

City of Cocoa

*65 Stone Street
Cocoa, FL 32922*



Meeting Agenda

Wednesday, February 3, 2021

6:00 PM

Cocoa City Council Chambers

Planning and Zoning / Local Planning Agency

I. CALL TO ORDER

ROLL CALL

PLEDGE OF ALLEGIANCE

II. APPROVAL OF AGENDA AND MINUTES:

AGENDA:

[21-117](#) Agenda for the Planning & Zoning Board meeting of February 3, 2021.

Attachments: [PZ Short Agenda 2-3-21.pdf](#)

MINUTES:

[21-116](#) Minutes of the Planning & Zoning Board for January 6, 2021.

Attachments: [PZ Minutes 01-06-2021 DRAFT.pdf](#)

[21-120](#) Minutes of the Planning & Zoning Board for January 20, 2021.

Attachments: [PZ Minutes 01-20-2021 DRAFT.pdf](#)

III. OLD BUSINESS: Included in New Business

IV. NEW BUSINESS:

[21-118](#) Approval of a BINDING DEVELOPMENT AGREEMENT / Final PLANNED UNIT DEVELOPMENT (PUD) REZONING / PRELIMINARY SUBDIVISION / LARGE SCALE SITE PLAN consistent with Chapter 18 Subdivisions and Appendix A Zoning of the City Code for the Cirrus Mixed-Use PUD project.

Attachments: [Attachment One - Development Agreement 1-28-21.pdf](#)
[Exhibit B - Overall Site Plan.pdf](#)
[Attachment Two - Final PUD plans 11-6-20.pdf](#)
[Landscape Plan 11-6-20.pdf](#)
[Ordinance 03-2021 Cirrus Rezoning CG to Mixed-Use PUD \(003\).pdf](#)
[Building Renderings.pdf](#)
[Traffic Impact Analysis 8-31-20.pdf](#)
[Legal ad Proof \(PZ and both CC\).pdf](#)
[Map - Cirrus Mixed-Use PUD.pdf](#)

V. UPDATES AND STAFF REPORTS:

Development Summary of 2020

Outside Arborist Services (Dana Sussmann)

Board Discussion

VI. NEXT MEETING DATE:

Wednesday, March 3, 2021

VII. ADJOURNMENT

NOTICE TO THE PUBLIC:

Public Participation and Special COVID-19 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>

These documents and information pertaining to the above may also be inspected at the Community Services Department, between 9:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8535.

Members of the public have several options to participate in the public hearings.

(1) In-person attendance. Due to the COVID-19 Emergency and the need to maintain social distancing, meetings in the City Hall Council Chambers are limited to fifty (50) members in the audience at any one time. Members of the public may utilize the contact information provided below to contact the City Clerk and determine if restrictions on physical attendance at the City Council Chambers have been lifted prior to the date of the public hearings.

(2) Commenting in advance of the meeting. Interested persons are encouraged to provide written comments in advance of the hearings by emailing meeting@cocoafl.org or mailing to the following address:

City of Cocoa

Attn: Dodie Selig, Planning and Zoning Manager

65 Stone Street

Cocoa, FL 32922

Mailed comments must be received prior to 4:00 p.m. on the date of the hearing to be read into the record.

(3) Viewing and Commenting In Real Time. Interested persons are encouraged to view and listen to the hearings live by accessing the meetings at the following internet addresses:

- City of Cocoa meeting calendar at <https://cocoa.legistar.com/Calendar.aspx>

Interested persons may submit their written comments or questions during the hearings by email at: meeting@cocoafl.org. Interested persons who wish to provide public input during the meeting will also be able to do so by accessing the e-comment link for this meeting using the Legistar calendar link above.

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 a quasi-judicial hearing is highly encouraged to immediately contact Dodie Selig, Planning and Zoning Manager, at (321) 433-8510 or dselig@cocoafl.org, to make proper arrangements for presentation of witnesses and/or evidence. All witnesses must be identified and all evidentiary documents and exhibits that are intended to be distributed to the P&Z/LPA and City Council must be submitted to Ms. Selig via email or mail prior to the hearing.

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: Carie Shealy, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8484 or via email at cshealy@cocoafl.org.

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 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 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 Local Planning Agency and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.

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>

These documents and information pertaining to the above may also be inspected at the Community Services Department, between 9:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8535.

Members of the public have several options to participate in the public hearings.

(1) In-person attendance. Due to the COVID-19 Emergency and the need to maintain social distancing, meetings in the City Hall Council Chambers are limited to fifty (50) members in the audience at any one time. Members of the public may utilize the contact information provided below to contact the City Clerk and determine if restrictions on physical attendance at the City Council Chambers have been lifted prior to the date of the public hearings.

(2) Commenting in advance of the meeting. Interested persons are encouraged to provide written comments in advance of the hearings by emailing meeting@cocoafl.org or mailing to the following address:

City of Cocoa

Attn: Dodie Selig, Planning and Zoning Manager

65 Stone Street

Cocoa, FL 32922

Mailed comments must be received prior to 4:00 p.m. on the date of the hearing to be read into the record.

(3) Viewing and Commenting In Real Time. Interested persons are encouraged to view and listen to the hearings live by accessing the meetings at the following internet addresses:

• City of Cocoa meeting calendar at <https://cocoa.legistar.com/Calendar.aspx>

Interested persons may submit their written comments or questions during the hearings by email at: meeting@cocoafl.org. Interested persons who wish to provide public input during the meeting will also be able to do so by accessing the e-comment link for this meeting using the Legistar calendar link above.

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 a quasi-judicial hearing is highly encouraged to immediately contact Dodie Selig, Planning and Zoning Manager, at (321) 433-8510 or dselig@cocoafl.org, to make proper arrangements for presentation of witnesses and/or evidence. All witnesses must be identified and all evidentiary documents and exhibits that are intended to be distributed to the P&Z/LPA and City Council must be submitted to Ms. Selig via email or mail prior to the hearing. 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: Carie Shealy, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8484 or via email at cshealy@cocoafl.org.

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 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 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 Local Planning Agency and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.



Legislation Details (With Text)

File #: 21-117 **Version:** 1 **Name:**

Type: Agenda **Status:** Agenda Ready

File created: 1/28/2021 **In control:** Planning and Zoning / Local Planning Agency

On agenda: 2/3/2021 **Final action:**

Title: Agenda for the Planning & Zoning Board meeting of February 3, 2021.

Sponsors:

Indexes:

Code sections:

Attachments: [PZ Short Agenda 2-3-21.pdf](#)

Date	Ver.	Action By	Action	Result
------	------	-----------	--------	--------



Community Services
Planning and Zoning Division
65 Stone Street, Cocoa, FL 32922
Phone: (321) 433-8535 Fax: (321) 321-433-8543

AGENDA
Regular Meeting
February 3, 2021
6:00 p.m.

I. OPENING MATTERS:

1. CALL TO ORDER
2. ROLL CALL
3. PLEDGE OF ALLEGIANCE

II. APPROVAL OF AGENDA AND MINUTES:

1. AGENDA: Meeting of February 3, 2021
2. MINUTES: Meeting of January 6, 2021

III. OLD BUSINESS: (included in new business)

IV. NEW BUSINESS:

A. Cirrus Mixed-Use Planned Unit Development

Consideration of several applications for one project – Development Agreement / Final PUD (Rezoning) / Preliminary Subdivision / Site Plan. The project is a mixed-use planned unit development in 2 phases on a parcel of land at the northwest corner of SR524 and Industry Road. The first phase will be a 280 unit apartment complex with amenities. The second phase will be a future commercial component.

V. OTHER BUSINESS:

- A. Development Summary of 2020
- B. Outside arborist services (Dana Sussmann)
- C. Board Discussion

VI. NEXT MEETING DATE:

Wednesday, March 3, 2021

VII. ADJOURNMENT

Public Participation and Special COVID-19 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>

These documents and information pertaining to the above may also be inspected at the Community Services Department, between 9:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8535.

Members of the public have several options to participate in the public hearings.

- (1) In-person attendance. Due to the COVID-19 Emergency and the need to maintain social distancing, meetings in the City Hall Council Chambers are limited to fifty (50) members in the audience at any one time. Members of the public may utilize the contact information provided below to contact the City Clerk and determine if restrictions on physical attendance at the City Council Chambers have been lifted prior to the date of the public hearings.
- (2) Commenting in advance of the meeting. Interested persons are encouraged to provide written comments in advance of the hearings by emailing meeting@cocoafl.org or mailing to the following address:

City of Cocoa
Attn: Dodie Selig, Planning and Zoning Manager
65 Stone Street
Cocoa, FL 32922

Mailed comments must be received prior to 4:00 p.m. on the date of the hearing to be read into the record.

- (3) Viewing and Commenting In Real Time. Interested persons are encouraged to view and listen to the hearings live by accessing the meetings at the following internet addresses:

- City of Cocoa meeting calendar at <https://cocoa.legistar.com/Calendar.aspx>

Interested persons may submit their written comments or questions during the hearings by email at: meeting@cocoafl.org. Interested persons who wish to provide public input during the meeting will also be able to do so by accessing the e-comment link for this meeting using the Legistar calendar link above.

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 a quasi-judicial hearing is highly encouraged to immediately contact Dodie Selig, Planning and Zoning Manager, at (321) 433-8510 or dselig@cocoafl.org, to make proper arrangements for presentation of witnesses and/or evidence. All witnesses must be identified and all evidentiary documents and exhibits that are intended to be distributed to the P&Z/LPA and City Council must be submitted to Ms. Selig via email or mail prior to the hearing.

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: Carie Shealy, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8484 or via email at cshealy@cocoafl.org.

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 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 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 Local Planning Agency and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.



Legislation Details (With Text)

File #: 21-116 **Version:** 1 **Name:**

Type: Minutes **Status:** Agenda Ready

File created: 1/28/2021 **In control:** Planning and Zoning / Local Planning Agency

On agenda: 2/3/2021 **Final action:**

Title: Minutes of the Planning & Zoning Board for January 6, 2021.

Sponsors:

Indexes:

Code sections:

Attachments: [PZ Minutes 01-06-2021 DRAFT.pdf](#)

Date	Ver.	Action By	Action	Result
------	------	-----------	--------	--------

**MINUTES
CITY OF COCOA
PLANNING & ZONING BOARD/ LOCAL PLANNING AGENCY
REGULAR MEETING
January 6, 2021**

A Regular meeting of the Planning & Zoning Board Local Planning Agency was held on January 6, 2021 at City Hall, 65 Stone Street, Cocoa, FL, as publicly noted.

I. CALL TO ORDER:

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

ROLL CALL:

Michael Dobrin	Chairperson
Al Washington	Vice Chairperson
Todd Anderson	Board Member
Jeri Blanco	Board Member
Sherry Ervin	Board Member
Trina Gilliam	Board Member
Marilyn Green	Board Member
Susan Mock	Board Member
Russell Sengel	Board Member
Ariel Glass	Alternate Member
Aleck Greenwood	Alternate Member
Debbie Joyce	School Board Representative
Kristin Eick	Assistant City Attorney

<u>PRESENT:</u>	Michael Dobrin	Chairperson
	Sherry Ervin	Board Member
	Trina Gilliam	Board Member
	Marilyn Green	Board Member
	Susan Mock	Board Member
	Aleck Greenwood	Alternate Member
	Debbie Joyce	School Board Representative
	Kristin Eick	Assistant City Attorney

<u>ABSENT:</u>	Al Washington	Vice Chairperson
	Todd Anderson	Board Member
	Jeri Blanco	Board Member
	Russell Sengel	Board Member
	Ariel Glass	Alternate Member

STAFF PRESENT:

Dodie Selig, Planning & Zoning Manager, Alix Bernard, Senior Planner, Angela Essing, Economic Development Manager, Lavander Hearn, Board Liaison, and Monica Arsenault, Recording Secretary.

Chairperson Dobrin led the assembly in the Pledge of Allegiance.

II. APPROVAL OF AGENDA AND MINUTES:

1. AGENDA: Meeting of January 6, 2021

* **MOTION BY BOARD MEMBER ERVIN; SECONDED BY BOARD MEMBER GREEN TO APPROVE THE JANUARY 6, 2021 AGENDA AS WRITTEN.**

AYES: DOBRIN, ERVIN, GREEN, GILLIAM, GREENWOOD, MOCK

MOTION PASSED UNANIMOUSLY (6-0)

III. NEW BUSINESS:

A. PZ-20-00200011 – Large-Scale Site Plan – Project Sunshine

Ms. Bernard provided a summary of the project and explained that the subject property is located off of Grissom Pkwy and the proposed development is comprised of a 202,044 sq. ft distribution/warehouse building on 185 acres of land. The building will be 44 feet high and while the parcel is 185 acres in size, the project will only impact 75.9 acres, with the remainder of the 109 acres of land remaining in its original undisturbed state.

Additionally, all of the oak trees that have to be removed are being replaced at one hundred percent with new oak trees. A development agreement for landscaping requirements is currently in draft form and being presented to City Council.

Alternate member Greenwood asked what size oak trees will be replacing the ones removed. In response, Ms. Bernard shared it has to be 3-inch DBH per the Code.

Board member Green pointed out that the majority of the acreage won't be touched now but asked if it could be developed in the future. In response, Ms. Bernard stated that it would be challenging as well as expensive. This would be something that would need to be looked at if it ever happened.

Jason Lewis, PE Kimley-Horn and Associates, Inc., 116 S. Kentucky Ave., Lakeland, FL 33801 and Michael Woodward, Kimley-Horn and Associates, Inc., 189 S. Orange Ave., Orlando, FL 32801 spoke in regard to the project and the impacts of traffic to the area.

Chairperson Dobrin asked how many people will be employed at the facility. In response, Mr. Lewis answered 200 hundred employees.

Alternate member Greenwood asked about the construction and landscaping. In response, Mr. Lewis explained that it will be a concrete building with a metal roof. Additional landscaping will be planted in the front of the building and there will also be a pond with a fountain. Ms. Bernard also elaborated and pointed out the three points of entrance/exit and noted that there will be landscaping along Grissom Parkway where the entrances/exits are.

Chairperson Dobrin opened the public hearing to the public.

Mr. Dale Coxwell shared he is in favor of the project but noted that his property is “heavy industrial” and asked if the zoning of the property adjacent to him will change with future developments. In response, Ms. Selig explained that the City does not have any plans to propose re-zoning in the area. She added that the area east of Grissom Parkway is zoned M2 and is the City’s principal area for heavy industrial and it is an important part of the City that she cannot foresee being changed.

Mr. Robert Fabian, President of Rocket Crafters, shared he is in support of the project; however, he has a few concerns and questions. He shared they are in the process of expanding their testing facility but they want to ensure that their rocket engine testing will not be impacted by this project and that their rocket engine testing will not impact the applicant’s project.

Additionally, Mr. Fabian explained that they are also concerned about the buffer zone that surrounds the parcel and they would like to understand what that buffer zone will be and how it will affect the zoning because it directly overlaps their planned safety buffer at their expanded test facility. In response, Ms. Selig shared that the map Mr. Fabian received and was speaking about included a radius map which is drawn around the subject parcel to indicate all the properties that are abutting within this zone. She pointed out that this only serves as a mechanism of informing surrounding properties of the potential project and does not reflect any impacts of the project to those neighboring properties.

Al Mallard, VA Paving, asked the applicant if they would consider local businesses, such as VA Paving, to help construct the project. He added he is in favor of the project.

Chairperson Dobrin asked when they would like to begin construction. In response, it was stated March 1st ideally.

Ms. Bernard noted that staff recommends approval of a Large-Scale Site Plan consistent with Appendix A, Zoning, Article XIII, Section 1, to construct a

warehouse/distribution center totaling approximately 202,044 square feet on 185 acres with the following conditions:

1. The Applicant shall be required to demonstrate to city staff's satisfaction that City of Cocoa Comprehensive Plan Policy 6.1.3.6 is observed and met, which requires that compensatory storage shall be provided through excavation of a volume equivalent to the loss of storage within the 100-year floodplain resulting from the placement of fill in adjacent upland areas (above the 100-year floodplain) where such compensatory storage can be accomplished in an environmentally sound and economically feasible manner. In the event that city staff concludes that compensatory storage can be accomplished in an environmentally sound and economically feasible manner on the property, the Applicant shall be required to amend the site plan to provide compensatory storage on the site prior to commencement of construction, which may require further approval of the Planning and Zoning Board through a major site plan amendment or of the Community Development Director through a minor site plan amendment, as applicable.
2. The Applicant shall be required to demonstrate to city staff's satisfaction that the City of Cocoa Comprehensive Plan Policy 12.1.5.4 is observed and met, which requires that development approval in areas which have been identified as providing habitat of a size and character that is suitable for long term protection of a viable population of one or more listed species (including threatened species scrub jay, gopher tortoise and wood stork) shall be contingent upon the formulation of a management plan which would to the greatest extent possible eliminate adverse effects to any listed species which occur or are discovered on the development site. Further, city staff shall follow Policy 12.1.5.5, which provides that the City shall consult with the FGFWFC and/or the FDEP in the review of listed species management plans prepared by private developers, and shall implement the recommendations of those agencies in the issuance of development orders. Accordingly, the Applicant shall be required to prepare a threatened species management plan and comply with any recommendations of the City and appropriate wildlife protection agencies incorporated in the plan prior to commencement of construction. Should the site plan need to be altered to comply with the threatened species wildlife management plan, the Applicant shall be required to seek further approval of the Planning and Zoning Board through a major site plan amendment or of the Community Development Director through a minor site plan amendment, as applicable.
3. The Applicant shall be required to obtain all other applicable state and federal permits necessary for the development prior to commencement of the development, which shall include, but not be limited to, a Brevard County Right-of-Way Permit, a permit from the Florida Fish and Wildlife Conservation Commission, and the St. John's River Water Management District permit. Issuance of a development permit by the City does not create any right on the part of an applicant to obtain a permit from a state or federal agency and does not create any liability on the part of the City for issuance of the permit if the applicant fails to obtain requisite approvals or fulfill the obligations imposed by a state or federal agency or undertakes actions that result in a violation of state or federal law.

4. Approval of the site plan shall be dependent upon City Council approval and execution of the related Development Agreement and subject to all terms and conditions contained therein.

- * **MOTION BY BOARD MEMBER ERVIN; SECONDED BY ALTERNATE MEMBER GREENWOOD TO RECOMMEND APPROVAL TO CITY COUNCIL OF A LARGE-SCALE SITEPLAN CONSISTENT WITH APPENDIX A, ZONING, ARTICLE XIII, SECTION 1, TO CONSTRUCT A WAREHOUSE/DISTRIBUTION CENTER TOTALING APPROXIMATELY 202,044 SQUARE FEET ON 185 ACRES TO INCLUDE THE CONDITIONS RECOMMENDED BY STAFF.**

AYES: DOBRIN, ERVIN, GREEN, GILLIAM, GREENWOOD, MOCK

MOTION PASSED UNANIMOUSLY (6-0)

VI. OTHER BUSINESS:

None.

VII. NEXT MEETING DATE:

The next scheduled meeting for the Planning and Zoning Board will be held on Wednesday, January 20th at 6pm in Cocoa City Hall, 65 Stone St, Cocoa, FL 32922.

VIII. ADJOURNMENT:

- * **MOTION BY ALTERNATE MEMBER GREENWOOD; SECONDED BY BOARD MEMBER ERVIN TO ADJOURN THE REGULAR MEETING OF JANUARY 6, 2021.**

AYES: DOBRIN, ERVIN, GREEN, GILLIAM, GREENWOOD, MOCK

- * **MOTION PASSED UNANIMOUSLY (6-0)**

MEETING WAS ADJOURNED AT 6:42 PM.

