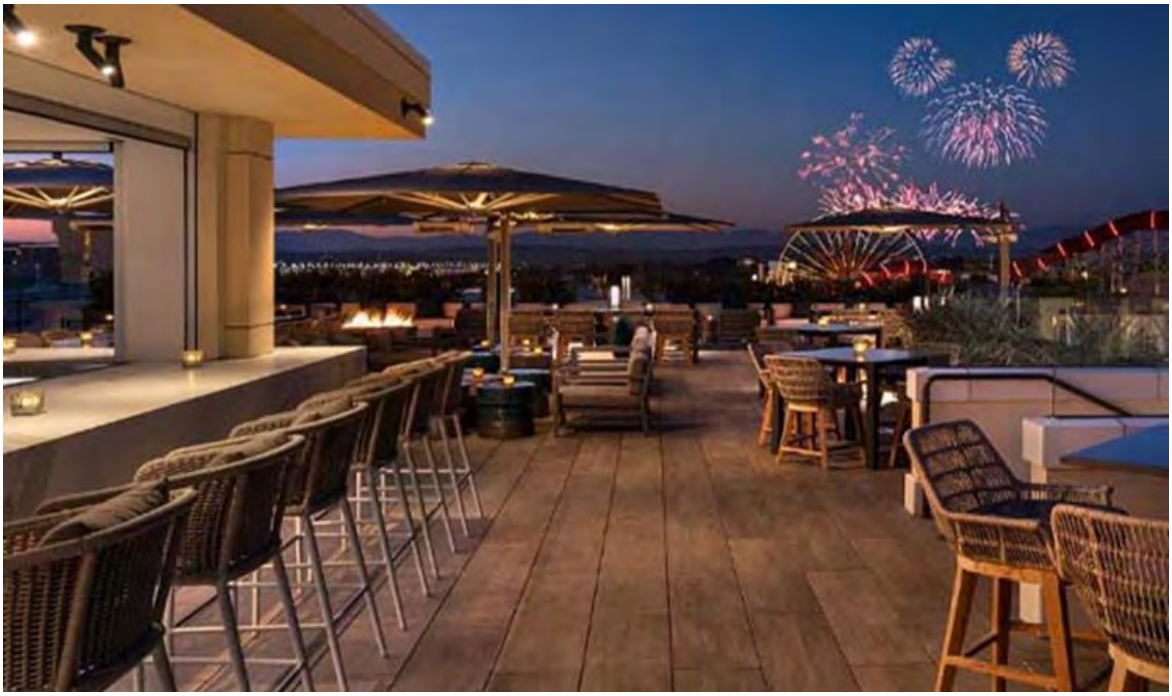
FOOD & BEVERAGE OUTLETS

The proposed property is expected to offer a breakfast dining area and coffee shop on its ground floor, as well as a rooftop lounge. The coffee shop is expected to maintain morning and afternoon business hours, while the rooftop lounge is likely to operate during nights and weekends. The size and layout of each facility are expected to be appropriate for a property of this nature. The furnishings of these spaces are anticipated to be of a similar style and finish as lobby and guestroom furnishings.

TYPICAL FAIRFIELD INN & SUITES BREAKFAST DINING AREA



TYPICAL FAIRFIELD INN & SUITES ROOFTOP BAR



MEETING SPACE

The hotel will offer a 1,326-square-foot meeting room located on the seventh floor rooftop level, adjacent to the rooftop lounge and its accompanying kitchen, which should complement this space. This planned meeting space appears appropriate for a hotel of this type and is assumed to meet brand standards. Public restrooms near the entrance to the meeting space should enhance the overall functionality of the area.

TYPICAL FAIRFIELD INN & SUITES MEETING ROOM



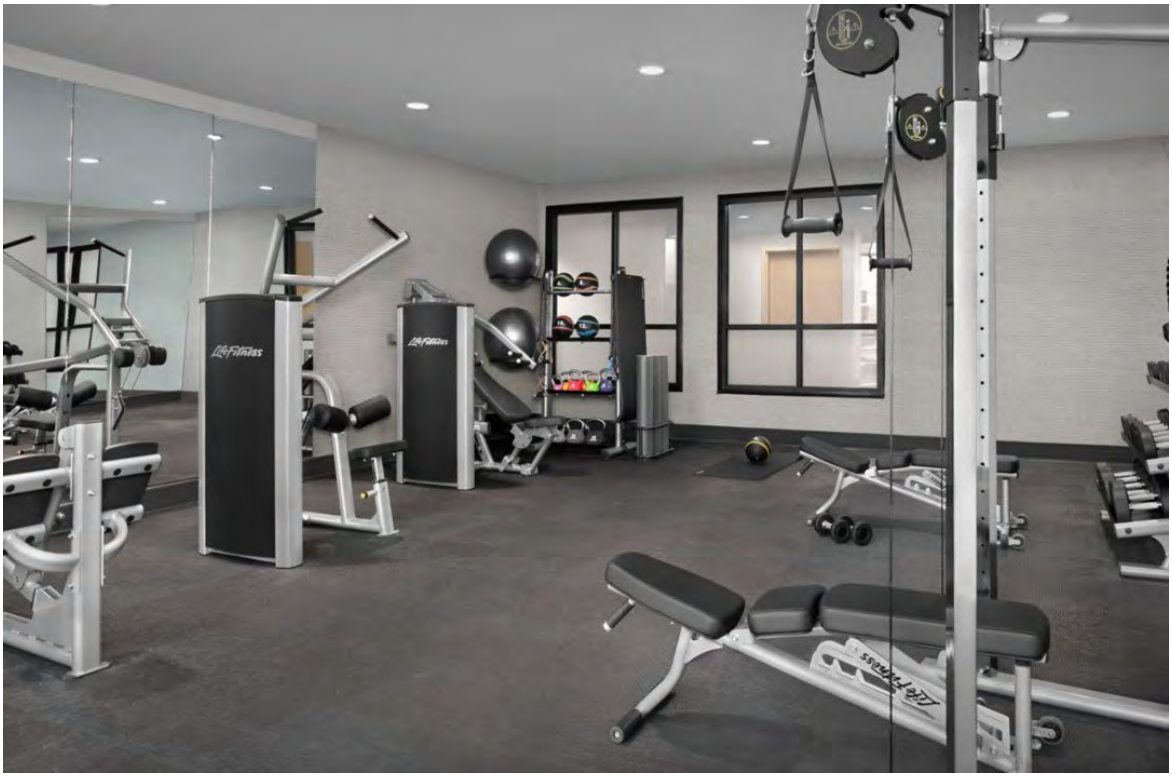
FEATURED AMENITIES

The hotel will offer an outdoor swimming pool and adjacent sundeck located north of the building structure, am adjacent outdoor terrace abutting the coffee shop, and a fitness center located just off the lobby. Other amenities will include a lobby workstation and a market pantry. Overall, the supporting facilities should be appropriate for a hotel of this type, and we assume that they will meet brand standards.

TYPICAL FAIRFIELD INN & SUITES MARKET PANTRY



TYPICAL FAIRFIELD INN & SUITES FITNESS CENTER



TYPICAL FAIRFIELD INN & SUITES OUTDOOR POOL AREA



TYPICAL FAIRFIELD INN & TOWNEPLACE SUITES OUTDOOR PATIO



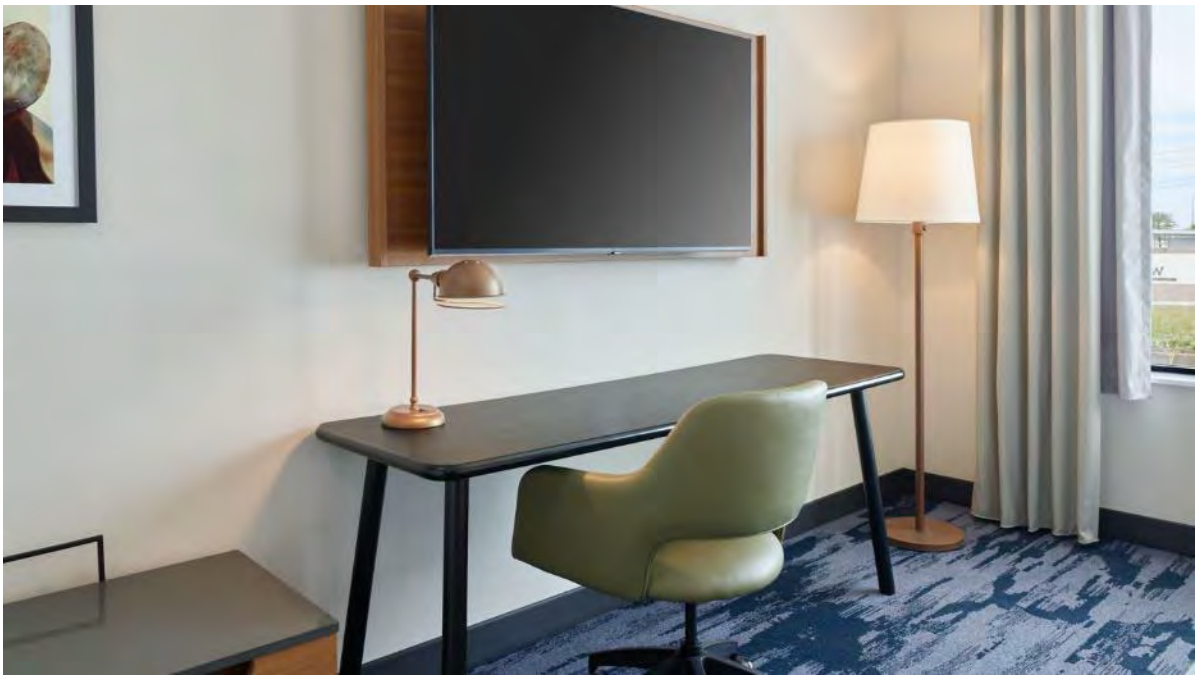
GUESTROOMS AREAS

The hotel is expected to feature standard and suite-style guestroom configurations, with guestrooms present on levels two through six. The guestrooms are anticipated to be of a standard size, offering typical amenities for this upper-midscale product type. In addition to the standard furnishings, rooms will also feature a mini fridge, a microwave, a coffee maker, and an iron and ironing board, among other amenities. Suites are expected to feature a larger living area. Overall, the guestrooms should offer a competitive product for this Downtown Cocoa neighborhood.

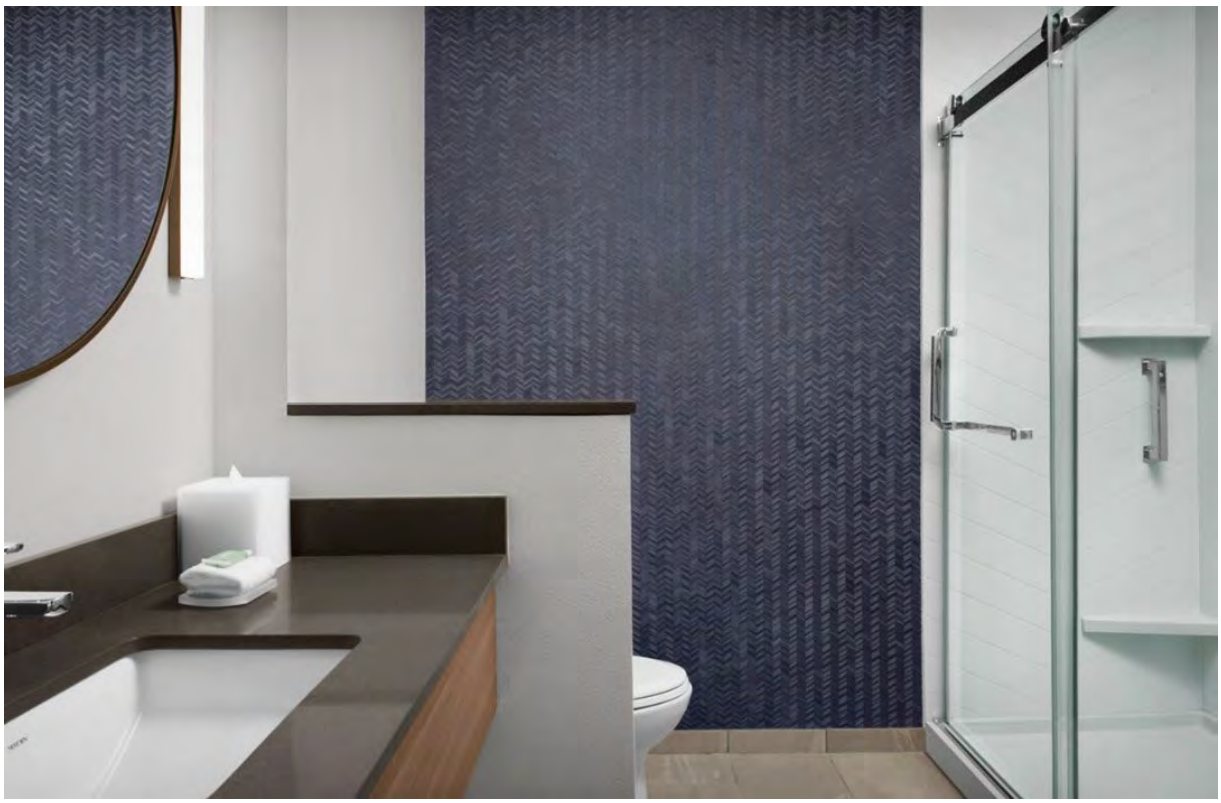
TYPICAL FAIRFIELD INN & SUITES GUESTROOM SLEEPING AREA



TYPICAL FAIRFIELD INN & SUITES GUESTROOM LIVING AREA



TYPICAL FAIRFIELD INN & SUITES BATHROOM



BACK-OF-THE-HOUSE SPACE

The hotel will be served by the necessary back-of-the-house space, including an in-house laundry facility and administrative offices. These spaces should be adequate for a hotel of this type and should allow for the efficient operation of the property under competent management.

ADA AND ENVIRONMENTAL

We assume that the property will be built according to all pertinent codes and brand standards. Moreover, we assume its construction will not create any environmental hazards (such as mold) and that the property will fully comply with the Americans with Disabilities Act.

We were not informed of any site-specific nuisances or hazards, and we were not informed of any visible signs of toxic ground contaminants for any of the site analyzed during the preparation of this report. Because we are not experts in this field, we do not warrant the absence of hazardous waste and urge the reader to obtain an independent analysis of these factors.

CAPITAL EXPENDITURES

Our analysis assumes that, after its opening, the hotel will require ongoing upgrades and periodic renovations in order to maintain its competitive level in this market and to remain compliant with brand standards. These costs should be adequately funded by the forecasted reserve for replacement, as long as a successful, ongoing preventive-maintenance program is employed by hotel staff.

PROPERTY CONCLUSION

Overall, the proposed subject hotel should offer a well-designed, functional layout of support areas and guestrooms. All typical and market-appropriate features and amenities appear to be included in the hotel's design. We assume that the building will be fully open and operational on the stipulated opening date and will meet all local building codes and brand standards. Furthermore, we assume that the hotel staff will be adequately trained to allow for a successful opening and that pre-marketing efforts will have introduced the product to major local accounts at least six months in advance of the opening date.

INTRODUCTION TO MARKET AREA ANALYSIS

The economic vitality of the market area and neighborhood surrounding the subject site is an important consideration in forecasting lodging demand and future income potential. Economic and demographic trends that reflect the amount of visitation provide a basis from which to project lodging demand. The purpose of the market area analysis is to review available economic and demographic data to determine whether the local market will undergo economic growth, stabilize, or decline. In addition to predicting the direction of the economy, the rate of change must be quantified. These trends are then correlated based on their propensity to reflect variations in lodging demand, with the objective of forecasting the amount of growth or decline in visitation by individual market segment (e.g., commercial, meeting and group, leisure, and extended-stay).

MARKET AREA DEFINITION

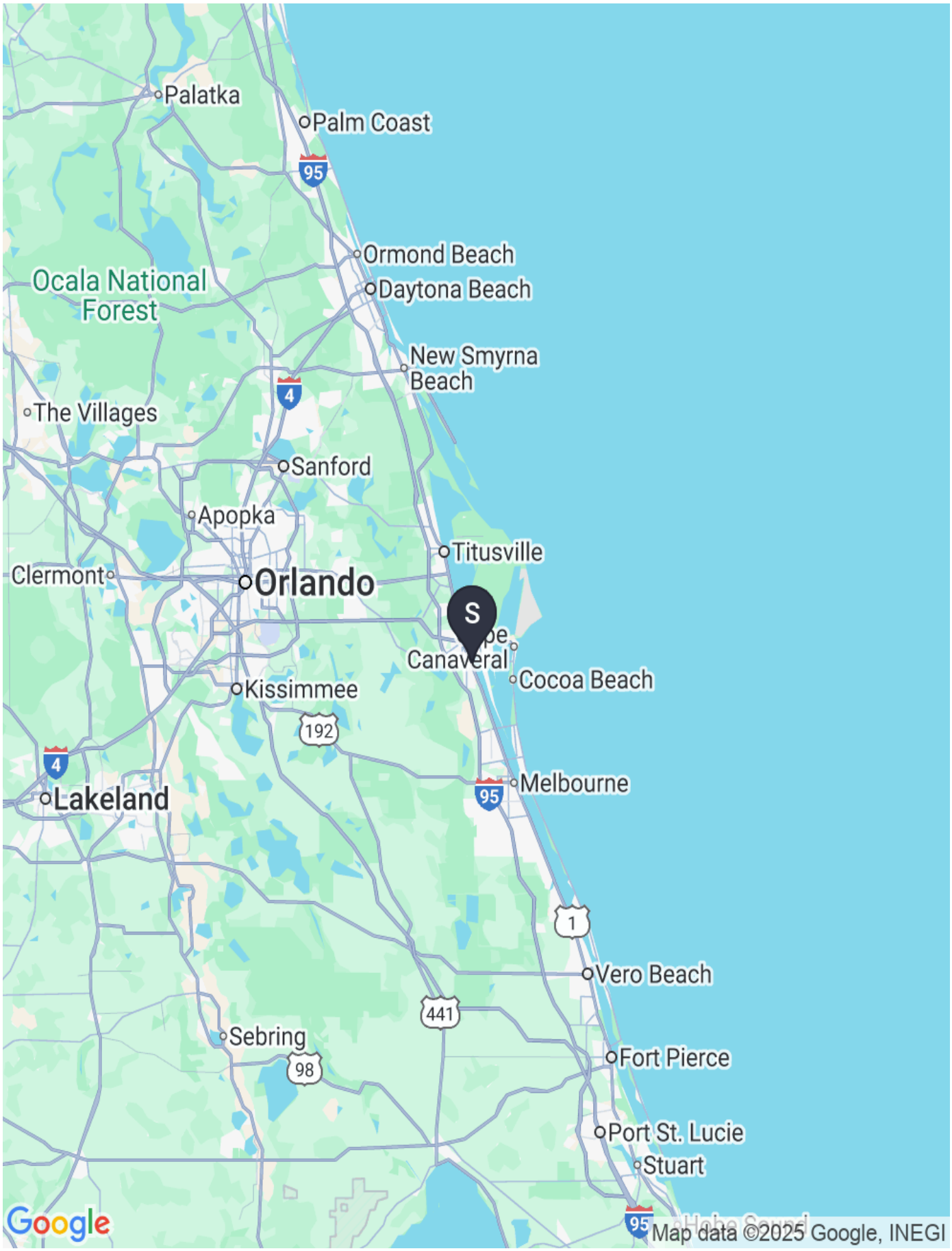
The market area for a lodging facility is the geographical region where the sources of demand and the competitive supply are located. The subject property is located in the city of Cocoa, the county of Cocoa, and the state of Florida.

Anchoring Florida's Space Coast along the Indian River Lagoon, the greater Cocoa area spans the City of Cocoa, Cocoa Beach, and Cape Canaveral, connected by State Roads 520, 528, and 524 and by U.S. 1, with direct access to I-95 and to Orlando via the Beachline Expressway; this transportation network places residents and businesses minutes from Kennedy Space Center and the Atlantic beaches. Cocoa's historic riverfront core in Cocoa Village blends independent shops, dining, and parks with cultural anchors such as the Historic Cocoa Village Playhouse, and it hosts more than 65 annual events that draw well over 100,000 visitors. Cocoa Beach adds a nationally known surf culture, miles of public shoreline, and a legacy of spaceflight viewing that stretches from early Mercury launches through the Apollo era, while the City of Cape Canaveral contributes launch viewing, maritime and cruise activity tied to Port Canaveral, and a civic focus on quality of life and environmental stewardship. Together, these assets give the market a diverse visitor base, a growing ecosystem of small businesses and hospitality operators, and an enduring aerospace identity that supports long-run demand and steady investment.

COCOA, FLORIDA



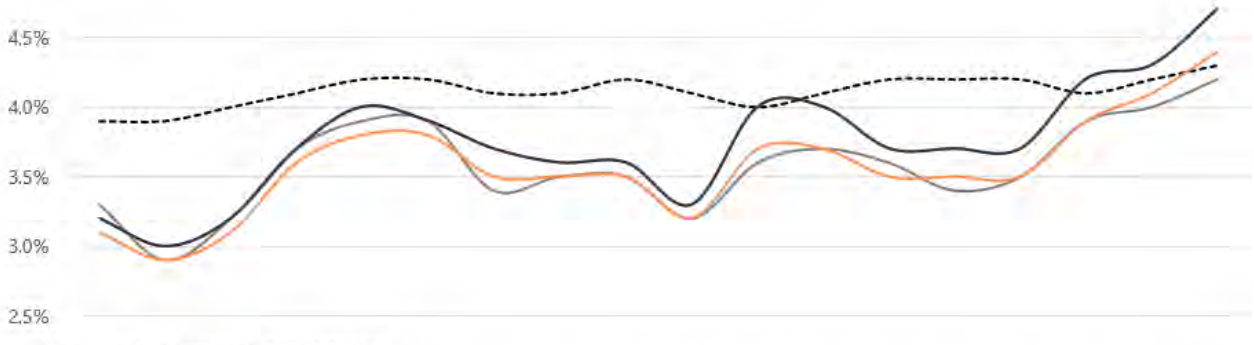
MARKET AREA MAP


Palatka
Palm Coast
95
Ormond Beach
Ocala National Forest
Daytona Beach
New Smyrna Beach
4
The Villages
Sanford
Apopka
Titusville
Clermont
Orlando
S
Canaveral
Cocoa Beach
Kissimmee
192
4
Lakeland
Melbourne
95
1
Vero Beach
441
Sebring
98
Fort Pierce
Port St. Lucie
Stuart
Google
95
Hobe Sound
Map data ©2025 Google, INEGI

UNEMPLOYMENT

The following graphs charts the trailing 18 months and trailing 10 years unemployment rate for the United States, South Atlantic Division region, state of Florida, Palm Bay-Melbourne-Titusville, FL MSA, and Brevard County.

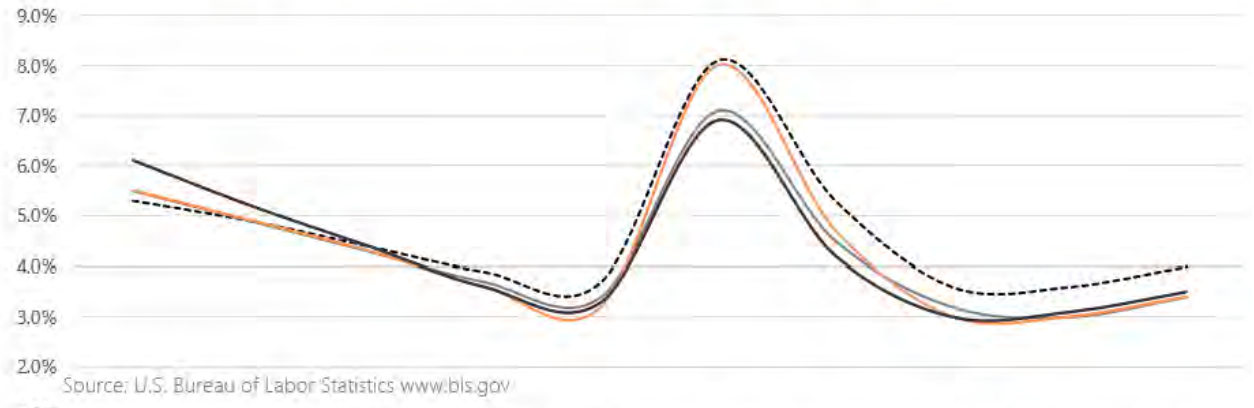
MONTHLY UNEMPLOYMENT RATE (18 MONTHS)



Source: U.S. Bureau of Labor Statistics

	Mar	Apr	May	Jun	Jul	2024 Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	2025 Aug
Nation	3.9%	3.9%	4.0%	4.1%	4.2%	4.2%	4.1%	4.1%	4.2%	4.1%	4.0%	4.1%	4.2%	4.2%	4.2%	4.1%	4.2%	4.3%
Region	3.3%	2.9%	3.2%	3.7%	3.9%	3.9%	3.4%	3.5%	3.5%	3.2%	3.6%	3.7%	3.6%	3.4%	3.5%	3.9%	4.0%	4.2%
State	3.1%	2.9%	3.1%	3.6%	3.8%	3.8%	3.5%	3.5%	3.5%	3.2%	3.7%	3.7%	3.5%	3.5%	3.5%	3.9%	4.1%	4.4%
Area	3.2%	3.0%	3.2%	3.7%	4.0%	3.9%	3.7%	3.6%	3.6%	3.3%	4.0%	4.0%	3.7%	3.7%	3.7%	4.2%	4.3%	4.7%
County	3.2%	3.0%	3.2%	3.7%	4.0%	3.9%	3.7%	3.6%	3.6%	3.3%	4.0%	4.0%	3.7%	3.7%	3.7%	4.2%	4.3%	4.7%

ANNUAL UNEMPLOYMENT RATE (10 YEARS)



Source: U.S. Bureau of Labor Statistics www.bls.gov

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Nation	5.3%	4.9%	4.4%	3.9%	3.7%	8.1%	5.3%	3.6%	3.6%	4.0%
Region	5.5%	4.9%	4.3%	3.7%	3.4%	7.1%	4.5%	3.2%	3.0%	3.4%
State	5.5%	4.9%	4.3%	3.6%	3.2%	8.0%	4.7%	3.0%	3.0%	3.4%
Area	6.1%	5.2%	4.4%	3.6%	3.3%	6.9%	4.2%	3.0%	3.1%	3.5%
County	6.1%	5.2%	4.4%	3.6%	3.3%	6.9%	4.2%	3.0%	3.1%	3.5%

STATE & REGIONAL EMPLOYMENT						
YEAR	STATE	% CHG.	AREA	% CHG.	COUNTY	% CHG.
2015	9,067,636	2.0%	240,690	1.2%	240,690	1.2%
2016	9,313,287	2.6%	247,576	2.8%	247,576	2.8%
2017	9,545,001	2.4%	254,692	2.8%	254,692	2.8%
2018	9,731,497	1.9%	264,123	3.6%	264,123	3.6%
2019	9,923,974	1.9%	271,889	2.9%	271,889	2.9%
2020	9,249,303	(7.3%)	261,161	(4.1%)	261,161	(4.1%)
2021	9,813,713	5.8%	275,874	5.3%	275,874	5.3%
2022	10,378,726	5.4%	284,963	3.2%	284,963	3.2%
2023	10,704,831	3.0%	293,997	3.1%	293,997	3.1%
2024	10,781,312	0.7%	294,703	0.2%	294,703	0.2%
CAGR	**1.9%**	**-**	**2.3%**	**-**	**2.3%**	**-**

Source: U.S. Bureau of Labor Statistics www.bls.gov

MAJOR BUSINESS AND INDUSTRY

Providing additional context for understanding the nature of the regional economy, the following table presents a list of the major employers in the subject property's market.

Space and aerospace anchor the Space Coast economy, and Cocoa sits in the middle of it. Kennedy Space Center and Cape Canaveral Space Force Station continue to attract legacy primes and new-space leaders, with the region home to Boeing, Lockheed Martin, Collins Aerospace, Leonardo DRS, Northrop Grumman, Embraer, Blue Origin, SpaceX, and OneWeb Satellites. L3Harris, one of the area's largest employers, maintains its headquarters in Melbourne. Recent moves underscore the momentum: on October 15, 2025, Dassault Aviation opened a 250,000-square-foot MRO complex at Melbourne Orlando International Airport that is creating 400 full-time jobs; on November 6, 2025, France-based Satys announced a $1.5-million capital investment and 40 high-wage jobs tied to aircraft painting operations; and on August 14, 2025, French precision manufacturer LHERS selected Titusville for U.S. production with 30 jobs and $3.5 million in capital investment. Industrial gases leader Linde also detailed an expansion in Mims on August 20, 2025 to boost liquid oxygen and nitrogen supply for launches, with added capacity expected to come online in early 2027. Together, these announcements reinforce Cocoa's role as a workforce and supplier hub within the broader launch and manufacturing ecosystem.

Space and aerospace anchor the Space Coast economy, and Cocoa sits in the middle of it. Kennedy Space Center and Cape Canaveral Space Force Station continue to attract legacy primes and new-space leaders, with the region home to Boeing, Lockheed Martin, Collins Aerospace, Leonardo DRS, Northrop Grumman, Embraer, Blue Origin, SpaceX, and OneWeb Satellites. L3Harris, one of the area's largest employers, maintains its headquarters in Melbourne. Recent moves underscore the momentum: on October 15, 2025, Dassault Aviation opened a 250,000-square-foot MRO complex at Melbourne Orlando International Airport that is creating 400 full-time jobs; on November 6, 2025, France-based Satys announced a $1.5-million capital investment and 40 high-wage jobs tied to aircraft painting operations; and on August 14, 2025, French precision manufacturer LHERS selected Titusville for U.S. production with 30 jobs and $3.5 million in capital investment. Industrial gases leader Linde also detailed an expansion in Mims on August 20, 2025 to boost liquid oxygen and nitrogen supply for launches, with added capacity expected to come online in early 2027. Together, these announcements reinforce Cocoa's role as a workforce and supplier hub within the broader launch and manufacturing ecosystem.

Advanced manufacturing and defense have become a second engine for growth. The Space Coast now counts more than 500 manufacturers across sectors, with a cost profile helped by Florida's favorable tax climate and a dense concentration of technical talent. The region promotes right-to-work labor costs that undercut national high-tech averages and benefits from the Florida High Tech Corridor's pipeline of engineers and machinists. For site selectors and existing operators in Cocoa and the central county, this translates to competitive wage structures, access to skilled trades, and a corporate neighborhood that ranges from start-ups to high-tech goliaths. Recent wins like LHERS, Satys, and Dassault layer onto long-standing footprints from L3Harris, Northrop Grumman, and others, signaling continued demand for avionics, composites, precision machining, and MRO capabilities.

Logistics and multimodal access amplify the Space Coast's industrial base. Companies in and around Cocoa leverage uncongested north-south rail via Florida East Coast Railway, fast highway links to I-95 and U.S. 1, and two nearby international gateways in MLB and MCO, plus Space Coast Regional Airport for corporate and charter operations. Port Canaveral supports cargo shippers with recent harbor improvements, new cruise and cargo terminals, and an auto facility, and the county has advanced infrastructure planning for growth tied to launch cadence, including a May 14, 2025 award of $832,500 to evaluate wastewater upgrades at Cape Canaveral Space Force Station. For manufacturers and aerospace suppliers, that combination shortens supply chains, improves time to market, and supports scale-up activity across central Brevard.

The Space Coast economy is broader than rockets. Business services, communications, education, IT, and environmental services round out the base, while dozens of launches per year continue to lift tourism and brand visibility. Cocoa benefits from this diversification through proximity to launch complexes, airports, and Port Canaveral, and through steady inflows of skilled workers. For current conditions and trendlines on employment, GRP, taxable sales, wages, and population, the Space Coast Headlight portal provides up-to-date metrics for Brevard County and the Palm Bay–Melbourne–Titusville MSA, helping employers and investors track the cycle in real time.

Providing additional context for understanding the nature of the regional economy, the following table presents a list of the major employers in the proposed subject property's market.

MAJOR EMPLOYERS

RANK	ENTITY	NUMBER OF EMPLOYEES
1	L3 Harris	6,391
2	United Space Alliance	6,300
3	Health First, Inc.	6,000
4	45th Space Wing	4,174
5	Space Gateway Support	3,000
6	Wuesthoff Health System, Inc.	2,400
7	Northrop Grumman Corporation	2,000
8	Boeing	1,962
9	NASA Kennedy Space Center	1,577
10	Intersil Corporation	1,402

Source: EDC of Florida's Space Coast, 2024

AIRPORT TRAFFIC

Airport passenger counts are important indicators of lodging demand. Depending on the type of service provided by a particular airfield, a sizable percentage of arriving passengers may require hotel accommodation. Trends showing changes in passenger counts also reflect local business activity and the overall economic health of the area.

Orlando International Airport (MCO) began as McCoy Air Force Base and transitioned to civilian use after the base closed in 1974 and 1975; the Greater Orlando Aviation Authority was established in 1975, and the current landside terminal with its first airsides opened in 1981. The South Airport Terminal Link automated people mover and the Intermodal Terminal Facility opened in November 2017, creating a rail-ready complex that became Brightline's Orlando station and direct rail link to South Florida in September 2023. In September 2022 the airport opened Terminal C, the first phase of the South Terminal Complex, consolidating new check-in, security, and 15 additional gates, and GOAA has launched a multi-year modernization that renovates Terminals A and B, replaces and expands baggage systems, and builds out Terminal C with additional passenger conveyance, parking, and gates. Today, the airport is served by roughly 40 passenger airlines with nonstop service to more than 170 destinations worldwide; recent and announced air-service changes include new long-haul flights to Paris beginning in 2025, new service to Munich in 2025, Iberia's entry beginning in October 2025, and Southwest's announced 2026 nonstop to St. Maarten, alongside several seasonal domestic additions.

The following table illustrates recent operating statistics for the Orlando International Airport (MCO), which is the primary airport facility serving the subject property's submarket.

AIRPORT STATISTICS

YEAR	PASSENGER TRAFFIC	% CHG.*	% CHG.**
2015	38,809,337	—	—
2016	41,923,399	8.0 %	8.0 %
2017	44,611,265	6.4	7.2
2018	47,696,627	6.9	7.1
2019	50,617,412	6.1	6.9
2020	21,617,803	(57.3)	(11.0)
2021	40,351,068	86.7	0.7
2022	50,176,313	24.3	3.7
2023	57,735,720	15.1	5.1
2024	57,211,628	(0.9)	4.4
Year-to-date, August			
2024	39,418,421	—	—
2025	38,944,044	(1.2) %	—

*Annual average compounded percentage change from the previous year

**Annual average compounded percentage change from first year of data

Source: Orlando International Airport

Orlando International Airport's passenger traffic fell 57.3 percent in 2020 from 2019, then rebounded above pre-pandemic levels with 40.35 million in 2021, 50.18 million in 2022, a record 57.74 million in 2023, and 57.21 million in 2024, down 0.9% year over year. Through August 2025, traffic is about 1.2% below the same period in 2024. The recovery has been supported by added capacity and international growth, including the 2022 opening of Terminal C with 15 additional gates, and recent long-haul launches such as Air France to Paris, Discover Airlines to Munich, and Iberia to Madrid. These upgrades and route additions support sustained international demand even as year-to-date volumes show modest normalization.

TOURIST ATTRACTIONS

Florida's Space Coast pairs rocket launches, 72 miles of beaches, and a growing cruise hub with the walkable charm of Cocoa Village, the Indian River–front historic district at the heart of Cocoa. Visitors blend gallery hopping, riverfront festivals, and theater nights in the Village with day trips to Kennedy Space Center, Cocoa Beach, and Port Canaveral. Recent momentum includes record cruise passenger counts, a steady cadence of launches, and new attractions at Kennedy Space Center, while the planned Bowen Aquarium at Port Canaveral and ongoing riverfront programming in Cocoa Village signal additional demand ahead.

- Historic Cocoa Village is the headline. This compact district of brick-lined streets packs boutiques, galleries, cafes, and breweries around Cocoa Riverfront Park, with a calendar of juried art shows, book fests, and seasonal markets that pull strong weekend traffic. The Historic Cocoa Village Playhouse anchors the cultural scene with "Broadway on Brevard" productions in a 1924 theater, while City landmarks such as Porcher House add wedding and events appeal. For rocket watchers, the connected Riverfront, Lee Wenner, and Taylor parks offer open shoreline vistas on the Indian River.

- Space exploration remains the region's signature draw. The Kennedy Space Center Visitor Complex offers behind-the-gates launch viewing options and an expanding slate of exhibits, including Gateway: The Deep Space Launch Complex, which showcases current commercial spacecraft and an immersive "Spaceport KSC." Outside the gates, visitors track liftoffs with the Space Coast Launches app and view launches along the Indian River Lagoon and other designated sites. The rising launch cadence continues to generate national attention, reinforcing the Space Coast's global profile.

- Beaches, piers, and family fun fill itineraries minutes from the Village. Cocoa Beach and its historic pier, Jetty Park in Port Canaveral, and a network of parks along the lagoon support surfing, fishing, kayaking, and ship-spotting, with TripAdvisor users repeatedly ranking these among the Space Coast's top activities. Brevard Zoo adds a well-reviewed wildlife option to round out a multi-day stay.

- Cruises and new investments add staying power. Port Canaveral has set back-to-back records, reporting 8.6 million multi-day passenger movements in fiscal 2025 and more than 1,000 annual ship calls, a surge that spills visitor spending into nearby dining, retail, and lodging markets. Looking forward, the Bowen Aquarium and Conservation Center at Port Canaveral is advancing through approvals and fundraising, with plans to focus on Indian River Lagoon restoration and welcome more than 500,000 visitors annually once open.

CONCLUSION

Florida's Space Coast centered on Cocoa is experiencing a period of economic strength and expansion, led by the space-launch ecosystem and its supplier network, defense and avionics manufacturing, and a diversified tourism base anchored by Port Canaveral, Atlantic beaches, and Cocoa Village's historic core. Market

interviews and recent announcements indicate continued investment in launch cadence, satellite production, and related research and development, while workforce pipelines, logistics advantages, and quality-of-life assets support corporate relocation and small business formation. Hotel and attraction performance benefits from visitation throughout the year, with peaks during launch windows and the winter cruise season, and new lodging and mixed-use projects are adding capacity in key districts. Given these durable demand drivers and ongoing infrastructure improvements, the outlook for the Space Coast market area is positive.

INTRODUCTION TO SUPPLY & DEMAND ANALYSIS

In the lodging industry, supply is measured by the number of guestrooms available, and demand is measured by the number of rooms occupied; the net effect of supply and demand toward equilibrium results in a prevailing price, or average daily rate (ADR). The purpose of this section is to investigate current supply and demand trends as indicated by the current competitive market, resulting in a forecast of market-wide occupancy.

DEFINITION OF SUBJECT HOTEL MARKET

The proposed subject hotel will be located in the greater Brevard County, or Florida's Space Coast lodging market. Within this larger supply set, the proposed subject hotel would compete with a smaller set of hotels based on various factors. These factors may include location, price point, product quality, market segmentation, length of stay (such as an extended-stay focus vs. transient), room type (all-suite vs. standard), hotel age, or brand, among other factors. We have reviewed these pertinent attributes and established a competitive set based upon this review.

HISTORICAL SUPPLY AND DEMAND DATA

Smith Travel Research (STR), a subsidiary of CoStar, is an independent research firm that compiles and publishes data on the lodging industry, routinely used by typical hotel buyers. Spark Hotel Valuation & Advisory has ordered and analyzed an STR Trend Report of historical supply and demand data for a group of hotels considered applicable to this analysis for the proposed subject hotel. This information is presented in the following table, along with the market-wide occupancy, average rate, and rooms revenue per available room (RevPAR). RevPAR is calculated by multiplying occupancy by average rate and provides an indication of how well rooms revenue is being maximized.

HISTORICAL HOTEL MARKET PERFORMANCE

Year	Average Daily Room	Available Room	Change	Occupied Room	Change	Occupancy	Average Rate	Change	RevPAR	Change
2007	814	297,110	—	175,564	—	59.1 %	$108.11	—	$63.88	—
2008	814	297,110	0.0 %	170,758	(2.7) %	57.5	102.21	(5.5) %	58.74	(8.0) %
2009	814	297,110	0.0	177,129	3.7	59.6	98.97	(3.2)	59.00	0.4
2010	751	274,160	(7.7)	159,431	(10.0)	58.2	98.45	(0.5)	57.25	(3.0)
2011	758	276,757	0.9	161,929	1.6	58.5	99.79	1.4	58.39	2.0
2012	801	292,522	5.7	184,498	13.9	63.1	98.17	(1.6)	61.92	6.1
2013	814	297,110	1.6	187,506	1.6	63.1	99.75	1.6	62.95	1.7
2014	814	297,110	0.0	197,574	5.4	66.5	103.71	4.0	68.96	9.5
2015	813	296,835	(0.1)	203,488	3.0	68.6	111.96	8.0	76.75	11.3
2016	813	296,745	(0.0)	216,328	6.3	72.9	121.89	8.9	88.86	15.8
2017	738	269,513	(9.2)	205,770	(4.9)	76.3	127.82	4.9	97.59	9.8
2018	731	266,860	(1.0)	199,470	(3.1)	74.7	133.82	4.7	100.03	2.5
2019	782	285,430	7.0	218,908	9.7	76.7	135.03	0.9	103.56	3.5
2020	939	342,864	20.1	161,360	(26.3)	47.1	121.38	(10.1)	57.13	(44.8)
2021	1,137	414,925	21.0	251,987	56.2	60.7	128.94	6.2	78.31	37.1
2022	1,199	437,788	5.5	321,241	27.5	73.4	157.81	22.4	115.80	47.9
2023	1,238	451,800	3.2	335,117	4.3	74.2	170.40	8.0	126.39	9.1
Year-to-Date Through September										
2023	1,200	327,600	—	249,546	—	76.2 %	$175.74	—	$133.87	—
2024	1,350	368,550	12.5 %	280,868	12.6 %	76.2	179.99	2.4 %	137.17	2.5 %
Average Annual Compounded Change:										
2015 - 2023			2.7 %		4.1 %			2.9 %		4.4 %
2014 - 2017			(3.2)		1.4			7.2		12.3
2017 - 2023			9.0		8.5			4.9		4.4

Source: STR

Hotels Included in Sample	Class	Competitive Status	Number of Rooms	Meeting Space	Year Opened
Hilton Garden Inn Cocoa Beach Oceanfront	Upscale	*Primary*	150	9,252	May 1987
Hampton Inn Cocoa Beach/Cape Canaveral	Upper Midscale	*Primary*	150	728	Feb 1999
Holiday Inn Express & Suites Cocoa Beach	Upper Midscale	*Primary*	60	180	Aug 2000
Courtyard Cocoa Beach Cape Canaveral	Upscale	*Primary*	156	7,602	Jan 2001
Holiday Inn Express & Suites Cocoa	Upper Midscale	*Primary*	75	1,100	Jun 2003
Four Points by Sheraton Cocoa Beach	Upscale	*Primary*	75	400	Jan 2006
Country Inn & Suites Port Canaveral	Upper Midscale	*Secondary*	151	1,335	May 2006
Fairfield Inn & Suites Melbourne Viera Town Center	Upper Midscale	*Secondary*	116	550	May 2018
Hampton Inn & Suites Cape Canaveral Cruise Port	Upper Midscale	*Secondary*	116	1,100	Apr 2020
SpringHill Suites Cape Canaveral Cocoa Beach	Upscale	*Secondary*	151	914	Jul 2020
Holiday Inn Express Cape Canaveral	Upper Midscale	*Secondary*	150	350	Oct 2023
		Total	**1,350**	**23,511**	

Source: STR

It is important to note some limitations of the STR data. Hotels are occasionally added to or removed from the sample; furthermore, not every property reports data in a consistent and timely manner. These factors can influence the overall quality of the information by skewing the results, and these inconsistencies may also cause the STR data to differ from the results of our competitive survey. Nonetheless, STR data provide the best indication of aggregate growth or decline in existing supply and demand; thus, these trends have been

considered in our analysis. Opening dates, as available, are presented for each reporting hotel in the previous table.

The Cocoa competitive set shows a long climb from the last cycle into a new price peak after the pandemic. From 2007 through 2014, occupancy hovered near the low 60s with ADR around $100, then accelerated from 2014 to 2019 as beach, space-coast, and cruise activity deepened; occupancy reached a pre-COVID high near 77 percent in 2019 with ADR in the mid-$130s and RevPAR a little above $100. The clear valley arrived in 2020 as travel halted and two Cape Canaveral openings hit the market, pulling occupancy to the high 40s and ADR to the low $120s, while the room base jumped roughly 20%. Recovery arrived in two stages. Demand rebuilt in 2021, then pricing surged in 2022 and 2023 as cruise embarkations resumed and launch-related visitation and events returned; ADR set a new full-year high near $170 and RevPAR reached the mid-$120s in 2023 with occupancy back to the mid-70s, despite the larger room base. Supply growth has been substantial, rising from roughly 780 rooms in 2019 to about 1,350 rooms by 2024 with the late-2023 opening of the 150-room Holiday Inn Express Cape Canaveral. Even with this expansion, year-to-date 2024 performance sits at roughly 76% occupancy, an ADR near $180, and a RevPAR in the high $130s, all slightly above the same period last year. For a proposed Fairfield Inn & Suites in Cocoa Village, the data point to a market that absorbed significant new capacity, reached new price highs, and continues to benefit from steady cruise demand, recurring space-launch draw, and improving event calendars, with the Village's limited in-district lodging offering a positioning advantage.

SEASONALITY

Monthly occupancy and ADR trends are presented in the following tables.

OCCUPANCY SEASONALITY

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
January	59.1 %	58.1 %	62.2 %	68.4 %	67.4 %	72.8 %	76.8 %	66.3 %	79.4 %	41.1 %	61.5 %	76.1 %	75.5 %
February	74.9	67.7	77.0	81.0	85.2	82.4	84.1	83.0	93.0	51.6	75.8	86.0	86.3
March	82.5	82.6	86.9	91.1	92.1	91.0	91.4	89.6	55.3	68.3	81.2	87.3	83.0
April	69.6	61.5	71.1	75.0	75.2	83.2	79.9	83.4	18.6	69.0	81.2	78.4	75.2
May	60.4	62.0	65.2	65.3	69.4	72.1	69.6	76.1	39.2	65.9	67.9	68.7	73.7
June	67.0	67.1	68.3	69.1	79.2	78.4	79.9	81.3	45.1	71.4	74.1	78.9	79.4
July	70.3	73.6	76.4	75.7	83.9	82.1	83.0	85.1	47.2	74.7	81.7	78.0	78.3
August	60.2	62.9	63.6	60.9	66.7	69.8	77.5	72.1	40.2	54.9	73.9	70.2	71.4
September	54.9	53.0	47.9	54.3	63.3	49.8	64.3	60.1	41.8	51.5	65.1	62.7	63.7
October	55.5	50.9	56.0	59.7	59.2	84.5	61.3	72.9	41.1	57.5	74.4	67.5	—
November	52.4	61.2	61.2	59.9	68.2	79.0	65.8	76.4	41.3	57.6	70.7	68.4	—
December	50.3	56.9	62.8	62.9	66.0	74.1	69.2	74.4	39.2	63.7	73.2	70.8	—
Annual Occupancy	**63.1 %**	**63.1 %**	**66.5 %**	**68.6 %**	**72.9 %**	**76.3 %**	**74.7 %**	**76.7 %**	**47.1 %**	**60.7 %**	**73.4 %**	**74.2 %**	**—**

AVERAGE RATE SEASONALITY

Month	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
January	$92.72	$95.44	$96.50	$103.77	$112.06	$118.62	$132.22	$126.47	$133.44	$98.57	$135.31	$160.31	$171.31
February	101.43	106.11	107.55	117.09	132.34	141.13	152.52	151.85	161.16	106.95	163.73	198.32	205.66
March	108.14	111.45	114.09	128.75	148.36	147.18	164.56	160.28	152.85	120.10	178.05	214.07	213.90
April	104.07	101.44	108.56	121.05	126.76	132.93	143.84	140.49	102.43	128.05	163.44	188.78	177.56
May	100.29	100.22	104.00	113.15	119.42	120.67	129.54	133.03	116.20	126.84	148.88	168.04	174.41
June	98.76	100.33	102.88	110.71	118.76	123.90	132.70	137.75	111.33	133.48	153.73	169.99	177.49
July	97.84	101.45	105.45	115.71	124.08	127.30	134.88	142.42	117.06	151.61	163.16	169.98	172.21
August	94.97	96.61	101.81	104.74	111.23	117.59	130.64	125.32	110.01	131.36	155.67	153.54	163.26
September	93.14	93.37	95.93	102.37	111.02	122.37	119.36	117.74	104.86	125.78	152.37	143.87	154.42
October	94.46	93.22	98.06	104.10	114.61	120.97	118.77	122.32	101.68	133.22	150.89	143.31	—
November	92.62	96.60	99.32	103.05	115.04	124.31	120.63	123.57	104.84	131.24	160.72	155.64	—
December	90.81	93.58	102.20	106.34	115.05	125.24	119.70	126.89	98.91	134.23	160.19	165.04	—
Annual Average Rate	**$98.17**	**$99.75**	**$103.71**	**$111.96**	**$121.89**	**$127.82**	**$133.82**	**$135.03**	**$121.38**	**$128.94**	**$157.81**	**$170.40**	**—**

SEASONALITY

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
High Season - February, March, April, June, July													
Occupancy	72.9 %	70.6 %	76.0 %	78.4 %	83.2 %	83.5 %	83.5 %	84.5 %	50.5 %	67.6 %	78.9 %	81.7 %	80.4 %
Average Rate	$102.30	$104.48	$108.01	$119.25	$130.69	$134.81	$145.39	$146.78	$135.91	$130.69	$164.72	$188.90	$189.87
RevPAR	74.54	73.80	82.07	93.53	108.69	112.56	121.46	124.08	68.68	88.31	129.93	154.25	152.60
Shoulder Season - January, May, December													
Occupancy	56.4 %	59.0 %	63.4 %	65.5 %	67.6 %	72.9 %	71.2 %	72.3 %	50.7 %	57.2 %	67.5 %	71.8 %	74.6 %
Average Rate	$94.99	$96.52	$100.95	$107.70	$115.55	$121.01	$126.66	$128.91	$118.79	$123.37	$148.85	$164.35	$172.84
RevPAR	53.59	56.93	63.97	70.56	78.12	88.17	90.22	93.16	60.24	70.57	100.52	118.02	128.91
Low Season - August, September, October, November													
Occupancy	55.8 %	57.0 %	57.2 %	58.7 %	64.3 %	68.5 %	67.3 %	70.4 %	41.1 %	55.4 %	71.1 %	67.3 %	67.6 %
Average Rate	$93.85	$95.10	$99.01	$103.61	$112.96	$120.94	$122.83	$122.47	$105.33	$130.54	$154.89	$149.25	$159.16
RevPAR	52.36	54.21	56.65	60.84	72.65	82.79	82.62	86.25	43.31	72.34	110.09	100.42	107.63

Source: STR

SUPPLY

Based on an evaluation of the occupancy, rate structure, market orientation, chain affiliation, location, facilities, amenities, reputation, and quality of each area hotel, as well as the comments of management representatives, we have identified several properties that are expected to be primarily competitive with the proposed subject hotel. If applicable, additional lodging facilities may be judged only secondarily competitive; although the facilities, rate structures, or market orientations of these hotels prevent their inclusion among the primary competitive supply, they are expected to compete with the proposed subject hotel to some extent.

PRIMARY COMPETITORS

The following table summarizes the important operating characteristics of the primary competitors and the aggregate secondary competitors (if applicable). This information was compiled from phone interviews, online resources, and our in-house database of operating and hotel facility data.

PRIMARY COMPETITORS - OPERATING PERFORMANCE

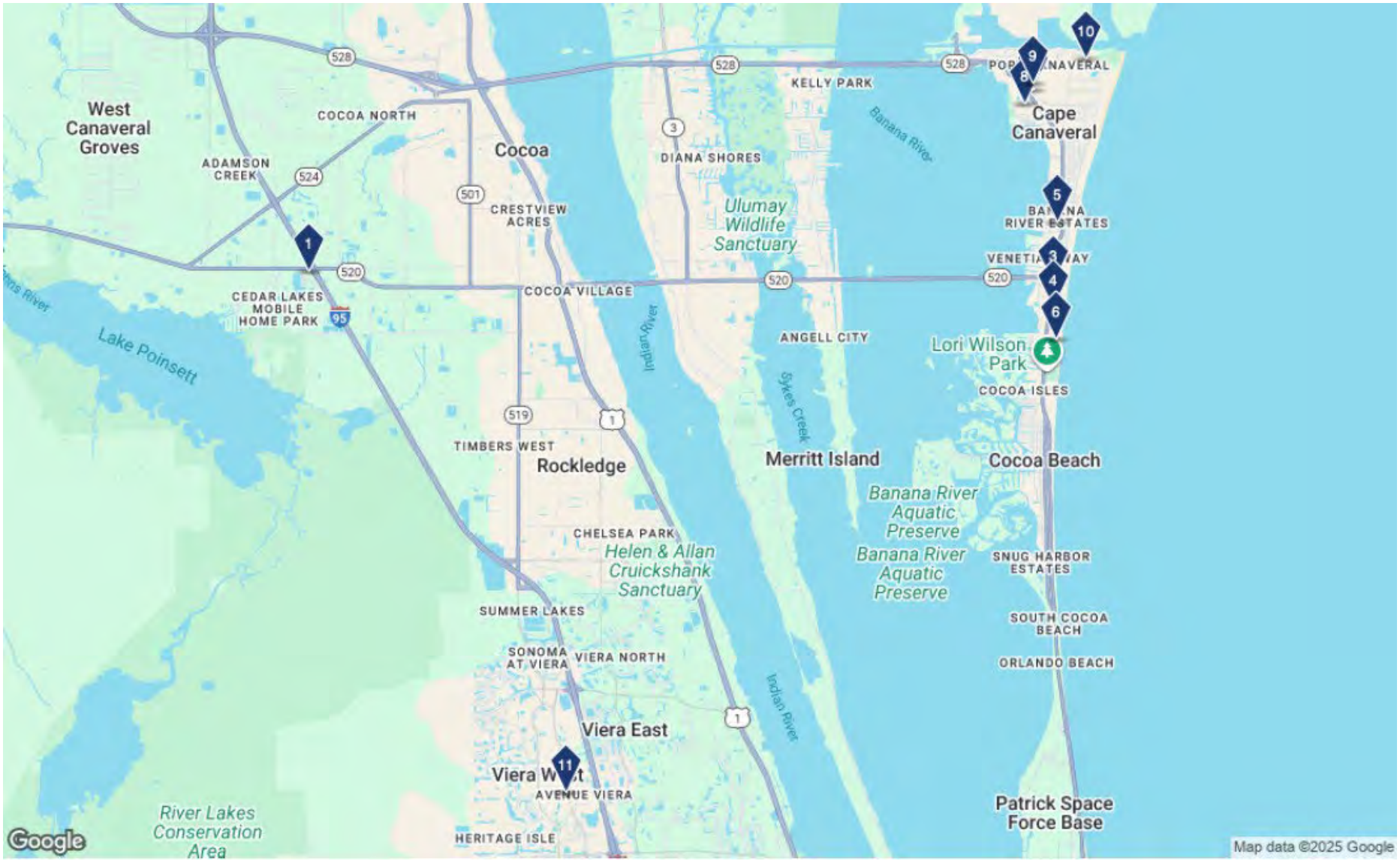
		SEGMENTATION (EST.)			ESTIMATED 2023				ESTIMATED 2024					
Property	Number of Rooms	Commercial/Government	Leisure	Group	Weighted Annual Room Count	Occ.	Average Rate	RevPAR	Weighted Annual Room Count	Occ.	Average Rate	RevPAR	Occupancy Penetration	Yield Penetration
Holiday Inn Express & Suites Cocoa	75	45 %	50 %	5 %	75	70 - 75 %	140 - $150	$105 - $110	75	75 - 80 %	$140 - $150	$110 - $115	100 - 110 %	85 - 90 %
Courtyard Cocoa Beach Cape Canaveral	156	40	50	10	156	70 - 75	180 - 190	130 - 140	156	70 - 75	180 - 190	130 - 140	95 - 100	100 - 110
Four Points by Sheraton Cocoa Beach	75	45	50	5	75	75 - 80	170 - 180	130 - 140	75	75 - 80	170 - 180	130 - 140	100 - 110	100 - 110
Hilton Garden Inn Cocoa Beach Oceanfront	150	35	45	20	150	70 - 75	180 - 190	130 - 140	150	70 - 75	190 - 200	130 - 140	95 - 100	100 - 110
Hampton Inn Cocoa Beach Cape Canaveral	150	40	50	10	150	70 - 75	170 - 180	130 - 140	150	70 - 75	180 - 190	130 - 140	95 - 100	100 - 110
Holiday Inn Express & Suites Cocoa Beach	60	45	50	5	60	75 - 80	170 - 180	130 - 140	60	75 - 80	170 - 180	130 - 140	100 - 110	100 - 110
SUB-TOTALS/AVERAGES	**666**	**41 %**	**49 %**	**11 %**	**666**	**75.0**	**$176.04**	**$131.99**	**666**	**73.8 %**	**$180.16**	**$132.90**	**100.4**	**103.3 %**
Secondary Competitors	684	48 %	45 %	7 %	429	73.3	$163.60	$119.91	513	73.0 %	$168.59	$123.11	99.4	95.7 %
TOTALS/AVERAGES	**44**	**44 %**	**47 %**	**9 %**	**1,095**	**74.3**	**$171.24**	**$127.26**	**1,179**	**73.4 %**	**$175.16**	**$128.64**	**100.0**	**100.0 %**

** Specific occupancy and average rate data were utilized in our analysis, but are presented in ranges in the above table for the purposes of confidentiality.*

PRIMARY COMPETITORS - FACILITY SUMMARY

Property	Number of Rooms	Year Opened	Last Major Renovation(s)	Food and Beverage Outlets	Indoor Meeting Space (SF)	Meeting Space per Room	Facilities & Amenities
HOLIDAY INN EXPRESS & SUITES COCOA 301 Tucker Lane, Cocoa	75	2003	2025	Breakfast Dining Area	720	9.6	Business Center; Fitness Center; Market Pantry; Outdoor Hot Tub; Outdoor Swimming Pool
COURTYARD COCOA BEACH CAPE CANAVERAL 3435 North Atlantic Avenue, Cocoa Beach	156	1999	2015	The Bistro	3,344	21.4	Airport/Local Shuttle; Business Center; Fitness Center; Gift Shop; Outdoor Hot Tub; Outdoor Patio & Fire Pit; Outdoor Swimming Pool; Vending Area
FOUR POINTS BY SHERATON COCOA BEACH 4001 North Atlantic Avenue, Cocoa Beach	75	2006	—	Shark Pit Bar & Grill	400	5.3	Business Center; Fitness Center; Gift Shop; Outdoor Swimming Pool
HILTON GARDEN INN COCOA BEACH OCEANFRONT 2080 North Atlantic Avenue, Cocoa Beach	150	1987	2021	Starlite Restaurant & Pool Bar	9,262	61.7	Business Center; Fitness Center; Game Room; Outdoor Swimming Pool
HAMPTON INN COCOA BEACH CAPE CANAVERAL 3425 North Atlantic Avenue, Cocoa Beach	150	1999	2008	Breakfast Dining Area	728	4.9	Business Center; Fitness Center; Outdoor Swimming Pool
HOLIDAY INN EXPRESS & SUITES COCOA BEACH 5575 North Atlantic Avenue, Cocoa Beach	60	2000	2010	Breakfast Dining Area	180	3.0	Business Center; Fitness Center; Outdoor Hot Tub; Outdoor Swimming Pool

Map of Competition



Our survey of the primarily competitive hotels in the local market shows a range of lodging types and facilities. Estimated operating statistics for each hotel are presented below.

1 Holiday Inn Express & Suites Cocoa - 301 Tucker Ln

Cocoa, Florida 32926 (Brevard County) - Titusville/Cocoa Beach Submarket

Upper Midscale
Hotel

Property Summary

Rooms	75
Built/Renovated	2003/2025
Stories	3
Brand	Holiday Inn Express
Operation Type	Franchise
Meeting Space	1,100 SF
Commercial Asking Rent	Withheld
Parking Spaces	2.76/Room; 207 Surface Spaces



Property Details

Land Area	780,595 SF (17.92 AC)	Hotel Location Type	Interstate
Building FAR	0.08	Construction Type	Reinforced Concrete
Primary Corridors	Interior	Zoning	TU-2
Parcel	24-35-35-00-00002.0-0000.00		

Amenities

Room Amenities

- High Speed Internet Access
- Patio

Site Amenities

- Business Center
- Fitness Center
- Meeting Event Space
- Pool
- Public Access Wifi
- Smoke-Free

HOLIDAY INN EXPRESS & SUITES COCOA

ESTIMATED HISTORICAL OPERATING STATISTICS

Year	Wtd. Annual Room Count	Occupancy	Average Rate	RevPAR	Occupancy Penetration	Yield Penetration
Est. 2022	75	80 - 85 %	$130 - $140	$110 - $115	110 - 120 %	90 - 95 %
Est. 2023	75	70 - 75	140 - 150	105 - 110	100 - 110	80 - 85
Est. 2024	75	75 - 80	140 - 150	110 - 115	100 - 110	85 - 90

Based on our research, the property appeared to be in good overall condition.

2 Courtyard Cocoa Beach Cape Canaveral - 3435 N Atlantic Ave

Cocoa Beach, Florida 32931 (Brevard County) - Titusville/Cocoa Beach Submarket

Upscale
Hotel

Property Summary

Rooms	156
Built/Renovated	1999/2015
Stories	8
Brand	Courtyard
Operation Type	Franchise
Meeting Space	7,602 SF
Commercial Asking Rent	Withheld
Parking Spaces	1.02/Room; 159 Surface Spaces



Property Details

Land Area	38,768 SF (0.89 AC)	Hotel Location Type	Resort
Building FAR	2.15	Construction Type	Masonry
Primary Corridors	Interior	Zoning	B-2
Parcel	24-37-34-CL-00000.0-0001.04		

Amenities

Room Amenities

- Balcony
- High Speed Internet Access
- Patio

Site Amenities

- Business Center
- Fitness Center
- Hot Tub
- Meeting Event Space
- On-Site Bar
- Pool
- Public Access Wifi
- Restaurant
- Room Service
- Smoke-Free

COURTYARD COCOA BEACH CAPE CANAVERAL

ESTIMATED HISTORICAL OPERATING STATISTICS

Year	Wtd. Annual Room Count	Occupancy	Average Rate	RevPAR	Occupancy Penetration	Yield Penetration
Est. 2022	156	70 - 75 %	$160 - $170	$115 - $120	95 - 100 %	100 - 110 %
Est. 2023	156	70 - 75	180 - 190	130 - 140	100 - 110	100 - 110
Est. 2024	156	70 - 75	180 - 190	130 - 140	95 - 100	100 - 110

Based on our research, the property appeared to be in very good overall condition.

3 Four Points by Sheraton Cocoa Beach - 4001 N Atlantic Ave

Cocoa Beach, Florida 32931 (Brevard County) - Titusville/Cocoa Beach Submarket

Upscale
Hotel

Property Summary

Rooms	75
Built	2006
Stories	5
Brand	Four Points by Sheraton
Operation Type	Franchise
Meeting Space	400 SF
Commercial Asking Rent	Withheld
Parking Spaces	0.91/Room; 68 Surface Spaces; Covered Spaces Available



Property Details

Land Area	80,586 SF (1.85 AC)	Hotel Location Type	Resort
Building FAR	0.69	Construction Type	Reinforced Concrete
Primary Corridors	Interior	Zoning	CG
Parcel	24-37-35-CI-00014.0-0005.00		

Amenities

Room Amenities

- Digital key
- High Speed Internet Access

Site Amenities

- Business Center
- Fitness Center
- Hot Tub
- Meeting Event Space
- On-Site Bar
- Pool
- Public Access Wifi
- Restaurant
- Smoke-Free

FOUR POINTS BY SHERATON COCOA BEACH

ESTIMATED HISTORICAL OPERATING STATISTICS

Year	Wtd. Annual Room Count	Occupancy	Average Rate	RevPAR	Occupancy Penetration	Yield Penetration
Est. 2022	75	70 - 75 %	$160 - $170	$115 - $120	95 - 100 %	100 - 110 %
Est. 2023	75	75 - 80	170 - 180	130 - 140	100 - 110	100 - 110
Est. 2024	75	75 - 80	170 - 180	130 - 140	100 - 110	100 - 110

Based on our research, the property appeared to be in good overall condition.

4 Hampton Inn Cocoa Beach/Cape Canaveral - 3425 N Atlantic Ave

Cocoa Beach, Florida 32931 (Brevard County) - Titusville/Cocoa Beach Submarket

Upper Midscale
Hotel

Property Summary

Rooms	150
Built/Renovated	1999/2008
Stories	8
Brand	Hampton by Hilton
Operation Type	Franchise
Meeting Space	728 SF
Commercial Asking Rent	Withheld
Parking Spaces	0.96/Room; 144 Surface Spaces



Property Details

Land Area	163,350 SF (3.75 AC)	Hotel Location Type	Resort
Building FAR	0.56	Construction Type	Masonry
Primary Corridors	Interior	Zoning	OC
Parcel	24-37-34-CL-00000.0-0001.04		

Amenities

Room Amenities

- Balcony
- Digital key
- High Speed Internet Access

Site Amenities

- Business Center
- Fitness Center
- Meeting Event Space
- Pool
- Public Access Wifi
- Smoke-Free

HILTON GARDEN INN COCOA BEACH OCEANFRONT

ESTIMATED HISTORICAL OPERATING STATISTICS

Year	Wtd. Annual Room Count	Occupancy	Average Rate	RevPAR	Occupancy Penetration	Yield Penetration
Est. 2022	150	70 - 75 %	$170 - $180	$120 - $125	95 - 100 %	100 - 110 %
Est. 2023	150	70 - 75	180 - 190	130 - 140	95 - 100	100 - 110
Est. 2024	150	70 - 75	190 - 200	130 - 140	95 - 100	100 - 110

Based on our research, the property appeared to be in very good overall condition.

5 Holiday Inn Express & Suites Cocoa Beach - 5575 N Atlantic Ave

Cocoa Beach, Florida 32931 (Brevard County) - Titusville/Cocoa Beach Submarket

Upper Midscale
Hotel

Property Summary

Rooms	60
Built/Renovated	2000/2010
Stories	4
Brand	Holiday Inn Express
Operation Type	Franchise
Meeting Space	180 SF
Commercial Asking Rent	Withheld
Parking Spaces	0.92/Room; 55 Surface Spaces



Property Details

Land Area	63,162 SF (1.45 AC)	Hotel Location Type	Resort
Building FAR	0.47	Zoning	CN
Primary Corridors	Interior		
Parcel	24-37-26-50-0000A.0-0000.00		

Amenities

Room Amenities

- High Speed Internet Access
- Multi-Room Suites
- Patio

Site Amenities

- Business Center
- Fitness Center
- Meeting Event Space
- Pool
- Public Access Wifi
- Smoke-Free

HAMPTON INN COCOA BEACH CAPE CANAVERAL

ESTIMATED HISTORICAL OPERATING STATISTICS

Year	Wtd. Annual Room Count	Occupancy	Average Rate	RevPAR	Occupancy Penetration	Yield Penetration
Est. 2022	150	70 - 75 %	$160 - $170	$115 - $120	95 - 100 %	100 - 110 %
Est. 2023	150	70 - 75	170 - 180	130 - 140	95 - 100	100 - 110
Est. 2024	150	70 - 75	180 - 190	130 - 140	95 - 100	100 - 110

Based on our research, the property appeared to be in good overall condition.

6 Hilton Garden Inn Cocoa Beach Oceanfront - 2080 N Atlantic Ave

Cocoa Beach, Florida 32931 (Brevard County) - Titusville/Cocoa Beach Submarket

Upscale
Hotel

Property Summary

Rooms	150
Built/Renovated	1987/2021
Stories	6
Brand	Hilton Garden Inn
Operation Type	Franchise
Meeting Space	9,252 SF
Commercial Asking Rent	Withheld
Parking Spaces	3.33/Room; 500 Surface Spaces



Property Details

Land Area	314,939 SF (7.23 AC)	Hotel Location Type	Resort
Building FAR	0.51	Construction Type	Reinforced Concrete
Primary Corridors	Interior	Zoning	CT1
Parcel	25-37-02-CL-00000.0-0011.00		

Amenities

Room Amenities

- Balcony
- Digital key
- High Speed Internet Access
- Multi-Room Suites
- Patio

Site Amenities

- Beach (direct access)
- Fitness Center
- Meeting Event Space
- On-Site Bar
- Pool
- Public Access Wifi
- Restaurant
- Smoke-Free

Previous Sale

Sale Date	9/10/2021	Sale Type	Investment
Sale Price	$51,200,000	Comp Status	Research Complete
Comp ID	5672865		

HOLIDAY INN EXPRESS & SUITES COCOA BEACH

ESTIMATED HISTORICAL OPERATING STATISTICS

Year	Wtd. Annual Room Count	Occupancy	Average Rate	RevPAR	Occupancy Penetration	Yield Penetration
Est. 2022	60	70 - 75 %	$150 - $160	$115 - $120	100 - 110 %	100 - 110 %
Est. 2023	60	75 - 80	170 - 180	130 - 140	100 - 110	100 - 110
Est. 2024	60	75 - 80	170 - 180	130 - 140	100 - 110	100 - 110

Based on our research, the property appeared to be in good overall condition.

SECONDARY COMPETITORS

We have also reviewed other area lodging facilities to determine whether any may compete with the subject hotel on a secondary basis. The room count of each secondary competitor has been weighted based on its assumed degree of competitiveness with the subject hotel. By assigning degrees of competitiveness, we can assess how the subject hotel and its competitors may react to various changes in the market, including new supply, changes to demand generators, and renovations or franchise changes of existing supply.

We have identified five hotels that are expected to compete with the proposed subject hotel on a secondary level. These hotels are competitive based on comparable branding, hotel class, product quality, and price point; however, these hotels are located in neighboring cities, measuring a considerable distance from the subject property's planned location.

The following table sets forth the pertinent operating characteristics of the secondary competitors.

SECONDARY COMPETITORS - OPERATING PERFORMANCE

		SEGMENTATION (EST.)				ESTIMATED 2023				ESTIMATED 2024			
Property	Number of Rooms	Commercial/Government	Leisure	Group	Total Competitive Level	Weighted Annual Room Count	Occ.	Average Rate	RevPAR	Weighted Annual Room Count	Occ.	Average Rate	RevPAR
Hampton Inn & Suites Cape Canaveral Cruise Port	116	40 %	55 %	5 %	75 %	87	75 - 80 %	$160 - $170	$125 - $130	87	70 - 75 %	$170 - $180	$125 - $130
Country Inn & Suites Port Canaveral	151	35	55	10	75	113	70 - 75	140 - 150	105 - 110	113	70 - 75	140 - 150	105 - 110
SpringHill Suites Cape Canaveral Cocoa Beach	151	50	40	10	75	113	70 - 75	170 - 180	130 - 140	113	70 - 75	180 - 190	130 - 140
Holiday Inn Express Cape Canaveral	150	55	40	5	75	28	35 - 40	170 - 180	65 - 70	113	65 - 70	170 - 180	120 - 125
Fairfield Inn & Suites Melbourne Viera Town Center	116	60	35	5	75	87	75 - 80	160 - 170	125 - 130	87	70 - 75	160 - 170	125 - 130
TOTALS/AVERAGES	**684**	**48 %**	**45 %**	**7 %**	**75 %**	**429**	**73.3 %**	**$163.60**	**$119.91**	**513**	**73.0 %**	**$168.59**	**$123.11**

** Specific occupancy and average rate data was utilized in our analysis, but is presented in ranges in the above table for the purposes of confidentiality.*

SUPPLY CHANGES

It is important to consider any new hotels that may have an impact on the subject property's operating performance. The hotels that have recently opened, are under construction, or are in the stages of early development (if any) in the Cocoa market are noted below.

GREATER AREA NEW SUPPLY

Proposed Hotel Name	Estimated Number of Rooms	Hotel Product Tier	Development Stage	Expected Qtr. & Year of Opening	Address	Assumed Opening Month	Day	Year	Developer
Cocoa Beach									
Westgate Cocoa Beach Pier	126	Upper Midscale	Final Planning	Q4 '26	401 Meade Ave	12	1	2026	Westgate Resorts
The Westin Cocoa Beach Resort & Spa	502	Upper Upscale	Under Construction	Q3 '27	1300 N Atlantic Ave	8	1	2027	Driftwood Capital
Cape Canaveral									
Hyatt Place Cape Canaveral	89	Upscale	Under Construction	Q1 '25	9009 Astronaut Blvd	3	1	2025	Oliver Companies Inc
Hilton Garden Inn Cape Canaveral	89	Upscale	Under Construction	Q4 '25	Imperial Blvd & A1A	11	1	2025	McKibbon Hotel Group
Melbourne									
Hilton Garden Inn Viera Melbourne	84	Upscale	Under Construction	Q2 '25	5655 Fresh Springs Ln	6	1	2025	General Hotels Corporation
Residence Inn by Marriott Viera	96	Upscale	Proposed	Q1 '27	2435 Metfield Dr	2	1	2027	Sycamore Investment Group

Source: Spark Hotel Valuation & Advisory, CoStar

Of the hotels listed in the preceding table, we have identified the following new supply that is expected to have some degree of competitive interaction with the subject hotel based on location, anticipated market orientation and price point, and/or operating profile.

COMPETITIVE NEW SUPPLY

Proposed Property	Number of Rooms	Property Type	Address/Location	Total Competitive Level	Weighted Room Count	Estimated Opening Date	Development Stage
Proposed Fairfield Inn & Suites Cocoa	104	Select-Service	603 Brevard Ave	100 %	104	November 1, 2026	Early Development
Hyatt Place Cape Canaveral	89	Select-Service	9009 Astronaut Blvd	75	67	March 1, 2025	Under Construction
Hilton Garden Inn Viera Melbourne	84	Select-Service	5655 Fresh Springs Ln	75	63	June 1, 2025	Under Construction
Hilton Garden Inn Cape Canaveral	89	Select-Service	Imperial Blvd & A1A	75	67	November 1, 2025	Under Construction
TOTALS/AVERAGES	366				301		

An 89-room Hyatt Place and an 89-room Hilton Garden Inn are under construction in Cape Canaveral, along with an 84-room Hilton Garden Inn in Viera. Although these hotels feature strong brand affiliations, similar select-service facilities, and are expected to compete at a comparable price point, each has been weighted as secondarily competitive given its location in a neighboring municipality.

In addition to the aforementioned proposed hotels, we have qualitatively considered numerous projects for which definitive room counts, and development timelines have yet to be announced, as well as proposed projects in neighboring submarkets.

While we have taken reasonable steps to investigate proposed hotel projects and their status, because of the nature of real estate development, it is impossible to determine with certainty every hotel that will be opened in the future or what their marketing strategies and effect on the market will be. Depending on the outcome of current and future projects, the future operating potential of the subject property may be affected. Future improvement in market conditions will raise the risk of increased competition. Our forthcoming forecast of stabilized occupancy and average rate is intended to reflect such risk.

SUPPLY CONCLUSION

We have identified various properties that are competitive to some degree with the subject property. We have also investigated potential increases in competitive supply in this Cocoa submarket. The subject property will continue to operate in a dynamic market of varying product types and price points. Next, we will present our forecast for demand change, using the historical supply data presented as a starting point.

DEMAND

DEMAND ANALYSIS USING MARKET SEGMENTATION

For the purpose of demand analysis, the overall market is divided into individual segments based on the nature of travel. Based on our fieldwork, area analysis, and knowledge of the local lodging market, we estimate the 2024 distribution of accommodated-room-night demand as follows.

ACCOMMODATED ROOM NIGHT DEMAND

	Marketwide	
Market Segment	Accommodated Demand	Percentage of Total
Commercial/Government	137,976	44 %
Leisure	149,286	47
Group	28,782	9
TOTAL	316,044	100 %

The market's demand mix comprises Commercial/Government demand, with this segment representing roughly 44% of the accommodated room nights in this Cocoa submarket. The remaining portion comprises Leisure at 47%, Group at 10%, and Extended-Stay at 12%.

Using the distribution of accommodated hotel demand as a starting point, we will analyze the characteristics of each market segment in an effort to determine future trends in room-night demand.

COMMERCIAL/GOVERNMENT SEGMENT

Commercial/government demand consists mainly of individual businesspeople passing through the subject market or visiting commercial firms or government institutions in the area, in addition to high-volume accounts generated by local agencies. Brand loyalty (particularly frequent-traveler programs), as well as location and convenience with respect to businesses and amenities, influence lodging choices in this segment. Companies typically designate hotels as "preferred" accommodations in return for significantly discounted rates, including government per-diem rates; negotiated rates are discounted in proportion to the number of room nights produced by a corporate client. Government per-diem rates are established annually. Demand within this segment is strongest Monday through Thursday nights, declines significantly on Friday and Saturday, and increases somewhat on Sunday night. It is relatively constant throughout the year, with marginal declines in late December and during other holiday periods.

Commercial and government lodging demand on Florida's Space Coast is anchored by the aerospace and defense complex surrounding Kennedy Space Center and Cape Canaveral Space Force Station, which draws a steady flow of NASA personnel, contractors, and federal and military visitors for launches, program work, and ongoing operations. Port Canaveral's position as one of the world's busiest cruise ports, together with expanding cargo activity, generates additional room nights from cruise line executives, maritime service providers, logistics firms, and government regulators who support growing passenger volumes and port revenues. In and around Cocoa, a growing base of health care, manufacturing, retail, and public administration employers, reinforced by recent distribution and logistics investments, sustains day-to-day corporate travel, field staff visits, and vendor activity. The combination of entrenched aerospace and defense programs, a globally significant seaport, and a diversifying civic and business sector should continue to support stable, and modestly growing, commercial and government room-night demand over the projection period.

LEISURE SEGMENT

Leisure demand consists of individuals and families spending time in an area or passing through en route to other destinations. Travel purposes include sightseeing, recreation, or visiting friends and relatives. Leisure demand also includes room nights booked through Internet sites such as Expedia, Hotels.com, and Priceline; however, leisure may not be the purpose of the stay. This demand may also include business travelers and group and convention attendees who use these channels to take advantage of any discounts that may be available on these sites. Leisure demand is strongest on Friday and Saturday nights, and all week during holiday periods and the summer months. These peak periods represent the inverse of commercial visitation trends, underscoring the stabilizing effect of capturing weekend and summer tourist travel. Future leisure demand is related to the overall economic health of the region and the nation. Trends showing changes in state and regional unemployment and disposable personal income correlate strongly with leisure travel levels.

Leisure demand in the Cocoa and broader Space Coast area is primarily generated by Historic Cocoa Village and its riverfront mix of boutique shops, restaurants, galleries, and a steady calendar of festivals and special events that draw both day visitors and overnight guests. This core appeal is complemented by nearby Atlantic beaches and waterfront recreation, as well as year-round visitation to the Kennedy Space Center Visitor Complex and high-profile rocket launches at Kennedy Space Center and Cape Canaveral, which attract space enthusiasts from across the country and abroad. Port Canaveral's role as one of the world's busiest cruise ports adds a substantial layer of pre and post cruise demand, as millions of passengers each year use nearby hotels to extend their vacations or bridge flight and sailing schedules. Ecotourism experiences, including bioluminescent kayaking in the Indian River Lagoon and visits to the Brevard Zoo, which draws a large share of its guests from outside the county, further broaden the leisure base and appeal to multigenerational travel parties. Weekend staycations from Central Florida, friends and relatives visiting local aerospace workers, and the area's convenient position between Orlando's theme parks and the Atlantic shoreline should support continued moderate growth in leisure demand through the projection period.

MEETING & GROUP SEGMENT

The meeting-and-group market includes meetings, seminars, conventions, trade association shows, and similar gatherings of ten or more people. Peak convention demand typically occurs in the spring and fall. Although there are numerous classifications within the meeting and group segment, the primary categories considered in this analysis are corporate groups, associations, and SMERFE (social, military, ethnic, religious, fraternal, and educational) groups. Corporate groups typically meet during the business week, most commonly in the spring and fall months. These groups tend to be the most profitable for hotels, as they typically pay higher rates and usually generate ancillary revenues including food and beverage and/or banquet revenue. SMERFE groups are typically price-sensitive and tend to meet on weekends and during the summer months or holiday season, when greater discounts are usually available; these groups generate limited ancillary revenues. Association demand is generally divided on a geographical basis, with national, regional, and state associations representing the most common sources. Professional associations and/or those supported by members' employers often meet on weekdays, while other associations prefer to hold events on weekends. The profile and revenue potential of associations varies depending on the group and the purpose of the meeting or event.

Meeting and group demand along Florida's Space Coast, with Cocoa as a central hub, is anchored by the region's concentration of aerospace and defense employers associated with Kennedy Space Center, Cape Canaveral Space Force Station, and major contractors that rely on nearby hotels for project meetings, trainings, and vendor events. This corporate base is complemented by events at the Space Coast Convention Center in

Cocoa, which provides more than 15,000 square feet of modern function space and hosts association conferences, trade shows, and social galas that generate compression across surrounding lodging. Within Historic Cocoa Village, the Cocoa Civic Center, Porcher House, and Cocoa Riverfront Park offer riverfront venues for corporate functions, weddings, and reunions, supported by a busy calendar of festivals and community events that attract SMERF groups and niche interest organizations. The broader market also benefits from youth and amateur sports tournaments at the USSSA Space Coast Complex in Viera, which utilizes stay to play policies that channel team blocks into area hotels, as well as pre and post cruise groups sailing from Port Canaveral that frequently package hotel stays, parking, and port transfers. Given the ongoing expansion of the space industry, stable cruise deployment, and continued destination marketing of the Space Coast for meetings and events, we anticipate moderate growth in the meeting and group segment through the stabilized year.

BASE DEMAND GROWTH RATES

The purpose of segmenting the lodging market is to define each major type of demand, identify customer characteristics, and estimate future growth trends. Starting with an analysis of the local area, three segments were defined as representing the subject property's lodging market. Various types of economic and demographic data were then evaluated to determine their propensity to reflect changes in hotel demand. Based on this procedure, we forecast the following annual growth rates for each demand segment.

ANNUAL COMPOUNDED DEMAND GROWTH BY SEGMENT

	Annual Growth Rate						
Market Segment	2025	2026	2027	2028	2029	2030	2031
Commercial/Government	7.0 %	6.5 %	5.0 %	2.0 %	1.5 %	0.5 %	0.0 %
Leisure	7.0	6.0	5.0	2.5	1.5	0.5	0.0
Group	6.0	6.0	11.0	9.0	5.0	2.0	0.0
Base Demand Growth	**6.9 %**	**6.2 %**	**5.5 %**	**2.9 %**	**1.9 %**	**0.7 %**	**0.0 %**

We note that we have selected the latent demand (unaccommodated and induced demand) in our selection of the market-segment growth rates.

ACCOMMODATED DEMAND AND MARKET-WIDE OCCUPANCY

Based upon a review of the market dynamics in the subject property's competitive environment, we have forecast growth rates for each market segment. Using the calculated potential demand for the market, we have determined market-wide accommodated demand based on the inherent limitations of demand fluctuations and other factors in the market area. The following table details our projection of lodging demand growth for the subject market, including the total number of occupied room nights and any residual unaccommodated demand in the market.

MARKET OCCUPANCY

	2024	2025	2026	2027	2028	2029	2030
Commercial/Government							
Total Demand	137,976	147,634	157,230	165,092	168,394	170,920	171,774
Growth Rate		7.0 %	6.5 %	5.0 %	2.0 %	1.5 %	0.5 %
Leisure							
Total Demand	149,286	159,736	169,321	177,787	182,231	184,965	185,890
Growth Rate		7.0 %	6.0 %	5.0 %	2.5 %	1.5 %	0.5 %
Group							
Total Demand	28,782	30,509	32,340	35,897	39,128	41,084	41,906
Growth Rate		6.0 %	6.0 %	11.0 %	9.0 %	5.0 %	2.0 %
TOTAL							
Total Accommodated Demand		337,880	358,891	378,776	389,753	396,968	399,570
Overall Demand Growth		6.9 %	6.2 %	5.5 %	2.9 %	1.9 %	0.7 %
Market Mix							
Commercial/Government	43.7 %	43.7 %	43.8 %	43.6 %	43.2 %	43.1 %	43.0 %
Leisure	47.2	47.3	47.2	46.9	46.8	46.6	46.5
Group	9.1	9.0	9.0	9.5	10.0	10.3	10.5
Pick from drop-down list	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Existing Hotel Supply	1,179	1,179	1,179	1,179	1,179	1,179	1,179
Proposed Hotels							
[1] Proposed Fairfield Inn & Suites Cocoa			17	104	104	104	104
[2] Hyatt Place Cape Canaveral		56	67	67	67	67	67
[3] Hilton Garden Inn Viera Melbourne		37	63	63	63	63	63
[4] Hilton Garden Inn Cape Canaveral		11	67	67	67	67	67
Available Room Nights per Year	430,335	468,314	508,402	540,018	540,018	540,018	540,018
Nights per Year	365	365	365	365	365	365	365
Total Supply	1,179	1,283	1,393	1,480	1,480	1,480	1,480
Rooms Supply Growth	—	8.8 %	8.6 %	6.2 %	0.0 %	0.0 %	0.0 %
Marketwide Occupancy	**73.4 %**	**72.1 %**	**70.6 %**	**70.1 %**	**72.2 %**	**73.5 %**	**74.0 %**

[1] Opening in November 2026 of the 100% competitive, 104-room Proposed Fairfield Inn & Suites Cocoa

[2] Opening in March 2025 of the 75% competitive, 89-room Hyatt Place Cape Canaveral

[3] Opening in June 2025 of the 75% competitive, 84-room Hilton Garden Inn Viera Melbourne

[4] Opening in November 2025 of the 75% competitive, 89-room Hilton Garden Inn Cape Canaveral

The defined competitive market of hotels should experience moderate demand growth across the commercial/government, leisure, and group segments over the next few years, supported by continued expansion of the Space Coast aerospace sector, record cruise volumes at Port Canaveral, and rising overnight visitation throughout Brevard County. Tourism spending now measures in the billions of dollars annually, with cruise, launch-related travel, and project-based aerospace work creating a broad base of year-round room-night demand and recapturing previously unaccommodated or displaced demand. Within this context, Historic Cocoa Village offers a walkable, waterfront downtown with an established mix of dining, retail, and events but very limited contemporary lodging, and planning efforts have highlighted the need for a modern branded hotel in this district. While the entrance of four new hotels, including the subject property, is expected to pressure occupancy in the near term, the strength and diversity of these demand drivers should allow market occupancy to stabilize near historical norms in the mid 70s once the new rooms are absorbed.

INTRODUCTION TO PROJECTION OF OCCUPANCY & AVERAGE RATE

Along with average rate results, the occupancy levels achieved by a hotel are the foundation of the property's financial performance and market value. Most of a lodging facility's other revenue sources (such as food, beverages, other operated departments, and rentals and other income) are driven by the number of guests, and many expense levels vary with occupancy. To a certain degree, occupancy attainment can be manipulated by management. For example, hotel operators may choose to lower rates in an effort to maximize occupancy. Our forecasts reflect an operating strategy that we believe would be implemented by a typical, professional hotel management team to achieve an optimal mix of occupancy and average rate.

PENETRATION RATE ANALYSIS

The proposed subject property's forecasted market share and occupancy levels are based upon its anticipated competitive position within the market, as quantified by its penetration rate. The penetration rate is the ratio of a property's market share to its fair share.

HISTORICAL PENETRATION RATES BY MARKET SEGMENT

In the following table, the penetration rates attained by the primary competitors and the aggregate secondary competitors are set forth for each segment for the base year, 2024.

HISTORICAL PENETRATION RATES

Property	Commercial/Government	Leisure	Group	Overall
Holiday Inn Express & Suites Cocoa	107 %	110 %	57 %	103 %
Courtyard Cocoa Beach Cape Canaveral	91	105	109	99
Four Points by Sheraton Cocoa Beach	107	110	57	103
Hilton Garden Inn Cocoa Beach Oceanfront	79	93	215	98
Hampton Inn Cocoa Beach Cape Canaveral	90	104	108	98
Holiday Inn Express & Suites Cocoa Beach	111	114	59	108
Secondary Competition	109 %	95 %	79 %	99 %

FORECAST OF SUBJECT PROPERTY'S OCCUPANCY

Because the supply and demand balance for the competitive market is dynamic, there is a circular relationship between the penetration factors of each hotel in the market. The performance of individual new hotels has a direct effect upon the aggregate performance of the market, and consequently upon the calculated penetration factor for each hotel in each market segment. The same is true when the performance of existing hotels changes, either positively (following a refurbishment, for example) or negatively (when a poorly maintained or marketed hotel loses market share).

A hotel's penetration factor is calculated as its achieved market share of demand divided by its fair share of demand. Thus, if one hotel's penetration performance increases, thereby increasing its achieved market share,

this leaves less demand available in the market for the other hotels to capture and the penetration performance of one or more of those other hotels consequently declines (other things remaining equal). This type of market share adjustment takes place every time there is a change in supply, or a change in the relative penetration performance of one or more hotels in the competitive market. Our projections of penetration, demand capture, and occupancy performance for the subject property account for these types of adjustments to market share within the defined competitive market.

The proposed subject hotel's occupancy forecast is set forth as follows, with the adjusted projected penetration rates used as a basis for calculating the amount of captured market demand.

EST. SUBJECT PROPERTY DEMAND CAPTURE BY MARKET SEGMENT

Market Segment	2027	2028	2029	2030	2031
Commercial/Government					
Demand	165,092	168,394	170,920	171,774	171,774
Market Share	7.3 %	7.9 %	7.9 %	7.9 %	7.9 %
Capture	12,038	13,355	13,556	13,599	13,599
Penetration	104 %	113 %	113 %	113 %	113 %
Leisure					
Demand	177,787	182,231	184,965	185,890	185,890
Market Share	6.5 %	6.9 %	6.9 %	6.9 %	6.9 %
Capture	11,635	12,642	12,831	12,896	12,896
Penetration	93 %	99 %	99 %	99 %	99 %
Group					
Demand	35,897	39,128	41,084	41,906	41,906
Market Share	5.6 %	5.9 %	5.9 %	5.9 %	5.9 %
Capture	2,008	2,318	2,434	2,482	2,482
Penetration	80 %	84 %	84 %	84 %	84 %
Total Room Nights Captured	**25,681**	**28,315**	**28,821**	**28,977**	**28,977**
Available Room Nights	37,960	37,960	37,960	37,960	37,960
Subject Occupancy	**68 %**	**75 %**	**76 %**	**76 %**	**76 %**
Market-wide Available Room Nights	540,018	540,018	540,018	540,018	540,018
Fair Share	**7 %**	**7 %**	**7 %**	**7 %**	**7 %**
Market-wide Occupied Room Nights	378,776	389,753	396,968	399,570	399,570
Market Share	**7 %**	**7 %**	**7 %**	**7 %**	**7 %**
Market-wide Occupancy	**70 %**	**72 %**	**74 %**	**74 %**	**74 %**
Total Penetration	**96 %**	**103 %**	**103 %**	**103 %**	**103 %**

The proposed Fairfield Inn & Suites in Historic Cocoa Village is expected to modestly outperform its competitive set on an overall occupancy basis upon stabilization, driven by a meaningfully above–fair share capture of commercial and government demand supported by its central village location, strong Marriott brand affiliation, and convenient access to key corridors. In the leisure segment, the hotel is anticipated to achieve roughly fair-share penetration, reflecting its unique position as a nationally branded lodging option within Cocoa Village and its appeal to visitors exploring the Space Coast. Group demand penetration is projected to trail the market average because of the property's relatively limited meeting facilities, although

the strength of transient commercial and leisure demand should still allow the hotel's total occupancy penetration to stabilize above 100 percent.

These positioned segment penetration rates result in the following market segmentation forecast.

EST. SUBJECT MARKET SEGMENTATION

	2026	2027	2028	2029	2030	2031
Commercial/Government	41 %	47 %	47 %	47 %	47 %	47 %
Leisure	51	45	45	45	45	45
Group	8	8	8	8	9	9
Total	100 %	100 %	100 %	100 %	100 %	100 %

Based on our analysis of the proposed subject property and market area, we have selected a stabilized occupancy level of 76% in 2029/30. The stabilized occupancy is intended to reflect the anticipated results of the property over its remaining economic life given all changes in the life cycle of the hotel. Thus, the stabilized occupancy excludes from consideration any abnormal relationship between supply and demand, as well as any nonrecurring conditions that may result in unusually high or low occupancies. Although the subject hotel may operate at occupancies above this stabilized level, we believe it equally possible for new competition and temporary economic downturns to force the occupancy below this selected point of stability.

AVERAGE RATE ANALYSIS

One of the most important considerations in estimating the value of a lodging facility is a supportable forecast of its attainable average rate, which is more formally defined as the average rate per occupied room. The average rate can be calculated by dividing the total rooms revenue achieved during a specified period by the number of rooms sold during the same period. The projected average rate and the anticipated occupancy percentage are used to forecast rooms revenue, which in turn provides the basis for estimating most other income and expense categories.

COMPETITIVE POSITION

Although the average rate analysis presented here follows the occupancy projection, these two statistics are highly correlated; in reality, one cannot project occupancy without making specific assumptions regarding average rate. This relationship is best illustrated by revenue per available room (RevPAR), which reflects a property's ability to maximize rooms revenue. The following table summarizes the historical average rate and the RevPAR of the subject property's future primary competitors.

BASE YEAR AVERAGE RATE & REVPAR

Property	Average Room Rate	Average Rate Penetration	Rooms Revenue Per Available Room (RevPAR)	RevPAR Penetration
Holiday Inn Express & Suites Cocoa	$140 - $150	80 - 85 %	$110 - $115	85 - 90 %
Courtyard Cocoa Beach Cape Canaveral	180 - 190	100 - 110	130 - 140	100 - 110
Four Points by Sheraton Cocoa Beach	170 - 180	100 - 110	130 - 140	100 - 110
Hilton Garden Inn Cocoa Beach Oceanfront	190 - 200	100 - 110	130 - 140	100 - 110
Hampton Inn Cocoa Beach Cape Canaveral	180 - 190	100 - 110	130 - 140	100 - 110
Holiday Inn Express & Suites Cocoa Beach	170 - 180	95 - 100	130 - 140	100 - 110
Average - Primary Competitors	$180.16	102.9 %	$132.90	103.3 %
Average - Secondary Competitors	168.59	96.3	123.11	95.7
Overall Average	**$175.16**	**100.0 %**	**$73.44**	**100.0 %**
Subject As If Stabilized (In 2024 Dollars)	**$170.00**	**97.1 %**	**$128.83**	**100.1 %**

The defined primarily competitive market realized an overall average rate of $175.16 in the 2024 base year.

AVERAGE RATE FORECAST

The following table illustrates the projected average rate and the growth rates assumed.

Please note that we have assumed an underlying inflation rate of 5.0% in the first projection year, 4.0% in the second projection year, and 3.0% in the third projection year (and thereafter) in our forecast of income and expense, which follows later in this report.

HISTORICAL TRENDS

	POSITIONED			PROJECTED					
	2022	2023	2024	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
PROPOSED SUBJECT PROPERTY									
Occupancy				— %	63.9 %	73.4 %	75.7 %	76.3 %	76.3 %
Change in Points				—	—	9.5	2.3	0.6	0.0
Occupancy Penetration				—	91.1 %	102.2 %	103.3 %	103.2 %	103.1 %
Average Rate			$170.00	$175.57	$175.70	$186.35	$194.18	$200.01	$206.01
Change				—	0.1 %	6.1	4.2	3.0	3.0
Average Rate Penetration				97.1 %	94.1 %	96.1 %	97.1 %	97.1 %	97.1 %
RevPAR				—	$112.36	$136.84	$147.00	$152.54	$157.12
Change				—	—	21.8	7.4	3.8	3.0
RevPAR Penetration				—	85.7 %	98.2 %	100.3 %	100.1 %	100.0 %

	HISTORICAL (ESTIMATED)			PROJECTED					
	2022	2023	2024	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
MARKET									
Occupancy	73.3 %	74.3 %	73.4 %	70.9 %	70.2 %	71.8 %	73.3 %	73.9 %	74.0 %
Change in Points	—	— %	(0.9) %	(2.6) %	(0.6) %	1.6 %	1.5 %	0.6 %	0.1 %
Average Rate	$158.63	$171.24	$175.16	$180.89	$186.63	$193.94	$200.07	$206.08	$212.26
Change	—	7.9 %	2.3 %	3.3 %	3.2 %	3.9 %	3.2 %	3.0 %	3.0 %
RevPAR	$116.34	$127.26	$128.64	$128.17	$131.04	$139.32	$146.63	$152.31	$157.05
Change	—	9.4 %	1.1 %	(0.4) %	2.2 %	6.3 %	5.2 %	3.9 %	3.1 %

The greater Brevard County market should continue to experience moderate rate growth in the near term, albeit likely at or below the rate of inflation, given that new supply is expected to outpace demand growth. The proposed subject hotel's rate position should reflect growth similar to market trends due to its anticipated new facility, unique Cocoa Village location, coffee shop and rooftop lounge offerings, and popular brand affiliation.

The final forecast reflects operations beginning on November 1, 2026 and corresponds with our financial projections, as shown below.

PROPOSED SUBJECT PROPERTY AVERAGE RATE FORECAST

	POSITIONED	FORECAST						
CALENDAR YEAR	2024	2025	2026	2027	2028	2029	2030	2031
Market ADR	$175.16	$178.66	$181.34	$187.69	$195.20	$201.05	$207.08	$213.30
Projected Market ADR Growth Rate	—	2.0%	1.5%	3.5%	4.0%	3.0%	3.0%	3.0%
PROPOSED SUBJECT PROPERTY AVERAGE RATE BEFORE DISCOUNT	**$170.00**	**$173.40**	**$176.00**	**$182.16**	**$189.45**	**$195.13**	**$200.98**	**$207.01**
ADR Growth Rate	—	2.0%	1.5%	3.5%	4.0%	3.0%	3.0%	3.0%
Proposed Subject ADR Penetration (Before Discount)	97%	97%	97%	97%	97%	97%	97%	97%
FISCAL YEAR			**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Proposed Subject Property Average Rate			$181.13	$188.23	$194.18	$200.01	$206.01	$212.19
Opening Discount			3.0%	1.0%	0.0%	0.0%	0.0%	0.0%
PROPOSED SUBJECT PROPERTY AVERAGE RATE AFTER DISCOUNT			**$175.70**	**$186.35**	**$194.18**	**$200.01**	**$206.01**	**$212.19**
Real Average Rate Growth			—	6.1%	4.2%	3.0%	3.0%	3.0%
Market ADR			$186.63	$193.94	$200.07	$206.08	$212.26	$218.63
Proposed Subject ADR Penetration (After Discount)			94%	96%	97%	97%	97%	97%
ADR Expressed in Base-Year Dollars Deflated @ Inflation Rate			$163.23	$168.08	$170.04	$170.04	$170.04	$170.04

As illustrated above, an 2.0% rate of change is expected for the proposed subject property's room rate in 2025; this is followed by rates of 1.5% and 3.5% in 2026 and 2027, respectively, before discounts. A new property must establish its reputation and a client base in the market during its ramp-up period; as such, the proposed subject hotel's average rates in the initial operating period have been discounted to reflect this likelihood. We forecast discounts to the proposed subject hotel's forecast room rates in the first two operating years, which would be typical for a new operation of this type.

INTRODUCTION TO PROJECTION OF REVENUE & EXPENSE

In this chapter of our report, we have compiled a forecast of income and expense for the proposed subject hotel. This forecast is based on the facilities program set forth previously, as well as the occupancy and average rate forecast discussed previously.

The forecast of income and expense is expressed in current dollars for each year. The stabilized year is intended to reflect the anticipated operating results of the property over its remaining economic life, given any or all applicable stages of build-up, plateau, and decline in the life cycle of the hotel. Thus, income and expense estimates from the stabilized year forward exclude from consideration any abnormal relationship between supply and demand, as well as any non-recurring conditions that may result in unusual revenues or expenses. The ten-year period reflects the typical holding period of large real estate assets such as hotels. In addition, the ten-year period provides for the stabilization of income streams and comparison of yields with alternate types of real estate. The forecasted income streams reflect the future benefits of owning specific rights in income-producing real estate.

COMPARABLE OPERATING STATEMENTS

In order to project future income and expense for the proposed subject hotel, we have included a sample of individual comparable operating statements from our database of hotel statistics. All financial data are presented according to the three most common measures of industry performance: ratio to sales (RTS), amounts per available room (PAR), and amounts per occupied room night (POR). The following data reflect the performance of five hotel properties, which were chosen based on similarities in product, market orientation, size, and price positioning. These historical income and expense statements will be used as benchmarks in our forthcoming forecast of income and expense.

COMPARABLE OPERATING STATEMENTS: RATIO TO SALES

	Comp 1	Comp 2	Comp 3	Comp 4	Comp 5	Subject Stabilized $
Number of Rooms:	100 to 130	80 to 100	80 to 100	90 to 130	80 to 110	104
Days Open:	365	365	365	365	365	365
Occupancy:	84%	85%	69%	80%	72%	76%
Average Rate:	$129	$127	$166	$136	$151	$161
RevPAR:	$109	$108	$115	$109	$109	$122
REVENUE						
Rooms	82.2 %	93.4 %	95.8 %	93.1 %	91.9 %	85.1 %
Food & Beverage	15.1	5.2	3.4	5.7	6.9	13.7
Other Operated Departments	0.9	1.4	0.8	0.6	1.2	0.8
Rentals & Other Income	1.7	0.0	0.0	0.5	0.0	0.3
TOTAL REVENUE	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
DEPARTMENTAL EXPENSES*						
Rooms	20.1	19.5	18.1	20.1	19.9	22.0
Food & Beverage	69.8	99.9	150.2	120.4	88.1	86.0
Other Operated Departments	96.1	47.0	0.0	71.9	56.3	55.0
TOTAL DEPARTMENTAL EXPENSES	27.9	24.1	22.4	26.1	25.0	31.0
DEPARTMENTAL INCOME	**72.1**	**75.9**	**77.6**	**73.9**	**75.0**	**69.0**
OPERATING EXPENSES						
Administrative & General	6.8	7.9	10.0	6.6	8.1	7.2
Info. and Telecom. Systems	0.0	1.7	1.2	0.6	0.0	0.9
Marketing	7.5	4.0	4.4	6.2	3.0	4.0
Franchise Fee	8.1	7.0	6.7	8.6	5.9	6.8
Property Operations & Maintenance	4.0	3.7	3.2	4.4	3.9	3.2
Utilities	2.5	3.8	3.8	3.8	6.3	3.0
TOTAL OPERATING EXPENSES	29.0	28.2	29.3	30.3	27.1	25.2
HOUSE PROFIT	**43.1**	**47.7**	**48.3**	**43.6**	**47.9**	**43.8**
Management Fee	3.0	3.6	3.5	4.0	3.1	3.0
INCOME BEFORE FIXED CHARGES	**40.0 %**	**44.2 %**	**44.7 %**	**39.6 %**	**44.8 %**	**40.8 %**

COMPARABLE OPERATING STATEMENTS: AMOUNTS PER AVAILABLE ROOM

	Comp 1	Comp 2	Comp 3	Comp 4	Comp 5	Subject Stabilized $
Number of Rooms:	100 to 130	80 to 100	80 to 100	90 to 130	80 to 110	104
Days Open:	365	365	365	365	365	365
Occupancy:	84%	85%	69%	80%	72%	76%
Average Rate:	$129	$127	$166	$136	$151	$161
RevPAR:	$109	$108	$115	$109	$109	$122
REVENUE						
Rooms	$39,781	$39,560	$41,894	$39,781	$39,950	$44,682
Food & Beverage	7,318	2,209	1,476	2,451	2,999	7,212
Other Operated Departments	433	591	365	266	515	416
Rentals & Other Income	838	0	0	219	0	166
TOTAL REVENUE	**48,370**	**42,360**	**43,734**	**42,717**	**43,463**	**52,477**
DEPARTMENTAL EXPENSES*						
Rooms	7,985	7,718	7,599	8,015	7,953	9,830
Food & Beverage	5,110	2,207	2,216	2,951	2,642	6,203
Other Operated Departments	416	278	0	191	290	229
TOTAL DEPARTMENTAL EXPENSES	13,511	10,202	9,815	11,157	10,885	16,262
DEPARTMENTAL INCOME	**34,859**	**32,158**	**33,919**	**31,560**	**32,578**	**36,215**
OPERATING EXPENSES						
Administrative & General	3,302	3,356	4,391	2,817	3,505	3,800
Info. and Telecom. Systems	0	738	524	244	0	450
Marketing	3,644	1,686	1,914	2,669	1,312	2,100
Franchise Fee	3,940	2,955	2,940	3,694	2,564	3,574
Property Operations & Maintenance	1,954	1,570	1,384	1,874	1,678	1,700
Utilities	1,207	1,620	1,656	1,634	2,735	1,600
TOTAL OPERATING EXPENSES	14,046	11,926	12,809	12,932	11,794	13,224
HOUSE PROFIT	**20,813**	**20,232**	**21,110**	**18,628**	**20,784**	**22,991**
Management Fee	1,451	1,515	1,546	1,709	1,326	1,574
INCOME BEFORE FIXED CHARGES	**19,362**	**18,717**	**19,565**	**16,918**	**19,458**	**21,416**

COMPARABLE OPERATING STATEMENTS: AMOUNTS PER OCCUPIED ROOM

	Comp 1	Comp 2	Comp 3	Comp 4	Comp 5	Subject Stabilized $
Number of Rooms:	100 to 130	80 to 100	80 to 100	90 to 130	80 to 110	104
Days Open:	365	365	365	365	365	365
Occupancy:	84%	85%	69%	80%	72%	76%
Average Rate:	$129	$127	$166	$136	$151	$161
RevPAR:	$109	$108	$115	$109	$109	$122
REVENUE						
Rooms	$129.01	$127.46	$166.02	$136.21	$151.27	$161.07
Food & Beverage	23.73	7.12	5.85	8.39	11.35	26.00
Other Operated Departments	1.40	1.90	1.45	0.91	1.95	1.50
Rentals & Other Income	2.72	0.00	0.00	0.75	0.00	0.60
TOTAL REVENUE	**156.87**	**136.48**	**173.31**	**146.26**	**164.57**	**189.17**
DEPARTMENTAL EXPENSES*						
Rooms	25.90	24.87	30.11	27.44	30.12	35.44
Food & Beverage	16.57	7.11	8.78	10.10	10.00	22.36
Other Operated Departments	1.35	0.89	0.00	0.65	1.10	0.83
TOTAL DEPARTMENTAL EXPENSES	43.82	32.87	38.90	38.20	41.22	58.62
DEPARTMENTAL INCOME	**113.05**	**103.61**	**134.41**	**108.06**	**123.36**	**130.55**
OPERATING EXPENSES						
Administrative & General	10.71	10.81	17.40	9.64	13.27	13.70
Info. and Telecom. Systems	0.00	2.38	2.08	0.84	0.00	1.62
Marketing	11.82	5.43	7.59	9.14	4.97	7.57
Franchise Fee	12.78	9.52	11.65	12.65	9.71	12.89
Property Operations & Maintenance	6.34	5.06	5.48	6.42	6.35	6.13
Utilities	3.91	5.22	6.56	5.60	10.36	5.77
TOTAL OPERATING EXPENSES	45.55	38.43	50.76	44.28	44.66	47.67
HOUSE PROFIT	**67.50**	**65.19**	**83.66**	**63.78**	**78.70**	**82.88**
Management Fee	4.71	4.88	6.13	5.85	5.02	5.68
INCOME BEFORE FIXED CHARGES	**62.79**	**60.31**	**77.53**	**57.93**	**73.68**	**77.20**

The departmental income for the comparable statements ranged from 72.1 % to 77.6 % of total revenue. The comparable properties achieved a house profit ranging from 43.1 % to 48.3 % of total revenue. We will refer to the comparable operating data in our discussion of each line item, which follows later in this section of the report.

FIXED AND VARIABLE COMPONENT ANALYSIS

Spark Hotel Valuation & Advisory uses a fixed and variable component model to project a lodging facility's revenue and expense levels. This model is based on the premise that hotel revenues and expenses have one component that is fixed and another that varies directly with occupancy and facility usage. A projection can be made by taking a known level of revenue or expense and calculating its fixed and variable components. The fixed component is then increased in tandem with the underlying rate of inflation, while the variable component is adjusted for a specific measure of volume such as total revenue.

The actual forecast is derived by adjusting each year's revenue and expense by the amount fixed (the fixed expense multiplied by the inflated base-year amount) plus the variable amount (the variable expense multiplied by the inflated base-year amount) multiplied by the ratio of the projection year's occupancy to the base-year occupancy (in the case of departmental revenue and expense) or the ratio of the projection year's

revenue to the base year's revenue (in the case of undistributed operating expenses). Fixed expenses remain fixed, increasing only with inflation. Our discussion of the revenue and expense forecast in this report is based upon the output derived from the fixed and variable model. This forecast of revenue and expense is accomplished through a systematic approach, following the format of USALI. Each category of revenue and expense is estimated separately and combined at the end in the final statement of income and expense.

INFLATION ASSUMPTION

In consideration of the most recent trends in the change of the Consumer Price Index, projections set forth by economists surveyed, and our assessment of probable property appreciation levels, we have applied an underlying inflation rate of 4.0% in 2025, 3.5% in 2026, and 3.0% in 2027, and thereafter. This stabilized inflation rate takes into account normal, recurring inflation cycles. Inflation is likely to fluctuate above and below this level during the projection period. Any exceptions to the application of the assumed underlying inflation rate are discussed in our write-up of individual income and expense items.

FORECAST OF REVENUE AND EXPENSE

Based on an analysis that will be detailed throughout this section, we have formulated a forecast of income and expense. The following table presents a detailed forecast through the fifth projection year, including amounts per available room and per occupied room. The second table illustrates our ten-year forecast of income and expense, presented with a lesser degree of detail. The forecasts pertain to years that begin on November 1, 2026, expressed in inflated dollars for each year.

.

FIVE-YEAR DETAILED FORECAST - PROPOSED FAIRFIELD INN & SUITES DOWNTOWN COCOA VILLAGE

	YEAR 1 2026/27 BEGINS NOVEMBER				YEAR 2 2027/28				YEAR 3 2028/29				YEAR 4 STABILIZED				YEAR 5 2030/31			
Number of Rooms:	**104**				**104**				**104**				**104**				**104**			
Occupancy (Paid Rooms):	**64%**				**73%**				**76%**				**76%**				**76%**			
Average Rate:	**$175.70**				**$186.35**				**$194.18**				**$200.01**				**$206.01**			
RevPAR:	**$112.45**				**$136.03**				**$147.58**				**$152.00**				**$156.57**			
Days Open:	**365**				**365**				**365**				**365**				**365**			
Occupied Rooms (Paid):	**24,294**			POR	**27,711**				**28,850**				**28,850**				**28,850**			
CATEGORIES		**%GROSS**	**PAR**	**POR**		**%GROSS**	**PAR**	**POR**		**%GROSS**	**PAR**	**POR**		**%GROSS**	**PAR**	**POR**		**%GROSS**	**PAR**	**POR**
OPERATING REVENUE																				
Rooms	$4,268	85.6 %	$41,038	$175.68	$5,164	85.5 %	$49,654	$186.35	$5,602	85.1 %	$53,865	$194.18	$5,770	85.1 %	$55,481	$200.00	$5,943	85.1 %	$57,144	$206.00
Food & Beverage	661	13.3	6,358	27.22	809	13.4	7,782	29.21	904	13.7	8,695	31.34	931	13.7	8,956	32.28	959	13.7	9,224	33.25
Other Operated Departments	41	0.8	396	1.70	48	0.8	457	1.72	52	0.8	502	1.81	54	0.8	517	1.86	55	0.8	532	1.92
Miscellaneous Income	16	0.3	159	0.68	19	0.3	183	0.69	21	0.3	201	0.72	21	0.3	207	0.75	22	0.3	213	0.77
TOTAL OPERATING REVENUES	**4,987**	**100.0 %**	**47,952**	**205.27**	**6,040**	**100.0 %**	**58,076**	**217.96**	**6,579**	**100.0 %**	**63,263**	**228.06**	**6,777**	**100.0 %**	**65,160**	**234.89**	**6,980**	**100.0 %**	**67,114**	**241.94**
DEPARTMENTAL EXPENSES *																				
Rooms	$1,088	25.5 %	$10,465	$44.80	1,178	22.8 %	$11,324	$42.50	1,232	22.0 %	$11,850	$42.72	1,269	22.0 %	$12,206	$44.00	1,308	22.0 %	$12,572	$45.32
Food & Beverage	659	99.7	6,337	27.13	728	90.0	7,005	26.29	778	86.0	7,478	26.96	801	86.0	7,702	27.76	825	86.0	7,933	28.60
Other Operated Departments	26	62.4	247	1.06	27	57.5	263	0.99	29	55.0	276	0.99	30	55.0	284	1.02	30	55.0	293	1.06
TOTAL DEPARTMENTAL EXPENSES	1,773	35.6	17,049	72.99	1,933	32.0	18,591	69.77	2,039	31.0	19,604	70.67	2,100	31.0	20,192	72.79	2,163	31.0	20,798	74.97
DEPARTMENTAL INCOME	**3,214**	**64.4 %**	**30,902**	**132.29**	**4,106**	**68.0 %**	**39,485**	**148.19**	**4,540**	**69.0 %**	**43,659**	**157.38**	**4,677**	**69.0 %**	**44,968**	**162.10**	**4,817**	**69.0 %**	**46,316**	**166.96**
UNDISTRIBUTED OPERATING EXPENSES																				
Administrative & General	$427	8.6 %	$4,107	$17.58	456	7.6 %	$4,387	$16.46	476	7.2 %	$4,581	$16.51	491	7.2 %	$4,718	$17.01	505	7.2 %	$4,860	$17.52
Info & Telecom Systems	51	1.0	486	2.08	54	0.9	520	1.95	56	0.9	542	1.96	58	0.9	559	2.01	60	0.9	576	2.07
Marketing	260	5.2	2,496	10.69	265	4.4	2,546	9.55	263	4.0	2,532	9.13	271	4.0	2,608	9.40	279	4.0	2,686	9.68
Franchise Fee	341	6.8	3,283	14.05	413	6.8	3,972	14.91	448	6.8	4,309	15.53	462	6.8	4,438	16.00	475	6.8	4,572	16.48
Prop. Operations & Maint.	143	2.9	1,378	5.90	184	3.0	1,766	6.63	213	3.2	2,049	7.39	220	3.2	2,111	7.61	226	3.2	2,174	7.84
Utilities	180	3.6	1,729	7.40	192	3.2	1,847	6.93	201	3.0	1,929	6.95	207	3.0	1,987	7.16	213	3.0	2,046	7.38
TOTAL UNDISTRIBUTED OPERATING EXP.	1,402	28.1	13,479	57.70	1,564	25.9	15,038	56.44	1,658	25.1	15,943	57.47	1,708	25.1	16,421	59.20	1,759	25.1	16,913	60.97
GROSS HOUSE PROFIT	**1,812**	**36.3 %**	**17,423**	**74.58**	**2,542**	**42.1 %**	**24,447**	**91.75**	**2,882**	**43.9 %**	**27,716**	**99.91**	**2,969**	**43.9 %**	**28,547**	**102.91**	**3,058**	**43.9 %**	**29,402**	**105.99**
Management Fee	$150	3.0 %	$1,439	$6.16	181	3.0 %	$1,742	$6.54	197	3.0 %	$1,898	$6.84	203	3.0 %	$1,955	$7.05	209	3.0 %	$2,013	$7.26
INCOME BEFORE FIXED CHARGES	**1,662**	**33.3 %**	**15,984**	**68.43**	**2,361**	**39.1 %**	**22,704**	**85.21**	**2,685**	**40.9 %**	**25,818**	**93.07**	**2,766**	**40.9 %**	**26,592**	**95.86**	**2,848**	**40.9 %**	**27,389**	**98.73**
FIXED CHARGES																				
Property Taxes	$132	2.6 %	$1,267	$5.42	213	3.5 %	$2,050	$7.69	216	3.3 %	$2,081	$7.50	220	3.2 %	$2,114	$7.62	226	3.2 %	$2,178	$7.85
Insurance	77	1.5	739	3.16	79	1.3	761	2.86	81	1.2	784	2.82	84	1.2	807	2.91	86	1.2	831	3.00
Reserve for Replacement	100	2.0	959	4.11	181	3.0	1,742	6.54	263	4.0	2,531	9.12	271	4.0	2,606	9.40	279	4.0	2,685	9.68
TOTAL FIXED CHARGES	308	6.2	2,964	12.69	474	7.8	4,553	17.09	561	8.5	5,395	19.45	575	8.5	5,528	19.93	592	8.5	5,693	20.52
EBITDA LESS RESERVE	**$1,354**	**27.1 %**	**13,020**	**55.74**	**$1,888**	**31.3 %**	**18,151**	**68.12**	**$2,124**	**32.4 %**	**20,423**	**73.62**	**$2,191**	**32.4 %**	**21,064**	**75.93**	**$2,256**	**32.4 %**	**21,696**	**78.21**

*Departmental expenses are expressed as a percentage of departmental revenues.

TEN-YEAR FORECAST - PROPOSED FAIRFIELD INN & SUITES DOWNTOWN COCOA VILLAGE

	YEAR 1 2026/27		YEAR 2 2027/28		YEAR 3 2028/29		YEAR 4 2029/30		YEAR 5 2030/31		YEAR 6 2031/32		YEAR 7 2032/33		YEAR 8 2033/34		YEAR 9 2034/35		YEAR 10 2035/36	
Number of Rooms:	**104**		**104**		**104**		**104**		**104**		**104**		**104**		**104**		**104**		**104**	
Occupied Rooms:	**24,294**		**27,711**		**28,850**		**28,850**		**28,850**		**28,850**		**28,850**		**28,850**		**28,850**		**28,850**	
Occupancy:	**64%**		**73%**		**76%**		**76%**		**76%**		**76%**		**76%**		**76%**		**76%**		**76%**	
Average Rate:	**$175.70**	**% of**	**$186.35**	**% of**	**$194.18**	**% of**	**$200.01**	**% of**	**$206.01**	**% of**	**$212.19**	**% of**	**$218.55**	**% of**	**$225.11**	**% of**	**$231.86**	**% of**	**$238.82**	**% of**
RevPAR:	**$112.45**	**Gross**	**$136.03**	**Gross**	**$147.58**	**Gross**	**$152.00**	**Gross**	**$156.57**	**Gross**	**$161.26**	**Gross**	**$166.10**	**Gross**	**$171.08**	**Gross**	**$176.22**	**Gross**	**$181.50**	**Gross**
OPERATING REVENUE																				
Rooms	$4,268	85.6 %	$5,164	85.5 %	$5,602	85.1 %	$5,770	85.1 %	$5,943	85.1 %	$6,122	85.1 %	$6,305	85.1 %	$6,494	85.1 %	$6,689	85.1 %	$6,890	85.1 %
Food & Beverage	661	13.3	809	13.4	904	13.7	931	13.7	959	13.7	988	13.7	1,018	13.7	1,048	13.7	1,080	13.7	1,112	13.7
Other Operated Departments	41	0.8	48	0.8	52	0.8	54	0.8	55	0.8	57	0.8	59	0.8	60	0.8	62	0.8	64	0.8
Miscellaneous Income	16	0.3	19	0.3	21	0.3	21	0.3	22	0.3	23	0.3	23	0.3	24	0.3	25	0.3	26	0.3
TOTAL OPERATING REVENUE	**4,987**	**100.0 %**	**6,040**	**100.0 %**	**6,579**	**100.0 %**	**6,777**	**100.0 %**	**6,980**	**100.0 %**	**7,190**	**100.0 %**	**7,405**	**100.0 %**	**7,627**	**100.0 %**	**7,856**	**100.0 %**	**8,092**	**100.0 %**
DEPARTMENTAL EXPENSES *																				
Rooms	$1,088	25.5 %	$1,178	22.8 %	$1,232	22.0 %	1,269	22.0 %	$1,308	22.0 %	1,347	22.0 %	$1,387	22.0 %	1,429	22.0 %	$1,472	22.0 %	1,516	22.0 %
Food & Beverage	659	99.7	728	90.0	778	86.0	801	86.0	825	86.0	850	86.0	875	86.0	902	86.0	929	86.0	956	86.0
Other Operated Departments	26	62.4	27	57.5	29	55.0	30	55.0	30	55.0	31	55.0	32	55.0	33	55.0	34	55.0	35	55.0
TOTAL DEPARTMENTAL EXPENSES	1,773	35.6	1,933	32.0	2,039	31.0	2,100	31.0	2,163	31.0	2,228	31.0	2,295	31.0	2,364	31.0	2,434	31.0	2,507	31.0
DEPARTMENTAL INCOME	**3,214**	**64.4 %**	**4,106**	**68.0 %**	**4,540**	**69.0 %**	**4,677**	**69.0 %**	**4,817**	**69.0 %**	**4,962**	**69.0 %**	**5,110**	**69.0 %**	**5,263**	**69.0 %**	**5,422**	**69.0 %**	**5,584**	**69.0 %**
UNDISTRIBUTED OPERATING EXPENSES																				
Administrative & General	$427	8.6 %	$456	7.6 %	$476	7.2 %	491	7.2 %	$505	7.2 %	521	7.2 %	$536	7.2 %	552	7.2 %	$569	7.2 %	586	7.2 %
Info & Telecom Systems	51	1.0	54	0.9	56	0.9	58	0.9	60	0.9	62	0.9	64	0.9	65	0.9	67	0.9	69	0.9
Marketing	260	5.2	265	4.4	263	4.0	271	4.0	279	4.0	288	4.0	296	4.0	305	4.0	314	4.0	324	4.0
Franchise Fee	341	6.8	413	6.8	448	6.8	462	6.8	475	6.8	490	6.8	504	6.8	520	6.8	535	6.8	551	6.8
Prop. Operations & Maint.	143	2.9	184	3.0	213	3.2	220	3.2	226	3.2	233	3.2	240	3.2	247	3.2	254	3.2	262	3.2
Utilities	180	3.6	192	3.2	201	3.0	207	3.0	213	3.0	219	3.0	226	3.0	233	3.0	240	3.0	247	3.0
TOTAL UNDISTRIBUTED OPERATING EXP.	1,402	28.1	1,564	25.9	1,658	25.1	1,708	25.1	1,759	25.1	1,812	25.1	1,866	25.1	1,922	25.1	1,980	25.1	2,039	25.1
GROSS HOUSE PROFIT	**1,812**	**36.3 %**	**2,542**	**42.1 %**	**2,882**	**43.9 %**	**2,969**	**43.9 %**	**3,058**	**43.9 %**	**3,150**	**43.9 %**	**3,244**	**43.9 %**	**3,341**	**43.9 %**	**3,442**	**43.9 %**	**3,545**	**43.9 %**
Management Fee	$150	3.0	$181	3.0	$197	3.0	203	3.0	$209	3.0	216	3.0	$222	3.0	229	3.0	$236	3.0	243	3.0
INCOME BEFORE FIXED CHARGES	**1,662**	**33.3 %**	**2,361**	**39.1 %**	**2,685**	**40.9 %**	**2,766**	**40.9 %**	**2,848**	**40.9 %**	**2,935**	**40.9 %**	**3,022**	**40.9 %**	**3,113**	**40.9 %**	**3,206**	**40.9 %**	**3,303**	**40.9 %**
FIXED CHARGES																				
Property Taxes	$132	2.6 %	$213	3.5 %	$216	3.3 %	220	3.2 %	$226	3.2 %	233	3.2 %	$240	3.2 %	247	3.2 %	$255	3.2 %	263	3.2 %
Insurance	77	1.5	79	1.3	81	1.2	84	1.2	86	1.2	89	1.2	92	1.2	94	1.2	97	1.2	100	1.2
Reserve for Replacement	100	2.0	181	3.0	263	4.0	271	4.0	279	4.0	288	4.0	296	4.0	305	4.0	314	4.0	324	4.0
TOTAL EXPENSES	308	6.1	474	7.8	561	8.5	575	8.4	592	8.4	610	8.4	628	8.4	647	8.4	666	8.4	686	8.4
EBITDA LESS RESERVE	**$1,354**	**27.2 %**	**$1,888**	**31.3 %**	**$2,124**	**32.4 %**	**$2,191**	**32.5 %**	**$2,256**	**32.5 %**	**$2,325**	**32.5 %**	**$2,394**	**32.5 %**	**$2,465**	**32.5 %**	**$2,540**	**32.5 %**	**$2,616**	**32.5 %**

*Departmental expenses are expressed as a percentage of departmental revenues.

The following description sets forth the basis for the forecast of revenue and expense. We anticipate that it will take years for the subject property to reach a stabilized level of operation. Each revenue and expense item has been forecast based upon our review of the subject property's operating history, operating budget, and comparable revenue and expense statements. The forecast begins on November 1, 2026, expressed in inflated dollars for each year.

ROOMS REVENUE

Rooms revenue is determined by two variables: occupancy and average rate. We projected occupancy and average rate in a previous section of this report. The proposed subject property is expected to stabilize at 76% with an average rate of $206.01 in 2029/30. Following the stabilized year, the subject property's average rate is projected to increase along with the underlying rate of inflation.

FOOD & BEVERAGE REVENUE

Food and beverage (F&B) revenue category includes revenues associated with the hotel's food and beverage outlets, as well as banquet operations.

	COMPARABLE OPERATING STATEMENTS					Subject Property Forecast	
	#1	#2	#3	#4	#5	2026/27	Deflated
Food & Beverage Revenue							
Percentage of Revenue	15.1 %	5.2 %	3.4 %	5.7 %	6.9 %	13.3 %	13.7 %
Per Available Room	$7,318	$2,209	$1,476	$2,451	$2,999	$6,358	$7,212
Per Occupied Room	$23.73	$7.12	$5.85	$8.39	$11.35	$27.22	$26.00

OTHER OPERATED DEPARTMENTS REVENUE

According to the USALI, other operated departments include any major or minor operated department that carries expenses, aside from rooms and food and beverage (F&B). The proposed subject hotel's other operated departments revenue sources are expected to include the hotel's telephone charges and market pantry sales. Based on our review of operations with a similar extent of offerings, we have positioned an appropriate revenue level for the proposed subject hotel.

	COMPARABLE OPERATING STATEMENTS					Subject Property Forecast	
	#1	#2	#3	#4	#5	2026/27	Deflated
Other Operated Dept. Revenue							
Percentage of Revenue	0.9 %	1.4 %	0.8 %	0.6 %	1.2 %	0.8 %	0.8 %
Per Available Room	$433	$591	$365	$266	$515	$396	$416
Per Occupied Room	$1.40	$1.90	$1.45	$0.91	$1.95	$1.70	$1.50

MISCELLANEOUS INCOME

According to the USALI, miscellaneous income includes attrition fees, cancelation fees, outside agreement commissions, and interest income, among other items that do not carry expenses. The proposed subject hotel's miscellaneous income revenues are expected to be generated primarily by the hotel's cancelation and attrition charges, sales tax discounts earned, and guest laundry machine commissions. Based on our review of operations with a similar extent of offerings, we have positioned an appropriate revenue level for the proposed subject hotel.

	Comparable Operating Statements					Subject Property Forecast	
	#1	#2	#3	#4	#5	2026/27	Deflated
Miscellaneous Revenue							
Percentage of Revenue	1.7 %	0.0 %	0.0 %	0.5 %	0.0 %	0.3 %	0.3 %
Per Available Room	$838	$0	$0	$219	$0	$159	$166
Per Occupied Room	$2.72	$0.00	$0.00	$0.75	$0.00	$0.68	$0.60

ROOMS EXPENSE

Rooms expense consist of items related to the sale and upkeep of guestrooms and public space. Salaries, wages, and employee benefits account for a substantial portion of this category. Although payroll varies somewhat with occupancy, and managers can generally scale the level of service staff on hand to meet an expected occupancy level, a base level of front desk personnel, housekeepers, and supervisors must be maintained at all times. As a result, salaries, wages, and employee benefits are moderately sensitive to changes in occupancy.

Commissions and reservations are usually based on room sales, and thus are highly sensitive to changes in occupancy and average rate. While guest supplies vary entirely with occupancy, linens and other operating expenses are only slightly affected by volume.

	COMPARABLE OPERATING STATEMENTS					Subject Property Forecast	
	#1	#2	#3	#4	#5	2026/27	Deflated
Rooms Expense							
Percentage of Revenue	20.1 %	19.5 %	18.1 %	20.1 %	19.9 %	25.5 %	22.0 %
Per Available Room	$7,985	$7,718	$7,599	$8,015	$7,953	$10,465	$9,830
Per Occupied Room	$25.90	$24.87	$30.11	$27.44	$30.12	$44.80	$35.44

FOOD & BEVERAGE EXPENSE

Other food and beverage expense category comprises costs associated with the proposed hotel's restaurant and banquet operations.

	COMPARABLE OPERATING STATEMENTS					Subject Property Forecast	
	#1	#2	#3	#4	#5	2026/27	Deflated
Food & Beverage Expense							
Percentage of Revenue	69.8 %	99.9 %	150.2 %	120.4 %	88.1 %	99.7 %	86.0 %
Per Available Room	$5,110	$2,207	$2,216	$2,951	$2,642	$6,337	$6,203
Per Occupied Room	$16.57	$7.11	$8.78	$10.10	$10.00	$27.13	$22.36

OTHER OPERATED DEPARTMENTS EXPENSE

Other operated departments expense category includes all expenses reflected in the summary statements for the divisions associated in these categories. This was previously discussed in this chapter.

	COMPARABLE OPERATING STATEMENTS					Subject Property Forecast	
	#1	#2	#3	#4	#5	2026/27	Deflated
Other Operated Dept. Expense							
Percentage of Revenue	96.1 %	47.0 %	0.0 %	71.9 %	56.3 %	62.4 %	55.0 %
Per Available Room	$416	$278	$0	$191	$290	$247	$229
Per Occupied Room	$1.35	$0.89	$0.00	$0.65	$1.10	$1.06	$0.83

ADMINISTRATIVE AND GENERAL EXPENSE

Administrative and general expenses include the salaries and wages of all administrative personnel who are not directly associated with a particular department. Expense items related to the management and operation of the property are also allocated to this category.

Most administrative and general expenses are relatively fixed. The exceptions are cash overages and shortages; commissions on credit card charges; provision for doubtful accounts, which are moderately affected by the number of transactions or total revenue; and salaries, wages, and benefits, which are very slightly influenced by volume.

	COMPARABLE OPERATING STATEMENTS					Subject Property Forecast	
	#1	#2	#3	#4	#5	2026/27	Deflated
Administrative & General Expense							
Percentage of Revenue	6.8 %	7.9 %	10.0 %	6.6 %	8.1 %	8.6 %	7.2 %
Per Available Room	$3,302	$3,356	$4,391	$2,817	$3,505	$4,107	$3,800
Per Occupied Room	$10.71	$10.81	$17.40	$9.64	$13.27	$17.58	$13.70

INFORMATION AND TELECOMMUNICATIONS SYSTEMS EXPENSE

Information and telecommunications systems expense consists of all costs associated with a hotel's technology infrastructure. This includes the costs of cell phones, administrative call and Internet services, and complimentary call and Internet services. Expenses in this category are typically organized by type of technology, or the area benefiting from the technology solution. We expect the proposed subject hotel's information and telecommunications systems to be well managed. Expense levels should stabilize at a typical level for a property of this type.

	COMPARABLE OPERATING STATEMENTS					Subject Property Forecast	
	#1	#2	#3	#4	#5	2026/27	Deflated
Info. and Telecom. Systems Expense							
Percentage of Revenue	0.0 %	1.7 %	1.2 %	0.6 %	0.0 %	1.0 %	0.9 %
Per Available Room	$0	$738	$524	$244	$0	$486	$450
Per Occupied Room	$0.00	$2.38	$2.08	$0.84	$0.00	$2.08	$1.62

MARKETING EXPENSE

Marketing expense consists of all costs associated with advertising, sales, and promotion; these activities are intended to attract and retain customers. Marketing can be used to create an image, develop customer awareness, and stimulate patronage of a property's various facilities.

The marketing category is unique in that all expense items, with the exception of fees and commissions, are totally controlled by management. Most hotel operators establish an annual marketing budget that sets forth all planned expenditures. If the budget is followed, total marketing expenses can be projected accurately.

Marketing expenditures are unusual because although there is a lag period before results are realized, the benefits are often extended over a long period. Depending on the type and scope of the advertising and promotion program implemented, the lag time can be as short as a few weeks or as long as several years. However, the favorable results of an effective marketing campaign tend to linger, and a property often enjoys the benefits of concentrated sales efforts for many months.

	COMPARABLE OPERATING STATEMENTS					Subject Property Forecast	
	#1	#2	#3	#4	#5	2026/27	Deflated
Marketing Expense							
Percentage of Revenue	7.5 %	4.0 %	4.4 %	6.2 %	3.0 %	5.2 %	4.0 %
Per Available Room	$3,644	$1,686	$1,914	$2,669	$1,312	$2,496	$2,100
Per Occupied Room	$11.82	$5.43	$7.59	$9.14	$4.97	$10.69	$7.57

FRANCHISE FEE

As previously discussed, the proposed subject property is expected to be franchised under the Fairfield Inn & Suites by Marriott brand. Costs associated with this franchise are summarized in the introductory chapter in this report.

PROPERTY OPERATIONS AND MAINTENANCE

Property operations and maintenance expense is another expense category that is largely controlled by management. Except for repairs that are necessary to keep the facility open and prevent damage (e.g., plumbing, heating, and electrical items), most maintenance can be deferred for varying lengths of time.

Maintenance is an accumulating expense. If management elects to postpone performing a required repair, they have not eliminated or saved the expenditure; they have only deferred payment until a later date. A lodging facility that operates with a lower-than-normal maintenance budget is likely to accumulate a considerable amount of deferred maintenance.

The age of a lodging facility has a strong influence on the required level of maintenance. A new or thoroughly renovated property is protected for several years by modern equipment and manufacturers' warranties. However, as a hostelry grows older, maintenance expenses escalate. A well-organized preventive maintenance system often helps delay deterioration, but most facilities face higher property operations and maintenance costs each year, regardless of the occupancy trend. The quality of initial construction can also have a direct impact on future maintenance requirements. The use of high-quality building materials and construction methods generally reduces the need for maintenance expenditures over the long term.

	COMPARABLE OPERATING STATEMENTS					Subject Property Forecast	
	#1	#2	#3	#4	#5	2026/27	Deflated
Property Operations & Maint. Expense							
Percentage of Revenue	4.0 %	3.7 %	3.2 %	4.4 %	3.9 %	2.9 %	3.2 %
Per Available Room	$1,954	$1,570	$1,384	$1,874	$1,678	$1,378	$1,700
Per Occupied Room	$6.34	$5.06	$5.48	$6.42	$6.35	$5.90	$6.13

UTILITIES EXPENSE

The utilities consumption of a lodging facility takes several forms, including water and space heating, air conditioning, lighting, cooking fuel, and other miscellaneous power requirements. The most common sources of hotel utilities are electricity, natural gas, fuel oil, and steam. This category also includes the cost of water service.

Total energy cost depends on the source and quantity of fuel used. Electricity tends to be the most expensive source, followed by oil and gas. Although all hotels consume a sizable amount of electricity, many properties supplement their utility requirements with less expensive sources, such as gas and oil, for heating and cooking.

The changes in this utilities line item through the projection period are a result of the application of the underlying inflation rate and projected changes in occupancy.

	COMPARABLE OPERATING STATEMENTS					Subject Property Forecast	
	#1	#2	#3	#4	#5	2026/27	Deflated
Utilities Expense							
Percentage of Revenue	2.5 %	3.8 %	3.8 %	3.8 %	6.3 %	3.6 %	3.0 %
Per Available Room	$1,207	$1,620	$1,656	$1,634	$2,735	$1,729	$1,600
Per Occupied Room	$3.91	$5.22	$6.56	$5.60	$10.36	$7.40	$5.77

MANAGEMENT FEE

Management expenses consist of the fees paid to the managing agent contracted to operate the property. Some companies provide management services and a brand-name affiliation (first-tier management company), while others provide management services alone (second-tier management company). Some management contracts specify only a base fee (usually a percentage of total revenue), while others call for both a base fee and an incentive fee (usually a percentage of defined profit). Basic hotel management fees are often based on a percentage of total revenue, which means they have no fixed component. While base fees typically range from 2.0% to 4.0% of total revenue, incentive fees are deal-specific and often are calculated as a percentage of income available after debt service and, in some cases, after a preferred return on equity. Total management fees for the subject property have been forecast at 3.0% of total revenue.

PROPERTY TAXES

Property (or ad valorem) tax is one of the primary revenue sources of municipalities. Based on the concept that the tax burden should be distributed in proportion to the value of all properties within a taxing jurisdiction, a system of assessments is established. Theoretically, the assessed value placed on each parcel bears a definite relationship to market value; thus, properties with equal market values will have similar assessments, and properties with higher and lower values will have proportionately larger and smaller assessments. In Florida, commercial real estate is assessed at 100% of market value. In actual practice, assessments tend to range about 70% to 90% of market value in order to account for selling costs, and in order to reduce the number of appeals.

Depending on the taxing policy of the municipality, property taxes can be based on the value of the real property or the value of the personal property and the real property. We have based our estimate of the subject property's market value (for tax purposes) on an analysis of assessments of both the subject property and comparable hotel properties in the local municipality.

According to the staff representative at the Brevard County Assessor's Office, real estate taxes for the subject property are current as of the date of this report. Based on the scope of this assignment, any pending tax liens are not considered in the value conclusion.

PROPERTY TAX COMPARABLES

HOTEL	YEAR OPEN	REAL PROPERTY	PERSONAL	TOTAL
Holiday Inn Express & Suites Cocoa	2003	$4,459,090	$164,850	$4,623,940
Four Points by Sheraton Cocoa Beach	2006	10,433,260	500,000	10,933,260
Hilton Garden Inn Cocoa Beach Oceanfront	1987	36,501,510	2,642,230	39,143,740
Hampton Inn Cocoa Beach/Cape Canaveral	1999	12,734,100	1,115,590	13,849,690
Holiday Inn Express & Suites Cocoa Beach	2000	4,180,840	82,530	4,263,370
Country Inn & Suites Port Canaveral	2006	13,447,750	813,050	14,260,800
SpringHill Suites Cape Canaveral Cocoa Beach	2020	18,337,190	1,921,380	20,258,570
Fairfield Inn & Suites Melbourne Viera Town Center	2018	11,869,770	432,320	12,302,090
SUBJECT PROPERTY				
Historical		$0	$0	$0
Positioned - Total	**2026**	**$13,000,000**	**$2,288,000**	**$15,527,200**

Source: Brevard County Assessor

PROPERTY TAX COMPARABLES PER ROOM

Hotel	Number of Rooms	Amounts Per Room		
		REAL PROPERTY	PERSONAL	TOTAL
Holiday Inn Express & Suites Cocoa	75	$59,455	$2,198	$61,653
Four Points by Sheraton Cocoa Beach	75	139,110	6,667	145,777
Hilton Garden Inn Cocoa Beach Oceanfront	150	243,343	17,615	260,958
Hampton Inn Cocoa Beach/Cape Canaveral	150	84,894	7,437	92,331
Holiday Inn Express & Suites Cocoa Beach	60	69,681	1,376	71,056
Country Inn & Suites Port Canaveral	151	89,058	5,384	94,442
SpringHill Suites Cape Canaveral Cocoa Beach	151	121,438	12,724	134,163
Fairfield Inn & Suites Melbourne Viera Town Center	116	102,326	3,727	106,053
SUBJECT PROPERTY				
Positioned - Per Room	**104**	**$125,000**	**$22,000**	**$149,300**

Source: Brevard County Assessor

Tax rates are based on the city and county budgets, which change annually. The following table shows changes in the tax rate during the last several years.

PROPERTY TAX RATE

YEAR	REAL PROPERTY MILLAGE RATE	PERSONAL PROPERTY MILLAGE RATE
2021	13.2060	13.2060
2022	12.2524	12.2524
2023	12.6500	12.6500
2024	12.3260	12.3260

Source: Brevard County Assessor

Based on comparable assessments and the tax rate information, the proposed subject property's projected property tax expense levels are calculated as follows.

PROPERTY TAX FORECAST				
	REAL PROPERTY			PERSONAL PROPERTY
	LAND	IMPROVEMENTS	TOTAL	TOTAL
Positioned (Assessed Value)	$239,200	$13,000,000	$13,239,200	$2,288,000
Equalization Rate	1.0000	1.0000	1.0000	1.0000
Tax Rate	12.3260	12.3260	12.3260	12.3260
Base Year Tax Burden	**$2,948**	**$160,238**	**$163,186**	**$28,202**

The subject's assessed values and property taxes for the current year are summarized in more detail in the following table.

PROPERTY TAX FORECAST									
	REAL PROPERTY				PERSONAL PROPERTY				
YEAR	Total Tax Burden	% CHG	% Positioned Tax Burden	Total Taxes Payable	Total Tax Burden	% CHG	% Positioned Tax Burden	Total Taxes Payable	TOTAL
Positioned	$163,186	—		$163,186	$28,202	—		$28,202	**$191,388**
2026/27	$163,186	7.6 %	75 %	$131,740	$28,202	7.6 %	0 %	$0	**$131,740**
2027/28	175,654	3.5	100	181,802	30,357	3.5	100	31,419	**213,221**
2028/29	181,802	3.0	100	187,256	31,419	3.0	90	29,125	**216,381**
2029/30	187,256	3.0	100	192,873	32,362	3.0	81	26,999	**219,873**

In this section, we analyzed the subject's historical and current assessment, as well as considered the subject's tax burden as it relates to its current stabilized market value on a fee simple basis. The conclusion shown above is supported by comparable data and utilized going forward in the analyses that is to follow.

INSURANCE EXPENSE

The insurance expense category consists of the cost of insuring the hotel and its contents against damage or destruction by fire, weather, sprinkler leakage, boiler explosion, plate glass breakage, and so forth. General insurance costs also include premiums relating to liability, fidelity, and theft coverage.

Insurance rates are based on many factors, including building design and construction, fire detection and extinguishing equipment, fire district, distance from the firehouse, and the area's fire experience. Insurance expenses do not vary with occupancy.

	COMPARABLE OPERATING STATEMENTS					Subject Property Forecast	
	#1	#2	#3	#4	#5	2026/27	Deflated
Insurance Expense							
Percentage of Revenue	0.9 %	1.1 %	0.9 %	0.9 %	1.4 %	1.5 %	1.2 %
Per Available Room	$439	$449	$408	$368	$613	$739	$650
Per Occupied Room	$1.42	$1.45	$1.62	$1.26	$2.32	$3.16	$2.34

RESERVE FOR REPLACEMENT

Furniture, fixtures, and equipment are essential to the operation of a lodging facility, and their quality often influences a property's class. This category includes all non-real estate items that are capitalized, rather than expensed. The furniture, fixtures, and equipment of a hotel are exposed to heavy use and must be replaced

at regular intervals. The useful life of these items is determined by their quality, durability, and the amount of guest traffic and use.

Periodic replacement of furniture, fixtures, and equipment is essential to maintain the quality, image, and income-producing potential of a lodging facility. Because capitalized expenditures are not included in the operating statement but affect an owner's cash flow, a forecast of income and expense should reflect these expenses in the form of an appropriate reserve for replacement.

The International Society of Hospitality Consultants (ISHC) oversees a major industry-sponsored study of the capital expenditure requirements for full-service/luxury, select-service, and extended-stay hotels. The most recent study was published in 2024. Historical capital expenditures of well-maintained hotels were investigated through the compilation of data provided by most of the major hotel companies in the United States. A prospective analysis of future capital expenditure requirements was also performed based upon the cost to replace short- and long-lived building components over a hotel's economic life. The study showed that the capital expenditure requirements for hotels vary significantly from year to year and depend upon both the actual and effective ages of a property. The results of this study showed that hotel lenders and investors are requiring reserves for replacement ranging from 4% to 5% of total revenue.

Based on the results of our analysis and on our review of the proposed subject asset and comparable lodging facilities, as well as on our industry expertise, we estimate that a reserve for replacement of 4% of total revenues is sufficient to provide for the timely and periodic replacement of the subject property's furniture, fixtures, and equipment. This amount has been ramped up during the initial projection period.

FORECAST OF REVENUE AND EXPENSE CONCLUSION

Projected total revenue, House profit, and EBITDA less replacement reserves are set forth in the following table.

PROJECTED OPERATING PERFORMANCE

	Total Revenue		House Profit			EBITDA Less Replacement Reserve		
Year	Total	% CHG	Total	% CHG	House Profit Ratio	Total	% CHG	% of Total Revenue
Projected								
2026/27	$4,987,000	—	$1,812,000	—	36.3 %	$1,354,000	—	27.2 %
2027/28	6,040,000	21.1 %	2,542,000	40.3 %	42.1	1,888,000	39.4 %	31.3
2028/29	6,579,000	8.9	2,882,000	13.4	43.9	2,124,000	12.5	32.4
2029/30	6,777,000	3.0	2,969,000	3.0	43.9	2,191,000	3.2	32.5
2030/31	6,980,000	3.0	3,058,000	3.0	43.9	2,256,000	3.0	32.5

INTRODUCTION TO FEASIBILITY ANALYSIS

Return on investment can be defined as the future benefits of an income-producing property relative to its acquisition or construction cost. The first step in performing a return-on-investment analysis is to determine the amount to be initially invested. For a proposed property, this amount is most likely to be the development cost of the hotel. Based on the total development cost, the individual investor will utilize a return-on-investment analysis to determine if the future cash flow from a current cash outlay meets his or her own investment criteria and at what level above or below this amount such an outlay exceeds or fails to meet these criteria.

As an individual or company considering investment in hotel real estate, the decision to use one's own cash, an equity partner's capital, or lender financing will be an internal one. Because hotels typically require a substantial investment, only the largest investors and hotel companies generally have the means to purchase properties with all cash. We would anticipate the involvement of some financing by a third party for the typical investor or for those who may be entering the market for hotel acquisitions at this time. In leveraged acquisitions and developments where investors typically purchase or build upon real estate with a small amount of equity cash (20% to 50%) and a large amount of mortgage financing (50% to 80%), it is important for the equity investor to acknowledge the return requirements of the debt participant (mortgagee), as well as his or her own return requirements. Therefore, we will begin our rate of return analysis by reviewing the debt requirements of typical hotel mortgagees.

TOTAL DEVELOPMENT BUDGET

The construction budget for the 104-room proposed subject hotel, as provided by the developer, is illustrated in the following table. We note these cost estimates were largely supported by our internal database of construction budgets for comparable new-build midscale extended-stay assets, as well as construction bids solicitated by the developer.

TOTAL DEVELOPMENT BUDGET

COMPONENT	COST	COST/ROOM
Hard Costs & Site Improvements		
Site Work	$1,000,000	$9,615
Structure	11,500,000	110,577
Contingency	500,000	4,808
Subtotal Hard Cost & Site Improvements	$13,000,000	$125,000
Furniture, Fixtures, & Equipment		
FF&E - Guestrooms	$1,300,000	$12,500
FF&E - Public Areas	210,000	2,019
FF&E - Back-of-House	115,000	1,106
OS&E	80,000	769
Subtotal FFE & OS&E	1,705,000	16,394
Pre-Opening Costs and Working Capital		
Operating Supplies & Equipment	$110,000	$1,058
Working Capital	85,000	817
Subtotal Pre-Opening and Working Capital	$195,000	$1,875
Soft Costs		
Architect	$500,000	$4,808
Civil	125,000	1,202
Structural	100,000	962
Interior Design	125,000	1,202
Misc. Other Consulting Fees	100,000	962
Loan Costs	300,000	2,885
Franchise Fee	250,000	2,404
Insurance	55,000	529
Construction Interest	900,000	8,654
Feasibility & Appraisal	35,000	337
Legal Expenses	10,000	96
Accounting & Professional Fees	150,000	1,442
Impact/Tap Fees	100,000	962
Misc	110,000	1,058
Subtotal Soft Costs	$2,860,000	$27,500
Subtotal (without Land and Developer's Fee)	**$17,760,000**	**$170,769**
Total Site Costs	$4,000,000	$38,462
Subtotal (without Developer's Fee)	**$21,760,000**	**$209,231**
Developer's Fee	$250,000	$2,404
TOTAL	**$22,010,000**	**$211,635**

Source: Developer

Spark Hotel Valuation & Advisory has also estimated construction costs for the 104-room proposed subject property. Our cost budget is based on building costs provided by the Marshall & Swift cost estimator, as well as FF&E, soft costs, and pre-opening costs supported by HVS's published 2023 *Development Cost Survey*.

2023 HVS PUBLISHED DEVELOPMENT COST SURVEY

	Land	Building & Site Improvements	Soft Costs	FF&E	Pre-Opening & Working Capital	Developer Fee	Total
Limited-Service Hotels							
Average	$26,127	$119,167	$22,929	$17,054	$3,899	$6,213	$195,390
Median	$15,256	$109,041	$18,352	$15,833	$2,809	$5,102	$166,393
% of Total*	11%	66%	11%	9%	2%	1%	100%
Extended-Stay Hotels (Midscale)							
Average	$14,712	$107,364	$19,454	$17,248	$3,417	$4,912	$167,107
Median	$12,264	$102,516	$16,737	$17,248	$3,134	$4,503	$156,402
% of Total*	9%	66%	12%	10%	2%	2%	100%
Extended-Stay Hotels (Upscale)							
Average	$28,277	$162,276	$34,373	$21,485	$6,694	$7,327	$260,431
Median	$23,196	$130,707	$29,695	$21,118	$5,798	$6,246	$216,761
% of Total*	12%	64%	13%	9%	2%	2%	100%
Select-Service Hotels							
Average	$31,592	$184,321	$36,355	$23,265	$8,721	$8,711	$292,966
Median	$20,248	$161,853	$25,569	$21,189	$6,098	$6,974	$241,932
% of Total*	10%	66%	12%	9%	3%	2%	100%
Dual-Branded Hotels							
Average	$26,725	$152,050	$26,954	$21,362	$4,724	$7,537	$239,353
Median	$14,608	$124,349	$19,471	$19,629	$3,290	$6,976	$188,324
% of Total*	8%	66%	11%	10%	2%	2%	100%
Full-Service Hotels							
Average	$37,095	$340,996	$77,778	$40,854	$14,450	$16,614	$527,787
Median	$20,792	$250,762	$52,757	$33,914	$9,722	$12,284	$380,231
% of Total*	7%	66%	14%	9%	2%	2%	100%
Luxury Hotels							
Average	$172,952	$495,059	$175,650	$66,557	$24,992	$26,300	$961,509
Median	$102,837	$500,059	$138,919	$63,508	$22,984	$21,482	$849,789
% of Total*	12%	57%	17%	8%	3%	2%	100%
Redevelopment Projects							
Average	$60,236	$180,281	$50,091	$26,557	$9,716	$14,330	$341,210
Median	$38,906	$196,077	$35,356	$26,267	$7,510	$13,217	$317,333
% of Total*	15%	57%	14%	9%	3%	3%	100%
Total							
Average	$34,392	$195,843	$44,495	$27,349	$8,260	$6,910	$317,249
Median	$16,634	$143,116	$26,011	$20,325	$3,846	$2,472	$212,404
% of Total*	9%	64%	15%	8%	2%	2%	100%

Our total development cost estimate is illustrated below.

TOTAL DEVELOPMENT COST - SPARK HVA ESTIMATE

Item	Cost	%	Cost/Room
Hard Costs, Soft Costs, Pre-Opening, & Working Capital	$21,112,000	88.9 %	$203,000
Furniture, Fixtures, & Equipment	2,288,000	9.6	22,000
Site Acquisition	0	-	0
Entrepreneurial Incentive	351,000	1.5	3,375
Total Development Cost (rounded)	**$23,751,000**	**100.0 %**	**$228,375**

We note, however, that we are not experts in estimating construction costs, and that these can vary widely based on location and specific attributes of the site. As such, we recommend our development cost estimate be verified by a credible third-party estimator.

TERMINAL CAPITALIZATION RATE

Inherent in this underwriting process, we assume a sale at the end of the ten-year holding period. The estimated reversionary sale price as of that date is calculated by capitalizing the projected eleventh-year net income by an overall terminal capitalization rate. An allocation for the selling expenses is deducted from this sale price, and the net proceeds to the equity interest (also known as the equity residual) are calculated by deducting the outstanding mortgage balance from the reversion.

The selection of an appropriate Terminal Capitalization Rate is based on the results of surveys of investment criteria published by various real estate research groups, which are summarized in the table below.