Michael Dobrin, Chairperson

Respectfully Submitted By:

Monica Arsenault, Recording Secretary



Legislation Details (With Text)

File #: 21-120 **Version:** 1 **Name:**

Type: Minutes **Status:** Agenda Ready

File created: 1/29/2021 **In control:** Planning and Zoning / Local Planning Agency

On agenda: 2/3/2021 **Final action:**

Title: Minutes of the Planning & Zoning Board for January 20, 2021.

Sponsors:

Indexes:

Code sections:

Attachments: [PZ Minutes 01-20-2021 DRAFT.pdf](#)

Date	Ver.	Action By	Action	Result
------	------	-----------	--------	--------

**MINUTES
CITY OF COCOA
PLANNING & ZONING BOARD/ LOCAL PLANNING AGENCY
REGULAR MEETING
January 20, 2021**

A Special meeting of the Planning & Zoning Board Local Planning Agency was held on January 6, 2021 at City Hall, 65 Stone Street, Cocoa, FL, as publicly noted.

I. CALL TO ORDER:

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

ROLL CALL:

Michael Dobrin	Chairperson
Al Washington	Vice Chairperson
Todd Anderson	Board Member
Jeri Blanco	Board Member
Sherry Ervin	Board Member
Trina Gilliam	Board Member
Marilyn Green	Board Member
Susan Mock	Board Member
Russell Sengel	Board Member
Ariel Glass	Alternate Member
Aleck Greenwood	Alternate Member
Debbie Joyce	School Board Representative

PRESENT:

Michael Dobrin	Chairperson
Al Washington	Vice Chairperson
Todd Anderson	Board Member
Jeri Blanco	Board Member
Sherry Ervin	Board Member
Trina Gilliam	Board Member
Marilyn Green	Board Member
Susan Mock	Board Member
Russell Sengel	Board Member
Aleck Greenwood	Alternate Member
Debbie Joyce	School Board Rep. (via phone)

ABSENT:

Ariel Glass	Alternate Member
-------------	------------------

STAFF PRESENT:

Kristin Eick, Board Attorney; Dodie Selig, Planning & Zoning Manager, Alix Bernard, Senior Planner, Lavander Hearn, Board Liaison, and Monica Arsenault, Recording Secretary.

Chairperson Dobrin led the assembly in the Pledge of Allegiance.

II. APPROVAL OF AGENDA AND MINUTES:

1. AGENDA: Meeting of January 20, 2021

- * **MOTION BY BOARD MEMBER ERVIN; SECONDED BY BOARD MEMBER GREEN TO APPROVE THE JANUARY 20, 2021 AGENDA AS WRITTEN.**

AYES: DOBRIN, WASHINGTON, ANDERSON, BLANCO, ERVIN, GILLIAM, GREEN, GREENWOOD, MOCK, SENDEL

MOTION PASSED UNANIMOUSLY (10-0)

2. MINUTES: Meeting of December 15, 2020

- * **MOTION BY BOARD MEMBER ANDERSON; SECONDED BY BOARD MEMBER GILLIAM TO APPROVE THE JANUARY 20, 2021 AGENDA AS WRITTEN.**

AYES: DOBRIN, WASHINGTON, ANDERSON, BLANCO, ERVIN, GILLIAM, GREEN, GREENWOOD, MOCK, SENDEL

III. ELECTION OF OFFICERS AND PRESENTATIONS:

A. Election of Chair and Vice Chair

- * **MOTION BY ALTERNATE MEMBER GREENWOOD; SECONDED BY BOARD MEMBER ERVIN TO REAPPOINT MICHAEL DOBRIN AS CHAIRPERSON.**

AYES: DOBRIN, WASHINGTON, ANDERSON, BLANCO, ERVIN, GILLIAM, GREEN, GREENWOOD, MOCK, SENDEL

MOTION PASSED UNANIMOUSLY (10-0)

Board member Sengel put his name in to be considered for Vice Chairperson, however after discussion with the current Vice Chairperson, Al Washington, he withdrew his submittal.

- * **MOTION BY ALTERNATE MEMBER GREENWOOD; SECONDED BY BOARD MEMBER GILLIAM TO REAPPOINT AL WASHINGTON AS VICE CHAIRPERSON.**

AYES: DOBRIN, WASHINGTON, ANDERSON, BLANCO, ERVIN, GILLIAM, GREEN, GREENWOOD, MOCK, SENDEL

MOTION PASSED UNANIMOUSLY (10-0)

B. Presentation by Larry Koss on Low Impact Development

A presentation¹ was provided by Mr. Larry Koss, former Planning and Zoning Board Member, on low impact development.

IV. OLD BUSINESS:

A. PZ-20-00300003 – Cirrus Mixed-Use PUD – **Tabled**

- * **MOTION BY BOARD MEMBER ERVIN; SECONDED BY BOARD MEMBER GREEN TO TABLE THE ITEM TO THE FEBRUARY 3, 2021 MEETING.**

AYES: DOBRIN, WASHINGTON, ANDERSON, BLANCO, ERVIN, GILLIAM, GREEN, GREENWOOD, MOCK, SENDEL

MOTION PASSED UNANIMOUSLY (10-0)

B. Consideration of an Ordinance (Zoning Text Amendment)

Ms. Selig explained that the City has identified an issue related to the construction of single-family dwellings under the RU-2-10, Low Density Single-Family and Multiple-Family zoning district regulations. This district allows for single-family dwellings to be constructed on lots with a minimum area of 5,000 square feet and no required open space or community amenities, due to the close proximity of the Cocoa Village area's many such spaces and amenities.

The RU-2-10 zoning district applies to an area bound by State Road 520 on the north, Florida Ave. on the east, Rosa L. Jones Dr. on the south and US1 on the

¹ Presentation given by Larry Koss – Restoring Rain's Natural Path – Low Impact Design (A Tool in the Restoration of the Indian River Lagoon)

west, which is known as the Heart of Cocoa neighborhood, and which is subject to the Substitute Consent Decree as ordered on January 28, 2009.

Additionally, there are two other zoning districts which allow the construction of dwelling units under the provisions of the RU-2-10 zoning district. These are the RU-2-15 (Multiple Family Dwelling District) and the RU-2-25 (Multiple Family Dwelling District). The RU-2-15 district allows “Single-family and multi-family dwellings of not more than three (3) units per building as regulated by section 4A, RU-2-10” and the RU-2-25 district allows “Single-family and Multi-family dwellings of not more than four (4) units per building as regulated by section 4A, RU-2-10”.

However, the Substitute Consent Decree specifically limits the application of the RU-2-10 zoning district regulations to the lands subject to the decree. In addition, the City Council has expressed the desire to limit building of dwelling units on small parcels of land without accompanying amenities.

Ms. Selig noted that it is therefore necessary that the City revise both the RU-2-15 and RU-2-25 zoning districts to remove reference to the RU-2-10 district and provide new zoning regulations for such dwelling unit construction. The proposed changes to the RU-2-15 regulations will allow the construction of single-family, and multi-family of not more than 3 units per building, under a choice of two options. Development would have the option to build under the RU-1-7 (Single Family Dwelling District) regulations, which require a minimum lot size of 75 feet by 100 feet, without amenities. Or to build under the RU-2-15 regulations which allow a minimum lot size of 50 feet by 100 feet, but require the developer to provide a percentage of the gross acreage as open space/recreation amenities.

The proposed changes to the RU-2-25 regulations will allow the construction of single-family under a minimum lot area, lot width and setbacks that are comparable to those under the RU-2-15 district.

Board member Mock expressed her concerns about the setbacks and noted that she feels they should be reconsidered, such as the 25 foot setbacks which could be reduced to 20 feet in the front and 20 feet in the back of a property and the 8 foot side setbacks could be reduced to 5 feet. Board member Mock added that corner setbacks should be increased from 15 feet to 20 feet. Additionally, Board members Greenwood and Gilliam agreed with Board member Mock.

Ms. Selig provided further clarification and shared several scenarios in which development can take place where the proposed changes would apply.

Chairperson Dobrin opened the hearing to the public. There being no further comments or questions the public portion of the hearing was closed.

Alternate member Greenwood asked how this will affect the Consent Decree. In response, Ms. Selig shared that it will not.

Alternate member Greenwood suggested that the item be tabled until further research can be conducted by staff.

- * **MOTION BY ALTERNATE MEMBER GREENWOOD; SECONDED BY BOARD MEMBER MOCK TO TABLE THE ITEM.**

AYES: DOBRIN, WASHINGTON, ANDERSON, BLANCO, ERVIN, GILLIAM, GREEN, GREENWOOD, MOCK, SENDEL

MOTION PASSED UNANIMOUSLY (10-0)

Board Attorney Eick advised that in order to preserve the advertising the motion to table should be to a date certain.

- * **MOTION BY ALTERNATE MEMBER GREENWOOD; SECONDED BY BOARD MEMBER MOCK TO RESCIND THE ORIGINAL MOTION.**

AYES: DOBRIN, WASHINGTON, ANDERSON, BLANCO, ERVIN, GILLIAM, GREEN, GREENWOOD, MOCK, SENDEL

MOTION PASSED UNANIMOUSLY (10-0)

- * **MOTION BY ALTERNATE MEMBER GREENWOOD; SECONDED BY BOARD MEMBER GREEN TO TABLE THE ITEM TO MARCH 3, 2021.**

AYES: DOBRIN, WASHINGTON, ANDERSON, BLANCO, ERVIN, GILLIAM, GREEN, GREENWOOD, MOCK, SENDEL

MOTION PASSED UNANIMOUSLY (10-0)

V. NEW BUSINESS:

None.

VI. UPDATES AND STAFF REPORTS:

A. Workshop – Accessing Meeting Agendas

Ms. Selig provided a brief tutorial on how to access and navigate the Planning and Zoning Board agendas online and via email.

B. Board Discussion

Alternate member Greenwood shared that he provided contact information to Ms. Selig for a neutral, licensed arborist who would be willing to come and speak before the Board if the City Manager and Board would allow it. In response, Ms. Selig explained that she has plans to discuss this at the next meeting.

VII. NEXT MEETING DATE:

The next scheduled meeting for the Planning and Zoning Board will be held on Wednesday, February 3rd at 6pm in Cocoa City Hall, 65 Stone St, Cocoa, FL 32922.

VIII. ADJOURNMENT:

* **MOTION BY BOARD MEMBER ANDERSON; SECONDED BY BOARD MEMBER SENDEL TO ADJOURN THE REGULAR MEETING OF JANUARY 20, 2021.**

AYES: DOBRIN, WASHINGTON, ANDERSON, BLANCO, ERVIN, GILLIAM, GREEN, GREENWOOD, MOCK, SENDEL

MOTION PASSED UNANIMOUSLY (10-0)

MEETING WAS ADJOURNED AT 7:38 PM.

Michael Dobrin, Chairperson

Respectfully Submitted By:

Monica Arsenault, Recording Secretary



Legislation Details (With Text)

File #: 21-118 **Version:** 1 **Name:**
Type: Informational Item **Status:** Agenda Ready
File created: 1/28/2021 **In control:** Planning and Zoning / Local Planning Agency
On agenda: 2/3/2021 **Final action:**
Title: Approval of a BINDING DEVELOPMENT AGREEMENT / Final PLANNED UNIT DEVELOPMENT (PUD) REZONING / PRELIMINARY SUBDIVISION / LARGE SCALE SITE PLAN consistent with Chapter 18 Subdivisions and Appendix A Zoning of the City Code for the Cirrus Mixed-Use PUD project.

Sponsors:

Indexes:

Code sections:

Attachments: [Attachment One - Development Agreement 1-28-21.pdf](#)
[Exhibit B - Overall Site Plan.pdf](#)
[Attachment Two - Final PUD plans 11-6-20.pdf](#)
[Landscape Plan 11-6-20.pdf](#)
[Ordinance 03-2021 Cirrus Rezoning CG to Mixed-Use PUD \(003\).pdf](#)
[Building Renderings.pdf](#)
[Traffic Impact Analysis 8-31-20.pdf](#)
[Legal ad Proof \(PZ and both CC\).pdf](#)
[Map - Cirrus Mixed-Use PUD.pdf](#)

Date	Ver.	Action By	Action	Result
------	------	-----------	--------	--------

PLANNING & ZONING BOARD/LOCAL PLANNING AGENCY AGENDA ITEM

Memo Date: January 28, 2021
Agenda Date: February 3, 2021
Prepared By: Dodie Selig, Planning & Zoning Manager
Through: Nancy A. Bunt, Community Services Director

Requested Action:

APPROVAL OF A BINDING DEVELOPMENT AGREEMENT / FINAL PLANNED UNIT DEVELOPMENT (PUD) REZONING / PRELIMINARY SUBDIVISION / LARGE SCALE SITE PLAN consistent with Chapter 18 Subdivisions and Appendix A Zoning of the City Code for the Cirrus Mixed-Use PUD project.

BACKGROUND:

The subject property is a single parcel of land comprising 15.74 acre located at the northwest corner of SR524 and South Industry Road. The parcel is bound on the north by SR528, on the east by South Industry Road, on the south by SR524 and on the west by the Coventry of Cocoa residential PUD. The parcel is addressed as 2320 Highway 524 and is further identified as Parcel ID: 24-36-18-

27-*-1. The property was developed in 1993 as a Winn-Dixie grocery store with a stormwater pond and extensive parking. The grocery store closed in 2007 and the site has been vacant since.

Project Details:

The property owner desires to redevelop the site as a Mixed-Use Planned Unit Development (PUD) in two phases. The first phase would develop 13.49 acres of the property with a multi-family residential use consisting of 280 apartment units in two buildings. The two buildings contain a total of 20 studio units, 134 one-bedroom units, 107 two-bedroom units and 19 three-bedroom units. The buildings would be four (4) floors in height, the roof parapet would be 55 feet in height and the highest point would be 62.5 feet. Amenities would include a vertical clubhouse integrated into the corner of one building, a pool courtyard with outdoor grilling areas, a second courtyard with gathering areas, a rooftop lounge/deck area for space launch viewing, a dog park and a walking trail around the stormwater pond. A sky-bridge at the 4th floor level will connect the two apartment buildings. Parking is provided by a mix of open air spaces and garage units.

The second phase would develop 2.25 acres of the existing parking lot as a future commercial use. The specific use or uses will be limited to those uses allowed under the development agreement. Stormwater for both phases would be constructed in phase one and utilize the existing stormwater pond located on the residential portion of the site. The existing wetland of approximately 1.6 acres at the northwest corner of the property which will remain untouched by the development plans.

The Applicant has submitted the following applications related to this project:

- A Development Agreement 1-28-21 (Attachment One)
- An Overall Site Plan (Exhibit B of the Development Agreement)
- A Rezoning of the parcel from General Commercial to Mixed-Use Planned Unit Development (Ordinance 03-2021)
- A Final Planned Unit Development (PUD) plan set (Attachment Two, sheet 1-19 and 24-28)
- A Preliminary Subdivision to create two parcels, one for the multi-family use and one for the future commercial use (Attachment Two, sheet 20-23)
- A Large-Scale Site Plan (this is a part of Attachment Two) (The Site Plan also includes the Landscape Plan dated 11-6-20)

In addition the following supporting documents are provided:

- Building Renderings
- Traffic Impact Analysis 8-31-20

Summary of Binding Development Agreement:

The Development Agreement allows the subject property to be developed as a Mixed-Use PUD in two phases.

Phase 1 is limited to multi-family residential use and includes construction of all shared site infrastructure and access. The development agreement provides a timeframe of a maximum of 48 months for the completion of the first phase of the project.

Phase 2 is a future commercial development. The agreement lists potential uses allowed for Phase 2 with the final use(s) to be identified in an amendment to the agreement. Prior to completion of the first phase, the Developer and the City are required to amend the development agreement to establish

the specific use(s), site layout, drive aisles, parking, landscaping, building elevations, open space provision and timing of completion for the second phase. The agreement provides for an optional 1-year extension to complete the amendment.

Future Land Use Designation:	Commercial
Zoning District:	C-G (General Commercial)
Existing Land Use:	Vacant commercial building
Council District:	District 3 - Councilmember Rip Dyal

Overview of Surrounding Area:

	Future Land Use Designations	Zoning Districts	Land Uses
North	Industrial	M-2	Vacant land (north of interchange)
South	Neighborhood Commercial	N-C	CVS (adjacent) and Commons Shopping Center (south of SR524)
East	Commercial	C-G and N-C	Retail and McDonalds (adjacent) and US Post Office (east of South Industrial)
West	Medium Density Residential	Residential PUD	Single-Family homes

Consistency with Code of the City of Cocoa

The submitted application and plans have been reviewed by City staff for consistency with Chapter 18 Subdivisions and with Appendix A Zoning of the City of Cocoa Code and found to be in substantial compliance although a few issues remain to be addressed as detailed below.

PUD Analysis:

The decision of the Planning and Zoning Board of the City of Cocoa on the preliminary development 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 adjoining parcel to the west is a residential PUD with 204 single-family units on approximately 41 acres of land for a density of 5 units/acre. The multi-family portion of the proposed mixed-use PUD will contain 280 apartment units on 13.49 acres for a density of 20 units/acre. This increase in density is appropriate for a mixed-use project and is less than the 25 units/acre allowed under the Commercial Future Land Use of the site. A multi-family apartment project should be located in close proximity to commercial uses and convenient transportation access, both of which describe this site's location.

2. Compatibility within the planned unit development and relationship with surrounding neighborhoods.

Staff Finding:

The proposed multi-family and future commercial uses will be compatible with each other and with the adjacent existing commercial and residential uses. Residents of the multi-family units will be able to access the commercial uses on the adjoining parcels and the Cocoa Commons shopping plaza directly across SR524 on foot or by bicycle if they wish. The multi-family buildings are required to be set back from the property line further than would be the case under conventional multi-family zoning. Location of the pool area within the u-shape of the building further removes it from the adjoining residential homes to the west.

3. Prevention of erosion and degrading of surrounding area.

Staff Finding:

The developer of each phase will be required to prevent erosion or degrading of any natural areas. In addition, a St Johns River Water Management District permit has been applied for by the applicant which will control impact to the existing wetland.

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:

A review of the level of service for public facilities is provided below under the Concurrency Management section heading.

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 multi-family recreation space will consist of a vertical clubhouse integrated into the corner of one building, a pool courtyard with outdoor grilling areas, a second courtyard with gathering areas, a rooftop lounge/deck area for space launch viewing, a dog park and a walking trail around the stormwater pond and wetland area. These amenities will be shared by the apartment residents and their guests and will be maintained by the apartment owner's management company.

6. The feasibility and compatibility of the specified stages contained in the preliminary development plan to exist as an independent development.

Staff Finding:

The first phase of the PUD will construct all shared site improvements at the same time that the multi-family development occurs. This will allow the first phase to exist independently of any future development on the second phase. It will also allow the second phase to construct only the use associated with that phase.

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 existing entry at the southwest corner of the property provides deceleration lanes for traffic turning into the property from either the east or west bound direction of SR524. In addition, this is a signalized intersection which significantly improves turning movements. The secondary entry to the site is a right-in / right-out movement and it also has a deceleration lane for vehicles entering the site. The site is already laid out with cross access easements to ensure that traffic can move from SR524 to all the outparcels adjacent to the primary site.

8. The availability and adequacy of water and sewer service to support the proposed planned unit development.

Staff Finding:

The existing utility lines will be upgraded and moved from under the building site to an area along a shared access drive aisle providing easier access and greater capacity.

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 multi-family component of the PUD will provide a new form of residential development which will appeal to a new market as well as providing an increased tax base. Redevelopment of this empty shopping plaza will bring a significant visual improvement to the area.

10. The conformity and compatibility of the planned unit development with any adopted development plan of the City of Cocoa.