TERMINAL CAP RATES DERIVED FROM INVESTOR SENTIMENT		
HVS BROKERS SURVEY	**SPRING 2023**	**SPRING 2024**
Luxury & Upper-Upscale Hotels		
Discount Rate Range	4.50 - 10.00 %	5.0 - 9.00 %
Average	6.80 %	7.00 %
Full-Service		
Discount Rate Range	5.00 - 12.00 %	7.0 - 10.50 %
Average	8.30 %	8.70 %
Select-Service Hotels		
Discount Rate Range	6.50 - 12.00 %	6.5 - 10.50 %
Average	9.00 %	8.50 %
Limited-Service & Economy Hotels		
Discount Rate Range	6.50 - 12.00 %	6.0 - 11.00 %
Average	9.00 %	8.90 %
PwC REAL ESTATE INVESTOR SURVEY	**Q2 2023**	**Q2 2024**
Luxury/Upper-Upscale Hotels		
Discount Rate Range	6.75 - 12.00 %	7.0 - 12.00 %
Average	9.50 %	9.69 %
Full-Service Hotels		
Discount Rate Range	4.50 - 10.00 %	6.0 - 10.50 %
Average	8.20 %	8.70 %
Select-Service Hotels		
Discount Rate Range	9.00 - 15.00 %	9.0 - 15.00 %
Average	11.70 %	11.75 %
Limited-Service Hotels		
Discount Rate Range	8.00 - 12.50 %	9.0 - 12.50 %
Average	10.20 %	10.88 %
SITUS RERC REAL ESTATE REPORT	**Q4 2023**	**Q1 2024**
First-Tier Hotels		
South Region	8.50 - 9.10 %	7.5 - 9.50 %
Average	8.80 %	8.70 %
Second-Tier Hotels		
South Region	8.80 - 10.50 %	8.5 - 10.50 %
Average	9.70 %	9.80 %
Third Teir Hotels		
South Region	9.30 - 11.50 %	9.5 - 11.50 %
Average	10.60 %	10.60 %

Based on aforementioned research groups' definitions, the proposed subject would fall into the select-service or second-tier category. In which, HVS, PwC, and Situs reported Terminal Capitalization rates ranging between 9.0% and 13.0%, with averages of 11.0%, 11.75%, and 10.9%, respectively. As the proposed subject property is expected to be a nationally branded, upper-midscale, select-service hotel in a submarket currently under-served in this segment, the reversion price will be calculated using a Terminal Capitalization Rate of 9.0% for a 10-year hold.

INTERNAL RATES OF RETURN FOR DEBT & EQUITY COMPONENTS

As the two participants in a real estate investment, investors and lenders must evaluate their equity and debt contributions based on their particular return requirements. After carefully weighing the risk associated with the projected economic benefits of a lodging investment, the participants will typically make their decision whether or not to invest in a hotel or resort by determining if their investment will provide an adequate yield over an established period. For the lender, this yield will typically reflect the interest rate required for a hotel mortgage over a period of what can range from seven to ten years. The yield to the equity participant may consider not only the requirements of a particular investor, but also the potential payments to cooperative or ancillary entities such as limited partner payouts, stockholder dividends, and management company incentive fees.

The return-on-investment analysis in a hotel acquisition would not be complete without recognizing and reflecting the yield requirements of both the equity and debt participants. The analysis will now calculate the yields to the mortgage and equity participants during a ten-year projection period.

The annual debt service is calculated by multiplying the mortgage component by the mortgage constant.

PROPERTY COMPONENTS	
Mortgage Component (65%)	$15,438,000
Equity Component (35%)	8,313,000
Total	$23,751,000
Mortgage Component	$15,438,000
Mortgage Constant	0.098657
Annual Debt Service	$1,523,000

The yield to the lender based on a 65% debt contribution equates to an interest rate of 8.75%, which is calculated as follows.

DEBT COMPONENT YIELD

PERIOD	FISCAL YEAR	TOTAL ANNUAL DEBT SERVICE		DISCOUNT FACTOR 8.7%		DISCOUNTED CASH FLOW
1	2026/27	$1,523,000	x	0.920138	=	$1,401,000
2	2027/28	1,523,000	x	0.846654	=	1,289,000
3	2028/29	1,523,000	x	0.779039	=	1,186,000
4	2029/30	1,523,000	x	0.716823	=	1,092,000
5	2030/31	1,523,000	x	0.659576	=	1,005,000
6	2031/32	1,523,000	x	0.606901	=	924,000
7	2032/33	1,523,000	x	0.558433	=	850,000
8	2033/34	1,523,000	x	0.513835	=	783,000
9	2034/35	1,523,000	x	0.472799	=	720,000
10	2035/36	14,222,000 *	x	0.435041	=	6,187,000
		VALUE OF MORTGAGE COMPONENT				$15,437,000

*10th year debt service of $1,523,000 plus outstanding mortgage balance of $12,699,000

The following table illustrates the cash flow available to the equity position, after deducting the debt service from the projected net income.

NET INCOME TO EQUITY

PERIOD	FISCAL YEAR	NOI AVAILABLE FOR DEBT SERVICE		TOTAL ANNUAL DEBT SERVICE		NET INCOME TO EQUITY
1	2026/27	$1,354,000	-	$1,523,000	=	($169,000)
2	2027/28	1,888,000	-	1,523,000	=	365,000
3	2028/29	2,124,000	-	1,523,000	=	601,000
4	2029/30	2,191,000	-	1,523,000	=	668,000
5	2030/31	2,256,000	-	1,523,000	=	733,000
6	2031/32	2,325,000	-	1,523,000	=	802,000
7	2032/33	2,394,000	-	1,523,000	=	871,000
8	2033/34	2,465,000	-	1,523,000	=	942,000
9	2034/35	2,540,000	-	1,523,000	=	1,017,000
10	2035/36	2,616,000	-	1,523,000	=	1,093,000

In order for the present value of the equity investment to equate to the $8,313,000 capital outlay, the investor must accept a 12.5% return, as shown in the following table.

EQUITY COMPONENT YIELD

PERIOD	FISCAL YEAR	NET INCOME TO EQUITY		DISCOUNT FACTOR 12.5%		DISCOUNTED CASH FLOW
1	2026/27	($169,000)	x	0.888525	=	($150,000)
2	2027/28	365,000	x	0.789476	=	288,000
3	2028/29	601,000	x	0.701469	=	422,000
4	2029/30	668,000	x	0.623273	=	416,000
5	2030/31	733,000	x	0.553793	=	406,000
6	2031/32	802,000	x	0.492059	=	395,000
7	2032/33	871,000	x	0.437207	=	381,000
8	2033/34	942,000	x	0.388469	=	366,000
9	2034/35	1,017,000	x	0.345164	=	351,000
10	2035/36	17,734,000 *	x	0.306687	=	5,439,000
				VALUE OF EQUITY COMPONENT		$8,314,000

*10th year net income to equity of $1,093,059 plus sales proceeds of $16,641,000

The property's yields by component are summarized below.

SUMMARY OF YIELDS BY COMPONENT

YEAR	TOTAL PROPERTY DCF	DEBT DCF	EQUITY DCF
0	($23,751,008)	($15,438,000)	($8,313,000)
1	1,227,000	1,401,000	(150,000)
2	1,887,719	1,289,000	288,000
3	2,124,022	1,186,000	422,000
4	2,190,694	1,092,000	416,000
5	2,256,335	1,005,000	406,000
6	2,324,596	924,000	395,000
7	2,393,803	850,000	381,000
8	2,465,496	783,000	366,000
9	2,539,606	720,000	351,000
10	31,956,620	6,187,000	5,439,000
IRR	10.4%	8.7%	12.5%

FEASIBILITY CONCLUSION

In determining the potential feasibility of the Proposed Fairfield Inn & Suites Downtown Cocoa Village, we analyzed the lodging market, researched the area's economics, reviewed the estimated development cost, and prepared a ten-year forecast of income and expense, which was based on our review of the current and historical market conditions, as well as comparable income and expense statements.

Our analysis indicates that an equity investor contributing $8,313,000 (roughly 35% of the $23,751,000 development cost) could expect to receive a 12.5% internal rate of return over a ten-year holding period, assuming that the investor obtains financing at the time of the project's completion at the loan-to-value ratio and interest rate set forth.

The following survey summarizes the range of equity yields indicated by hotel sales and investor interviews published by HVS. We note that there tends to be a lag between the sales data and current market conditions, and thus, the full effect of the change in the economy and capital markets may not yet be reflected.

AVERAGE EQUITY YIELD (IRR) COMPARISON BY CLASS

HVS HOTEL SALES	PRE-COVID	SPRING 2023	SUBJECT: 10-YEAR YIELD
Full-Service & Luxury Hotel Sales			
Equity Yields	12.2% - 21.2%	11.4% - 19.5%	
Average	16.90%	15.70%	
Select-Service & Upscale Limited-Service Hotel Sales			
Equity Yields	15.0% - 21.4%	15.4% - 22.5%	**12.55%**
Average	18.30%	18.30%	
Limited-Service Hotel Sales			
Equity Yields	17.0% - 23.9%	16.9% - 24.2%	
Average	19.60%	19.40%	

PwC REAL ESTATE INVESTOR SURVEY	YIELD COMPARISON
PwC Yield Indicator (PYI)*	
2024, April	9.17%
2023 Average	8.29%
2022 Average	7.43%
2019 Average	7.47%
Long-Term Mortgages	
2024, April	8.20%
2023 Average	7.42%
2022 Average	5.61%
2019 Average	4.71%
10-Year Treasuries	
2024, April	4.33%
2023 Average	3.94%
2022 Average	2.64%
2019 Average	2.21%
Consumer Price Index Change	
2024, April	6.65%
2023 Average	3.21%
2022 Average	7.54%
2019 Average	1.76%

*A composite IRR average of all markets surveyed (excluding hotels, development land, self storage, and student housing)

The proposed subject hotel would offer a modern, select service hotel product to serve a currently underserved area in Downtown Cocoa, which does not offer any current hotel lodging options. Our review of HVS' investor survey indicates equity returns ranging from 15.4% to 22.5%, with an average of 18.3%. In consideration of these parameters and an estimated total development cost of $23,800,000 ($229,000 per key), the calculated return to the equity investor is 12.5%. Although the derived equity yield is just below the range of market-level returns for a property of this type, it is in line with PwC's Yield Indicator (PYI), which represents a composite IRR average of all real estate assets, excluding hotels, development land, self storage, and student housing. We note our feasibility conclusion is subject to change based on changes in development costs. As such, we recommend obtaining actual construction bids or getting these costs validated by a third party.

Key Assumption

This study assumes the described hotel improvements are completed substantially as planned by the modeled opening date. If not, market capture, financial projections, and economic-impact estimates could change. This document is a feasibility study prepared for underwriting and development decision-making as of November 2024; it is not an appraisal and is not represented as USPAP-compliant.

INTRODUCTION TO ECONOMIC & FISCAL IMPACT ANALYSIS

To evaluate the broader economic and fiscal effects of the Proposed Fairfield Inn & Suites Downtown Cocoa Village, we have used the IMPLAN input–output modeling system.

IMPLAN Methodology and Definitions

IMPLAN is a widely used economic modeling platform that estimates how a new project affects a local economy by tracing how spending flows through businesses, workers, and governments over five years, including two years of construction.

IMPLAN reports three types of effects:

- **DIRECT EFFECTS:** the jobs, wages, and output associated with the development of the project itself and its associated spending.
- **INDIRECT EFFECTS:** the capture of increases in spending in the local area as a result of the development by hotel guests, meeting attendees, rooftop goers, or new employees, such as on restaurants, retail shops, and services, among many other impacts.
- **INDUCED EFFECTS:** the measure of the additional activity generated when workers in the direct and indirect industries spend their earnings on housing, retail, healthcare, and other household needs in the region.

Results are expressed in terms of:

1. **Employment** (average annual jobs, including full-time, part-time, and seasonal positions)
2. **Labor Income** (all wages, salaries, benefits, and proprietor income)
3. **Value Added** (contribution to gross domestic product after intermediate inputs)
4. **Output** (the total value of industry production in the year of the dataset).

For this analysis, the IMPLAN region was defined to the economic system of the City of Cocoa, the County of Brevard, and the State of Florida. The model therefore focuses on how the project affects jobs, wages, economic output, and tax revenues within this local area, while also capturing the associated county, state, and federal fiscal effects.

OVERALL ECONOMIC EFFECTS ON COCOA AND COCOA VILLAGE

The IMPLAN results indicate that the Fairfield Inn & Suites project will support a sizable increase in employment, wages, and economic output in Cocoa and its surrounding region. Across all effects, the model estimates **558 total jobs**, **$25.9 million in annual labor income**, **$43.6 million in value added**, and **$75.9 million in total output** within the local economy through five years, immediately following the commencement of its expected two-year construction and stretching through its first three years of operations.

ECONOMIC INDICATORS BY IMPACT				
Impact	**Employment**	**Labor Income**	**Value Added**	**Output**
1 - Direct	420	$19,151,697	$30,974,169	$52,900,103
2 - Indirect	59	$3,039,541	$4,897,677	$9,968,456
3 - Induced	79	$3,685,549	$7,695,383	$12,991,885
TOTAL	**558**	**$25,876,788**	**$43,567,229**	**$75,860,443**

As illustrated above, the 5-year economic effects within the local economy are detailed below:

- **Direct effects** account for about 420 jobs, $19.2 million in labor income, $31.0 million in value added, and $52.9 million in output tied to hotel operations, on-site spending, and closely related activity.
- **Indirect effects** add roughly 60 jobs, $3.0 million in labor income, $4.9 million in value added, and $10.0 million in output through local suppliers and service providers.
- **Induced effects** contribute an additional 80 jobs, $3.7 million in labor income, $7.7 million in value added, and $13.0 million in output as workers spend their earnings in the community.

In practical terms, the project materially expands the local employment base, supports a wide range of wage and salary income, and adds more than $40 million in value added to the Cocoa area economy over five years. These effects reflect both the construction of the hotel and its ongoing operation in the modeled steady-state year and are concentrated within the City of Cocoa and its greater economic system.

INDUSTRY COMPOSITION OF ECONOMIC GROWTH

IMPLAN also reports how the new economic activity is distributed across industries, as illustrated in the table below.

ESTIMATED GROWTH PERCENTAGE BY TOP 50 INDUSTRIES

	Display Code	Display Description	Impact Output	Estimated Growth %	Industry Total Output
1	507	Hotels and motels, including casino hotels	$30,655,993.27	12.27%	$249,779,511.15
2	55	Construction of new commercial structures, including farm structures	$22,244,816.39	6.06%	$366,985,881.46
3	28	Stone mining and quarrying	$19,837.65	.38%	$5,246,845.50
4	156	Asphalt shingle and coating materials manufacturing	$152,833.92	.32%	$48,018,694.04
5	31	Potash, soda, and borate mineral mining	$3,652.71	.31%	$1,161,792.69
6	511	All other food and drinking places	$1,076,756.01	.28%	$379,309,661.40
7	432	Cable and other subscription programming	$208,676.53	.28%	$74,838,172.88
8	431	Radio and television broadcasting	$178,594.57	.26%	$68,127,706.81
9	526	Postal service	$161,793.25	.22%	$73,753,672.48
10	430	Sound recording industries	$88,838.84	.20%	$44,669,014.43
11	453	Commercial and industrial machinery and equipment rental and leasing	$181,193.89	.19%	$94,777,133.46
12	211	Cut stone and stone product manufacturing	$23,638.39	.16%	$14,647,945.51
13	396	Wholesale - Other durable goods merchant wholesalers	$557,950.13	.14%	$386,708,417.81
14	465	Advertising, public relations, and related services	$228,980.85	.14%	$163,918,319.51
15	47	Electric power transmission and distribution	$97,985.83	.12%	$79,288,784.50
16	139	Other millwork, including flooring	$17,154.84	.12%	$13,940,669.07
17	34	Other nonmetallic minerals	$1,358.57	.12%	$1,110,196.18
18	476	Services to buildings	$381,832.80	.12%	$313,019,428.75
19	205	Concrete block and brick manufacturing	$41,718.09	.12%	$34,966,326.83
20	519	Dry-cleaning and laundry services	$22,646.69	.12%	$19,279,447.23
21	479	Waste management and remediation services	$211,861.80	.11%	$187,141,691.24
22	515	Commercial and industrial machinery and equipment repair and maintenance	$53,305.77	.11%	$47,175,480.46
23	207	Other concrete product manufacturing	$7,514.04	.11%	$6,731,275.60
24	423	Newspaper publishers	$16,836.41	.11%	$15,348,744.40
25	438	Internet publishing and broadcasting and web search portals	$174,554.87	.11%	$164,690,483.32
26	477	Landscape and horticultural services	$247,700.50	.10%	$246,570,159.90
27	426	Directory, mailing list, and other publishers	$21,678.49	.09%	$22,947,564.12
28	424	Periodical publishers	$4,146.27	.09%	$4,460,239.85
29	32	Phosphate rock mining	$392.71	.09%	$432,878.97
30	417	Truck transportation	$379,570.79	.09%	$430,878,196.17
31	474	Travel arrangement and reservation services	$61,728.76	.09%	$70,316,484.74
32	320	Blank magnetic and optical recording media manufacturing	$11,634.18	.09%	$13,292,093.97
33	395	Wholesale - Machinery, equipment, and supplies	$215,550.24	.09%	$249,274,266.80
34	499	Independent artists, writers, and performers	$42,069.10	.08%	$49,524,628.15
35	497	Commercial Sports Except Racing	$30,748.69	.08%	$36,344,138.90
36	456	Accounting, tax preparation, bookkeeping, and payroll services	$137,915.28	.08%	$166,558,527.63
37	401	Wholesale - Wholesale electronic markets and agents and brokers	$48,848.14	.08%	$59,816,506.68
38	439	Nondepository credit intermediation and related activities	$78,604.87	.08%	$97,814,357.92
39	450	Automotive equipment rental and leasing	$74,619.50	.08%	$92,984,162.32
40	496	Performing arts companies	$18,386.65	.08%	$23,358,274.35
41	523	Business and professional associations	$23,615.14	.08%	$30,331,397.29
42	463	Environmental and other technical consulting services	$78,359.09	.08%	$102,987,749.85
43	154	Petroleum refineries	$25,640.51	.08%	$34,002,702.00
44	49	Water, sewage and other systems	$20,568.79	.07%	$27,796,106.24
45	399	Wholesale - Petroleum and petroleum products	$151,003.69	.07%	$206,909,942.89
46	470	Office administrative services	$81,211.02	.07%	$111,552,825.95
47	500	Promoters of performing arts and sports and agents for public figures	$40,769.29	.07%	$56,089,168.50
48	451	General and consumer goods rental except video tapes and discs	$49,274.34	.07%	$73,085,900.79
49	505	Fitness and recreational sports centers	$16,232.78	.07%	$24,260,219.73
50	534	Other local government enterprises	$128,339.99	.07%	$193,785,470.56

The single largest impact occurs in the "Hotels and motels, including casino hotels" sector, which captures the Fairfield Inn & Suites and related lodging activity. This industry accounts for approximately $30.7 million in additional output, representing about 12% growth relative to its existing level of output in the region.

The construction of new commercial structures sector is the second largest beneficiary, with roughly $22.2 million in output tied to development of the hotel building and associated site improvements, equal to roughly 6% growth in that sector. Combined, the hotel and commercial construction industries represent just under 70% of the modeled output growth, underscoring the importance of both the construction phase and ongoing hotel operations.

Beyond these two core sectors, additional gains are spread across:

- Housing and real estate, including owner-occupied dwellings and other real estate activities, which together receive about $4.0 million in incremental output as new workers and visitors generate demand for space and related services.
- Restaurants and food service, where full-service restaurants and other food and drinking places gain roughly $1.7 million in output as both guests and employees spend locally.
- Healthcare and retail, including physicians' offices, hospitals, wholesale trade, and non-store retailers, which collectively add several million dollars in output as household spending rises.

This pattern shows that the Fairfield Inn & Suites strengthens Cocoa's role as a tourism and service hub, while also providing spillover benefits to construction, housing, dining, healthcare, and retail establishments that serve both visitors and residents.

FISCAL IMPACTS ON THE CITY OF COCOA, COCOA VILLAGE, AND OTHER JURISDICTIONS

In terms of fiscal impact to its encompassing jurisdictions, IMPLAN estimates how the project's activity translates into tax revenues for different levels of government. In total, the model indicates approximately $12.5 million in annual tax revenues across all jurisdictions through the five years immediately following the commencement of its construction.

TAX RESULTS

Impact	Sub County General	Sub County Special Districts	County	State	Federal	Total
1 - Direct	$524,704	$656,916	$794,990	$2,462,593	$4,955,493	$9,394,696
2 - Indirect	$54,305	$68,008	$82,285	$260,660	$787,528	$1,252,787
3 - Induced	$97,978	$122,667	$148,449	$474,768	$1,025,915	$1,869,777
	$676,987	$847,592	$1,025,724	$3,198,021	$6,768,935	$12,517,260

Within this total, the City of Cocoa and related special districts are projected to receive roughly:

- $677,000 in general fund revenues (Sub County General), and
- $848,000 for special districts (Sub County Special Districts),

for a combined local city-level impact of about $1.5 million per year. These revenues reflect sources such as property taxes, local sales and lodging taxes, and various fees that accrue directly to the City of Cocoa and its associated districts.

At the county level, the project is expected to generate an additional $1.0 million in annual taxes for Brevard County. Taken together, city, special district, and county governments would realize approximately $2.6 million per year in combined local tax revenues associated with the Fairfield Inn & Suites.

The project also yields significant fiscal benefits for higher levels of government:

- The State of Florida receives an estimated $3.2 million per year in state taxes.
- The federal government receives approximately $6.8 million per year in federal revenues.

Roughly three quarters of the total tax impact arises from direct activity connected to the project, with the remainder derived from indirect and induced effects as spending ripples through the local economy.

The net fiscal impact for the City of Cocoa, as required by the City's guidelines, is the difference between these new revenues and the incremental costs of providing municipal services to support the project, such as public safety, utilities, road maintenance, and parks. IMPLAN quantifies the revenue side of this equation but does

not directly model the City's service costs. Given that hotels are commercial uses that do not generate school enrollment and typically impose moderate demands on local services relative to their tax base, it is reasonable to expect a positive net fiscal impact for the City and Cocoa Village overall. Precise net figures, however, will depend on the City's chosen method of allocating service costs to new development.

SUMMARY AND CONCLUSION

In summary, the IMPLAN findings suggest that the development and operation of the proposed Fairfield Inn & Suites in Cocoa Village will function as a meaningful economic engine for the City of Cocoa and its surrounding regional economic system. The project is estimated to support approximately 560 jobs, $25.9 million in annual labor income, $43.6 million in value added, and $75.9 million in total economic output within the area, with impacts concentrated in the hotel, construction, real estate, restaurant, and related service sectors.

On the fiscal side, the model indicates that the project could generate roughly $1.5 million per year in tax revenues for the City of Cocoa and its special districts, about $1.0 million for Brevard County, and an additional combined $10.0 million for state and federal governments. While the ultimate net fiscal impact will depend on the City's incremental service costs, the scale and composition of the projected revenues suggest a favorable fiscal outcome for local jurisdictions.

These results provide a quantitative framework for understanding how the Fairfield Inn & Suites is expected to contribute to jobs, wages, economic output, and public revenues in Cocoa and Cocoa Village. All figures are based on the IMPLAN dataset and assumptions in place at the time the model was run, and actual results will vary with future changes in project scope, operating performance, tax policy, and local economic conditions. Spark Hotel Valuation & Advisory presents this information as of the date of the IMPLAN analysis for planning and feasibility purposes, with the understanding that the underlying data and projections are subject to change over time.

1. This report is set forth as a feasibility study of the proposed subject property; this is not an appraisal report.
2. This report is to be used in whole and not in part.
3. No responsibility is assumed for matters of a legal nature, nor do we render any opinion as to title, which is assumed marketable and free of any deed restrictions and easements. The property is evaluated as though free and clear unless otherwise stated.
4. We assume that there are no hidden or unapparent conditions of the sub-soil or structures, such as underground storage tanks, that would affect the property's development potential. No responsibility is assumed for these conditions or for any engineering that may be required to discover them.
5. We have not considered the presence of potentially hazardous materials or any form of toxic waste on the project site. We are not qualified to detect hazardous substances and recommend the client to retain an expert in this field if desired.
6. The Americans with Disabilities Act (ADA) became effective on January 26, 1992. We have assumed the proposed hotel would be designed and constructed to be in full compliance with the ADA.
7. We have made no survey of the site, and we assume no responsibility in connection with such matters. Sketches, photographs, maps, and other exhibits are included to assist the reader in visualizing the property. It is assumed that the use of the described real estate will be within the boundaries of the property described, and that no encroachment will exist.
8. The property is assumed to be in full compliance with all applicable federal, state, local, and private codes, laws, consents, licenses, and regulations (including the appropriate liquor license if applicable), and that all licenses, permits, certificates, franchises, and so forth can be freely renewed or transferred to a purchaser.
9. Unless noted, we assume that there are no encroachments, zoning violations, or building violations encumbering the subject property.
10. All mortgages, liens, encumbrances, leases, and servitudes have been disregarded unless specified otherwise.
11. All information, financial operating statements, estimates, and opinions obtained from parties not employed by Spark Hotel Valuation & Advisory LLC are assumed true and correct. We can assume no liability resulting from misinformation.
12. None of this material may be reproduced in any form without our written permission, and the report cannot be disseminated to the public through advertising, public relations, news, sales, or other media.
13. We are not required to give testimony or attendance in court because of this analysis without previous arrangements and shall do so only when our standard per-diem fees and travel costs have been paid prior to the appearance.
14. If the reader is making a fiduciary or individual investment decision and has any questions concerning the material presented in this report, it is recommended that the reader contact us.
15. We take no responsibility for any events or circumstances that take place subsequent to the date of initial draft report.
16. The quality of a lodging facility's onsite management has a direct effect on a property's economic viability. The financial forecasts presented in this analysis assume responsible ownership and competent management. Any departure from this assumption may have a significant impact on the projected operating results.

17. The financial analysis presented in this report is based upon assumptions, estimates, and evaluations of the market conditions in the local and national economy, which may be subject to sharp rises and declines. Over the projection period considered in our analysis, wages and other operating expenses may increase or decrease because of market volatility and economic forces outside the control of the hotel's management. We assume that the price of hotel rooms, food, beverages, and other sources of revenue to the hotel will be adjusted to offset any increases or decreases in related costs. We do not warrant that our estimates will be attained, but they have been developed based upon information obtained during the course of our market research and are intended to reflect the expectations of a typical hotel investor as of the stated date of the report.
18. This analysis assumes continuation of all Internal Revenue Service tax code provisions as stated or interpreted on the date of the report.
19. Many of the figures presented in this report were generated using sophisticated computer models that make calculations based on numbers carried out to three or more decimal places. In the interest of simplicity, most numbers have been rounded to the nearest tenth of a percent. Thus, these figures may be subject to small rounding errors.
20. It is agreed that our liability to the client is limited to the amount of the fee paid as liquidated damages. Our responsibility is limited to the client, and use of this report by third parties shall be solely at the risk of the client and/or third parties. The use of this report is also subject to the terms and conditions set forth in our engagement letter with the client.
21. Evaluating and comprising financial forecasts for hotels is both a science and an art. Although this analysis employs various mathematical calculations to provide value indications, the final forecasts are subjective and may be influenced by our experience and other factors not specifically set forth in this report.
22. This study was prepared by Spark Hotel Valuation & Advisory LLC. All opinions, recommendations, and conclusions expressed during the course of this assignment are rendered by the staff of Spark Hotel Valuation & Advisory LLC as employees, rather than as individuals.



Jai B. Patel
President & CEO
Spark Hotel Valuation & Advisory, LLC

.

Jai B. Patel

PROFESSIONAL EXPERIENCE

SPARK HOTEL VALUATION & ADVISORY, NASHVILLE TN
President & CEO, Apr. 2021 – Present

HVS CONSULTING & VALUATION / U.S. HOTEL APPRAISALS, NASHVILLE, TN
Director, Nov. 2012 – Feb. 2020

COUNTRY INN & SUITES BY RADISSON, NASHVILLE, TN
General Manager/Revenue Manager, May 2009 – Nov. 2012

WELLS FARGO FINANCIAL, HERMITAGE, TN
Credit Manager, Jan. 2009 – May 2009

EDUCATION

THE UNIVERSITY OF TENNESSEE, KNOXVILLE
B.S. Finance, B.S. Enterprise Management, International Business Collateral

MAI Candidate, Other Specialized Training Classes Completed:
Advanced Income Capitalization – 35 hours
Advanced Concepts and Case Studies – 40 hours
Advanced Market Analysis & HBU – 30 hours
Basic Appraisal Procedures – 30 hours
Basic Appraisal Principles – 30 hours
OH Fair Housing Class – 3 hours
Residential Report Writing and Case Studies – 15 hours
General Appraiser Income Approach (Parts I and II) – 60 hours
General Appraiser Market Analysis and HBU – 30 hours
General Appraiser Report Writing and Case Studies – 30 hours
General Appraiser Sales Comparison Approach – 30 hours
General Appraiser Site Valuation and Cost Approach – 30 hours
Quantitative Analysis – 30 hours
Statistics, Modeling and Finance – 15 hours
Uniform Standards of Professional Appraisal Practice – 15 hours
Annual USPAP Updates

PUBLISHED OR FEATURED ARTICLES

Invest: Nashville,* July 2021:** ***"*Great long-term outlook + short-term bumps = hungry investors"*

***HospitalityNet,* Nov. 2017:** *"HVS Market Pulse: Indianapolis, IN"*

***Commercial Property Executive,* Feb. 2017:** *"JW Marriott to Make Sweet Music in Nashville"*

***Hotel News Now,* Sept. 2014:** *"In Focus: Nashville, Tennessee"*

***Hotel News Now,* Oct. 2013:** *"Market Intelligence Report 2013: Cleveland"*

AWARDS & ACHIEVEMENTS

Founder & Executive Board Member, Middle Tennessee Hotel Association
Awarded "Business Leaders of the Year for 2012" in Nashville by *Business Leader Magazine*

EXAMPLES OF PROPERTIES APPRAISED OR EVALUATED:

ALABAMA
Comfort Inn & Suites, Birmingham
The Hotel Highland, Birmingham
Comfort Suites, Cullman
Sleep Inn & Suites, Cullman
La Quinta Inn, Fultondale
Proposed Holiday Inn Express, Huntsville
Sleep Inn, Oxford
Red Roof Inn, Mobile
Holiday Inn Express, Montgomery
Quality Roof Inn & Suites, Montgomery
Best Western, Troy
Courtyard by Marriott, Troy
Hampton Inn by Hilton, Troy

ARKANSAS
Holiday Inn Express, Forrest City
Candlewood Suites, Hot Springs
Proposed Holiday Inn Express & Suites, Jonesboro
Holiday Inn Presidential Conference Center, Little Rock
Proposed Embassy Suites & Conference Center, Jonesboro
Proposed Compass by Margaritaville, Jonesboro
Proposed Holiday Inn Express, Jonesboro
Proposed Holiday Inn, West Memphis

FLORIDA
Turnberry Isle, Miami

GEORGIA
Hilton Garden Inn, Atlanta
SpringHill Suites Buckhead, Atlanta
Parkway Inn, Augusta
Proposed Residence Inn by Marriott, Augusta
Red Roof Inn, Brunswick
Hotel Indigo Atlanta Airport, College Park
Regency Inn, East Point
SpringHill Suites by Marriott, Lithia Springs
Comfort Inn, Smyrna
Best Western, Union City
Ramada Inn, Warner Robins

INDIANA
Fairfield Inn by Marriott, Bloomington
TownePlace Suites by Marriott, Bloomington
Proposed Hotel, Brownsburg
Proposed Fairfield Inn & Suites by Marriott, Fishers
Courtyard by Marriott Downtown, Indianapolis
Fairfield Inn & Suites by Marriott Airport, Indianapolis
Hampton Inn NE Castleton, Indianapolis
Hilton North, Indianapolis
Holiday Inn Express Downtown, Indianapolis
Motel 6 Indianapolis East, Indianapolis
Motel 6 Indianapolis South, Indianapolis
Proposed Boutique Hotel Downtown, Indianapolis
Proposed Canopy by Hilton Hotel Downtown, Indianapolis
Proposed Curio by Hilton Hotel Downtown, Indianapolis
Proposed Hotel at Keystone Crossing, Indianapolis
Proposed Hyatt Place/Hyatt House, Indianapolis
Proposed Hyatt-Branded Hotel, Indianapolis
Proposed InterContinental Downtown, Indianapolis
Proposed Iron Works Hotel, Indianapolis
Residence Inn by Marriott Indianapolis Airport, Indianapolis
Sleep Inn Airport West, Indianapolis
SpringHill Suites by Marriott Downtown, Indianapolis
Staybridge Suites Downtown, Indianapolis
Staybridge Suites Indianapolis City Centre, Indianapolis
Proposed Hotel, Jeffersonville
Proposed La Quinta Inn & Suites, Jeffersonville
Best Western, Merrillville
Holiday Inn Express & Suites, Noblesville
Proposed Embassy Suites & Conference Center, Noblesville
Proposed Holiday Inn Express & Suites, Noblesville
Proposed Embassy Suites Hotel & Conference Center
Indianapolis Airport, Plainfield
WoodSpring Suites, Plainfield
Holiday Inn Express, Tell City

KENTUCKY
Proposed Hampton Inn by Hilton, Berea
Courtyard by Marriott Convention Center, Bowling Green
Proposed Home2 Suites by Hilton, Bowling Green
TownePlace Suites by Marriott, Bowling Green
Americas Best Value Inn, Elizabethtown
WoodSpring Suites, Florence
Comfort Inn, Glascow
Embassy Suites by Hilton UK Cold Stream, Lexington
Hyatt Place, Lexington
Marriott Griffin Gate Golf Resort, Lexington
Motel 6 Lexington East, Lexington
Aloft Downtown, Louisville
Courtyard by Marriott, Louisville
Hilton Garden Inn East, Louisville
Holiday Inn Louisville Airport Fair Expo, Louisville
Proposed Boutique Hotel, Louisville
Proposed Tru by Hilton East, Louisville
Proposed WoodSpring Suites, Louisville
WoodSpring Suites Louisville South, Louisville
Candlewood Suites Fort Campbell Oak Grove, Oak Grove
Proposed Best Western Plus, Owensboro
Motel 6, Paducah

LOUISIANA
Proposed Element by Westin, Baton Rouge
Holiday Inn Express, Covington
Comfort Suites, Gonzales
Holiday Inn Express New Orleans Airport South, Saint Rose
Holiday Inn Express East, New Orleans
Candlewood Suites North Shore, Slidell

MISSISSIPPI
Comfort Suites, Biloxi
Holiday Inn Express, Canton
Hampton Inn & Suites, Hernando
Best Western Goodman, Horn Lake
Cottage Inn Tunica, Robinsonville
Hilton Garden Inn, Tupelo

MISSOURI
Holiday Inn (Conversion to DoubleTree), Joplin
Hotel Joplin, Joplin

SOUTH CAROLINA
Quality Inn, Aiken
Airport Inn, Cayce
Holiday Inn, Rock Hill

TENNESSEE
La Quinta Inn & Suites Downtown, Chattanooga
Super 8, Chattanooga
Hampton Inn & Suites Nashville Franklin, Franklin
Hyatt Place Nashville Franklin Cool Springs, Franklin
Proposed Candlewood Suites, Franklin
Proposed Residence Inn Berry Farms, Franklin
TownePlace Suites by Marriott Cool Springs, Franklin
Holiday Inn Express, Gatlinburg
Proposed Gateway Village, Gatlinburg
Motel 6 Nashville Goodlettsville, Goodlettsville
Old Hickory Inn, Jackson
Proposed Fairfield Inn & Suites, Johnson City
Courtyard by Marriott East Bill Morris Parkway, Memphis
Holiday Inn Downtown, Memphis
Madison Hotel, Memphis
Residence Inn by Marriott Downtown, Memphis
Proposed Holiday Inn Southwind, Memphis
Proposed Marriott-Branded Hotel, Mt. Juliet
Aloft Nashville West End, Nashville
Bobby, Nashville
Courtyard by Marriott Green Hills, Nashville
Courtyard by Marriott Nashville Downtown, Nashville
Courtyard by Marriott West End, Nashville
DoubleTree by Hilton Downtown, Nashville
Fairfield Inn & Suites by Marriott Airport, Nashville
Hampton Inn & Suites by Hilton Airport, Nashville
Hampton Inn & Suites by Hilton Downtown, Nashville
Hampton Inn Nashville by Hilton Vanderbilt, Nashville
Hampton Inn & Suites by Hilton Elliston Place, Nashville
Holston House, Nashville
Hotel Indigo, Nashville
Proposed 1 Hotel & Embassy Suites, Nashville
Proposed Best Western GLo Airport, Nashville
Proposed Bobby, Nashville
Proposed Cambria Suites Downtown, Nashville
Proposed Fairmont Hotel & Residences, Nashville
Proposed Four Seasons & Residences, Nashville
Proposed Graduate Hotel, Nashville
Proposed Margaritaville Hotel, Nashville
Proposed Moxy by Marriott Downtown, Nashville
Proposed Printing House, Nashville
Proposed Staybridge Suites, Nashville
Proposed The Joseph, Nashville
Proposed Virgin Hotel, Nashville
Proposed W Hotel, Nashville
Renaissance Hotel, Nashville
Thompson Hotel, Nashville
Westin, Nashville
WoodSpring Suites Nashville Southeast, Nashville
Proposed Holiday Inn, Pigeon Forge
Proposed Staybridge Suites, Pigeon Forge
Rodeway Inn, Pigeon Forge
Candlewood Suites, Smyrna

TEXAS
Proposed Holiday Inn, The Colony
DoubleTree Dallas near the Galleria, Dallas
Fairmont Hotel, Dallas
SpringHill Suites Downtown West End, Dallas
La Quinta Inn El Paso Cielo Vista, El Paso
Proposed Best Western Premier, Farmers Branch
Proposed TownePlace Suites by Marriott, Farmers Branch
Homewood Suites Fort Worth at Fossil Creek, Fort Worth
SpringHill Suites Fort Worth University, Fort Worth
Proposed Westin Irving Convention Center, Irving
Candlewood Suites, Midland
Comfort Inn, Midland
Candlewood Suites, Monahans
Holiday Inn Express, Monahans
Proposed Microtel Inn & Suites, Monahans
Comfort Suites, Pecos
Courtyard Dallas Plano Parkway, Plano
Proposed La Quinta Inn & Suites, Plano
Wingate Inn, Richardson
Baymont Inn & Suites, Snyder
Land Appraisal, Southlake
Comfort Inn, Stanton
Candlewood Suites, Texarkana

WEST VIRGINA
Comfort Inn West Cross Lanes, Charleston
Comfort Inn Charleston/Cross Lanes, Cross Lanes
Econo Lodge, Triadelphia

WISCONSIN
Proposed Fairfield Inn & Suites by Marriott, Pleasant Prairie
Radisson, Pleasant Prairie

Thank you for your questions regarding the Economic Impact Analysis and Fiscal Impact Analysis included in the Proposed Fairfield Inn & Suites Cocoa Village feasibility study. For ease of review, I have restated each comment or question below and provided a response underneath.

Economic Impact Analysis. Per the redevelopment agreement, paragraph 3.C.(2), please provide a more detailed breakdown of the Economic Impact Analysis and Fiscal Impact Analysis as it pertains to Cocoa Village and the City of Cocoa as its own economic system.

Response:

The economic impact analysis was prepared using IMPLAN, an input-output economic modeling system that estimates how a project's initial spending flows through a defined regional economy. In this case, the model considered the proposed hotel's construction activity, projected hotel operating activity, related supplier/vendor spending, and household spending supported by project-related labor income.

As shown on page 7 of the report, the proposed project is a 104-room select-service hotel located at 603 Brevard Avenue in Historic Cocoa Village. The study then uses the project's operating projections, shown on pages 12 through 14, and the estimated total development cost of approximately $23.75 million, shown on page 15, as key inputs to the economic impact analysis. The IMPLAN results are summarized on pages 120 through 124.

With respect to Cocoa Village and the City of Cocoa, the most direct and measurable local impacts are expected to include:

Construction-period spending tied to the development of the hotel.

Permanent hotel operating activity after opening.

On-site employment and payroll.

Guest spending at the hotel, rooftop/lounge, coffee shop, and related on-site uses.

Off-site visitor spending at nearby Cocoa Village restaurants, retailers, entertainment venues, parks, and cultural attractions.

Incremental tax revenue to the City of Cocoa and related districts.

Broader supplier, employee, and household spending effects within the surrounding local economy.

However, it is difficult to isolate Cocoa Village as its own fully separate economic system using IMPLAN. Cocoa Village is a district within the City of Cocoa, not a self-contained economic region with its own complete set of labor, supplier, household, government, and trade-flow data. IMPLAN notes that smaller geographies have fewer raw data inputs and require more estimation. IMPLAN also notes that a single ZIP code can rarely be considered a functional economy, and that counties are often the smallest advisable region for impact analysis because smaller regions typically experience greater leakage of spending outside the modeled area. (support.implan.com)

The project's direct effects can be identified with more precision because the hotel is physically located in Cocoa Village within the City of Cocoa. However, indirect and induced effects are harder to isolate because they depend on where suppliers are located, where employees live, where guests spend money, and where workers spend their earnings.

For example:

• A hotel guest may stay in Cocoa Village but spend money in Cocoa Beach, Cape Canaveral, or elsewhere in Brevard County.

• A hotel employee may work in Cocoa but live and shop outside Cocoa.

• A contractor may work on the project site but purchase materials from vendors outside Cocoa Village.

• A food, laundry, repair, or professional services vendor may serve the hotel but operate elsewhere in Brevard County.

• Some wages, supplier spending, and household spending will leak outside the immediate district or city.

In practical terms, this means Cocoa Village will receive a meaningful share of the project's direct benefits because the hotel is located in the district and guests will be within walking distance of nearby businesses. However, indirect and induced effects cannot be reliably confined only to Cocoa Village because suppliers, workers, guests, and household spending patterns will cross district and municipal boundaries. IMPLAN's framework is designed to estimate effects within a defined regional economy, but not to precisely trace every dollar to an individual neighborhood unless detailed primary data is available for vendor locations, employee residences, guest spending patterns, and taxable sales by district.

How were the economic effects on Cocoa and Cocoa Village derived?

Response:

The economic effects were derived by applying IMPLAN's regional input-output model to the proposed hotel's construction and operating activity. The project inputs were based on the feasibility study's development cost estimate and hotel operating forecast.

The main inputs included:

The proposed 104-room hotel program described on page 7.

The projected occupancy, average daily rate, revenue, and expense forecast shown on pages 12 through 14.

The estimated total development cost of approximately $23.75 million shown on page 15.

A modeled impact period that includes the construction period and early years of hotel operation, as discussed in the Economic Impact Analysis section beginning on page 120.

IMPLAN then estimates how that spending circulates through the economy. It considers the project's direct activity, the local supplier purchases supported by that activity, and the household spending supported by worker income. IMPLAN's official guidance explains that its models use input-output and Social Accounting Matrix relationships to estimate how industries, households, governments, and trade flows interact within a defined region. (support.implan.com)

For Cocoa Village, the clearest direct effects are tied to the project site itself and adjacent spending activity. For the City of Cocoa, the effects include broader city-level activity, including hotel

operations, local tax revenues, and spending captured by city businesses. For Brevard County and the State of Florida, the model captures broader regional spillovers that occur when spending leaves the immediate Cocoa Village area but remains within the modeled economy.

558 total jobs seems extremely high, as well as annual labor income.

Response:

This concern is reasonable, and the key clarification is that the 558 total jobs figure should not be interpreted as 558 permanent on-site hotel jobs. A 104-room select-service hotel would not employ anywhere near 558 permanent on-site workers.

The 558 jobs figure represents total jobs supported across the modeled economic system and modeled period. This includes construction-related jobs, hotel operating jobs, supplier-supported jobs, and jobs supported by employee household spending. IMPLAN defines employment as an industry-specific mix of full-time, part-time, and seasonal employment. IMPLAN also states that its employment measure is not the same as full-time equivalent employment. (support.implan.com)

The report's IMPLAN summary shows the following:

Direct effects: approximately 420 jobs, $19.2 million in labor income, $31.0 million in value added, and $52.9 million in output.

Indirect effects: approximately 60 jobs, $3.0 million in labor income, $4.9 million in value added, and $10.0 million in output.

Induced effects: approximately 80 jobs, $3.7 million in labor income, $7.7 million in value added, and $13.0 million in output.

Total effects: approximately 558 jobs, $25.9 million in labor income, $43.6 million in value added, and $75.9 million in output.

The resulting employment multiplier is approximately 1.33x, meaning the total employment effect is about 33% higher than the direct employment effect. That is not an unusually aggressive multiplier. The issue is mainly one of interpretation. The figure is better understood as "jobs supported across the modeled economy," not "permanent hotel employees."

To avoid confusion, I would clarify that the report's labor income and total output figures reflect modeled economic activity over the stated impact period, including construction and early operations. They should not be read as a recurring annual amount unless separately annualized in a supplemental IMPLAN export.

What was the methodology for these projections?

Response:

The methodology was as follows:

First, the feasibility study projected the hotel's market performance based on the expected room count, occupancy, average daily rate, food and beverage revenue, other revenue, and operating expenses. These projections are shown on pages 12 through 14.

Second, the study estimated total development cost at approximately $23.75 million, as shown on page 15.

Third, the construction and operating inputs were entered into IMPLAN using the relevant industry categories. IMPLAN then applied regional input-output relationships to estimate how the direct project activity would support additional business-to-business purchases, employee spending, value added, and tax revenues.

Fourth, IMPLAN reported the results in the standard impact categories of employment, labor income, value added, output, and taxes. IMPLAN's results dashboard is designed to break out employment, labor income, value added, and output by direct, indirect, induced, and total effects. Its tax results are also broken out by level of government, including sub-county general, sub-county special districts, county, state, and federal categories. (support.implan.com)

For reporting purposes:

• Employment means jobs supported, including full-time, part-time, and seasonal positions.

• Labor income means wages, salaries, benefits, and proprietor income.

• Value added is similar to a GDP-style contribution.

• Output means the total value of industry production, which is broader than profit or tax revenue.

How are direct, indirect, and induced effects derived?

Response:

IMPLAN separates project impacts into three categories.

Direct effects are the initial project-level effects. For this project, direct effects include construction spending, hotel operations, direct hotel employment, payroll, food and beverage activity, and other on-site operating activity. IMPLAN defines direct effects as the initial change or set of expenditures applied to the model. (support.implan.com)

Indirect effects are the supply-chain effects. These occur when the project, hotel operator, contractors, and vendors purchase goods and services from other businesses. Examples may include construction subcontractors, maintenance providers, laundry services, food and beverage vendors, utilities, insurance, accounting, and professional services. IMPLAN describes these as business-to-business purchases in the regional supply chain. (support.implan.com)

Induced effects are household-spending effects. These occur when workers supported by the direct and indirect activity spend a portion of their earnings in the regional economy on housing, groceries, restaurants, healthcare, retail, and other household needs. IMPLAN's guidance describes induced effects as the economic activity supported by household spending from workers connected to the direct and indirect activity. (support.implan.com)



603 Brevard Avenue
Location Map

(Not to Scale)

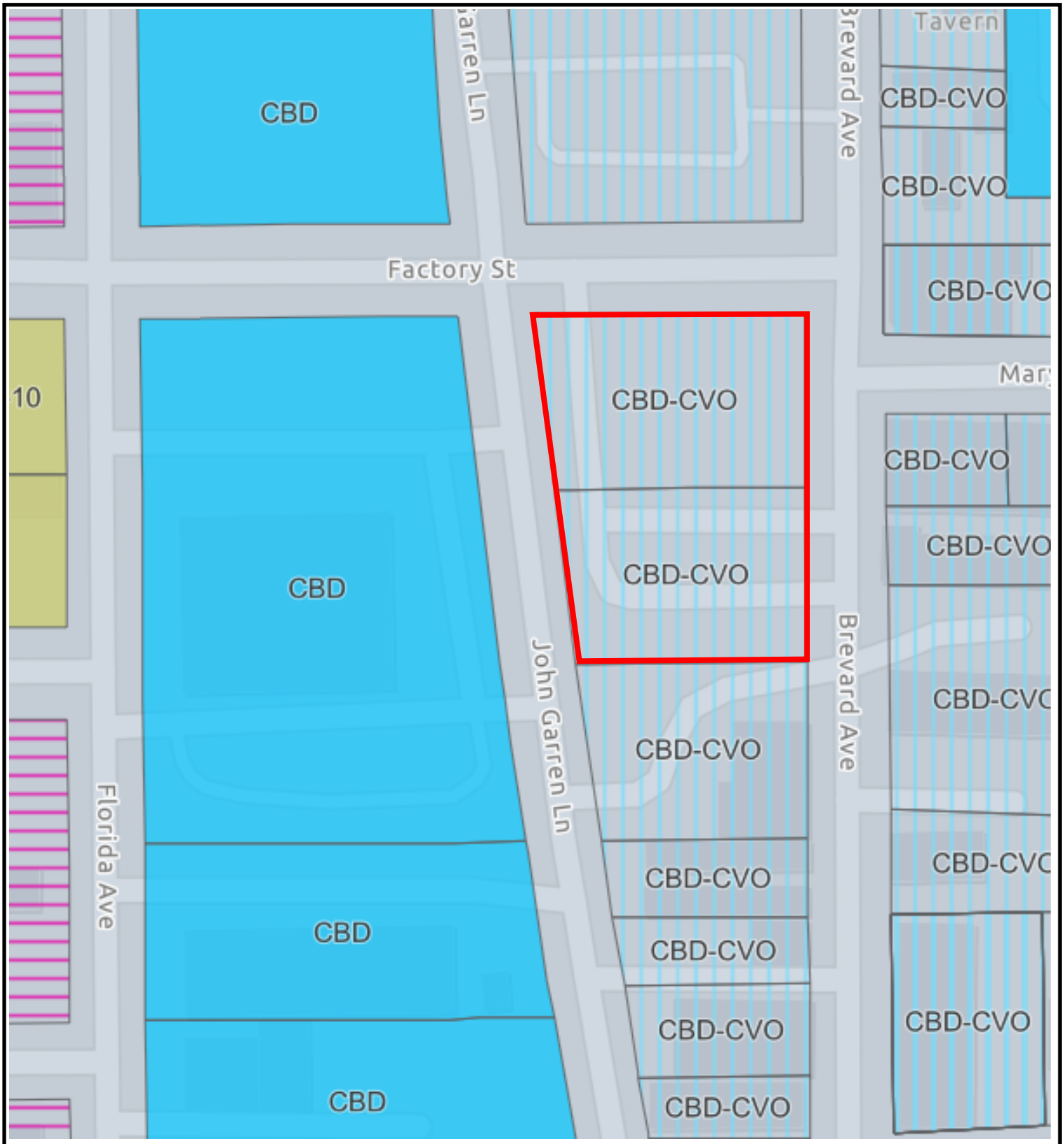
COCOA
FLORIDA

Map Date: May 6, 2026

Legend

Subject Parcel

City Parcels



Zoning Map

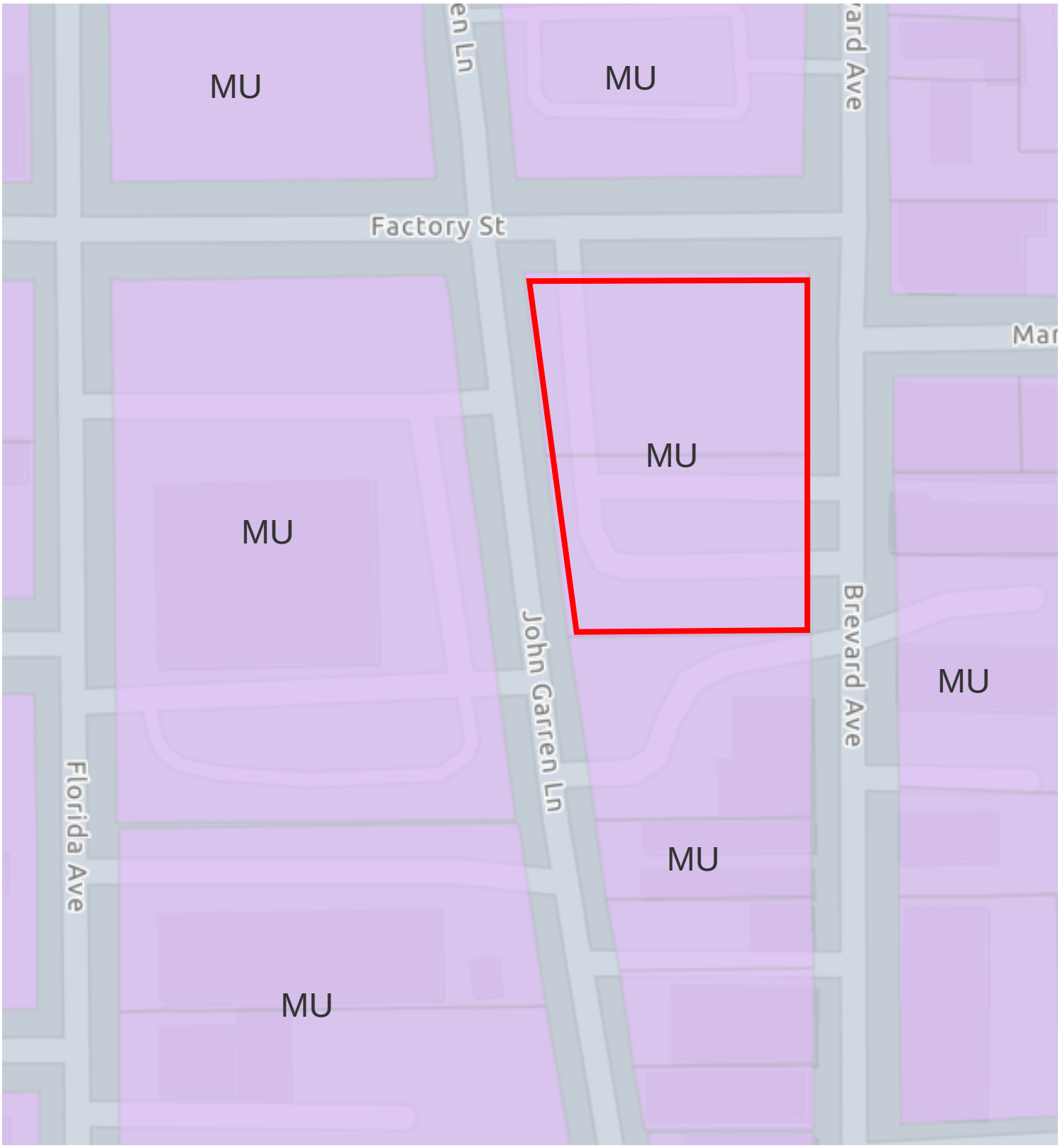
(Not to Scale)

COCOA FLORIDA

Map Date: May 6, 2026

Legend

- CBD - Central Business
- CBD-CVO - Central Business Cocoa Village Overlay
- C-C - Core Commercial
- RU-2-10 - Low Density Single & Multiple Family Residential



Future Land Use Map

(Not to Scale)

Legend

Mixed Use

COCOA FLORIDA

Map Date: May 6, 2026

USA TODAY CO.

LocaliQ

PO Box 631244 Cincinnati, OH 45263-1244

AFFIDAVIT OF PUBLICATION

Leonardo Priore
Attn: Accounting Division
City Of Cocoa (Te)
65 Stone St
Cocoa FL 32922-7982

STATE OF WISCONSIN, COUNTY OF BROWN

Before the undersigned authority personally appeared, who on oath says that he or she is the Legal Advertising Representative of the Florida Today, a daily newspaper published in Brevard County, Florida; that the attached copy of advertisement, being a Legal Ad in the matter of Govt Public Notices, was published on the publicly accessible website of Brevard County, Florida, or in a newspaper by print in the issues of, on:

BRE Brevard Florida Today 04/24/2026
BRE floridatoday.com 04/24/2026

Affiant further says that the website or newspaper complies with all legal requirements for publication in chapter 50, Florida Statutes.
Subscribed and sworn to before me, by the legal clerk, who is personally known to me, on 04/24/2026

Legal Clerk

Notary, State of WI, County of Brown

5.15.27

My commission expires

Publication Cost:	$409.79	
Tax Amount:	$0.00	
Payment Cost:	$409.79	
Order No:	12269796	# of Copies:
Customer No:	1127247	1
PO #:		

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

NANCY HEYRMAN
Notary Public
State of Wisconsin

Ad #12269796, 4/24/2026

CITY OF COCOA
NOTICE OF PUBLIC HEARING
NOTICE IS HEREBY GIVEN THAT THE PLANNING & ZONING BOARD/LOCAL PLANNING AGENCY
AND CITY OF COCOA COUNCIL PROPOSE TO CONSIDER THE FOLLOWING:

A. PZ 25-02800005 603 Brevard Ave Concept Plan and Development Agreement

Consider a conceptual plan and Development Agreement for the 603 Brevard Avenue Hotel, affecting approximately .87 acres of property owned by the Cocoa Redevelopment Agency. The agreement calls for the development of an approximately seven (7) story, 68,310 square foot, 104-room hotel with associated amenities and parking and establishes building elevations, floor plan, and related development regulation waivers for the future hotel. Generally located on Brevard Avenue and John Garren Lane, south of Factory Street, and is identified by Parcel IDs: 24-36-33-75-*-2 and 24-36-33-75-*-3.

B. PZ 25-00500006 Ord No. 05-2026 3600 Grissom Parkway Small-Scale Comprehensive Plan Amendment

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA, RELATING TO COMPREHENSIVE PLANNING; AMENDING THE FUTURE LAND USE MAP FOR ONE PARCEL OF REAL PROPERTY WITHIN THE CITY OF COCOA, CONSISTING OF APPROXIMATELY FORTY (40) ACRES, GENERALLY LOCATED WEST OF GRISSOM PARKWAY, SOUTH OF ANGELICA STREET, AND NORTH OF STATE ROAD 528, BEING LEGALLY DESCRIBED ON EXHIBIT "A" ATTACHED HERETO; CHANGING THE FUTURE LAND USE MAP DESIGNATION OF THE REAL PROPERTY FROM "VERY LOW DENSITY RESIDENTIAL" TO "INDUSTRIAL"; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, INCORPORATION IN THE COMPREHENSIVE PLAN, SEVERABILITY, AND AN EFFECTIVE DATE AND LEGAL STATUS OF THE PLAN AMENDMENT. Parcel ID: 24-35-11-00-750.

C. PZ 25-00200020 Sky Powersports Large-Scale Site Plan

Consider a large-scale site plan for Sky Powersports, consisting of a powersports vehicle display, sales, and maintenance facility, consisting of approximately 52,550 square feet. Generally located on State Road 524, west of Interstate-95 in Cocoa, Florida, and is identified by Parcel ID: 24-35-27-00-16 and 24-35-27-00-11.

Planning and Zoning Board PUBLIC HEARING WILL BE HELD ON

May 6, 2026

City of Cocoa Council PUBLIC HEARING FOR ITEMS A. and B. WILL BE HELD ON

May 12, 2026

ALL HEARINGS WILL TAKE PLACE AT 6:00 P.M. OR SOON THEREAFTER IN THE COCOA CITY HALL COUNCIL CHAMBERS LOCATED AT 65 STONE STREET, COCOA, FLORIDA 32922

General Notice Information:

This is a public meeting. Interested parties are hereby advised that they may appear at said meeting and be heard. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk of the City of Cocoa, listed below, at least 48 hours prior to the meeting: Monica Arsenault, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8488 or via email at marsenault@cocoafl.gov.

Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that if a person decides to appeal any decision made by the BOA, P&Z Board/LPA or City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made,

testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.

The BOA or PZ Board/LPA meeting may include the attendance of one (1) or more members of the Cocoa City Council who may or may not participate in the Board discussions held at this public hearing. The BOA, PZ Board/LPA and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.

Public Participation Information:

Members of the public may view the meeting agenda, ordinances, project applications, supporting documents, and staff reports on the City's website at the following link prior to attending or commenting:
• City of Cocoa meeting calendar at https://www.cocoafl.gov/291/20338/City-Meetings
Documents pertaining to the above may also be inspected at the Community Services Department between 8:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8400.
Interested persons may submit their written comments or questions prior to the meeting through Email at cityclerk@cocoafl.gov or via E-comments through the online agenda at the link above. Any electronic comments submitted will be made part of the meeting record.
Viewing In Real Time. Interested persons are encouraged to view and listen to the hearings live by accessing the meetings at the following internet address:
• City of Cocoa meeting calendar at https://www.cocoafl.gov/291/20338/City-Meetings
However, the City is not responsible for technical difficulties that may occur while attempting to view or listen to the meeting on the internet.

PLANNING & ZONING AGENDA ITEM

Memo Date:	04/20/2026
Agenda Date:	5/6/2026
Prepared By:	Lucilene Ribeiro, Planner
Through:	Stockton Whitten, City Manager
Requested Action:	Consideration of Ordinance 10-2026 for approval of a Final PUD Amendment for the commercial portion of the Cirrus Mixed-Use PUD; a subdivision plat to subdivide Lot 1B of the Cirrus Plat into two commercial lots pursuant to Chapter 18, Subdivisions of the City of Cocoa Code of Ordinances; a First Addendum to the Development Agreement between the City of Cocoa and WMG Acquisitions, LLC; and a large-scale site plan for the Cirrus Phase Two Commercial Outparcel, consisting of a quick-service restaurant and dental office.

BACKGROUND:

The subject property is located along State Road 524, directly south of State Road 528 and west of Industry Road in Cocoa, Florida, and is identified by the Brevard County Property Appraiser as Parcel ID No. 24-36-18-27-*-1 (Exhibit A).

The Cirrus Mixed-Use development was approved as a Planned Unit Development (PUD) in 2021 pursuant to Ordinance No. 03-2021, consistent with Section 17 (PUD) of the Zoning Code. The approval authorized approximately 280 multi-family dwelling units on 13.4 acres (the “Multi-Family Parcel”) and a 2.25-acre commercial parcel (the “Commercial Parcel”) (Exhibit B).

On March 22, 2021, the Cirrus Mixed-Use Development Agreement was recorded (Exhibit G), establishing a phased development framework in which the multi-family component was designated as Phase 1 and the commercial frontage along SR 524 as Phase 2. At that time, the City also approved a Final PUD, Preliminary Subdivision, and Site Plan for the multi-family component.

In July 2024, the original developer, Framework Group, submitted a Final Plat application in accordance with Chapter 18 of the City Code. The plat was approved by City Council on February 25, 2025, and recorded in the Public Records of Brevard County.

Following the original plat approval, WMG Acquisitions, LLC received City approval to divide the commercial parcel into two lots through a lot split. The applicant now proposes to further subdivide the property to create a total of three commercial frontage lots. Because the parcel has already been divided through the lot split process, additional subdivision requires plat approval.

This request includes the platting of Lot 2 into Lots 2A and 2B (Exhibit K) to accommodate a proposed quick-service restaurant and dental office (Exhibits I and J), as well as approval of a First Addendum to the Development Agreement (Exhibit H).

According to Appendix A, Zoning, Article XI, Section 17(P), proposals to amend an approved final PUD shall be processed as follows:(1)Applicant-generated modifications or requests for revision(s) that result in any substantial changes to the final development plan as determined by the city, including changing the basic design, density, uses, circulation, or common space requirements of the planned unit development, shall be treated and processed as a new preliminary or final PUD

application. In this case, the PUD amendment is being processed in the same manner as a new final PUD application.

PROJECT INFORMATION:

Applicant: WMG Acquisitions, LLC
Proposed Commercial Use: Quick-service restaurant (±2,500 sq. ft.) and dental office (±4,200 sq. ft.)
Parcel size: Approximately 1.52 acres (66,060 square feet)
Future Land Use Designation: Commercial
Zoning District: PUD (Planned Unit Development)
Existing Land Use: Multi-Family & Vacant Commercial
Council District: District 3 – Councilmember Patricia Weeks
Legal Ad Date: March 17, 2026

Overview of Surrounding Area:

	Future Land Use Designations	Zoning Districts	Land Uses
North	Industrial (City)	Manufacturing and Industrial (City)	Right-of-way (SR 528); Industrial
South	Neighborhood Commercial (City)	Neighborhood Commercial (City)	Right-of-way (SR 528); Commercial
East	Commercial (City)	General Commercial (City)	Commercial
West	Medium Density Residential (City)	PUD (City)	Single-Family Residential

Consistency with Code of the City of Cocoa

The Planned Unit Development district is intended to provide flexibility in design and allow for integrated mixed-use developments that function as a unified entity. The proposed development is consistent with this intent, as it builds upon existing infrastructure and introduces complementary commercial uses that support the residential component of the PUD.

The proposed uses are permitted within the PUD district and are compatible with surrounding development patterns (Exhibits B and C). The submitted site plans (Exhibits I and J) demonstrate

appropriate building placement, circulation, parking, and infrastructure connections consistent with PUD development plan requirements.

PUD Analysis:

The decision of the Planning and Zoning Board of the City of Cocoa on the preliminary / final development plan application shall include the findings of fact that serve as a basis for its recommendation. In making its recommendation, the Planning and Zoning Board of the City of Cocoa shall consider the following facts:

1. Degree of departure of proposed planned unit development from surrounding areas in terms of character and density.

   Staff Finding: The proposed development does not represent a significant departure from the surrounding area in character or intensity. The inclusion of a quick-service restaurant with drive-through and a dental office is consistent with the scale and function of development along the SR 524 corridor. These uses are typical of neighborhood-serving commercial centers and are integrated into the existing Cirrus PUD framework, maintaining compatibility with both the adjacent residential development and surrounding commercial uses.

2. Compatibility within the planned unit development and relationship with surrounding neighborhoods.

   Staff Finding: The subject property is located along the SR 524 corridor and is surrounded by a mix of commercial and residential uses within the Cirrus development, which provides an appropriate transition between higher intensity roadway uses and nearby residential areas. The applicant's proposal is consistent with the previously approved PUD framework and implements the planned commercial component in a manner compatible with surrounding development.

   The site plan demonstrates compatibility through building orientation, internal circulation patterns, and access management designed to minimize impacts to nearby commercial areas. The drive-through circulation is contained internally to the site, and access is limited to SR 524, thereby avoiding intrusion into adjacent neighborhoods.

   Additionally, the Cirrus Mixed-Use Development Agreement and associated PUD approvals establish a framework for ensuring compatibility between the commercial phase and the surrounding residential and commercial uses. These provisions include coordinated site design, controlled access points, cross-access easements, and integration of uses intended to serve the adjacent residential community

3. Prevention of erosion and degrading of surrounding area.

   Staff Finding: The subject site is part of a redevelopment area and consists of an existing parking lot previously associated with a Home Depot development. The property was later acquired for the Cirrus Mixed-Use Project. As a result, the proposed development will not require significant site alterations such as extensive grading, fill, or removal of trees and natural vegetation.

   The development will be constructed in accordance with City site plan and subdivision standards. Additionally, Phase 1 of the Cirrus Mixed-Use Project addressed the primary stormwater management requirements and established much of the supporting infrastructure

necessary to accommodate this phase of development.

4. Provision for future public education and recreation facilities, transportation, water supply, sewage disposal, surface drainage, flood control and soil conservation as shown in the preliminary development plan.

   Staff Finding: The proposed development provides for adequate infrastructure and public services. The site plan demonstrates coordinated access, internal circulation, and utility connections to support both the quick-service restaurant and dental office. Water, sewer, and drainage systems are addressed in the engineering design to ensure adequate capacity and compliance with applicable standards.

5. The nature, intent and compatibility of common space, including the proposed method for the maintenance and conservation of said common space.

   Staff Finding: The development functions as part of a unified PUD with shared access, cross-access easements, and coordinated site design elements. While the commercial parcel is primarily developed for nonresidential use, common infrastructure and access systems are designed to function cohesively with the larger Cirrus development. Maintenance responsibilities will be addressed through the Development Agreement and the associated property ownership or management structures, in accordance with PUD requirements.

6. The feasibility and compatibility of the specified stages contained in the preliminary development plan to exist as an independent development.

   Staff Finding: The commercial phase, including the quick-service restaurant and dental office, is designed to function independently while remaining integrated with the overall PUD. The site plan provides adequate access, parking, utilities, and internal circulation to support standalone operation, consistent with the phasing structure established in the original development agreement.

7. The availability and adequacy of primary streets and thoroughfares to support traffic to be generated within the proposed planned unit development.

   Staff Finding: The transportation network is adequate to support the proposed uses. The site is served by State Road 524, a principal arterial roadway, and includes two primary access points. The main signalized entrance, identified as Cirrus Drive, provides full-access movements and serves as the primary point of ingress and egress for the development. A secondary right-in/right-out access point is located along SR 524 to the east, providing additional vehicular circulation and dispersal.

   The site plan incorporates deceleration lanes at both access points to facilitate safe turning movements from SR 524. Internal circulation has been designed to accommodate anticipated traffic, including drive-through operations associated with the proposed quick-service restaurant, while maintaining safe and efficient access to the dental office and other on-site uses. Based on the proposed access configuration and supporting roadway infrastructure, staff finds that the primary streets and thoroughfares are available and adequate to support the traffic generated by the development.

8. The availability and adequacy of water and sewer service to support the proposed planned unit development.

   Staff Finding: The proposed quick-service restaurant and dental office will be served by

existing water and sewer infrastructure. The Development Agreement requires the developer to construct necessary sewer improvements to ensure adequate capacity for both uses. Utility connections are provided through private easements, and no impact fee credits will be granted for required improvements.

9. The benefits within the proposed development and to the general public to justify the requested departure from standard land use requirements inherent to a Planned Unit Development classification.

   Staff Finding: The project provides public benefits, including the redevelopment of an underutilized commercial parcel, the enhancement of the SR 524 corridor, and the provision of convenient neighborhood-serving uses, such as a quick-service restaurant and a dental office. These uses support the daily needs of nearby residents, reduce travel distances, and contribute to the local tax base, consistent with the PUD's intent to allow flexible and efficient land-use patterns.

10. The conformity and compatibility of the planned unit development with any adopted development plan of the City of Cocoa.

    Staff Finding: The proposed development is consistent with the City's Comprehensive Plan and aligns with policies supporting mixed-use and commercial development along major corridors. The integration of the quick-service restaurant and dental office within the Cirrus PUD is compatible with the adopted development framework and the planned land-use patterns.

11. The conformity and compatibility of the proposed common space, primary residential and nonresidential uses within the proposed planned unit development.

    Staff Finding: The proposed commercial uses, including the quick-service restaurant and dental office, are compatible with the residential and mixed-use components of the Cirrus PUD. The site plan demonstrates coordinated building placement, access, and circulation that supports integration of uses while minimizing conflicts. This arrangement is consistent with the PUD district's intent to provide a cohesive mix of compatible uses within a unified development.

Consistency with Comprehensive Plan Policies and Objectives

The proposed development has been evaluated for consistency with the City of Cocoa Comprehensive Plan. Staff finds that the redevelopment of the site is consistent with adopted goals, objectives, and policies related to land use, redevelopment, and economic development, including Objective 1.1.4, Policy 1.1.10.3, Goal 1.2, and Objective 1.2.1. The project supports the City's vision for redevelopment and infill within established urban areas by introducing a coordinated mix of residential and commercial uses.

In addition, the proposed development is consistent with Policy 1.1.2.9, which identifies commercial areas as appropriate locations to serve surrounding neighborhoods and provide a range of retail, personal, and professional services. The inclusion of neighborhood-serving commercial uses, such as a dental office and quick-service restaurant, supports this policy by enhancing service availability within the area.

The development also aligns with Objective 1.1.9, which promotes sustainability and energy efficiency by reducing vehicle miles travel and promoting more compact development patterns. By integrating commercial uses near existing residential units, the project encourages shorter trips and supports a more efficient land-use pattern.

Furthermore, the project is consistent with Policy 1.1.10.3, which encourages innovative land use patterns such as Planned Unit Developments. The proposed development utilizes the PUD framework to provide a flexible, integrated design that promotes compatibility between uses and efficient use of land and infrastructure.

Development Agreement Addendum

The proposed First Addendum to the Cirrus Mixed-Use Development Agreement amends the 2021 agreement, which established a phased mixed-use development consisting of a multi-family residential Phase 1 and a future commercial Phase 2 (Exhibit G). The original agreement approved the overall development program and required a future amendment to establish the Final Development Plan and specific standards for the commercial component.

The First Addendum (Exhibit H) implements Phase 2 by incorporating a detailed Final Development Plan for the commercial parcel and establishing specific development standards that were previously deferred. These include defined permitted uses, building placement, and site design, as well as targeted deviations from base zoning requirements consistent with the flexibility of the PUD district. Notably, the Addendum includes waivers to dimensional and landscaping standards, such as reduced setbacks and buffer requirements, which were not expressly defined in the original agreement.

Utility Services

Pursuant to the Original Development Agreement, the Developer shall be responsible, at its sole expense, for securing and providing all utility services necessary to support the Phase 2 Commercial Project. This includes the design and construction of sewer infrastructure, as well as any required upgrades to adequately serve Lots 2A and 2B in accordance with City specifications. No sewer impact fee credits shall be granted for construction or material costs associated with these improvements.

Waivers

In addition to the City Code waivers provided in Section 3.0(d) of the Original Agreement, the following waivers are proposed for the Dental Office Project and the Quick-Service Restaurant Project:

1. Parking Area Ratios for the Dental Office Project shall be 2.5, and for the Quick-Service Restaurant Project shall be 3.75.
2. The minimum twenty-five (25) foot landscaped buffer strip alongside and rear lot lines shall not be required for Lots 2A and 2B due to the integrated nature of the mixed-use PUD.

Setbacks

The following building setbacks shall apply to both the Dental Office Project and the Quick-Service Restaurant Project:

1. Rear setback: 10 feet
2. Front setback: 10 feet
3. Side setback: 0 feet

The Addendum also refines parking requirements by establishing adjusted parking ratios tailored to the proposed commercial uses, replacing the more general standards in the original agreement. In addition, it updates development timing requirements by establishing specific deadlines for permitting and construction of the commercial phase, replacing the earlier requirement to return for a future amendment within a specified timeframe.

Further, the Addendum allows the subdivision of the commercial parcel into multiple developable lots through the replat process (Exhibit K). While the original agreement allowed the commercial parcel to be developed as one or two parcels, the Addendum allows for three commercial frontage lots and provides the legal and regulatory framework necessary for individual lot development.

The First Addendum does not increase the overall density or intensity of the development approved in 2021, nor does it alter the fundamental structure of the PUD. Instead, it provides the specific standards, approvals, and timelines necessary to implement the previously approved commercial phase. Accordingly, staff finds that the Addendum is consistent with the original Development Agreement, complies with the intent of the PUD zoning framework, and supports orderly development of the property.

Plat

The applicant has submitted a replat for a portion of the Cirrus development, identified as the Cirrus Lot 1B Replat (Exhibit K), to subdivide the existing commercial parcel (Lot 2) into two separate lots, to be known as Lots 2A and 2B. The purpose of the replat is to create legally distinct parcels to accommodate the proposed development of a quick-service restaurant and a dental office.

Pursuant to Chapter 18 of the City Code, the subdivision of land, including plats and lot splits, requires approval by the City Council prior to recordation and development. The regulations are intended to ensure proper legal description, orderly development, adequate access, and the provision of necessary infrastructure and public improvements.

The proposed replat is consistent with the previously approved Cirrus subdivision and reflects the approved lot split that established the commercial frontage parcels and with the site plan (Exhibits I and J).

The replat provides for appropriate lot configuration, access, and utility easements necessary to support the proposed development. No new public streets are proposed, and the lots will continue to be served by existing access and infrastructure constructed as part of Phase 1 of the Cirrus PUD.

The plat has been reviewed by the Planning & Zoning and City Staff, the Assistant City Attorney, and Southern Surveying on behalf of the City for consistency with Chapter 18, Subdivisions, of the City of Cocoa Code, and with Appendix A, Zoning, of the City of Cocoa Code, and found to be in substantial compliance.

- Exhibit A – Location Map
- Exhibit B – Zoning Map
- Exhibit C – FLU Map
- Exhibit D – Final Staff Review Comments
- Exhibit E – Elevation QSR
- Exhibit F – Elevation Dental Office
- Exhibit G – Recorded DA
- Exhibit H – First Addendum DA
- Exhibit I – Site Plan QSR

• Exhibit J – Site Plan Dental Office

• Exhibit K – Plat

PRIORITY AREA CONNECTION:
Economic and Community Development

BUDGETARY IMPACT:
N/A

PREVIOUS ACTION:
The Planned Unit Development zoning district, Final PUD/Preliminary Subdivision/Large-Scale Site Plan for the multifamily portion of the project was approved per Ordinance 03-2021 on February 23, 2021.

The Development Agreement was approved and recorded on March 22, 2021, per OR Book 9059, Pages 149-165

City Council approved Cirrus Final Plat multifamily development on February 25, 2025.

City Council approved on July 8, 2025, Resolution 2025-041, providing for the division of one originally platted lot owned by Cocoa Retail LLC.

RECOMMENDED MOTION:
Staff recommends **APPROVAL** of the PUD Amendment, Final Development Plan, First Addendum to the Development Agreement, and Cirrus Lot 1B Replat, subject to the following conditions:

Approval of this request shall be subject to the following conditions:

1. The Developer shall address and incorporate all outstanding staff comments identified in the final site plan review, as attached as Exhibit “D,” prior to issuance of any development order or building permit. Revised plans shall be subject to review and approval by the staff.
2. No building permits shall be issued until the Cirrus Lot 1B Replat has been approved by the City Council and recorded in the Public Records of Brevard County.

The Developer shall obtain all required permits and approvals from applicable local, state, and federal agencies prior to construction.

ORDINANCE NO. 10-2026

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA; AMENDING A PORTION OF THE CIRRUS PLANNED UNIT DEVELOPMENT FINAL DEVELOPMENT PLAN ESTABLISHED VIA ORDINANCE NO. 03-2021 TO INCLUDE THE PHASE TWO COMMERCIAL OUTPARCELS, FOR TWO PARCELS OF REAL PROPERTY, TOTALING 1.5 ACRES, MORE OR LESS, AND GENERALLY LOCATED ON STATE ROAD 524, SOUTH OF STATE ROAD 528 AND WEST OF EAST INDUSTRY ROAD, IN COCOA, FLORIDA, MORE PARTICULARLY DEPICTED AND LEGALLY DESCRIBED ON EXHIBIT "A" ATTACHED HERETO; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, SEVERABILITY, AND AN EFFECTIVE DATE.