Staff Finding:

Redevelopment of the site is compatible with the following from the Comprehensive Plan: Objective 1.1.4, Policy 1.1.10.3, Goal 1.2, and Objective 1.2.1. These are listed in more detail below.

11. The conformity and compatibility of the proposed common space, primary residential and nonresidential uses within the proposed planned unit development.

Staff Finding:

The multi-family component of the PUD will provide common recreation space amenities for the residents as discussed above. The wetland area will remain as common preservation space. The common public space for the future commercial phase will be determined when that phase develops.

The PUD code provides additional requirements not listed above. These include building setbacks, landscape buffer, minimum floor area per dwelling unit, maximum length of structures, off-street parking, lighting, trash enclosures, underground utilities and preservation of trees/landscape requirements. These have been reviewed and found in compliance.

Site Plan Analysis:

The site was originally designed for access solely by vehicle traffic. However, since the proposed project will be adding residential units to the site, a sidewalk connection from the multi-family parcel to the SR524 sidewalk will be required. There is an existing sidewalk along the north side of SR524 and across the roadway along the north side of the Cocoa Commons shopping center properties which would provide convenient access for pedestrian traffic. The sidewalk connection has been listed as a condition of approval below.

The parking requirements for multi-family use are one space for each studio unit, 1.5 spaces for each one-bedroom unit and 2 spaces for each two and three-bedroom unit, for a total of 474 parking spaces required. The Final PUD plans show that 250 regular parking spaces, 112 compact parking spaces, 79 garage units and 10 handicapped parking spaces will be provided, for a total of 451 parking spaces. An Administrative Waiver is allowed for up to 5% of the total number of parking spaces required, or 24 spaces. The applicant has requested an Administrative Waiver for 23 spaces.

The landscaping plans are generally acceptable however there are two errors that remain to be corrected. This has been made a condition of approval.

Subdivision Analysis:

The Preliminary Subdivision will create two (2) lots. Lot 1A encompasses the multi-family residential portion of the site, while Lot 1B contains the future commercial phase. There is no minimum lot size under PUD zoning.

Floodplain and compensatory storage requirements were reviewed and some comments remain to be addressed. These have been added as conditions of approval.

Consistency with Comprehensive Plan Policies and Objectives

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 1.1.10.3: Innovative land use development patterns, including PUDs and Cluster Zoning shall be permitted and encouraged in appropriate areas, as defined in the land development regulations.

GOAL 1.2: The City of Cocoa shall place a strong emphasis on requiring quality integrated mixed-use development to improve the appearance of the City, increase property values and achieve a higher quality of life for its businesses, residents and visitors.

Objective 1.2.1: Smart Growth Principles. New development in the City shall incorporate “Smart Growth” principles that will lead to compact development standards as opposed to conventional development standards that encourage urban sprawl.

Policy 1.2.1.3: The City shall consider development incentives to encourage developers to revitalize/redevelop abandoned strip malls and commercial sites by converting them into mixed-use developments.

Concurrency Management/Adequate Public Facilities

Wastewater

The Level of Service (LOS) for wastewater is 319 gallons per day per household, based on the 280 units, the projected demand on the wastewater system is 89,320 gallons per day.

The Sellers Plant is currently permitted to treat 4.5 mgd of wastewater per day, and is currently operating at 2.08 mgd. The maximum peak flow over the past twelve months was 4.56 mgd. Thus, there is sufficient capacity for Wastewater.

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.

A St Johns River Water Management District Permit for the original development of the site was issued in 1993 and updated in 2008. A St Johns River Water Management District Permit for this project was applied for on December 8, 2020 and a copy of the final permit will be provided to the City when it is issued.

Potable Water

The LOS for potable water is 122 gallons per capita per day (gpcd) per household. Based on the City of Cocoa EAR Population Projections report, the average permanent resident per dwelling unit is 2.35 per occupied unit. Thus, the average demand per household is estimated at 286.7 gpcd, and based on the 280 proposed dwelling units the overall demand is 80,276 gpcd.

The Dyal Plant provides potable for the City of Cocoa service area and it is currently permitted to operate at 48 million gallons per day (mgd). The maximum provision over the past twelve months is

34 mgd. Thus, there is sufficient capacity for Potable Water.

Solid Waste

The Level of Service (LOS) for the City of Cocoa is 1.2 tons of solid waste disposal per capita per year, and residential collection LOS shall be 2 times per week per household with green waste and recyclables once per week. The City contracts with Waste Management for the provision of solid waste, and the projected solid waste generated will be collected consistent with the adopted level of service standards.

Roadways (Transportation)

The minimum LOS for SR524 is D.

The Space Coast TPO Traffic Counts Report for 2019 indicates that for the Cox Road to Industry Road segment of State Road 524, the average annual daily traffic trips is 13,380 and it is classified as Urban Minor Arterial. The multi-family use will generate roughly 3,394 new net daily trips based on the applicant's traffic Impact Analysis. Based on the Current Maximum Acceptable Volume (19,470) established by the Space Coast TPO, there is sufficient capacity on State Road 524 to support this development. Adding the projected additional trips to the existing results in a total of 16,774 trips, 2,696 under the Maximum Acceptable Volume limit.

Recreation

The Level of Service (LOS) for Recreation is 1.25 acres per 1,000 population.

Pursuant to the City of Cocoa Comprehensive Plan EAR (October 2010) Data and Analysis, there exists a surplus of 118.34 acres of parks, which was determined to be more than sufficient to meet the needs of the citizens through 2020. The City's current population is 18,833 which requires 23.54 acres of park and recreation facilities. The EAR identified the City as having 323.58 acres (including the 165.09 acres Cocoa Conservation Area) available for residents. Thus, the City has sufficient recreation/parks to support the project and maintain the adopted LOS.

Schools

A School Capacity Availability Determination Letter was received from the Brevard County School Board for this project. It indicates that there is insufficient capacity at Saturn Elementary and Cocoa Jr./Sr. High School at this time. However, the adjacent school concurrency service areas do have sufficient capacity to provide for the projected needs of the Cirrus development.

Next Steps:

All four applications related to this project will be heard by City Council on February 9, 2021 and February 23, 2021.

BUDGETARY IMPACT:

N/A

PREVIOUS ACTION:

N/A

RECOMMENDED MOTION:

Staff recommends the Planning & Zoning Board recommend **approval** to City Council of the Binding Development Agreement, Final PUD Rezoning and Preliminary Subdivision for the Cirrus Mixed-Use PUD project with the conditions set forth below, and

Staff recommends **approval** of the Large-Scale Site Plan with the conditions set forth below:

1) Traffic Impact Analysis

- a. Site Access and Auxiliary Lanes - The report indicates that a 295' right turn lane is required for this project. The existing turn lane is 290'. Please provide confirmation from FDOT that this will be acceptable entering this site. It appears some minor shoulder work and striping can be performed to accommodate the additional 5' if the existing is required. Vehicles will likely use both turn lanes to enter this site, in which case the turn lane appears to be adequate.
- b. Existing Peak PM Table- Otterbein Ave to Michigan should be Segment 39 and have a daily volume of 19,530 per the SCTPO
- c. Please correct the Trip Generation Counts based on the proposed number of 280 dwelling units. Update the TIA with this information.

2) Civil Plans

- a. Sheet 10-Comment #7-The intent of this comment is to provide protection to the neighborhood to the west. The area proposed to be raised is outside of the delineated wetland area. Please provide follow-up related to this comment after discussions with SJRWMD. Ideally, 1-ft of freeboard should be provided between the rim of the control structure and all pond banks. No less than 0.5' should be provided.
- b. Sheet 10 - Comment #10 -This is acceptable. From a future maintenance standpoint, the concern is that an 8" pipe clogs very easily.
- c. Sheet 10 - Comment #12 -Sidewalk to SR-524. 0.3 miles is not a-significant walk and only takes 7-10 minutes. A sidewalk here would prevent Cirrus residents from navigating through the parking lot to get to an existing signalized intersection with crosswalks in place. Future development in the Cocoa Commons area will require sidewalk connectivity as well. Please provide a sidewalk along the west entry from the project site to SR-524.
- d. Sheet 10-Comment 13-The rim is still shown higher than the west TOB of the drainage swale. The rim is shown as 30.21. Section C-C shows a TOB of 30.0. Please provide grading to ensure the TOB is higher than the rim. 1.0' of freeboard is ideal, but 0.5' should be the minimum space between the rim and TOB.
- e. Sheet 10 - Comment #14 -This is the main outfall for this pond. If blocked it could cause flooding to the subject site and west properties. Confirm with FDOT, but their

direction will likely be that it is the adjacent property owner's responsibility since it is not part of their drainage system.

- f. Please verify datum conversion from NGVD 29 to NAVD 88. According to NOAA, there is a decrease of 0.43', not 0.8' as stated.
- 3) Trees to be a minimum of 2.5 dbh. Correct sheet LC 1.00 under plant material schedules for all areas as well as the total dbh under the tree removal and replacement schedule.

DRAFT 1.28.21

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

CIRRUS MIXED-USE DEVELOPMENT AGREEMENT

THIS CIRRUS MIXED-USE DEVELOPMENT AGREEMENT ("Agreement") is made and executed this ____ day of _____, 2021, by and between the **CITY OF COCOA**, a Florida municipal corporation (the "City"), whose address is 65 Stone Street, Cocoa, Florida 32922 and **COCOA RETAIL, LLC**, a North Carolina limited liability company authorized to do business in the State of Florida (the "Developer"), whose address is 1111 Metropolitan Avenue, Suite 700, Charlotte, NC 28236. For purposes of this Agreement, the City and Developer may be referred to as "Parties," and individually each a "Party."

WITNESSETH:

WHEREAS, Developer is the owner of approximately 15.74 acres, more or less, of certain real property located north of SR 524 and west of Industry Road, in Cocoa, Brevard County, Florida, and legally depicted and described on **Exhibit A**, attached hereto and incorporated herein (the Property"); and

WHEREAS, an existing building of approximately ± 85,000 square feet and related parking lot are located on the Property and which building has remained vacant for approximately fifteen (15) years; and

WHEREAS, the Developer desires that the Property be redeveloped into a mixed-use Planned Unit Development (PUD) and has requested approval of PUD zoning and a final development plan for the Property (the "Mixed-Use PUD"), along with a preliminary plat to subdivide the Property into a parcel consisting of approximately 13.40 acres intended for multi-family use (the "Multi-Family Parcel") and a parcel consisting of approximately 2.25 acres fronting SR 524 intended for future commercial use (the "Commercial Parcel"); and

DRAFT 1.28.21

WHEREAS, the City has determined the Property is an appropriate location for a quality infill development; and

WHEREAS, the Developer desires to redevelop and construct a first-class, luxury apartment complex containing approximately 280 multi-family units, swimming pool, dog park, parking and related facilities to be known as "The Cirrus Apartments" and a commercial development on the Commercial Parcel (collectively be referred to as the "Project"). The Parties have entered into this Agreement for the purpose of specifying the terms and conditions pursuant to which the Developer shall generally administer all aspects of the development of the Project; and

WHEREAS, the Developer desires to redevelop the Property in phases and that the final development plan indicates that the multi-family portion of the Mixed-Use PUD be designated "Phase 1" and the commercial portion be designated as "Phase 2;" and

WHEREAS, the City Council and Developer desire to enter into this Agreement to allow for the future redevelopment of the Property pursuant to the terms and conditions stated herein including as required by the Mixed-Use PUD and the City Code; and

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein, the Parties mutually 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.

3.0 Project Description and Requirements. Developer shall, at its expense, design, permit and construct a mixed-use development on the Property as follows:

(a) Phase 1 of the Property of the Mixed Use PUD shall consist of a multi-family apartment complex on the "Multi-Family Parcel" with amenities, and Phase 2 on the "Commercial Parcel" shall consist of a commercial development as more fully set forth on the approved final development plan, prepared by B.S.E. Consultants, Inc., Project Number 11545, dated _____, 2021, and approved by the City on _____, 2021, a complete copy of which is maintained on file by the City at City Hall (the "Final Development Plans"). However, Sheet #____ of ____ of the Final Development Plans, which depicts the Overall Site Plan, is attached hereto and incorporated herein as **Exhibit B** for purposes of conveniently illustrating the Project. The multi-family portion of the Mixed-Use PUD, including all supporting parking, infrastructure, and traffic facilities shall be constructed in Phase 1 of the Project. In addition, all shared infrastructure between Phases 1 and 2, including, but not limited to, potable water, sanitary sewer, and reclaimed water service, shared stormwater facilities and shared access

DRAFT 1.28.21

entrances and drives, as more fully set for in the Final Development Plans, shall be completed in Phase 1 of the Project.

(b) The Developer shall redevelop the “Commercial Parcel” as Phase 2 of the Project consistent with the City Code and the terms and conditions as otherwise set forth in this Agreement.

(c) The Developer shall be responsible for securing, at Developer’s expense, all utility services necessary and required to support the Project, and to the extent that any existing utilities on the Property must be relocated, the Developer shall likewise be responsible for such relocation. The Developer shall also provide any necessary utility easements required by the utility provider to provide service to the Property.

4.0 Development Schedule and Future Permitting. Phase 1 of the Project on the Multi-Family Parcel shall be developed in accordance with the approved Final Development Plans and the Development Schedule included in this Section. In addition, the Developer shall have the obligation to further submit and obtain the City’s approval of an Amended Final Development Plan(s), for Phase 2 on the Commercial Parcel of the Mixed-Use PUD consistent with the requirements of this Agreement and in compliance with the City Code, and in accordance with the Development Schedule included in this Section. The Phase 1 improvements of the Multi-Family Parcel shall be completed within thirty-six (36) months of the later date that: (i) Developer receives all necessary governmental and quasi-governmental approvals for the Phase 1 improvements, or forty-eight (48) months from the Effective Date of this Agreement. In the event Developer fails to complete construction of the Phase 1 Improvements as required by this Section, and Developer has not obtained building permits for the construction of Phase 2, the City shall have the right, but not obligation, to terminate this Agreement after providing Developer written notice of default and an opportunity to cure pursuant to Section 22 of this Agreement.

The Phase 2 Commercial Parcel shall be developed in one (1) or two (2) parcels, concurrently or independently. In either event, prior to completion of the Phase 1 Improvements, Developer and the City shall process for the City’s consideration and approval an amendment to the Final Development Plans for the remaining Phase 2 stage of the Project, pursuant to Appendix A, Zoning Article XI, Section 17(j), and this Agreement, as required by Section 5 of this Agreement. If the Developer and City are not able to timely complete the Phase 2 amendment to this Agreement and Final Development Plans prior to the completion of the Phase 1 improvements, the City Manager, upon written request by the Developer, is authorized to grant for good cause a one (1) year extension to complete the Phase 2 amendment required by this Agreement. Any additional time extensions requested by the Developer, in writing, shall require the approval of the City Council. Upon approval and execution of the Phase 2 amendment to this Agreement by the Parties, and the City’s approval of the amendment to the

DRAFT 1.28.21

Development Plans for the Commercial Parcel, Developer shall promptly obtain building permits and complete construction of the Project on the Commercial Parcel.

The Developer shall be solely responsible for obtaining any and all necessary local and state permits including, but not limited to, building and environmental permit approvals which are required in order to permit the Project in compliance with local, state, and federal law. The Developer shall be responsible for all recording fees associated with this Agreement. Nothing contained herein shall be construed or interpreted as requiring the City Council to approve any future amendment to the Final Development Plan. The City Council will consider and act upon said application at appropriate public hearings pursuant to the requirements of law. If any amendment to the Final Development Plan(s) is denied by the City Council, Developer acknowledges that a modification to this Agreement may be required and a new Amendment to the Final Development Plan application may be presented to the City Council.

5.0 Phase 2 - Common Space Requirements and PUD Code. Developer shall be required to submit for City approval a future Amendment to the Final Development Plans for the Phase 2 commercial portion of the Mixed-Use PUD to provide detailed engineering and plans depicting the common space amenities, schematic drawings of the elevation and architectural construction of the commercial structures, proposed drive aisles and parking, landscape design, development schedule, and all other necessary elements required pursuant to Appendix A, Zoning, Article XI, Section 17 of the City Code for a Planned Unit Development. The open space approved by the City shall be required to be permanently set aside and designated on the Amendment to the Final Development Plans as common public space in the commercial portion of the Mixed-Use PUD.

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;

DRAFT 1.28.21

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 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.

7.0 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 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.

8.0 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.

9.0 Applicable Law; Venue; Interpretation. 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, for federal court actions, in Orlando, Florida. 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.

10.0 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.

11.0 Entire Agreement; Exhibits. This Agreement and all attached exhibits hereto supersede any other agreement, oral or written, regarding the Property and contain the entire

DRAFT 1.28.21

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.

12.0 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.

13.0 Effective Date. This Agreement shall become effective upon approval by the City Council and execution of this Agreement by both Parties hereto.

14.0 Recordation. Upon full execution by the Parties, this Agreement shall be recorded in the Public Records of Brevard County, Florida by the City and shall be binding on the Property and all owners thereof.

15.0 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.

16.0 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. 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).

17.0 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.

18.0 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.

19.0 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.

DRAFT 1.28.21

20.0 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.

21.0 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 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.

22.0 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, 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 have thirty (30) days, or other reasonable time period not to exceed one hundred twenty (120) consecutive days in the event the thirty (30) day time period is not a sufficient time to cure said default to the reasonable satisfaction of the non-defaulting Party prior to filing said action.

23.0 Termination. In addition to those circumstances allowing termination as already provided herein, 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 22.0 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.

24.0 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 for a period of five (5) years.

DRAFT 1.28.21

25.0 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 any unforeseeable or unpredictable event or condition beyond the control of such Party, including, but not limited to, acts of God, acts of government authority (other than the City's own acts), acts of public enemy or war, riots, civil disturbances, power failure, shortages of labor or materials, injunction or other court proceedings beyond the control of such Party, or severe adverse weather conditions ("Uncontrollable 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 Uncontrollable 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.

26.0 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 regular U.S. mail and shall be sent to:

For the City:

City of Cocoa
City Manager
Stockton Whitten
65 Stone Street
Cocoa, FL 32922

with copies to:

City Attorney of Cocoa
Anthony Garganese, Esq.
Garganese, Weiss, D'Agresta & Salzman, P.A.
111 N. Orange Ave., Suite 2000
Orlando, Florida 32802

For Developer:

Cocoa Retail, LLC
Bob Sterns
1825 Riverview Driver
Melbourne, FL 32901

with copies to:

Christopher N. Challis
c/o Sooner Investment Group, Inc.
2301 W. 1-44 Service Road, Suite 100
Oklahoma City, OK 73112

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.

27.0 Assignment. The Developer shall not assign this Agreement prior to the recordation required by Section 14 of this Agreement. Upon recordation, the commitments and obligations set forth hereunder shall run with the land and shall be fully binding on the Property and all owners thereof.

DRAFT 1.28.21

IN WITNESS WHEREOF, the parties have hereunto set their hands and seal on the date first above written.

[Signature Pages Follow]

DRAFT 1.28.21

Signed, sealed and delivered in the presence of the following witnesses:

City of Cocoa

Signature of Witness

Printed Name of Witness

Signature of Witness

Printed Name of Witness

By: _____
Michael C. Blake, Mayor

Date: _____

APPROVED AS TO FORM

ATTEST:

By: _____
Carie Shealy, City Clerk

By: _____
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 _____, 2021, by Michael C. Blake, the Mayor of the City of Cocoa, on behalf of the City, who is personally known to me or produced _____ as identification.