WHEREAS, the City is granted the authority, under Section 2(b), Art. VIII of the State Constitution, to exercise any power for municipal purposes, except when expressly prohibited by law; and

WHEREAS, on _____, 2021, via Ordinance 03-2021, the City Council approved the rezoning of certain property known as the Cirrus Mixed-Use PUD from General Commercial (CG) to Planned Unit Development (PUD) and further adopted a final development plan as well as that certain Cirrus Mixed-Use PUD Development Agreement ("Original Development Agreement"), recorded in the Official Records of Brevard County, Florida, Book 9059, Page 149; and

WHEREAS, the Original Development Agreement provided that the Cirrus Mixed-Use PUD would be developed in phases, with the Cirrus multi-family dwelling apartments to be constructed first and the commercial frontage parcels along State Road 524 to be developed in a subsequent phase; and

WHEREAS, the applicant or its successors and assigns were obligated to submit and obtain the City's approval of an amended final development plan for the Phase Two commercial portion of the PUD project; and

WHEREAS, the current owner now desires to amend the Cirrus final development plan to include final engineering/site plans for the commercial Phase Two parcels and has simultaneously requested the City approve a First Addendum to the Development Agreement and a replat of the existing Lot 1B of the Cirrus plat; and

WHEREAS, the Phase Two parcels are already assigned a Planned Unit Development zoning district and will maintain PUD zoning subsequent to the adoption of this Ordinance but, pursuant to Appendix A, Article XI, Section 17, substantial changes to a final development plan shall be treated and processed as a new final PUD application; and

WHEREAS, the Planning and Zoning Board and City Staff of the City of Cocoa have recommended approval of this Ordinance and the final development plan and have processed the application as if it were a new final PUD application; and

WHEREAS, the City Council of the City of Cocoa held two duly noticed public hearings on the proposed amendment set forth hereunder and considered findings and advice of staff, the Planning and Zoning Board, citizens, and all interested parties submitting comments and supporting data and analysis, and after complete deliberation, hereby finds the requested change consistent with the City of Cocoa Comprehensive Plan and that sufficient, competent, and substantial evidence supports the zoning change set forth hereunder; and

WHEREAS, the City Council of the City of Cocoa, Florida, hereby finds this ordinance to be in the best interests of the public health, safety, and welfare of the citizens of Cocoa.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF COCOA HEREBY ORDAINS, AS FOLLOWS:

Section 1. **Recitals.** The foregoing recitals are hereby fully incorporated herein by reference as legislative findings of the City Council of Council.

Section 2. **Zoning Map Amendment.** That the Official Zoning Map of the City of Cocoa, as described in City of Cocoa Code, Article VIII, Section 1, is hereby amended via an amendment to the final development plan for the Cirrus Mixed-Use PUD (City of Cocoa Planned Unit Development District) for the real property depicted and described on **Exhibit A,** attached and incorporated herein by this reference. The amended final development plan shall be kept on file with the City of Cocoa in File No. _____. The amendment of the Cirrus Mixed-Use PUD as set forth herein shall be subject to the terms and conditions established in the First Addendum to the Cirrus Mixed-Use Development Agreement dated _____, recorded in the Official Records of Brevard County at Book _____, Page_____, approved concurrently with this Ordinance. The City Staff is hereby directed to promptly amend the Official Zoning Map upon the effective date of this Ordinance.

Section 3. **Repeal of Prior Inconsistent Ordinances and Resolutions.** All prior inconsistent ordinances and resolutions adopted by the City Council, or parts of prior ordinances and resolutions in conflict herewith, are hereby repealed to the extent of the conflict.

Section 4. **Severability.** If any section, subsection, sentence, clause, phrase, word or provision of this ordinance is for any reason held invalid or unconstitutional by any court of

competent jurisdiction, whether for substantive, procedural, or any other reason, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions of this ordinance.

Section 5. **Effective Date.** This Ordinance shall become effective immediately upon adoption by the City Council of the City of Cocoa, Florida.

ADOPTED by the City Council of the City of Cocoa, Florida, in a regular meeting assembled on the _____ day of _____, 2026.

_____
Michael C. Blake, Mayor

ATTEST:

_____
Monica Arsenault, MMC
City Clerk

First Reading: _____
Legal Ad Published: _____
Effective Date: _____

EXHIBIT A

PORTION OF LOT 1B, CIRRUS, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 77, PAGE 13, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SAID LOT 1B AND LYING ON THE NORTH RIGHT-OF-WAY LINE STATE ROAD 524; THENCE NORTH 88°29'39" EAST, 151.67 FEET ALONG SAID NORTH RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING; THENCE NORTH 01°30'21" WEST, 210.00 FEET OVER AND ACROSS SAID LOT 1B TO THE NORTH LINE OF SAID LOT 1B AND LYING ON THE SOUTH LINE OF LOT 1A OF SAID CIRRUS PLAT; THENCE NORTH 88°29'39" EAST, 314.57 FEET ALONG THE NORTH LINE OF SAID LOT 1B AND THE SOUTH LINE OF SAID LOT 1A; THENCE SOUTH 01°30'21" EAST, 210.00 FEET ALONG THE EAST LINE OF SAID LOT 1B TO THE SOUTHEAST CORNER OF SAID LOT 1B AND SAID NORTH RIGHT-OF-WAY LINE; THENCE SOUTH 88°29'39" WEST, 314.57 FEET ALONG SAID NORTH RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING AND CONTAINING 1.5165 ACRES (66,060 SQUARE FEET) MORE OR LESS.

Planned Unit Development
- Final Application -

Planning and Zoning
65 Stone Stree
Cocoa, Florida 32922

Phone: (321) 433-8535
Fax: (321) 433-8543
Web: http://www.cocoafl.org

This form is divided into steps, which will help you prepare your application, provide supplemental items, and prepare for the Planning & Zoning Board and City Council hearings. A pre-application meeting with Staff is **required**.

For Office Use Only - Date Received

Stamp Only When Application is Fully Complete

Please TYPE or PRINT this application neatly.

1. **Final PUD Project Name:** Cirrus Commercial

2. **Preliminary PUD Approval Date:** _____

3. **Applicant Information:** ** NOTE: Applicant is the main contact, who must attend the meeting!*

   Company (if applicable): WMG Acquisitions LLC

   Name: Kathryn Smith

   Mailing Address: 270 W. Plant St., Suite 210

   City: Winter Garden State: FL Zip Code: 34787

   Phone #: 386-450-1059 Fax #: _____

   Mobile #: _____ E-mail: ksmith@wmgdevelopment.com

4. **Property Owner Information:** ** Check here if same as Applicant* → ☐

   ** If more than one owner, attach additional sheet with names and addresses.*

   Company (if applicable): Cocoa Retail LLC

   Name: _____

   Mailing Address: 1825 River Dr

   City: Melbourne State: FL Zip Code: 32901

   Phone #: _____ Fax #: _____

   Mobile #: _____ E-mail: _____

5. **Surveyor:**

Company (if applicable): _____

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone #: _____ Fax #: _____

Mobile #: _____ E-mail: _____

6. **Engineer:**

Company (if applicable): BGE, Inc

Name: Ellieese Shaughnessy

Mailing Address: 601 21st St., Suite 410

City: Vero Beach State: FL Zip Code: 32960

Phone #: 772-217-5959 Fax #: _____

Mobile #: _____ E-mail: _____

7. **Property Information:**

Street Address and Location: Highway 524 and East Industry Rd

Parcel ID: ** If more than two Parcel IDs, attach additional sheet with Parcel IDs.*

243618271.01 - - - . - .

243618271.01 - - - . - .

Tax Account Numbers: ** If more than two Tax Account #s, attach additional sheet with Tax Account #s.*

3025787 3025787

Land Area: 98,010 square feet or 2.25 acres

Existing Use(s) on Property: Parking Lot

Proposed Use(s) on Property: Dental office & drive through resturant

Existing Zoning Category (must be PUD): _____

Existing Future Land Use Category: _____

8. **Please submit the following items in order complete the application:**

a. ☒ **Notarized application.**

b. ☒ **List of owners within 500 feet.** A "radius map package" from Brevard County containing a certified mailing list with mailing labels and a map of all property owners of record who reside within a 500-foot radius of the subject property is required for public notice. It is the applicant's responsibility to request these materials with the Brevard County GIS Department that are available free of charge. Inquiries need to be emailed to **servicedesk@brevardfl.gov** and forwarded to the **City of Cocoa Planning and Zoning Department** when available.

c. ☐ **Application fee.** Please make checks payable to the 'City of Cocoa' and submit payment **ONLY** to the Community Services Department. Public mail notice and legal advertising fees must also be paid a few weeks after application submittal. See Schedule of Fees, Charges and Expenses for applicable fees.

d. ☒ **Proof of ownership.** A copy of the most recent recorded warranty deed is required.

e. ☒ **Letter of authorization.** If the applicant is not the property owner, a notarized letter of authorization or agent affidavit is required, unless the applicant is the Attorney of the owner. Each property owner must complete a separate authorization form or other suitable documentation to allow the agent to act upon his/her behalf. A sample "Letter of Authorization" form is available from the City.

f. ☐ **Corporate documents.** If the applicant/owner is representing a company, articles of incorporation which show the applicant/owner is authorized to represent the company is required. A data record printout from the Florida Department of State, Division of Corporations website may also be provided (http://www.sunbiz.org/corpweb/inquiry/search.html).

g. ☐ **Legal description.** Submit a typed copy of the legal description. It may be submitted on a computer disk or by e-mail.

h. ☒ **Engineering plans.** Submit 10 copies (folded to about 8-1/2 x 11") of the engineering plans drawn to scale. The engineering plans shall, at a minimum, include the items below (combine elements on several sheets where applicable):

1. Existing ground surfaces and proposed elevations in the planned unit development.
2. If deemed necessary by the city, subsurface conditions on the tract, including the location and results of tests made to ascertain the conditions of subsurface soil, rock, and groundwater, and the existing depth of groundwater.
3. Typical cross-sections of proposed grading, streets and sidewalks, canals and waterways.
4. Proposed type of pavement in accordance with city specifications.
5. Layout of water distribution, sanitary sewers and storm drainage systems, with grades and sizes indicated.
6. Final engineering drawing of water, sanitary sewer and storm drainage systems and sidewalks, streets, bulkheads, street name signs, and adequate lighting. Said engineering plans shall be in conformity with the requirements and specifications of the City of Cocoa subdivision regulations.

i. ☒ **Final development plan.** Submit 2 paper copies (folded to about 8-1/2 x 11") and 1 electronic copy of the final development plan drawn to scale along with the required exhibits. The final development plan shall, at a minimum, include the items in **h.** above and the items specified below (combine elements on several sheets where applicable):

1. Dedication of owner and completion of certificate of surveyor.
2. The location, dimensions and character of construction of all proposed streets, driveways, points of ingress and egress, loading areas, number of parking spaces and areas, residential areas and structures, nonresidential areas and structures, recreational areas and structures, and common space areas by type. All primary and secondary uses must be clearly listed on the final development plan.
3. Proposed lot lines (if any), lot and block numbers and dimensions of all primary and secondary uses proposed.
4. The proposed architectural and landscape design of all structures and common space that clearly reflects the compatibility of the variety of primary and secondary uses proposed.
5. Location and width of canals and waterways.
6. Reservations, easements, alleys and any areas to be dedicated to public uses or sites for other than residential use with notes stating their purpose and any limitations.

7. Sufficient data to determine readily and reproduce on the site the location, bearing and length of every street line, lot line, boundary line and block line, whether curved or straight.
8. The radius, central angle, point of tangent, tangent distance and arcs and chords of all curved property lines.
9. A legal description of the planned unit development boundaries with bearings, distances and tie point.
10. Accurate location and description of all monuments and markers.
11. All dimensions should be to the nearest one two-hundredth (1/200) of a foot, and angles to the nearest second.
12. The final development shall meet the platting requirements of Florida Statutes, Chapter 177. In case of a large plan that may require two (2) or more, sheets are to be indicated on the first sheet below the title.

j. ☒ **Development schedule.** The development schedule shall, at a minimum, include the items specified below:
1. The order of construction of the proposed stages delineated in the development plan.
2. The proposed date for the beginning of construction of said stages.
3. The proposed date for the completion of construction of said stages.
4. The proposed schedule for the construction and improvement of common open space within said stages, including any complementary buildings.

k. ☐ **Deed restrictions.** Deed restriction proposals to preserve the character of the common open space as set forth in subsection "c". Said deed restrictions shall include a prohibition against partition by any residential property owner.

l. ☐ **Association or nonprofit corporation.** If the developer elects this method of administering common open space, the proposed bylaws of the association or the certificate of incorporation and the corporate bylaws of the nonprofit corporation shall be submitted for approval by the city.

m. ☐ **Instruments.** Instruments dedicating all rights-of-way, easements and other public lands shown on the final development plan from all persons having any interest in said land.

n. ☐ **Bill of sale.** A bill of sale, conveying to the city water and sewer utility lines, mains, lift stations, and other personal property required to be installed by this chapter [ordinance] and accepted by the city.

o. ☐ **Instruments.** Indicating that all necessary off-site easements of dedications have been acquired. In lieu of originals, "certified true copies" will be accepted if the recording information from the public records of Brevard County, Florida, is included thereon.

p. ☐ **Title opinion.** A title opinion from an attorney or a property information report obtained within the preceding 30 days showing the status of the title to the site encompassed by the final development plan and all liens, encumbrances and defects, if any.

q. ☐ **Tax receipts.** Paid receipts indicating ad valorem taxes have been paid in full up to and including the current period.

r. ☐ **Tree Removal/Land Clearing Application.** A tree removal application in conformance with the requirements of Article XIII, Section 22.

s. ☐ **Floodplain Development Permit Application.** If applicable, a floodplain development permit application in conformance with the requirements of the City Code and the City's Comprehensive Plan.

t. ☐ **Additional information (optional).** Submit any information that may be helpful in understanding the request. This may include photos, sketches, elevations, or letters from adjoining property owners.

u. ☐ **Resubmittals.** Resubmittals should be accompanied by a list of changes and a certified statement by the preparer that no other changes have been made to the drawings. Otherwise, delays may be experienced due to extra staff review time. Each resubmittal shall follow the same requirements.

9. **Application filing procedure.** This application, together with all required exhibits and attachments, shall be completed and filed with the Planning and Zoning Division.

Public hearings process information – please read this!

10. **Dates and locations of public hearings.** Final Planned Unit Development applications require one hearing in front of the Planning & Zoning Board and two hearings in front of the City of Cocoa Council. All regularly scheduled Planning & Zoning Board hearings are held on the first Wednesday of each month at 6:00 pm in the Cocoa City Council Chambers located at 65 Stone Street, Cocoa, Florida unless otherwise notified. All regularly scheduled City of Cocoa Council meetings are held on the second and fourth Tuesday of each month at 6:00 pm in the Cocoa City Council Chambers located at 65 Stone Street, Cocoa, Florida unless otherwise notified.

11. **Board types.** With respect to this type of application, the Planning & Zoning Board is an advisory board to the City Council and therefore is only authorized to make recommendations. City Council is an authoritative body and is able to make binding decisions.

12. **Presence required at the public hearings.** The applicant or his/her representative must be present to answer any questions concerning the application. If there are extenuating circumstances why the applicant or his/her representative cannot attend, he or she must notify the City in writing prior to the public hearing.

13. **Preparing for the public hearings.** It is the applicant's responsibility to research and know all laws that may be applicable and may affect the outcome of any decision on the application request. The City assumes no responsibility or liability relating to the applicant's failure to research and know all applicable laws including, but not limited to state, federal, and city laws, codes, land development regulations, and the comprehensive plan.

14. **Exhibits at public hearings.** If photographs, documents, maps or other materials are provided to the Board/Council as evidence at the public hearing, the applicant must leave those instruments with the Recording Secretary. By law those instruments automatically become part of the public records and cannot be returned to the applicant.

15. **Witnesses at public hearings.** For the purposes of making a decision on the application, the Board/Council shall only consider testimony of qualified witnesses. A witness is determined by the Board/Council and is generally based on:
    a. The witness has personal knowledge of the fact in which the witness will testify; and/or
    b. In the case of testimony consisting of opinions or inferences, the testimony is qualified as the following:
        1. *Layman witness*: Testimony of a witness other than an expert witness is qualified only if:
            - The witness can readily, and with equal accuracy and adequacy, communicate what he or she perceived to the Board without testifying in the form of opinions or inferences.
            - The opinions and inferences do not require any special knowledge, skill experience or training.
        2. *Expert witness*. Testimony of an expert witness is qualified only if:
            - The subject matter is proper for expert testimony because scientific, technical, or other specialized skill will help the Board understand the evidence being presented, or helps establish a fact in issue.
            - The witness is adequately qualified to express an opinion on the matter.

16. **Planning & Zoning Board vs. City Council actions.** If the Planning & Zoning Board finds that the facts presented in the matter justify approval, it may recommend to approve the request, or a portion thereof, and it may specify any conditions deemed necessary to preserve the intent of the City of Cocoa Code. If the Board finds that the facts presented do not justify approval, it may recommend to deny the request and will specify the reasons for denial. A decision is usually made at the same meeting that the hearing is held. Regardless of the outcome, the application will be forwarded to the City Council for consideration where a final decision can be made.

In order to approve a Planned Unit Development, the Planning & Zoning Board and City Council must consider and study the criteria listed below (as described in Appendix A, Article XI, Section 17 (I)(2)e. of the City of Cocoa Code) and include the findings of fact that serve as a basis for its recommendation. Please provide your consideration of the following criteria and any pertinent data and evidence that may be useful to the Planning & Zoning Board and City Council. Use extra sheets if necessary.

1. **Degree of departure of proposed planned unit development from surrounding areas in terms of character and density.**

The amendment modifies the retail lot layout of the approved PUD for the property to set forth the detailed development plans for the retail out parcels. The proposed start of construction for the site is January of 2026, pending review and approval of this amendment and the associated Development Agreement revisions. Construction should be completed eight to ten months following commencement.

2. **Compatibility within the planned unit development and relationship with surrounding neighborhoods.**

The amendment modifies the retail lot layout of the approved PUD for the property to set forth the detailed development plans for the retail out parcels. The master plan for the development and retail layout were reviewed and approved under the original PUD. The proposed retail users place retail and support services in close proximity to residents within the adjacent multi-family complex.

3. Prevention of erosion and degrading of surrounding area.

The amendment modifies the retail lot layout of the approved PUD for the property to set forth the detailed development plans for the retail out parcels. The master plan for the development and retail layout were reviewed and approved under the original PUD. The proposed retail users place retail and support services in close proximity to residents within the adjacent multi-family complex.

4. Provision for future public education and recreation facilities, transportation, water supply, sewage disposal, surface drainage, flood control and soil conservation as shown in the preliminary development plan.

The amendment modifies the retail lot layout of the approved PUD for the property to set forth the detailed development plans for the retail out parcels. The master plan for the development and retail layout were reviewed and approved under the original PUD. Detailed review of these items were undertaken during original review and approval, and the proposed retail layouts are consistent with the maximum development criteria set forth in the recorded PUD.

5. The nature, intent and compatibility of common open space, including the proposed method for the maintenance and conservation of said common open space.

The amendment modifies the retail lot layout of the approved PUD for the property to set forth the detailed development plans for the retail out parcels. The open space areas will be as provided for in the original approved PUD.

6. **The feasibility and compatibility of the specified stages contained in the preliminary development plan to exist as an independent development.**

The amendment modifies the retail lot layout of the approved PUD for the property to set forth the detailed development plans for the retail out parcels. The master plan for the development and retail layout were reviewed and approved under the original PUD. Development of the retail users will demonstrate independent feasibility of retail users.

7. **The availability and adequacy of primary streets and thoroughfares to support traffic to be generated within the proposed planned unit development.**

The amendment modifies the retail lot layout of the approved PUD for the property to set forth the detailed development plans for the retail out parcels. The master plan for the development and retail layout were reviewed and approved under the original PUD. Detailed review of these items were undertaken during original review and approval, and the proposed retail layouts are consistent with the maximum development criteria set forth in the recorded PUD.

8. **The availability and adequacy of water and sewer service to support the proposed planned unit development.**

The amendment modifies the retail lot layout of the approved PUD for the property to set forth the detailed development plans for the retail out parcels. The master plan for the development and retail layout were reviewed and approved under the original PUD. Detailed review of these items were undertaken during original review and approval, and the proposed retail layouts are consistent with the maximum development criteria set forth in the recorded PUD.

9. **The benefits within the proposed development and to the general public to justify the requested departure from standard land use requirements inherent to a planned unit development classification.**

The amendment modifies the retail lot layout of the approved PUD for the property to set forth the detailed development plans for the retail out parcels. The master plan for the development and retail layout were reviewed and approved under the original PUD. The overall benefits of the PUD are not being modified herein, and the provision of supporting retail uses was inherent in the original mixed use request.

10. **The conformity and compatibility of the planned unit development with any adopted development plan of the City of Cocoa.**

The amendment modifies the retail lot layout of the approved PUD for the property to set forth the detailed development plans for the retail out parcels. The master plan for the development and retail layout were reviewed and approved under the original PUD. Detailed review of these items were undertaken during original review and approval, and the proposed retail layouts are consistent with the maximum development criteria set forth in the recorded PUD.

11. **The conformity and compatibility of the proposed common open space, primary residential and secondary nonresidential uses within the proposed planned unit development.**

The amendment modifies the retail lot layout of the approved PUD for the property to set forth the detailed development plans for the retail out parcels. The master plan for the development and retail layout were reviewed and approved under the original PUD. Detailed review of these items were undertaken during original review and approval, and the proposed retail layouts are consistent with the maximum development criteria set forth in the recorded PUD.

17. Signatures and Notarization.

STATE OF Florida COUNTY OF Volusia. I, Jessica Brow being first duly sworn, depose and say that:

☐ I am the applicant, or if corporation, I am the officer of the corporation authorized to act on this request.

☒ I am the legal representative of the applicant of this application and a notarized Letter of Authorization form or agent affidavit accompanies this application giving written, unless the applicant is the Attorney representing the owner.

I hereby certify that I have read, completed and understand this application, and understand that if my application and all associated attachments are not complete and accurate in all respects, the application will not be scheduled for a public hearing. I further understand that this application must be complete and accurate prior to the advertising of a public hearing.

(APPLICANT SIGNATURE)

TEQUILA MIA NELSON
Notary Public - State of Florida
Commission # HH 321611
My Comm. Expires Feb 12, 2027
Bonded through National Notary Assn.

(Print, Type, or Stamp Commissioned Name of Notary Public)

Personally Known ☐ OR Produced Identification ☐

Type of I.D. Produced _____

(NOTARY PUBLIC SIGNATURE)

STATE OF FLORIDA, COUNTY OF ~~BREVARD~~ Volusia

Sworn and subscribed to before me this 17th day of July, 20 25

FOR OFFICE USE ONLY

Fee of $ _____ in cash ☐ or check ☐ (No. _____) payable to the "City of Cocoa".

Receipt Number: _____

Date: _____

Signature from Planning & Zoning Division:

_____

June 8, 2024

Agent Authorization

To Whom It May Concern:

I, BOB STEARNS, as MANAGER of **Cocoa Retail, LLC,** (the "Owner") of the real property described below (the "Property") do hereby authorize **WMG Acquisitions, LLC** as authorized agent to execute any applications or other documents, including, but not limited to, all applications and approvals for a lot split and any permits needed to develop the site on behalf of the Owner.

Property ID#: 24-36-18-27-*-1.01
Account: 3025787

Sincerely,

By: BOB STEARNS
Title: MANAGER
Date: JUL 8, 2024

STATE OF Florida
COUNTY OF BREVARD

The foregoing instrument was acknowledged before me this 8th day of JUL, 2024 by BOB STEARNS, as MANAGER of Cocoa Retail, LLC. He/She is personally known to me or has produced _____ as identification and did/did not take an oath.

WITNESS my hand and official seal in the County and State last aforesaid this 8th day of July, 2024.

Notary Public Signature: Elisa S Wagers
My Commission Expires: 4/20/2028
Notary Seal:

ELISA S. WAGERS
Commission # HH 496674
Expires April 20, 2028

NOTARY PUBLIC STATE OF FLORIDA

ELISA S. WAGERS
Commission # HH 496674
Expires April 20, 2028

Detail by Entity Name

Foreign Limited Liability Company
COCOA RETAIL, LLC

Filing Information

Document Number	M16000009936
FEI/EIN Number	81-4631272
Date Filed	12/09/2016
State	NC
Status	ACTIVE

Principal Address

1111 METROPOLITAN AVE.
SUITE 700
CHARLOTTE, NC 28236

Mailing Address

1111 METROPOLITAN AVE.
SUITE 700
CHARLOTTE, NC 28236

Registered Agent Name & Address

CORPORATION SERVICE COMPANY
1201 HAYS STREET
TALLAHASSEE, FL 32301-2525

Authorized Person(s) Detail

Name & Address

Title MGR

COLLETT, ROBERT C
118-C W UNION ST.
MORGANTON, NC 28655

Title MGR

STEARNS, ROBERT D, TRUSTEE OF THE ROBERT STEARNS REVOCABLE TRUST, DATED MAY 17, 2000
2301 W I=55 SERVICE RD, STE. 100
OKLAHOMA CITY, OK 73112

Annual Reports

Report Year	Filed Date
2022	04/27/2022
2023	04/25/2023
2024	04/26/2024

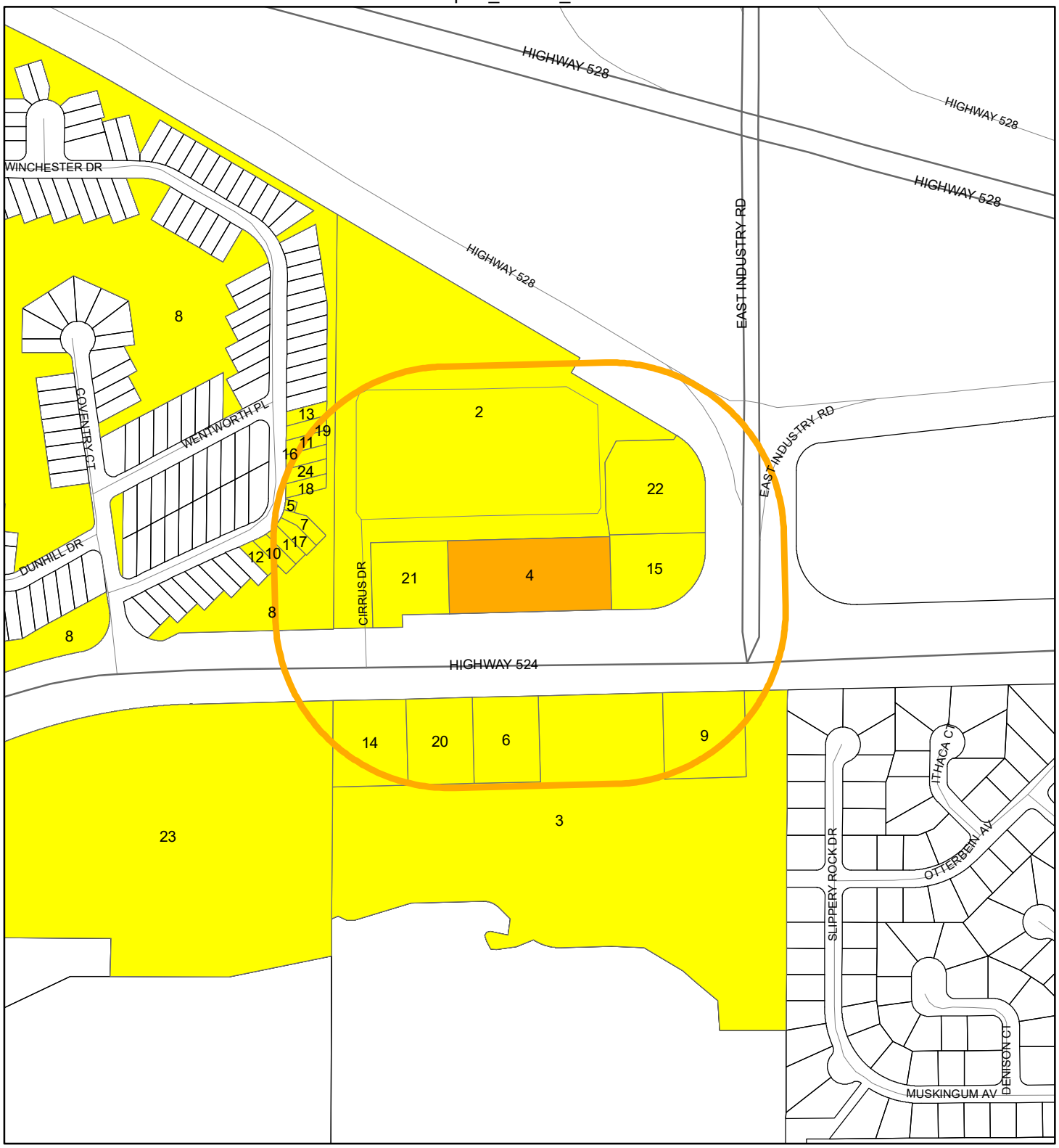
Document Images

04/26/2024 -- ANNUAL REPORT	View image in PDF format
04/25/2023 -- ANNUAL REPORT	View image in PDF format
04/27/2022 -- ANNUAL REPORT	View image in PDF format
04/22/2021 -- ANNUAL REPORT	View image in PDF format
06/19/2020 -- ANNUAL REPORT	View image in PDF format
04/08/2019 -- ANNUAL REPORT	View image in PDF format
05/24/2018 -- ANNUAL REPORT	View image in PDF format
04/20/2017 -- ANNUAL REPORT	View image in PDF format
12/09/2016 -- Foreign Limited	View image in PDF format

Florida Department of State, Division of Corporations

RADIUS MAP

COCOA RETAIL LLC
Tequila_Nelson_3025787



N
W E
S

1:4,800 or 1 inch = 400 feet

Buffer Distance: 500 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 4/25/2025

Buffer
Subject Property
Notify Property
Parcels

BELCHER, MONTY J
BELCHER, PATRICIA A
2723 WINCHESTER DR
COCOA FL 32926-5853

CIRRUS APARTMENTS LLC
1211 N WEST SHORE BLVD, STE 801
TAMPA FL 33607-4625

COCOA COMMONS STATION LLC
11501 NORTHLAKE DR
C/O PHILLIPS EDISON & COMPANY
CINCINNATI OH 45249-1669

COCOA RETAIL LLC
1825 RIVERVIEW DR
MELBOURNE FL 32901-4711

COCOA, CITY OF
65 STONE STREET
COCOA FL 32922-

COMMUNITY BANK OF THE SOUTH
277 N SYKES CREEK PARKWAY
MERRITT ISLAND FL 32953-

CORDELL, PATRICE O
765 GLADE ROAD
TITUSVILLE FL 32780-

COVENTRY OF COCOA HOMEOWNER'S ASSOCIATION INC
7145 TURNER RD, STE 101
ROCKLEDGE FL 32955-5723

DAYTONA INVESTMENTS IX LLC
36 CARIBBEAN WAY
PONCE INLET FL 32127-7319

GALLOWAY, PHIL A
2721 WINCHESTER DR
COCOA FL 32926-

GOULD PROPERTIES I LLC
2150 INDIAN RIVER DR N
COCOA FL 32922-

HARP, JANICCE
2719 WINCHESTER DRIVE
COCOA FL 32926-

HAUSER, MITCHELL
3010 WINCHESTER DR
COCOA FL 32926-5856

KEEPER II - COCOA LLC
1 CITY CTR, FL 4
PORTLAND ME 04101-6408

MCDONALD'S CORPORATION
845 EXECUTIVE LN, STE 400
C/O MJJ FOODS
ROCKLEDGE FL 32955-3528

MERRITT, ELIZABETH
3004 WINCHESTER DR
COCOA FL 32926-5869

OLSSON, BRIDGET
OLSSON, SHERWIN L
2725 WINCHESTER DRIVE
COCOA FL 32926-

PELOSI, TAMMY
SWONGER, SARAH
3000 WINCHESTER DR
COCOA FL 32926-5869

PHARR, ROBERT G
PHARR, PATRICIA A
3008 WINCHESTER DR
COCOA FL 32926-5856

PNC BANK NA
130 S JEFFERSON ST, STE 300
C/O NATIONAL TAX SEARCH LLC
CHICAGO IL 60661-5763

RDI DEVELOPERS LLC
488 ROSS PLACE
OCEANSIDE NY 11572-

SR 524 COCOA II LLC
DEMETREE, W C TRUSTEE
941 W.MORSE BLVD STE 316
WINTER PARK FL 32789-

WILEY, EARL T,IV
3002 WINCHESTER DR
COCOA FL 32926-5869

PAVESE
LAW FIRM

CHARLES MANN
Board Certified Real Estate Attorney
Board Certified Condominium and
Planned Development Law Attorney
Direct dial: (239) 336-6242
Email: charlesmann@paveselaw.com

1833 Hendry Street, Fort Myers, Florida 33901 | P.O. Drawer 1507, Fort Myers, Florida 33902-1507 | (239) 334-2195 | Fax (239) 332-2243

TITLE CERTIFICATION
CIRRUS – PARCEL 1

Pavese Law Firm (as Agent/Title Company)

Plat Number:
Development Order Number:

Effective Date of Title Certification: April 4, 2025

Certified To: City of Cocoa

I have searched the Public Records of Brevard County, Florida and have examined the title to the real property more particularly described in the metes and bounds description attached hereto as Exhibit "A" I have made a careful examination of the Public Records of Brevard County, Florida, with respect to the real property described in attached Exhibit "A." Based on the foregoing, we hereby certify Record Title to the above-described real property, as of the Effective Date of the Title Certification set forth above, is vested in:

Title to the property is vested in:

Cocoa Retail, LLC, a North Carolina limited liability company by virtue of that certain Quit-Claim Deed recorded in Official Records Book 7783, Page 2693, of the Public Records of Brevard County, Florida.

There are no persons or entities hold a mortgage secured by the property.

All property taxes, due and owing, have been paid on the land described herein as of the date of this opinion.

The following are all easements and rights of way affecting the property to be platted, whether recorded or unrecorded:

1. Easements contained on the Plat of Home Depot Cocoa, as recorded in Plat Book 57, Page 87, as affected by Scivener's Error Affidavit recorded in O.R. Book 5870, Page 4433 and O.R. Book 5873, Page 5734, Public Records of Brevard County, Florida.
2. Easements contained on the Plat of Cirrus, as recorded in Plat Book 77, Page 13, Public Records of Brevard County, Florida.

3. Restrictions, Covenants and Easements recorded in O.R. Book 3299, Page 3156; O.R. Book 5859, Page 8905, as amended in O.R. Book 5868, Page 8944 and Shopping Center Easement Agreement recorded in O.R. Book 3516, Page 4332 and Assignment of Maintenance Contribution recorded in O.R. Book 5859, Page 8901 and Amended and Restated Restrictive Covenants and Easement Agreement recorded in O.R. Book 9278, Page 638, Public Records of Brevard County, Florida.

4. Reuse Main and Water Line & Ingress / Egress Easement recorded in O.R. Book 3372, Page 4481, as affects by Resolution No. 2005-65 recorded in O.R. Book 5510, Page 2725, Public Records of Brevard County, Florida.

5. Restrictive covenants recorded in O.R. Book 3516, Page 4342, Public Records of Brevard County, Florida.

6. Force Main and Sewer Line & Ingress / Egress Easement recorded in O.R. Book 3372, Page 4486, as modified by O.R. Book 5557, Page 4594 and Water Line & Ingress / Egress Easement Agreement recorded in O.R. Book 5510, Page 1779, as affected by Resolution 2024-034 recorded in O.R. Book 10040, Page 2535, Public Records of Brevard County, Florida.

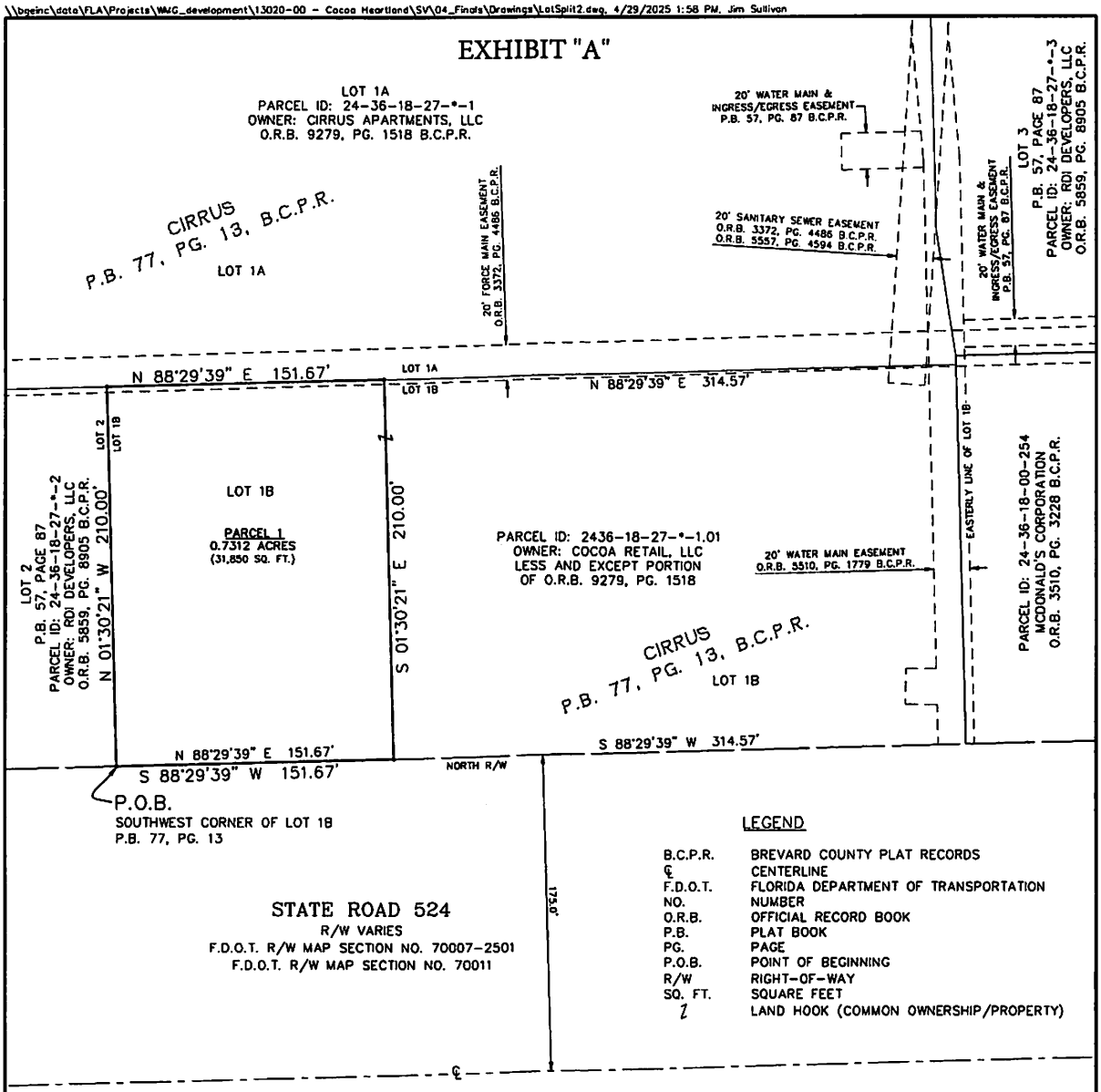
7. Restrictive Covenant contained in deed recorded in O.R. Book 7783, Page 2688, Public Records of Brevard County, Florida.

Note, this is not a certification of ownership or entry rights of any oil, gas, and mineral rights or interests.

This certification is provided pursuant to the requirements of § 177.041, Florida Statute, for the uses and purposes specifically stated therein and is not to be used as the basis for the issuance of a title insurance commitment or policy. Pursuant to s. 627.7843, Florida Statutes, the maximum liability of the issuer of this property information report for errors or omissions in this property information report is limited to the amount paid for this property information report, and is further limited to the person(s) expressly identified by name in the property information report as the recipient(s) of the property information report.

By: _____
Charles Mann
Partner

EXHIBIT "A"



LEGEND

B.C.P.R.	BREVARD COUNTY PLAT RECORDS
℄	CENTERLINE
F.D.O.T.	FLORIDA DEPARTMENT OF TRANSPORTATION
NO.	NUMBER
O.R.B.	OFFICIAL RECORD BOOK
P.B.	PLAT BOOK
PG.	PAGE
P.O.B.	POINT OF BEGINNING
R/W	RIGHT-OF-WAY
SQ. FT.	SQUARE FEET
7	LAND HOOK (COMMON OWNERSHIP/PROPERTY)

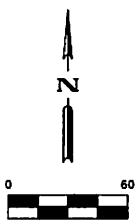
DESCRIPTION:

A PORTION OF LOT 1B, CIRRUS, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 77, PAGE 13, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 1B AND THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD 524 AS SHOWN ON F.D.O.T. RIGHT-OF-WAY MAP SECTION NO. 70007-2501; THENCE NORTH 01°30'21" WEST, 210.00 FEET ALONG THE WEST LINE OF SAID LOT 1B; THENCE NORTH 88°29'39" EAST, 151.67 FEET ALONG THE NORTH LINE OF SAID LOT 1B; THENCE SOUTH 01°30'21" EAST, 210.00 FEET OVER AND ACROSS SAID LOT 1B TO SAID NORTH RIGHT-OF-WAY LINE; THENCE SOUTH 88°29'39" WEST, 151.67 FEET ALONG SAID NORTH RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING. AND CONTAINING 0.7312 OF AN ACRE (31,850 SQUARE FEET) MORE OR LESS.

NOTES:

1. THE PURPOSE OF THE SKETCH IS SOLELY TO ILLUSTRATE AN AREA FOR A PROPOSED LOT SPLIT.
2. THE SKETCH WAS PREPARED IN ACCORDANCE WITH THE "STANDARDS OF PRACTICE", AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN RULE 5J-17.050 THROUGH 5J-17.053, OF THE FLORIDA ADMINISTRATIVE CODE.
3. THIS SKETCH IS NOT A BOUNDARY SURVEY.
4. THE BEARINGS SHOWN HEREON ARE REFERENCED TO THE HORIZONTAL DATUM FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT).
5. AS OF APRIL 17, 2024, THERE WERE NO BUILDINGS OBSERVED WITHIN THE SUBJECT TRACT.



Jim Sullivan
Digitally signed by Jim Sullivan
Date: 2025.04.29 14:23:27-04'00'

JIM SULLIVAN, PSM LS6889
BGE, INC.
601 21ST STREET, SUITE 410
VERO BEACH, FLORIDA 32960
TELEPHONE: (561) 559-2280

JIM SULLIVAN License Number 6889 STATE OF FLORIDA Professional Surveyor and Mapper

BGE, Inc.
601 21st Street, Suite 410, Vero Beach, FL 32960
Tel: 561-559-2280 • www.bgeinc.com
Florida Licensed Surveying Firm No. LB8533

EXHIBIT OF PARCEL 1
0.7312 ACRES
LOT SPLIT
SECTION 18-T24S-R36E
BREVARD COUNTY, FL

Scale:	Job No.:	Date:	Drawing:
1" = 60'	13020	4/29/2025	1 OF 1

PAVESE
LAW FIRM

CHARLES MANN
Board Certified Real Estate Attorney
Board Certified Condominium and
Planned Development Law Attorney
Direct dial: (239) 336-6242
Email: charlesmann@paveselaw.com

1833 Hendry Street, Fort Myers, Florida 33901 | P.O. Drawer 1507, Fort Myers, Florida 33902-1507 | (239) 334-2195 | Fax (239) 332-2243

TITLE CERTIFICATION
CIRRUS – PARCEL 2

Pavese Law Firm (as Agent/Title Company)

Plat Number:
Development Order Number:

Effective Date of Title Certification: April 4, 2025

Certified To: City of Cocoa

I have searched the Public Records of Brevard County, Florida and have examined the title to the real property more particularly described in the metes and bounds description attached hereto as Exhibit "A" I have made a careful examination of the Public Records of Brevard County, Florida, with respect to the real property described in attached Exhibit "A." Based on the foregoing, we hereby certify Record Title to the above-described real property, as of the Effective Date of the Title Certification set forth above, is vested in:

Title to the property is vested in:

Cocoa Retail, LLC, a North Carolina limited liability company by virtue of that certain Quit-Claim Deed recorded in Official Records Book 7783, Page 2693, of the Public Records of Brevard County, Florida.

There are no persons or entities hold a mortgage secured by the property.

All property taxes, due and owing, have been paid on the land described herein as of the date of this opinion.

The following are all easements and rights of way affecting the property to be platted, whether recorded or unrecorded:

1. Easements contained on the Plat of Home Depot Cocoa, as recorded in Plat Book 57, Page 87, as affected by Scivener's Error Affidavit recorded in O.R. Book 5870, Page 4433 and O.R. Book 5873, Page 5734, Public Records of Brevard County, Florida.
2. Easements contained on the Plat of Cirrus, as recorded in Plat Book 77, Page 13, Public Records of Brevard County, Florida.

3. Restrictions, Covenants and Easements recorded in O.R. Book 3299, Page 3156; O.R. Book 5859, Page 8905, as amended in O.R. Book 5868, Page 8944 and Shopping Center Easement Agreement recorded in O.R. Book 3516, Page 4332 and Assignment of Maintenance Contribution recorded in O.R. Book 5859, Page 8901 and Amended and Restated Restrictive Covenants and Easement Agreement recorded in O.R. Book 9278, Page 638, Public Records of Brevard County, Florida.

4. Reuse Main and Water Line & Ingress / Egress Easement recorded in O.R. Book 3372, Page 4481, as affects by Resolution No. 2005-65 recorded in O.R. Book 5510, Page 2725, Public Records of Brevard County, Florida.

5. Restrictive covenants recorded in O.R. Book 3516, Page 4342, Public Records of Brevard County, Florida.

6. Force Main and Sewer Line & Ingress / Egress Easement recorded in O.R. Book 3372, Page 4486, as modified by O.R. Book 5557, Page 4594 and Water Line & Ingress / Egress Easement Agreement recorded in O.R. Book 5510, Page 1779, as affected by Resolution 2024-034 recorded in O.R. Book 10040, Page 2535, Public Records of Brevard County, Florida.

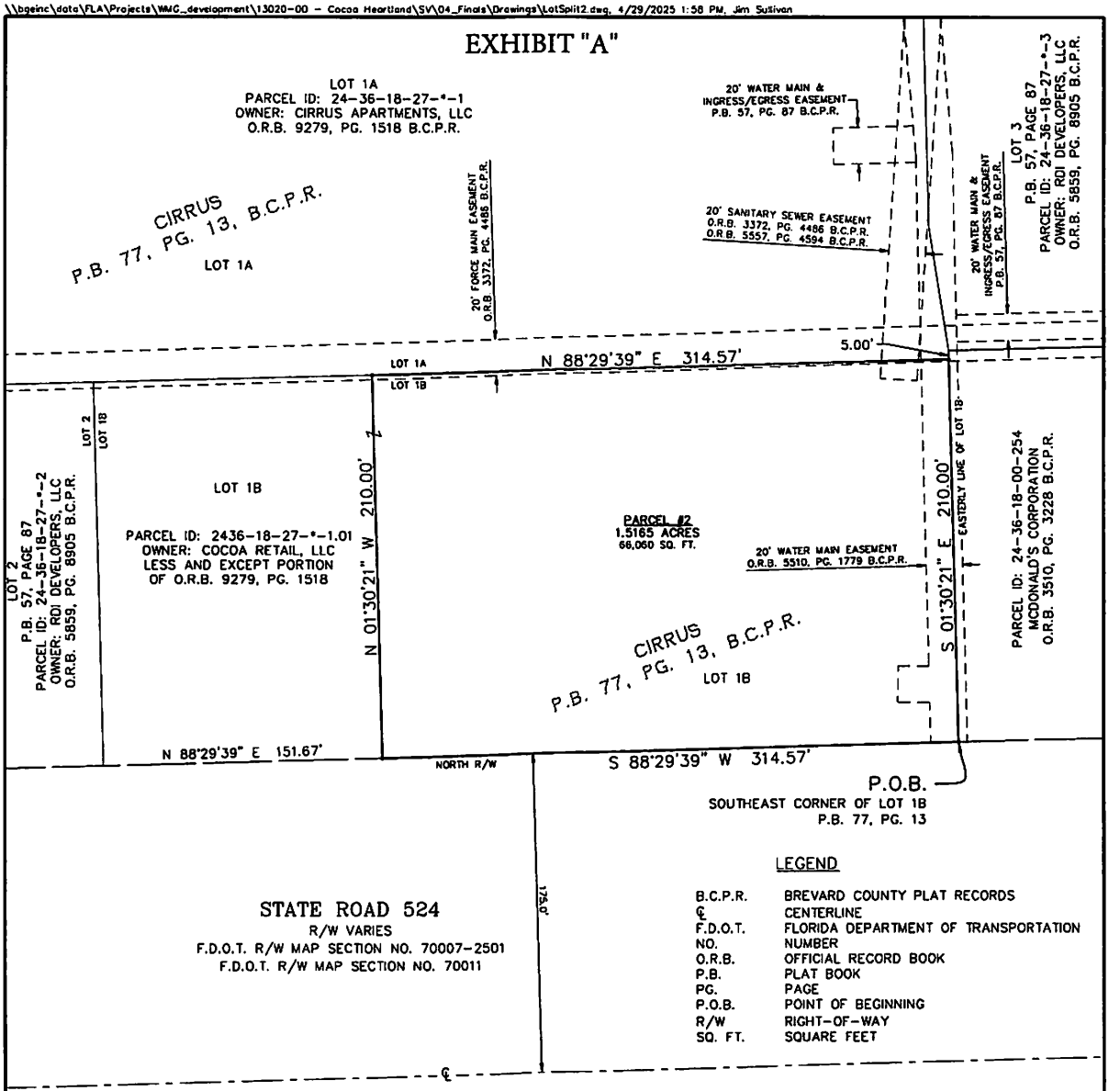
7. Restrictive Covenant contained in deed recorded in O.R. Book 7783, Page 2688, Public Records of Brevard County, Florida.

Note, this is not a certification of ownership or entry rights of any oil, gas, and mineral rights or interests.

This certification is provided pursuant to the requirements of § 177.041, Florida Statute, for the uses and purposes specifically stated therein and is not to be used as the basis for the issuance of a title insurance commitment or policy. Pursuant to s. 627.7843, Florida Statutes, the maximum liability of the issuer of this property information report for errors or omissions in this property information report is limited to the amount paid for this property information report, and is further limited to the person(s) expressly identified by name in the property information report as the recipient(s) of the property information report.

By: _____
Charles Mann
Partner

EXHIBIT "A"



LEGEND

B.C.P.R.	BREVARD COUNTY PLAT RECORDS
℄	CENTERLINE
F.D.O.T.	FLORIDA DEPARTMENT OF TRANSPORTATION
NO.	NUMBER
O.R.B.	OFFICIAL RECORD BOOK
P.B.	PLAT BOOK
PG.	PAGE
P.O.B.	POINT OF BEGINNING
R/W	RIGHT-OF-WAY
SQ. FT.	SQUARE FEET

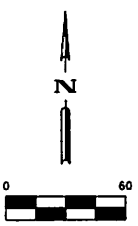
DESCRIPTION:

A PORTION OF LOT 1B, CIRRUS, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 77, PAGE 13, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID SAID LOT 1B AND THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD 524 AS SHOWN ON F.D.O.T. RIGHT-OF-WAY MAP SECTION NO. 70007-2501; THENCE SOUTH 88°29'39" WEST, 314.57 ALONG SAID NORTH RIGHT-OF-WAY LINE; THENCE NORTH 01°30'21" WEST, 210.00 FEET OVER AND ACROSS SAID LOT 1B; THENCE NORTH 88°29'39" EAST, 314.57 FEET ALONG THE NORTH LINE OF SAID LOT 1B; THENCE SOUTH 01°30'21" EAST, 210.00 FEET ALONG THE EAST LINE OF SAID LOT 1B TO SAID NORTH RIGHT-OF-WAY LINE AND THE POINT OF BEGINNING CONTAINING 1.5165 ACRES (66,060 SQUARE FEET) MORE OR LESS.

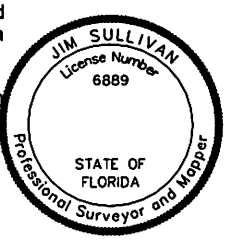
NOTES:

1. THE PURPOSE OF THE SKETCH IS SOLELY TO ILLUSTRATE AN AREA FOR A PROPOSED LOT SPLIT.
2. THE SKETCH WAS PREPARED IN ACCORDANCE WITH THE "STANDARDS OF PRACTICE", AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN RULE 5J-17.050 THROUGH 5J-17.053, OF THE FLORIDA ADMINISTRATIVE CODE.
3. THIS SKETCH IS NOT A BOUNDARY SURVEY.
4. THE BEARINGS SHOWN HEREON ARE REFERENCED TO THE HORIZONTAL DATUM FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT).
5. AS OF APRIL 17, 2024, THERE WERE NO BUILDINGS OBSERVED WITHIN THE SUBJECT TRACT.



Digitally signed by Jim Sullivan
Jim Sullivan Date: 2025.04.29 14:21:21-04'00'

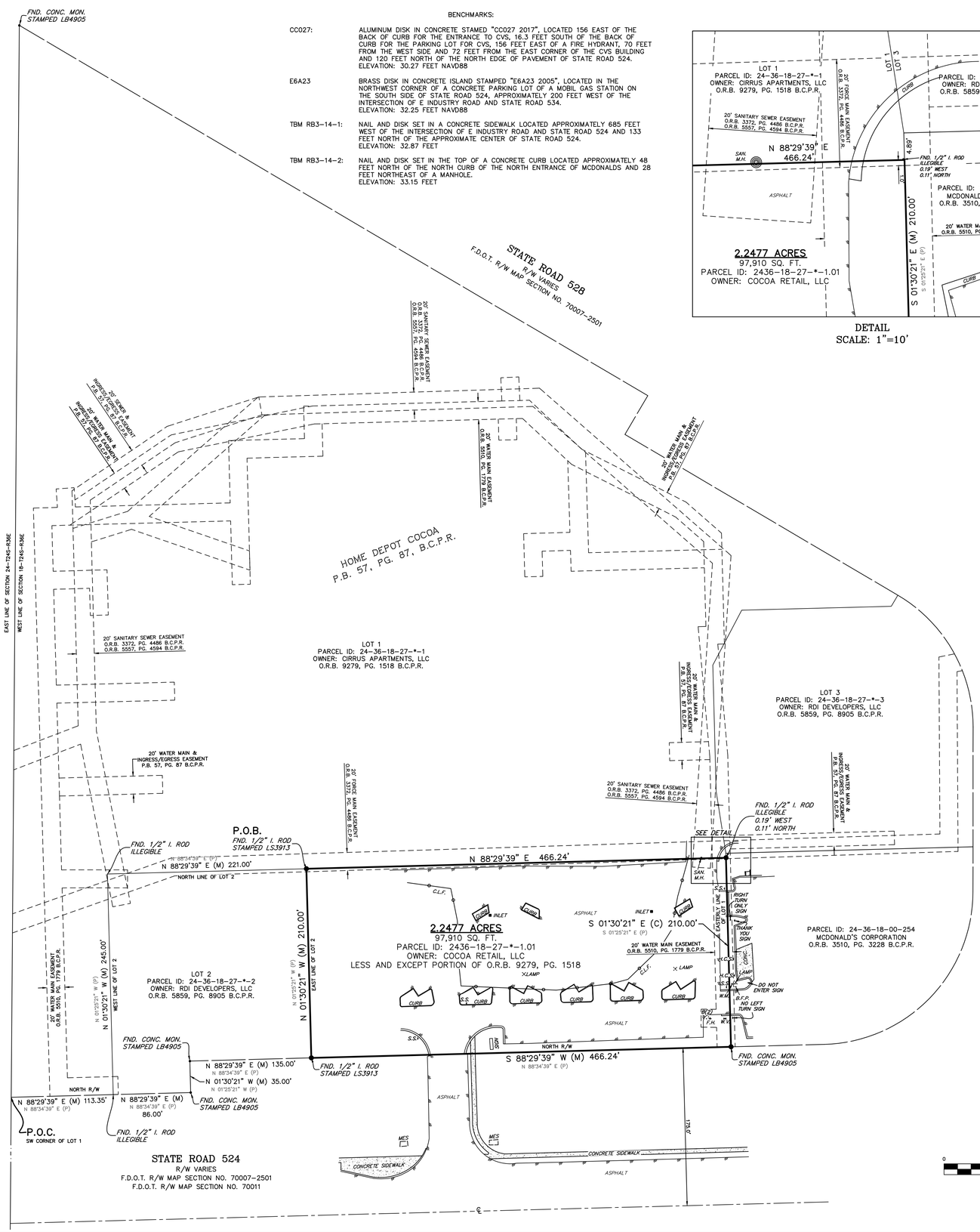
JIM SULLIVAN, PSM LS6889
BGE, INC.
601 21ST STREET, SUITE 410
VERO BEACH, FLORIDA 32960
TELEPHONE: (561) 559-2280



BGE, Inc.
601 21st Street, Suite 410, Vero Beach, FL 32960
Tel: 561-559-2280 • www.bgeinc.com
Florida Licensed Surveying Firm No. LB8533

EXHIBIT OF PARCEL 1
0.7312 ACRES
LOT SPLIT
SECTION 18-T24S-R36E
BREVARD COUNTY, FL

Scale:	Job No.:	Date:	Drawing:
1" = 60'	13020	4/29/2025	1 OF 1



BENCHMARKS:

CC027: ALUMINUM DISK IN CONCRETE STAMED "CC027 2017", LOCATED 156 EAST OF THE BACK OF CURB FOR THE ENTRANCE TO CVS, 16.3 FEET SOUTH OF THE BACK OF CURB FOR THE PARKING LOT FOR CVS, 156 FEET EAST OF A FIRE HYDRANT, 70 FEET FROM THE WEST SIDE AND 72 FEET FROM THE EAST CORNER OF THE CVS BUILDING AND 120 FEET NORTH OF THE NORTH EDGE OF PAVEMENT OF STATE ROAD 524. ELEVATION: 30.27 FEET NAVD88

E6A23: BRASS DISK IN CONCRETE ISLAND STAMPED "E6A23 2005", LOCATED IN THE NORTHWEST CORNER OF A CONCRETE PARKING LOT OF A MOBIL GAS STATION ON THE SOUTH SIDE OF STATE ROAD 524, APPROXIMATELY 200 FEET WEST OF THE INTERSECTION OF E INDUSTRY ROAD AND STATE ROAD 534. ELEVATION: 32.25 FEET NAVD88

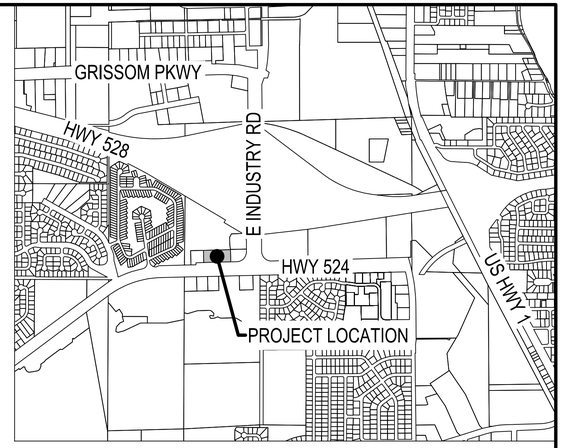
TBM RB3-14-1: NAIL AND DISK SET IN A CONCRETE SIDEWALK LOCATED APPROXIMATELY 685 FEET WEST OF THE INTERSECTION OF E INDUSTRY ROAD AND STATE ROAD 524 AND 133 FEET NORTH OF THE APPROXIMATE CENTER OF STATE ROAD 524. ELEVATION: 32.87 FEET

TBM RB3-14-2: NAIL AND DISK SET IN THE TOP OF A CONCRETE CURB LOCATED APPROXIMATELY 48 FEET NORTH OF THE NORTH CURB OF THE NORTH ENTRANCE OF MCDONALDS AND 28 FEET NORTHEAST OF A MANHOLE. ELEVATION: 33.15 FEET

DETAIL
SCALE: 1"=10'

LEGEND

B.	BOLLARD
B.C.P.R.	BREVARD COUNTY PUBLIC RECORDS
B.F.P.	BACK FLOW PREVENTER
℄	CENTERLINE
(C)	CALCULATED
B.L.F.	CHAIN LINK FENCE
CONC.	CONCRETE
ELEV.	ELEVATION
F.D.O.T.	FLORIDA DEPARTMENT OF TRANSPORTATION
F.H.	FIRE HYDRANT
FND.	FOUND
G	GUTTER
H.C.S.	HANDICAP SIGN
I.	IRON
(M)	MEASURED
MES	MITERED END SECTION
NO.	NUMBER
O.R.B.	OFFICIAL RECORD BOOK
(P)	PLATTED
P.B.	PLAT BOOK
PG.	PAGE
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT-OF-WAY
SQ. FT.	SQUARE FEET
S.S.	STOP SIGN
TBM	TEMPORARY BENCHMARK
TC	TOP OF CURB
W.M.	WATER METER
W.V.	WATER VALVE
	PALM TREE
	OAK TREE



VICINITY MAP
N.T.S.

OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
FILE NUMBER: 93184.240
COMMITMENT DATE: APRIL 9, 2024 AT 11:00PM

ENCUMBRANCES:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I – REQUIREMENTS ARE MET. *NOT A SURVEY MATTER.*
2. A. GENERAL OR SPECIAL TAXES AND ASSESSMENTS REQUIRED TO BE PAID IN THE YEAR 2024 AND SUBSEQUENT YEARS. *NOT A SURVEY MATTER.*
   B. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT RECORDED IN THE PUBLIC RECORDS. *NOT A SURVEY MATTER.*
   C. ANY ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION OR ADVERSE CIRCUMSTANCE THAT WOULD BE DISCLOSED BY AN INSPECTION OR AN ACCURATE AND COMPLETE LAND SURVEY OF THE LAND AND INSPECTION OF THE LAND. *VISIBLE IMPROVEMENTS ARE NOT SHOWN.*
   D. EASEMENTS OR CLAIMS OF EASEMENTS NOT RECORDED IN THE PUBLIC RECORDS. *PROVIDED EASEMENTS ARE DEPICTED ON SURVEY.*
   E. ANY LIEN, OR RIGHT TO A LIEN, FOR SERVICES, LABOR OR MATERIAL FURNISHED, IMPOSED BY LAW AND NOT RECORDED IN THE PUBLIC RECORDS. *NOT A SURVEY MATTER.*
3. ANY OWNER'S POLICY ISSUED PURSUANT HERETO WILL CONTAIN UNDER SCHEDULE B THE FOLLOWING EXCEPTION: ANY ADVERSE OWNERSHIP CLAIM BY THE STATE OF FLORIDA BY RIGHT OF SOVEREIGNTY TO ANY PORTION OF THE LAND INSURED HEREUNDER, INCLUDING SUBMERGED, FILLED AND ARTIFICIALLY EXPOSED LANDS, AND LANDS ACCRETED TO SUCH LANDS. *NOT A SURVEY MATTER.*
4. ANY LIEN PROVIDED BY COUNTY ORDINANCE OR BY CHAPTER 159, F.S., IN FAVOR OF ANY CITY, TOWN, VILLAGE OR PORT AUTHORITY, FOR UNPAID SERVICE CHARGES FOR SERVICES BY ANY WATER SYSTEMS, SEWER SYSTEMS OR GAS SYSTEMS SERVING THE LAND DESCRIBED HEREIN; AND ANY LIEN FOR WASTE FEES IN FAVOR OF ANY COUNTY OR MUNICIPALITY. *NOT A SURVEY MATTER.*
5. RIGHTS OF THE LESSEES UNDER UNRECORDED LEASES. *NOT A SURVEY MATTER.*
6. ALL MATTERS CONTAINED ON THE PLAT OF HOME DEPOT COCOA, AS RECORDED IN PLAT BOOK 57, PAGE 87, AS AFFECTED BY SCRIVENER'S ERROR AFFIDAVIT RECORDED IN O.R. BOOK 5870, PAGE 4433 AND O.R. BOOK 5873, PAGE 5734, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA. *AFFECTS PROPERTY; PLOTTED AS APPLICABLE.*
7. RESTRICTIVE COVENANTS AND EASEMENT AGREEMENT RECORDED IN O.R. BOOK 5859, PAGE 8905, AS AMENDED IN O.R. BOOK 5868, PAGE 8944, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA. *BLANKET IN NATURE. NOT PLOTTABLE.*
8. DEVELOPMENT AGREEMENT RECORDED IN O.R. BOOK 9059, PAGE 149, ORDINANCE NO. 03-2021 RECORDED IN O.R. BOOK 9091, PAGE 2391, RESOLUTION NO. 2021-24 RECORDED IN O.R. BOOK 9091, PAGE 2385, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA. *NOT A SURVEY MATTER.*
9. RESTRICTIONS COVENANT RECORDED IN O.R. BOOK 3516, PAGE 4342, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA. *NOT A SURVEY MATTER.*
10. EASEMENT AGREEMENT RECORDED IN O.R. BOOK 3516, PAGE 4332, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA. *BLANKET IN NATURE. NOT PLOTTABLE.*

NOTES:

1. THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE 'STANDARDS OF PRACTICE', AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN RULE 5J-17.050 THROUGH 5J-17.053, OF THE FLORIDA ADMINISTRATIVE CODE.
2. THIS SURVEY MAP AND/OR REPORT OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OR DIGITAL SIGNATURE OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
3. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
4. THE FEATURES SHOWN HEREON ARE REFERENCED TO THE HORIZONTAL DATUM FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT (NAD83/11) AND THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
5. THIS SURVEY WAS PREPARED FOR THE PURPOSE OF SITE IMPROVEMENTS.
6. ALL DISTANCES SHOWN HEREON ARE U.S. SURVEY FEET (GRID).
7. THE BASIS OF BEARING FOR THIS SURVEY IS THE NORTH RIGHT-OF-WAY OF STATE ROAD 524, SAID BEARING BEING S88°29'39"W.
8. THE SURVEYOR HAS MADE A PRELIMINARY, BEST GUESS IDENTIFICATION OF THE TREES SHOWN HEREON. THE SURVEYOR IS NOT QUALIFIED TO CONCLUSIVELY IDENTIFY EACH TREE. A CONCLUSIVE IDENTIFICATION OF EACH TREE CAN ONLY BE MADE BY A QUALIFIED TREE SPECIALIST.
9. THE PROPERTY LIES IN ZONE "X", AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR BREVARD COUNTY, FLORIDA, MAP NUMBER 12009C0320H, REVISED JANUARY 29, 2021.

PROPERTY DESCRIPTION FROM SURVEYOR:

A PORTION OF LOT 1, HOME DEPOT COCOA, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 57, PAGE 87, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID LOT 1, THENCE NORTH 88°29'39" EAST, 113.35 FEET ALONG THE SOUTH LINE OF SAID LOT 1, THE SAME BEING THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD 524 AS SHOWN ON FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY MAP SECTION NO. 70007-2501, TO THE SOUTHWEST CORNER OF LOT 2 OF SAID PLAT OF HOME DEPOT COCOA; THENCE NORTH 01°30'21" WEST, 245.00 FEET ALONG THE WEST LINE OF SAID LOT 2 TO THE NORTHWEST CORNER OF SAID LOT 2; THENCE NORTH 88°29'39" EAST, 221.00 FEET ALONG THE NORTH LINE OF OF SAID LOT 2 TO THE NORTHEAST CORNER OF SAID LOT 2 AND THE POINT OF BEGINNING; THENCE CONTINUE NORTH 88°29'39" EAST, 466.24 FEET TO AN INTERSECTION WITH THE EASTERLY LINE OF SAID LOT 1; THENCE SOUTH 01°30'21" EAST, 210.00 FEET ALONG THE EASTERLY LINE OF SAID LOT 1 TO THE SOUTHEAST CORNER OF SAID LOT 1 AND AN INTERSECTION WITH THE SAID NORTH RIGHT-OF-WAY LINE OF STATE ROAD 524; THENCE SOUTH 88°29'39" WEST, 466.24 FEET, ALONG SAID NORTH RIGHT-OF WAY LINE TO THE SOUTHEAST CORNER OF SAID LOT 2; THENCE NORTH 01°30'21" WEST, 210.00 FEET ALONG THE EAST LINE OF SAID LOT 2 TO THE NORTHEAST CORNER OF SAID LOT 2 AND THE POINT OF BEGINNING. SAID PARCEL CONTAINING 2.2477 ACRES +/- OF LAND.

PROPERTY DESCRIPTION FROM TITLE:

PORTION OF LOT 1, HOME DEPOT COCOA, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 57, PAGE 87, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SAID LOT 1 AND RUN ALONG THE BOUNDARY OF SAID LOT 1, N88°34'39" E A DISTANCE OF 113.35 FEET TO THE SOUTHWEST CORNER OF LOT 2 OF SAID HOME DEPOT COCOA; THENCE N 01°25'21" W, ALONG THE WEST LINE OF SAID LOT 2, A DISTANCE OF 245.00 FEET TO THE NORTHWEST CORNER OF SAID LOT 2; THENCE N 88°34'39" E A DISTANCE OF 221.00 FEET TO THE NORTHEAST CORNER OF SAID LOT 2 AND THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED; THENCE CONTINUE N 88°34'39" E, ALONG THE EASTERLY EXTENSION OF THE NORTH LINE OF SAID LOT 2, A DISTANCE OF 466.23 FEET TO THE EASTERLY LINE OF SAID LOT 1; THENCE S 01°25'21" E, ALONG SAID EASTERLY LINE, A DISTANCE OF 210.00 FEET TO THE SOUTHEAST CORNER OF SAID LOT 1, (SAID POINT ALSO BEING A POINT ON THE NORTH RIGHT OF WAY LINE OF STATE ROAD NO. 524); THENCE S 88°34'39" W, ALONG SAID NORTH RIGHT OF WAY LINE, A DISTANCE OF 466.24 FEET TO THE SOUTHEAST CORNER OF SAID LOT 2; THENCE N 01°25'21" W, ALONG THE EAST LINE OF SAID LOT 2, A DISTANCE OF 210.00 FEET TO THE POINT OF BEGINNING.

TO:
- WMG ACQUISITIONS, LLC, A DELAWARE LIMITED LIABILITY COMPANY
- OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
- PAVESE LAW FIRM

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 7a, 7b1, 7c, 8, 13, 14, 16, 17, AND 18 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON APRIL 17, 2024.

Jim Sullivan
Digitally signed by Jim Sullivan
Date: 2024.05.02 14:25:10-04'00'

JIM SULLIVAN, PSM LS6889
BGE, INC.
601 21ST STREET, SUITE 410
VERO BEACH, FLORIDA 32960
TELEPHONE: (561) 559-2280

JIM SULLIVAN License Number 6889 STATE OF FLORIDA Professional Surveyor and Mapper

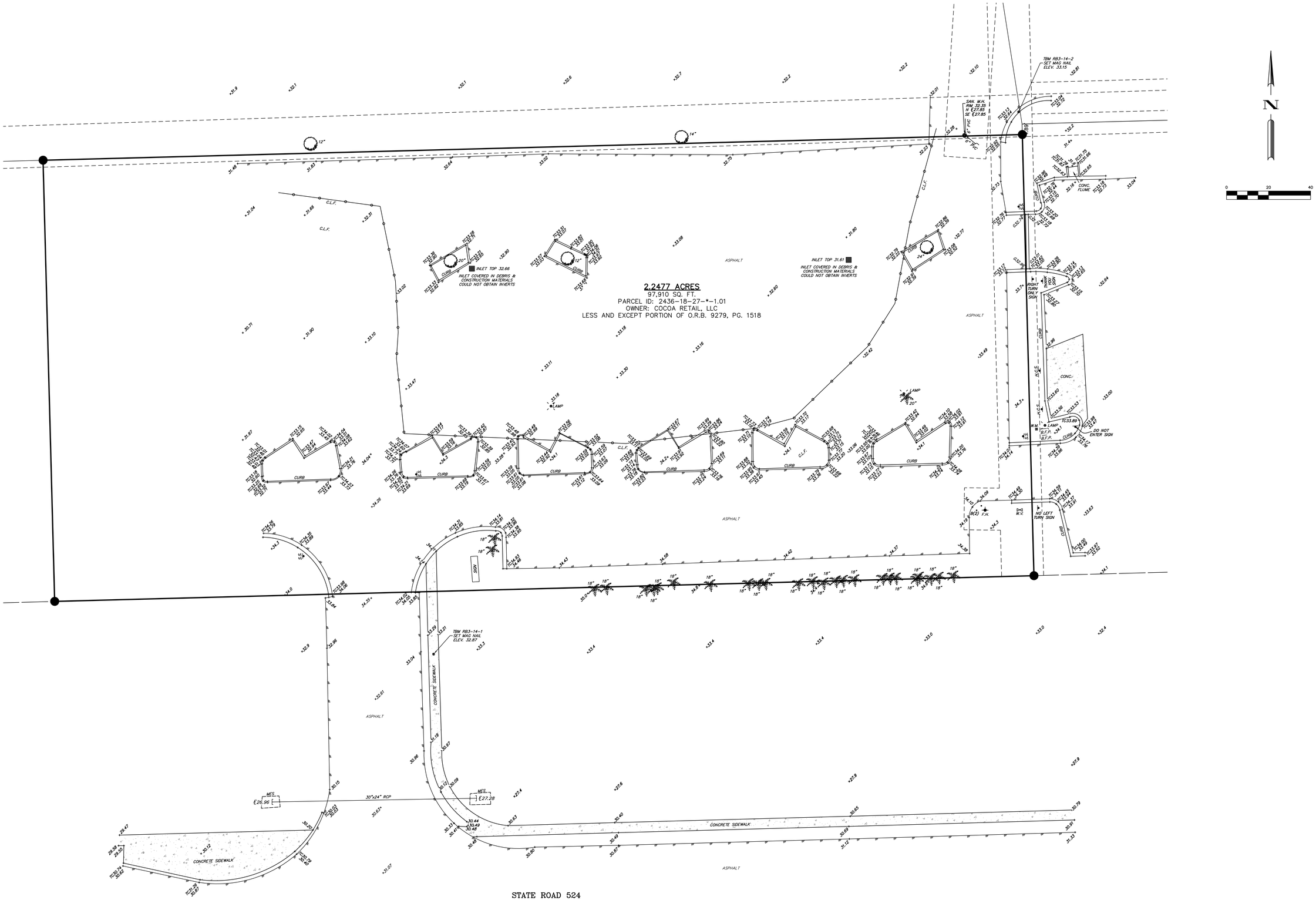
BGE, Inc.
601 21st Street, Suite 410, Vero Beach, FL 32960
Tel: 561-559-2280 ● www.bgeinc.com
Florida Licensed Surveying Firm No. LB8533

Copyright 2024

BOUNDARY & TOPOGRAPHIC SURVEY HEARTLAND DENTAL – COCOA SECTION 18–T24S–R36E BREVARD COUNTY, FL

PARTY CHIEF: RYAN B.	ISSUE DATE: 5/2/2024	SHEET	1
TECHNICIAN: BRIANNE M.	SCALE: 1"=60'	OF	2
P.S.M.: JIM S.	JOB NUMBER: 13020		
FIELD BOOK NAME: RB3			
BASE FILE: G:\FLA\Projects\WMG_development\13020-00 - Cocoa Heartland DSR\SV			

G:\FLA\Projects\WMG_development\13020-00 - Cocoa Heartland DSR\SV\04 Final\Drawings\2 24TP18SR 36PSI.dgn, 5/2/2024 2:20 PM, Brianne McGuire

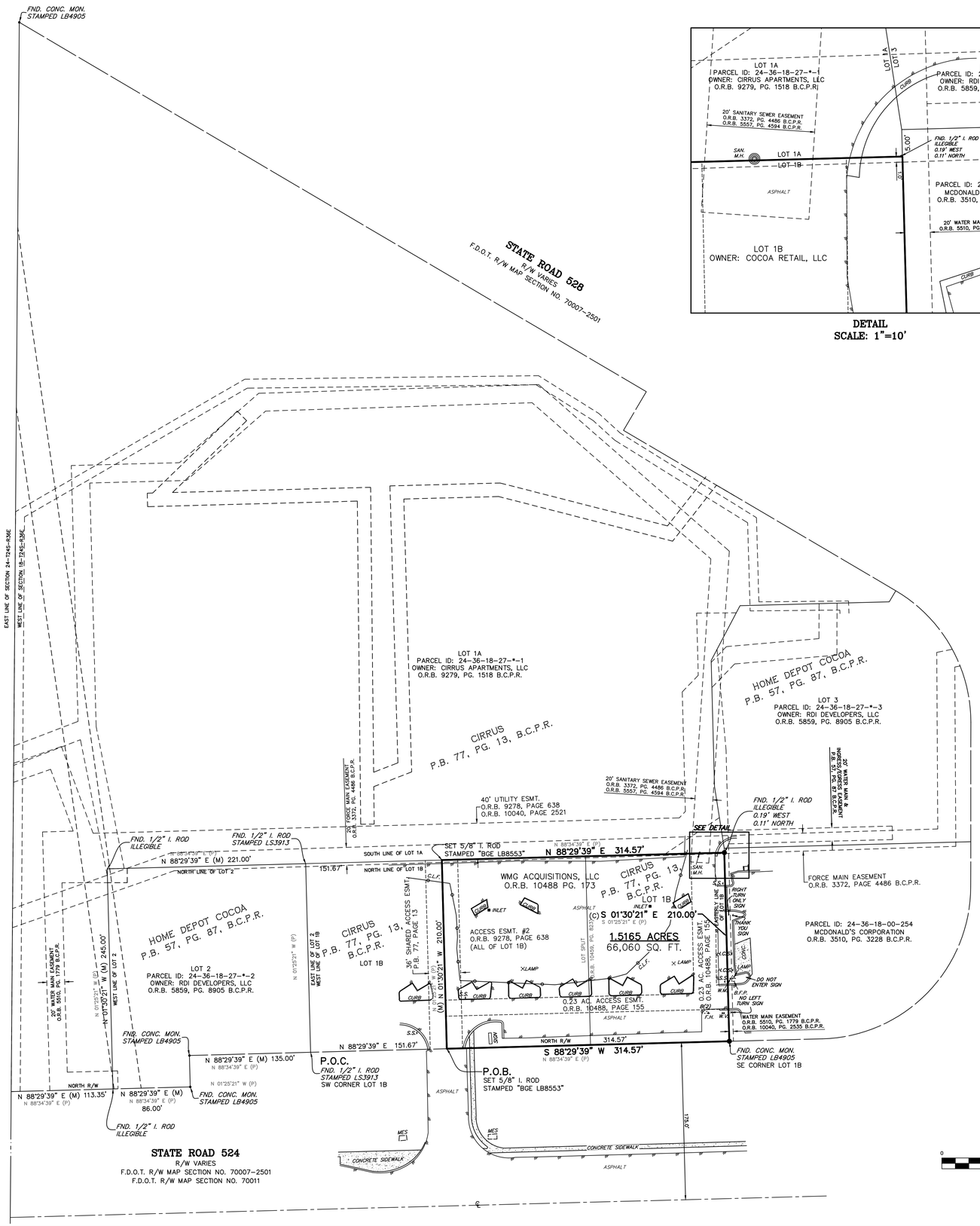


STATE ROAD 524
R/W VARIES
F.D.O.T. R/W MAP SECTION NO. 70007-2501
F.D.O.T. R/W MAP SECTION NO. 70011

BGE, Inc.
601 21st Street, Suite 410, Vero Beach, FL 32960
Tel: 561-559-2280 • www.bgeinc.com
Florida Licensed Surveying Firm No. LB8533

Copyright 2024

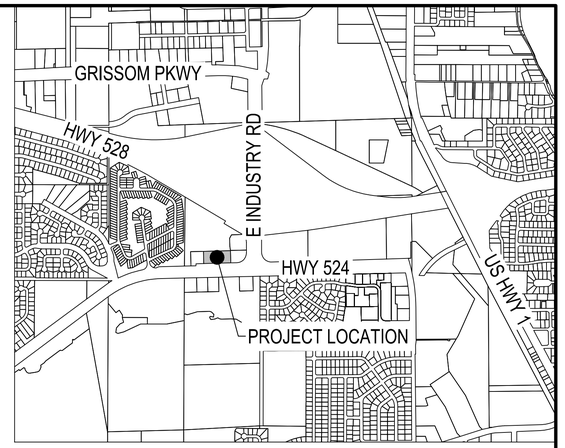
SCALE: 1"=20'
SHEET 2
OF 2



DETAIL
SCALE: 1"=10'

LEGEND

B.	BOLLARD
B.C.P.R.	BREVARD COUNTY PUBLIC RECORDS
B.F.P.	BACK FLOW PREVENTER
℄	CENTERLINE
(C)	CALCULATED
B.L.F.	CHAIN LINK FENCE
CONC.	CONCRETE
ELEV.	ELEVATION
F.D.O.T.	FLORIDA DEPARTMENT OF TRANSPORTATION
F.H.	FIRE HYDRANT
FND.	FOUND
G	GUTTER
H.C.S.	HANDICAP SIGN
I.	IRON
(M)	MEASURED
MES	MITERED END SECTION
NO.	NUMBER
O.R.B.	OFFICIAL RECORD BOOK
(P)	PLATTED
P.B.	PLAT BOOK
PG.	PAGE
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT-OF-WAY
SQ. FT.	SQUARE FEET
S.S.	STOP SIGN
TBM	TEMPORARY BENCHMARK
TC	TOP OF CURB
W.M.	WATER METER
W.V.	WATER VALVE
	PALM TREE
	OAK TREE



VICINITY MAP
N.T.S.