DRAFT 1.28.21

(NOTARY SEAL)

(Notary Public Signature)

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

DRAFT 1.28.21

Signed, sealed and delivered in the presence of the following witnesses:

COCOA RETAIL, LLC

Signature of Witness

Date: _____

Printed Name of Witness

Signature of Witness

Printed Name of Witness

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of () physical presence or () online notarization, this ____ day of _____, 2021, by _____, the _____ of Cocoa Retail, LLC, a North Carolina limited liability company. 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: _____

DEVELOPER IS HEREBY ADVISED THAT SHOULD DEVELOPER FAIL TO FULLY EXECUTE, AND DELIVER TO THE CITY, THIS AGREEMENT WITHIN THIRTY (30) DAYS FROM THE DATE THAT THE CITY COUNCIL APPROVES THIS AGREEMENT, THIS AGREEMENT, AND THE DEVELOPMENT PERMIT APPROVALS REFERENCED HEREUNDER, SHALL AUTOMATICALLY BE DEEMED NULL AND VOID.

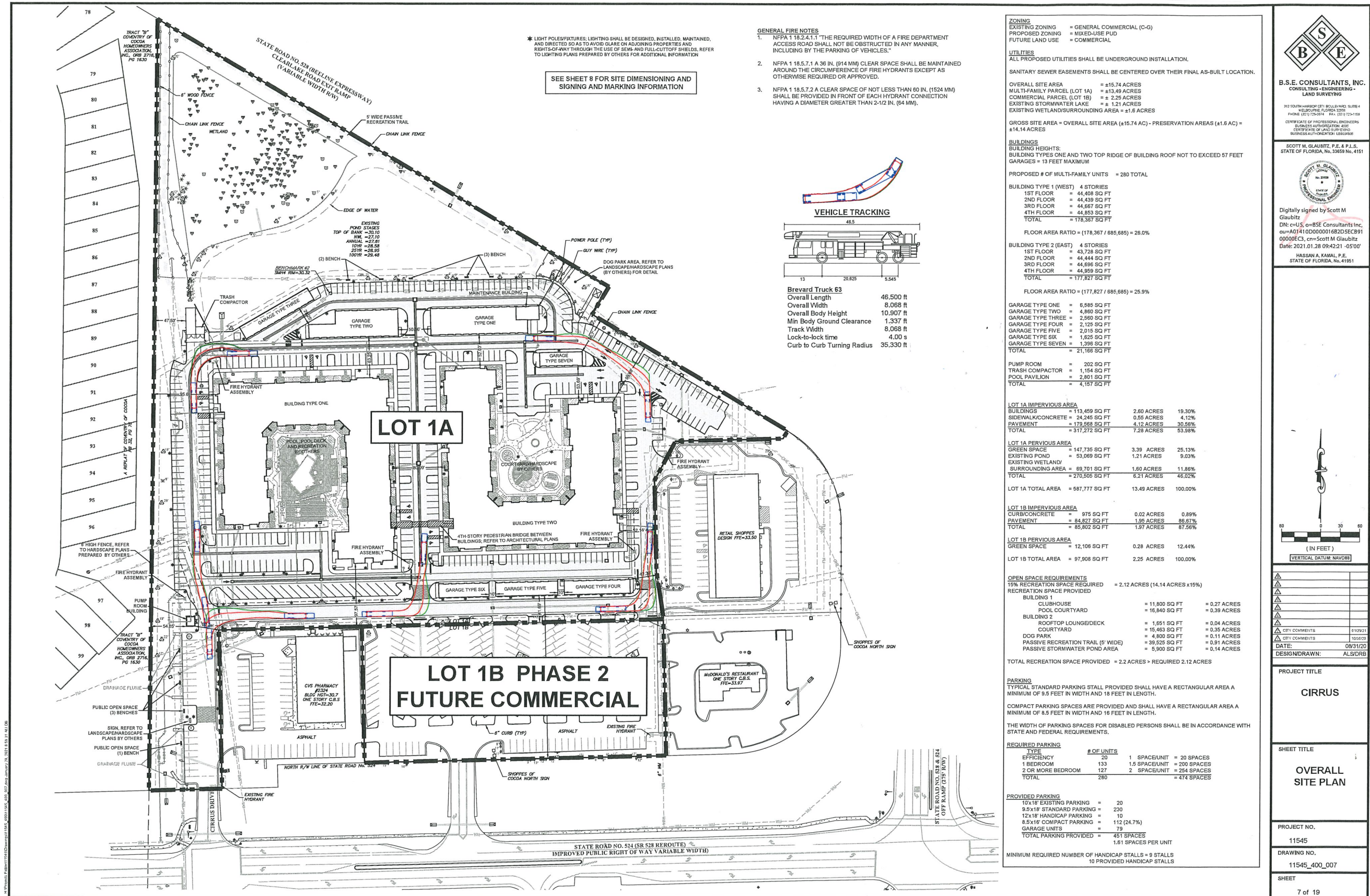
DRAFT 1.28.21

**EXHIBIT A
LEGAL DESCRIPTION**

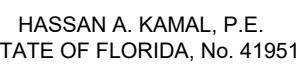
**EXHIBIT B
OVERALL SITE PLAN**

DRAFT 1.28.21

Exhibit B

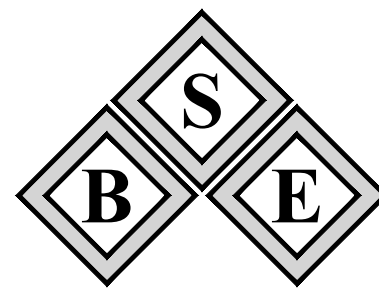


FINAL PUD / PRELIMINARY SUBDIVISION / LARGE-SCALE SITE PLAN
SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA

of 19

A diamond-shaped logo composed of three smaller diamonds. The top diamond contains the letter 'S', the bottom-left diamond contains the letter 'B', and the bottom-right diamond contains the letter 'E'. The diamonds are arranged in a triangular pattern, with the 'S' diamond at the top and the 'B' and 'E' diamonds at the base.

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) 726-3074 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

LANDSCAPE SYMBOL LEGEND

	CABBAGE PALM TREE
	CYPRESS TREE
	HOLLY TREE
	MAPLE 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
	FENCE	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	CENTERLINE
	BASIN BOUNDARY	BASIN BOUNDARY
	COLUMN / WALL	COLUMN / WALL
	GUARD RAIL	GUARD RAIL
	TREE LINE	TREE LINE
	DRAINAGE PIPE	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
	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
CL	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
ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
EW	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
PL	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

CITY COMMENTS 10/30/20

DATE: 08/31/20

DESIGN/DRAWN: ALS/DRB

PROJECT TITLE

CIRRUS

SHEET TITLE

SYMBOLS AND
ABBREVIATIONS

PROJECT NO.

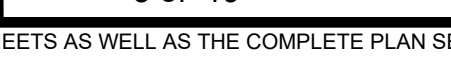
11545

DRAWING NO.

11545_400_002

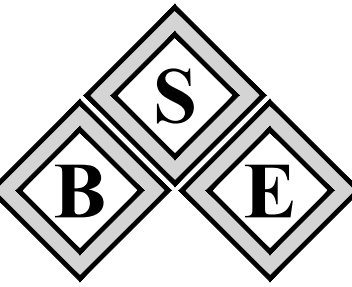
SHEET

2 of 19



3 of 19

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.

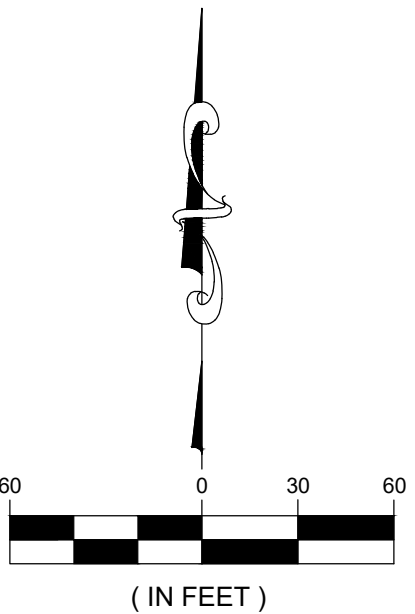


B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 726-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004005

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



(IN FEET)
VERTICAL DATUM: NAVD83

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	
65	
66	
67	
68	
69	
70	
71	
72	
73	
74	
75	
76	
77	
78	
79	
80	
81	
82	
83	
84	
85	
86	
87	
88	
89	
90	
91	
92	
93	
94	
95	
96	
97	
98	
99	
100	

CITY COMMENTS 10/30/20

DATE: 08/31/20

DESIGN/DRAWN: ALS/DRB

PROJECT TITLE

CIRRUS

SHEET TITLE

DEMOLITION PLAN

PROJECT NO.

11545

DRAWING NO.

11545_400_005

SHEET

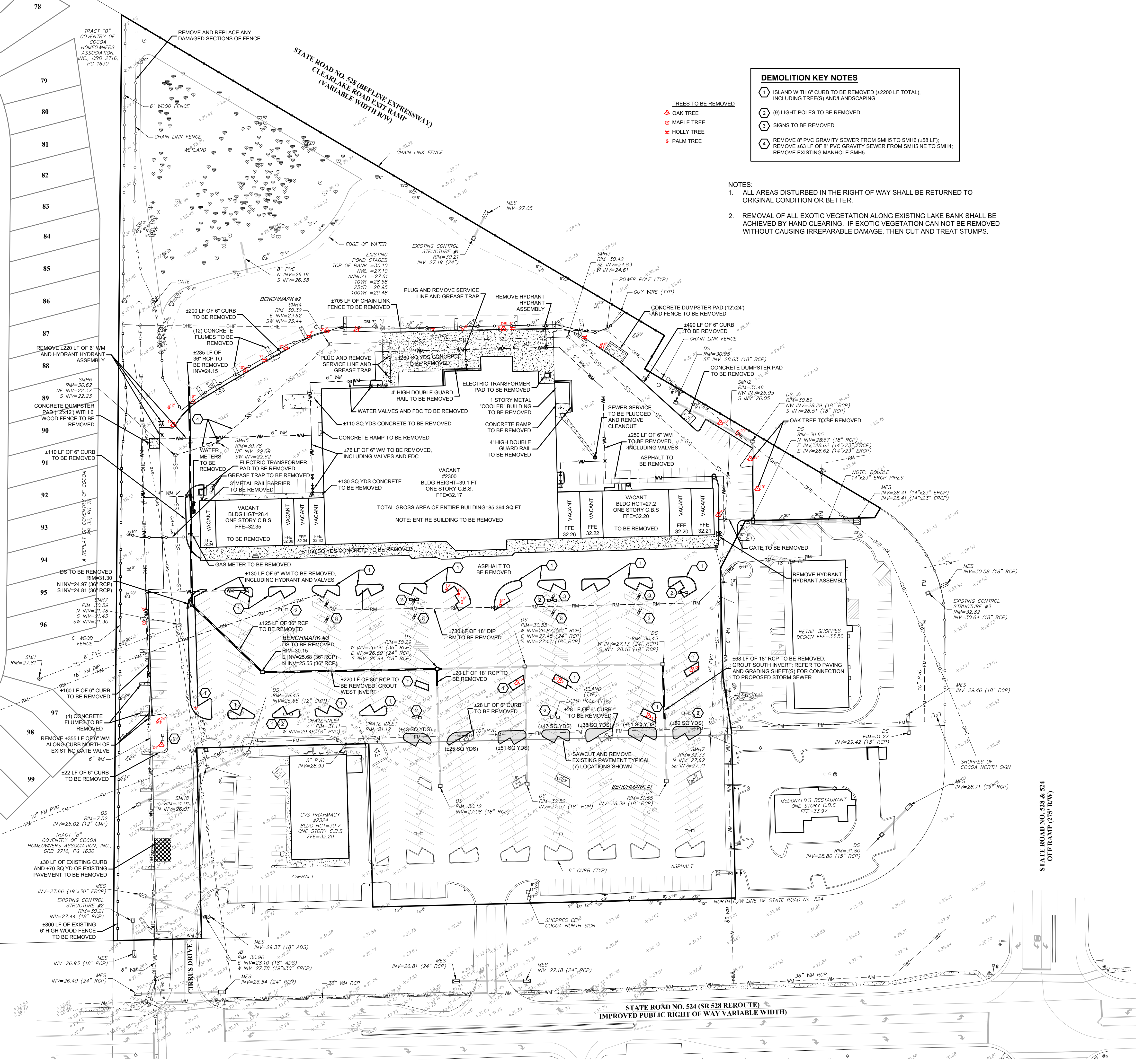
5 of 19

DEMOLITION KEY NOTES

- ISLAND WITH 6" CURB TO BE REMOVED (±2200 LF TOTAL), INCLUDING TREE(S) AND LANDSCAPING
- (9) LIGHT POLES TO BE REMOVED
- SIGNS TO BE REMOVED
- REMOVE 6" PVC GRAVITY SEWER FROM SMH5 TO SMH6 (±58 LF); REMOVE ±85 LF OF 6" PVC GRAVITY SEWER FROM SMH5 NE TO SMH4; REMOVE EXISTING MANHOLE SMH5

- TREES TO BE REMOVED
- OAK TREE
 - MAPLE TREE
 - HOLLY TREE
 - PALM TREE

- NOTES:
- ALL AREAS DISTURBED IN THE RIGHT OF WAY SHALL BE RETURNED TO ORIGINAL CONDITION OR BETTER.
 - REMOVAL OF ALL EXOTIC VEGETATION ALONG EXISTING LAKE BANK SHALL BE ACHIEVED BY HAND CLEARING. IF EXOTIC VEGETATION CAN NOT BE REMOVED WITHOUT CAUSING IRREPARABLE DAMAGE, THEN CUT AND TREAT STUMPS.



H:\Projects\11545\Drawings\11545_400_005.dwg November 5, 2020 10:01:09 AM DB

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.

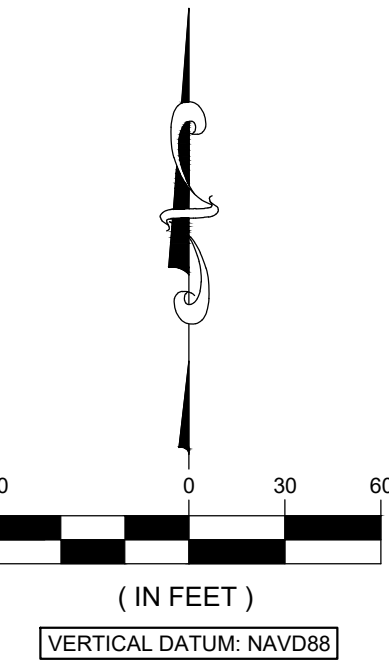


312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159

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



CITY COMMENTS	10/30/2017
DATE:	08/31/2017
DESIGN/DRAWN:	ALS/DF

PROJECT TITLE

CIRRUS

SHEET TITLE

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION

PROJECT NO.

11545

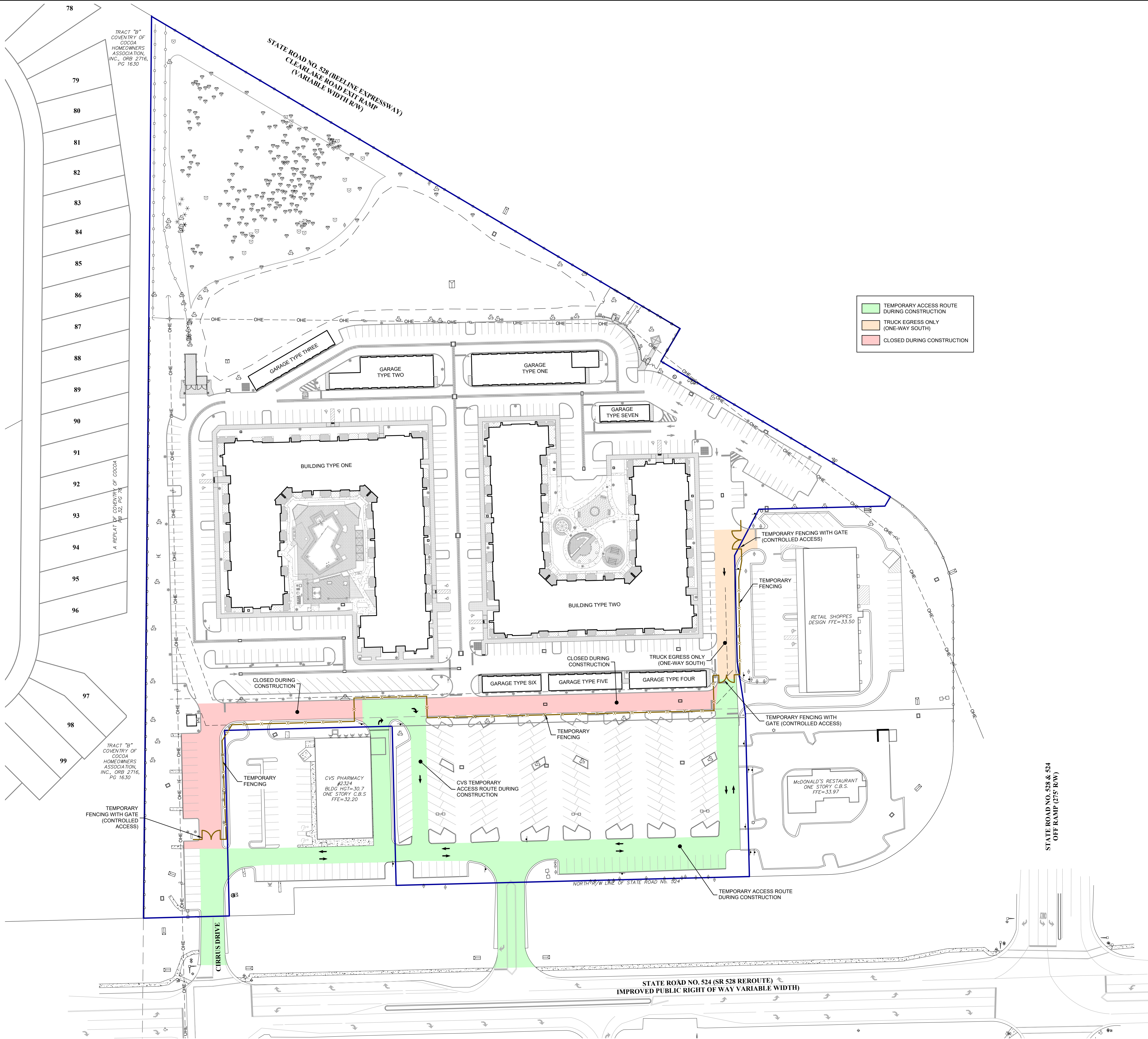
DRAWING NO.

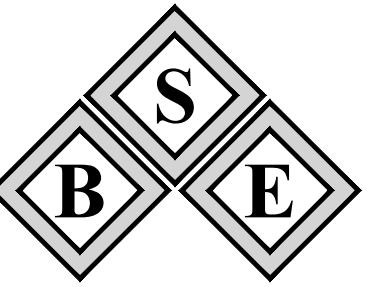
11545_400_006

SHEET

6 of 19

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

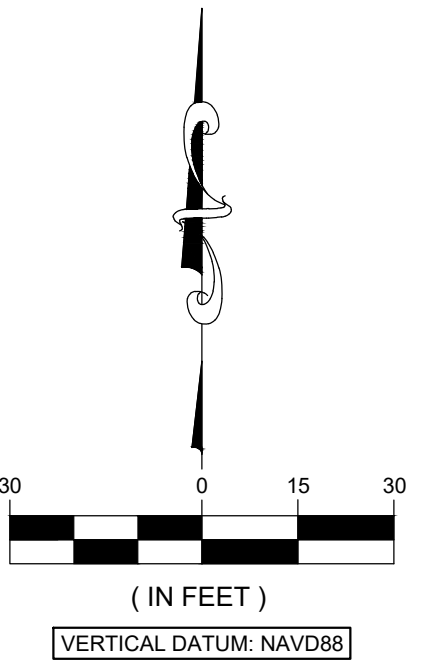
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 726-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004005

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

PARKING COUNTERS

- ## STANDARD
- ## COMPACT
- ## GARAGE



DATE:	08/31/20
DESIGN/DRAWN:	ALS/DRB
PROJECT TITLE	CIRRUS
SHEET TITLE	SITE PLAN
PROJECT NO.	11545
DRAWING NO.	11545_400_008
SHEET	8 of 19

PROJECT TITLE

CIRRUS

SHEET TITLE

SITE PLAN

PROJECT NO.

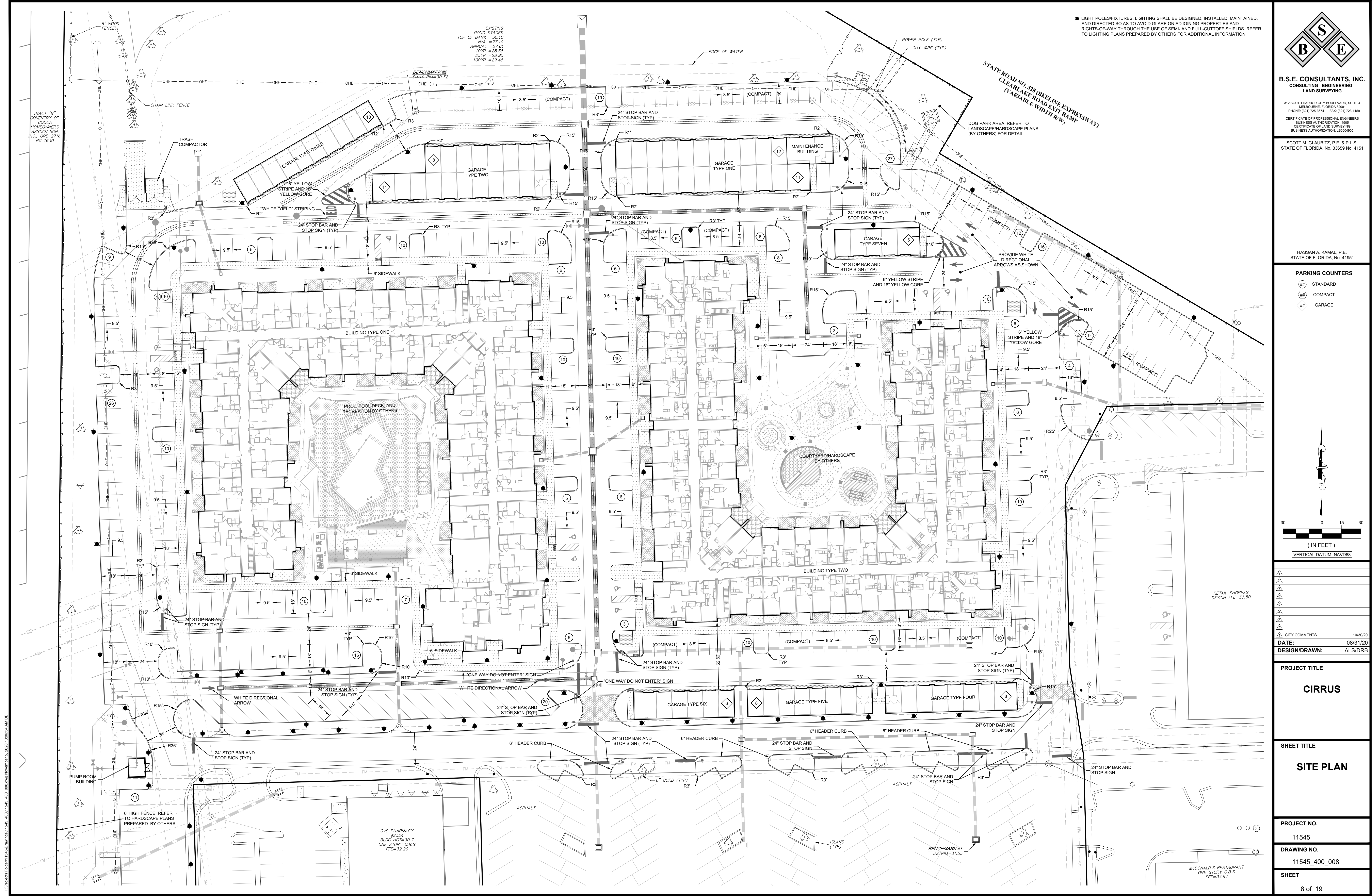
11545

DRAWING NO.

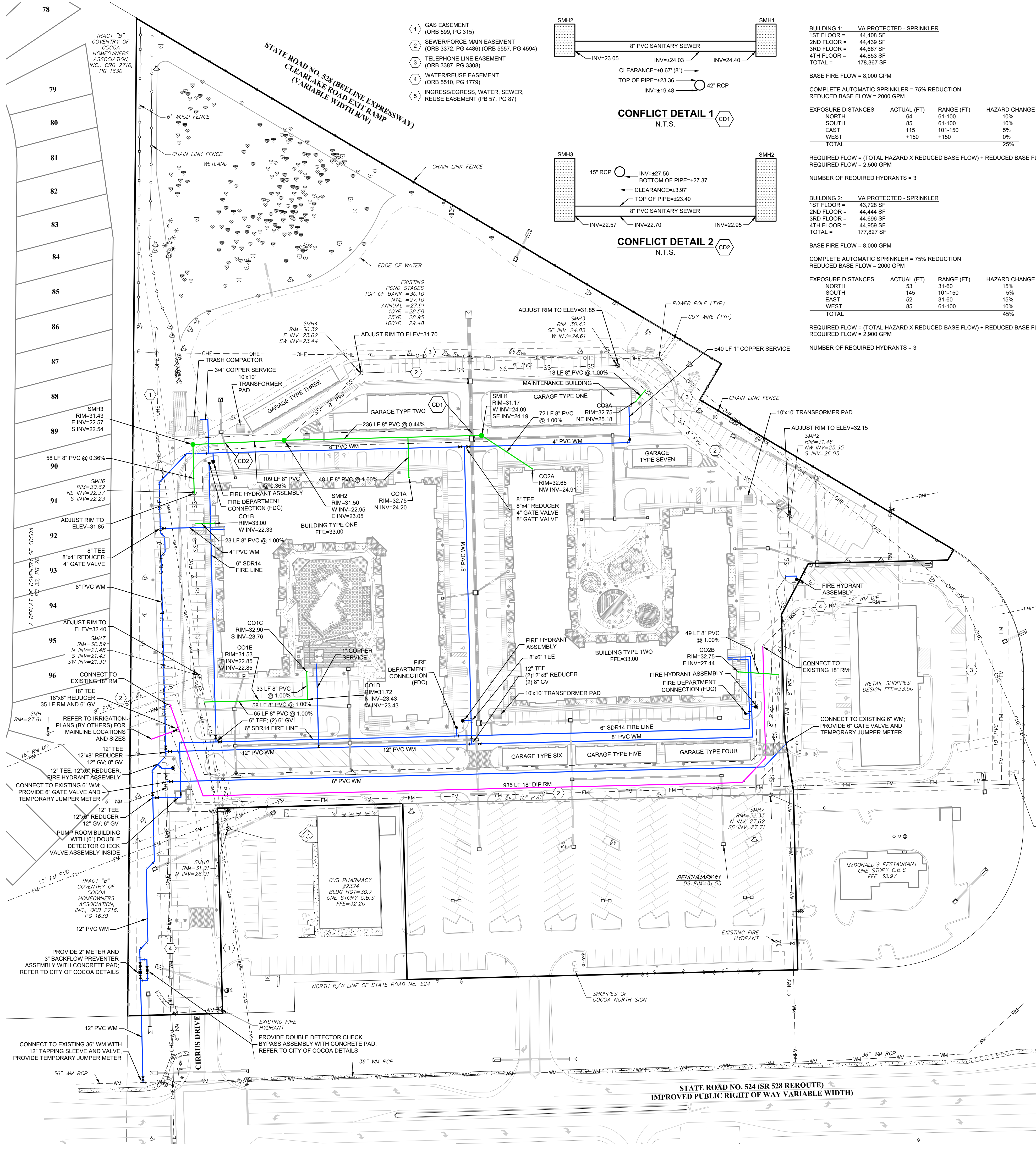
11545_400_008

SHEET

8 of 19



H:\Projects_Folder\11545\Drawings\11545_4001\11545_4001.dwg November 5, 2020 10:07:56 AM DB



CITY OF COCOA GENERAL NOTES:

1. ALL WATER MAIN CONSTRUCTION SHALL BE PER CITY OF COCOA CRITERIA.
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". 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. UNLESS OTHERWISE NOTED ALL POTABLE WATER SERVICES TO BE 1" COPPER.
8. WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLE MATERIALS BEING BROUGHT ON SITE.
9. ALL WATER MAINS SHALL BE SWABBED PER CITY OF COCOA CRITERIA.
10. 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.
11. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR EXTENDING THE POTABLE WATER SERVICE TO THE LOCATIONS SHOWN, WHICH REPRESENT FUTURE WATER METER LOCATIONS. BUILDING CONTRACTOR TO EXTEND SERVICE FROM METER LOCATION TO THE BUILDING(S).
12. 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".
13. A TAPPING CONTRACTOR ACCEPTABLE TO THE CITY OF COCOA IS REQUIRED FOR TAPS.
14. A UTILITY CONTRACTOR IS REQUIRED FOR WATER MAIN INSTALLATION.
15. ALL 2" BLOWOFFS SHALL BE CONSTRUCTED OF BRASS PER CITY OF COCOA CRITERIA.

BREVARD COUNTY 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.
7. ALL CONTROL VALVES FOR ANY FIRE SPRINKLER SYSTEM SHALL BE ELECTRONICALLY MONITORED.

GENERAL NOTES:

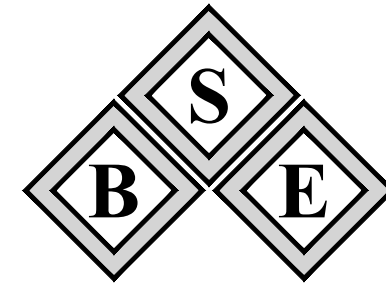
1. EXISTING UNDERGROUND UTILITIES SHALL BE RELOCATED AS REQUIRED.

GENERAL FIRE NOTES

1. NFPA 1 18.2.4.1.1 "THE REQUIRED WIDTH OF A FIRE DEPARTMENT ACCESS ROAD SHALL NOT BE OBSTRUCTED IN ANY MANNER, INCLUDING BY THE PARKING OF VEHICLES."
2. NFPA 1 18.5.7.1 A 36 IN. (914 MM) CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS EXCEPT AS OTHERWISE REQUIRED OR APPROVED.
3. NFPA 1 18.5.7.2 A CLEAR SPACE OF NOT LESS THAN 60 IN. (1524 MM) SHALL BE PROVIDED IN FRONT OF EACH HYDRANT CONNECTION HAVING A DIAMETER GREATER THAN 2-1/2 IN. (64 MM).

PIPE DEFLECTION NOTES

ALL PIPE DEFLECTIONS SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS AND AWWA REQUIREMENTS FOR MAXIMUM DEFLECTION. CONTRACTOR SHALL INCORPORATE THE APPROPRIATE FITTINGS ON PIPE DEFLECTIONS (IN ACCORDANCE WITH PIPE MANUFACTURER'S RECOMMENDATIONS) TO COMPLETE THE INSTALLATION OF ALL WATER MAIN PIPES CONSISTENT WITH THE LOCATIONS DEPICTED UPON THESE PLANS.

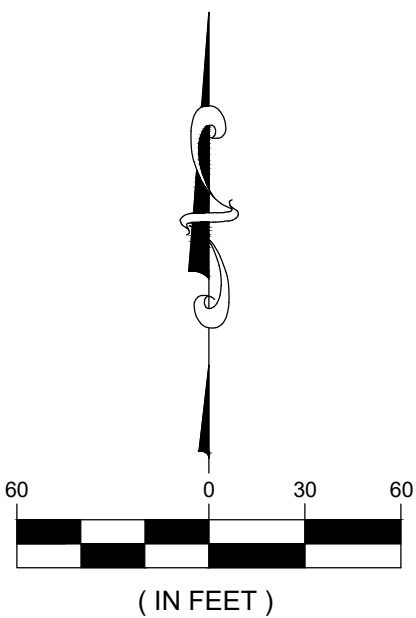


B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 726-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4005
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004005

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



10/30/20
DATE: 08/31/20
DESIGN/DRAWN: ALS/DRB

PROJECT TITLE

CIRRUS

SHEET TITLE

UTILITY PLAN

PROJECT NO.

11545

DRAWING NO.

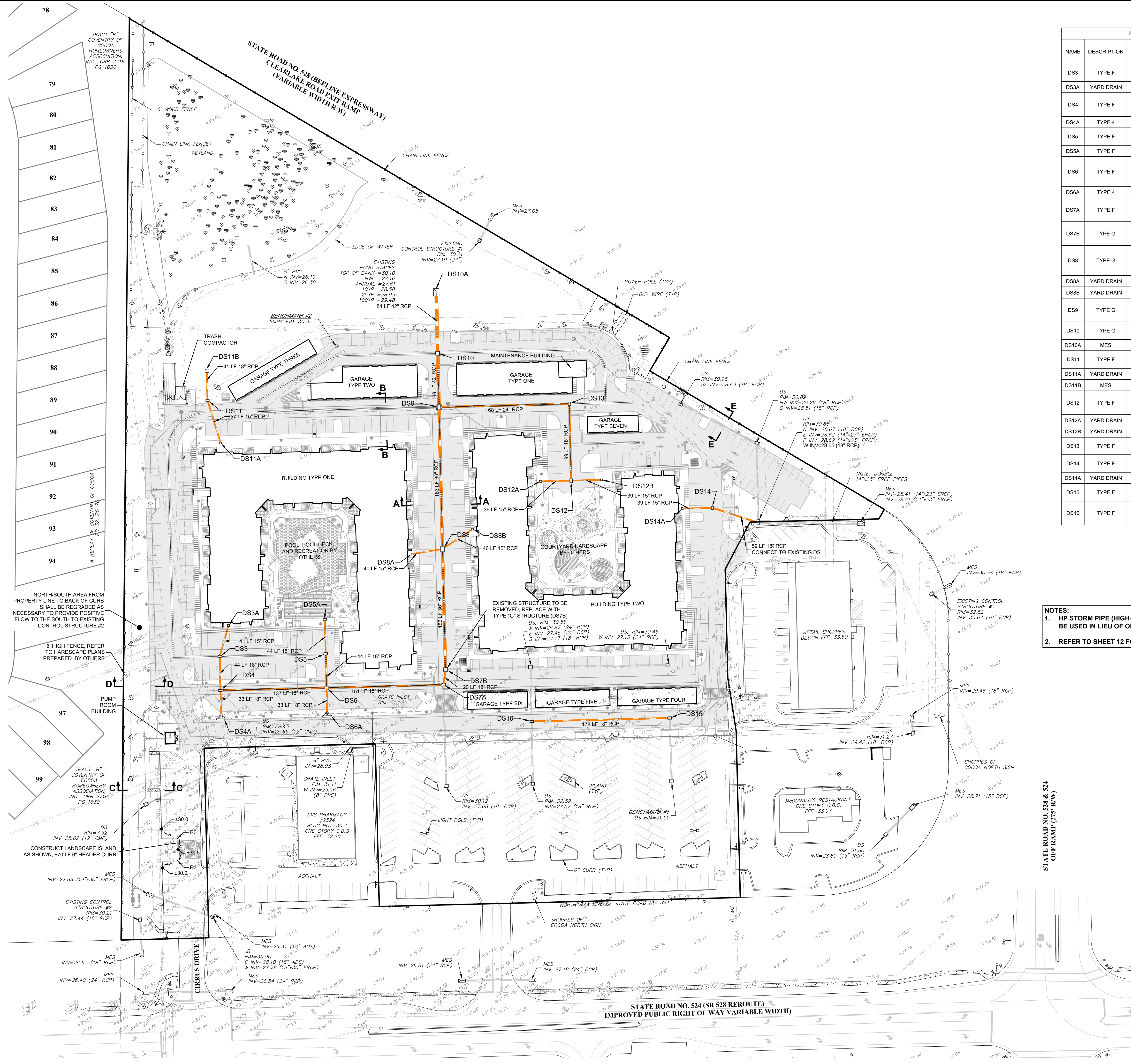
11545_400_009

SHEET

9 of 19

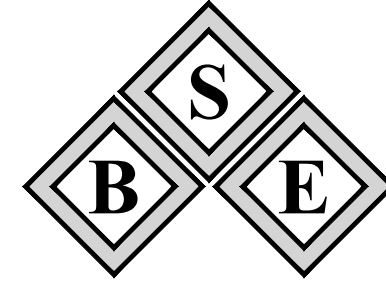
SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE. ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

H:\Projects_Folder\11545\Drawings\11545_400_010.dwg November 5, 2020 10:09:27 AM DB



DRAINAGE STRUCTURE TABLE						
NAME	DESCRIPTION	TOP ELEVATION	INVERTS	SIZE	PIPE LENGTH (FEET)	TO
DS3	TYPE F	31.00	S =27.05 N =27.30	18" RCP 15" RCP	44	DS4
DS3A	YARD DRAIN	31.85	S =27.50	15" RCP	41	DS3
DS4	TYPE F	31.00	N =26.85 S =26.85 E =26.85	18" RCP 18" RCP 18" RCP	137	DS6
DS4A	TYPE 4	31.37	N =27.00	18" RCP	33	DS4
DS5	TYPE F	31.00	N =26.40 S =26.40	15" RCP 18" RCP	44	DS6
DS5A	TYPE F	31.50	S =26.75	15" RCP	44	DS5
DS6	TYPE F	31.00	W =26.15 E =26.15 N =26.15 S =26.15	18" RCP 18" RCP 18" RCP 18" RCP	151	DS7A
DS6A	TYPE 4	31.37	N =26.50	18" RCP	33	DS6
DS7A	TYPE F	31.00	N =26.40 W =26.40 S =26.95	18" RCP 18" RCP 18" RCP	20	DS7B
DS7B	TYPE G	31.30	S =25.30 N =23.80 E =26.60	18" RCP 36" RCP 24" RCP	156	DS8
DS8	TYPE G	31.00	S =23.00 N =23.00 W =24.75 NE =24.75	36" RCP 36" RCP 15" RCP 15" RCP	183	DS9
DS8A	YARD DRAIN	31.50	E =25.00	15" RCP	40	DS8
DS8B	YARD DRAIN	31.50	SW =25.00	15" RCP	46	DS8
DS9	TYPE G	31.00	S =20.00 N =19.50 E =21.00	36" RCP 42" RCP 24" RCP	69	DS10
DS10	TYPE G	31.00	S =19.15 N =19.15	42" RCP 42" RCP	84	DS10A
DS10A	MES		S =18.75	42" RCP		
DS11	TYPE F	31.00	N =27.25 S =27.50	18" RCP 15" RCP	41	DS11B
DS11A	YARD DRAIN	31.75	N =27.80	15" RCP	57	DS11
DS11B	MES		S =23.00	18" RCP		
DS12	TYPE F	31.00	S =25.00 W =26.75 E =25.75	18" RCP 15" RCP 15" RCP	99	DS13
DS12A	YARD DRAIN	31.55	E =26.00	15" RCP	39	DS12
DS12B	YARD DRAIN	31.80	W =26.00	15" RCP	39	DS12
DS13	TYPE F	31.30	S =24.00 W =23.50	18" RCP 24" RCP	168	DS9
DS14	TYPE F	31.00	E =28.80 W =28.80	18" RCP 15" RCP	59	
DS14A	YARD DRAIN	31.50	E =29.00	15" RCP	39	DS14
DS15	TYPE F	31.75	W =28.25 S =27.35 N =27.35	18" RCP 18" RCP 18" RCP	178	DS16
DS16	TYPE F	32.00	E =27.35 S =27.35 N =27.35	18" RCP 18" RCP 18" RCP	2	