PROPERTY DESCRIPTION:

PORTION OF LOT 1B, CIRRUS, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 77, PAGE 13, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SAID LOT 1B AND LYING ON THE NORTH RIGHT-OF-WAY LINE STATE ROAD 524; THENCE NORTH 88°29'39" EAST, 151.67 FEET ALONG SAID NORTH RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING; THENCE NORTH 01°30'21" WEST, 210.00 FEET OVER AND ACROSS SAID LOT 1B TO THE NORTH LINE OF SAID LOT 1B AND LYING ON THE SOUTH LINE OF LOT 1A OF SAID CIRRUS PLAT; THENCE NORTH 88°29'39" EAST, 314.57 FEET ALONG THE NORTH LINE OF SAID LOT 1B AND THE SOUTH LINE OF SAID LOT 1A; THENCE SOUTH 01°30'21" EAST, 210.00 FEET ALONG THE EAST LINE OF SAID LOT 1B TO THE SOUTHEAST CORNER OF SAID LOT 1B AND SAID NORTH RIGHT-OF-WAY LINE; THENCE SOUTH 88°29'39" WEST, 314.57 FEET ALONG SAID NORTH RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING AND CONTAINING 1.5165 ACRES (66,060 SQUARE FEET) MORE OR LESS.

PAVESE LAW FIRM (AS AGENT/TITLE COMPANY)
COMMITMENT DATE: MARCH 20, 2026

ENCUMBRANCES:

1. EASEMENTS CONTAINED ON THE PLAT OF HOME DEPOT COCOA, AS RECORDED IN PLAT BOOK 57, PAGE 87, AS AFFECTED BY SCRIVENER'S ERROR AFFIDAVIT RECORDED IN O.R. BOOK 5870, PAGE 4433 AND O.R. BOOK 5873, PAGE 5734, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA. ***AFFECTS SUBJECT TRACT. EASEMENTS PLOTTED WHERE APPLICABLE. SCRIVENER'S ERROR AFFIDAVITS DOES NOT AFFECT THE SUBJECT TRACT.***
2. EASEMENTS CONTAINED ON THE PLAT OF CIRRUS, AS RECORDED IN PLAT BOOK 77, PAGE 13, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA. ***AFFECTS SUBJECT TRACT. EASEMENTS PLOTTED WHERE APPLICABLE.***
3. RESTRICTIONS, COVENANTS AND EASEMENTS RECORDED IN O.R. BOOK 3299, PAGE 3156; O.R. BOOK 5859, PAGE 8905, AS AMENDED IN O.R. BOOK 5868, PAGE 8944 AND SHOPPING CENTER EASEMENT AGREEMENT RECORDED IN O.R. BOOK 3516, PAGE 4332 AND ASSIGNMENT OF MAINTENANCE CONTRIBUTION RECORDED IN O.R. BOOK 5859, PAGE 8901 AND AMENDED AND RESTATED RESTRICTIVE COVENANTS AND EASEMENT AGREEMENT RECORDED IN O.R. BOOK 9278, PAGE 638, TOGETHER WITH FIRST AMENDMENT TO AMENDED AND RESTATED RESTRICTIVE COVENANTS AND EASEMENT AGREEMENT RECORDED OFFICIAL RECORDS BOOK 10488, PAGE 155, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA. ***AFFECTS SUBJECT TRACT. EASEMENTS PLOTTED WHERE APPLICABLE.***
4. REUSE MAIN AND WATER LINE & INGRESS/ EGRESS EASEMENT RECORDED IN O.R. BOOK 3372, PAGE 4481, AS AFFECTS BY RESOLUTION NO. 2005-65 RECORDED IN O.R. BOOK 5510, PAGE 2725, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA. ***DOES NOT AFFECT SUBJECT TRACT. EASEMENTS PLOTTED WHERE APPLICABLE.***
5. RESTRICTIVE COVENANTS RECORDED IN O.R. BOOK 3516, PAGE 4342, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA. ***AFFECTS SUBJECT TRACT.***
6. FORCE MAIN AND SEWER LINE & INGRESS/ EGRESS EASEMENT RECORDED IN O.R. BOOK 3372, PAGE 4486, AS MODIFIED BY O.R. BOOK 5557, PAGE 4594 AND WATER LINE & INGRESS/ EGRESS EASEMENT AGREEMENT RECORDED IN O.R. BOOK 5510, PAGE 1779, AS AFFECTED BY RESOLUTION 2024-034 RECORDED IN O.R. BOOK 10040, PAGE 2535, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA. ***DOES NOT AFFECT SUBJECT TRACT. NOT PLOTTABLE.***
7. RESTRICTIVE COVENANT CONTAINED IN DEED RECORDED IN O.R. BOOK 7783, PAGE 2688, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA. ***AFFECTS SUBJECT TRACT. NOT PLOTTABLE.***
8. CIRRUS MIXED-USE DEVELOPMENT AGREEMENT RECORDED IN O.R. BOOK 9059, PAGE 149, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA. ***AFFECTS SUBJECT TRACT. NOT PLOTTABLE.***
9. LOT SPLIT RESOLUTION NO. 2025-041 RECORDED IN O.R.B. 10459, PAGE 823, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA. ***AFFECTS SUBJECT TRACT. PLOTTED.***

NOTES:

1. THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE 'STANDARDS OF PRACTICE'; AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN RULE 5J-17.050 THROUGH 5J-17.053, OF THE FLORIDA ADMINISTRATIVE CODE.
2. THIS SURVEY MAP AND/OR REPORT OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OR DIGITAL SIGNATURE OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
3. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
4. THE FEATURES SHOWN HEREON ARE REFERENCED TO THE HORIZONTAL DATUM FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT (NAD83/11) AND THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
5. THIS SURVEY WAS PREPARED FOR THE PURPOSE OF SITE IMPROVEMENTS.
6. ALL DISTANCES SHOWN HEREON ARE U.S. SURVEY FEET (GRID).
7. THE BASIS OF BEARING FOR THIS SURVEY IS THE NORTH RIGHT-OF-WAY OF STATE ROAD 524, SAID BEARING BEING S88°29'39"W.
8. THE PROPERTY LIES IN UNSHADED ZONE "X", AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR BREVARD COUNTY, FLORIDA, MAP NUMBER 12009C0320H, REVISED JANUARY 29, 2021.

TO:
- WMG ACQUISITIONS, LLC, A DELAWARE LIMITED LIABILITY COMPANY
- OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
- PAVESE LAW FIRM

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 7a, 7b1, 7c, 8, 13, 14, 16, 17, AND 18 OF TABLE A THEREOF.

THE FIELD WORK WAS COMPLETED ON APRIL 17, 2024.

Jim Sullivan
Digitally signed by Jim Sullivan
DN: CN=Jim Sullivan, OU=Staff, O=Surveyor, emailAddress=JSullivan@bgeinc.com, C=US
Date: 2026.04.03 11:10:42-04'00'

JIM SULLIVAN, PSM LS6889
BGE, INC.
4440 PGA BLVD., SUITE 104
PALM BEACH GARDENS, FLORIDA 33410
TELEPHONE: (561) 559-2280

JIM SULLIVAN License Number 6889 STATE OF FLORIDA Professional Surveyor and Mapper

REVISIONS	
DATE	NOTES
01/08/2026	UPDATED TITLE COMMITMENT
04/03/2026	UPDATED TITLE COMMITMENT

BGE, Inc.
4440 PGA Blvd., Suite 104, Palm Beach Gardens, FL 33410
Tel: 561-559-2280 • www.bgeinc.com
Florida Licensed Surveying Firm No. LB8533

Copyright 2026

1.5165 ACRE – PARCEL 2 BOUNDARY SURVEY HEARTLAND DENTAL – COCOA SECTION 18–T24S–R36E BREVARD COUNTY, FL

PARTY CHIEF: RYAN B.	ISSUE DATE: 09/25/2024		
TECHNICIAN: BRIANNE M.	SCALE: 1"=60'	SHEET	1
P.S.M.: JIM S.	JOB NUMBER: 13020	OF	2
FIELD BOOK NAME: RB3			
BASE FILE: G:\FLA\Projects\WMG_development\13020-00 – Cocoa Heartland GSR\SV			

\\bgeinc\data\FLA\Projects\WMG_development\13020-00 – Cocoa Heartland GSR\4 Finish\Drawings\1.5165ACR13 Sheet 4/3/2026 11:07 AM Jim Sullivan

THIS INSTRUMENT PREPARED BY
AND RETURN TO:
Debra M. Thompson, Esq.
Kutak Rock LLP
303 Peachtree Street, Suite 2750
Atlanta, GA 30308

Folio No. 24-36-18-27-00000.0-0001.00

SPECIAL WARRANTY DEED

THIS INDENTURE, made this 22nd of December, 2016, by **HOME DEPOT U.S.A., INC.**, a Delaware corporation, whose address is 2455 Paces Ferry Road, C-20, Atlanta, Georgia 30339 ("Grantor"), in favor of **COCOA RETAIL, LLC**, a North Carolina limited liability company, whose address is 1825 Riverview Drive, Melbourne, FL 32901 ("Grantee").

WITNESSETH:

That the Grantor, for and in consideration of the sum of Ten Dollars ($10.00) and other good and valuable consideration, to it in hand paid, the receipt whereof is hereby acknowledged, by these presents does grant, bargain, sell, alien, remise, release, convey and confirm unto the Grantee, all of that certain parcel of land lying and being in the City of Cocoa, Brevard County, Florida, as more particularly described on Exhibit A attached hereto (the "Property").

TOGETHER WITH all the tenements, hereditaments, and appurtenances thereto belonging or in anywise appertaining.

EXCEPT AS EXPRESSLY SET FORTH HEREIN, GRANTOR MAKES NO REPRESENTATIONS, WARRANTIES OR COVENANTS RELATIVE TO THE PROPERTY, AND SUCH PROPERTY IS SOLD "AS-IS", "WHERE-IS" AND "WITH ALL FAULTS", AND WITHOUT ANY WARRANTIES, EXPRESS OR IMPLIED, OF ANY KIND FROM GRANTOR, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF FITNESS, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, HABITABILITY, TENANTABILITY OR ENVIRONMENTAL CONDITION. SELLER EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES WITH RESPECT TO THE PROPERTY, EXCEPT AS SPECIFICALLY SET FORTH HEREIN. GRANTEE ACKNOWLEDGES BY ITS ACCEPTANCE OF THIS DEED THAT GRANTEE IS A SOPHISTICATED PURCHASER OF PROPERTIES SUCH AS THE PROPERTY AND THAT IT IS RELYING ON ITS OWN EXPERTISE AND THAT OF ITS CONSULTANTS AND GRANTEE SHALL ASSUME THE RISK THAT ADVERSE MATTERS, INCLUDING BUT NOT LIMITED TO, ADVERSE PHYSICAL AND ENVIRONMENTAL CONDITIONS, MAY NOT HAVE BEEN REVEALED BY GRANTEE'S INSPECTION OF THE PROPERTY. BY ITS ACCEPTANCE OF THIS DEED, GRANTEE SHALL BE DEEMED TO HAVE WAIVED, RELINQUISHED AND RELEASED GRANTOR (AND GRANTOR'S OFFICERS, DIRECTORS, SHAREHOLDERS, EMPLOYEES AND AGENTS) FROM AND AGAINST ANY AND ALL CLAIMS, DEMANDS, CAUSES OF ACTION (INCLUDING CAUSES OF ACTION IN TORT), LOSSES, DAMAGES,

LIABILITIES, COSTS AND EXPENSES (INCLUDING REASONABLE ATTORNEYS' FEES) OF ANY AND EVERY KIND OR CHARACTER, KNOWN OR UNKNOWN, WHICH GRANTEE MIGHT HAVE ASSERTED OR ALLEGED AGAINST GRANTOR (AND GRANTOR'S OFFICERS, DIRECTORS, SHAREHOLDERS, EMPLOYEES AND AGENTS) AT ANY TIME BY REASON OF OR ARISING OUT OF ANY LATENT OR PATENT PHYSICAL CONDITIONS, VIOLATIONS OF ANY APPLICABLE LAWS AND ANY AND ALL OTHER ACTS, OMISSIONS, EVENTS, CIRCUMSTANCES OR MATTERS REGARDING THE PROPERTY, EXCEPT ANY SUCH CLAIM, DEMAND, CAUSE OF ACTION, LOSS, DAMAGE, LIABILITY, COST OR EXPENSE ARISING OUT OF ANY BREACH BY GRANTOR OF ANY REPRESENTATION OR WARRANTY EXPRESSLY SET FORTH HEREIN.

THE PROPERTY IS CONVEYED SUBJECT TO THE FOLLOWING RESTRICTIVE COVENANT WHICH IS EXPRESSLY ASSENTED TO BY GRANTEE BY ITS ACCEPTANCE OF THIS DEED:

NO PORTION OF THE PROPERTY SHALL BE USED FOR THE OPERATION OF (I) A HOME IMPROVEMENT CENTER OR HARDWARE STORE, (II) A PAINT STORE CONTAINING MORE THAN 3,000 SQUARE FEET OF FLOOR AREA, OR (III) A FLOORING STORE; PROVIDED, HOWEVER, THAT IN NO EVENT SHALL THE FOREGOING RESTRICTIONS PROHIBIT THE OPERATION OF AN ACADEMY SPORTS + OUTDOORS OR HOBBY LOBBY.

THE AFORESAID COVENANT AND RESRICTIONS SHALL BE PERPETUAL TO THE EXTENT PERMITTED BY APPLICABLE LAW AND SHALL RUN WITH THE LAND AND BIND THE PROPERTY AND SHALL INURE TO THE BENEFIT OF AND BE ENFORCEABLE BY GRANTOR, AND ITS SUCCESSORS OR ASSIGNS, BY ANY APPROPRIATE PROCEEDINGS AT LAW OR IN EQUITY TO PREVENT VIOLATIONS OF SUCH RESTRICTIONS OR TO RECOVER DAMAGES FOR SUCH VIOLATIONS.

TO HAVE AND TO HOLD the Property, with the appurtenances, unto the said Grantee, its successors and assigns, in fee simple forever.

AND GRANTOR HEREBY COVENANTS with Grantee that Grantor is lawfully seized of the Property in fee simple, that the Property is free and clear of all encumbrances except those described on Exhibit B, that Grantor has good, right and lawful authority to sell and convey the same, and that except for any claims arising from or with respect to the encumbrances described on Exhibit B, Grantor hereby fully warrants the title to the Property and will defend the same against the lawful claims and demands of all persons claiming by, through, or under Grantor, but not otherwise. By accepting this deed, Grantee is deemed to have assumed all of Grantor's obligations relating to the Property under the encumbrances described on Exhibit B.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK
SIGNATURE CONTAINED ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the Grantor has caused these presents to be duly authorized in its name and by those thereunto duly authorized, the day and year first above written.

Signed, sealed, and delivered in the presence of:

Print Name: Ivelisse Guadalupe

Print Name: Barbara Turner

HOME DEPOT U.S.A., INC., a Delaware corporation

By: Suzanne Russo
Name: Suzanne Russo
Title: Senior Corporate Counsel

[CORPORATE SEAL]

HOME DEPOT U.S.A., INC. CORPORATE SEAL DELAWARE

STATE OF GEORGIA
COUNTY OF COBB

The foregoing instrument was acknowledged before me on December 12, 2016, by Suzanne Russo, as Sr. Corporate Counsel of HOME DEPOT U.S.A., INC., a Delaware corporation, on behalf of the corporation. Such person is personally known to me or has produced a valid driver's license as identification.

Tracy Allen
NOTARY PUBLIC
Name: Tracy Allen

My Commission expires: 7-6-18

TRACY ALLEN NOTARY PUBLIC CHEROKEE COUNTY GEORGIA EXPIRES JULY 6, 2018

4824-4907-7305.2

EXHIBIT A

LEGAL DESCRIPTION

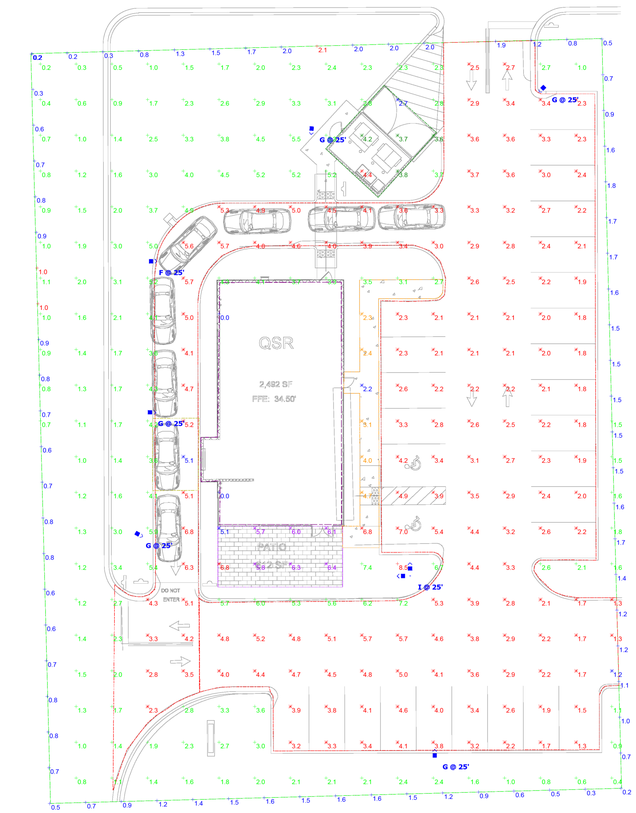
Lot 1, of Home Depot Cocoa, according to the plat thereof recorded in Plat Book 57, Pages 87 through 93, public records of Brevard County, Florida.

EXHIBIT B

1. Taxes and assessments for the year 2017 and subsequent years not yet due and payable.

2. All easements, restrictions and encroachments of record or which would be ascertainable by an inspection or survey of the Property.

3. All existing zoning laws and ordinances.



SITE PHOTOMETRICS

1 E0116 — 1/4" = 1'-0"

Schedule

Symbol	Label	QTY	Manufacturer	Catalog	Description	Number Lamps	Input Power
	F	1	Lithonia Lighting	DSX1 LED P6 40K 70CRI T4M	D-Series Size 1 Area Luminaire P6 Performance Package 4000K CCT 70 CRI Type 4 Medium	1	165.25
	G	5	Lithonia Lighting	DSX1 LED P6 30K 70CRI T4M HS	D-Series Size 1 Area Luminaire P6 Performance Package 3000K CCT 70 CRI Type 4 Medium Houseside Shield	1	165.2497
	I	1	Lithonia Lighting	DSX1 LED P6 40K 70CRI T4M	D-Series Size 1 Area Luminaire P6 Performance Package 4000K CCT 70 CRI Type 4 Medium	1	330.5

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking/Drive Aisle		3.4 fc	7.0 fc	1.2 fc	5.8:1	2.8:1
Patio		6.0 fc	6.8 fc	5.1 fc	1.3:1	1.2:1
Pickup Window		5.1 fc	5.2 fc	5.1 fc	1.0:1	1.0:1
PL		1.3 fc	2.1 fc	0.2 fc	10.5:1	6.5:1
PL2		0.7 fc	1.0 fc	0.2 fc	5.0:1	3.5:1
Site		3.1 fc	8.5 fc	0.0 fc	N/A	N/A
Walkway		3.6 fc	6.8 fc	2.2 fc	3.1:1	1.6:1
Dumpster Enclosure		3.7 fc	4.4 fc	2.7 fc	1.6:1	1.4:1

GPD GROUP, INC.
LIC. # - 30920

520 South Main Street, Suite 2531
Akron, Ohio 44311
Ph. 614.210.0751 F. 614.210.0752

STEVEN P. SCHAUB
LICENSE No. 75207

REV.	DESCRIPTION	DATE

STEVEN P. SCHAUB LICENSE No 75207 STATE OF FLORIDA PROFESSIONAL ENGINEER
09/25/25

COCOA BEACHLINE FL SHELL
INDUSTRY RD & STATE RD 524
COCOA, FL 32926

SITE PHOTOMETRICS

	DATE
PERMIT	06/30/25
BID	--/--/----
CONSTRUCTION	--/--/----
RECORD	--/--/----

PROJECT MANAGER	DESIGNER
BM	MS

JOB NO.
2024201.25

E0116

Technical Memorandum

To:	City of Cocoa	
From:	Elliese Shaughnessy, PE	
Date:	1-7-25	
Subject:	Hydraulic Calculations	

Project Background

This project is located at the Cirrus Development on Industry Rd and Highway 524 in the City of Cocoa, Florida.



The proposed project consists of a 2,500 square foot quick service restaurant and a 4,200 square foot dental office.

The development has a several water mains looped through the apartments and commercial development ranging from 6” to 12” and 7 hydrants. The commercial projects

will be two separate taps to the 6” water main that runs along the eastern boundary of the eastern parcel.

Potable Water Demand Design Flows

Per FAC 64E-6.008 Table I “For System Design”, the estimated flows are calculated:

Type	**Gallons per Day**	**Number**	**Total**
Dentist Office	250 / practitioner 15 / 8-hour employee	1 14	250 210
Restaurant – using single service articles only and operating 16 hours or less per day per seat	20 / seat	60	1200
Total			1660

Type	**Average Daily Flow**		**Maximum Daily Flow (2 * ADF)**		**Peak Daily Flow (4 * ADF)**	
	GDP	**GPM**	**GPD**	**GPM**	**GPD**	**GPM**
Dentist	460	0.32	920	0.64	1,840	1.28
Restaurant	1,200	0.83	2,400	1.67	4,800	3.33
Total	860	1.15	3,320	2.31	6,640	4.61

Water meter sizing is calculated as a minimum of 1.5” for both the dentist office and restaurant per the AWWA M22 Manual Spreadsheet, attached at the end of this report.

Fire Demand Flows

Per NFPA 1, Table 18.4.5.2.1, the fire flow demand is as follows (not spinklered):

Dentist Office	Type IIB	4,200 square foot	1500 gpm / 2 hours
Restaurant	Type IIB	2,500 square foot	1500 gpm / 2 hours
Total			3000 gpm / 2 hours

NORTH

RIM=30.32
E INV=23.62
SW INV=23.44

ADJUST RIM TO ELEV=31.70

SE INV=24.83
W INV=24.61

±40 LF 1" COPPER SERVICE

TRASH COMPACTOR

3/4" COPPER SERVICE

10'x10' TRANSFORMER PAD

GARAGE TYPE THREE

8" PVC

18 LF 8" PVC @ 1.00%

MAINTENANCE BUILDING

GARAGE TYPE ONE

SMH1
RIM=31.29
W INV=24.09
SE INV=24.19

74 LF 8" PVC @ 1.00%

CO3A
RIM=32.75
NE INV=25.18

CHAIN LINK FENCE

10'x10' TRANSFORMER PAD

ADJUST RIM TO ELEV=32.15

SMH2
RIM=31.46
NW INV=25.95
S INV=26.05

SMH3
RIM=31.48
E INV=22.58
S INV=22.53

GARAGE TYPE TWO

CD1

232 LF 8" PVC @ 0.44%

8" PVC WM

4" PVC WM

GARAGE TYPE SEVEN

63 LF 8" PVC @ 0.36%

CD2

112 LF 8" PVC @ 0.36%

51 LF 8" PVC @ 1.00%

CO2A
RIM=32.65
NW INV=24.93

SMH6
RIM=30.62
NE INV=22.37
S INV=22.23

FIRE HYDRANT ASSEMBLY

FIRE DEPARTMENT CONNECTION (FDC)

SMH2
RIM=31.54
W INV=22.98
E INV=23.08

CO1A
RIM=32.75
N INV=24.21

8" TEE
8"x4" REDUCER
4" GATE VALVE
8" GATE VALVE

CO1B
RIM=33.00
W INV=22.33

BUILDING TYPE ONE
FFE=33.00

ADJUST RIM TO ELEV=31.85

23 LF 8" PVC @ 1.00%

4" PVC WM

6" SDR14 FIRE LINE

8" PVC WM

8" TEE
8"x4" REDUCER
4" GATE VALVE

FIRE HYDRANT ASSEMBLY

18" RM DIP

8" PVC WM

ADJUST RIM TO ELEV=32.40

CO1C
RIM=32.90
S INV=23.76

SMH7
RIM=30.59
N INV=21.48
S INV=21.43
SW INV=21.30

CO1E
RIM=31.53
E INV=22.85
W INV=22.85

1" COPPER SERVICE

FIRE DEPARTMENT CONNECTION (FDC)

8"x6" TEE

12" TEE
(2)12"x8" REDUCER
(2) 8" GV

BUILDING TYPE TWO
FFE=33.00

49 LF 8" PVC @ 1.00%

CO2B
RIM=32.75
E INV=27.44

FIRE HYDRANT ASSEMBLY

FIRE DEPARTMENT CONNECTION (FDC)

CONNECT TO EXISTING 18" RM

CONNECT TO EXISTING 18" RM

18" TEE
18"x6" REDUCER
35 LF RM AND 6" GV

33 LF 8" PVC @ 1.00%

58 LF 8" PVC @ 1.00%

65 LF 8" PVC @ 1.00%

6" TEE; (2) 6" GV

6" SDR14 FIRE LINE

CO1D
RIM=31.72
N INV=23.43
W INV=23.43

10'x10' TRANSFORMER PAD

RETAIL SHOPPES
DESIGN FFE=33.50

SMH
RIM=27.81

REFER TO IRRIGATION PLANS (BY OTHERS) FOR MAINLINE LOCATIONS AND SIZES

6" SDR14 FIRE LINE

8" PVC WM

CONNECT TO EXISTING 6" WM; PROVIDE 6" GATE VALVE AND TEMPORARY JUMPER METER

12" PVC WM

12" PVC WM

GARAGE TYPE SIX

GARAGE TYPE FIVE

GARAGE TYPE FOUR

12" TEE
12"x8" REDUCER
12" GV; 8" GV

12" TEE; 12"x6" REDUCER; FIRE HYDRANT ASSEMBLY

CONNECT TO EXISTING 6" WM; PROVIDE 6" GATE VALVE AND TEMPORARY JUMPER METER

6" WM

6" PVC WM

935 LF 18" DIP RM

10" PVC

12" TEE
12"x6" REDUCER
12" GV; 6" GV

PUMP ROOM BUILDING WITH (6") DOUBLE DETECTOR CHECK VALVE ASSEMBLY INSIDE

10" FM PVC

SMH8
RIM=31.01
N INV=26.01

SMH7
RIM=32.43
N INV=27.62
SE INV=27.71

SHOPPES OF COCOA NORTH SIGN

12" PVC WM

CVS PHARMACY
#2324
BLDG HGT=30.7
ONE STORY C.B.S
FFE=32.20

BENCHMARK #1
DS RIM=31.55

McDONALD'S RESTAURANT
ONE STORY C.B.S.
FFE=33.97

TRACT "B"
COVENTRY OF COCOA
HOMEOWNERS ASSOCIATION, INC., ORB 2716, PG 1630

PROVIDE 2" METER AND 3" BACKFLOW PREVENTER ASSEMBLY WITH CONCRETE PAD (PAD ELEV=30.0); REFER TO CITY OF COCOA DETAILS

PROVIDE DOUBLE DETECTOR CHECK BYPASS ASSEMBLY WITH CONCRETE PAD; REFER TO CITY OF COCOA DETAILS

PARCEL A
+/- 0.78 AC

322 FEET

PARCEL B
+/- 0.75 AC

EXISTING FIRE HYDRANT

NORTH R/W LINE OF STATE ROAD No. 524

SHOPPES OF COCOA NORTH SIGN

EXISTING FIRE HYDRANT

DRIVE

A REPLAT OF COVENTRY OF COCOA PB 32, PG 76

87 88 89 90 91 92 93 94 95 96

G:\FL\A\Projects\WMG_development\13020-00 - Cocoa Heartland\02_CADD\03_Exhibit\2026-0107 - utility\utility.dwg

BGE
601 21ST STREET SUITE 410
VERO BEACH, FL 32960
DIRECT: 772-236-3630
www.bgeinc.com

UTILITY

DATE: 1/7/2026

0 40' 80' 120'
SCALE: 1" = 40'

Water Demand Estimate and Meter Sizing Using Fixture Values

(Based on AWWA M22 Manual, Second Edition)

Project Number	QSR
Building address or number	
Residential or Non-Residential	Non-Residential
Pressure Zone at Project	60

Fixture or Appliance	Fixture Value (at 60 psi)	Number of Fixtures	Subtotal Fixture Value
Toilet (tank)	4	2	8
Toilet (flush valve)	35		0
Urinal (wall or stall)	16		0
Urinal (flush valve)	35		0
Bidet	2		0
Shower (single head)	2.5		0
Sink (lavatory)	1.5	2	3
Kitchen Sink	2.2	2	4.4
Utility Sink	4	1	4
Dishwasher	2	1	2
Bathtub	8		0
Clothes Washer	6		0
Hose connections (with 50 ft of hose)			
1/2 in.	5		0
5/8 in.	9		0
3/4 in.	12		0
Miscellaneous			
Bedpan washers	10		0
Drinking fountains	2	2	4
Dental units	2		0
Combined Fixture Value			25.4
Demand (gpm)			25
Pressure Adjustment Factor			1
Total Adjusted demand (gpm)			**25**
Preliminary Demand Size			1"
Velocity (fps)			**10.2**
Required Meter Size			**1-1/2"**

Review by: _____

Approved by: _____

Water Demand Estimate and Meter Sizing Using Fixture Values

(Based on AWWA M22 Manual, Second Edition)

Project Number	Dental Office
Building address or number	
Residential or Non-Residential	Non-Residential
Pressure Zone at Project	60

Fixture or Appliance	Fixture Value (at 60 psi)	Number of Fixtures	Subtotal Fixture Value
Toilet (tank)	4	3	12
Toilet (flush valve)	35		0
Urinal (wall or stall)	16		0
Urinal (flush valve)	35		0
Bidet	2		0
Shower (single head)	2.5		0
Sink (lavatory)	1.5		0
Kitchen Sink	2.2	3	6.6
Utility Sink	4		0
Dishwasher	2		0
Bathtub	8		0
Clothes Washer	6	1	6
Hose connections (with 50 ft of hose)			
1/2 in.	5		0
5/8 in.	9		0
3/4 in.	12		0
Miscellaneous			
Bedpan washers	10		0
Drinking fountains	2	1	2
Dental units	2	12	24
Combined Fixture Value			50.6
Demand (gpm)			44
Pressure Adjustment Factor			1
Total Adjusted demand (gpm)			**44**
Preliminary Demand Size			1 1/2"
Velocity (fps)			**8.0**
Required Meter Size			**1-1/2"**

Review by: _____

Approved by: _____

PAVESE
LAW FIRM

CHARLES MANN
Board Certified Real Estate Attorney
Board Certified Condominium and
Planned Development Law Attorney
Direct dial: (239) 336-6242
Email: charlesmann@paveselaw.com

1833 Hendry Street, Fort Myers, Florida 33901 | P.O. Drawer 1507, Fort Myers, Florida 33902-1507 | (239) 334-2195 | Fax (239) 332-2243

TITLE CERTIFICATION
CIRRUS LOT 1B REPLAT

Pavese Law Firm (as Agent/Title Company)

Plat Number:
Development Order Number:

Effective Date of Title Certification: March 20, 2026

Certified To: City of Cocoa

I have searched the Public Records of Brevard County, Florida and have examined the title to the real property more particularly described in the metes and bounds description attached hereto as Exhibit "A" I have made a careful examination of the Public Records of Brevard County, Florida, with respect to the real property described in attached Exhibit "A." Based on the foregoing, we hereby certify Record Title to the above-described real property, as of the Effective Date of the Title Certification set forth above, is vested in:

Title to the property is vested in:

WMG Acquisitions LLC, a Delaware limited liability company by virtue of that certain Special Warranty Deed recorded in Official Records Book 10488, Page 173, Public Records of Brevard County, Florida.

There are no persons or entities hold a mortgage secured by the property.

All property taxes, due and owing, have been paid on the land described herein as of the date of this opinion.

The following are all easements and rights of way affecting the property to be platted, whether recorded or unrecorded:

1. Easements contained on the Plat of Home Depot Cocoa, as recorded in Plat Book 57, Page 87, as affected by Scivener's Error Affidavit recorded in O.R. Book 5870, Page 4433 and O.R. Book 5873, Page 5734, Public Records of Brevard County, Florida.
2. Easements contained on the Plat of Cirrus, as recorded in Plat Book 77, Page 13, Public Records of Brevard County, Florida.

3. Restrictions, Covenants and Easements recorded in O.R. Book 3299, Page 3156; O.R. Book 5859, Page 8905, as amended in O.R. Book 5868, Page 8944 and Shopping Center Easement Agreement recorded in O.R. Book 3516, Page 4332 and Assignment of Maintenance Contribution recorded in O.R. Book 5859, Page 8901 and Amended and Restated Restrictive Covenants and Easement Agreement recorded in O.R. Book 9278, Page 638, together with First Amendment to Amended and Restated Restrictive Covenants and Easement Agreement recorded Official Records Book 10488, Page 155, Public Records of Brevard County, Florida.

4. Reuse Main and Water Line & Ingress / Egress Easement recorded in O.R. Book 3372, Page 4481, as affects by Resolution No. 2005-65 recorded in O.R. Book 5510, Page 2725, Public Records of Brevard County, Florida.

5. Restrictive covenants recorded in O.R. Book 3516, Page 4342, Public Records of Brevard County, Florida.

6. Force Main and Sewer Line & Ingress / Egress Easement recorded in O.R. Book 3372, Page 4486, as modified by O.R. Book 5557, Page 4594 and Water Line & Ingress / Egress Easement Agreement recorded in O.R. Book 5510, Page 1779, as affected by Resolution 2024-034 recorded in O.R. Book 10040, Page 2535, Public Records of Brevard County, Florida.

7. Restrictive Covenant contained in deed recorded in O.R. Book 7783, Page 2688, Public Records of Brevard County, Florida.

8. Cirrus Mixed-Use Development Agreement recorded in O.R. Book 9059, Page 149, Public Records of Brevard County, Florida.

9. Lot Split Resolution No. 2025-041 recorded in O.R. Book 10459, Page 823, Public Records of Brevard County, Florida.

Note, this is not a certification of ownership or entry rights of any oil, gas, and mineral rights or interests.

This certification is provided pursuant to the requirements of § 177.041, Florida Statute, for the uses and purposes specifically stated therein and is not to be used as the basis for the issuance of a title insurance commitment or policy. Pursuant to s. 627.7843, Florida Statutes, the maximum liability of the issuer of this property information report for errors or omissions in this property information report is limited to the amount paid for this property information report, and is further limited to the person(s) expressly identified by name in the property information report as the recipient(s) of the property information report.

By: _____
Charles Mann
Partner

EXHIBIT "A"

PORTION OF LOT 1B, CIRRUS, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 77, PAGE 13, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SAID LOT 1B AND LYING ON THE NORTH RIGHT-OF-WAY LINE STATE ROAD 524; THENCE NORTH 88°29'39" EAST, 151.67 FEET ALONG SAID NORTH RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING; THENCE NORTH 01°30'21" WEST, 210.00 FEET OVER AND ACROSS SAID LOT 1B TO THE NORTH LINE OF SAID LOT 1B AND LYING ON THE SOUTH LINE OF LOT 1A OF SAID CIRRUS PLAT; THENCE NORTH 88°29'39" EAST, 314.57 FEET ALONG THE NORTH LINE OF SAID LOT 1B AND THE SOUTH LINE OF SAID LOT 1A; THENCE SOUTH 01°30'21" EAST, 210.00 FEET ALONG THE EAST LINE OF SAID LOT 1B TO THE SOUTHEAST CORNER OF SAID LOT 1B AND SAID NORTH RIGHT-OF-WAY LINE; THENCE SOUTH 88°29'39" WEST, 314.57 FEET ALONG SAID NORTH RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING AND CONTAINING 1.5165 ACRES (66,060 SQUARE FEET) MORE OR LESS.

USA TODAY CO.

LocaliQ

PO Box 631244 Cincinnati, OH 45263-1244

AFFIDAVIT OF PUBLICATION

Leonardo Priore
Attn: Accounting Division
City Of Cocoa (Te)
65 Stone St
Cocoa FL 32922-7982

STATE OF WISCONSIN, COUNTY OF BROWN

Before the undersigned authority personally appeared, who on oath says that he or she is the Legal Advertising Representative of the Florida Today, a daily newspaper published in Brevard County, Florida; that the attached copy of advertisement, being a Legal Ad in the matter of Govt Public Notices, was published on the publicly accessible website of Brevard County, Florida, or in a newspaper by print in the issues of, on:

BRE Brevard Florida Today 03/17/2026
BRE floridatoday.com 03/17/2026

Affiant further says that the website or newspaper complies with all legal requirements for publication in chapter 50, Florida Statutes.
Subscribed and sworn to before me, by the legal clerk, who is personally known to me, on 03/17/2026

Legal Clerk

Notary, State of WI, County of Brown

5·15·27

My commission expires

Publication Cost:	$418.07	
Tax Amount:	$0.00	
Payment Cost:	$418.07	
Order No:	12168039	# of Copies:
Customer No:	1127247	1
PO #:		

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

NANCY HEYRMAN
Notary Public
State of Wisconsin

Ad#12168039 03/17/2026

CITY OF COCOA
NOTICE OF PUBLIC HEARING
NOTICE IS HEREBY GIVEN THAT THE PLANNING & ZONING BOARD/LOCAL PLANNING AGENCY
AND CITY OF COCOA COUNCIL PROPOSE TO CONSIDER THE FOLLOWING:

PZ 25-00200014 Sanctuary at Cocoa Townhomes Preliminary Plat, Development Agreement, and Large-Scale Site Plan

Consider the preliminary plat, large scale site plan, and Development Agreement for the Sanctuary at Cocoa Townhomes subdivision, pursuant to Chapter 18, Subdivisions of the City of Cocoa Code of Ordinances, to subdivide 3 parcels into 183 new townhome lots in total consisting of approximately 89.54 acres. Generally located east of Cox Road and north of State Road 520 in Cocoa, Florida, and is identified by Parcel IDs: 24-35-24-00-508, 24-35-24-00-509, 24-35-24-00-510.

PZ 25-00300003 Cirrus Commercial Outparcel Final PUD Amendment (Phase Two), Plat, Development Agreement Amendment, and Large-Scale Site Plan

Consider a final PUD amendment for the commercial portion of the Cirrus Mixed-Use PUD, a subdivision plat of the Cirrus Commercial Outparcels to subdivide Lot 1B of the Cirrus plat consisting of approximately 1.52 acres into two commercial lots pursuant to Chapter 18, Subdivisions of the City of Cocoa Code of Ordinances, a First Addendum to Development Agreement between the City of Cocoa and WMG Acquisitions, LLC, and large-scale site plan of the Cirrus Phase Two Commercial Outparcel, consisting of a Quick-Service Restaurant and Dental Office. Generally located on State Road 524, directly south of State Road 528 and west of East Industry Road in Cocoa, Florida, and is identified by Parcel ID: 24-36-18-28-*-1B.01. The final PUD Amendment shall include the following ordinance:

ORDINANCE 03-2026

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA; AMENDING A PORTION OF THE CIRRUS PLANNED UNIT DEVELOPMENT FINAL DEVELOPMENT PLAN ESTABLISHED VIA ORDINANCE NO. 03-2021 TO INCLUDE THE PHASE TWO COMMERCIAL OUTPARCELS, FOR TWO PARCELS OF REAL PROPERTY, TOTALING 1.5 ACRES, MORE OR LESS, AND GENERALLY LOCATED ON STATE ROAD 524, SOUTH OF STATE ROAD 528 AND WEST OF EAST INDUSTRY ROAD, IN COCOA, FLORIDA, MORE PARTICULARLY DEPICTED AND LEGALLY DESCRIBED ON EXHIBIT "A" ATTACHED HERETO; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, SEVERABILITY, AND AN EFFECTIVE DATE.

PZ 23-00200009 Cocoa Village Bay Estates Small-Scale Site Plan and Preliminary Plat

Consider a small-scale site plan and preliminary plat of the Cocoa Village Bay Estates subdivision, pursuant to Chapter 18, Subdivisions of the City of Cocoa Code of Ordinances, subdividing 3 parcels into 7 new single family lots in total consisting of approximately 8.01 acres. Generally located east of U.S. Route 1 and between North Indian River Drive and U.S. Route 1 and identified as Parcel IDs: 24-36-25-BM-3, 24-36-21-BM-3.02.

Planning and Zoning Board
PUBLIC HEARING WILL BE HELD ON
April 1, 2026
City of Cocoa Council
PUBLIC HEARING WILL BE HELD ON
April 14, 2026
ALL HEARINGS WILL TAKE PLACE AT 6:00 P.M. OR SOON THEREAFTER IN THE COCOA CITY HALL COUNCIL CHAMBERS LOCATED AT 65 STONE STREET, COCOA, FLORIDA 32922

General Notice Information:
This is a public meeting. Interested parties are hereby advised that they may appear at said meeting and be heard. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk of the City of Cocoa, listed below, at least 48 hours prior to the meeting: Monica Arsenault, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8488 or via email at **marsenault@cocoafl.gov**.

Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that if a person decides to appeal any decision

made by the BOA, P&Z Board/LPA or City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made, and such record shall include the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.

The BOA or PZ Board/LPA meeting may include the attendance of one (1) or more members of the Cocoa City Council who may or may not participate in the Board discussions held at this public hearing. The BOA, PZ Board/LPA and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.

Public Participation Information:

Members of the public may view the meeting agenda, ordinances, project applications, supporting documents, and staff reports on the City's website at the following link prior to attending or commenting:

• City of Cocoa meeting calendar at **https://www.cocoafl.gov/291/20338/City-Meetings**

Documents pertaining to the above may also be inspected at the Community Services Department between 8:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8400.

Interested persons may submit their written comments or questions prior to the meeting through Email at **cityclerk@cocoafl.gov** or via E-comments through the online agenda at the link above. Any electronic comments submitted will be made part of the meeting record.

Viewing In Real Time. Interested persons are encouraged to view and listen to the hearings live by accessing the meetings at the following internet address:

• City of Cocoa meeting calendar at **https://www.cocoafl.gov/291/20338/City-Meetings**

However, the City is not responsible for technical difficulties that may occur while attempting to view or listen to the meeting on the internet.


HIGHWAY 524
EAST INDUSTRY RD
CIRRUS DR
WINCHESTER DR
WENTWORTH PL
COVENTRY OF COCOA REPLAT PB 32-76 #26
CIRRUS PB 77-13 #28
3039359 (13.49 AC)
24-36-18
HOME DEPOT COCOA PB 57-87 #27
2461797 (1.69 AC)
2461796 (1.13 AC)
3039360
3039779 (1.52 AC)
2443764 (1.21 AC)
2444615 (8.91 AC)
COCOA COMMONS

Zoning Map



5/1/2026

Cocoa Zoning with Split Lots

C-N - Neighborhood Commercial

C-G - General Commercial

PUD - Planned Unit Development

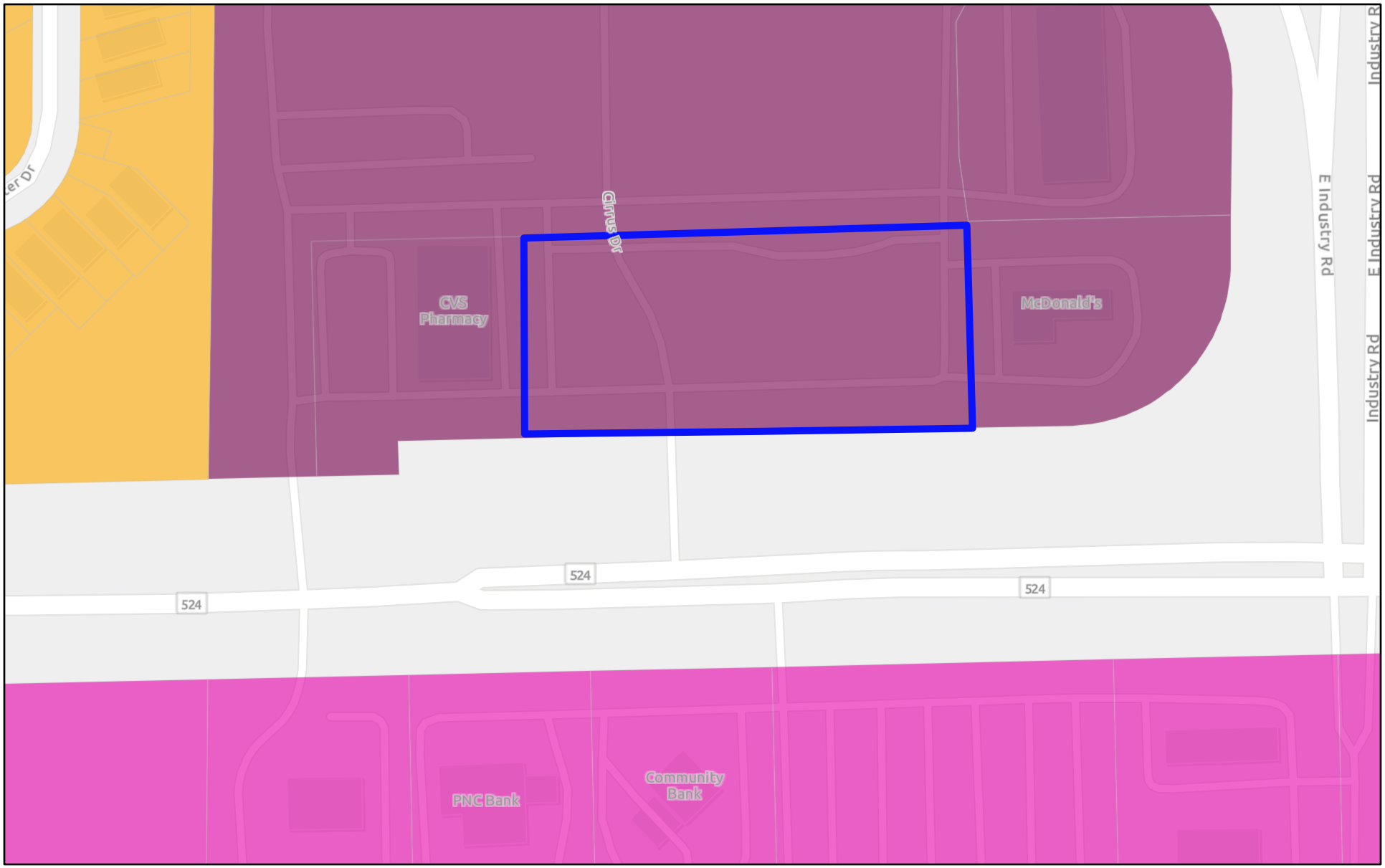
1:1,961

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Brevard County Property

Planning Operations Map



5/1/2026

FLU

Medium Density Residential

Neighborhood Commercial

Commercial

1:1,961

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Planning & Zoning
65 Stone Street • Cocoa, FL 32922
PHONE: (321) 433-8535
www.CocoaFL.gov

May 1, 2026.

Kathryn Smith
WMG Acquisitions LLC
270 W. Plant St, Suite 210
Winter Garden, FL 34787

Re: PZ - 25-00300003 - Cirrus Commercial Outparcel – QSR & Dental Office
PUD Amendment Third Round Comments

Dear Ms. Smith,

City staff have completed their review of your submitted materials. We have made the following comments:

UTILITIES DEVELOPMENT ENGINEERING (321) 433-8797

We have completed our fourth-round review of the Cirrus Commercial Outparcel (UD# CB2026005). Please see our follow-up responses in BLUE below.

General:

1. Please clarify if your project requires an FDEP permit.
    a. **CITY RESPONSE:** Please respond to this question.

2. Please callout any utility conflict and ensure they meet City of Cocoa standards for vertical and horizontal minimum clearances.
    a. **RESPONSE:** Invert labels have been added to conflicts on the utility plans.
    b. **CITY RESPONSE:** Callout the crossing between the proposed reclaimed water line and the force main.
    c. **CITY RESPONSE:** This comment has not been addressed.
3. Please provide the hydraulic model and nodal map for your project. This hydraulic model should simulate worst case scenarios for fire flow plus maximum day

demands per NFPA and AWWA standards. Please ensure that velocities do not exceed 10-15 ft/s and pressures do not fall below 25 psi.
RESPONSE: The hydraulic demand calculations have been sent to the fire department to receive a waiver for the hydraulic model.

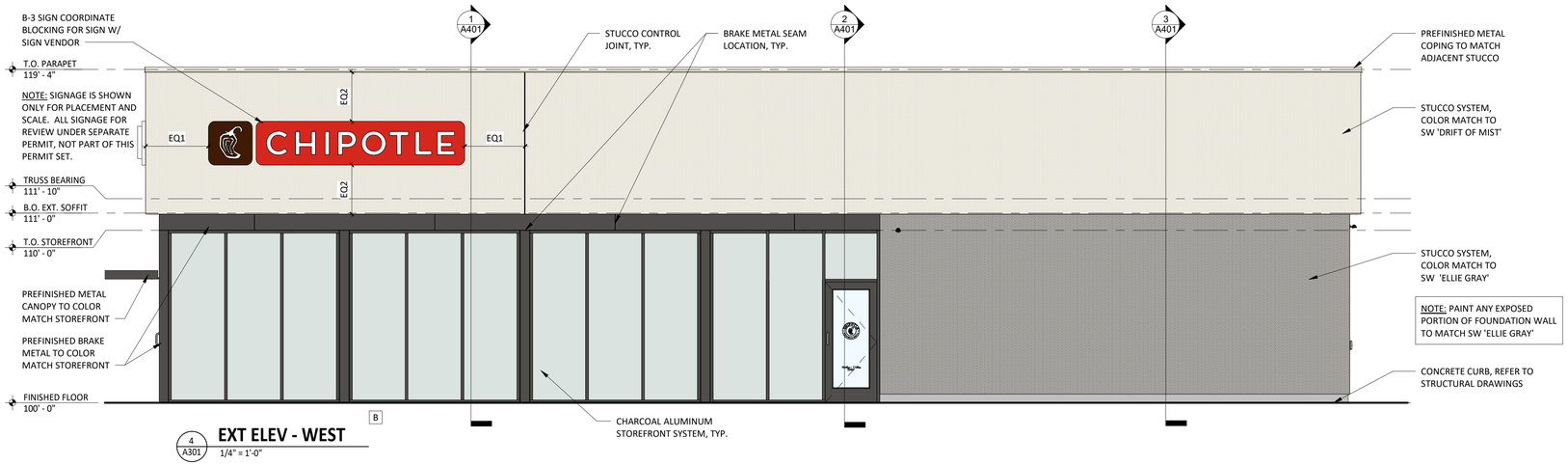
a. **CITY RESPONSE:** The current fire flow demand shows one hydrant connected to the 6" water main with a need of 1500 GPM, this would result in a velocity of 17+ fps in the main and is above the maximum flow velocity (15 fps) per the City of Cocoa Standards. Please make the necessary changes to your design to be within the City of Cocoa Standards.
b. **CITY RESPONSE:** Please address this comment.

4. Fire hydrant flow test was not provided with this submittal. Please submit in the next revision.
    a. **RESPONSE**: A hydrant flow test has been requested. It will be submitted once received.
    b. **CITY RESPONSE:** The hydrant flow test was provided under separate cover, please add the hydrant flow test to the hydraulic report.
    c. **CITY RESPONSE:** Please resubmit the hydraulic report as it was not included in the fourth-round review submittal.

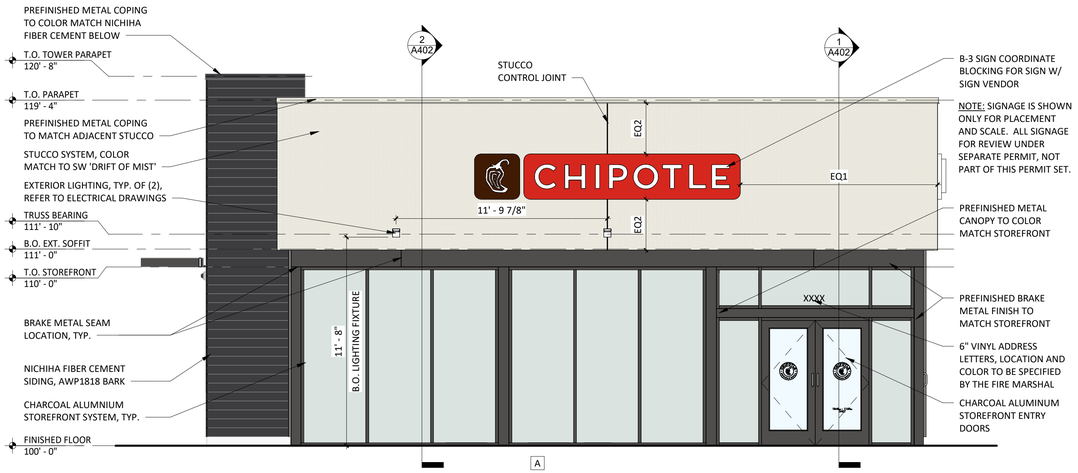
Plat:

1. The private easement on the Dental Office sites needs to be added to the plat (and the construction drawings).

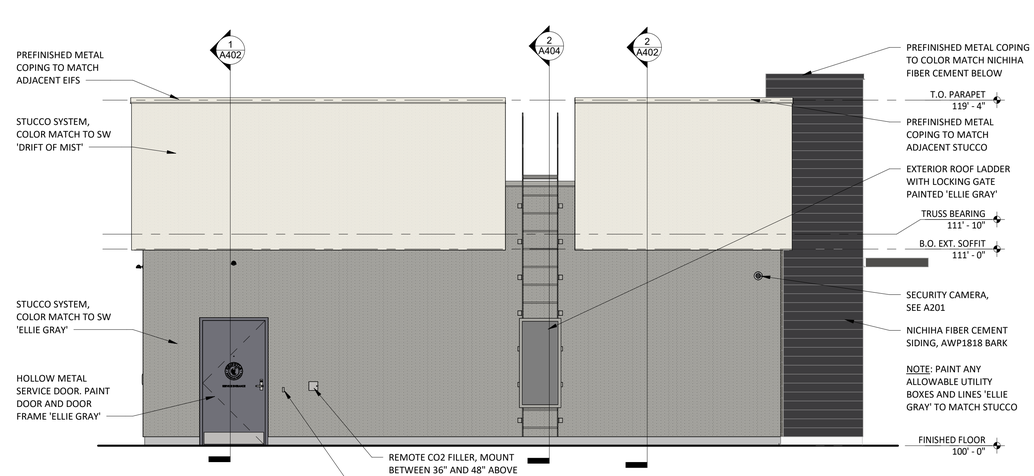
If you have any questions, please contact the City of Cocoa Planning and Zoning Division at cocoaplanning@cocoafl.gov or (321) 433-8535.



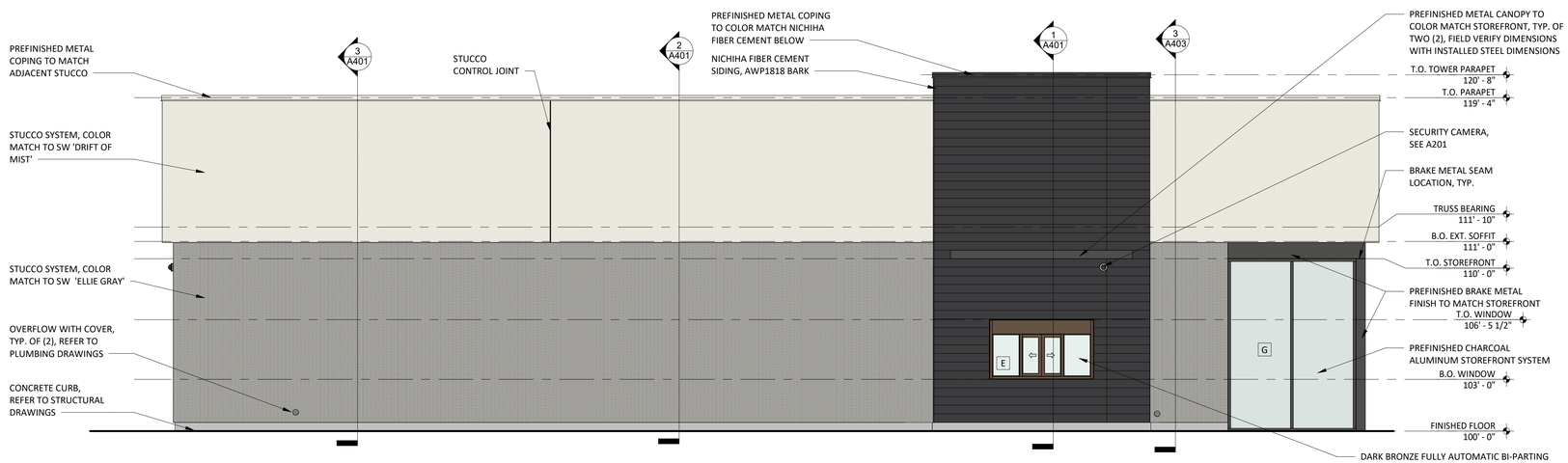
4 A301 **EXT ELEV - WEST**
1/4" = 1'-0"



3 A301 **EXT ELEV - NORTH**
1/4" = 1'-0"



2 A301 **EXT ELEV - SOUTH**
1/4" = 1'-0"



1 A301 **EXT ELEV - EAST**
1/4" = 1'-0"

GENERAL NOTES

1. REFER TO EXTERIOR ELEVATIONS THIS SHEET FOR EXTERIOR SIGNAGE LOCATIONS, SIZES & DESCRIPTIONS.
2. EXTERIOR SIGNAGE PROVIDED BY TSV AND INSTALLED BY TSV. GC TO MAKE FINAL CONNECTION.
3. ALL EXTERIOR CONSTRUCTION AND MATERIALS, BY LL UNDER SHELL CONTRACT, U.N.O.

MATERIALS



NICHIHA
VINTAGEWOOD
BARK (AWP1818)

Mark S. Salopek, LLC

701 W. Lakeside Ave, Apt. # 503
Cleveland, OH 44113
Phone 330.572.2112

REV.	DATE	DESCRIPTION

PRELIMINARY DRAFT NOT FOR CONSTRUCTION, BID, RELIANCE, RECORDING PURPOSES OR IMPLEMENTATION

COCOA BEACHLINE FL SHELL
NWC INDUSTRY ROAD & STATE ROAD 524
COCOA, FL 32926

EXTERIOR ELEVATIONS

	DATE
PERMIT	--/--/----
BID	--/--/----
CONSTRUCTION	--/--/----
RECORD	--/--/----

PROJECT MANAGER	DESIGNER
GPD (HB)	GPD (MA)

JOB NO.
2024201.53

A301

CONCEPTUAL PERSPECTIVES

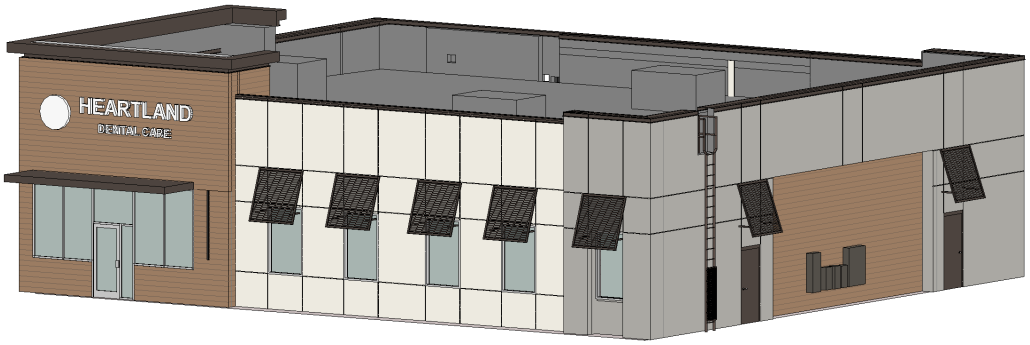
SW 7008 Alabaster Stucco

SW 7650 Ellie Gray Stucco

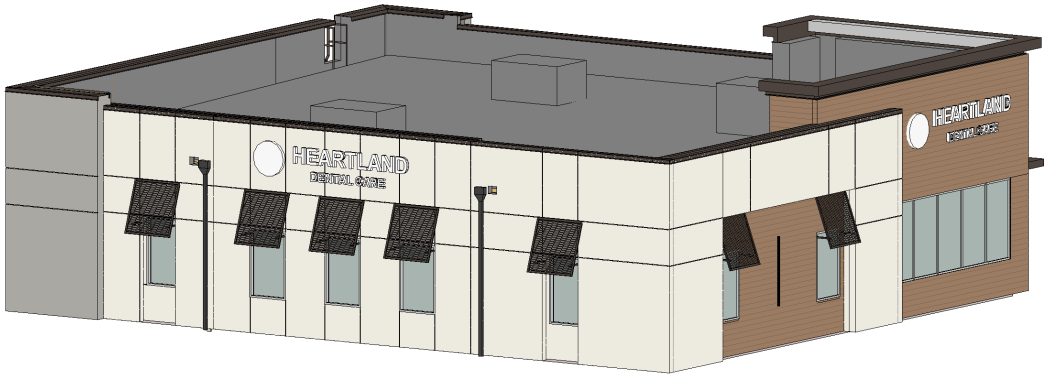
Nichiha Vintagewood Spruce

Pac Clad Burnished Slate

Kawner Clear Annodized Storefront

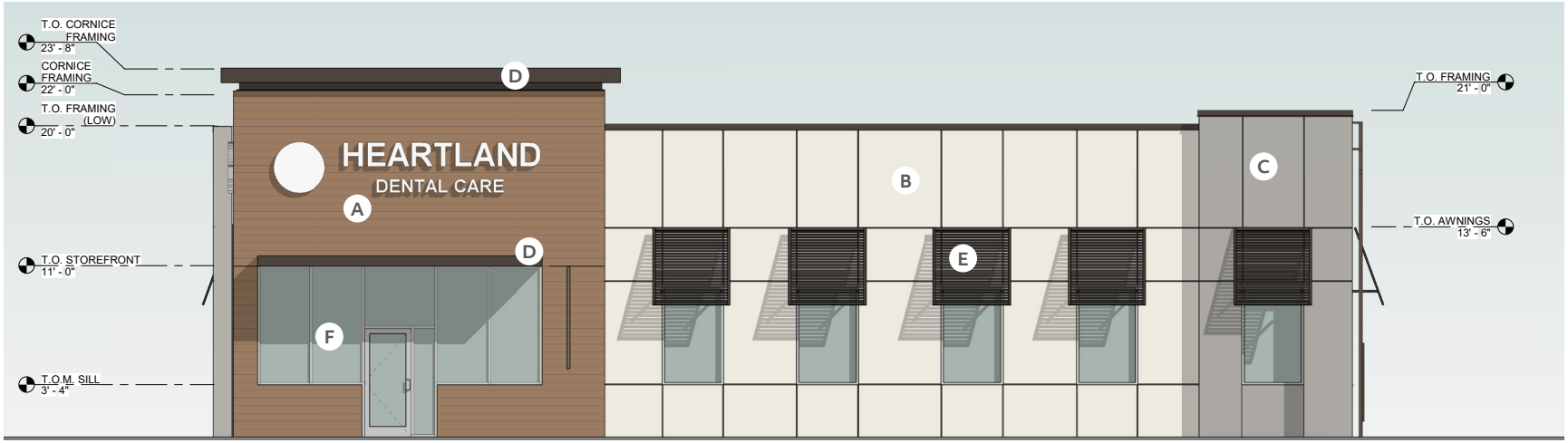


NORTH EAST CORNER

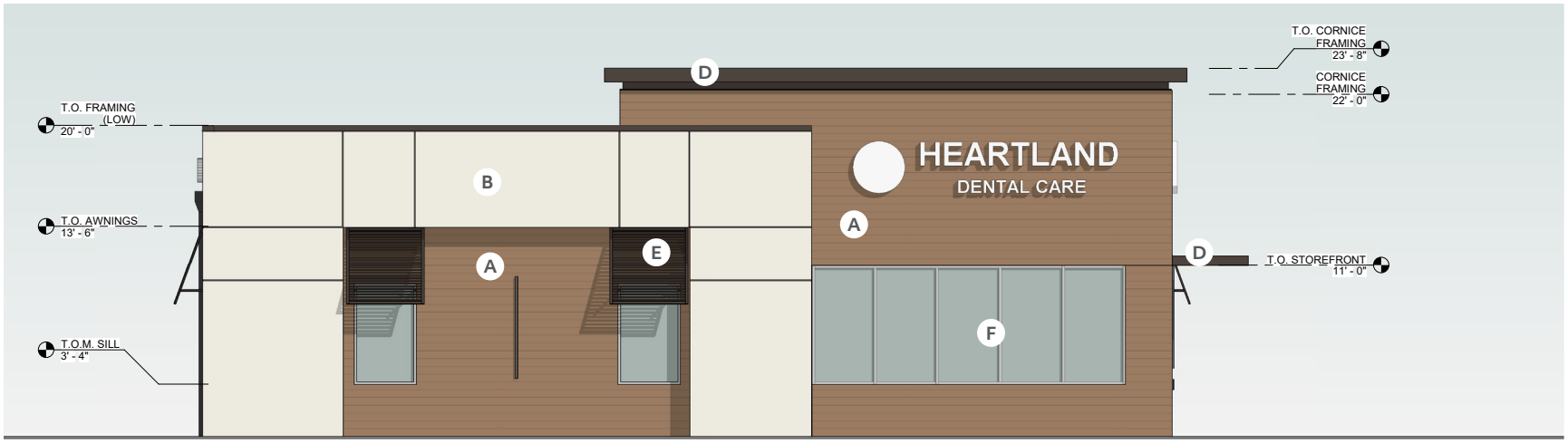


SOUTH WEST CORNER

ELEVATIONS



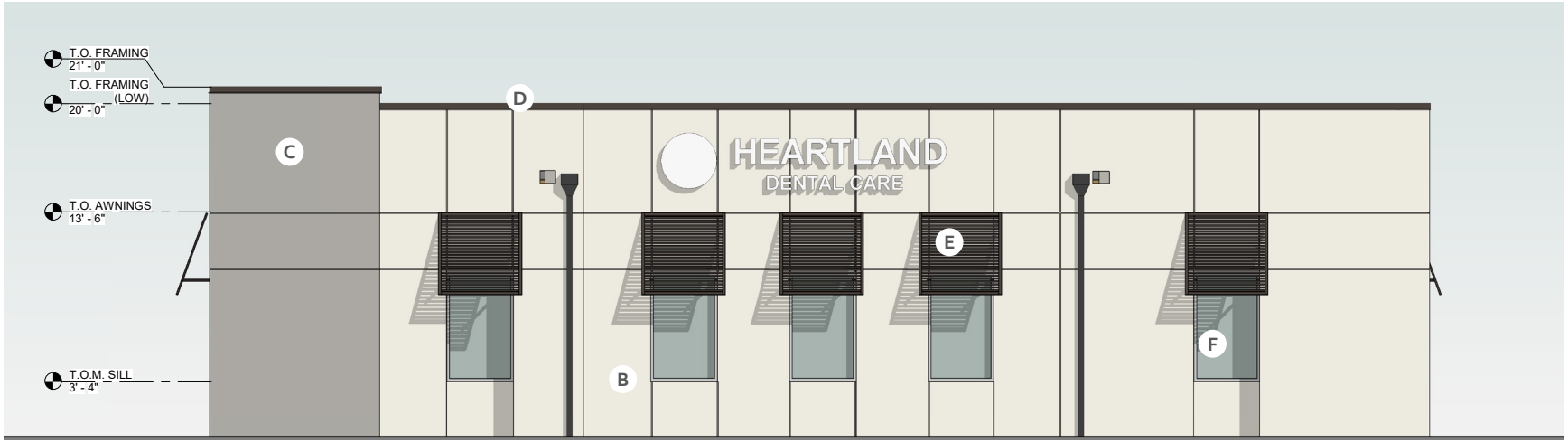
EAST ELEVATION



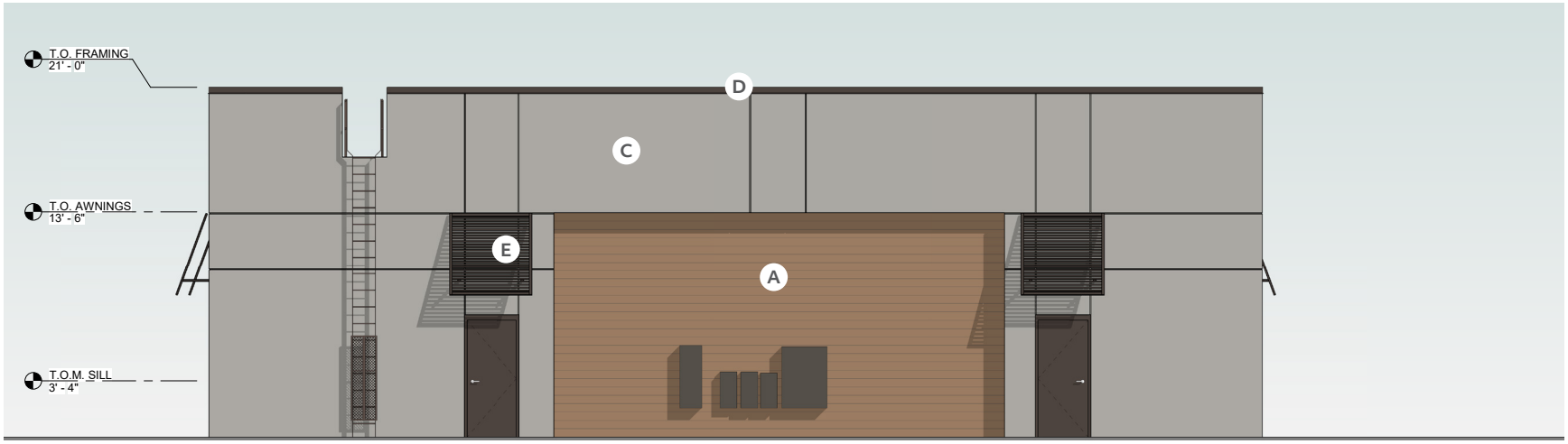
SOUTH ELEVATION

A	B	C	D	E	F
Nichiha Vintagewood Spruce Fiber Cement Siding	Painted STUCCO SW 7008 Alabaster	Painted STUCCO SW 7650 Ellie Gray	Canopy/Coping Pac Clad Burnished Slate	Bahama Awnings Pac Clad Burnished Slate	Kawner Clear Annodized Storefront System

ELEVATIONS



WEST ELEVATION



NORTH ELEVATION

A	B	C	D	E	F
Nichiha Vintagewood Spruce Fiber Cement Siding	Painted STUCCO SW 7008 Alabaster	Painted STUCCO SW 7650 Ellie Gray	Canopy/Coping Pac Clad Burnished Slate	Bahama Awnings Pac Clad Burnished Slate	Kawner Clear Annodized Storefront System

THIS INSTRUMENT PREPARED BY:
Anthony A. Garganese, Esq.
City Attorney
City of Cocoa
65 Stone Street
Cocoa, FL 32922

Return to:
Monica Arsenault
City Clerk
City of Cocoa
65 Stone Street
Cocoa, FL 32922

FIRST ADDENDUM TO DEVELOPMENT AGREEMENT

Cirrus Mixed-Use PUD
Phase 2 Commercial – Lots 2A &2B of Cirrus Lot 1B Replat

THIS FIRST ADDENDUM TO DEVELOPMENT AGREEMENT ("Amended Agreement" or "Agreement") is made and entered into this _____ day of _____, 2026, by and between the **CITY OF COCOA**, a Florida municipal corporation located at 65 Stone Street, Cocoa, Florida 32922 ("City"), and **WMG ACQUISITIONS, LLC**, a Delaware limited liability company authorized to do business in the State of Florida with its principal address at 270 West Plant Street, Suite 210, Winter Garden, Florida 34787 ("Developer").