- NOTES:
- HP STORM PIPE (HIGH-PERFORMANCE POLYPROPYLENE PIPE) MAY BE USED IN LIEU OF REINFORCED CONCRETE PIPE (RCP).
 - REFER TO SHEET 12 FOR SECTION DETAILS (A-A, B-B, C-C, D-D, E-E)

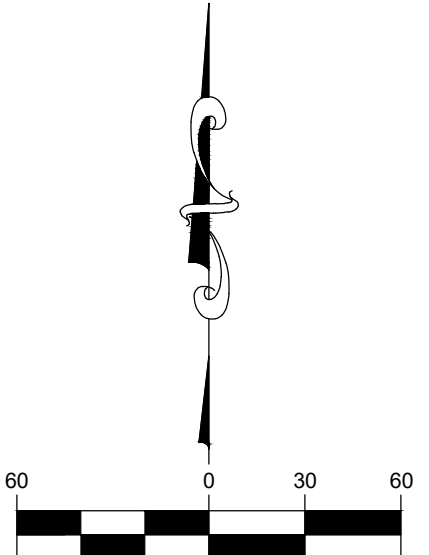


B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 726-3074 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4005
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004005

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



(IN FEET)

PROJECT TITLE	
DATE:	08/31/20
DESIGN/DRAWN:	ALS/DRB

PROJECT TITLE

CIRRUS

SHEET TITLE

OVERALL PAVING,
GRADING, AND
DRAINAGE PLAN

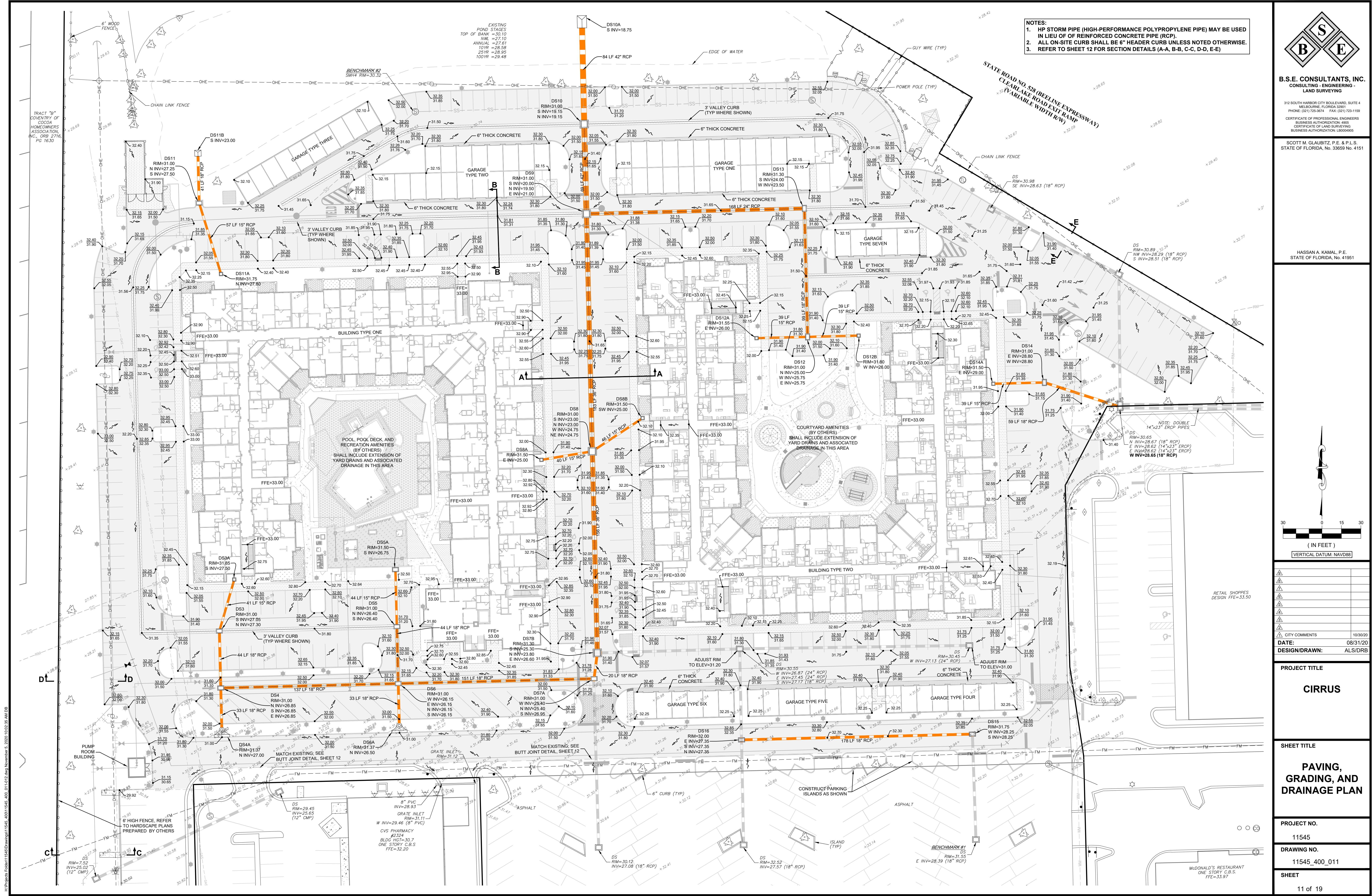
PROJECT NO.

11545

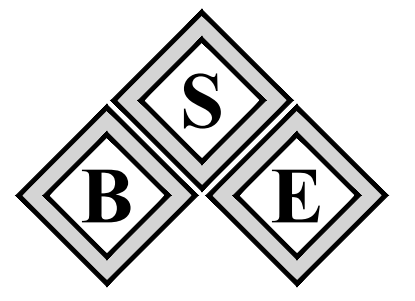
DRAWING NO.

11545_400_010

SHEET



- NOTES:
1. HP STORM PIPE (HIGH-PERFORMANCE POLYPROPYLENE PIPE) MAY BE USED IN LIEU OF REINFORCED CONCRETE PIPE (RCP).
 2. ALL ON-SITE CURB SHALL BE 6" HEADER CURB UNLESS NOTED OTHERWISE.
 3. REFER TO SHEET 12 FOR SECTION DETAILS (A-A, B-B, C-C, D-D, E-E).

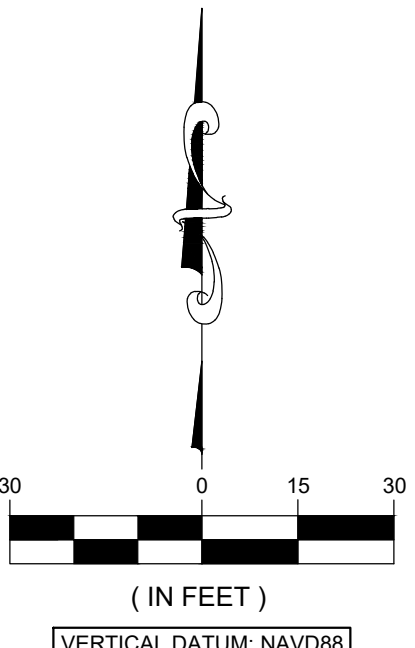


B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3014 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: #05
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB000405

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

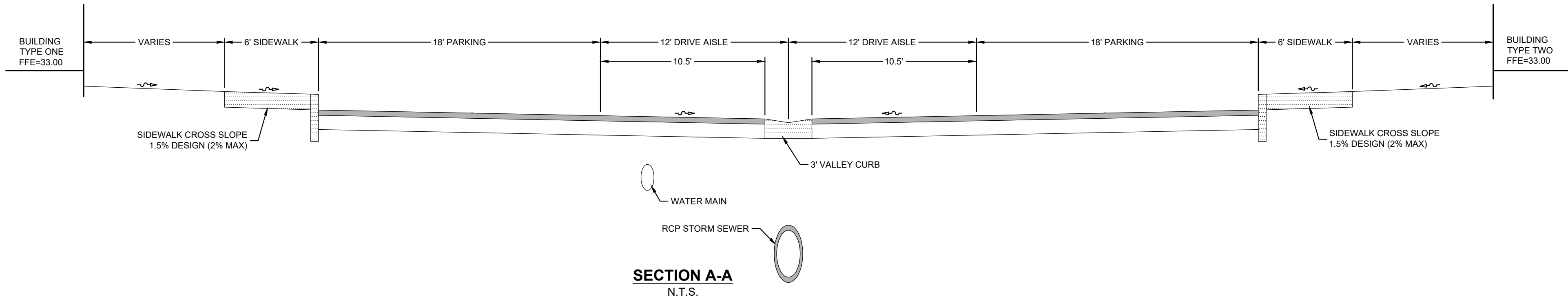


DATE:	08/31/20
DESIGN/DRAWN:	ALS/DRB
PROJECT TITLE	
CITY COMMENTS	10/30/20

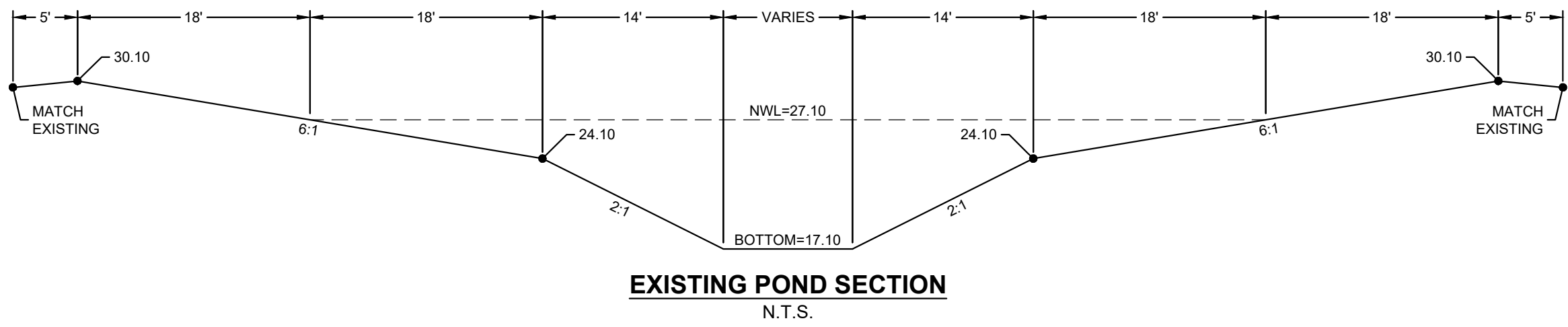
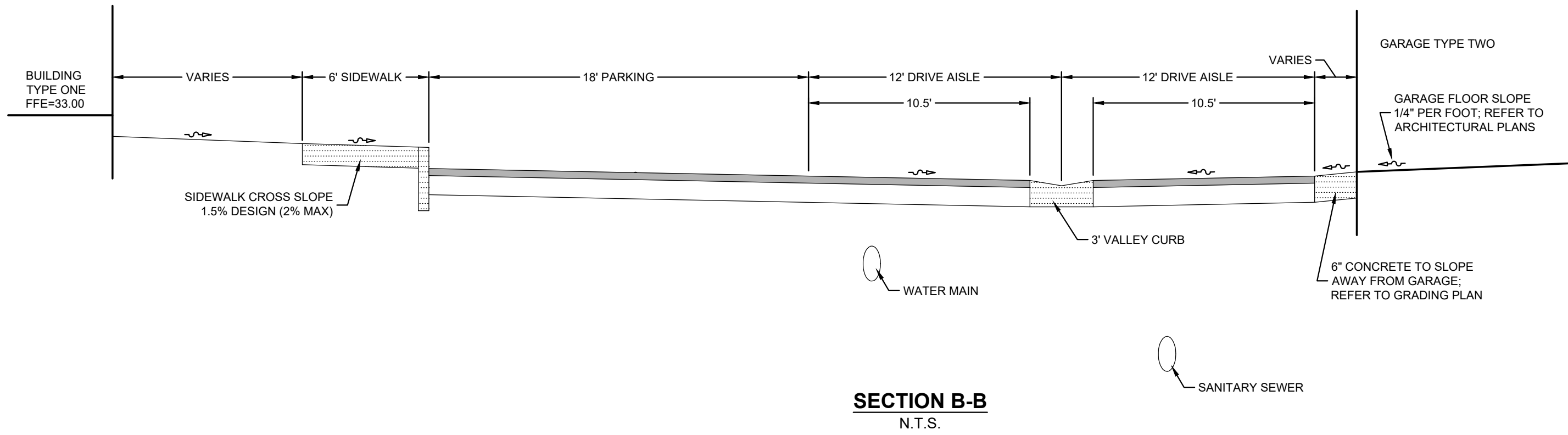
CIRRUS

**PAVING,
GRADING, AND
DRAINAGE PLAN**

PROJECT NO.
11545
DRAWING NO.
11545_400_011
SHEET



NOTE: SECTIONS SHOWN TO REPRESENT GENERAL DRAINAGE FLOW PATTERNS; REFER TO GRADING PLAN SHEET(S) FOR SITE ELEVATIONS



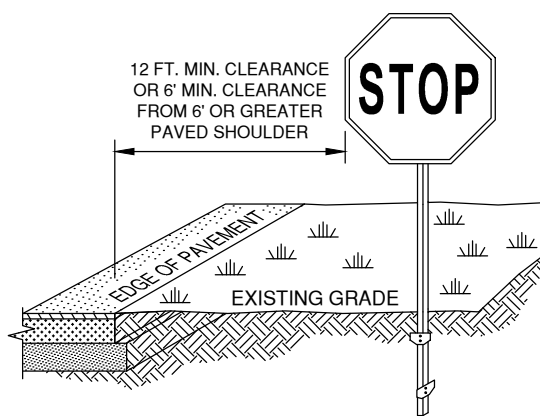
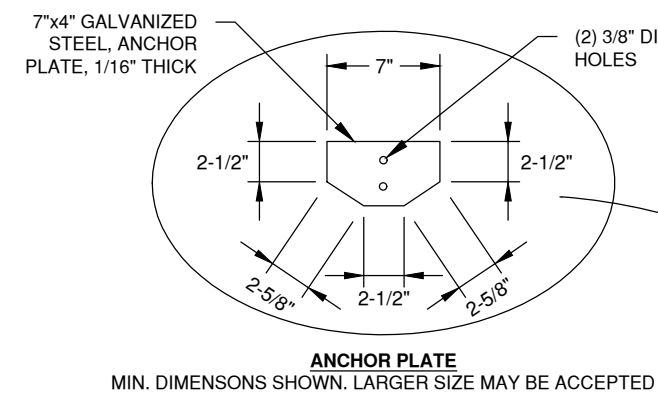
STREET NAME SIGN NOTES:

- SIGNS IN PUBLIC R.O.W. SHALL BE GREEN WITH 5/8" WHITE BORDER AND WHITE LETTERS AND NUMBERS.
- SIGNS IN PRIVATE R.O.W. SHALL BE WHITE WITH 5/8" BLACK BORDER AND BLACK LETTERS AND NUMBERS.
- STREET NAME BLADES SHALL BE RIVETED TOGETHER AT EACH CORNER WITH 3/16" SMALL FLANGE AVEV RIVETS. ATTACH BLADES TO POST WITH CHERRY-MATE ALUMINUM RIVETS, #8ALMBP4, 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).

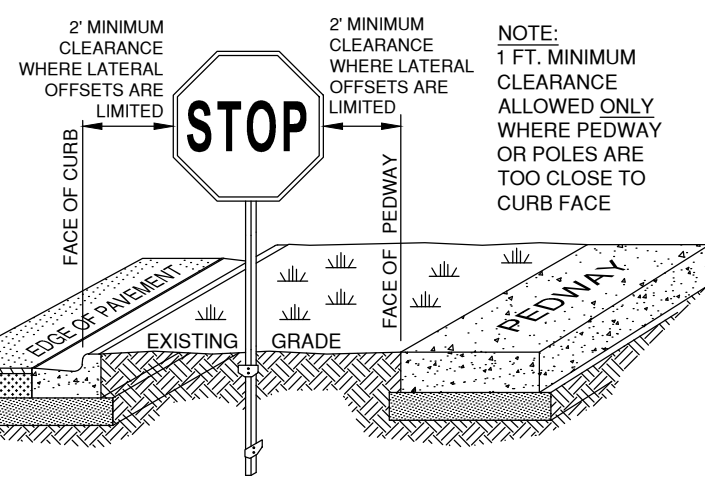
STREET NAME SIGN LETTERING (MUTCD DESIGNATION D3-1):

- 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.
- MULTILANE STREETS GREATER THAN 40 MPH:**
6" HIGH INITIAL UPPER CASE LETTERS AND LOWER CASE LETTERS AT LEAST 6" HIGH. SIGN DIMENSIONS: 16" 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

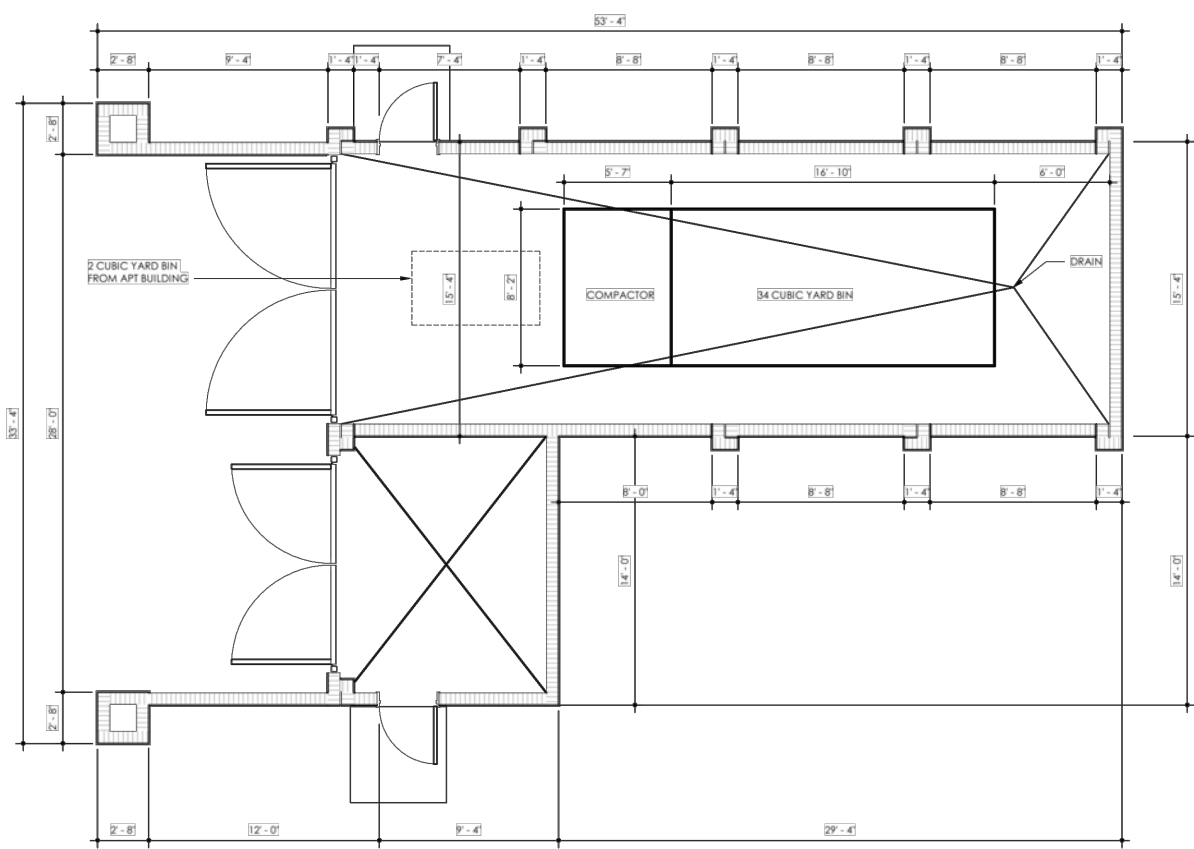


HORIZONTAL CLEARANCE (WITHOUT CURB AND GUTTER)

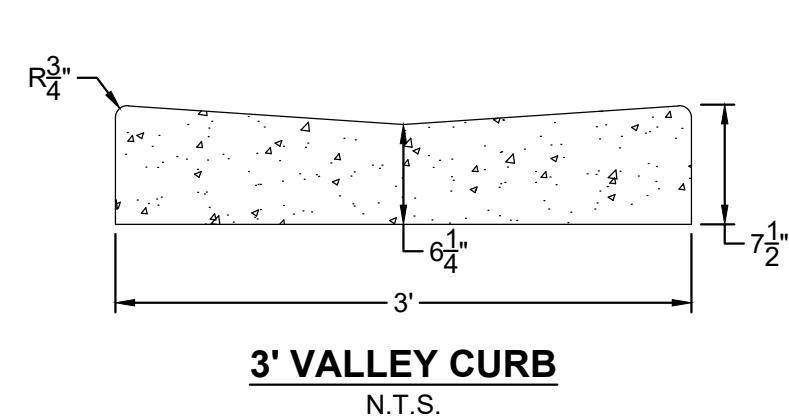
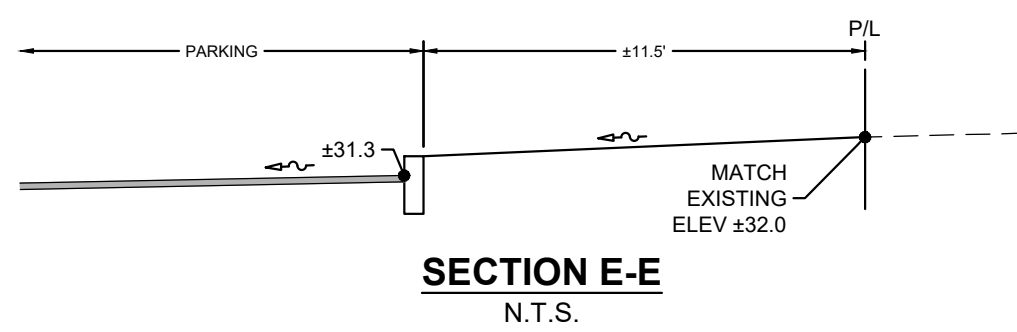
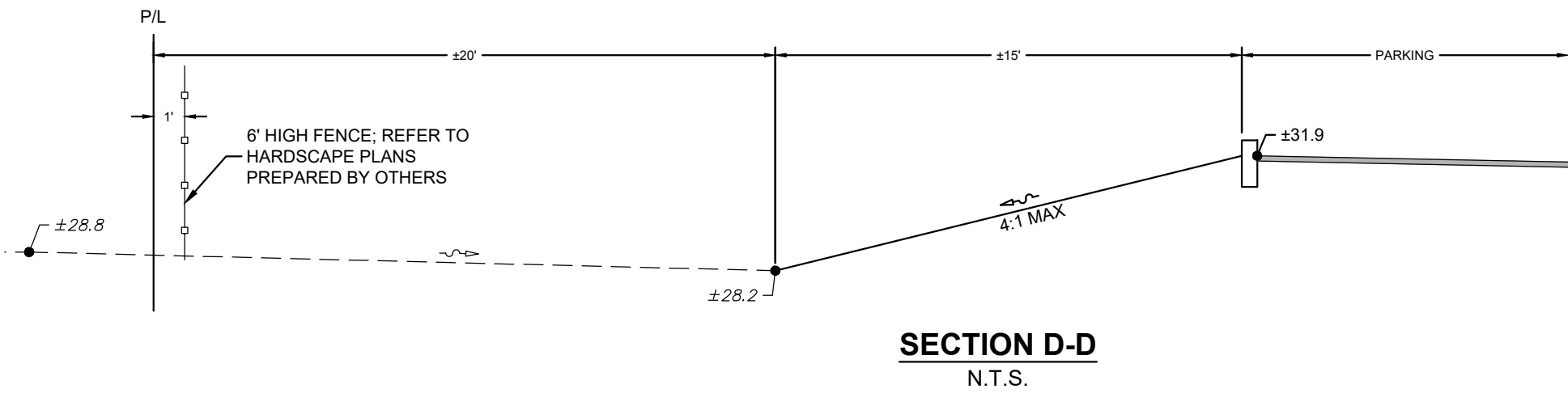
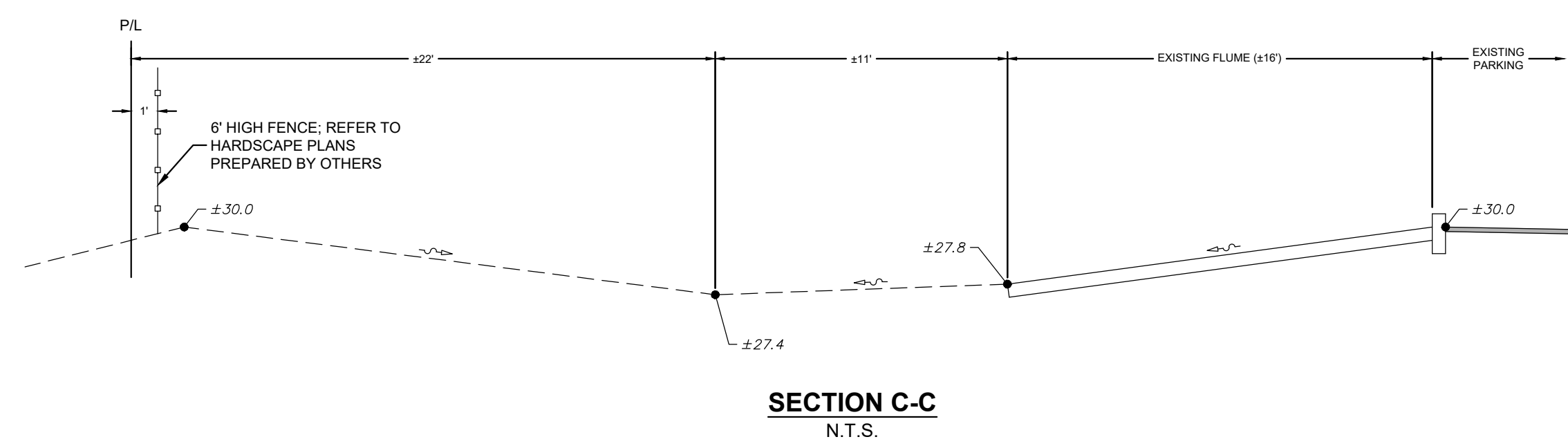


HORIZONTAL CLEARANCE (WITH CURB AND GUTTER)

STOP SIGN AND STREET MARKER DETAILS



TRASH COMPACTOR DETAIL



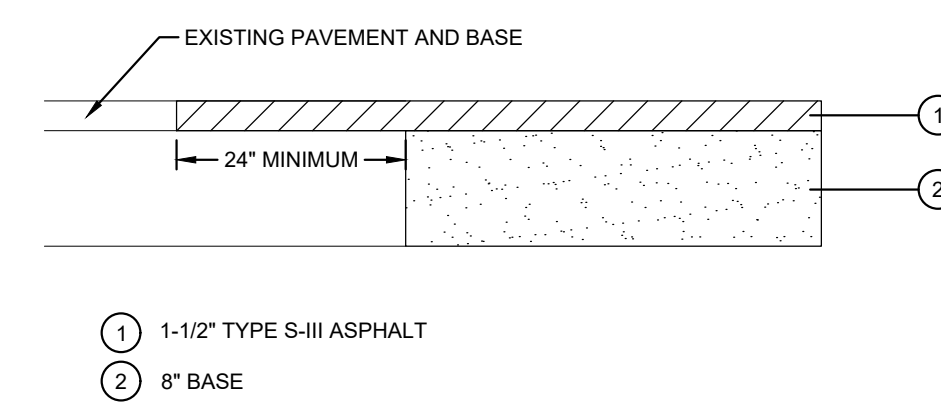
TYPICAL PAVEMENT SECTION

- 1-1/2" TYPE SP-12.5 ASPHALTIC CONCRETE
- 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
- 8" STABILIZED SUB-GRADE, L.B.R. 50 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180 (EXTEND 12" BEYOND CURB)

OR

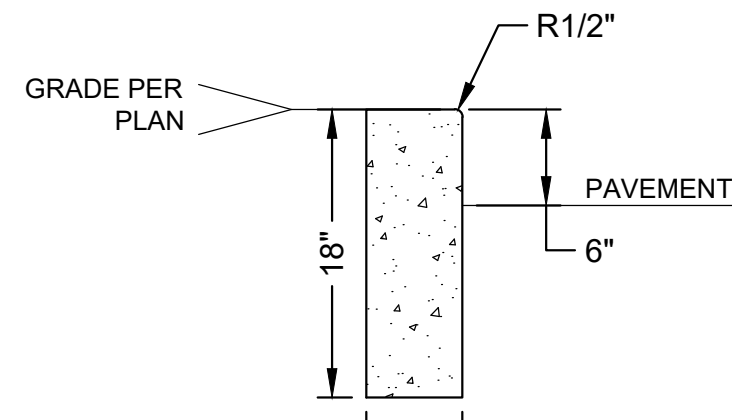
ALTERNATE PAVEMENT SECTION

- 1-1/2" TYPE SP-12.5 ASPHALTIC CONCRETE
- 12" 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

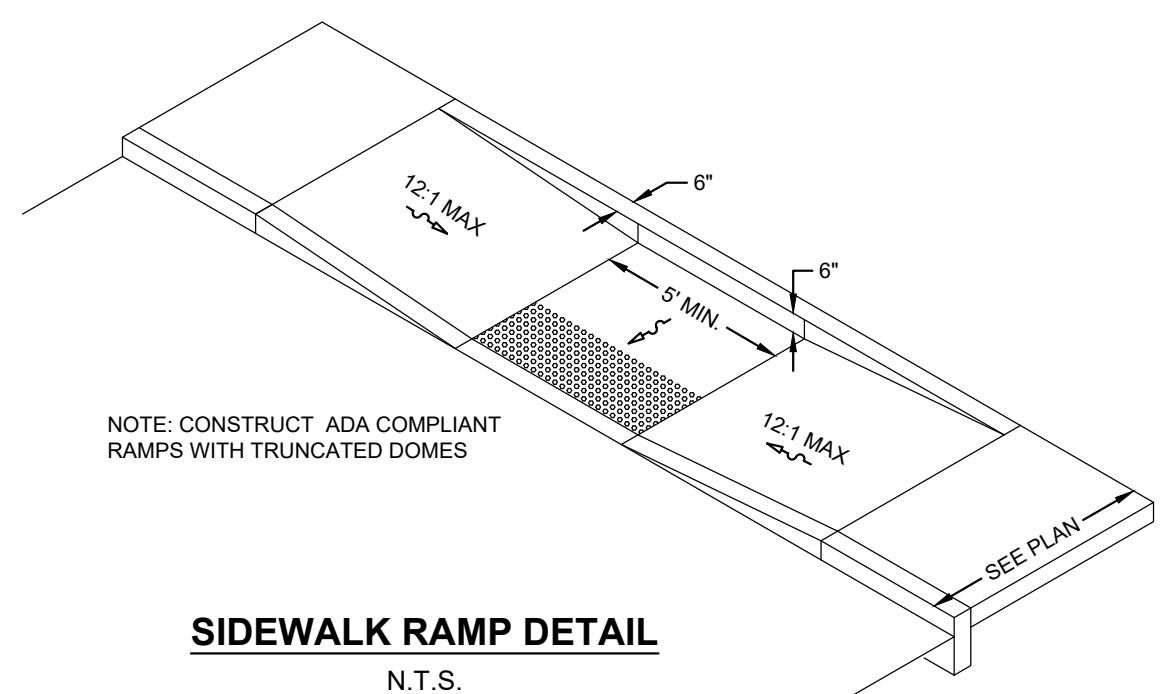


NOTE:
THE EXISTING ASPHALT WEARING SURFACE SHALL BE SAW CUT AND REMOVED 24" FROM THE END OF THE TRAVEL LANE WHERE NEW PAVEMENT SHALL ABUT THE EXISTING PAVEMENT.

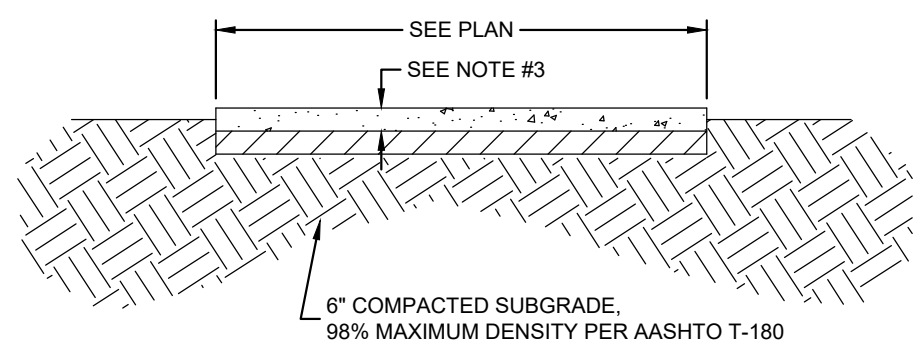
BUTT JOINT MATCH EXISTING PAVEMENT CONNECTION N.T.S.



HEADER CURB N.T.S.



SIDEWALK RAMP DETAIL 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 AT WIDTH OF WALK, 10' MAXIMUM.
3. ALL ON-SITE SIDEWALKS, OUTSIDE PUBLIC OR PRIVATE RIGHT-OF-WAY SHALL BE 4" THICK, UNLESS NOTED OTHERWISE.

SIDEWALK DETAIL 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: LB0004065

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: NAVD83

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	
65	
66	
67	
68	
69	
70	
71	
72	
73	
74	
75	
76	
77	
78	
79	
80	
81	
82	
83	
84	
85	
86	
87	
88	
89	
90	
91	
92	
93	
94	
95	
96	
97	
98	
99	
100	

PROJECT TITLE

CIRRUS

SHEET TITLE

**PAVING, GRADING
AND DRAINAGE
DETAILS**

PROJECT NO.

11545

DRAWING NO.

11545_400_012

SHEET

12 of 19



B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 41

DESIGN/DRAWN: _____ ALS/D

CIRRUS

CITY OF COCOA TECHNICAL PROVISIONS

16 of 19

		CITY OF COCOA Brevard County, Florida UTILITIES DEPARTMENT	
WATER TECHNICAL PROVISIONS			
DRAWN BY:		SCALE:	
CHECKED BY:		DATE: APRIL 2020	
DRAWING NO. :		SHEET: 1 OF 3	
ACAD NAME:			

The sleeves shall be rated at 150 PSI hydrostatic with a test pressure of 200 PSI on pipe with a full circumferential break.

3.1 MATERIAL SPECIFICATIONS

3.1.1 GENERAL

The Contractor will furnish all new materials of the size and kind shown on the drawings which will meet the following specifications or requirements. If the type of material is not specified on the drawings, the Contractor may use any of the types listed in this specification. The use of concrete for repairs on gravity sewer piping and lateral tie-ins is not permitted.

3.1.2 CONCRETE STRUCTURES

3.1.2.1 Precast Manholes

Precast manholes must be constructed in accordance with American Society of Testing and Manufacturing (ASTM) specification C478. Concrete will have a minimum 28-day compressive strength of 4,000 PSI. Cement will be Type II sulfate resistant. Steel will be minimum Grade 40 and placed as shown on the drawings. Shop drawings of manholes and lift station wet wells will be submitted to the Engineering Division for approval prior to casting. Chairs for supporting reinforcing steel will be non-corrosive plastic or Grade 316 stainless steel. Standard manholes will be 4 feet in diameter with a wall thickness of 5" for manholes of 6 feet in depth or less and wall thickness of 8" for manholes deeper than 6 feet.

Resilient connectors (boots) shall be used where PVC pipe penetrates manhole walls. Boots shall be NPC Kor-N-Seal or approved equal, watertight and shall be manufactured of materials resistant to decay caused by the sanitary sewer environment or by ambient soil conditions. All hardware shall be stainless steel. Boots shall be installed in accordance with manufacturer's recommendations.

3.1.2.2 Flotation Uplift of Fiberglass Manhole

When a fiberglass manhole is specified, the EOR shall provide the design analysis showing where flotation uplift is counteractive.

3.1.3 PIPE

3.1.3.1 PVC Pipe and Fittings, DR 35

PVC pipe and fittings (DR 35) will be manufactured in accordance with ASTM specification C3034. DR 35 pipe is acceptable on gravity installations with a depth of 12.0 feet or less. Pipe will be of the elastomeric gasket joint type supplied in lengths of 12.5 feet. Solid wall ribbed PVC pipe with a stiffness of 60 psi or greater will be considered on a case-by-case basis at the discretion of the Engineering Division. Critical installations, as determined by the Engineering Division, will require use of poly-lined ductile iron pipe, coated with Protecto 401 ceramic Epoxy.

3.1.3.2 PVC Pipe, DR 18

PVC pipe (DR-18) will be manufactured in accordance with AWWA specification C900. DR-18 pipe is required for pressure force main installation. Pipe will be of the elastomeric gasket joint type. Color-coded identification tape will be installed on all force mains.

3.1.3.3 Ductile Iron

Ductile iron pipe will be coated with Protecto 401 ceramic Epoxy for force main, gravity, and valve pit installation. Exposed piping in valve pits will be pressure Class 350 with cast iron epoxy exterior coating. Buried ductile iron pipe will be wrapped in a color-coded polyethylene encasement in accordance with ANSI/AWWA T1/C105.

3.1.4 MANHOLE ACCESS COVERS

3.1.4.1 Cast Iron

Cast iron manhole covers and rings must be traffic load bearing and have an O-Ring seal similar to **USF No. 225-AS ORS**. Bearing surfaces will be machined to produce a tight, even seating surface without rocking. Minimum clear opening will be 24". The words "CITY OF COCOA" and "SANITARY SEWER" will be cast into manhole covers. Manholes installed in high water areas will be sealed by a method approved by the Engineering Division.

3.1.4.2 Aluminum

Aluminum access covers will be designed for 300 PSF live load and will be equipped with stainless steel hinges, automatic lock mechanism in the open position, closed position lock hasp, and retractable grip for opening.

See Detail Sheets:

- Manhole Ring and Cover
- Check Valve Vault
- Lift Station

3.1.5 COATINGS

3.1.5.1 Water Based Acrylic

The interior and exterior surfaces of manholes shall be coated with a three-coat water based acrylic coating. The interior and exterior coats shall be factory applied to the coating manufacturer's recommendation with a minimum total DFT of 12 mils. Each of the coats will be 4 mils thick of contrasting colors. The interior shall be coated red, black, and a final gray coat. The exterior shall be coated red, gray, and a final black coat.