RECITALS

WHEREAS, the Developer's predecessor in interest was the owner and developer of approximately 15.74 acres, more or less, of real property located within the boundaries of the City of Cocoa, located north of SR 524 and west of Industry Road, which is more particularly described in the Original Agreement, Exhibit "A" (the "**Property**"); and

WHEREAS, Developer's predecessor, Cocoa Retail, LLC, and the City entered into that certain Cirrus Mixed-Use Development Agreement on March 15, 2021, recorded in the Official Records of Brevard County, Florida, Book 9059, Page 149 (the "Original Agreement"), which provided that the Developer would construct or cause to be constructed a commercial-mixed use PUD project on the Property; and

WHEREAS, Phase 1 of the Project consisted of shared infrastructure for the Property and the Cirrus Apartments, which received a certificate of occupancy on January 29, 2025; and

WHEREAS, Developer was obligated to submit and obtain the City's approval of an Amended Final Development Plan for the commercial portion of the Project, Phase 2, on the Commercial Parcel within 48 months of the effective date of the Original Agreement, which has now expired; and

WHEREAS, the City previously approved the Cirrus plat, which created a 2.25-acre commercial frontage lot, Lot 1B, as recorded in the Plat Book of Brevard County, Book 77, Page 13; and

WHEREAS, on July 8, 2025, via Resolution 2025-041, recorded in the Official Records of Brevard County Book 10459, Page 823, the City approved a lot split of Lot 1B to create two separate commercial frontage parcels for future development of the Commercial Phase 2 (denoted as Lot 1 and Lot 2 in Resolution 2025-041); and

WHEREAS, the Developer has applied for a Phase 2 PUD Amendment with an Amended Final Development Plan to develop a portion of the commercial frontage of the Property, specifically Lot 2 as depicted in the approved lot split Resolution 2025-041(the "Project Area"); and

WHEREAS, simultaneously with the Phase 2 PUD Amendment application, the Developer has applied for the "Cirrus Lot 1B Replat" to further subdivide Lot 2 into Lots 2A and 2B for the purposes of constructing a quick-serve restaurant on Lot 2A and a dental office on Lot 2B; and

WHEREAS, the City and Developer mutually desire to amend the Original Agreement to establish the Amended Final Development Plans applicable to Lots 2A and 2B, identify waivers necessary for such Plans; and to correct some scrivener's errors in the Original Agreement; and

WHEREAS, the City Council finds and declares that this Agreement serves a public purpose and serves the public health, safety, and welfare of the citizens of and visitors to Cocoa; and

NOW, THEREFORE, in consideration of the mutual promises and covenants herein and other good and valuable consideration, which the parties agree have been exchanged and received, the parties agree as follows:

1.0 **Recitals.** The foregoing recitals are true and correct and are hereby incorporated herein by this reference.

2.0 **Authority.** This First Addendum to the Original Agreement is entered into pursuant to the Florida Municipal Home Rule Powers Act and Section 15-21.

3.0 **Project Area.** The real property subject to this Addendum consists of Lot 2 of the Cirrus Lot Split Resolution 2025-041 and is legally described in **EXHIBIT "C",** attached hereto and fully incorporated herein by this reference (the "Project Area"). The parties acknowledge that, simultaneously with the Phase 2 PUD Amendment, Lot 2 shall be subdivided into Lots 2A and 2B, respectively.

4.0 **Project Description and Requirements - Phase 2 Commercial.** Developer shall, at its expense, design, permit and construct Phase 2 of the Cirrus Mixed-Use PUD, which shall consist

of an approximately 4,200 square-foot dental office and a 2,500 square-foot quick-service restaurant with parking and landscaping amenities, as more fully set forth on the Amended Final Development Plan that will be kept on file with the City with the following file number and consistent with the requirements contained in this Agreement:

File No. 25-00300003

Collectively, the dental office and quick service restaurant shall be known as the "Phase 2 Commercial Project," or each, the "Dental Office Project" and the "Quick-Service Restaurant Project." For convenience, a copy of the Overall Site Plan sheets for Lots 2A and 2B are attached hereto and fully incorporated herein by this reference as **Exhibit "D."** The Site Plan included as Exhibit "B" of the Original Agreement are hereby amended to include the addition of the Phase 2 Commercial Project as provided in Exhibit "D." The City agrees that the commercial frontage shall consist of three parcels and that Lot 1 remains undeveloped.

5.0 **Utility Services.** Pursuant to the Original Agreement, the Developer is responsible for securing, at Developer's expense, all utility services necessary and required to support the Phase 2 Commercial Project. The Developer shall be required to, at its sole expense, provide sewer design, including upgrades (where required) capable of supporting the Phase 2 Commercial Project for each Lot 2A and 2B in accordance with City specifications. No sewer impact fee credits will be awarded for the actual construction and materials cost.

6.0 **Waivers.** In addition to the City Code waivers provided in Section 3.0(d) of the Original Agreement, the following waivers are provided for the Dental Office Project and the Quick-Service Restaurant Project:

1. Parking Area Ratios for the Dental Office Project shall be 2.5, and for the Quick-Service Restaurant Project the PAR shall be 3.75.
2. A minimum strip twenty (25) feet in width or depth along side and rear lot lines shall not be required as a landscaped buffer strip for Lots 2A and 2B given the nature of the mixed-use PUD.

7.0 **Setbacks.** The following building setbacks shall apply for the Dental Office Project and the Quick-Service Restaurant Project:

1. Rear Setback – 10 feet
2. Front Setback – 10 feet
3. Side Setback – 0 feet

8.0 **Future Permitting.** Developer shall be required to receive building permits and substantially commence vertical construction of buildings, which shall at minimum include building foundations, for both the Dental Office Project and the Quick-Service Restaurant Project within two (2) years of the Effective Date of this Agreement.

Developer shall be required to develop the commercial frontage in three (3) or more parcels. Developer shall be required to submit and process for the City's consideration and approval a second PUD amendment to the Final Development Plans for the remaining Phase 2 commercial lot (Lot 1 as depicted on the Cirrus Lot 1B Replat), pursuant to Appendix A, Zoning Article XI, Section 17(P), within eighteen (18) months of the Effective Date of this Agreement. The City Manager, upon written request by the Developer, is authorized to grant for good cause a one (1) year extension to submit the second PUD amendment to the Final Development Plans for the remaining Phase 2 commercial lot. Any additional time extensions requested by the Developer, in writing, shall require the approval of the City Council. The City shall not unreasonably withhold its consent to any building permit application, provided such applications are consistent with the provisions of this Agreement.

9.0 Uses Permitted – Amended. Section 6.0 of the Original Agreement is amended as follows, with underline indicating additions and ~~strikethrough~~ indicating deletions:

6.0 Uses Permitted. The uses allowed on Phase I of the Property shall be limited to Multi-Family residential. The uses allowed on Phase II of the Property shall be commercial as expressly set forth as follows:

1. Retail stores, sales and display rooms (except automotive) and similar uses, including places such as bakeries in which goods are produced and sold at retail upon the premises;
2. Liquor stores (retail);
3. Personal service establishments such as beauty and barbershops, laundry and dry-cleaning pickup stations, tailor shops and similar uses;
4. Professional offices;
5. Medical and dental clinics and laboratories;
6. Animal clinics and veterinary services;
7. Financial institutions;
8. Business service establishments such as secretarial services, drafting, reproduction services;
9. Restaurants, with or without drive-thru facilities, provided that a restaurant located within 100 feet of adjacent residentially zoned property shall be subject to the following:
   Outdoor entertainment shall be prohibited;
   The restaurant shall be required to close no later than 12:00 ~~PM~~AM on Sunday through Thursday and no later than 2:00 AM on Friday and Saturday;
10. Hotels and motels;
11. Community or cultural centers, art galleries, museums and libraries; and
12. Any other commercial uses compatible with this list of commercial uses and the Phase 1 Multi-Family Project that are requested by the Developer, in writing, and reviewed and approved by the City Council as an amendment to this Agreement.

10.0 **Recordation**. Upon full execution by the Parties, this Addendum shall be recorded in the Public Records of Brevard County, Florida by the City.

11.0 **Miscellaneous.** All terms and conditions of the Original Agreement, which are not expressly and specifically modified by this Addendum, shall continue to remain in full force and effect.

Signed, sealed, and delivered in the presence of the following witnesses:

CITY OF COCOA, A FLORIDA MUNICIPAL CORPORATION

_____
Signature of Witness

_____
Printed Name of Witness

_____
Michael C. Blake, Mayor

_____
Address of Witness

Date: _____

_____
Signature of Witness

_____
Printed Name of Witness

APPROVED AS TO FORM

By: _____
Anthony A. Garganese, City Attorney

_____
Address of Witness

ATTEST:

By: _____
Monica Arsenault, City Clerk

State of Florida
County of Brevard

The foregoing instrument was acknowledged before me by means of [_] physical presence or [_] online notarization, this ___ day of _____, 2026 by Michael C. Blake, the Mayor of the City of Cocoa, on behalf of the City, who [_] is personally known or [_] has produced a driver's license as identification.

[Seal]

_____
Notary Public
Print Name: _____
My Commission Expires: _____

DEVELOPER:

_____
Signature of Witness

_____
Printed Name of Witness

_____
Address of Witness

BY: _____
ITS _____

_____
Print: _____

Date: _____

_____
Signature of Witness

_____
Printed Name of Witness

_____
Address of Witness

State of _____
County of _____

The foregoing instrument was acknowledged before me by means of [_] physical presence or [_] online notarization, this ___ day of _____, 2026 by _____ as _____ of _____, who [_] is personally known or [_] has produced _____ as identification.

_____

[Seal]

Notary Public
Print Name: _____
My Commission Expires: _____

EXHIBIT A
LEGAL DESCRIPTION OF PROPERTY

LOT 1 OF HOME DEPOT COCOA, ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 57, PAGES 87 THROUGH 93, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.

EXHIBIT C
PROJECT AREA LEGAL DESCRIPTION

PROPERTY DESCRIPTION:

PORTION OF LOT 1B, CIRRUS, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 77, PAGE 13, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SAID LOT 1B AND LYING ON THE NORTH RIGHT-OF-WAY LINE STATE ROAD 524; THENCE NORTH 88°29'39" EAST, 151.67 FEET ALONG SAID NORTH RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING; THENCE NORTH 01°30'21" WEST, 210.00 FEET OVER AND ACROSS SAID LOT 1B TO THE NORTH LINE OF SAID LOT 1B AND LYING ON THE SOUTH LINE OF LOT 1A OF SAID CIRRUS PLAT; THENCE NORTH 88°29'39" EAST, 314.57 FEET ALONG THE NORTH LINE OF SAID LOT 1B AND THE SOUTH LINE OF SAID LOT 1A; THENCE SOUTH 01°30'21" EAST, 210.00 FEET ALONG THE EAST LINE OF SAID LOT 1B TO THE SOUTHEAST CORNER OF SAID LOT 1B AND SAID NORTH RIGHT-OF-WAY LINE; THENCE SOUTH 88°29'39" WEST, 314.57 FEET ALONG SAID NORTH RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING AND CONTAINING 1.5165 ACRES (66,060 SQUARE FEET) MORE OR LESS.

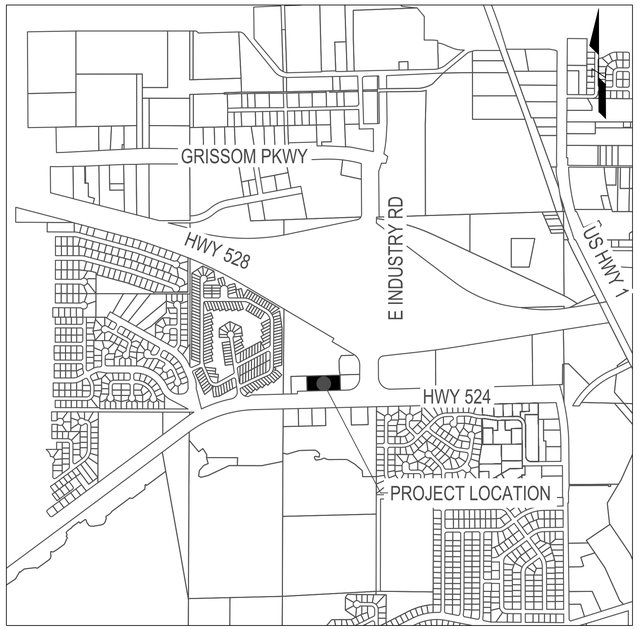
EXHIBIT D
AMENDED FINAL DEVELOPMENT PLAN (OVERALL SITE PLAN) FOR DENTAL OFFICE PROJECT AND QUICK-SERVICE RESTAURANT PROJECT

QUICK SERVICE RESTAURANT AT CIRRUS

MAJOR SITE PLAN

HIGHWAY 524 & INDUSTRY RD
CITY OF COCOA, FL

Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER
C0.1	GENERAL NOTES
C0.2	OVERVIEW AERIAL
C0.3	EXISTING CONDITIONS
C0.4	SWPPP
C0.5	SWPPP - DETAILS
C1.0	SITE PLAN
C1.1	SITE PLAN - DETAILS
C2.0	TRUCK EXHIBIT
C4.0	UTILITIES
C4.1	UTILITIES - DETAILS
C3.0	PAVING GRADING DRAINAGE
C3.1	PGD DETAILS



LOCATION MAP
N.T.S.



VICINITY MAP
N.T.S.

LEGAL DESCRIPTION:

PROPERTY DESCRIPTION FROM SURVEYOR:

A PORTION OF LOT 1, HOME DEPOT COCOA, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 57, PAGE 87, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID LOT 1, THENCE NORTH 88°29'39" EAST, 113.35 FEET ALONG THE SOUTH LINE OF SAID LOT 1, THE SAME BEING THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD 524 AS SHOWN ON FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY MAP SECTION NO. 70007-2501, TO THE SOUTHWEST CORNER OF LOT 2 OF SAID PLAT OF HOME DEPOT COCOA; THENCE NORTH 01°30'21" WEST, 245.00 FEET ALONG THE WEST LINE OF SAID LOT 2 TO THE NORTHWEST CORNER OF SAID LOT 2; THENCE NORTH 88°29'39" EAST, 221.00 FEET ALONG THE NORTH LINE OF OF SAID LOT 2 TO THE NORTHEAST CORNER OF SAID LOT 2 AND THE POINT OF BEGINNING; THENCE CONTINUE NORTH 88°29'39" EAST, 466.24 FEET TO AN INTERSECTION WITH THE EASTERLY LINE OF SAID LOT 1; THENCE SOUTH 01°30'21" EAST, 210.00 FEET ALONG THE EASTERLY LINE OF SAID LOT 1 TO THE SOUTHEAST CORNER OF SAID LOT 1 AND AN INTERSECTION WITH THE SAID NORTH RIGHT-OF-WAY LINE OF STATE ROAD 524; THENCE SOUTH 88°29'39" WEST, 466.24 FEET, ALONG SAID NORTH RIGHT-OF WAY LINE TO THE SOUTHEAST CORNER OF SAID LOT 2; THENCE NORTH 01°30'21" WEST, 210.00 FEET ALONG THE EAST LINE OF SAID LOT 2 TO THE NORTHEAST CORNER OF SAID LOT 2 AND THE POINT OF BEGINNING. SAID PARCEL CONTAINING 2.2477 ACRES +/- OF LAND.

PROPERTY DESCRIPTION FROM TITLE:

PORTION OF LOT 1, HOME DEPOT COCOA, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 57, PAGE 87, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SAID LOT 1 AND RUN ALONG THE BOUNDARY OF SAID LOT 1, N88°34'39" E A DISTANCE OF 113.35 FEET TO THE SOUTHWEST CORNER OF LOT 2 OF SAID HOME DEPOT COCOA; THENCE N 01°25'21" W, ALONG THE WEST LINE OF SAID LOT 2, A DISTANCE OF 245.00 FEET TO THE NORTHWEST CORNER OF SAID LOT 2; THENCE N 88°34'39" E A DISTANCE OF 221.00 FEET TO THE NORTHEAST CORNER OF SAID LOT 2 AND THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED; THENCE CONTINUE N 88°34'39" E, ALONG THE EASTERLY EXTENSION OF THE NORTH LINE OF SAID LOT 2, A DISTANCE OF 466.23 FEET TO THE EASTERLY LINE OF SAID LOT 1; THENCE S 01°25'21" E, ALONG SAID EASTERLY LINE, A DISTANCE OF 210.00 FEET TO THE SOUTHEAST CORNER OF SAID LOT 1, (SAID POINT ALSO BEING A POINT ON THE NORTH RIGHT OF WAY LINE OF STATE ROAD NO. 524); THENCE S 88°34'39" W, ALONG SAID NORTH RIGHT OF WAY LINE, A DISTANCE OF 466.24 FEET TO THE SOUTHEAST CORNER OF SAID LOT 2; THENCE N 01°25'21" W, ALONG THE EAST LINE OF SAID LOT 2, A DISTANCE OF 210.00 FEET TO THE POINT OF BEGINNING.

GENERAL STATEMENT:
THE PROPOSED PROJECT CONSISTS OF A ONE-STORY 4,200 SQ. FT. MEDICAL (DENTAL) OFFICE ON 0.75 ACRES. THE SITE IS AN OUTPARCEL OF THE CIRRUS DEVELOPMENT. THE PROPOSED DENTAL OFFICE WILL BE SERVED BY THE MASTER STORMWATER MANAGEMENT SYSTEM FOR CIRRUS PD. POTABLE WATER ,SANITARY SEWER AND REUSE IRRIGATION WATER SHALL BE PROVIDED BY THE CITY OF COCOA.

ENGINEER:
VITTER ENGINEERING GROUP, LLC
LICENSE #39602
2081 CAVALLA RD
VERO BEACH, FL 32963

ELLIESE SHAUGHNESSY, PE
DIRECT: 772-766-6533

DEVELOPER/ OWNER:
WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

LEAH FITZPATRICK
DIRECT: 407-716-6607

SURVEYOR:
BGE, INC
440 PGA BLVD
PALM BEACH GARDENS, FL 33410

JIM SULLIVAN, PSM
DIRECT: 561-485-0824

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

COVER

QSR AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

CONTACT 811 BEFORE YOU DIG
SAFE DIGGING PARTNER

ELLIESE M. SHAUGHNESSY
LICENSE
No. 92149
STATE OF FLORIDA
PROFESSIONAL ENGINEER

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C0.0

C0.0 Cover.dwg
2/26/2026

GENERAL NOTES

ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY, COUNTY AND STATE REGULATIONS AND CODES AND O.S.H.A. STANDARDS.

NO WORK WITHIN FDOT OR CITY OF COCOA RIGHT OF WAY SHALL TAKE PLACE WITHOUT ALL PERMITS.

EXISTING STRUCTURES WITHIN THE CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID. AREAS TO BE DISTURBED SHALL BE IMPROVED PER THE CIVIL PLANS OR RESTORED TO THEIR ORIGINAL OR BETTER CONDITION. CONTRACTOR SHALL REPAIR ANY EXISTING FEATURES THAT ARE DAMAGED DURING CONSTRUCTION TO THE EXISTING OR BETTER CONDITION.

SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM A SURVEY BY BGE, INC. ALL INFORMATION IS TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

THE CONTRACTOR SHALL EMPLOY ALL NECESSARY BARRICADES, SIGNS, FENCES, FLASHING LIGHTS, TRAFFIC MEN, ETC. FOR MAINTENANCE AND PROTECTION OF TRAFFIC AS REQUIRED BY THE FLORIDA DEPT. OF TRANSPORTATION (FDOT) AS APPLICABLE.

THE CONTRACTOR SHALL PROTECT ALL MONUMENTS, IRON PINS, AND PROPERTY CORNERS DURING CONSTRUCTION.

APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. ANY GRADING BEYOND THE LIMITS OF CONSTRUCTION AS SHOWN ON THE GRADING AND DRAINAGE PLAN WITHOUT AUTHORIZATION IS SUBJECT TO A FINE. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS AND THE CITY OF COCOA.

CONTRACTOR AGREES TO REPAIR ANY DAMAGE TO THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE STANDARDS OF THE FDOT AND CITY OF COCOA.

ALL STANDARD NUMBERS REFER TO THE FDOT STANDARD DETAILS AND SPECIFICATIONS AND THE LATEST EDITION OF THE CITY OF COCOA.

THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE OWNER ANY DISCREPANCIES FOUND BETWEEN THE ACTUAL FIELD CONDITIONS AND THE CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING.

CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.

CONTRACTOR SHALL POST ASSIGNED BUILDING PERMIT NUMBER AND ADDRESS ON BUILDING.

CONTACT THE UTILITY COMPANY TO RELOCATE ANY EXISTING UTILITY AND/OR LIGHT POLES. ALL EXISTING FACILITIES WHICH CONFLICT WITH THE IMPROVEMENTS UNDER THE SCOPE OF THIS PROJECT MUST BE RELOCATED AT THE EXPENSE OF THE CONTRACTOR.

ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE PERFORMANCE STANDARDS AND REQUIREMENTS OF THE CITY OF COCOA LAND DEVELOPMENT REGULATIONS CHAPTER 62, SECTIONS 2251-2272.

LIGHTING SHALL BE DESIGNED, INSTALLED, MAINTAINED, AND DIRECTED SO AS TO AVOID GLARE ON ADJOINING PROPERTIES AND RIGHTS-OF-WAY THROUGH THE USE OF SEMI- AND FULL-CUTOFF SHIELDS.

GRADING NOTES

THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND MOISTURE CONDITION ALL FILL PER THE PROJECT GEOTECHNICAL ENGINEERS SPECIFICATIONS AND IN ACCORDANCE WITH THE GEOTECHNICAL EVALUATION REPORT. FILL MATERIAL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.

THE CONTRACTOR SHALL COORDINATE WITH THE GEOTECHNICAL ENGINEER FOR APPROPRIATE SLOPE STABILIZATION ON ALL SLOPES STEEPER THAN 3:1.

ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.

EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.

CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

ALL PROPOSED CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES.

ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK, AND THIS MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAKING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UTILITIES, AND SHALL REPAIR ALL DAMAGE TO EXISTING UTILITIES THAT OCCUR DURING CONSTRUCTION.

CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.

LIMITS OF CLEARING SHOWN ON GRADING AND DRAINAGE PLAN ARE BASED UPON THE APPROXIMATE CUT AND FILL SLOPE LIMITS, OR OTHER GRADING REQUIREMENTS.

THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SHEETING, SHORING, BRACING AND SPECIAL EXCAVATION MEASURES REQUIRED TO MEET OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS. THE DESIGN ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE DESIGN(S) TO INSTALL SAID ITEMS.

THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ANY DEWATERING AND MOISTURE CONDITIONING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS.

GRADES, ELEVATIONS AND LOCATIONS SHOWN ARE APPROXIMATE. AS DIRECTED BY THE ENGINEER, THEY MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN CONDITIONS. STATIONS, OFFSETS AND ELEVATIONS REFER TO THE CENTER OF DROP INLETS, MANHOLES AND JUNCTION BOXES, AND THE MIDPOINT OF THE LIP FOR CATCH BASINS.

ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.

EROSION CONTROL NOTES

TOTAL AREA DISTURBED = 1.450 ACRES. (±)

LIMITS OF GRADING SHOWN ON THE PLAN ARE MAXIMUM LIMITS FOR EROSION CONTROL PURPOSES ONLY. SURVEYOR TO DETERMINE ACTUAL LIMIT.

CONTRACTOR SHALL COORDINATE ALL WORK WITH CITY OF COCOA.

ALL "STD." NUMBERS REFER TO THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEW MANUAL AND THE FDOT STANDARD DETAILS AND SPECIFICATIONS.

ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.

GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.

ALL AREAS MUST BE SEEDED AND MULCHED WITHIN 14 CALENDAR DAYS. REFER TO EROSION CONTROL ORDINANCE FOR ADDITIONAL REQUIREMENTS.

ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE COUNTY ENGINEERING DEPARTMENT.

SLOPES SHALL BE GRADED NO STEEPER THAN 3:1. FILL SLOPES GREATER THAN 10' REQUIRE ADEQUATE TERRACING.

A GRADING PLAN MUST BE SUBMITTED FOR ANY LOT GRADING EXCEEDING ONE ACRE THAT WAS NOT PREVIOUSLY APPROVED.

DEVIATION FROM THESE PLANS AND NOTES WITHOUT THE PRIOR CONSENT OF THE OWNER, HIS REPRESENTATIVE, OR THE ENGINEER MAY BE CAUSE FOR THE WORK TO BE UNACCEPTABLE.

SUFFICIENT EROSION CONTROL PRACTICES MUST BE INSTALLED AND MAINTAINED TO RETAIN SEDIMENT WITHIN THE BOUNDARIES OF THE SITE. ALL DISTURBED AREAS SHALL BE NONEROSIVE AND SHALL BE GRASSED AS SOON AS CONSTRUCTION PHASES PERMIT AND ALL SLOPES SHALL BE STABILIZED AS SOON AS POSSIBLE. SLOPES SHALL BE STABILIZED WITHIN 14 CALENDAR DAYS.

THE SEDIMENT TRAPS AND DIVERSION DITCHES SHALL BE CLEANED OUT WHEN THE STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED. GRAVEL SHALL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS PROPERLY.

ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED WEEKLY AND AFTER EVERY 0.5 INCH RAINFALL EVENT, BUT IN NO CASE LESS THAN ONCE EVERY WEEK. NEEDED REPAIRS SHALL BE MADE IMMEDIATELY. SUBMIT WRITTEN REPORT WITH EACH INSPECTION TO THE OWNER.

SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCING WHEN IT BECOMES 6-INCHES DEEP AT THE FENCE. THE FENCING WILL BE REPAIRED AS NECESSARY TO MAINTAIN SUFFICIENT BARRIER.

ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO THE PLANS AND SPECIFICATIONS TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

ALL DRAINAGE SWALES MUST BE GRASSED AND RIP-RAP MUST BE REPLACED AS REQUIRED TO CONTROL EROSION. RIP-RAP WILL CONSIST OF 50 TO 125 POUND STONES PLACED AT ALL HEADWALLS, AND WHERE NOTED ON CONSTRUCTION DRAWINGS. (SEE DETAIL SHEET FOR OUTFALL PIPE SIZE CHART)

ADDITIONAL EROSION CONTROL MEASURES OR SILT BARRIERS TO BE PLACED AS DIRECTED BY THE LOCAL JURISDICTIONAL INSPECTOR.

WHEN ANY CONSTRUCTION BORDERS A DRAINAGE COURSE:

A. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY BUILDING OR OTHER EXCAVATION SPOIL DIRT, CONSTRUCTION TRASH OR DEBRIS, ETC., FROM THE DRAINAGE AREA SHOWN HEREON IN A EXPEDITIOUS MANNER AS CONSTRUCTION PROGRESSES.
B. THE CONTRACTOR HEREBY AGREES TO STOP ALL WORK AND RESTORE THESE IMMEDIATELY UPON NOTIFICATION BY THE LOCAL JURISDICTIONAL INSPECTOR AND/OR THE OWNER.

FOR ALL CONSTRUCTION ALONG AND/OR ACROSS WATERWAYS, BANK PROTECTION AND STABILIZATION SHALL BE REQUIRED AS PER LOCAL JURISDICTIONAL EROSION CONTROL LAWS.

ALL TREE PROTECTION AND EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING CONSTRUCTION AND SHALL BE MAINTAINED IN PROPER WORKING ORDER UNTIL ALL DISTURBED AREAS ARE STABILIZED AND GROUND COVER IS ESTABLISHED. CONSTRUCTION ENTRANCE PADS SHALL BE INSTALLED BY THE CONTRACTOR AT CONSTRUCTION ACCESS POINTS PRIOR TO LAND DISTURBANCE.

THE CONTRACTOR SHALL KEEP A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT ON SITE WHENEVER LAND DISTURBING ACTIVITY IS IN PROGRESS.

INSTALL SILT FENCE ALONG THE DOWNSTREAM SIDE OF ALL PROPOSED CUT AND FILL CONSTRUCTION AND AS INDICATED ON PLANS.

A TEMPORARY DIVERSION SWALE MAY BE USED IN LIEU OF SILT FENCE WHERE RUNOFF CAN BE DIRECTED TO A TEMPORARY SEDIMENT TRAP.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM REQUIRED MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL DEVICES TO ENSURE THEIR FUNCTION AT ALL TIMES.

CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED.

WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.

WHEN A CRUSHED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR OR HAS BEEN PUSHED INTO THE SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPLACED WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL APPLICATION.

CONTRACTOR TO PROTECT THE EXISTING EXPOSED SANITARY SEWER MANHOLES AT ALL TIMES DURING THE CONSTRUCTION.

PERFORM A FINAL DEMUCKING OF ALL SEDIMENT CONTROL DEVICES AND RESTABILIZATION OF ANY DISTURBED AREAS BEFORE DEMOBILIZATION.

FIRE DEPARTMENT NOTES

FIRE DEPARTMENT ACCESS DRIVES SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FEET AND SHALL HAVE AN ALL WEATHER DRIVING SURFACE CAPABLE OF SUPPORTING A 40-TON EMERGENCY VEHICLE. THE DRIVING SURFACE SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION.

A CLEAR SPACE OF NOT LESS THAN 60 IN. SHALL BE PROVIDED IN FRONT OF EACH HYDRANT CONNECTION HAVING A DIAMETER GREATER THAN 2-1/2 IN.

A 36 IN. CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS EXCEPT AS OTHERWISE NOTED OR APPROVED.

THE CENTER OF A FIRE HYDRANT HOSE OUTLET SHALL BE NOT LESS THAN 18 IN. ABOVE FINAL GRADE.

FIRE HYDRANTS SHALL NOT BE MORE THAN 12 FT. FROM THE FIRE DEPARTMENT ASSESS ROAD.

THIS PROJECT, DURING CONSTRUCTION AND DURING OPERATION OF THE BUSINESS SHALL CONFORM TO THE CITY OF COCOA'S PERFORMANCE STANDARDS AS DEFINED BY SECTIONS 62-2251-62-2272 OF THE LAND DEVELOPMENT CODE.

GROUND STABILIZATION NOTES

SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE:

ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.

ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.

CONDITIONS - IN MEETING THE STABILIZATION REQUIREMENTS ABOVE, THE FOLLOWING CONDITIONS OR EXEMPTIONS SHALL APPLY:

ALL SLOPES 50' IN LENGTH OR GREATER SHALL APPLY THE GROUND COVER WITHIN 7 DAYS EXCEPT WHEN THE SLOPE IS FLATTER THAN 4:1. SLOPES LESS THAN 50' SHALL APPLY GROUNDCOVER WITHIN 14 DAYS EXCEPT WHEN SLOPES ARE STEEPER THAN 3:1, THE 7 DAY-REQUIREMENT APPLIES.

ANY SLOPED AREA FLATTER THAN 4:1 SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT.

SLOPES 10' OR LESS IN LENGTH SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT EXCEPT WHEN THE SLOPE IS STEEPER THAN 2:1.

ALTHOUGH STABILIZATION IS USUALLY SPECIFIED AS GROUND COVER, OTHER METHODS, SUCH AS CHEMICAL STABILIZATION, MAY BE ALLOWED ON A CASE-BY-CASE BASIS.

UTILITY NOTES

THE CONTRACTOR IS RESPONSIBLE FOR HORIZONTALLY AND VERTICALLY LOCATING AND PROTECTING ALL PUBLIC OR PRIVATE UTILITIES (SHOWN OR NOT SHOWN) WHICH LIE IN OR ADJACENT TO THE CONSTRUCTION SITE. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL CONTACT SUNSHINE 811 AT (800) 432-4770 TO COORDINATE FOR THE IDENTIFICATION OF EXISTING UTILITIES WITHIN THE SITE.

SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED UTILITIES BE ENCOUNTERED, THE CONTRACTOR SHALL CONTACT THE OWNER IMMEDIATELY FOR DIRECTIONS.

CONTRACTOR SHALL COORDINATE ANY INTERRUPTION OF UTILITY SERVICE WITH OWNER AND RESPECTIVE UTILITY COMPANY REPRESENTATIVE.

THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY THE CONTRACTOR SHALL NOTIFY THE UTILITY PROVIDER FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE PROJECT SITE.

ANY PLANNED INTERRUPTION OF UTILITY SERVICE SHALL BE GIVEN A 48 HOUR NOTICE TO THE UTILITY COMPANY AND THE OWNER.

CONTRACTOR SHALL SAW CUT, REMOVE, AND REPLACE ASPHALT PAVEMENT AS NECESSARY TO INSTALL UNDERGROUND ELECTRIC,TELEPHONE, SEWER, WATER, AND COMMUNICATION CONDUITS.

ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL POWER COMPANY STANDARDS.

ALL UTILITIES ARE TO BE UNDERGROUND.

ALL SANITARY SEWER AND REUSE CONSTRUCTION SHALL CONFORM TO THE CRITERIA FOR WATER AND SANITARY SEWERAGE SYSTEMS WITHIN CITY OF COCOA, LATEST EDITION.

ALL POTABLE WATER CONSTRUCTION SHALL CONFORM TO CITY OF COCOA CODE CHAPTER 22 WATER AND SEWERS, AND CITY OF COCOA TECHNICAL PROVISIONS AND STANDARD DETAILS.

UTILITY CONTACTS:
POTABLE WATER, SEWER / REUSE:
CITY OF COCOA UTILITIES
351 SHEARER BLVD.
COCOA, FLORIDA 32922
(321) 433-8700

SEDIMENT AND EROSION CONTROL NOTES

PRIOR TO CLEARING AND EARTHWORK ACTIVITIES THE CONTRACTOR SHALL HAVE A PRE-CONSTRUCTION CONFERENCE WITH THE CITY OF COCOA INSPECTOR; INSTALL EROSION CONTROL DEVICES SPECIFIED AND AS INDICATED ON THE DRAWINGS, AND THEN OBTAIN AN APPROVED GRADING PERMIT. DURING EACH PHASE OF SITE CONSTRUCTION THE CONTRACTOR SHALL ADJUST, RELOCATE AND/OR REINSTALL AS APPLICABLE ALL EROSION CONTROL DEVICES AND SEDIMENT DISCHARGE FROM THE SITE.

SILT FENCE SHALL BE MAINTAINED AROUND THE PERIMETER OF ALL EARTHWORK AREAS TO PREVENT SEDIMENT TRANSPORT ONTO ADJACENT PROPERTIES OR OFFSITE ROADWAYS, AS APPLICABLE.

SILT FENCE FILTER BARRIERS SHALL BE INSTALLED AND MAINTAINED UNTIL CONSTRUCTION IS COMPLETE AND LANDSCAPING IS INSTALLED.

THE CONTRACTOR SHALL IMMEDIATELY CLEANUP AND REPAIR ALL EROSION DAMAGE AFTER DISCOVERY AND REINSTALL ADEQUATE CONTROL MEASURES AS NECESSARY TO PREVENT REOCCURRENCE OF DAMAGE.

ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED WEEKLY AND AFTER EVERY 0.5 INCH RAINFALL EVENT, BUT IN NO CASE LESS THAN ONCE EVERY WEEK. NEEDED REPAIRS SHALL BE MADE IMMEDIATELY. SUBMIT WRITTEN REPORT WITH EACH INSPECTION TO THE OWNER.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS BEEN TEMPORARILY OR PERMANENTLY CEASED. CONTRACTOR SHALL INSTALL TEMPORARY GRAVEL DRIVEWAY AT EACH CONSTRUCTION ENTRANCE AS SHOWN ON THESE PLANS.

CONSTRUCTION POINT OF ACCESS TO LIMIT DEPOSITS OF EARTH AND OTHER HAULED MATERIALS ONTO THE ADJACENT LOT. THE CONTRACTOR SHALL ROUTINELY CLEAN ALL SEDIMENT DEPOSITS AND DEBRIS FROM ROADWAY AS THEY OCCUR.

SEEDBED PREPARATION NOTES

GRADE SLOPES AND FILLS - THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE WHICH CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED SHALL, WITHIN 14 WORKING DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION.

GROUND COVER - WHENEVER LAND DISTURBING ACTIVITY IS UNDERTAKEN ON A TRACT COMPRISING MORE THAN ONE (1) ACRE, IF MORE THAN ONE CONTIGUOUS ACRE IS UNCOVERED, A GROUND COVER SUFFICIENT TO RESTRAIN EROSION MUST BE PLANTED OR OTHERWISE PROVIDED WITHIN 15 WORKING DAYS ON THAT PORTION OF THE TRACT UPON WHICH FURTHER ACTIVE CONSTRUCTION IS NOT BEING UNDERTAKEN.

SURFACE WATER CONTROL MEASURES TO BE INSTALLED ACCORDING TO PLAN.

LOOSE ROCKS, ROOTS, AND OTHER OBSTRUCTION SHALL BE REMOVED FROM THE SURFACE SO THAT THEY WILL NOT INTERFERE WITH ESTABLISHMENT AND MAINTENANCE OF VEGETATION. SURFACE FOR FINAL SEEDBED PREPARATION, AT FINISH GRADES SHOWN, SHALL BE REASONABLY SMOOTH AND UNIFORM.

IF NO SOIL TEST IS TAKEN, FERTILIZER AND LIME ACCORDING TO SEEDING SPECIFICATIONS.

RETAINING WALL NOTES

DESIGN OF ALL RETAINING WALLS IS TO BE PER FLORIDA BUILDING CODE.

CONTRACTOR SHALL PROVIDE DETAILED RETAINING WALL DESIGN DRAWINGS, SEALED BY A FLORIDA LICENSED ENGINEER, AND SHALL SUBMIT TO THE LOCAL AUTHORITY FOR APPROVAL PRIOR TO CONSTRUCTION.

A FLORIDA LICENSED ENGINEER MUST PERFORM CONSTRUCTION OBSERVATION, VERIFYING IN A SEALED LETTER TO THE LOCAL AUTHORITY, ENGINEER AND OWNER THAT RETAINING WALLS ARE CONSTRUCTED PER THE ENGINEERING DRAWINGS IN COMPLIANCE WITH FLORIDA BUILDING CODE.

DEMOLITION NOTES

1. ALL MATERIAL REMOVED FROM THIS SITE BY THE CONTRACTOR SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER AT THE CONTRACTOR'S EXPENSE.
2. REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC., LOCATED WITHIN THE PROJECT SITE. UNLESS OTHERWISE NOTED, ALL EXISTING BUILDINGS, STRUCTURES, SLABS, CONCRETE, ASPHALT, DEBRIS PILES, SIGNS, AND ALL APPURTENANCES ARE TO BE REMOVED FROM THE SITE BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN A LEGAL MANNER AS PART OF THIS CONTRACT. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
3. THE CONTRACTOR SHALL REFER TO THE DEMOLITION PLAN FOR DEMOLITION /PRESERVATION OF EXISTING TREES. ALL TREES NOT SPECIFICALLY SHOWN TO BE PRESERVED OR RELOCATED SHALL BE REMOVED AS A PART OF THIS CONTRACT. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY DEMOLITION.

PAVING, GRADING AND DRAINAGE NOTES

1. ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN JURISDICTIONAL RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR FDOT SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS.
2. ALL UNPAVED AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SODDED.
3. TRAFFIC CONTROL ON ALL FDOT, LOCAL AND COUNTY RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
4. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED OR ADEQUATE STABILIZATION OCCURS.
5. ALL OPEN AREAS WITHIN THE PROJECT SITE SHALL BE SEEDED UNLESS INDICATED OTHERWISE NOTED ON THE LANDSCAPE PLAN.
6. ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON THE DRAWINGS.
7. WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND REPLACE THE PAVEMENT WITH THE SAME TYPE AND DEPTH OF MATERIAL AS EXISTING OR AS INDICATED.
8. WHERE NEW PAVEMENT MEETS THE EXISTING PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING PAVEMENT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND MATCH THE EXISTING PAVEMENT ELEVATION WITH THE PROPOSED PAVEMENT UNLESS OTHERWISE INDICATED.
9. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.
10. STRIP TOPSOIL AND ORGANIC MATTER FROM ALL AREAS OF THE SITE AS REQUIRED. IN SOME CASES TOPSOIL MAY BE STOCKPILED ON SITE FOR PLACEMENT WITHIN LANDSCAPED AREAS BUT ONLY AS DIRECTED BY THE OWNER.
11. FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY OR TO FDOT STANDARDS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
12. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE SEEDED AS SPECIFIED IN THE PLANS, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE SEEDED AND MULCHED AS SHOWN ON THE LANDSCAPING PLAN.
13. ALL CUT OR FILL SLOPES SHALL BE 3 (HORIZONTAL) :1 (VERTICAL) OR FLATTER UNLESS OTHERWISE SHOWN.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
15. THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS. AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE.
16. SEED, WHERE CALLED FOR, MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.
17. THE CONTRACTOR SHALL ENSURE THAT ISLAND PLANTING AREAS AND OTHER PLANTING AREAS ARE NOT COMPACTED AND DO NOT CONTAIN ROAD BASE MATERIALS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED AND PROPERLY DISPOSED OF IN A LEGAL MANNER.
18. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER MANUFACTURER'S RECOMMENDATIONS.

TYPICAL ENGINEER OBSERVATIONS

1. PRE-CONSTRUCTION MEETING.
2. SUBGRADE PREPARATION.
3. BASE INSTALLATION.
4. ASPHALT INSTALLATION.
5. UNDERGROUND PIPING AND UTILITIES INSTALLATION.
6. INSTALLATION OF STRUCTURES, DDCV, HYDRANTS, METERS, ETC.
7. SIDEWALK BASE AND CONCRETE INSTALLATIONS.
8. CONNECTIONS TO WATER AND SEWER

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

DRAWN BY:
ES

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

OVERVIEW AERIAL

QSR AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

ELLISE A. SHAUGHNESSY
LICENSE
No. 92149
STATE OF FLORIDA
PROFESSIONAL ENGINEER

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C0.2

2/26/2026 C0.2 Aerial.dwg

20' FORCE MAIN EASEMENT
O.R.B. 3372, PG. 4486 B.C.P.R.

20' WATER MAIN &
INGRESS/EGRESS EASEMENT
P.B. 57, PG. 87 B.C.P.R.

EXIST. 18" RCP

EXIST. 18" DIP

EXIST. 10" PVC

10" PVC

N 88°29'39" E 466.24'

EXIST. 18" RCP

EXIST. 18" RCP

MCDONALD'S CORPORATION
O.R.B. 3510, PG. 3228 B.C.P.R.

FOUND 12"L ROD
ILLEGIBLE
0.19' WEST
0.11' NORTH

R/M 32.31
N INV: 27.62
SE INV: 27.71

20' WATER MAIN EASEMENT
O.R.B. 5510, PG. 1779 B.C.P.R

LOT 3
PARCEL ID: 24-36-18-27-*-3
OWNER: RDI DEVELOPERS, LLC
O.R.B. 5859, PG. 8905 B.C.P.R.

PARCEL ID: 24-36-18-00-254
MCDONALDS CORPORATION
O.R.B. 3510, PG. 3228 B.C.P.R.

2.2477 ACRES
97,910 SQ. FT.
PARCEL ID: 2436-18-27-*-1.01
OWNER: COCOA RETAIL, LLC

INLET TOP: 32.66
INV: 27.57 (18" RCP)

INLET TOP: 31.61
E. INV: 28.39 (18" RCP)

S 01°30'21" E (C) 210.00'

20' WATER
MAIN EASEMENT
O.R.B. 5510,
PG. 1779 B.C.P.R.

SHARED ACCESS
EASEMENT
PB 77 PAGE 13

0.20 AC ACCESS EASEMENT

S 88°29'39" W (M) 466.24'

CONCRETE SIDEWALK

CONCRETE SIDEWALK

ASPHALT

CURB

DO NOT ENTER SIGN

NO LEFT TURN SIGN

STATE ROAD 524

N

0 20 40 Feet

DRAWN BY:
ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

EXISTING CONDITIONS

QSR AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

CONTACT 811 BEFORE YOU DIG
SAFE DIGGING PARTNER

ELLIESE M. SHAUGHNESSY
LICENSE
No. 92149
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C0.3

C0.2 Aerial.dwg
2/26/2026

EROSION CONTROL LEGEND

	PROPERTY LINE
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	CONSTRUCTION EXIT
	LIMITS OF DISTURBANCE
SF SF SF	TEMP SILT FENCE

N

0 20 40 Feet

INLET PROTECTION

20' FORCE MAIN EASEMENT
O.R.B. 3372, PG. 4486 B.C.P.R.

N 88°29'39" E 466.24'

SAW-CUT AND REMOVE 2' EXISTING EDGE OF PAVEMENT.

CUT PIPE. SEE SHEET C3-01 FOR EXACT LOCATION OF CONNECTION

INLET PROTECTION

REMOVE TEMPORARY RED OBJECT MARKER SIGNS PRIOR TO CONNECTION TO EXISTING ASPHALT / TYPE III BARRICADE (FDOT)

REMOVE EXISTING PIPE AND STRUCTURES.

SILT FENCE

±0.2477 ACRES
97,910 SQ. FT.
PARCEL ID: 2436-18-27-*-1.01
OWNER: COCOA RETAIL, LLC

LIMITS OF DISTURBANCE

REMOVE ALL ASPHALT WITHIN LIMITS OF DISTURBANCE

REMOVE EXISTING CURB

SHARED ACCESS EASEMENT PB 77 PAGE 13

0.20 AC ACCESS EASEMENT

REMOVE EXISTING CURB.

EXISTING SIGN TO REMAIN

S 88°29'39" W (M) 466.24'

PROPERTY LINE

20' W.
INGRESS/E
P.B. 57,

20' WATER MAIN E/
O.R.B. 5510, PG. 177

S 01°30'21" E (C) 210.00'

20' WATER
MAIN EASEMEN
O.R.B. 5510,
PG. 1779 B.C.P.F

CONTACT 811 BEFORE YOU DIG
SAFE DIGGING PARTNER

DRAWN BY:
ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

SWPPP

QSR AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

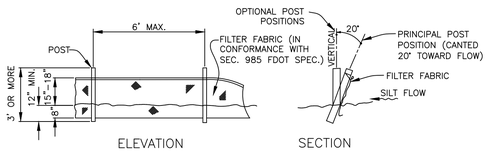
ELLIESE M. SHAUGHNESS
LICENSE
No. 92149
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C0.4

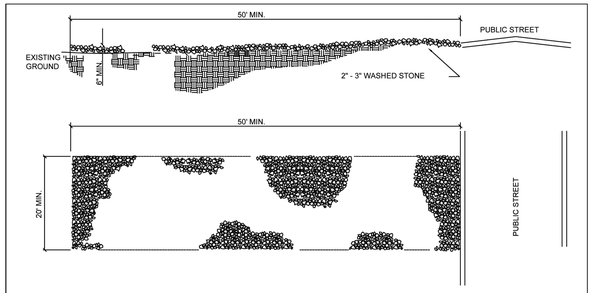
C0.3 SWPPP.dwg
2/26/2026



NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

TYPICAL SILT FENCE DETAIL

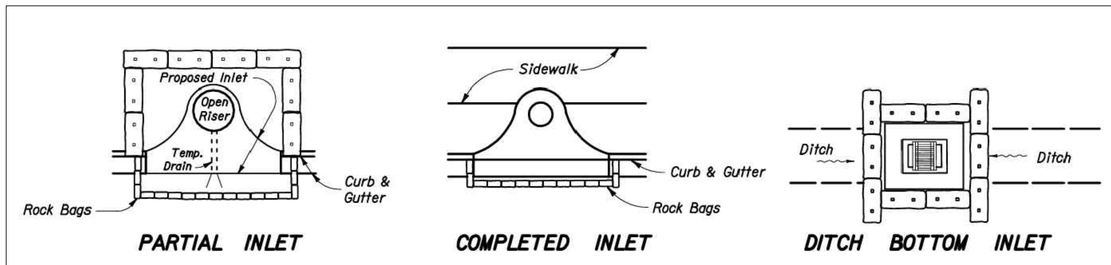
N.T.S.



NOTES:

1. A STABILIZED ENTRANCE PAD 50' MINIMUM IN LENGTH AND 20' MINIMUM IN WIDTH OF 2"-3" COARSE AGGREGATE SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
2. 2" - 3" COARSE AGGREGATE SHALL BE A MINIMUM OF 6" THICK.
3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL AGGREGATE AS CONDITIONS WARRANT AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
4. ANY SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY.
5. WHEN APPROPRIATE, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN.

CONSTRUCTION ENTRANCE



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

EROSION CONTROL NOTES:

- REFER TO C0-1 FOR GENERAL NOTES.
- SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UP-SLOPE LAND DISTURBANCE TAKES PLACE.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED IN BEST LOCATION BASED ON FIELD CONDITIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF CONSTRUCTION ENTRANCES AS NECESSARY TO PREVENT THE TRACKING OF SEDIMENT OFF-SITE. THE OWNER IS RESPONSIBLE FOR MAINTENANCE OF ALL PERMANENT EROSION CONTROL METHODS AFTER CONSTRUCTION IS COMPLETE, IF ANY PERMANENT METHODS ARE REQUIRED.
- APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR AND ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
- PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT UNDISTURBED FOR MORE THAN ONE YEAR.
- DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE LIMITS OF DISTURBANCE (L.O.D.) SHALL BE PERMITTED. THE L.O.D. SHALL BE MAINTAINED BY THE ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G., ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT. COPIES OF THE WRITTEN INSPECTION REPORTS SHALL BE PROVIDED TO THE OWNER'S REPRESENTATIVE ONCE EVERY SEVEN (7) DAYS AND AFTER RAINS OF GREATER THAN 0.5". RAIN GAUGE REQUIRED ON SITE.
- ANY AREAS OF EXPOSED SOILS THAT WILL NOT BE DISTURBED FOR FOURTEEN DAYS SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- AFTER ANY SIGNIFICANT RAINFALL, SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED FOR INTEGRITY. ANY DAMAGED DEVICES SHALL BE CORRECTED IMMEDIATELY.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN FORTY EIGHT (48) HOURS FOLLOWING A STORM EVENT.
- WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION.
- STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT AND AT THE END OF EVERY DAY. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT. SEDIMENT MAY BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL AREA.STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL SUBDIVISION LOTS AS WELL AS TO LARGER LAND DISTURBING ACTIVITIES.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
- PROPERTIES AND WATERWAYS DOWNSTREAM FROM CONSTRUCTION SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND EROSION AT ALL TIMES OF CONSTRUCTION.
- THE SURFACE OF AREAS SLOPES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL THAT ARE TO RECEIVE INTERIM FILL SHALL BE PLOWED, FURROWED, TILLED OR BROKEN UP PRIOR TO PLACING FILL SO THAT FILL MATERIAL WILL BOND WITH EXISTING . " SURFACE. INTERIM FILL SHALL BE PLACED AS SPECIFIED FOR PERMANENT FILLS AND IN LIFTS NOT GREATER THAN 6".
- PROVIDE DUST CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, WETTING DOWN TO CONTROL DUST ON SITE, IN ORDER TO PREVENT ANNOYANCE/AND OR DAMAGE TO ADJACENT SITES. CALCIUM CHLORIDE OR ANY OTHER CHEMICAL MATERIAL MAY NOT BE USED ON SUBGRADES OF AREAS TO BE SEEDED OR PLANTED.
- SEDIMENT LADEN RUNOFF FROM EXCAVATIONS SHALL NOT BE PUMPED DIRECTLY TO STORM DRAINAGE.
- INSPECTOR REFERS TO LOCAL JURISDICTIONAL (LOCAL) LAND QUALITY INSPECTOR OR HIS REPRESENTATIVE. FIELD INSPECTIONS MAY REQUIRE ADDITIONAL SEDIMENTATION AND EROSION CONTROL MEASURES AS DEEMED NECESSARY BY THE INSPECTOR.
- CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE FDEP STORMWATER EROSION AND SEDIMENTATION CONTROL MANUAL.
- CONTRACTOR IS RESPONSIBLE FOR ALL SURFACE WATER DISCHARGES, RAINFALL RUN OFF OR DEWATERING ACTIVITIES.
- CONTRACTOR MUST INCORPORATE ALL BMPS NECESSARY TO MEET OR EXCEED STATE WATER OR QUALITY AND SWPPP REQUIREMENTS.
- THE POLLUTION PREVENTION PLAN IS A MINIMUM GUIDELINE ONLY. ADDITION BMPS MAY BE NECESSARY AT CONTRACTOR'S EXPENSE.

SEQUENCE OF CONSTRUCTION ACTIVITIES:

1. OBTAIN GRADING PERMIT.
2. DETERMINE AND MARK LIMITS OF DISTURBANCE.
3. A PRECONSTRUCTION CONFERENCE MUST BE HELD 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. THE EROSION CONTROL INSPECTOR, ARCHITECT, ENGINEER, AND CONTRACTOR SHALL BE PRESENT TO SATISFY REQUIREMENTS.
4. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCING, SILT FENCE, PERIMETER EROSION CONTROL DEVICES AND ALL REQUIRED BASINS AND TRAPS.
5. SCHEDULE SITE INSPECTION.
6. UPON APPROVAL TO PROCEED BY THE EROSION CONTROL INSPECTOR, HARVEST ANY TIMBER.
7. CONSTRUCT REMAINING EROSION CONTROL MEASURES AS REQUIRED.
8. REMOVE AND/OR STORE TOPSOIL.
9. BEGIN GRADING OPERATIONS.
10. CLEAN SEDIMENT BASINS/TRAPS WHEN ONE-HALF FULL.
11. ALL STREETS SURROUNDING THE PROJECT SHALL BE KEPT CLEAN AT ALL TIMES.
12. PLACE TEMPORARY SEEDING ON ALL DISTURBED AREAS THAT WILL BE IDLE 14 DAYS OR LONGER.
13. PERMANENT SURFACE STABILIZATION SHALL BE INSTALLED FOR ALL AREAS WITHIN 14 DAYS AFTER FINAL GRADE HAS BEEN REACHED. AS NECESSARY, FERTILIZE, WATER AND RESEED AS REQUIRED TO ESTABLISH AND MAINTAIN A VIGOROUS STAND OF GRASS.
14. AFTER COMPLETION OF CONSTRUCTION AND THE SITE IS STABILIZED, REMOVE ALL ACCUMULATED SEDIMENT FROM SEDIMENT TRAPPING MEASURES AND DISPOSE BY MEANS DEEMED ACCEPTABLE BY THE ENGINEER. SCHEDULE SITE INSPECTION. UPON APPROVAL BY THE EROSION CONTROL INSPECTOR, REMOVE TEMPORARY EROSION CONTROL MEASURES, SMOOTH AREA AND APPLY APPROPRIATE STABILIZATION.
15. STORMWATER PERMIT INSPECTION REPORTS SHALL BE PERFORMED BY THE CONTRACTOR UNTIL NOTIFIED OTHERWISE BY THE EROSION CONTROL INSPECTOR.

NOTES:

1. INSPECTOR REFERS TO LOCAL JURISDICTIONAL (FDEP OR LOCAL) LAND QUALITY INSPECTOR OR HIS REPRESENTATIVE. FIELD INSPECTIONS MAY REQUIRE ADDITIONAL SEDIMENTATION AND EROSION CONTROL MEASURES AS DEEMED NECESSARY BY THE INSPECTOR.
2. CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE FDEP STORMWATER EROSION AND SEDIMENTATIONS CONTROL MANUAL.
3. LIMITS OF DISTURBANCE LINE IS CONSIDERED CONCEPTUAL. IN GENERAL, IT EXTENDS TO THE PROPERTY LINE UNLESS OTHERWISE SHOWN.
4. PRIOR TO C.O., CONTRACTOR IS TO CLEAN OUT ANY SEDIMENT OR DEBRIS FROM PIPES AND STRUCTURES CAUSED BY CONSTRUCTION ACTIVITIES.

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

SWPPP DETAILS

QSR AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

CONTACT 811 BEFORE YOU DIG
SAFE DIGGING PARTNER

JESSE M. SHAUGHNESS
LICENSE
No. 92149
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C0.5

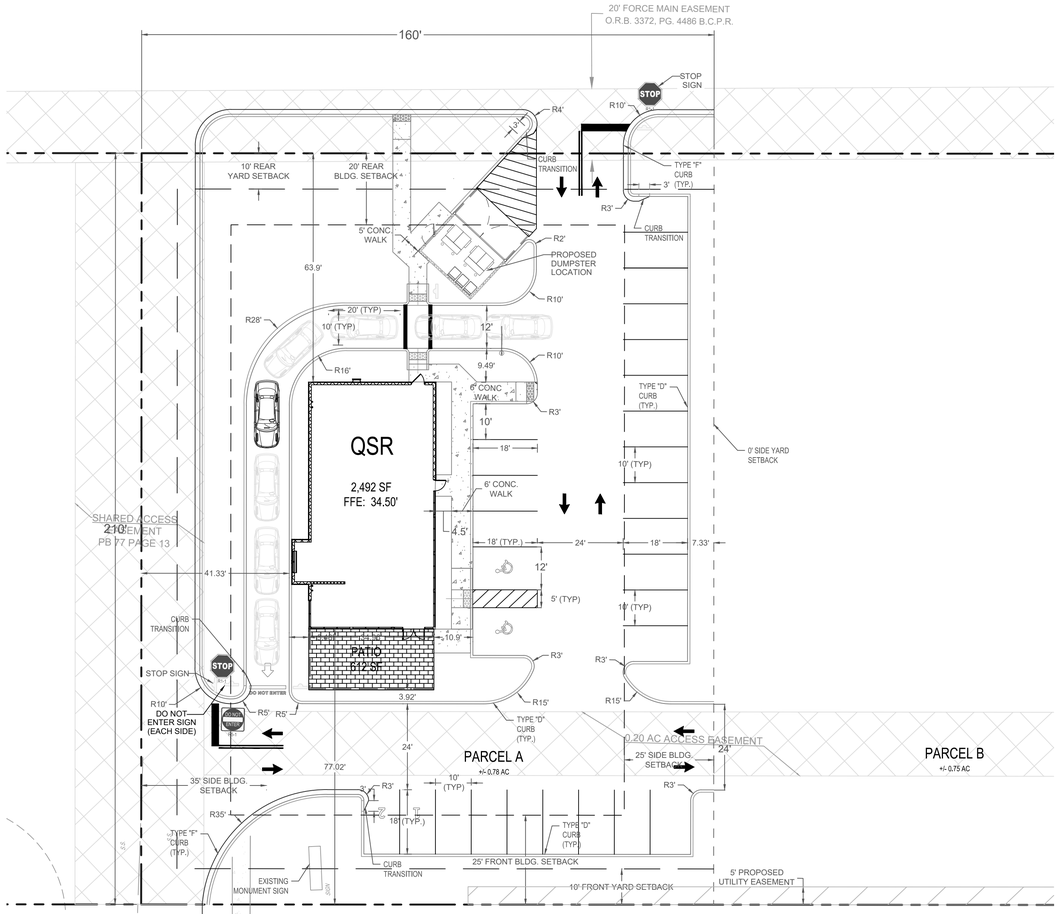
C0.3 SWPPP.dwg
2/26/2026

SITE PLAN LEGEND

	PROPOSED BUILDING
	PROPOSED CURB AND GUTTER
XX	PROPOSED PARKING SPACES
	PROPOSED STANDARD DUTY CONCRETE PAVMT

0 20 40 Feet

N



SITE DATA

PROJECT ADDRESS:	PARCEL B - CIRRUS HIGHWAY 524 AND EAST INDUSTRY ROAD COCOA, BREVARD COUNTY, FL.
SEC/TWN/RNG:	SECTION 16, TOWNSHIP 26 S, RANGE 36 E
PARCEL ID:	24-36-18-27-*-1.01
SITE AREA:	+/- 0.78 ACRES = 33,600 SF
PROPOSED:	QUICK SERIVCE RESTAURANT +/- 2,492 SF.
PROJECT DESCRIPTION:	2,492 QUICK SERVICE RESTAURANT WITH ASSOCIATED PARKING, UTILITIES, DRAINAGE & LANDSCAPING
ZONING	PUD - PLANNED UNIT DEVELOPMENT GENERAL COMERCIAL (C-G)
FUTURE LAND USE:	COMMERCIAL
FEMA FLOOD ZONE:	ZONE "X", AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR BREVARD COUNTY, FLORIDA, MAP NUMBER 12009C0320H, REVISED JANUARY 29, 2021.
EXISTING CONDITIONS:	PARKING LOT
EXISTING VEGETATION:	GRASSES AND TREES
WETLANDS:	THERE ARE NO WETLANDS LOCATED ON-SITE
UTILITIES:	WATER AND SEWER: CITY OF COCOA UTILITIES WATER DEPARTMENT ELECTRICITY: FLORIDA POWER & LIGHT (FP&L)

BUILDING SETBACKS:

	PUD (REQUESTED)	
REQUIRED:	MIN.	PROVIDED
FRONT	25 FT	88.00 FT
REAR	20 FT	48.90 FT
SIDE (INTERIOR)	25 FT	26.77 FT
SIDE (CORNER)	35 FT	66.75 FT

YARD SETBACKS:

REQUIRED:	MIN.	PROVIDED
SIDE (INTERNAL)	0 FT	2 FT
REAR	10 FT	10 FT

MAX BUILDING COVERAGE:	REQUIRED: 50%	PROPOSED: 7.42%
OPEN SPACE:	MINIMUM: NA	PROPOSED: 32 %
BUILDING HEIGHT:	MAX: 66 FT	PROPOSED: 28'-8" FT
PARKING REQUIRED:	1 SPACE / 200 SF - 2,492 S.F./ BLDG = 13 PARKING SPACES 0.5* 1 SPACE / OUTSIDE SF - 612 SF = 2 SPACES 3 SPACES FOR PICKUP 5 SPACES FOR DRIVE-THROUGH STACKING	
PARKING PROVIDED:	2 HC SPACES + 30 PARKING SPACES = 32 PARKING SPACES	
PARKING AREA RATIO:	REQUIRED: 3:1 - 7,476 SF REQUESTED: 3.75:1 - 9,345 SF PROVIDED: 3.46:1 - 8,628 SF	
FLOOR AREA:	GROSS FLOOR AREA = 2,492 SF FLOOR AREA RATIO = 2,492 / 33,600 SF = 0.074 (7.4%)	

ASSUMPTIONS:

1. THE MASTER DEVELOPMENT STORMWATER MANAGEMENT SYSTEM IS DESIGNED TO SERVE THIS SITE.
2. THE MASTER DEVELOPMENT STORMWATER MANAGEMENT SYSTEM WILL PROVIDE COMPENSATORY FLOOD STORAGE IF REQUIRED.

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

SITE PLAN

QSR AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

CONTACT 811 BEFORE YOU DIG
811
SAFE DIGGING PARTNER

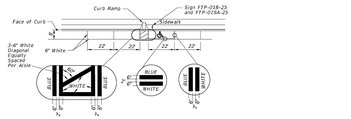
ELLIESE M. SHAUGHNESSY
LICENSE
No. 92149
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

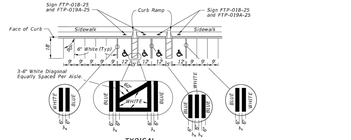
TYPE
FOR REVIEW

Date
2/26/26

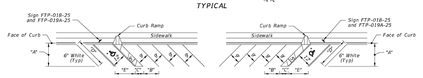
Sheet
C1.0

C1.0 SITE PLAN.dwg
2/26/2026





TYPICAL



FORWARD-IN PARKING

REVERSE-IN PARKING

*FOR ACCESSIBLE MARKINGS - SEE ABOVE

DIMENSIONS					
A & B	"A"	"B"	"C"	"D"	"E"
45°	17'-0"	12'-9"	7'-0"	24'-0"	17'-0"

PAVEMENT MARKING FOR PARKING





(See Note 5)

UNIVERSAL SYMBOL OF ACCESSIBILITY

NOTES:
1. Dimensions are to the centerline of markings.
2. An Access Aisle is required for each accessible space when angle parking is used.
3. Criteria for pavement markings only, not public sidewalk curb ramp locations. For ramp locations refer to plans.
4. Mount FTP-019A-25 sign below the FTP-018-25 sign.
5. Use of the pavement symbol in accessible parking spaces is optional. When pavement symbol is used, the symbol is either 3'-0" or 3'-6" high and white in color.

LAST REVISION	DESCRIPTION:			INDEX	SHEET
11/01/25		FDOT FY 2026-27 STANDARD PLANS	PAVEMENT MARKINGS	711-001-1	11 of 13

STREET NAME SIGN NOTES:

1. SIGNS IN PUBLIC R.O.W. SHALL BE GREEN WITH 5/8" WHITE BORDER AND WHITE LETTERS AND NUMBERS.
2. SIGNS IN PRIVATE R.O.W. SHALL BE WHITE WITH 5/8" BLACK BORDER AND BLACK LETTERS AND NUMBERS.
3. STREET NAME BLADES SHALL BE RIVETED TOGETHER AT EACH CORNER WITH 3/16" SMALL FLANGE AVEX RIVETS. ATTACH BLADES TO POST WITH CHERRY-MATE ALUMINUM RIVETS, # BALM8BP34, OR 5/16" X 2-1/2" S.S. BOLTS, 1-1/4" X 5/16" S.S. FENDER WASHERS, W/ S.S. STOP HEX NUT HAVING NYLON INSERTS (LOCK NUTS).

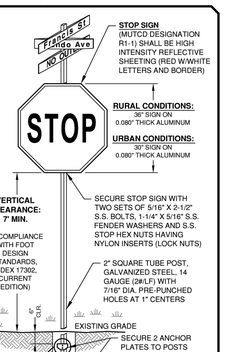
STREET NAME SIGN LETTERING (MUTCD DESIGNATION D3-1):

CONVENTIONAL STREETS:
6" HIGH INITIAL UPPER CASE LETTERS, LOWER CASE LETTERS AT LEAST 4.5" HIGH. SIGN DIMENSIONS: 12" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

LOCAL STREETS 25 MPH OR LESS:
4" HIGH INITIAL UPPER CASE LETTERS AND 3" HIGH LOWER CASE LETTERS MAY BE USED. SIGN DIMENSIONS: 9" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

MULTI-LANE STREETS GREATER THAN 40 MPH:
8" HIGH INITIAL UPPER CASE LETTERS AND LOWER CASE LETTERS AT LEAST 6" HIGH. SIGN DIMENSIONS: 18" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

"NO OUTLET" SIGN (MUTCD DESIGNATION W14-2A):
4" HIGH ALL-CAPITAL LETTERS, SIZE: 8" X 36" MIN. SEE MUTCD SECTION 2C.26



STOP SIGN
(MUTCD DESIGNATION R1-1) SHALL BE HIGH INTENSITY REFLECTIVE SHEETING (RED W/WHITE LETTERS AND BORDER)

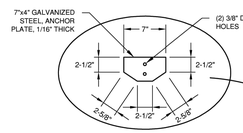
RURAL CONDITIONS:
36" SIGN ON 0.080" THICK ALUMINUM

URBAN CONDITIONS:
30" SIGN ON 0.080" THICK ALUMINUM

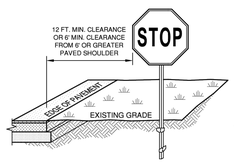
SECURE STOP SIGN WITH TWO SETS OF 5/16" X 2-1/2" S.S. BOLTS, 1-1/4" X 5/16" S.S. FENDER WASHERS AND S.S. STOP HEX NUTS HAVING NYLON INSERTS (LOCK NUTS)

2" SQUARE TUBE POST, GALVANIZED STEEL, 14 GAUGE (2#/LF) WITH 7/16" DIA. PRE-PUNCHED HOLES AT 1" CENTERS

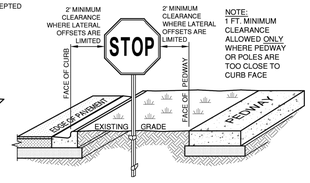
SECURE 2 ANCHOR PLATES TO POSTS WITH TWO 5/16" X 2-1/2" S.S HEX HEAD BOLTS, 1-1/4" X 5/16" S.S. FENDER WASHERS, AND 5/16" ELASTIC STOP HEX LOCK NUTS



ANCHOR PLATE
MIN. DIMENSONS SHOWN. LARGER SIZE MAY BE ACCEPTED



HORIZONTAL CLEARANCE (WITHOUT CURB AND GUTTER)



NOTE:
1 FT. MINIMUM CLEARANCE ALLOWED ONLY WHERE PEDWAY OR POLES ARE TOO CLOSE TO CURB FACE

HORIZONTAL CLEARANCE (WITH CURB AND GUTTER)

STOP SIGN AND STREET MARKER DETAILS

	BREVARD COUNTY LAND DEVELOPMENT 2725 JUDGE FRAN JAMIESON WAY, VIERA, FL 32940	EXHIBIT - 26	DATE: OCT-2014

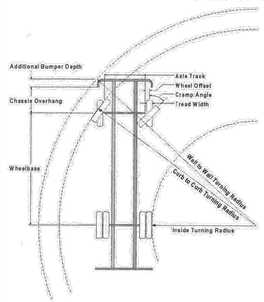
Pierce

Turning Performance Analysis

05/05/2014

Bid Number: 333
Department: Brevard County
Chassis: Arrow-XT Chassis, PAP/Midmount, 2010
Body: Aerial, Platform 100', Alum Body

TRUCK 63



Parameters:

Inside Cramp Angle:	45°
Axle Track:	81.92 in.
Wheel Offset:	4.68 in.
Tread Width:	14.9 in.
Chassis Overhang:	68.99 in.
Additional Bumper Depth:	19 in.
Front Overhang:	156.1 in.
Wheelbase:	247.5 in.

Calculated Turning Radii:

Inside Turn:	19 ft. 7 in.
Curb to curb:	35 ft. 4 in.
Wall to wall:	44 ft. 1 in.

Comments:

Category	Option	Description
Axle, Front, Custom	0566636	Axle, Front, Dana, D2200, 23,000 lb
Wheels, Front	0668004	Wheels, Front, Alcoa, 22.50" x 10.50", Aluminum, Hub Pilot, 365/70R Tire
Tires, Front	0668005	Tires, Front, Michelin, XZA, 365/70R22.50, 20 ply, Low Profile
Bumpers	0550016	Bumper, 19" Extended, AXT, Dash CF
Aerial Devices	0657391	Aerial, 100' Pierce Platform, 35 MPH Wind Rating, 400lb Tip Load Allowance

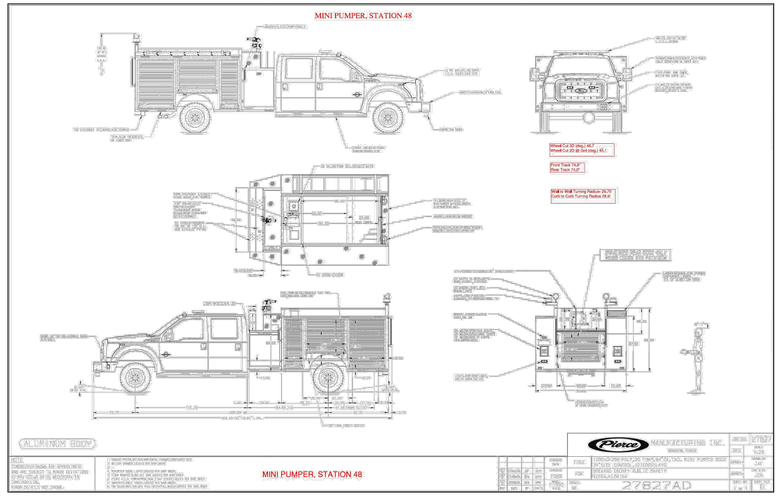
Notes:

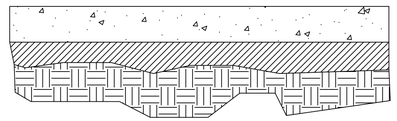
Actual Inside cramp angle may be less due to highly specialized options..

Curb to Curb turning radius calculated for 9.00 inch curb.

Bumper to Bumper Length:	46.5 Feet
Overall Width:	8.068 ft.
Track Width:	8.068 ft.
Ground Clearance:	1.337 ft.
Lock to Lock time:	4.00s

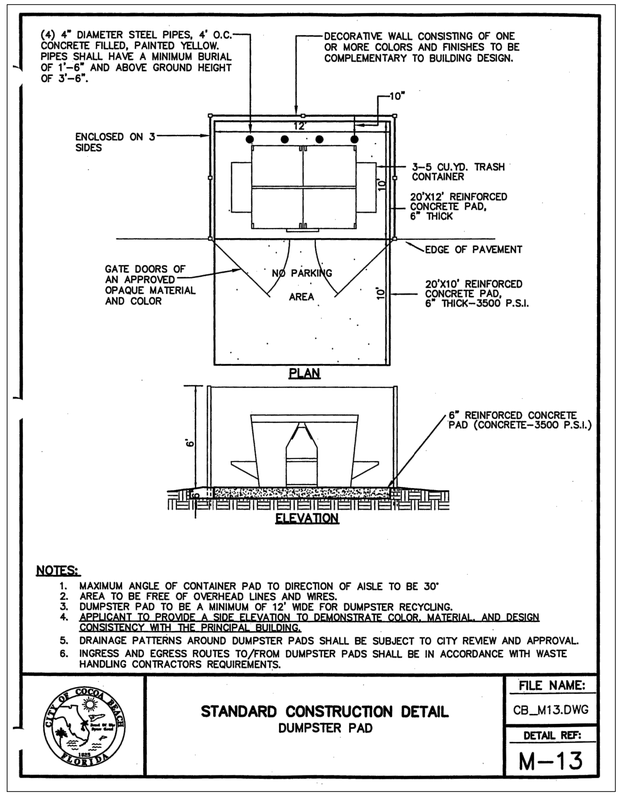
MINI PUMPER, STATION 48





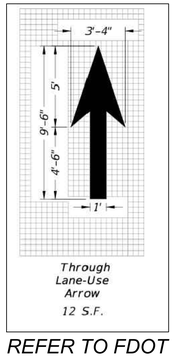
NOTES
1. INTERNAL SIDEWALKS TO BE 4" THICK
2. SIDEWALK CONCRETE TO HAVE COMPRESSIVE STRENGTH OF 3,000 PSI IN 28 DAYS
3. SUBGRADE TO BE 6" COMPACTED TO 98% MAX DENSITY - AASHTO T-180

SIDEWALK DETAIL



NOTES:
1. MAXIMUM ANGLE OF CONTAINER PAD TO DIRECTION OF AISLE TO BE 30°
2. AREA TO BE FREE OF OVERHEAD LINES AND WIRES.
3. DUMPSTER PAD TO BE A MINIMUM OF 12' WIDE FOR DUMPSTER RECYCLING.
4. APPLICANT TO PROVIDE A SIDE ELEVATION TO DEMONSTRATE COLOR, MATERIAL, AND DESIGN CONSISTENCY WITH THE PRINCIPAL BUILDING.
5. DRAINAGE PATTERNS AROUND DUMPSTER PADS SHALL BE SUBJECT TO CITY REVIEW AND APPROVAL.
6. INGRESS AND EGRESS ROUTES TO/FROM DUMPSTER PADS SHALL BE IN ACCORDANCE WITH WASTE HANDLING CONTRACTORS REQUIREMENTS.

CITY OF COCOA BEACH FLORIDA	STANDARD CONSTRUCTION DETAIL DUMPSTER PAD	FILE NAME: CB_M13.DWG; DETAIL REF: M-13



Through Lane-Use Arrow
12 S.F.

REFER TO FDOT INDEX 711-001-1

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

DRAWN BY: ES

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

SITE PLAN - DETAILS

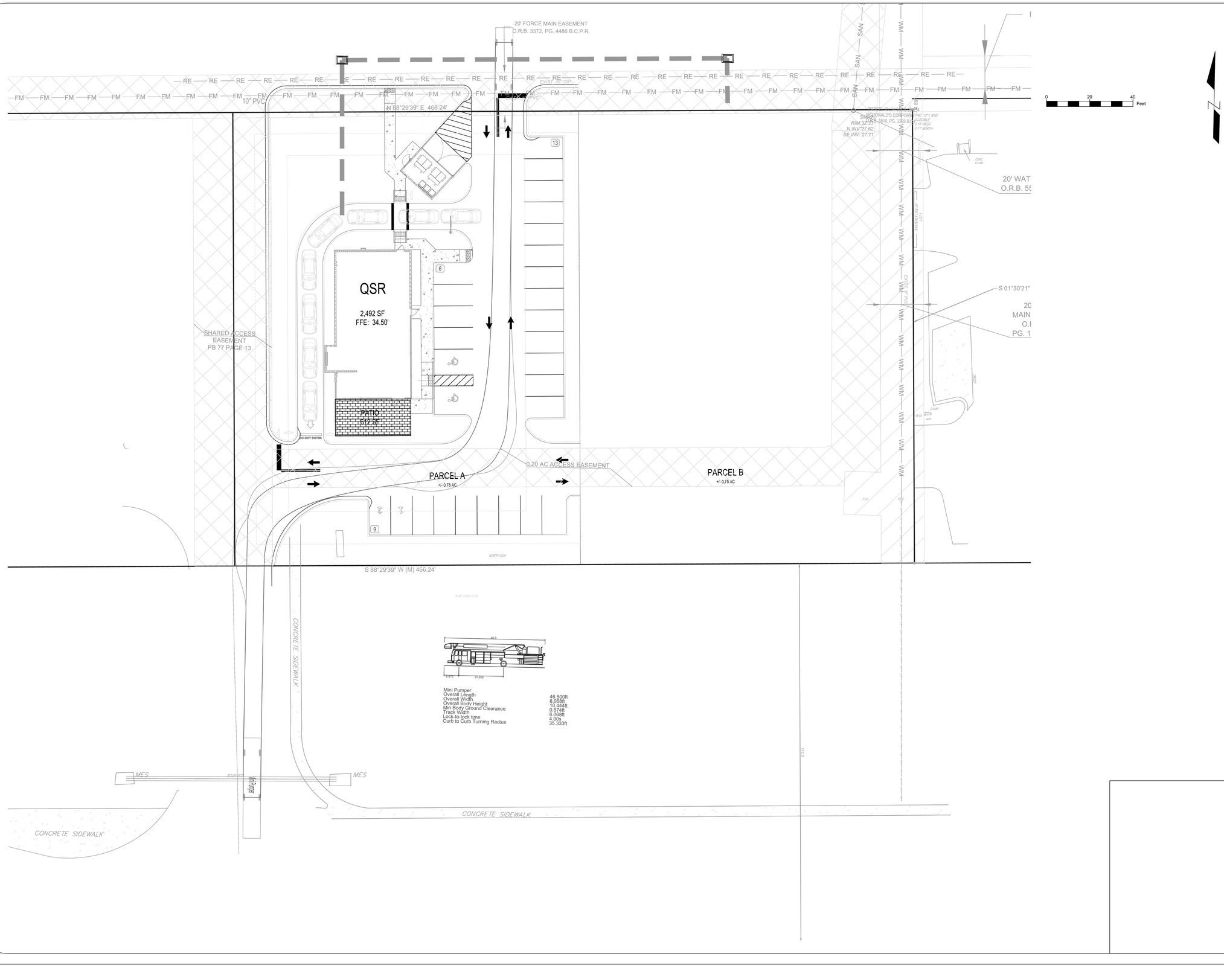
QSR AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

CONTACT 811 BEFORE YOU DIG — SAFE DIGGING PARTNER

ELLESE M. SHAUGHNESSY — LICENSE — No. 92149 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

TYPE: FOR REVIEW
Date: 2/26/26
Sheet: C1.1

C1.0 SITE PLAN.dwg
2/26/2026



DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

TRUCK EXHIBIT

QSR AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

ELIESE M. SHAUGHNESSY
LICENSE
No. 92149
STATE OF FLORIDA
PROFESSIONAL ENGINEER

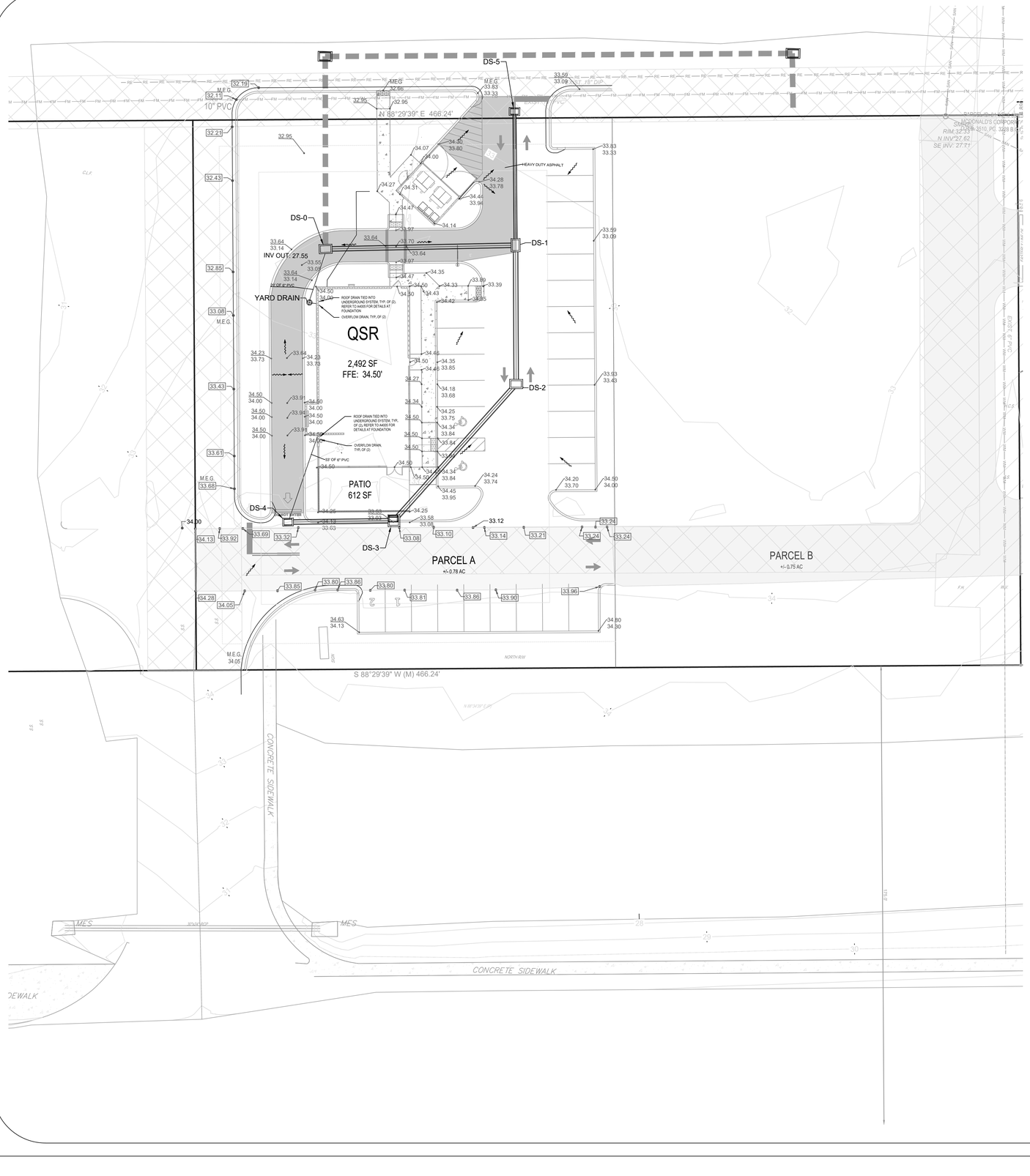
CONTACT 811 BEFORE YOU DIG
SAFE DIGGING PARTNER

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C1.3

C1.3 TRUCK EXHIBIT.dwg
2/26/2026



ABBREVIATION

DS DRAINAGE STORM - FDOT STANDARD
MH MANHOLE
ES EXISTING STRUCTURE

0 20 40 Feet

NOTES:
1. ELEVATION SHOWN BASED ON VERTICAL DATUM (NAVD 88 COORDINATES).
2. REFER TO GEOTECHNICAL REPORT FOR SOILS TYPES AND SUGGESTED SOILS REMOVAL AND UNSUITABLE MATERIALS.
3. ALL SPOTS ARE LABELED AT BOTTOM OF FACE OF CURB UNLESS OTHERWISE SPECIFIED
4. SEE GENERAL NOTES AND GRADING NOTES (SHEET C0-1) FOR OVERALL PAVING, GRADING AND DRAINAGE REQUIREMENTS.
5. CONTRACTOR SHALL REVIEW, UNDERSTAND AND IMPLEMENT ALL REQUIRED EROSION AND SEDIMENTATION CONTROL MEASURES PRIOR TO ANY DISTURBANCE.
6. ALL SPOT ELEVATIONS ALONG PAVEMENT REPRESENT FINISHED GRADE ELEVATION UNLESS OTHERWISE NOTED.
7. ALL PROPOSED STORM PIPE TO BE HDPE UNLESS OTHERWISE NOTED.
8. ALL STRUCTURES SHALL BE ADJUSTED AS NECESSARY TO BE FLUSH WITH FINAL PAVEMENT.
9. INLET PROTECTION - CONTRACTOR SHALL PROVIDE CATCH BASIN INLET PROTECTION ON ALL EXISTING AND PROPOSED INLETS UNTIL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED.
10. CONTRACTOR SHALL PROVIDE SMOOTH TRANSITION BETWEEN PROPOSED PAVEMENT AND EXISTING PAVEMENT AND STORM STRUCTURES
11. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED WITH (4) SIDED BEARING HEAVY DUTY H-20 RATED TRAFFIC RIMS AND GRATES
12. ALL CLEANOUT COVERS SHOULD BE RATED FOR HEAVY DUTY TRAFFIC.
13. CONTRACTOR SHALL COORDINATE PAVING IMPROVEMENTS TO AVOID TIRE MARKS FROM CONSTRUCTION ACTIVITY. FINAL PAVING SHALL BE AS SMOOTH AS POSSIBLE AND FREE FROM ANY MARKS, SCRAPES, GOUGES, TIRE MARKS, ETC. CAUSED DURING CONSTRUCTION.
14. DRAINAGE SLOPES SHALL NOT EXCEED 4:1.
15. ALL SLOPES STEEPER THAN SIX (6) HORIZONTAL TO ONE (1) VERTICAL SHALL BE SOD.
16. ALL IMPACTS TO THE RIGHT-OF-WAY SHALL BE SODDED WITHIN THREE (3) DAYS OF FINAL GRADING.
17. ALL DOWNSPOUTS SHALL HAVE A MINIMUM SLOPE OF 1.0%.
18. ALL PAVEMENT TO BE STANDARD DUTY PAVEMENT EXCEPT IN FRONT OF DUMPSTER.

GRADING AND DRAINAGE LEGEND

25	EXISTING CONTOUR
34.34 / 34.25 33.75	PROPOSED SPOT GRADE
33.13 x 5.00	EXISTING SPOT SHOT
	DRIVE AISLE TO REMAIN
	HEAVY DUTY ASPHALT
	PROPOSED GRADING ARROW
	PROPOSED STORM

Structure Table		
Structure Name	Details	Type
DS-4	RIM = 33.43 INV OUT = 28.04 DS-3	TYPE C
DS-5	RIM = 33.12 INV OUT = 28.30 DS-1	TYPE C
DS-3	RIM = 33.03 INV IN = 28.0 DS-4 INV OUT = 27.96 DS-2	TYPE 9 ON 42X42 BOTTOM
DS-0	RIM = 32.92 INV IN = 27.6 DS-1	TYPE C
DS-2	RIM = 32.87 INV IN = 27.8 DS-3 INV OUT = 27.81 DS-1	TYPE C
DS-1	RIM = 32.53 INV IN = 27.7 DS-2 INV IN = 28.2 DS-5 INV OUT = 27.70 DS-0	TYPE C

ALL STRUCTURES TO FOLLOW FDOT DETAILS AND SPECIFICATIONS

CONTACT 811 BEFORE YOU DIG SAFE DIGGING PARTNER

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

ELLIESE M. SHAUGHNESSY
LICENSE
No. 92149
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

PAVING GRADING DRAINAGE

QSR AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C3.0

C3.0 PGD.dwg
2/26/2026

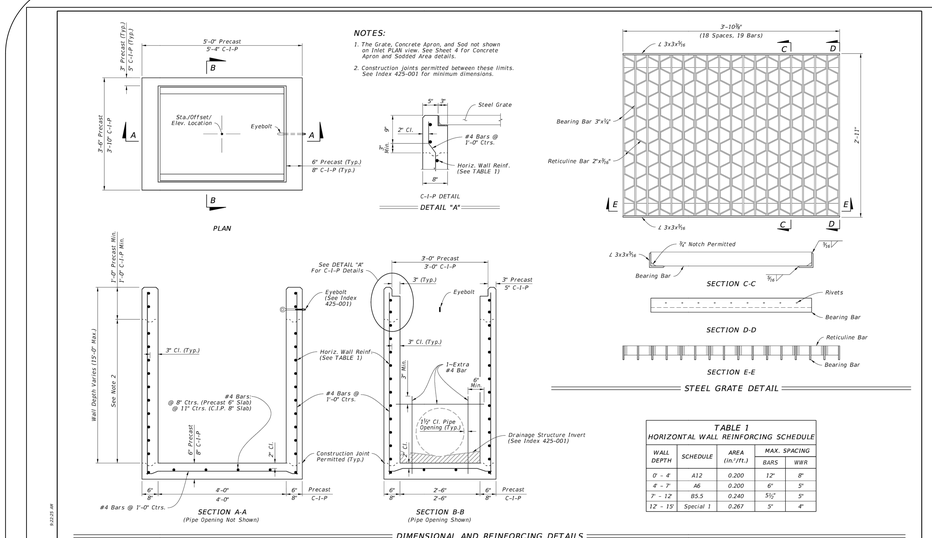
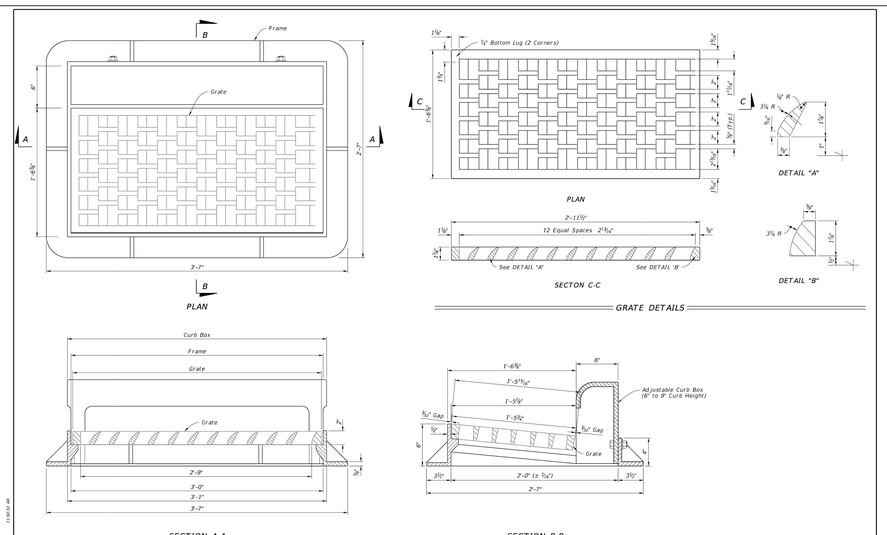


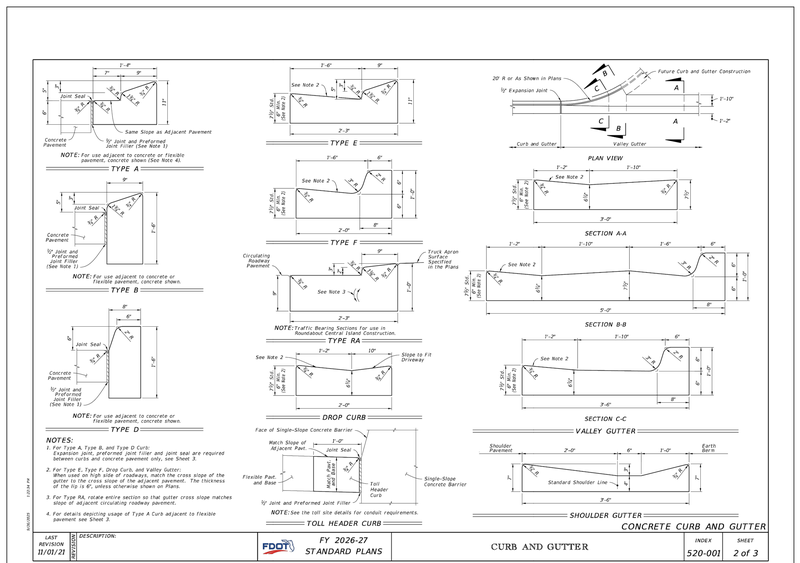
TABLE 1
HORIZONTAL WALL REINFORCING SCHEDULE

WALL DEPTH	SCHEDULE	AREA (in²/ft.)	MAX. SPACING BARS	MAX. SPACING WWR
0' - 4'	A12	0.200	12"	8"
4' - 7'	A6	0.200	6"	5"
7' - 12'	B5.5	0.240	5½"	5"
12' - 19'	Special 1	0.267	5"	4"

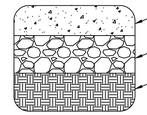
LAST REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	DITCH BOTTOM INLET TYPES F AND G	INDEX	SHEET
11/01/20					425-053	2 of 4



LAST REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	CURB INLET TYPE 9	INDEX	SHEET
11/01/20					425-024	2 of 3

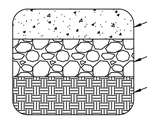


LAST REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	CURB AND GUTTER	INDEX	SHEET
11/01/21					520-001	2 of 3



VERIFY WITH GEOTECHNICAL REPORT

STANDARD DUTY ASPHALT SECTION



VERIFY WITH GEOTECHNICAL REPORT

HEAVY DUTY ASPHALT SECTION

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

PGD DETAILS

QSR AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

CONTACT 811 BEFORE YOU DIG! SAFE DIGGING PARTNER

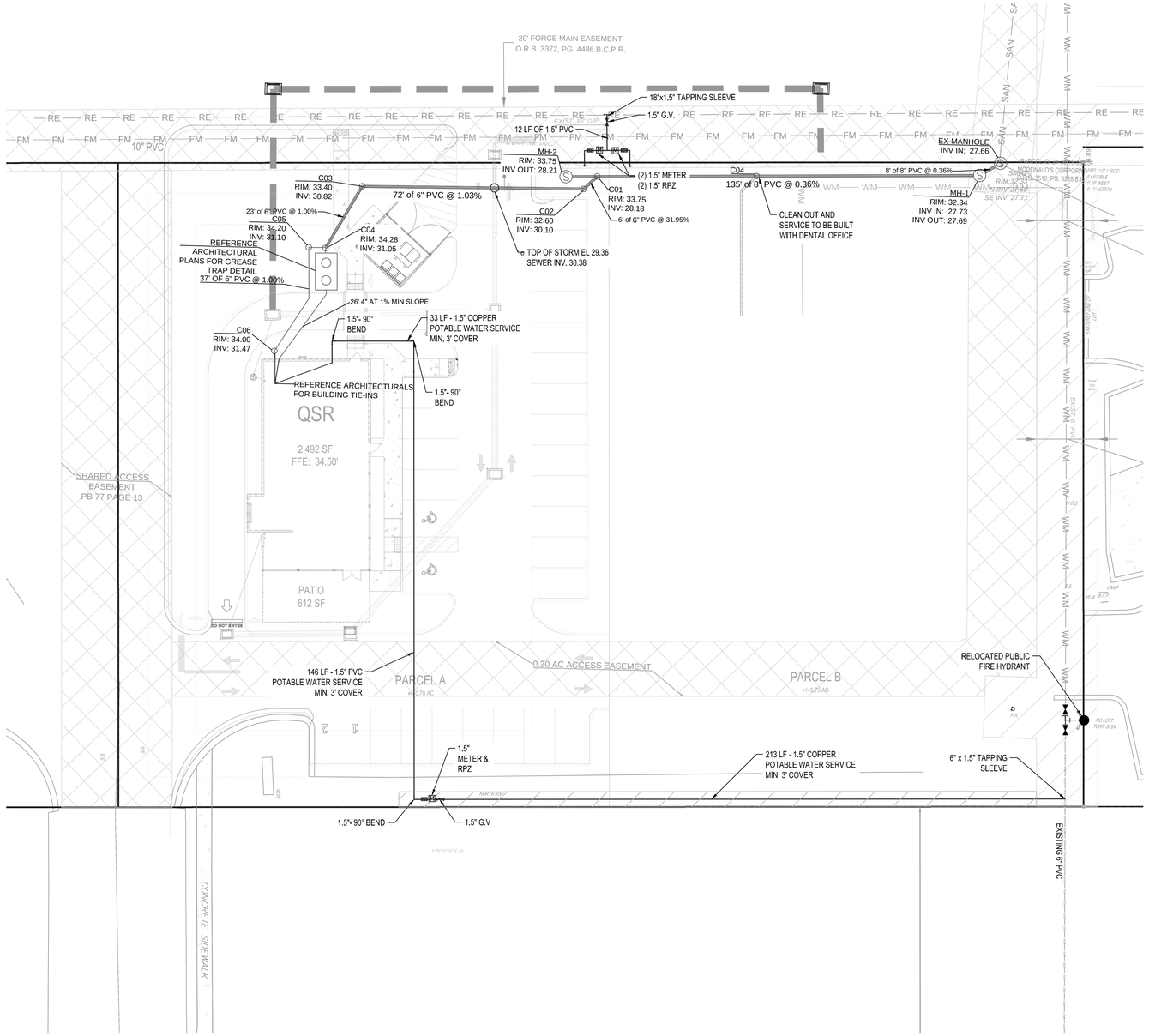
ELLIESE M. SHAUGHNESSY LICENSE No. 92149 STATE OF FLORIDA PROFESSIONAL ENGINEER

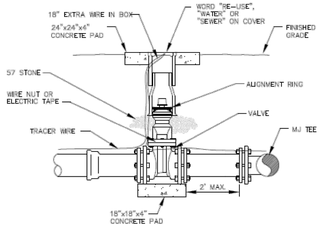
TYPE
FOR REVIEW

Date
2/26/26

Sheet
C3.1

C3.0 PGD.dwg
2/26/2026


20' FORCE MAIN EASEMENT
O.R.B. 3372, PG. 4486 B.C.P.R.
18"x1.5" TAPPING SLEEVE
1.5" G.V.
12 LF OF 1.5" PVC
10" PVC
MH-2
RIM: 33.75
INV OUT: 28.21
(2) 1.5" METER
(2) 1.5" RPZ
EX-MANHOLE
INV IN: 27.66
8' of 8" PVC @ 0.36%
C04
135' of 8" PVC @ 0.36%
C03
RIM: 33.40
INV: 30.82
72' of 6" PVC @ 1.03%
C01
RIM: 33.75
INV: 28.18
6' of 6" PVC @ 31.95%
C02
RIM: 32.60
INV: 30.10
TOP OF STORM EL 29.36
SEWER INV. 30.38
CLEAN OUT AND
SERVICE TO BE BUILT
WITH DENTAL OFFICE
MH-1
RIM: 32.34
INV IN: 27.73
INV OUT: 27.69
23' of 6" PVC @ 1.00%
C05
RIM: 34.20
INV: 31.10
C04
RIM: 34.28
INV: 31.05
REFERENCE
ARCHITECTURAL
PLANS FOR GREASE
TRAP DETAIL
37' OF 6" PVC @ 1.00%
26' 4" AT 1% MIN SLOPE
C06
RIM: 34.00
INV: 31.47
1.5"- 90°
BEND
33 LF - 1.5" COPPER
POTABLE WATER SERVICE
MIN. 3' COVER
REFERENCE ARCHITECTURALS
FOR BUILDING TIE-INS
1.5"- 90°
BEND
QSR
2,492 SF
FFE: 34.50'
PATIO
612 SF
DO NOT ENTER
SHARED ACCESS
EASEMENT
PB 77 PAGE 13
146 LF - 1.5" PVC
POTABLE WATER SERVICE
MIN. 3' COVER
PARCEL A
+/- 0.78 AC
0.20 AC ACCESS EASEMENT
PARCEL B
+/- 0.75 AC
RELOCATED PUBLIC
FIRE HYDRANT
1.5"
METER &
RPZ
213 LF - 1.5" COPPER
POTABLE WATER SERVICE
MIN. 3' COVER
6" x 1.5" TAPPING
SLEEVE
1.5"- 90° BEND
1.5" G.V
EXISTING 6" PVC
CONCRETE SIDEWALK
EXISTING 8" DIP
EXISTING 8" PVC
EXISTING 12" PVC
MCDONALD'S CORPORATION
O.R.B. 1910, PG. 3208 B.C.P.R.
SHARED ACCESS EASEMENT
O.R.B. 1910, PG. 3208 B.C.P.R.
RIM: 32.55
INV: 27.82
SE INV: 27.71
SHARED ACCESS EASEMENT
O.R.B. 1910, PG. 3208 B.C.P.R.
RIM: 32.55
INV: 27.82
SW INV: 27.71
SHARED ACCESS EASEMENT
O.R.B. 1910, PG. 3208 B.C.P.R.
RIM: 32.55
INV: 27.82
NW INV: 27.71
SHARED ACCESS EASEMENT
O.R.B. 1910, PG. 3208 B.C.P.R.
RIM: 32.55
INV: 27.82
NE INV: 27.71
SHARED ACCESS EASEMENT
O.R.B. 1910, PG. 3208 B.C.P.R.
RIM: 32.55
INV: 27.82
NE INV: 27.71
SHARED ACCESS EASEMENT
O.R.B. 1910, PG. 3208 B.C.P.R.
RIM: 32.55
INV: 27.82
NW INV: 27.71
SHARED ACCESS EASEMENT
O.R.B. 1910, PG. 3208 B.C.P.R.
RIM: 32.55
INV: 27.82
SW INV: 27.71
SHARED ACCESS EASEMENT
O.R.B. 1910, PG. 3208 B.C.P.R.
RIM: 32.55
INV: 27.82
S

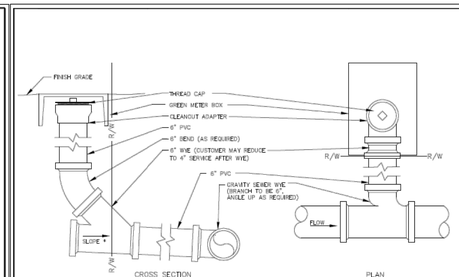


NOTE: PROPER SIZE VALVE BOX SHALL BE INSTALLED. PVC PIPE OR DUCTILE IRON PIPE EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

GATE VALVE AND FITTING DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: GATE VALVE & FITTING DETAIL	

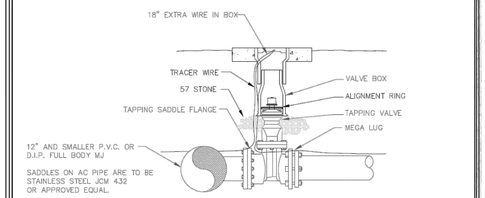


* MINIMUM SLOPE PER TECHNICAL SPECIFICATIONS

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

SINGLE SERVICE DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: SINGLE SERVICE DETAIL	

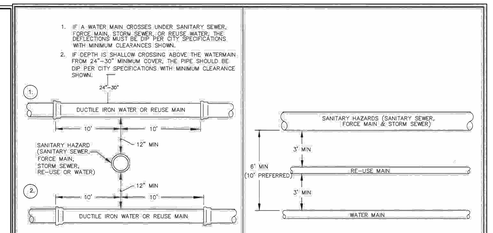


NOTE: FOR VALVE ASSEMBLY, SEE "VALVE" DETAIL

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

TAPPING SADDLE AND VALVE

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TAPPING SADDLE AND VALVE	

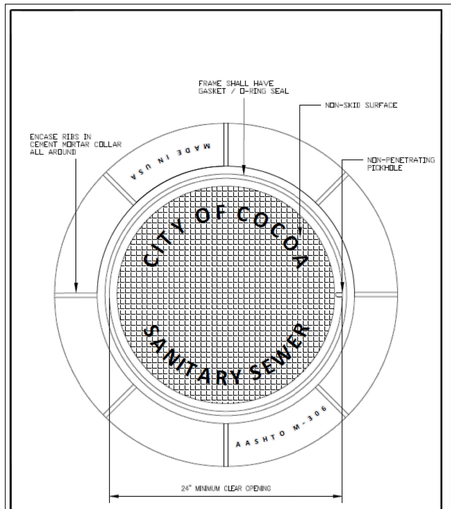


PER: FDEP 62-555.314

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

TYPICAL REQUIRED SEPARATION

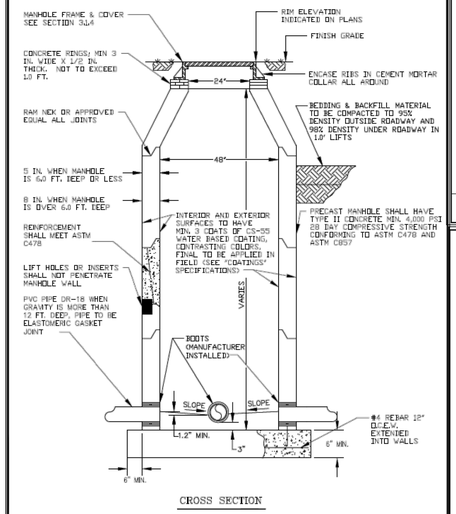
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: D. WILCOX	DATE: MAY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TYPICAL REQUIRED SEPARATION	



CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

MANHOLE FRAME AND COVER

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: MANHOLE FRAME AND COVER	

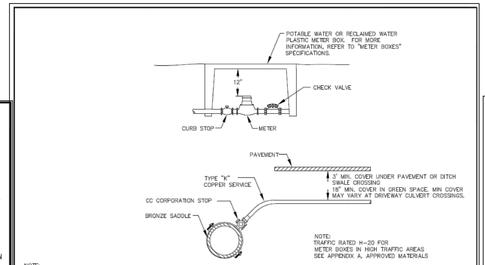


CROSS SECTION

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

TYPICAL MANHOLE

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TYPICAL MANHOLE	

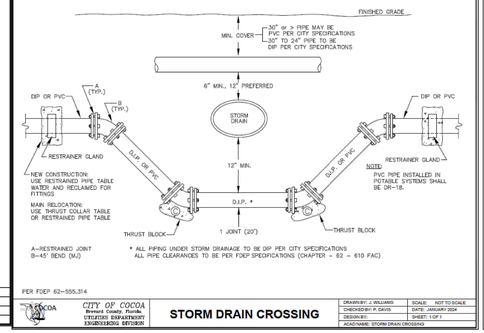


NOTE:
1. WHEN WITHIN BREVARD COUNTY ROW, ANY EXCAVATION WITHIN 8' OF THE EOP OR 3' FROM THE EDGE OF SIDEWALK WILL REQUIRE SHORING TO PREVENT UNDERMINING.

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

TYPICAL 3/4"- 2" SERVICE LINE

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TYPICAL SERVICELINE	



A=RESTRAINED JOINT
B=45° BEND (MJ)

* ALL PIPING UNDER STORM DRAINAGE TO BE DIP PER CITY SPECIFICATIONS
ALL PIPE CLEARANCES TO BE PER FDEP SPECIFICATIONS (CHAPTER - 62 - 610 FAC)

PER FDEP 62-555.314

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

STORM DRAIN CROSSING

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: STORM DRAIN CROSSING	

RESTRAINED PIPE TABLE
WATER AND RECLAIMED WATER MAINS

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)

TYPE	PIPE SIZE							
	4"	6"	8"	10"	12"	16"	20"	24"
90°BEND	21	29	38	45	53	66	79	91
45°BEND	9	12	16	19	22	45	33	38
22-1/2°BEND	5	6	8	9	11	14	16	19
11-1/4°BEND	3	3	4	5	6	7	8	9
PLUG, BRANCH OF TEE, VALVE	58	82	107	128	151	193	234	273

NOTES:
1. FITTINGS SHALL BE RESTRAINED JOINTS.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. ALL LINE VALVES AND THROUGH RUN OF TEES SHALL BE RESTRAINED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:

   WORKING PRESSURE: 150 PSI
   SOIL DESIGNATION: SM (SAND SILT)
   LAYING CONDITIONS: 3

6. TABLE IS FOR PVC AND WRAPPED DUCTILE IRON.

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

RESTRAINED PIPE TABLE WATER & RECLAIMED WATER MAINS

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: RESTRAINED PIPE TABLE WATER AND RECLAIMED	

CONTACT 811 BEFORE YOU DIG — SAFE DIGGING PARTNER

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

DRAWN BY: ES

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

UTILITIES - DETAILS

QSR AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

ELLIESE M. SHAUGHNESSY, LICENSE No. 92149, STATE OF FLORIDA, PROFESSIONAL ENGINEER

TYPE: FOR REVIEW

Date: 2/26/26

Sheet: C4.1

C4.0 UTILITIES.dwg

2/26/2026

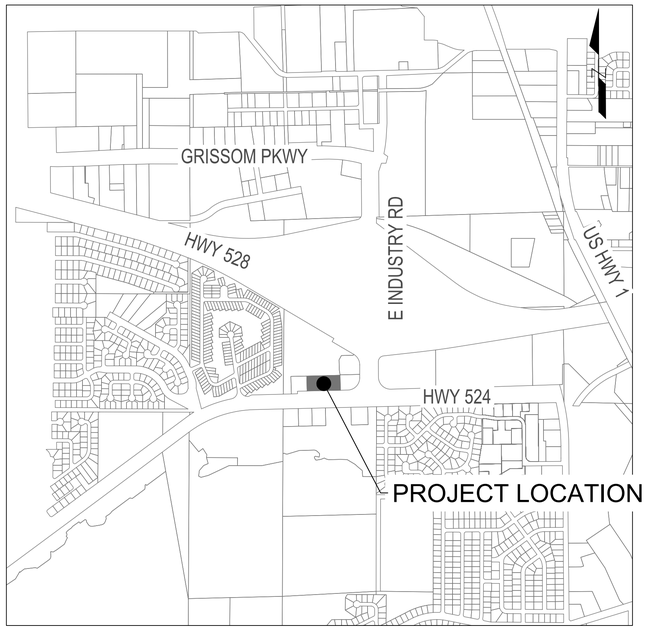
DENTAL OFFICE AT CIRRUS

MAJOR SITE PLAN

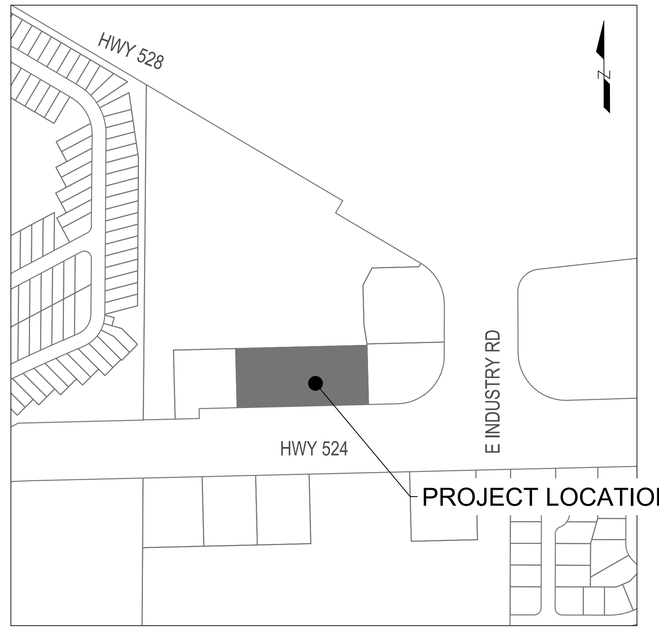
HIGHWAY 524 & INDUSTRY RD
CITY OF COCOA, FL

Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER
C0.1	GENERAL NOTES
C0.2	OVERVIEW AERIAL
C0.3	EXISTING CONDITIONS
C0.4	SWPPP
C0.5	SWPPP - DETAILS
C1.0	SITE PLAN
C1.1	SITE PLAN - DETAILS
C2.0	TRUCK EXHIBIT
C4.0	UTILITIES
C4.1	UTILITIES - DETAILS
C3.0	PAVING GRADING DRAINAGE
C3.1	PGD DETAILS

GENERAL STATEMENT:
THE PROPOSED PROJECT CONSISTS OF A ONE-STORY 4,200 SQ. FT. MEDICAL (DENTAL) OFFICE ON 0.75ACRES. THE SITE IS AN OUTPARCEL OF THE CIRRUS DEVELOPMENT. THE PROPOSED DENTAL OFFICE WILL BE SERVED BY THE MASTER STORMWATER MANAGEMENT SYSTEM FOR CIRRUS PD. POTABLE WATER ,SANITARY SEWER AND REUSE IRRIGATION WATER SHALL BE PROVIDED BY THE CITY OF COCOA.



LOCATION MAP
N.T.S.



VICINITY MAP
N.T.S.

LEGAL DESCRIPTION:

PROPERTY DESCRIPTION FROM SURVEYOR:

A PORTION OF LOT 1, HOME DEPOT COCOA, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 57, PAGE 87, OF THE PUBLIC RECORDS OF CITY OF COCOA, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID LOT 1, THENCE NORTH 88°29'39" EAST, 113.35 FEET ALONG THE SOUTH LINE OF SAID LOT 1, THE SAME BEING THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD 524 AS SHOWN ON FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY MAP SECTION NO. 70007-2501, TO THE SOUTHWEST CORNER OF LOT 2 OF SAID PLAT OF HOME DEPOT COCOA; THENCE NORTH 01°30'21" WEST, 245.00 FEET ALONG THE WEST LINE OF SAID LOT 2 TO THE NORTHWEST CORNER OF SAID LOT 2; THENCE NORTH 88°29'39" EAST, 221.00 FEET ALONG THE NORTH LINE OF SAID LOT 2 TO THE NORTHEAST CORNER OF SAID LOT 2 AND THE POINT OF BEGINNING; THENCE CONTINUE NORTH 88°29'39" EAST, 466.24 FEET TO AN INTERSECTION WITH THE EASTERLY LINE OF SAID LOT 1; THENCE SOUTH 01°30'21" EAST, 210.00 FEET ALONG THE EASTERLY LINE OF SAID LOT 1 TO THE SOUTHEAST CORNER OF SAID LOT 1 AND AN INTERSECTION WITH THE SAID NORTH RIGHT-OF-WAY LINE OF STATE ROAD 524; THENCE SOUTH 88°29'39" WEST, 466.24 FEET, ALONG SAID NORTH RIGHT-OF WAY LINE TO THE SOUTHEAST CORNER OF SAID LOT 2; THENCE NORTH 01°30'21" WEST, 210.00 FEET ALONG THE EAST LINE OF SAID LOT 2 TO THE NORTHEAST CORNER OF SAID LOT 2 AND THE POINT OF BEGINNING. SAID PARCEL CONTAINING 2.2477 ACRES +/- OF LAND.

PROPERTY DESCRIPTION FROM TITLE:

PORTION OF LOT 1, HOME DEPOT COCOA, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 57, PAGE 87, PUBLIC RECORDS OF CITY OF COCOA, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SAID LOT 1 AND RUN ALONG THE BOUNDARY OF SAID LOT 1, N88°34'39" E A DISTANCE OF 113.35 FEET TO THE SOUTHWEST CORNER OF LOT 2 OF SAID HOME DEPOT COCOA; THENCE N 01°25'21" W, ALONG THE WEST LINE OF SAID LOT 2, A DISTANCE OF 245.00 FEET TO THE NORTHWEST CORNER OF SAID LOT 2; THENCE N 88°34'39" E A DISTANCE OF 221.00 FEET TO THE NORTHEAST CORNER OF SAID LOT 2 AND THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED; THENCE CONTINUE N 88°34'39" E, ALONG THE EASTERLY EXTENSION OF THE NORTH LINE OF SAID LOT 2, A DISTANCE OF 466.23 FEET TO THE EASTERLY LINE OF SAID LOT 1; THENCE S 01°25'21" E, ALONG SAID EASTERLY LINE, A DISTANCE OF 210.00 FEET TO THE SOUTHEAST CORNER OF SAID LOT 1, (SAID POINT ALSO BEING A POINT ON THE NORTH RIGHT OF WAY LINE OF STATE ROAD NO. 524); THENCE S 88°34'39" W, ALONG SAID NORTH RIGHT OF WAY LINE, A DISTANCE OF 466.24 FEET TO THE SOUTHEAST CORNER OF SAID LOT 2; THENCE N 01°25'21" W, ALONG THE EAST LINE OF SAID LOT 2, A DISTANCE OF 210.00 FEET TO THE POINT OF BEGINNING.

ENGINEER:
VITTER ENGINEERING GROUP, LLC
LICENSE #39602
2081 CAVALLA RD
VERO BEACH, FL 32963

ELLIESE SHAUGHNESSY, PE
DIRECT: 772-766-6533

DEVELOPER/ OWNER:
WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

LEAH FITZPATRICK
DIRECT: 407-716-6607

SURVEYOR:
BGE, INC
440 PGA BLVD
PALM BEACH GARDENS, FL 33410

JIM SULLIVAN, PSM
DIRECT: 561-485-0824

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

DRAWN BY: ES

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

COVER

DENTAL OFFICE AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

811 CONTACT 811 BEFORE YOU DIG SAFE DIGGING PARTNER

ELLIESE M. SHAUGHNESSY LICENSE No. 92149 STATE OF FLORIDA PROFESSIONAL ENGINEER

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C0.0

C0.0 Cover.dwg
2/26/2026

GENERAL NOTES

ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY, COUNTY AND STATE REGULATIONS AND CODES AND O.S.H.A. STANDARDS.

NO WORK WITHIN FDOT OR CITY OF COCOA RIGHT OF WAY SHALL TAKE PLACE WITHOUT ALL PERMITS.

EXISTING STRUCTURES WITHIN THE CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID. AREAS TO BE DISTURBED SHALL BE IMPROVED PER THE CIVIL PLANS OR RESTORED TO THEIR ORIGINAL OR BETTER CONDITION. CONTRACTOR SHALL REPAIR ANY EXISTING FEATURES THAT ARE DAMAGED DURING CONSTRUCTION TO THE EXISTING OR BETTER CONDITION.

SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM A SURVEY BY BGE, INC. ALL INFORMATION IS TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

THE CONTRACTOR SHALL EMPLOY ALL NECESSARY BARRICADES, SIGNS, FENCES, FLASHING LIGHTS, TRAFFIC MEN, ETC. FOR MAINTENANCE AND PROTECTION OF TRAFFIC AS REQUIRED BY THE FLORIDA DEPT. OF TRANSPORTATION (FDOT) AS APPLICABLE.

THE CONTRACTOR SHALL PROTECT ALL MONUMENTS, IRON PINS, AND PROPERTY CORNERS DURING CONSTRUCTION.

APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. ANY GRADING BEYOND THE LIMITS OF CONSTRUCTION AS SHOWN ON THE GRADING AND DRAINAGE PLAN WITHOUT AUTHORIZATION IS SUBJECT TO A FINE. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS AND THE CITY OF COCOA.

CONTRACTOR AGREES TO REPAIR ANY DAMAGE TO THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE STANDARDS OF THE FDOT AND CITY OF COCOA.

ALL STANDARD NUMBERS REFER TO THE FDOT STANDARD DETAILS AND SPECIFICATIONS AND THE LATEST EDITION OF THE CITY OF COCOA.

THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE OWNER ANY DISCREPANCIES FOUND BETWEEN THE ACTUAL FIELD CONDITIONS AND THE CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING.

CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.

CONTRACTOR SHALL POST ASSIGNED BUILDING PERMIT NUMBER AND ADDRESS ON BUILDING.

CONTACT THE UTILITY COMPANY TO RELOCATE ANY EXISTING UTILITY AND/OR LIGHT POLES. ALL EXISTING FACILITIES WHICH CONFLICT WITH THE IMPROVEMENTS UNDER THE SCOPE OF THIS PROJECT MUST BE RELOCATED AT THE EXPENSE OF THE CONTRACTOR.

ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE PERFORMANCE STANDARDS AND REQUIREMENTS OF THE CITY OF COCOA LAND DEVELOPMENT REGULATIONS CHAPTER 62, SECTIONS 2251-2272.

LIGHTING SHALL BE DESIGNED, INSTALLED, MAINTAINED, AND DIRECTED SO AS TO AVOID GLARE ON ADJOINING PROPERTIES AND RIGHTS-OF-WAY THROUGH THE USE OF SEMI- AND FULL-CUTOFF SHIELDS.

GRADING NOTES

THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND MOISTURE CONDITION ALL FILL PER THE PROJECT GEOTECHNICAL ENGINEERS SPECIFICATIONS AND IN ACCORDANCE WITH THE GEOTECHNICAL EVALUATION REPORT. FILL MATERIAL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.

THE CONTRACTOR SHALL COORDINATE WITH THE GEOTECHNICAL ENGINEER FOR APPROPRIATE SLOPE STABILIZATION ON ALL SLOPES STEEPER THAN 3:1.

ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.

EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.

CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

ALL PROPOSED CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES.

ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK, AND THIS MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAKING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UTILITIES, AND SHALL REPAIR ALL DAMAGE TO EXISTING UTILITIES THAT OCCUR DURING CONSTRUCTION.

CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.

LIMITS OF CLEARING SHOWN ON GRADING AND DRAINAGE PLAN ARE BASED UPON THE APPROXIMATE CUT AND FILL SLOPE LIMITS, OR OTHER GRADING REQUIREMENTS.

THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SHEETING, SHORING, BRACING AND SPECIAL EXCAVATION MEASURES REQUIRED TO MEET OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS. THE DESIGN ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE DESIGN(S) TO INSTALL SAID ITEMS.

THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ANY DEWATERING AND MOISTURE CONDITIONING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS.

GRADES, ELEVATIONS AND LOCATIONS SHOWN ARE APPROXIMATE. AS DIRECTED BY THE ENGINEER, THEY MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN CONDITIONS. STATIONS, OFFSETS AND ELEVATIONS REFER TO THE CENTER OF DROP INLETS, MANHOLES AND JUNCTION BOXES, AND THE MIDPOINT OF THE LIP FOR CATCH BASINS.

ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.

EROSION CONTROL NOTES

TOTAL AREA DISTURBED = 1.450 ACRES. (±)

LIMITS OF GRADING SHOWN ON THE PLAN ARE MAXIMUM LIMITS FOR EROSION CONTROL PURPOSES ONLY. SURVEYOR TO DETERMINE ACTUAL LIMIT.

CONTRACTOR SHALL COORDINATE ALL WORK WITH CITY OF COCOA.

ALL "STD." NUMBERS REFER TO THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEW MANUAL AND THE FDOT STANDARD DETAILS AND SPECIFICATIONS.

ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.

GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.

ALL AREAS MUST BE SEEDED AND MULCHED WITHIN 14 CALENDAR DAYS. REFER TO EROSION CONTROL ORDINANCE FOR ADDITIONAL REQUIREMENTS.

ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE COUNTY ENGINEERING DEPARTMENT.

SLOPES SHALL BE GRADED NO STEEPER THAN 3:1. FILL SLOPES GREATER THAN 10' REQUIRE ADEQUATE TERRACING.

A GRADING PLAN MUST BE SUBMITTED FOR ANY LOT GRADING EXCEEDING ONE ACRE THAT WAS NOT PREVIOUSLY APPROVED.

DEVIATION FROM THESE PLANS AND NOTES WITHOUT THE PRIOR CONSENT OF THE OWNER, HIS REPRESENTATIVE, OR THE ENGINEER MAY BE CAUSE FOR THE WORK TO BE UNACCEPTABLE.

SUFFICIENT EROSION CONTROL PRACTICES MUST BE INSTALLED AND MAINTAINED TO RETAIN SEDIMENT WITHIN THE BOUNDARIES OF THE SITE. ALL DISTURBED AREAS SHALL BE NONEROSIVE AND SHALL BE GRASSED AS SOON AS CONSTRUCTION PHASES PERMIT AND ALL SLOPES SHALL BE STABILIZED AS SOON AS POSSIBLE. SLOPES SHALL BE STABILIZED WITHIN 14 CALENDAR DAYS.

THE SEDIMENT TRAPS AND DIVERSION DITCHES SHALL BE CLEANED OUT WHEN THE STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED. GRAVEL SHALL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS PROPERLY.

ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED WEEKLY AND AFTER EVERY 0.5 INCH RAINFALL EVENT, BUT IN NO CASE LESS THAN ONCE EVERY WEEK. NEEDED REPAIRS SHALL BE MADE IMMEDIATELY. SUBMIT WRITTEN REPORT WITH EACH INSPECTION TO THE OWNER.

SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCING WHEN IT BECOMES 6-INCHES DEEP AT THE FENCE. THE FENCING WILL BE REPAIRED AS NECESSARY TO MAINTAIN SUFFICIENT BARRIER.

ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO THE PLANS AND SPECIFICATIONS TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

ALL DRAINAGE SWALES MUST BE GRASSED AND RIP-RAP MUST BE REPLACED AS REQUIRED TO CONTROL EROSION. RIP-RAP WILL CONSIST OF 50 TO 125 POUND STONES PLACED AT ALL HEADWALLS, AND WHERE NOTED ON CONSTRUCTION DRAWINGS. (SEE DETAIL SHEET FOR OUTFALL PIPE SIZE CHART)

ADDITIONAL EROSION CONTROL MEASURES OR SILT BARRIERS TO BE PLACED AS DIRECTED BY THE LOCAL JURISDICTIONAL INSPECTOR.

WHEN ANY CONSTRUCTION BORDERS A DRAINAGE COURSE:

A. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY BUILDING OR OTHER EXCAVATION SPOIL DIRT, CONSTRUCTION TRASH OR DEBRIS, ETC., FROM THE DRAINAGE AREA SHOWN HEREON IN A EXPEDITIOUS MANNER AS CONSTRUCTION PROGRESSES.
B. THE CONTRACTOR HEREBY AGREES TO STOP ALL WORK AND RESTORE THESE IMMEDIATELY UPON NOTIFICATION BY THE LOCAL JURISDICTIONAL INSPECTOR AND/OR THE OWNER.

FOR ALL CONSTRUCTION ALONG AND/OR ACROSS WATERWAYS, BANK PROTECTION AND STABILIZATION SHALL BE REQUIRED AS PER LOCAL JURISDICTIONAL EROSION CONTROL LAWS.

ALL TREE PROTECTION AND EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING CONSTRUCTION AND SHALL BE MAINTAINED IN PROPER WORKING ORDER UNTIL ALL DISTURBED AREAS ARE STABILIZED AND GROUND COVER IS ESTABLISHED. CONSTRUCTION ENTRANCE PADS SHALL BE INSTALLED BY THE CONTRACTOR AT CONSTRUCTION ACCESS POINTS PRIOR TO LAND DISTURBANCE.

THE CONTRACTOR SHALL KEEP A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT ON SITE WHENEVER LAND DISTURBING ACTIVITY IS IN PROGRESS.

INSTALL SILT FENCE ALONG THE DOWNSTREAM SIDE OF ALL PROPOSED CUT AND FILL CONSTRUCTION AND AS INDICATED ON PLANS.

A TEMPORARY DIVERSION SWALE MAY BE USED IN LIEU OF SILT FENCE WHERE RUNOFF CAN BE DIRECTED TO A TEMPORARY SEDIMENT TRAP.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM REQUIRED MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL DEVICES TO ENSURE THEIR FUNCTION AT ALL TIMES.

CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED.

WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.

WHEN A CRUSHED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR OR HAS BEEN PUSHED INTO THE SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPLACED WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL APPLICATION.

CONTRACTOR TO PROTECT THE EXISTING EXPOSED SANITARY SEWER MANHOLES AT ALL TIMES DURING THE CONSTRUCTION.

PERFORM A FINAL DEMUCKING OF ALL SEDIMENT CONTROL DEVICES AND RESTABILIZATION OF ANY DISTURBED AREAS BEFORE DEMOBILIZATION.

FIRE DEPARTMENT NOTES

FIRE DEPARTMENT ACCESS DRIVES SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FEET AND SHALL HAVE AN ALL WEATHER DRIVING SURFACE CAPABLE OF SUPPORTING A 40-TON EMERGENCY VEHICLE. THE DRIVING SURFACE SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION.

A CLEAR SPACE OF NOT LESS THAN 60 IN. SHALL BE PROVIDED IN FRONT OF EACH HYDRANT CONNECTION HAVING A DIAMETER GREATER THAN 2-1/2 IN.

A 36 IN. CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS EXCEPT AS OTHERWISE NOTED OR APPROVED.

THE CENTER OF A FIRE HYDRANT HOSE OUTLET SHALL BE NOT LESS THAN 18 IN. ABOVE FINAL GRADE.

FIRE HYDRANTS SHALL NOT BE MORE THAN 12 FT. FROM THE FIRE DEPARTMENT ASSESS ROAD.

THIS PROJECT, DURING CONSTRUCTION AND DURING OPERATION OF THE BUSINESS SHALL CONFORM TO THE CITY OF COCOA'S PERFORMANCE STANDARDS AS DEFINED BY SECTIONS 62-2251-62-2272 OF THE LAND DEVELOPMENT CODE.

GROUND STABILIZATION NOTES

SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE:

ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.

ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.

CONDITIONS - IN MEETING THE STABILIZATION REQUIREMENTS ABOVE, THE FOLLOWING CONDITIONS OR EXEMPTIONS SHALL APPLY:

ALL SLOPES 50' IN LENGTH OR GREATER SHALL APPLY THE GROUND COVER WITHIN 7 DAYS EXCEPT WHEN THE SLOPE IS FLATTER THAN 4:1. SLOPES LESS THAN 50' SHALL APPLY GROUNDCOVER WITHIN 14 DAYS EXCEPT WHEN SLOPES ARE STEEPER THAN 3:1, THE 7 DAY-REQUIREMENT APPLIES.

ANY SLOPED AREA FLATTER THAN 4:1 SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT.

SLOPES 10' OR LESS IN LENGTH SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT EXCEPT WHEN THE SLOPE IS STEEPER THAN 2:1.

ALTHOUGH STABILIZATION IS USUALLY SPECIFIED AS GROUND COVER, OTHER METHODS, SUCH AS CHEMICAL STABILIZATION, MAY BE ALLOWED ON A CASE-BY-CASE BASIS.

UTILITY NOTES

THE CONTRACTOR IS RESPONSIBLE FOR HORIZONTALLY AND VERTICALLY LOCATING AND PROTECTING ALL PUBLIC OR PRIVATE UTILITIES (SHOWN OR NOT SHOWN) WHICH LIE IN OR ADJACENT TO THE CONSTRUCTION SITE. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL CONTACT SUNSHINE 811 AT (800) 432-4770 TO COORDINATE FOR THE IDENTIFICATION OF EXISTING UTILITIES WITHIN THE SITE.

SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED UTILITIES BE ENCOUNTERED, THE CONTRACTOR SHALL CONTACT THE OWNER IMMEDIATELY FOR DIRECTIONS.

CONTRACTOR SHALL COORDINATE ANY INTERRUPTION OF UTILITY SERVICE WITH OWNER AND RESPECTIVE UTILITY COMPANY REPRESENTATIVE.

THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY THE CONTRACTOR SHALL NOTIFY THE UTILITY PROVIDER FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE PROJECT SITE.

ANY PLANNED INTERRUPTION OF UTILITY SERVICE SHALL BE GIVEN A 48 HOUR NOTICE TO THE UTILITY COMPANY AND THE OWNER.

CONTRACTOR SHALL SAW CUT, REMOVE, AND REPLACE ASPHALT PAVEMENT AS NECESSARY TO INSTALL UNDERGROUND ELECTRIC,TELEPHONE, SEWER, WATER, AND COMMUNICATION CONDUITS.

ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL POWER COMPANY STANDARDS.

ALL UTILITIES ARE TO BE UNDERGROUND.

ALL SANITARY SEWER AND REUSE CONSTRUCTION SHALL CONFORM TO THE CRITERIA FOR WATER AND SANITARY SEWERAGE SYSTEMS WITHIN CITY OF COCOA, LATEST EDITION.

ALL POTABLE WATER CONSTRUCTION SHALL CONFORM TO CITY OF COCOA CODE CHAPTER 22 WATER AND SEWERS, AND CITY OF COCOA TECHNICAL PROVISIONS AND STANDARD DETAILS.

UTILITY CONTACTS:
POTABLE WATER, SEWER / REUSE:
CITY OF COCOA UTILITIES
351 SHEARER BLVD.
COCOA, FLORIDA 32922
(321) 433-8700

SEDIMENT AND EROSION CONTROL NOTES

PRIOR TO CLEARING AND EARTHWORK ACTIVITIES THE CONTRACTOR SHALL HAVE A PRE-CONSTRUCTION CONFERENCE WITH THE CITY OF COCOA INSPECTOR; INSTALL EROSION CONTROL DEVICES SPECIFIED AND AS INDICATED ON THE DRAWINGS, AND THEN OBTAIN AN APPROVED GRADING PERMIT. DURING EACH PHASE OF SITE CONSTRUCTION THE CONTRACTOR SHALL ADJUST, RELOCATE AND/OR REINSTALL AS APPLICABLE ALL EROSION CONTROL DEVICES AND SEDIMENT DISCHARGE FROM THE SITE.

SILT FENCE SHALL BE MAINTAINED AROUND THE PERIMETER OF ALL EARTHWORK AREAS TO PREVENT SEDIMENT TRANSPORT ONTO ADJACENT PROPERTIES OR OFFSITE ROADWAYS, AS APPLICABLE.

SILT FENCE FILTER BARRIERS SHALL BE INSTALLED AND MAINTAINED UNTIL CONSTRUCTION IS COMPLETE AND LANDSCAPING IS INSTALLED.

THE CONTRACTOR SHALL IMMEDIATELY CLEANUP AND REPAIR ALL EROSION DAMAGE AFTER DISCOVERY AND REINSTALL ADEQUATE CONTROL MEASURES AS NECESSARY TO PREVENT REOCCURRENCE OF DAMAGE.

ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED WEEKLY AND AFTER EVERY 0.5 INCH RAINFALL EVENT, BUT IN NO CASE LESS THAN ONCE EVERY WEEK. NEEDED REPAIRS SHALL BE MADE IMMEDIATELY. SUBMIT WRITTEN REPORT WITH EACH INSPECTION TO THE OWNER.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS BEEN TEMPORARILY OR PERMANENTLY CEASED. CONTRACTOR SHALL INSTALL TEMPORARY GRAVEL DRIVEWAY AT EACH CONSTRUCTION ENTRANCE AS SHOWN ON THESE PLANS.

CONSTRUCTION POINT OF ACCESS TO LIMIT DEPOSITS OF EARTH AND OTHER HAULED MATERIALS ONTO THE ADJACENT LOT. THE CONTRACTOR SHALL ROUTINELY CLEAN ALL SEDIMENT DEPOSITS AND DEBRIS FROM ROADWAY AS THEY OCCUR.

SEEDBED PREPARATION NOTES

GRADE SLOPES AND FILLS - THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE WHICH CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED SHALL, WITHIN 14 WORKING DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION.

GROUND COVER - WHENEVER LAND DISTURBING ACTIVITY IS UNDERTAKEN ON A TRACT COMPRISING MORE THAN ONE (1) ACRE, IF MORE THAN ONE CONTIGUOUS ACRE IS UNCOVERED, A GROUND COVER SUFFICIENT TO RESTRAIN EROSION MUST BE PLANTED OR OTHERWISE PROVIDED WITHIN 15 WORKING DAYS ON THAT PORTION OF THE TRACT UPON WHICH FURTHER ACTIVE CONSTRUCTION IS NOT BEING UNDERTAKEN.

SURFACE WATER CONTROL MEASURES TO BE INSTALLED ACCORDING TO PLAN.

LOOSE ROCKS, ROOTS, AND OTHER OBSTRUCTION SHALL BE REMOVED FROM THE SURFACE SO THAT THEY WILL NOT INTERFERE WITH ESTABLISHMENT AND MAINTENANCE OF VEGETATION. SURFACE FOR FINAL SEEDBED PREPARATION, AT FINISH GRADES SHOWN, SHALL BE REASONABLY SMOOTH AND UNIFORM.

IF NO SOIL TEST IS TAKEN, FERTILIZER AND LIME ACCORDING TO SEEDING SPECIFICATIONS.

RETAINING WALL NOTES

DESIGN OF ALL RETAINING WALLS IS TO BE PER FLORIDA BUILDING CODE.

CONTRACTOR SHALL PROVIDE DETAILED RETAINING WALL DESIGN DRAWINGS, SEALED BY A FLORIDA LICENSED ENGINEER, AND SHALL SUBMIT TO THE LOCAL AUTHORITY FOR APPROVAL PRIOR TO CONSTRUCTION.

A FLORIDA LICENSED ENGINEER MUST PERFORM CONSTRUCTION OBSERVATION, VERIFYING IN A SEALED LETTER TO THE LOCAL AUTHORITY, ENGINEER AND OWNER THAT RETAINING WALLS ARE CONSTRUCTED PER THE ENGINEERING DRAWINGS IN COMPLIANCE WITH FLORIDA BUILDING CODE.

DEMOLITION NOTES

1. ALL MATERIAL REMOVED FROM THIS SITE BY THE CONTRACTOR SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER AT THE CONTRACTOR'S EXPENSE.
2. REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC., LOCATED WITHIN THE PROJECT SITE. UNLESS OTHERWISE NOTED, ALL EXISTING BUILDINGS, STRUCTURES, SLABS, CONCRETE, ASPHALT, DEBRIS PILES, SIGNS, AND ALL APPURTENANCES ARE TO BE REMOVED FROM THE SITE BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN A LEGAL MANNER AS PART OF THIS CONTRACT. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
3. THE CONTRACTOR SHALL REFER TO THE DEMOLITION PLAN FOR DEMOLITION /PRESERVATION OF EXISTING TREES. ALL TREES NOT SPECIFICALLY SHOWN TO BE PRESERVED OR RELOCATED SHALL BE REMOVED AS A PART OF THIS CONTRACT. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY DEMOLITION.

PAVING, GRADING AND DRAINAGE NOTES

1. ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN JURISDICTIONAL RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR FDOT SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS.
2. ALL UNPAVED AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SODDED.
3. TRAFFIC CONTROL ON ALL FDOT, LOCAL AND COUNTY RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
4. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED OR ADEQUATE STABILIZATION OCCURS.
5. ALL OPEN AREAS WITHIN THE PROJECT SITE SHALL BE SEEDED UNLESS INDICATED OTHERWISE NOTED ON THE LANDSCAPE PLAN.
6. ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON THE DRAWINGS.
7. WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND REPLACE THE PAVEMENT WITH THE SAME TYPE AND DEPTH OF MATERIAL AS EXISTING OR AS INDICATED.
8. WHERE NEW PAVEMENT MEETS THE EXISTING PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING PAVEMENT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND MATCH THE EXISTING PAVEMENT ELEVATION WITH THE PROPOSED PAVEMENT UNLESS OTHERWISE INDICATED.
9. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.
10. STRIP TOPSOIL AND ORGANIC MATTER FROM ALL AREAS OF THE SITE AS REQUIRED. IN SOME CASES TOPSOIL MAY BE STOCKPILED ON SITE FOR PLACEMENT WITHIN LANDSCAPED AREAS BUT ONLY AS DIRECTED BY THE OWNER.
11. FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY OR TO FDOT STANDARDS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
12. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE SEEDED AS SPECIFIED IN THE PLANS, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE SEEDED AND MULCHED AS SHOWN ON THE LANDSCAPING PLAN.
13. ALL CUT OR FILL SLOPES SHALL BE 3 (HORIZONTAL) :1 (VERTICAL) OR FLATTER UNLESS OTHERWISE SHOWN.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
15. THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS. AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE.
16. SEED, WHERE CALLED FOR, MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.
17. THE CONTRACTOR SHALL ENSURE THAT ISLAND PLANTING AREAS AND OTHER PLANTING AREAS ARE NOT COMPACTED AND DO NOT CONTAIN ROAD BASE MATERIALS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED AND PROPERLY DISPOSED OF IN A LEGAL MANNER.
18. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER MANUFACTURER'S RECOMMENDATIONS.

TYPICAL ENGINEER OBSERVATIONS

1. PRE-CONSTRUCTION MEETING.
2. SUBGRADE PREPARATION.
3. BASE INSTALLATION.
4. ASPHALT INSTALLATION.
5. UNDERGROUND PIPING AND UTILITIES INSTALLATION.
6. INSTALLATION OF STRUCTURES, DDCV, HYDRANTS, METERS, ETC.
7. SIDEWALK BASE AND CONCRETE INSTALLATIONS.
8. CONNECTIONS TO WATER AND SEWER



N

0 60 120 Feet

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

OVERVIEW AERIAL

DENTAL OFFICE AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

811 CONTACT 811 BEFORE YOU DIG SAFE DIGGING PARTNER

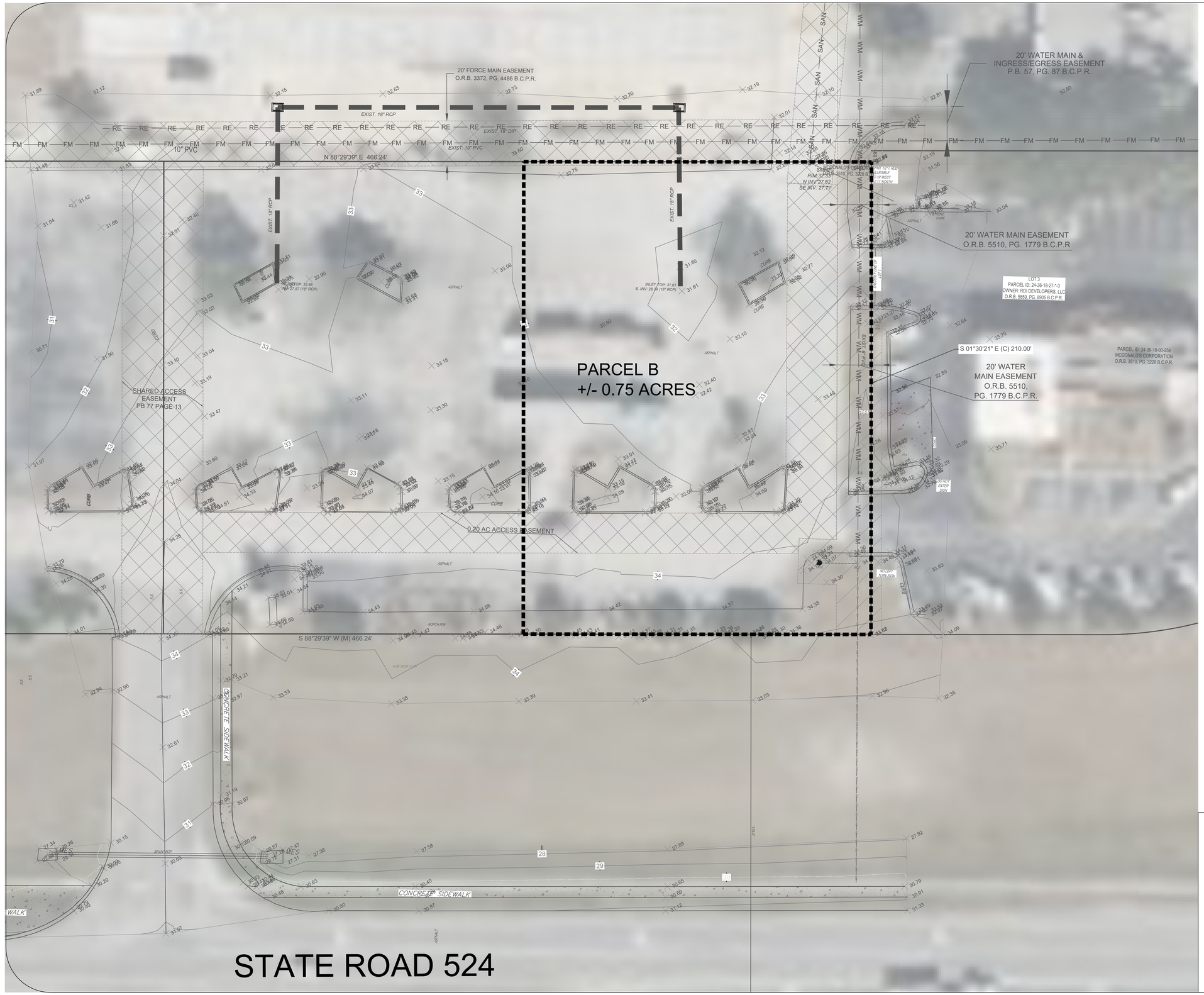
ELLESE M. SHAUGHNESSY LICENSE No. 92149 STATE OF FLORIDA PROFESSIONAL ENGINEER

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C0.2

2/26/2026 C0.2 Aerial.dwg



0 20 40 Feet

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

EXISTING CONDITIONS

DENTAL OFFICE AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

ELLIESE M. SHAUGHNESSY
LICENSE
No. 92149
STATE OF FLORIDA
PROFESSIONAL ENGINEER

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C0.3

C0.2 Aerial.dwg
2/26/2026

EROSION CONTROL LEGEND

	PROPERTY LINE
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	CONSTRUCTION EXIT
	LIMITS OF DISTURBANCE
SF — SF — SF	TEMP SILT FENCE

N

0 20 40 Feet

20' FORCE MAIN EASEMENT
O.R.B. 3372, PG. 4486 B.C.P.R.

INLET PROTECTION

EXIST. 18" RCP

EXIST. 10" PVC

N 88°29'39" E 466.24'

SILT FENCE

CUT AND PLUG PIPE. REMOVE END OF PIPE AND STRUCTURE

SAW-CUT AND REMOVE EXISTING EDGE OF PAVEMENT.

SAW-CUT AND REMOVE EXISTING CURB

REMOVE TREE

LIMITS OF DISTURBANCE

DENTAL OFFICE
4,200 SF
FFE: 34.10

REMOVE ALL ASPHALT WITHIN LIMITS OF DISTURBANCE

CONSTRUCTION ENTRANCE

SAW-CUT & REMOVE EXISTING CURB - MATCH EXISTING EDGE OF PAVEMENT

REMOVE TEMPORARY RED OBJECT MARKER SIGNS PRIOR TO CONNECTION TO EXISTING ASPHALT / TYPE III BARRICADE (FDOT)

REMOVE TREE

20' WATER MAIN EASEMENT
O.R.B. 5510, PG. 1779 B.C.P.R.

S 01°30'21" E (C) 210.00'

SHARED ACCESS EASEMENT PB 77 PAGE 13

0.20 AC ACCESS EASEMENT

EXISTING FIRE HYDRANT TO BE RELOCATED.

PROPERTY LINE

SAW-CUT AND REMOVE EXISTING EDGE OF PAVEMENT.

S 88°29'39" W (M) 466.24'

CONCRETE SIDEWALK

CONTACT 811 BEFORE YOU DIG — SAFE DIGGING PARTNER

ELIESE M. SHAUGHNESSY
LICENSE
No. 92149
STATE OF FLORIDA
PROFESSIONAL ENGINEER

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

SWPPP

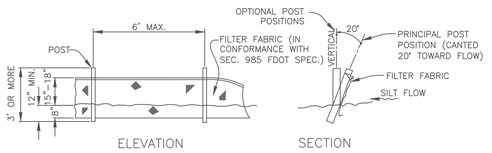
DENTAL OFFICE AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C0.4

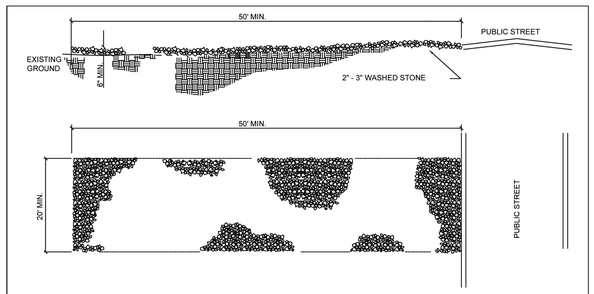
2/26/2026 C0.3 SWPPP.dwg



NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

TYPICAL SILT FENCE DETAIL

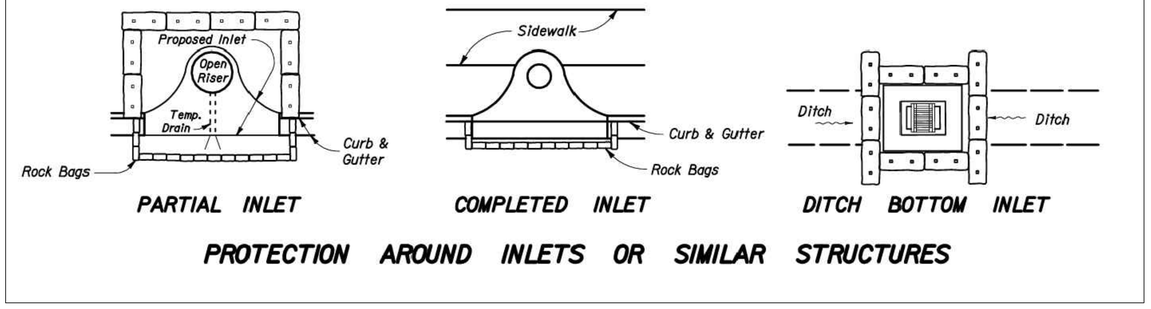
N.T.S.



NOTES:

1. A STABILIZED ENTRANCE PAD 50' MINIMUM IN LENGTH AND 20' MINIMUM IN WIDTH OF 2"-3" COARSE AGGREGATE SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
2. 2" - 3" COARSE AGGREGATE SHALL BE A MINIMUM OF 6" THICK.
3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL AGGREGATE AS CONDITIONS WARRANT AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
4. ANY SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY.
5. WHEN APPROPRIATE, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN.

CONSTRUCTION ENTRANCE



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

EROSION CONTROL NOTES:

- REFER TO C0-1 FOR GENERAL NOTES.
- SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UP-SLOPE LAND DISTURBANCE TAKES PLACE.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED IN BEST LOCATION BASED ON FIELD CONDITIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF CONSTRUCTION ENTRANCES AS NECESSARY TO PREVENT THE TRACKING OF SEDIMENT OFF-SITE. THE OWNER IS RESPONSIBLE FOR MAINTENANCE OF ALL PERMANENT EROSION CONTROL METHODS AFTER CONSTRUCTION IS COMPLETE, IF ANY PERMANENT METHODS ARE REQUIRED.
- APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR AND ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
- PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT UNDISTURBED FOR MORE THAN ONE YEAR.
- DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE LIMITS OF DISTURBANCE (L.O.D.) SHALL BE PERMITTED. THE L.O.D. SHALL BE MAINTAINED BY THE ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G., ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT. COPIES OF THE WRITTEN INSPECTION REPORTS SHALL BE PROVIDED TO THE OWNER'S REPRESENTATIVE ONCE EVERY SEVEN (7) DAYS AND AFTER RAINS OF GREATER THAN 0.5". RAIN GAUGE REQUIRED ON SITE.
- ANY AREAS OF EXPOSED SOILS THAT WILL NOT BE DISTURBED FOR FOURTEEN DAYS SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- AFTER ANY SIGNIFICANT RAINFALL, SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED FOR INTEGRITY. ANY DAMAGED DEVICES SHALL BE CORRECTED IMMEDIATELY.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN FORTY EIGHT (48) HOURS FOLLOWING A STORM EVENT.
- WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION.
- STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT AND AT THE END OF EVERY DAY. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT. SEDIMENT MAY BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL AREA.STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL SUBDIVISION LOTS AS WELL AS TO LARGER LAND DISTURBING ACTIVITIES.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
- PROPERTIES AND WATERWAYS DOWNSTREAM FROM CONSTRUCTION SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND EROSION AT ALL TIMES OF CONSTRUCTION.
- THE SURFACE OF AREAS SLOPES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL THAT ARE TO RECEIVE INTERIM FILL SHALL BE PLOWED, FURROWED, TILLED OR BROKEN UP PRIOR TO PLACING FILL SO THAT FILL MATERIAL WILL BOND WITH EXISTING . " SURFACE. INTERIM FILL SHALL BE PLACED AS SPECIFIED FOR PERMANENT FILLS AND IN LIFTS NOT GREATER THAN 6".
- PROVIDE DUST CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, WETTING DOWN TO CONTROL DUST ON SITE, IN ORDER TO PREVENT ANNOYANCE/AND OR DAMAGE TO ADJACENT SITES. CALCIUM CHLORIDE OR ANY OTHER CHEMICAL MATERIAL MAY NOT BE USED ON SUBGRADES OF AREAS TO BE SEEDED OR PLANTED.
- SEDIMENT LADEN RUNOFF FROM EXCAVATIONS SHALL NOT BE PUMPED DIRECTLY TO STORM DRAINAGE.
- INSPECTOR REFERS TO LOCAL JURISDICTIONAL (LOCAL) LAND QUALITY INSPECTOR OR HIS REPRESENTATIVE. FIELD INSPECTIONS MAY REQUIRE ADDITIONAL SEDIMENTATION AND EROSION CONTROL MEASURES AS DEEMED NECESSARY BY THE INSPECTOR.
- CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE FDEP STORMWATER EROSION AND SEDIMENTATION CONTROL MANUAL.
- CONTRACTOR IS RESPONSIBLE FOR ALL SURFACE WATER DISCHARGES, RAINFALL RUN OFF OR DEWATERING ACTIVITIES.
- CONTRACTOR MUST INCORPORATE ALL BMPS NECESSARY TO MEET OR EXCEED STATE WATER OR QUALITY AND SWPPP REQUIREMENTS.
- THE POLLUTION PREVENTION PLAN IS A MINIMUM GUIDELINE ONLY. ADDITION BMPS MAY BE NECESSARY AT CONTRACTOR'S EXPENSE.

SEQUENCE OF CONSTRUCTION ACTIVITIES:

1. OBTAIN GRADING PERMIT.
2. DETERMINE AND MARK LIMITS OF DISTURBANCE.
3. A PRECONSTRUCTION CONFERENCE MUST BE HELD 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. THE EROSION CONTROL INSPECTOR, ARCHITECT, ENGINEER, AND CONTRACTOR SHALL BE PRESENT TO SATISFY REQUIREMENTS.
4. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCING, SILT FENCE, PERIMETER EROSION CONTROL DEVICES AND ALL REQUIRED BASINS AND TRAPS.
5. SCHEDULE SITE INSPECTION.
6. UPON APPROVAL TO PROCEED BY THE EROSION CONTROL INSPECTOR, HARVEST ANY TIMBER.
7. CONSTRUCT REMAINING EROSION CONTROL MEASURES AS REQUIRED.
8. REMOVE AND/OR STORE TOPSOIL.
9. BEGIN GRADING OPERATIONS.
10. CLEAN SEDIMENT BASINS/TRAPS WHEN ONE-HALF FULL.
11. ALL STREETS SURROUNDING THE PROJECT SHALL BE KEPT CLEAN AT ALL TIMES.
12. PLACE TEMPORARY SEEDING ON ALL DISTURBED AREAS THAT WILL BE IDLE 14 DAYS OR LONGER.
13. PERMANENT SURFACE STABILIZATION SHALL BE INSTALLED FOR ALL AREAS WITHIN 14 DAYS AFTER FINAL GRADE HAS BEEN REACHED, AS NECESSARY, FERTILIZE, WATER AND RESEED AS REQUIRED TO ESTABLISH AND MAINTAIN A VIGOROUS STAND OF GRASS.
14. AFTER COMPLETION OF CONSTRUCTION AND THE SITE IS STABILIZED, REMOVE ALL ACCUMULATED SEDIMENT FROM SEDIMENT TRAPPING MEASURES AND DISPOSE BY MEANS DEEMED ACCEPTABLE BY THE ENGINEER. SCHEDULE SITE INSPECTION. UPON APPROVAL BY THE EROSION CONTROL INSPECTOR, REMOVE TEMPORARY EROSION CONTROL MEASURES, SMOOTH AREA AND APPLY APPROPRIATE STABILIZATION.
15. STORMWATER PERMIT INSPECTION REPORTS SHALL BE PERFORMED BY THE CONTRACTOR UNTIL NOTIFIED OTHERWISE BY THE EROSION CONTROL INSPECTOR.

NOTES:

1. INSPECTOR REFERS TO LOCAL JURISDICTIONAL (FDEP OR LOCAL) LAND QUALITY INSPECTOR OR HIS REPRESENTATIVE. FIELD INSPECTIONS MAY REQUIRE ADDITIONAL SEDIMENTATION AND EROSION CONTROL MEASURES AS DEEMED NECESSARY BY THE INSPECTOR.
2. CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE FDEP STORMWATER EROSION AND SEDIMENTATIONS CONTROL MANUAL.
3. LIMITS OF DISTURBANCE LINE IS CONSIDERED CONCEPTUAL. IN GENERAL, IT EXTENDS TO THE PROPERTY LINE UNLESS OTHERWISE SHOWN.
4. PRIOR TO C.O., CONTRACTOR IS TO CLEAN OUT ANY SEDIMENT OR DEBRIS FROM PIPES AND STRUCTURES CAUSED BY CONSTRUCTION ACTIVITIES.

CONTACT 811 BEFORE YOU DIG — SAFE DIGGING PARTNER

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

SWPPP - DETAILS

DENTAL OFFICE AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

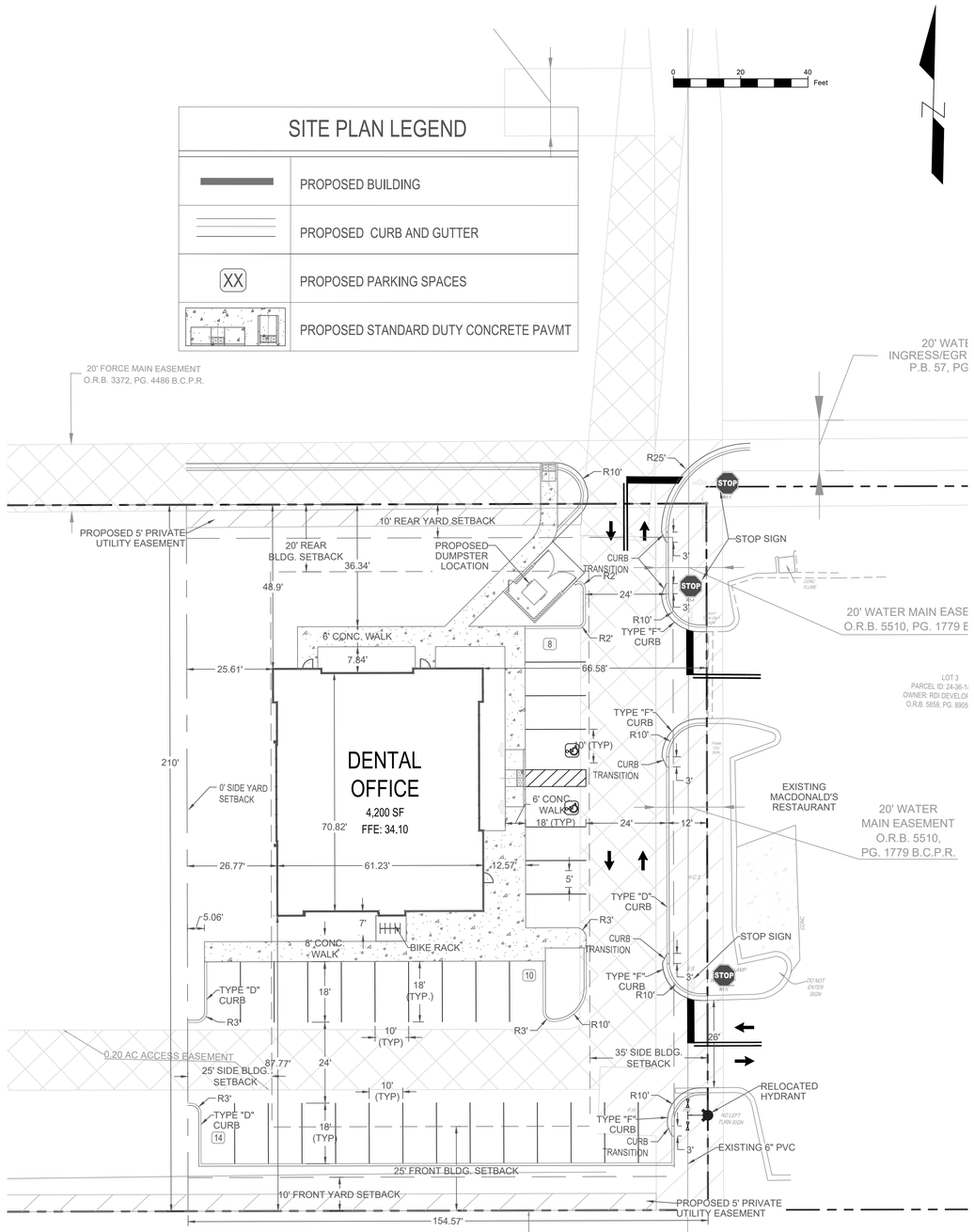
ELIZABETH M. SHAUGHNESSY LICENSE No. 92149 STATE OF FLORIDA PROFESSIONAL ENGINEER

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C0.5

C0.3 SWPPP.dwg
2/26/2026



SITE DATA

PROJECT ADDRESS:	2885 9TH STREET SW VERO BEACH, FL 32960
SEC/TWN/RNG:	SECTION 16, TOWNSHIP 26 S, RANGE 36 E
PARCEL ID:	
SITE AREA:	
PROPOSED:	
PROJECT DESCRIPTION:	
ZONING	LOT 1 - CL LOT 2 - CL
FUTURE LAND USE:	C/I
FEMA FLOOD ZONE:	ZONE "X", AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR BREVARD COUNTY, FLORIDA, MAP NUMBER 12009C0320H, REVISED JANUARY 29, 2021.
EXISTING CONDITIONS:	UNDEVELOPED
EXISTING VEGETATION:	GRASSES AND TREES
WETLANDS:	THERE ARE NO WETLANDS LOCATED ON LOT 1 OR 2
UTILITIES:	WATER AND SEWER: INDIAN RIVER COUNTY UTILITIES ELECTRICITY: FLORIDA POWER & LIGHT (FP&L)

BUILDING SETBACKS:	REQUIRED:	MIN.	PROVIDED
	FRONT	25 FT	FT
	REAR	10 FT	FT
	SIDE (INTERIOR)	10 FT	FT

YARD SETBACKS:	REQUIRED:	MIN.	PROVIDED
	SIDE (INTERNAL)	0 FT	2 FT
	REAR	10 FT	10 FT

MAX BUILDING COVERAGE:	MAXIMUM: 50%	PROPOSED: 12.94%
OPEN SPACE:	MINIMUM: NA	PROPOSED: 32 %
BUILDING HEIGHT:	MAXIMUM: 66 FT	PROPOSED: 28'-8" FT
PARKING REQUIRED:	1 SPACE / 250 SF - 4,200 S.F./ BLDG = 17 PARKING SPACES	
PARKING PROVIDED:	2 HC SPACES + 30 PARKING SPACES = 32 PARKING SPACES	
PARKING AREA RATIO:	REQUIRED: 1:1 - 4,200 SF REQUESTED: 2.5:1 - 10,500 SF PROVIDED: 2.35:1 - 9,900 SF	
FLOOR AREA:	GROSS FLOOR AREA = 4,200 SF FLOOR AREA RATIO = 4,200 / 32,458 SF = 0.129 (12.9%)	

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

SITE PLAN

DENTAL OFFICE AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

CONTACT 811 BEFORE YOU DIG
811 SAFE DIGGING PARTNER

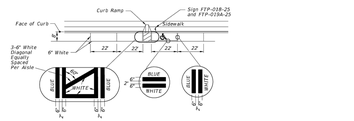
ELLIESE M. SHAUGHNESSY
LICENSE
No. 92149
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C1.0

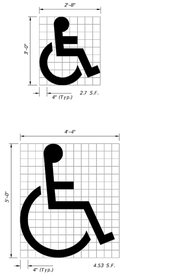
C1.0 SITE PLAN.dwg
2/26/2026



*FOR ACCESSIBLE MARKINGS - SEE ABOVE

DIMENSIONS					
A & B	"A"	"B"	"C"	"D"	"E"
45°	17'-0"	12'-9"	7'-0"	24'-0"	17'-0"

PAVEMENT MARKING FOR PARKING



UNIVERSAL SYMBOL OF ACCESSIBILITY

NOTES:
1. Dimensions are to the centerline of markings.
2. An Access Aisle is required for each accessible space when angle parking is used.
3. Criteria for pavement markings only, not public sidewalk curb ramp locations. For ramp locations refer to plans.
4. Mount FTP-018A-25 sign below the FTP-018-25 sign.
5. Use of the pavement symbol is accessible parking spaces is optional. When pavement symbol is used, the symbol is either 3'-0" or 3'-6" high and white in color.

LAST REVISION	DESCRIPTION:			
11/01/25		FDOT FY 2026-27 STANDARD PLANS	INDEX 711-001-1	SHEET 11 of 13

PAVEMENT MARKINGS

STREET NAME SIGN NOTES:

1. SIGNS IN PUBLIC R.O.W. SHALL BE GREEN WITH 5/8" WHITE BORDER AND WHITE LETTERS AND NUMBERS.
2. SIGNS IN PRIVATE R.O.W. SHALL BE WHITE WITH 5/8" BLACK BORDER AND BLACK LETTERS AND NUMBERS.
3. STREET NAME BLADES SHALL BE RIVETED TOGETHER AT EACH CORNER WITH 3/16" SMALL FLANGE AVEX RIVETS. ATTACH BLADES TO POST WITH CHERRY-MATE ALUMINUM RIVETS, # BALM8BP34, OR 5/16" X 2-1/2" S.S. BOLTS, 1-1/4" X 5/16" S.S. FENDER WASHERS, W/ S.S. STOP HEX NUT HAVING NYLON INSERTS (LOCK NUTS).

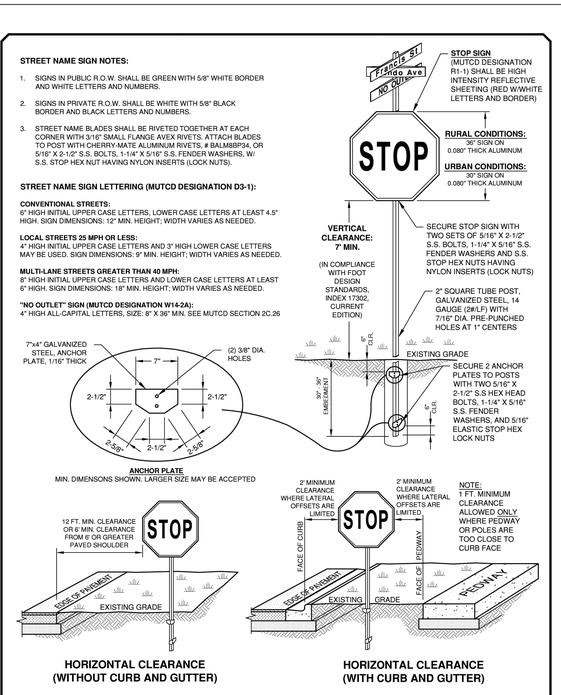
STREET NAME SIGN LETTERING (MUTCD DESIGNATION D3-1):

CONVENTIONAL STREETS:
6" HIGH INITIAL UPPER CASE LETTERS, LOWER CASE LETTERS AT LEAST 4.5" HIGH. SIGN DIMENSIONS: 12" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

LOCAL STREETS 25 MPH OR LESS:
4" HIGH INITIAL UPPER CASE LETTERS AND 3" HIGH LOWER CASE LETTERS MAY BE USED. SIGN DIMENSIONS: 9" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

MULTI-LANE STREETS GREATER THAN 40 MPH:
8" HIGH INITIAL UPPER CASE LETTERS AND LOWER CASE LETTERS AT LEAST 6" HIGH. SIGN DIMENSIONS: 18" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

"NO OUTLET" SIGN (MUTCD DESIGNATION W14-2A):
4" HIGH ALL-CAPITAL LETTERS, SIZE: 8" X 36" MIN. SEE MUTCD SECTION 2C.26



STOP SIGN AND STREET MARKER DETAILS

	BREVARD COUNTY LAND DEVELOPMENT 2725 JUDGE FRAN JAMIESON WAY, VIERA, FL 32940	EXHIBIT - 26	DATE: OCT-2014

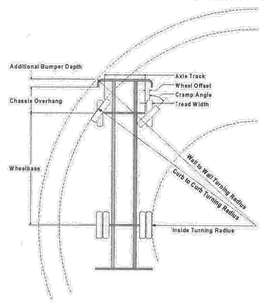
Pierce

Turning Performance Analysis

05/05/2014

Bid Number: 333
Department: Brevard County
Chassis: Arrow-XT Chassis, PAP/Midmount, 2010
Body: Aerial, Platform 100', Alum Body

TRUCK 63



Parameters:

Inside Cramp Angle:	45°
Axle Track:	81.92 in.
Wheel Offset:	4.68 in.
Tread Width:	14.9 in.
Chassis Overhang:	68.99 in.
Additional Bumper Depth:	19 in.
Front Overhang:	156.1 in.
Wheelbase:	247.5 in.

Calculated Turning Radii:

Inside Turn:	19 ft. 7 in.
Curb to curb:	35 ft. 4 in.
Wall to wall:	44 ft. 1 in.

Comments:

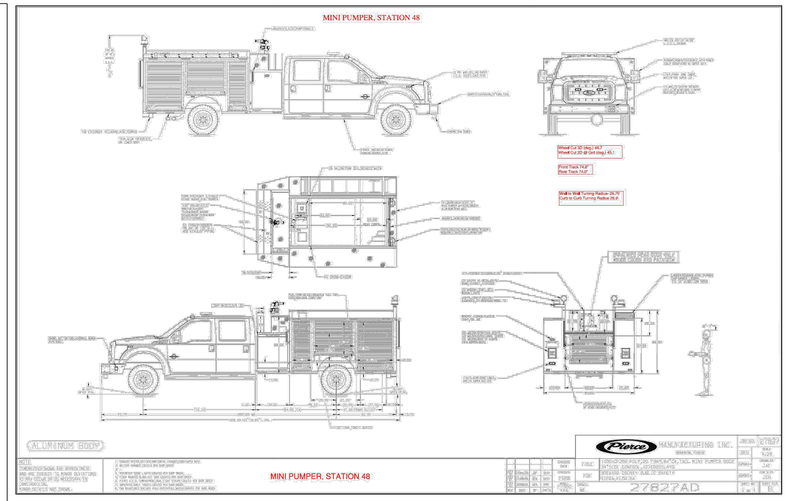
Category	Option	Description
Axle, Front, Custom	0566636	Axle, Front, Dana, D2200, 23,000 lb
Wheels, Front	0668004	Wheels, Front, Alcoa, 22.50" x 10.50", Aluminum, Hub Pilot, 365/70R Tire
Tires, Front	0668005	Tires, Front, Michelin, XZA, 365/70R22.50, 20 ply, Low Profile
Bumpers	0550016	Bumper, 19" Extended, AXT, Dash CF
Aerial Devices	0657391	Aerial, 100' Pierce Platform, 35 MPH Wind Rating, 400lb Tip Load Allowance

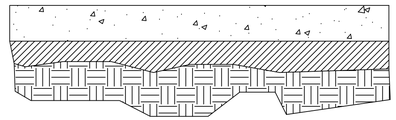
Notes:

Actual Inside cramp angle may be less due to highly specialized options..

Curb to Curb turning radius calculated for 9.00 inch curb.

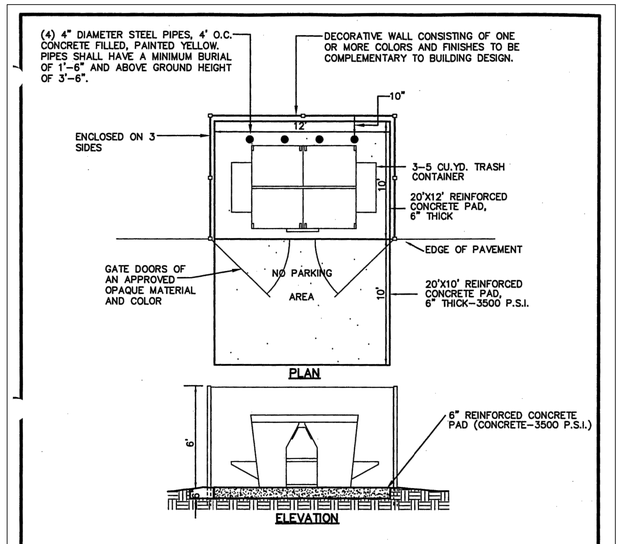
Bumper to Bumper Length:	46.5 Feet
Overall Width:	8.068 ft.
Track Width:	8.068 ft.
Ground Clearance:	1.337 ft.
Lock to Lock time:	4.00s





NOTES
1. INTERNAL SIDEWALKS TO BE 4" THICK
2. SIDEWALK CONCRETE TO HAVE COMPRESSIVE STRENGTH OF 3,000 PSI IN 28 DAYS
3. SUBGRADE TO BE 6" COMPACTED TO 98% MAX DENSITY - AASHTO T-180

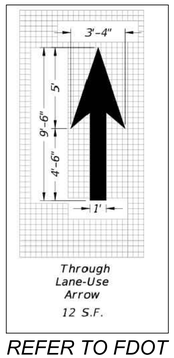
SIDEWALK DETAIL



NOTES:

1. MAXIMUM ANGLE OF CONTAINER PAD TO DIRECTION OF AISLE TO BE 30°
2. AREA TO BE FREE OF OVERHEAD LINES AND WIRES.
3. DUMPSTER PAD TO BE A MINIMUM OF 12' WIDE FOR DUMPSTER RECYCLING.
4. APPLICANT TO PROVIDE A SIDE ELEVATION TO DEMONSTRATE COLOR, MATERIAL, AND DESIGN CONSISTENCY WITH THE PRINCIPAL BUILDING.
5. DRAINAGE PATTERNS AROUND DUMPSTER PADS SHALL BE SUBJECT TO CITY REVIEW AND APPROVAL.
6. INGRESS AND EGRESS ROUTES TO/FROM DUMPSTER PADS SHALL BE IN ACCORDANCE WITH WASTE HANDLING CONTRACTORS REQUIREMENTS.

CITY OF COCOA BEACH FLORIDA	STANDARD CONSTRUCTION DETAIL DUMPSTER PAD	FILE NAME: CB_M13.DWG; DETAIL REF: M-13



REFER TO FDOT INDEX 711-001-1

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

DRAWN BY: ES

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

SITE PLAN - DETAILS

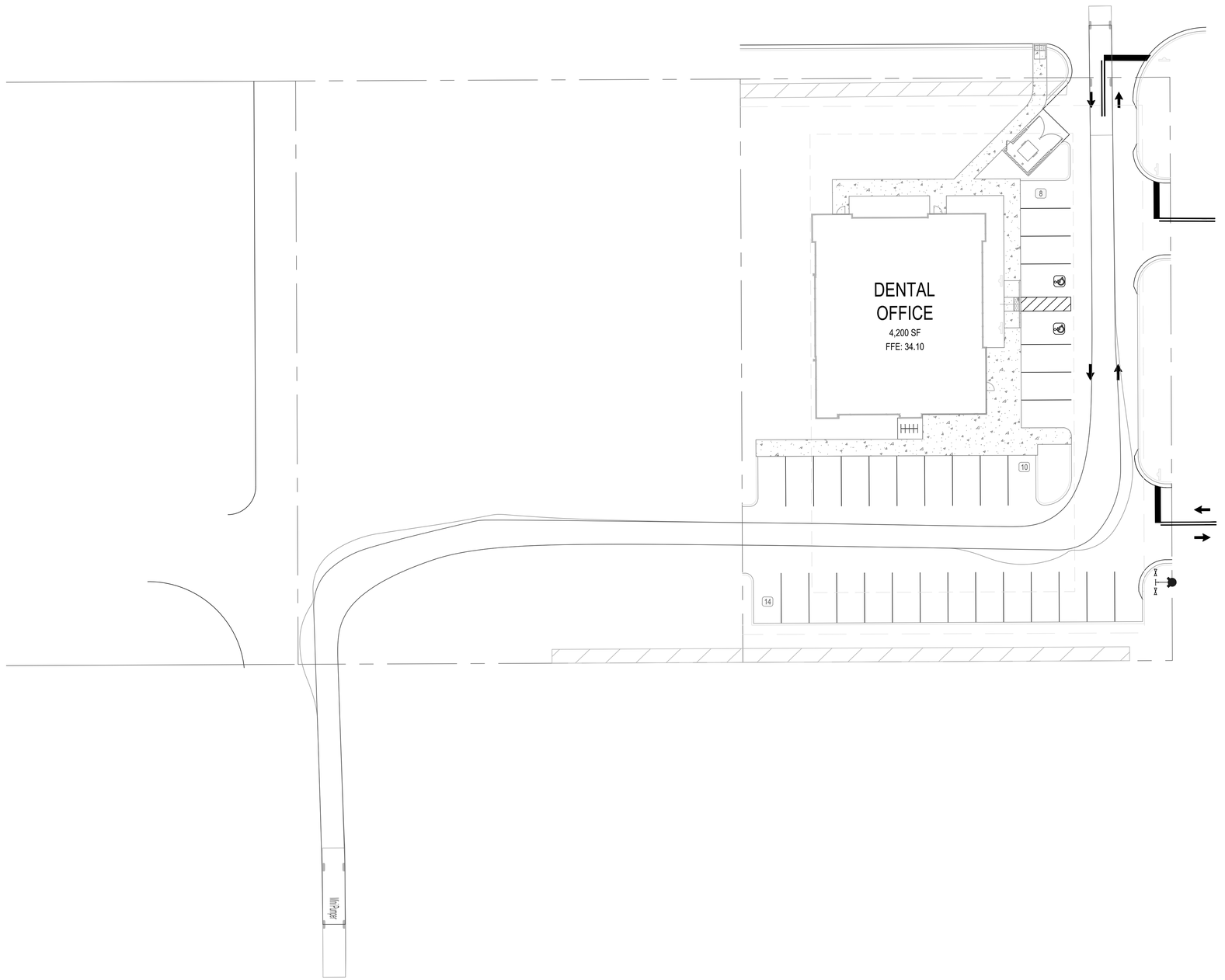
DENTAL OFFICE AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

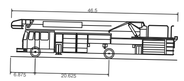
CONTACT 811 BEFORE YOU DIG SAFE DIGGING PARTNER

ELLIESE M. SHAUGHNESSY LICENSE No. 92149 STATE OF FLORIDA PROFESSIONAL ENGINEER

TYPE: FOR REVIEW
Date: 2/26/26
Sheet: C1.1

C1.0 SITE PLAN.dwg
2/26/2026





Mini Pumper	
Overall Length	46.500ft
Overall Width	8.068ft
Overall Body Height	10.444ft
Min Body Ground Clearance	0.874ft
Track Width	8.068ft
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	35.333ft

CONTACT 811 BEFORE YOU DIG
811
SAFE DIGGING PARTNER

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

TRUCK EXHIBIT

DENTAL OFFICE AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

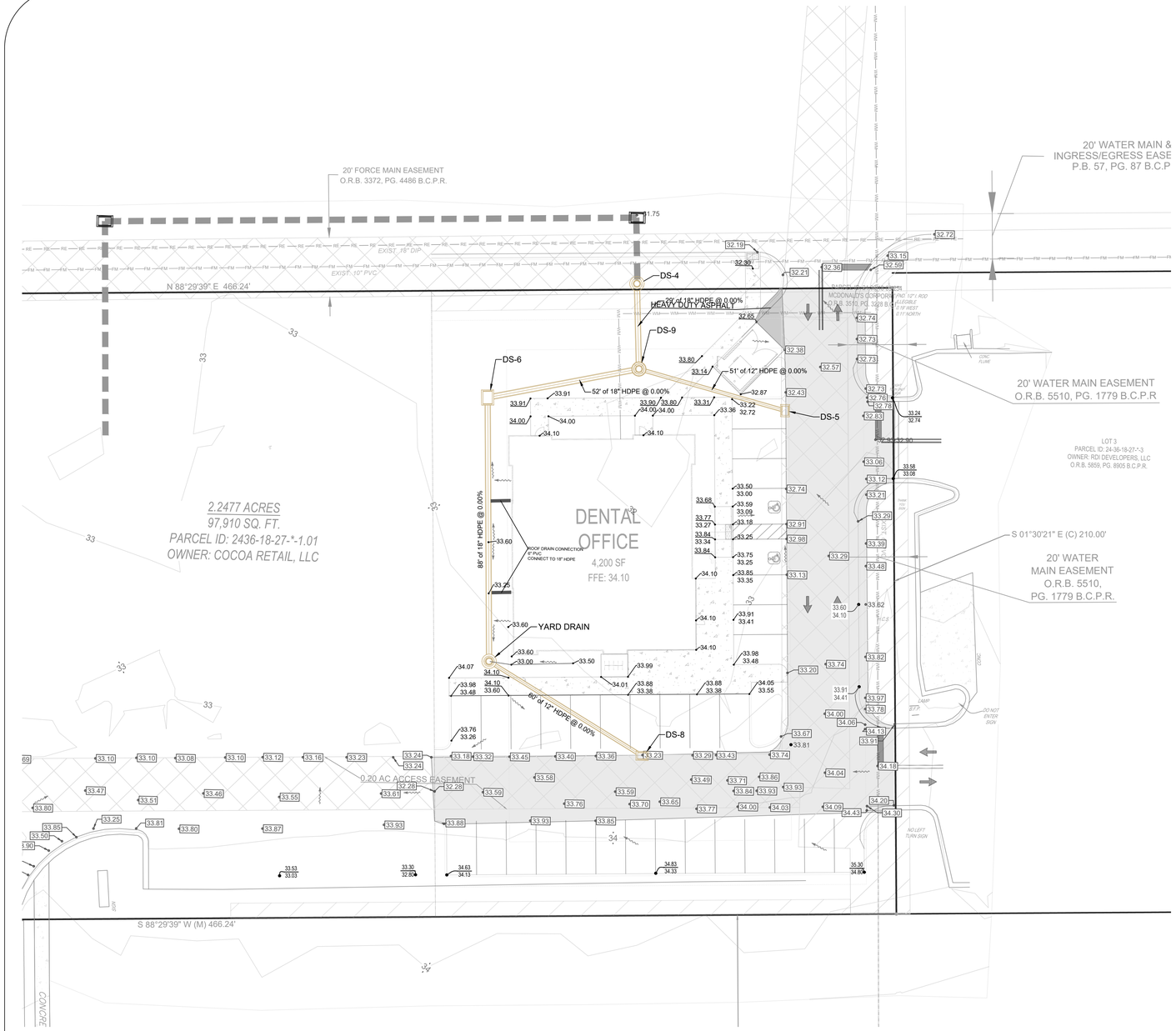
ELLIESE M. SHAUGHNESSY
LICENSE
No. 92149
STATE OF FLORIDA
PROFESSIONAL ENGINEER

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C2.0

2/26/2026 C1.3 TRUCK EXHIBIT.dwg



ABBREVIATION

DS	DRAINAGE STORM - FDOT STANDARD
MH	MANHOLE
ES	EXISTING STRUCTURE

0 20 40 Feet

NOTES:
1. ELEVATION SHOWN BASED ON VERTICAL DATUM (NAVD 88 COORDINATES).
2. REFER TO GEOTECHNICAL REPORT FOR SOILS TYPES AND SUGGESTED SOILS REMOVAL AND UNSUITABLE MATERIALS.
3. ALL SPOTS ARE LABELED AT BOTTOM OF FACE OF CURB UNLESS OTHERWISE SPECIFIED
4. SEE GENERAL NOTES AND GRADING NOTES (SHEET C0-1) FOR OVERALL PAVING, GRADING AND DRAINAGE REQUIREMENTS.
5. CONTRACTOR SHALL REVIEW, UNDERSTAND AND IMPLEMENT ALL REQUIRED EROSION AND SEDIMENTATION CONTROL MEASURES PRIOR TO ANY DISTURBANCE.
6. ALL SPOT ELEVATIONS ALONG PAVEMENT REPRESENT FINISHED GRADE ELEVATION UNLESS OTHERWISE NOTED.
7. ALL PROPOSED STORM PIPE TO BE HDPE UNLESS OTHERWISE NOTED.
8. ALL STRUCTURES SHALL BE ADJUSTED AS NECESSARY TO BE FLUSH WITH FINAL PAVEMENT.
9. INLET PROTECTION - CONTRACTOR SHALL PROVIDE CATCH BASIN INLET PROTECTION ON ALL EXISTING AND PROPOSED INLETS UNTIL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED.
10. CONTRACTOR SHALL PROVIDE SMOOTH TRANSITION BETWEEN PROPOSED PAVEMENT AND EXISTING PAVEMENT AND STORM STRUCTURES
11. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED WITH (4) SIDED BEARING HEAVY DUTY H-20 RATED TRAFFIC RIMS AND GRATES
12. ALL CLEANOUT COVERS SHOULD BE RATED FOR HEAVY DUTY TRAFFIC.
13. CONTRACTOR SHALL COORDINATE PAVING IMPROVEMENTS TO AVOID TIRE MARKS FROM CONSTRUCTION ACTIVITY. FINAL PAVING SHALL BE AS SMOOTH AS POSSIBLE AND FREE FROM ANY MARKS, SCRAPES, GOUGES, TIRE MARKS, ETC. CAUSED DURING CONSTRUCTION.
14. DRAINAGE SLOPES SHALL NOT EXCEED 4:1.
15. ALL SLOPES STEEPER THAN SIX (6) HORIZONTAL TO ONE (1) VERTICAL SHALL BE SOD.
16. ALL IMPACTS TO THE RIGHT-OF-WAY SHALL BE SODDED WITHIN THREE (3) DAYS OF FINAL GRADING.
17. ALL DOWNSPOUTS SHALL HAVE A MINIMUM SLOPE OF 1.0%.
18. ALL PROPOSED ASPHALT TO BE STANDARD DUTY EXCEPT FOR IN FRONT OF DUMPSTER.

GRADING AND DRAINAGE LEGEND

25	EXISTING CONTOUR
34.00 TOC BOC	PROPOSED SPOT GRADE
33.13 × 0.00	EXISTING SPOT SHOT
	EXISTING CONTOUR
	DRIVE AISLE TO REMAIN
	PROPOSED GRADING ARROW
	PROPOSED STORM

Structure Table		
Structure Name	Details	Type
DS-9	RIM = 32.40 INV IN = 29.18 DS-6 INV IN = 29.24 DS-5 INV OUT = 29.18 DS-4	48" MANHOLE
DS-8	RIM = 32.23 INV OUT = 29.78 YARD DRAIN	TYPE C
DS-4	RIM = 32.50 INV IN = 29.18 DS-9	48" MANHOLE
DS-5	RIM = 32.47 INV OUT = 29.24 DS-9	Type C
YARD DRAIN	RIM = 32.35 INV IN = 29.78 DS-8 INV OUT = 29.18 DS-6	24" YARD DRAIN
DS-6	RIM = 32.00 INV IN = 29.18 YARD DRAIN INV OUT = 29.18 DS-9	TYPE D

ALL STRUCTURES TO FOLLOW FDOT DETAILS AND SPECIFICATIONS

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

PAVING GRADING DRAINAGE

DENTAL OFFICE AT CIRRUS

HIGHWAY 524 & INDUSTRY RD
COCOA, FL

ELLIESE M. SHAUGHNESSY LICENSE No. 92149 STATE OF FLORIDA PROFESSIONAL ENGINEER

TYPE: FOR REVIEW

Date: 2/26/26

Sheet: C3.0

C3.0 PGD.dwg

2/26/2026

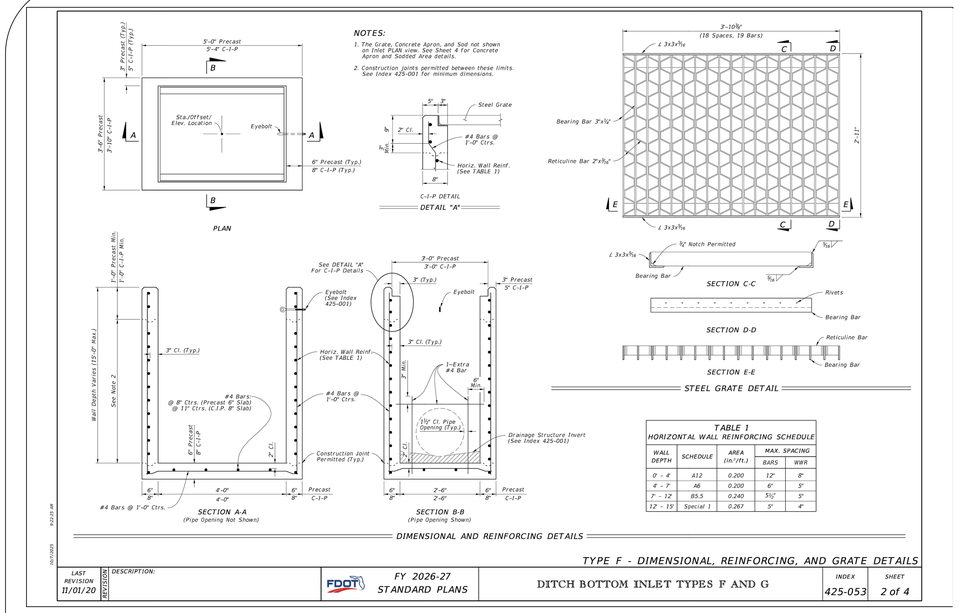
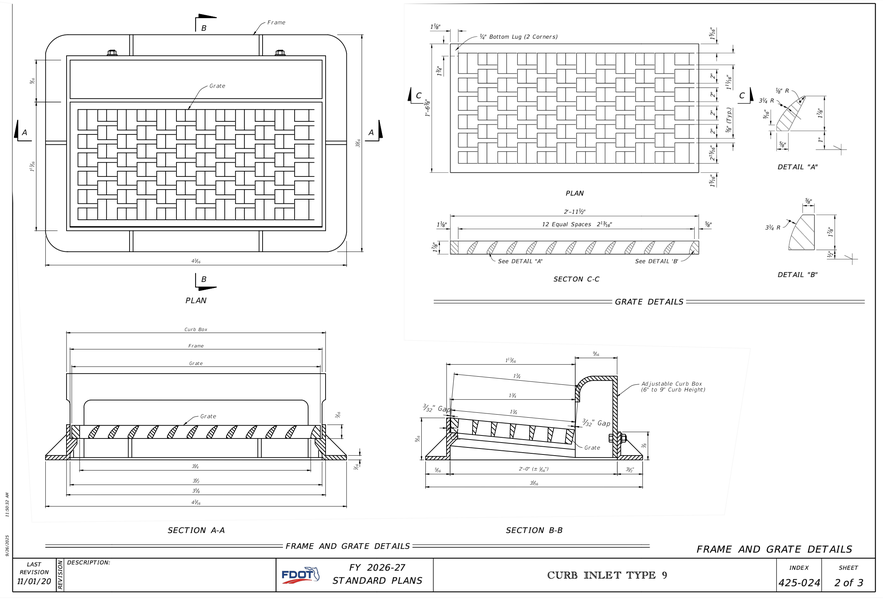


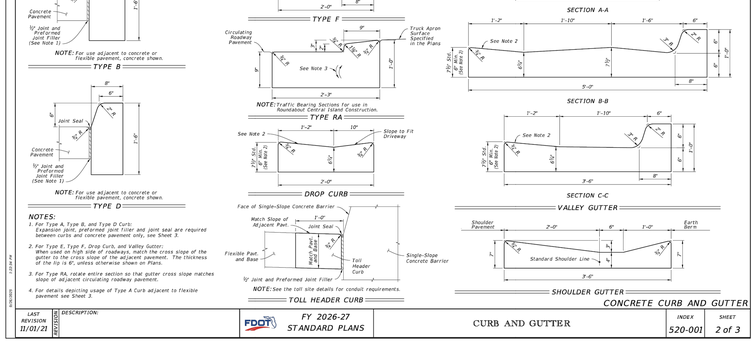
TABLE 1
HORIZONTAL WALL REINFORCING SCHEDULE

WALL DEPTH	SCHEDULE	AREA (in²/ft.)	MAX. SPACING BARS	MAX. SPACING WWR
0' - 4'	A12	0.200	12"	8"
4' - 7'	A6	0.200	6"	5"
7' - 12'	B5.5	0.240	5½"	5"
12' - 19'	Special 1	0.267	5"	4"

LAST REVISION	DESCRIPTION:			
11/01/20		FY 2026-27 STANDARD PLANS	DITCH BOTTOM INLET TYPES F AND G	INDEX 425-053 / SHEET 2 of 4



LAST REVISION	DESCRIPTION:			
11/01/20		FY 2026-27 STANDARD PLANS	CURB INLET TYPE 9	INDEX 425-024 / SHEET 2 of 3



NOTES:
1. For Type A, Type B, and Type D Curb: Expansion joint, preformed joint filler and joint seal are required between curbs and concrete pavement only, see Sheet 3.
2. For Type E, Type F, Drop Curb, and Valley Gutter: When used on high side of roadways, match the cross slope of the gutter to the cross slope of the adjacent pavement. The thickness of the lip is 6", unless otherwise shown on Plans.
3. For Type RA, rotate entire section so that gutter cross slope matches slope of adjacent circulating roadway pavement.
4. For details depicting usage of Type A Curb adjacent to flexible pavement see Sheet 3.

LAST REVISION	DESCRIPTION:			
11/01/21		FY 2026-27 STANDARD PLANS	CURB AND GUTTER	INDEX 520-001 / SHEET 2 of 3

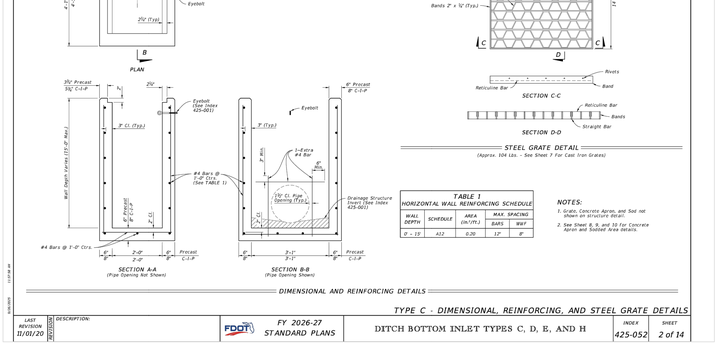
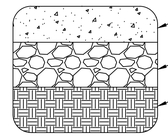


TABLE 1
HORIZONTAL WALL REINFORCING SCHEDULE

WALL DEPTH	SCHEDULE	AREA (in²/ft.)	MAX. SPACING BARS	MAX. SPACING WWR
0' - 15'	A12	0.20	12"	8"

NOTES:
1. Grates, Concrete Aprons, and Sod not shown on structure detail.
2. See Sheet 6, 9, and 10 for Concrete Apron and Sodded Area details.

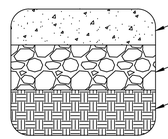
LAST REVISION	DESCRIPTION:			
11/01/20		FY 2026-27 STANDARD PLANS	DITCH BOTTOM INLET TYPES C, D, E, AND H	INDEX 425-052 / SHEET 2 of 14



1.5" TYPE SP 9.5 COMPACTED ASPHALT
6" CRUSHED LIMEROCK (LBR 100)
98% COMPACTION AASHTO T-180
>12" STABILIZED SUBGRADE (LBR 40)
98% COMPACTION AASHTO T-180

VERIFY WITH GEOTECHNICAL REPORT

STANDARD DUTY ASPHALT SECTION



2.5" TYPE SP 9.5 COMPACTED ASPHALT
8" CRUSHED LIMEROCK (LBR 100)
98% COMPACTION AASHTO T-180
>12" STABILIZED SUBGRADE (LBR 40)
98% COMPACTION AASHTO T-180

VERIFY WITH GEOTECHNICAL REPORT

HEAVY DUTY ASPHALT SECTION

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

PGD DETAILS

DENTAL OFFICE AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

CONTACT 811 BEFORE YOU DIG
SAFE DIGGING PARTNER

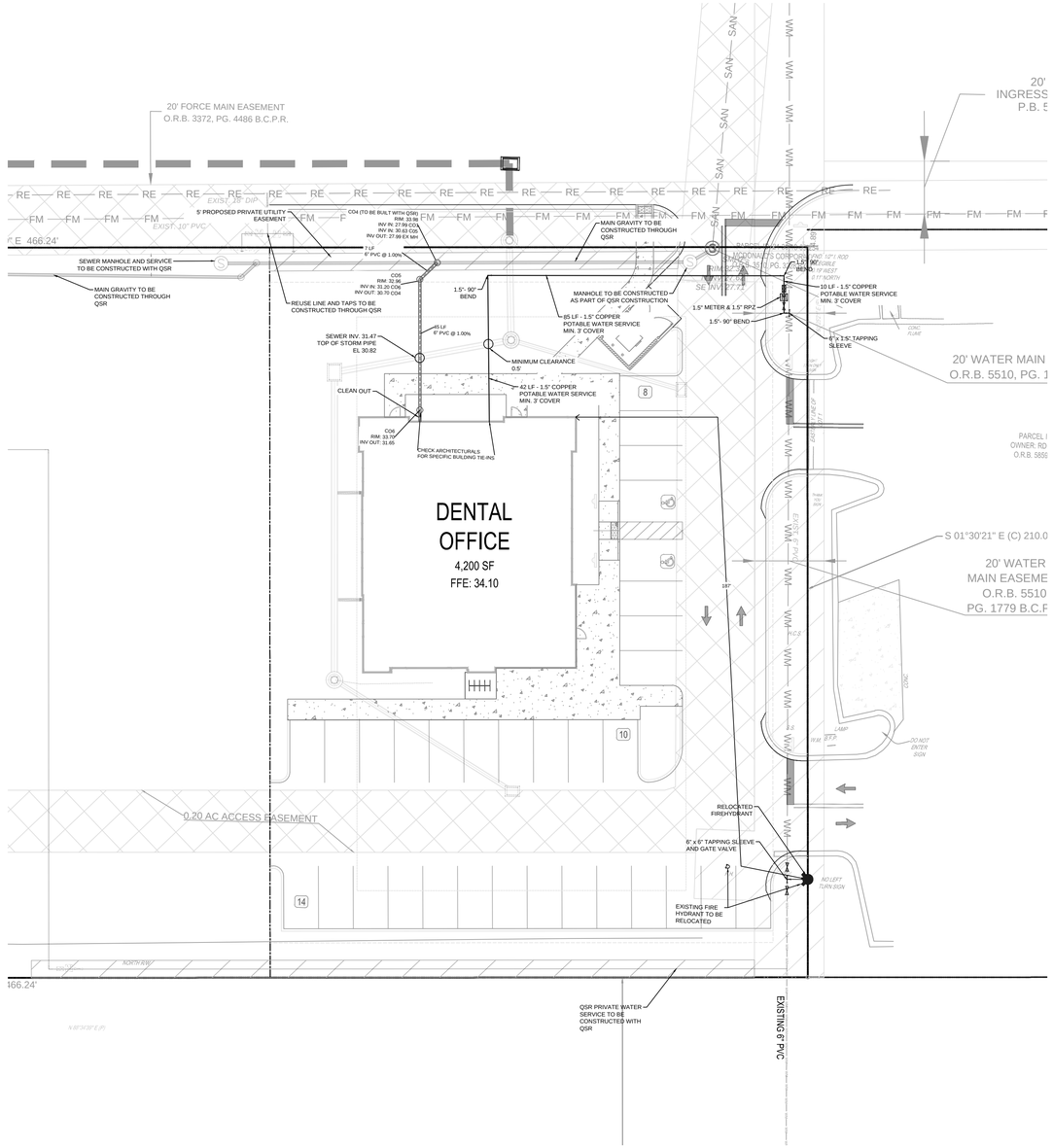
ELLIESE M. SHAUGHNESSY
LICENSE
No. 92149
STATE OF FLORIDA
PROFESSIONAL ENGINEER

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C3.1

C3.0 PGD.dwg
2/26/2026



UTILITY NOTES

1. SEE GENERAL NOTES SHEET FOR UTILITY PLAN NOTES.
2. ALL CHANGES IN DIRECTION OF THE CONDUIT SHALL UTILIZE STANDARD SWEEPS WITH A MINIMUM BENDING RADIUS LISTED IN THE NEC. NO MORE THAN (2) 90-DEGREE BENDS WILL BE ALLOWED BETWEEN PULLING POINTS, OR A TOTAL OF 180 DEGREES COMBINED IN SEVERAL BENDS. PULL BOXES SHALL BE LOCATED EVERY 400 FEET UNLESS THE COMBINED TOTAL OF BENDS REQUIRE ADDITIONAL MANHOLES.
3. CONTRACTOR SHALL TEST AND HAVE CERTIFIED ALL EXISTING WATER AND SANITARY SEWER LINES AND SHALL MAKE ALL NECESSARY REPAIRS PRIOR TO FINAL PAVING.
4. THE CONTRACTOR SHALL PROTECT EXISTING UNDERGROUND UTILITIES AND APPURTENANCES FROM DAMAGE DURING CONSTRUCTION OPERATIONS.
5. THE LOCATION OF EXISTING UTILITIES, STORM DRAINAGE STRUCTURES AND OTHER ABOVE AND BELOW GRADE IMPROVEMENTS ARE APPROXIMATE AS SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, SIZE AND INVERT ELEVATIONS OF SUCH PRIOR TO THE START OF CONSTRUCTION.
6. A MINIMUM OF 5' SEPARATION IS REQUIRES BETWEEN UTILITIES AND TREES.
7. GAS, PHONE AND ELECTRICAL SERVICES SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. DRY UTILITY COMPANIES MAY ALTER THE DESIGN LAYOUT DURING THEIR REVIEW.
8. SANITARY SEWER LATERALS MUST MAINTAIN A MINIMUM OF 1.04% SLOPE TO ENSURE PROPER FLOW.
9. UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF COCOA UTILITIES SPECIFICATIONS.
10. UTILITY LOCATING MUST BE CONDUCTED PRIOR TO ANY CONSTRUCTION ACTIVITY.
11. CITY OF COCOA UTILITIES SHALL BE NOTIFIED WHEN CONSTRUCTION ACTIVITY TAKES PLACE.
12. CONTRACTOR TO ENSURE THAT A HYDRANT WRENCH CAN PERFORM A FULL ROTATION AROUND THE HYDRANT NUTS WITHOUT IMPACTING THE GROUND/CONCRETE PAD BASE.
13. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY OF COCOA UTILITIES TWO WEEKS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
14. THE CITY OF COCOA UTILITIES INSPECTOR MUST BE NOTIFIED 48 HOURS PRIOR TO ANY UTILITIES WORK OR ANY WORK OCCURRING WITHIN THE VICINITY OF EXISTING WATER AND SEWER UTILITIES.
15. THE CONTRACTOR SHALL NOT OPERATE ANY PUBLIC WATER OR SEWER VALVES UNLESS SPECIFICALLY AUTHORIZED BY THE UTILITIES INSPECTOR.

WATER DISTRIBUTION NOTES

1. CONTRACTOR TO LOCATE TIE-INS TO ALL BUILDINGS BASED ON PLUMBING PLANS.
2. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN ENCROACHMENT AGREEMENT PERMIT AS REQUIRED, TO CONSTRUCT UTILITY CONNECTIONS.

SANITARY SEWER NOTES

1. CONTRACTOR TO COORDINATE WITH CITY OF COCOA UTILITIES FOR TIE-IN OF PROPOSED SANITARY SEWER FOR THIS PROJECT.
2. CONTRACTOR TO LOCATE LATERAL CONNECTIONS TO BUILDING PER PLUMBING PLANS.
3. PLACE CLEAN-OUTS ON SANITARY SEWER LATERALS AS REQUIRED BY PLUMBING CODE.
4. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN ENCROACHMENT AGREEMENT PERMIT, AS REQUIRED, TO CONSTRUCT UTILITY CONNECTIONS.
5. TRENCHES FOR SEWER LATERALS MUST REMAIN OPEN FOR PLUMBING INSPECTION.

PROPOSED UTILITY LEGEND	
	PROPOSED SANITARY
	PROPOSED DOMESTIC WATER

0 20 40 Feet

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

UTILITIES

DENTAL OFFICE AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

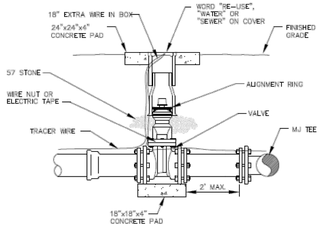
ELLIESE M. SHAUGHNESSY
LICENSE
No. 92149
STATE OF FLORIDA
PROFESSIONAL ENGINEER

TYPE
FOR REVIEW

Date
2/26/26

Sheet
C4.0

C4.0_UTILITIES.dwg
2/26/2026

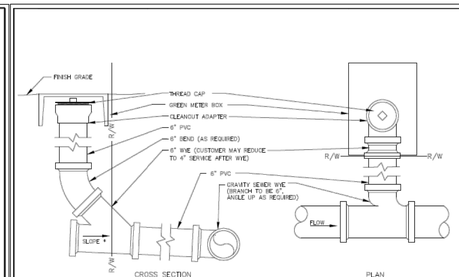


NOTE: PROPER SIZE VALVE BOX SHALL BE INSTALLED. PVC PIPE OR DUCTILE IRON PIPE EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

GATE VALVE AND FITTING DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: GATE VALVE & FITTING DETAIL	

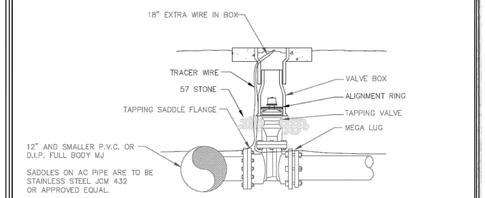


* MINIMUM SLOPE PER TECHNICAL SPECIFICATIONS

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

SINGLE SERVICE DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: SINGLE SERVICE DETAIL	

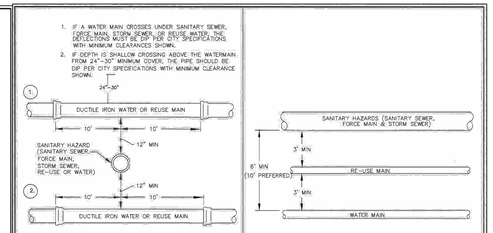


NOTE: FOR VALVE ASSEMBLY, SEE "VALVE" DETAIL

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

TAPPING SADDLE AND VALVE

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TAPPING SADDLE AND VALVE	

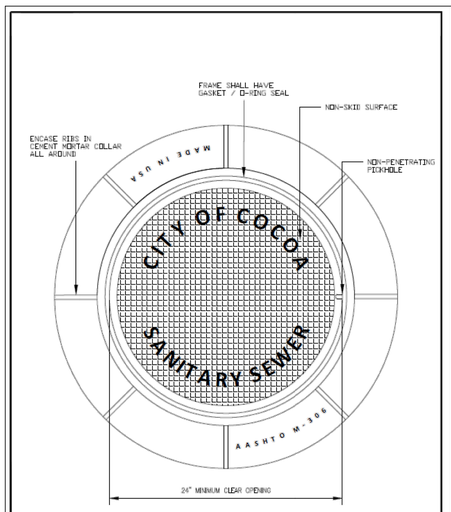


PER: FDEP 62-555.314

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

TYPICAL REQUIRED SEPARATION

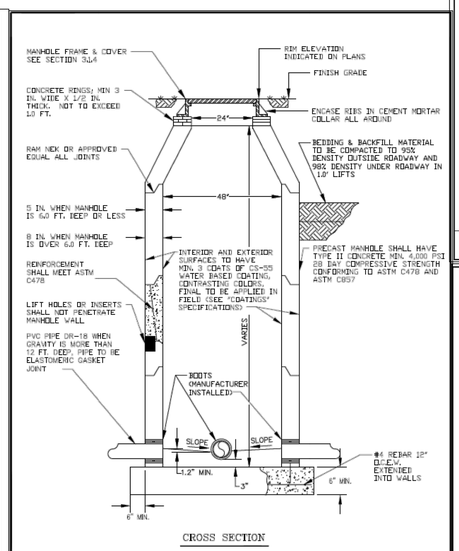
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: D. WILSON	DATE: MAY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TYPICAL REQUIRED SEPARATION	



CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

MANHOLE FRAME AND COVER

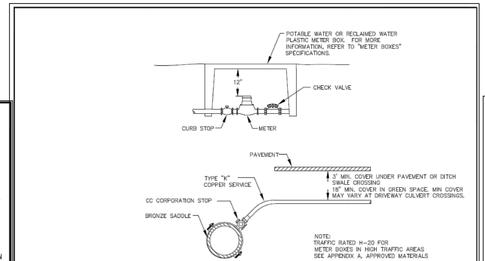
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: MANHOLE FRAME AND COVER	



CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

TYPICAL MANHOLE

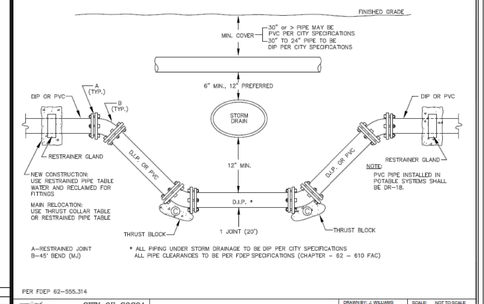
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TYPICAL MANHOLE	



CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

TYPICAL 3/4"- 2" SERVICE LINE

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TYPICAL SERVICELINE	



PER FDEP 62-555.314

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

STORM DRAIN CROSSING

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: STORM DRAIN CROSSING	

RESTRAINED PIPE TABLE
WATER AND RECLAIMED WATER MAINS

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)								
TYPE	PIPE SIZE							
	4"	6"	8"	10"	12"	16"	20"	24"
90°BEND	21	29	38	45	53	66	79	91
45°BEND	9	12	16	19	22	45	33	38
22-1/2°BEND	5	6	8	9	11	14	16	19
11-1/4°BEND	3	3	4	5	6	7	8	9
PLUG, BRANCH OF TEE, VALVE	58	82	107	128	151	193	234	273

NOTES:

1. FITTINGS SHALL BE RESTRAINED JOINTS.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. ALL LINE VALVES AND THROUGH RUN OF TEES SHALL BE RESTRAINED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:

   WORKING PRESSURE: 150 PSI
   SOIL DESIGNATION: SM (SAND SILT)
   LAYING CONDITIONS: 3

6. TABLE IS FOR PVC AND WRAPPED DUCTILE IRON.

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

RESTRAINED PIPE TABLE WATER & RECLAIMED WATER MAINS

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: JANUARY 2024
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: RESTRAINED PIPE TABLE WATER AND RECLAIMED	

CONTACT 811 BEFORE YOU DIG — SAFE DIGGING PARTNER

DRAWN BY: ES

No.	REVISION/ISSUE	Date
1	UTILITY COMMENTS	3/31/26

WMG DEVELOPMENT, LLC
270 W. PLANT ST
WINTER GARDEN, FL 34787

VITTER ENGINEERING GROUP, LLC
2081 CAVALLA RD
VERO BEACH, FL 32963

ELLESE M. SHAUGHNESSY
LICENSE No. 92149
STATE OF FLORIDA
PROFESSIONAL ENGINEER

UTILITIES - DETAILS

DENTAL OFFICE AT CIRRUS
HIGHWAY 524 & INDUSTRY RD
COCOA, FL

TYPE
FOR REVIEW

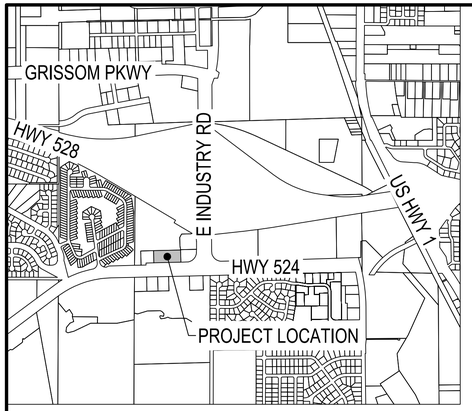
Date
2/26/26

Sheet
C4.1

C4.0 UTILITIES.dwg
2/26/2026

CIRRUS LOT 1B REPLAT

A REPLAT OF LOT 1B, CIRRUS, PLAT BOOK 77, PAGE 13, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, AND LYING IN SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST, CITY OF COCOA, BREVARD COUNTY, FLORIDA



VICINITY MAP
N.T.S.

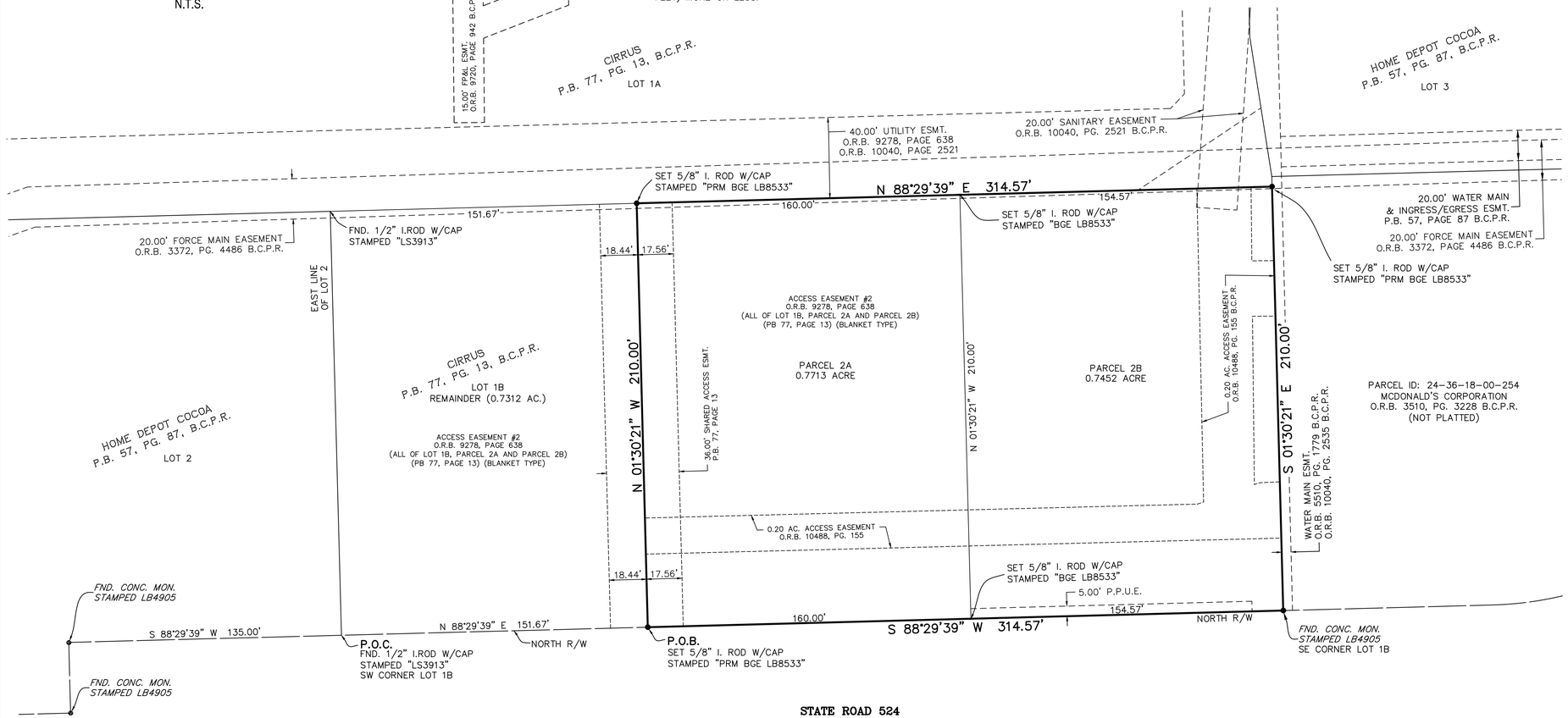
N

0 30 60
SCALE: 1"=30'

PROPERTY DESCRIPTION:

PORTION OF LOT 1B, CIRRUS, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 77, PAGE 13, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SAID LOT 1B AND LYING ON THE NORTH RIGHT-OF-WAY LINE STATE ROAD 524; THENCE NORTH 88°29'39" EAST, 151.67 FEET ALONG SAID NORTH RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING; THENCE NORTH 01°30'21" WEST, 210.00 FEET OVER AND ACROSS SAID LOT 1B TO THE NORTH LINE OF SAID LOT 1B AND LYING ON THE SOUTH LINE OF LOT 1A OF SAID CIRRUS PLAT; THENCE NORTH 88°29'39" EAST, 314.57 FEET ALONG THE NORTH LINE OF SAID LOT 1B AND THE SOUTH LINE OF SAID LOT 1A; THENCE SOUTH 01°30'21" EAST, 210.00 FEET ALONG THE EAST LINE OF SAID LOT 1B TO THE SOUTHEAST CORNER OF SAID LOT 1B AND SAID NORTH RIGHT-OF-WAY LINE; THENCE SOUTH 88°29'39" WEST, 314.57 FEET ALONG SAID NORTH RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING AND CONTAINING 1.5165 ACRES (66,060 SQUARE FEET) MORE OR LESS.



STATE ROAD 524
R/W VARIES
F.D.O.T. R/W MAP SECTION NO. 70007-2501
F.D.O.T. R/W MAP SECTION NO. 70011

NOTES:

1. THE BASIS OF BEARING FOR THIS SURVEY IS THE NORTH RIGHT-OF-WAY OF STATE ROAD 524, SAID BEARING BEING S88°29'39"W.
2. THE FEATURES SHOWN HEREON ARE REFERENCED TO THE HORIZONTAL DATUM FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT (NAD83/11) AND THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. ALL DISTANCES SHOWN HEREON ARE U.S. SURVEY FEET (GRID).
4. THE UTILITY EASEMENT AS PLATTED HEREUNDER IS A PRIVATE EASEMENT AND IS INTENDED TO BE USED AS A SERVICE WATERLINE.
5. THE LANDS PLATTED HEREUNDER ARE SUBJECT TO THE TERMS AND PROVISIONS OF THE FOLLOWING, ALL BEING RECORDED IN THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA:
   - EASEMENTS CONTAINED ON THE PLAT OF HOME DEPOT COCOA, AS RECORDED IN P.B 57, PAGE 87, AS AFFECTED BY SCIVENER'S ERROR AFFIDAVIT RECORDED IN O.R.B. 5870, PAGE 4433 AND O.R.B. 5873, PAGE 5734.
   - EASEMENTS CONTAINED ON THE PLAT OF CIRRUS, AS RECORDED IN P.B. 77, PAGE 13.
   - RESTRICTIONS, COVENANTS AND EASEMENTS RECORDED IN O.R.B. 3299, PAGE 3156; O.R. BOOK 5859, PAGE 8905, AS AMENDED IN O.R.B. 5868, PAGE 8944 AND SHOPPING CENTER EASEMENT AGREEMENT RECORDED IN O.R.B. 3516, PAGE 4332 AND ASSIGNMENT OF MAINTENANCE CONTRIBUTION RECORDED IN O.R.B. 5859, PAGE 8901 AND AMENDED AND RESTATED RESTRICTIVE COVENANTS AND EASEMENT AGREEMENT RECORDED IN O.R.B. 9278, PAGE 638, TOGETHER WITH FIRST AMENDMENT TO AMENDED AND RESTATED RESTRICTIVE COVENANTS AND EASEMENT AGREEMENT RECORDED OFFICIAL RECORDS BOOK 10488, PAGE 155.
   - RESTRICTIVE COVENANTS RECORDED IN O.R.B. 3516, PAGE 4342.
   - FORCE MAIN AND SEWER LINE & INGRESS/ EGRESS EASEMENT RECORDED IN O.R.B. 3372, PAGE 4486, AS MODIFIED BY O.R.B. 5557, PAGE 4594 AND WATER LINE & INGRESS / EGRESS EASEMENT AGREEMENT RECORDED IN O.R.B. 5510, PAGE 1779, AS AFFECTED BY RESOLUTION 2024-034 RECORDED IN O.R.B. 10040, PAGE 2535.
   - RESTRICTIVE COVENANT CONTAINED IN DEED RECORDED IN O.R.B. 7783, PAGE 2688.
   - CIRRUS MIXED-USE DEVELOPMENT AGREEMENT RECORDED IN O.R.B. 9059, PAGE 149.
   - LOT SPLIT RESOLUTION NO. 2025-041 RECORDED IN O.R.B. 10459, PAGE 823.

LEGEND

AC.	ACRE
B.C.P.R.	BREVARD COUNTY PROPERTY RECORDS
CONC.	CONCRETE
ESMT.	EASEMENT
F.D.O.T.	FLORIDA DEPARTMENT OF TRANSPORTATION
FND.	FOUND
FP&L	FLORIDA POWER & LIGHT
I.	IRON
NO.	NUMBER
N.T.S.	NOT TO SCALE
O.R.B.	OFFICIAL RECORD BOOK
P.B.	PLAT BOOK
PG.	PAGE
PRM	PERMANENT REFERENCE MONUMENT
P.P.U.E.	PROPOSED PRIVATE UTILITY EASEMENT
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT-OF-WAY
SQ. FT.	SQUARE FEET

SHEET 1 – COVER & OVERALL PLAT
SHEET 2 – EASEMENT MAP

NOTICE: THIS PLAT, AS RECORDED IN ITS GRAPHIC FORM, IS THE OFFICIAL DEPICTION OF THE SUBDIVIDED LANDS DESCRIBED HEREIN AND WILL IN NO CIRCUMSTANCES BE SUPPLANTED IN AUTHORITY BY ANY OTHER GRAPHIC OR DIGITAL FORM OF THE PLAT. THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORDED ON THIS PLAT THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.

–PLAT PREPARED BY–

BGE, Inc.
4440 PGA Blvd., Suite 104, Palm Beach Gardens, FL 33410
Tel: 561-559-2280 • www.bgeinc.com
Florida Licensed Surveying Firm No. LB8533

PLAT BOOK _____ PAGE _____
SHEET 1 OF 2
SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST

DEDICATION

KNOWN ALL MEN BY THESE PRESENTS, THAT WMG ACQUISITIONS, LLC, A DELAWARE LIMITED LIABILITY COMPANY, IS THE FEE SIMPLE OWNER OF THE LAND DESCRIBED AND PLATTED HEREIN AS:

CIRRUS LOT 1B REPLAT

HEREBY DEDICATES SAID LANDS AND PLAT FOR THE USES AND PURPOSES THEREIN EXPRESSED AND DEDICATES TO THE PUBLIC AND THE CITY OF COCOA, FLORIDA, ALL EASEMENTS SHOWN HEREON AS PUBLIC EASEMENTS AND A PERPETUAL PUBLIC EASEMENT OVER AND ACROSS PARCELS 2A AND 2B FOR INGRESS AND EGRESS FOR LAW ENFORCEMENT AND EMERGENCY VEHICLES, MAIL AND PACKAGE DELIVER, SOLD WASTE/SANITATION, AND OTHER SIMILAR GOVERNMENTAL AND QUASI-GOVERNMENTAL SERVICES.

BY:_____
CURTIS FROST
CHIEF EXECUTIVE OFFICER

ATTEST:_____
PRINTED NAME:

ATTEST:_____
PRINTED NAME:

WMG ACQUISITIONS, LLC, A DELAWARE LIMITED LIABILITY COMPANY
270 WEST PLANT STREET,
WINTER GARDEN, FL 34787

STATE OF

COUNTY OF

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME BY MEANS OF ☐ PHYSICAL PRESENCE OR ☐ ONLINE NOTARIZATION, THIS _____ DAY OF _____, 2026, BY CURTIS FROST, AS CHIEF EXECUTIVE OFFICER, ON BEHALF OF WMG ACQUISITIONS, LLC, A DELAWARE LIMITED LIABILITY COMPANY, WHO IS ☐ PERSONALLY KNOWN TO ME OR HAS PRODUCED _____ AS IDENTIFICATION.

NOTARY PUBLIC: _____
PRINTED NAME:
SEAL

CERTIFICATE OF SURVEYOR

KNOW ALL MEN BY THESE PRESENTS, THAT THE UNDERSIGNED, BEING A LICENSED PROFESSIONAL SURVEYOR AND MAPPER, DOES HEREBY CERTIFY THAT ON APRIL 17, 2024, HE COMPLETED A BOUNDARY SURVEY OF THE LANDS SHOWN IN THE FOREGOING PLAT; AND THAT SAID PLAT WAS PREPARED UNDER HIS DIRECTION AND SUPERVISION AND THAT SAID PLAT COMPLIES WITH ALL OF THE SURVEY REQUIREMENTS OF CHAPTER 177, PART 1, PLATTING, FLORIDA STATUTES, AND THAT SAID LAND IS LOCATED IN THE CITY OF COCOA, BREVARD COUNTY, FLORIDA.

_____ _____
JIM SULLIVAN, PSM DATE
FLORIDA REGISTRATION NO. LS6889

BGE, INC.
4440 PGA BLVD., SUITE 104
PALM BEACH GARDENS, FL 33410
REGISTRATION NO. LB8533
SEAL

CERTIFICATE OF CITY SURVEYOR

PURSUANT TO SECTION 177.081, PLATTING, FLORIDA STATUTES, I HAVE REVIEWED THIS PLAT FOR CONFORMITY TO CHAPTER 177, PART 1, PLATTING, FLORIDA STATUTES, AND FIND THAT SAID PLAT COMPLIES WITH THE TECHNICAL REQUIREMENTS OF THAT CHAPTER, PROVIDED, HOWEVER, THAT MY REVIEW DOES NOT INCLUDE FIELD VERIFICATION OF ANY COORDINATE, POINTS OR MEASUREMENTS SHOWN ON THIS PLAT.

_____ _____
EDWIN MUNOZ JR, PSM DATE
FLORIDA REGISTRATION NO. LS7288
REVIEWING SURVEYOR ON BEHALF OF THE CITY OF COCOA
SEAL

CERTIFICATE OF APPROVAL BY MUNICIPALITY

THIS IS TO CERTIFY, THAT ON _____, THE FOREGOING PLAT WAS APPROVED BY THE CITY COUNCIL OF THE CITY OF COCOA, FLORIDA

_____
MICHAEL C. BLAKE
MAYOR

ATTEST: _____
MONICA ARSENAULT
CITY CLERK
SEAL

CERTIFICATE OF CLERK

I HEREBY CERTIFY, THAT I HAVE EXAMINED THE FOREGOING PLAT AND FIND THAT IT COMPLIES IN FORM WITH ALL THE REQUIREMENTS OF CHAPTER 177, PART1, FLORIDA STATUTES AND WAS FILED FOR RECORD ON_____
FILE NO._____.

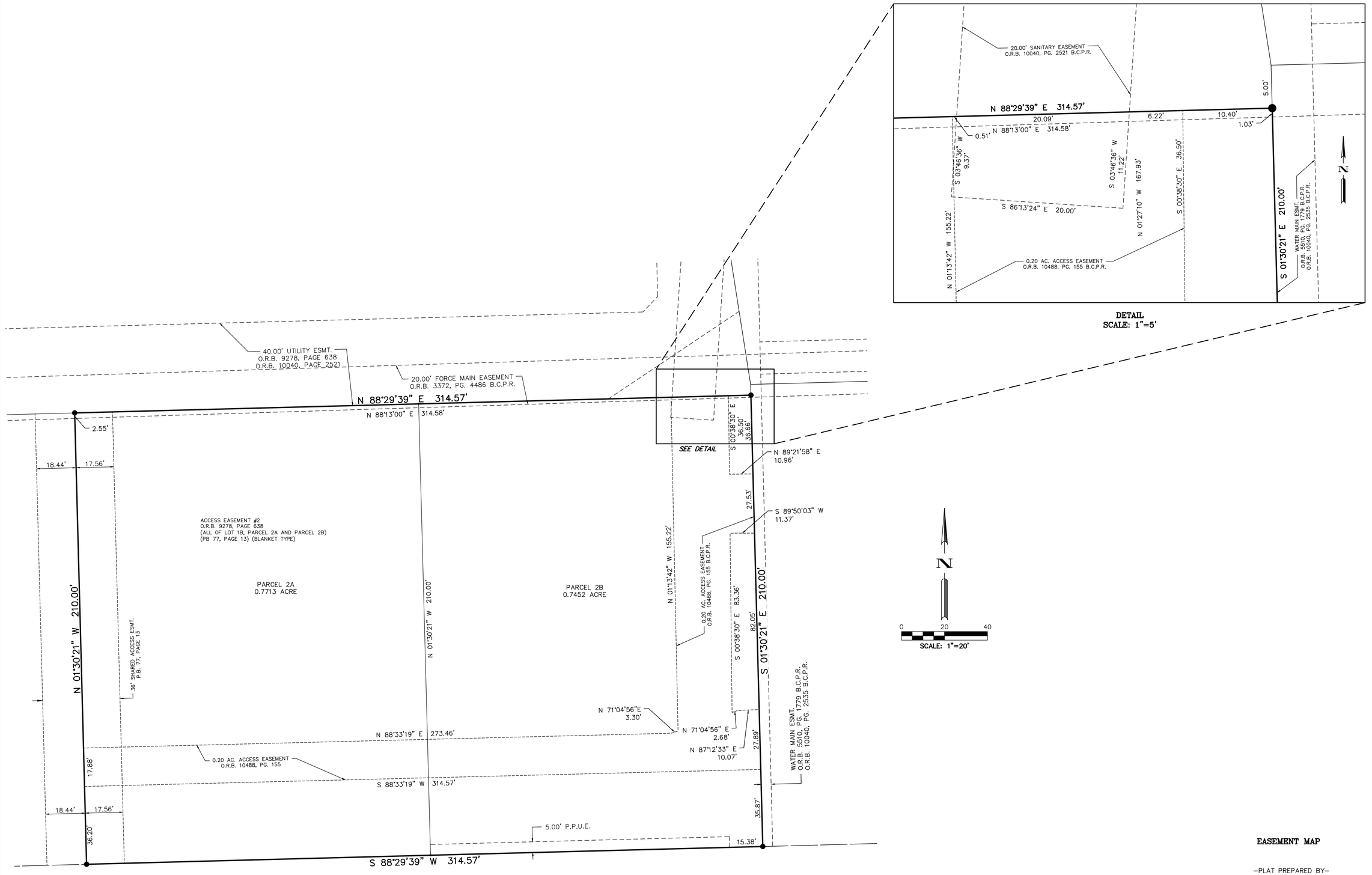
ATTEST: _____
CLERK OF THE CIRCUIT COURT IN AND FOR BREVARD COUNTY, FLORIDA

\\bgeinc\data\VDA\Projects\WMG development\13000-00 - Cocoa Heartland\5\04A Finish\Drawings\1_51658-A72.dwg, 4/1/2026 11:08 AM, Jim Sullivan

CIRRUS LOT 1B REPLAT

A REPLAT OF LOT 1B, CIRRUS, PLAT BOOK 77, PAGE 13, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA,
AND LYING IN SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST, CITY OF COCOA, BREVARD COUNTY, FLORIDA

PLAT BOOK ____ PAGE ____
SHEET 2 OF 2
SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST



DETAIL
SCALE: 1"=5'

EASEMENT MAP

–PLAT PREPARED BY–

BGE, Inc.
4440 PGA Blvd., Suite 104, Palm Beach Gardens, FL 33410
Tel: 561-559-2280 ● www.bgeinc.com
Florida Licensed Surveying Firm No. LB8533

\\Vboxsvr\data\FAA Projects\MIG_dev\dgnsmt\13002c-09 - Cocoa Headlines\SS\04_Final\Drawings\1_5165PLAT2.dwg, 4/3/2006 11:09 AM, Jim Sullivan