3.1.5.2 HDPE Sheet Lining

Where an HDPE liner is specified, the entire wall surface of the manhole will be protected with a high-density polyethylene liner cast into the concrete. This liner must be **AGRU Sure Grip as manufactured by Alois Gruher** or approved equal. All joints will be heat fusion welded to create a watertight lining. The liner shall be installed and tested per the manufacturer's guidelines. Such lining must be warranted against defects in materials and workmanship for a period of five years from date of installation.

3.1.5.3 Exposed Piping

Exposed piping, pumps, and equipment exposed to raw sewage in manholes, valve pits, and wet wells will be coated with a two-coat coal tar epoxy exterior coating system with a minimum DFT of 12-15 mils. Coal tar epoxy will be Rustoleum 9578 or approved equal. Equipment and pump information tags will not be painted. Pump discharge piping in lift station wet wells will be Grade 316 10S stainless steel, refer to Section 3.8.3.2, "Exposed Piping".

3.1.6 MISCELLANEOUS MATERIALS

3.1.6.1 Manhole Steps

Manhole steps are not permitted.

3.1.6.2 Hardware

All nuts, bolts, washers, anchors, and, brackets inside the wet well or manhole must be manufactured from Grade 316 stainless steel. Bolts for fastening flanged fittings inside the valve pit may be steel, coated with the specified piping coating system. Never-seize/Anti-seize shall be applied to all SS bolts and nuts.

3.2 CONSTRUCTION

3.2.1 LOCATION AND GRADE OF SEWERS

The line and grade of the sewer, as well as the location of manholes, services, and all other appurtenances, will be as shown on the drawings. The grade line as given on the drawings indicates the grade of the invert of the sewer pipe.

Gravity sewer shall be designed and constructed with the following maximum and minimum slopes:

Minimum and Maximum Slopes for Gravity Sewers

Size (in)(Maximum (%)(Minimum (%))141.0460.660.6080.360.33100.280.25120.220.220.20
The Engineer of Record shall certify that the slopes of the gravity sewer meet the above maximum and minimum slopes. Sewer lines with slopes not meeting the above maximum and minimum slopes will be rejected.

"As-built" drawings shall show the gravity line slopes.

Sewers shall be laid with uniform slope and straight alignment between manholes. Gravity sewer pipe shall be installed with the bell end upstream. The pipe shall be installed from downstream to upstream unless specific permission is obtained from the Engineering Division. Manholes shall

be designed with a minimum difference of 0.04 feet between the invert elevations of the incoming and outgoing sewers.

3.2.2 MATERIAL HANDLING

3.2.2.1 Precautions

All supplies shall be stored and maintained by the contractor per manufacturer's recommendations. Every precaution will be taken to prevent injury 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 the end of pipe. Pipe lifted by placing forks into pipe shall be removed from job site.

3.2.2.2 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.

3.2.2.3 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. Sun damaged materials exposed to adverse conditions will be rejected.

3.2.3 TRENCH EXCAVATION, SHORING, AND SHEETING

3.2.3.1 Trenches

Sewer trenches will not be opened in advance of the placing of the sewer pipe for a distance greater than that required to install the sewer pipe. In no case will the open trench ahead of the sewer pipe exceed 25 feet. Backfill in the pipe zone will be accomplished immediately after joining the pipe to prevent movement.

3.2.3.2 Shoring, Sheeting, and Bracing of Excavations

The excavation must be sheeted and braced when necessary to prevent cave-in during excavation in unstable material or to protect adjacent structure, property, workers, and the public. The sheeting will be maintained in place until the pipe or structure has been placed and backfilled. Shoring and sheeting will be removed, as the backfilling is done, in a manner that will not damage the pipe or structure or permit voids in the backfill. All sheeting, shoring, and bracing of excavations will conform to the Trench Safety Act and requirements of the Federal, State, or local public agency having jurisdiction. The most stringent of these requirements will apply. The Contractor shall have a Competent Person (trench safety) on the job site at ALL times.

3.2.4 CONTROL OF WATER

3.2.4.1 Equipment

The contractor will furnish, install, and, operate all necessary machinery, appliances, and equipment to keep the excavations reasonably free from water during construction. The Contractor will de-water and dispose of the water so as not to cause damage to public or private property or to cause a nuisance or a menace to the public. The Contractor will at all times have on hand sufficient pumping equipment and machinery in good working condition for all ordinary emergencies and will have available at all times competent human resources for the operation of the pumping equipment. The de-watering system will not be shut down between shifts, on holidays or on weekends, or during work stoppages.

All equipment shall conform to The City of Cocoa's noise ordinance Chapter 13.5, Article II, Section 13.5-21 through Section 13.5-26.

3.2.4.2 Ground Water

The control of ground water must be such that softening of the bottom of excavations or formation of "quick" conditions or "boils" will be prevented. De-watering systems will be designed and operated to prevent the removal of the natural soils. 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.

3.2.4.3 Static Water

The static water level will be drawn down below the bottom of the excavation to maintain the undisturbed state of the natural soils and allow the placement of backfill to the required density. The de-watering system will be installed and operated so that the ground water level outside the excavation is not reduced to the extent that would damage or endanger adjacent structures or property.

3.2.5 PIPE PLACEMENT AND JOINTING

Pipe placement will progress upward with the spigot ends of the pipe pointing in the direction of flow. Each pipe will be placed true to line and grade with a laser beam system. All pipes will be joined in a professional manner and in accordance with the manufacturer's instructions.

Pipe ends will be carefully cleaned prior to jointing. Pipe will be placed either on a prepared bed of undisturbed earth in the bottom of the trench shaped as required to fit the pipe or upon a layer of properly placed bedding material.

3.2.6 MATERIAL FOR BEDDING AND BACKFILLING

3.2.6.1 Unsuitable Material

Wherever excavations of the trench expose unsuitable materials such as peat, soft clay, quicksand, rock, boulders, stones, or unstable material in the bottom of the trench which, in the opinion of the Engineer of Record or Inspector, is unsuitable foundation upon which to lay or support the pipe, backfill, and expected superimposed loads, such unsuitable materials will be removed to a depth necessary to reach material having adequate bearing capacity and at a width of trench at least equal to the minimum trench width as specified. The space created by removal of this unsuitable material will be backfilled using suitable backfill or bedding material as specified.

3.2.6.2 Suitable Material

Suitable material for bedding and backfilling will be dry, clean natural sand or gravel. The material will be placed in 6" layers and compacted, using mechanical compacting equipment, to a dry density equal to 98 percent (98%) of the maximum dry density as determined by the standard Proctor compaction test ASTM specification D698, each layer being compacted to the required density prior to placing the next layer. The Engineering Division shall require the density to be checked by a licensed laboratory at each manhole and at two points between manholes as selected by the Engineer of Record or Inspector, at no cost to the City.

3.2.7 MANHOLE INSTALLATION

3.2.7.1 Base Unit

The base unit for manholes and wet wells will be reinforced concrete with a monolithically poured base and bottom riser section. The base unit will be placed before the sewer pipe is

placed to or away from the manhole. The base unit will be placed in a dry hole on a bedding of 6" to 8" of ¾" to 1" rock (57 stone or recycled concrete aggregate per FDOT specifications).

3.2.7.2 Manhole Channel

Invert channels will be constructed, smooth and semicircular in shape, conforming to the inside of the adjacent sewer section. Changes in direction of flow will be made in a smooth curve of as large a radius as possible. Changes in size and grade of channels will be made gradually and evenly. Invert channels will be formed by one of the following methods: formed directly into a poured concrete manhole base, built up with brick and mortar, half tile set in concrete, or full section of sewer pipe installed through the manhole with the top half cut out. The manhole floor outside of channels will be made smooth and will be sloped toward channels. Free drop connections inside manholes are not allowed. All drop connections will be constructed outside the manhole.

3.2.7.3 Joints

Precast manhole joints must be watertight and sealed with plastic pre-formed joint filler similar to **Ram-Nek**. All joint areas will be factory primed. Manhole-to-pipe connections will be by factory-supplied flexible boots.

3.2.7.4 Non-Shrink Grout

The annular space between the sewer pipe and the opening in the manhole will be grouted with non-shrink grout to ensure a watertight joint.

3.2.7.5 Coating

The interior and exterior surfaces of manholes shall be coated in accordance with Section 3.1.5, "Coatings".

3.3 WATER MAIN CROSSINGS

3.3.1 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 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 inches.

3.4 SERVICE CONNECTIONS

3.4.1 GENERAL

The contractor must install commercially manufactured wye branches compatible with the material used in the sewer main. Where the service line piping is of a different material than the sewer main, the fittings and transition pieces will be specially designed for the connection of the different materials and must be approved by the Engineering Division.

3.4.1.1 Connecting to Manholes

Service connections made directly to a manhole shall be core drilled and fitted with a flexible coupling to provide a seal around pipe. Pipe will be a minimum of 6" in diameter and shall include an y and clean-out in a green meter box located on the Customer side of the right-of-way or easement (see "Typical Lot Service Line Location" detail). Connections requiring a drop will be piped to the bottom of the manhole on the outside (see "Manhole with Outside Drop" detail).

Force mains coming from private lift stations into a gravity manhole requiring a drop will be piped to the bottom on the outside of the manhole and fitted with 45-degree bends directed toward the invert of the gravity main (see detail "Force Main Connection to Manhole").

3.5 FIELD TESTING OF SEWER SYSTEMS

3.5.1 GENERAL

All sewer lines will be subject to a leakage test at the discretion of the Engineering Division. The test shall be either an infiltration, exfiltration, or air pressure test as determined by the Engineering Division. The test will be conducted by and at the expense of the Contractor in the presence of the Inspector.

Maximum allowable leakage is 100 gallons per day, per inch diameter of pipe, per mile of pipe. If the amount of maximum leakage is exceeded, the Contractor will make the necessary repairs and schedule a re-test. Acceptable methods of repairing leaks are by excavation.

3.5.1.1 Visible Leaks

All visible leaks in structures will be eliminated regardless of the amount of flow.

3.5.1.2 Televised Inspection

Television inspection must be provided by the contractor and will be performed after final completion of the job site or roadway. A Digital Video Disc (DVD) record of the inspection with an audible description of the run, including its direction and location, the location and description of any service laterals, and a description of any defect or abnormality must be included.

3.5.1.3 Pressure Testing

Force mains will be hydrostatically tested at a pressure of 100 psi for one hour. The contractor will install air reliefs as necessary for relieving air prior to testing. The maximum allowable leakage of water per thousand feet of pipe is as indicated in the following table:

Maximum Allowable Leakage per 1,000 Feet of Pipe

Size (in)(Allowable Leakage (gal/hour))10.2760.180.54100.68120.81161.08201.35

3.5.1.4 Vacuum Testing of Manholes

All sewer manholes shall be required to meet the requirements of the vacuum test as per the current ASTM C 1244 "Standard Test Method for Concrete Sewer Manholes by the negative Air Pressure (Vacuum) Test" prior to acceptance. Manholes and connected piping must be backfilled to finished grade prior to testing.

A vacuum of 10 inches of mercury shall be drawn and the vacuum pump shut off. With the valves closed, the time for the vacuum to drop to 9 inches of mercury shall not be less than that shown in the following table:

Vacuum Testing for Given Manhole Size

Manhole Depth (ft) Time Elapsed" (Sec)48 in60 in120 in
140-820263310253441123039491494657164652671845597320506581225272882459789726648510528699113307498121 Times shown are minimum elapsed times, in seconds, for a drop in vacuum of 1 inch of mercury.

3.6 RECORD DRAWINGS

3.6.1 GENERAL

Record drawings are required for all systems to be accepted by the Engineering Division. Record drawings will be prepared by a surveyor or an engineer registered in the State of Florida and will contain the following information:

- Location of all gate valves, valve pits, force main check valves, fittings, air release valves, tapping saddles, manholes, lift stations, wet wells, and cleanouts using at least two ties to permanent points (manholes, curbs, or storm water inlets). An acceptable station and offset system shall be used for lateral lines.
- The as-builts must include the location of the wye branch, the end of the sewer service referenced to the next downstream manhole of each run, the offset of the end of the service referenced from the centerline of the main sewage pipe, and the depth at the end of the service.
- Location of sewer mains from property easement lines or edge of pavement at intervals of 300 feet.
- Separation between reclaimed water or force mains and water mains if they are installed within 10 feet of water mains.
- Sewer main material, diameter, length of run, and distance of mains from buildings or structures within 20 feet of the sewer main.
- Elevations of the top (rim) and pipe inverts at each manhole and the length and slope of each run of pipe are required on the as-builts (all elevations must be tied to NAVD83).
- Pertinent easement information.
- A minimum of two (2) northings and eastings geographic coordinates.
- Certification by the surveyor or Engineer of Record accepting responsibility for accuracy of information supplied on the record drawings and a statement certifying that all mains are within easements and/or public right-of-way. The name "City of Cocoa" must appear on all record drawings survey information.

Record drawings will be drawn at an engineering scale that is legible and readable as determined by city staff. Areas requiring additional detail may be enlarged as necessary. Right-of-way, easements, and lot lines must be accurately shown. After the surveyor or engineer has certified the locations, the engineer will certify on a DEP Form 62-604.300(2)(b) that the system depicted on the record drawing was constructed in substantial conformance with approved plans and will function as intended. Lot, block numbers, and street names will be included. Provide two (2) sets of signed and sealed record drawings and one (1) digital file including all reference files in .DWG format (AutoCAD 2013 or higher).

3.7 FORCE MAIN VALVES

3.7.1 GENERAL

Valves for use in force mains must be epoxy coated resilient seat gate valves. The resilient seating surface will be bonded to the gate and will seal under compression without wedging or sliding.

Requirements stated in **Portable & Reclaimed Water Section 2.2.2**, "Valves, Valve Boxes, and Valve Extensions" and Section 2.5.8, "Valves and Fittings" shall also be met for force main valves.

Air release valves will be of the Combination Air Release and Vacuum (CARV) type. CARV valves shall have a working pressure range of 3-150psi, testing pressure of 250psi, maximum operating temperature of 140°F, 2" threaded inlet and 1.5" outlet, reinforced nylon body, 316 SS internal parts. See "Appendix A", Approved Materials.

CARV valves will be installed in a concrete pit at high points in the main. See Detail "Air Release Valve".

3.8 FORCE MAIN PIPE

3.8.1 RESTRAINED PIPE JOINTS

The Engineer of Record 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.

3.9 LIFT STATIONS

3.9.1 PRECAST WET WELLS

Precast wet wells must be constructed in accordance with ASTM specification C478. Concrete will have a minimum 28-day compressive strength of 4,000 PSI. Cement will be Type II sulfate resistant. Reinforcement steel will be minimum Grade 40 and placed as shown on the drawings ("Lift Station" Sheets 1 and 2 of 4). Shop drawings of manholes and lift station wet wells will be submitted to the Engineering Division Supervisor for approval prior to casting. Chairs for supporting reinforcing steel will be non-corrosive plastic or Grade 316 stainless steel. Linings for wet wells shall conform to Section 3.9.3, "Coatings". EOR shall approve precast wet well design.

3.9.2 WET WELL ACCESS COVERS

Aluminum access covers will be designed for 300 PSF live load with a safety factor of three (3). There shall be two 24" x 48" swing covers equipped with Grade 316 stainless steel hinges and Grade 316 stainless steel tamper-proof fasteners, closed position lock hasp, and retractable grip for opening. The cover will open to 90 degrees and lock automatically in the open position with a stainless steel positive locking arm. The release will be made by a stainless steel release handle. The cover will be flush with the top of the frame and rest on a ¾-inch wide lip around the inside of the frame. The hatch will be a **Bilco** or **Halliday** product. Hatch size of the cover will be determined by the wet well size and pump size to provide at least 12" of clearance on all sides of the pump with a minimum hatch dimension of 48" x 48". The wet well access cover needs to be flush with the top of the concrete.

3.9.3 COATINGS

3.9.3.1 HDPE Sheet Lining

The entire interior wall and top surface of the wet well will be protected with an HDPE liner designed to protect concrete from corrosion in a collection system pump wet well. The liner shall be a minimum thickness of 0.075 inches. Anchoring studs shall be the same material, and shall be integrally extruded with the sheet and shall have a minimum height of 0.39 inches and a length of 0.55 inches. The HDPE sheeting will be cast into the concrete. This liner will be **AGRU Sure Grip as manufactured by AGRU America, Inc.** or approved equal. Flat liner used for overlapping joints shall have a minimum thickness of 0.018 inches. All joints will be heat fusion welded to create a watertight lining. Such lining shall be warranted against defects in materials and workmanship for a period of five years from date of installation.

3.9.3.2 Exposed Piping

Pump discharge riser pipes and fittings inside the wet well will be Grade 316 10S stainless steel with flanged fittings. Piping exposed to raw sewage in valve pits will be coated with a two-coat coal tar epoxy exterior coating system with a minimum DFT of 12-15 mils. Coal tar epoxy will be **Rustoleum 9578** or approved equal. Equipment and pump information tags will not be painted.

3.9.4 SUBMERSIBLE PUMPS

Lift station submersible pumps will be **Hydromatic, ABS**, or **Flygt** with three-phase power and 3" minimum solids handling capacity. Pump volute, seal housing, and motor housing will be cast iron. Pump impeller will be two vane, one-piece cast iron construction. Pump shaft will be one-

piece 316 stainless steel, equipped with tandem seals with separate chambers for each seal. Seals will have tungsten carbide faces with 316 stainless steel hardware. Seal chambers will be equipped with probes to detect water intrusion. Motors will be oil-filled with automatic reset over-temperature sensors embedded in the motor windings. Pumps will be equipped with a stainless steel slide rail system, dual rail type. The pump discharge coupling will be flanged cement-lined ductile iron, 4" minimum diameter, bolted to the wet well floor by 316 stainless steel fasteners. Flanges will be machine threaded. (Compression-type flanges will not be allowed) Flange bolts, washers, and nuts will be 316 stainless steel. All pipes entering or exiting the wet well shall be sealed in a manner that will prevent water leaks around pipes.

3.9.5 VALVE PIT

A separate valve pit shall be constructed adjacent to the wet well to house a check valve for each pump, a gate valve for each pump, and one gate valve for emergency pump-out. The valve pit shall be configured to allow a minimum of 8 inches between the bottom of pipe flanges and the floor or wall. The emergency pump-out outlet will include a brass 4" male quick-disconnect complete with brass cover. The cross will be tapped to accommodate a brass gate valve with a threaded on 0-100 PSI glycerin-filled pressure gauge. The valve pit is to be made of precast or cast-in-place concrete with a cast concrete cover equipped with an aluminum access hatch cast in the concrete. Aluminum access covers will be designed for 300 PSF live load with a safety factor of three (3). There shall be two 24" x 48" swing covers equipped with Grade 316 stainless steel hinges and Grade 316 stainless steel tamper-proof fasteners, closed position lock hasp, and retractable grip for opening. The cover will open to 90 degrees and lock automatically in the open position with a stainless steel positive locking arm. The release will be made by a stainless steel release handle. The cover will be flush with the top of the frame and rest on a ¾-inch wide lip around the inside of the frame. The dual swing access hatch will be a **Bilco** or **Halliday** product. Hatch size will be determined by the installation with a minimum dimension of 48 x 48 inches. The valve pit access cover needs to be flush with the top of the concrete. The valve pit depth is a maximum of 36" deep.

3.9.6 CHECK VALVES

Check valves will be flanged, with fusion bonded epoxy coating with an outside weight and lever, cast iron housing, 316 stainless steel seat ring, clapper with neoprene seating surface, O-ring- sealed stuffing box (minimum size 4"). Bolts, washers, and nuts will be Grade 316 stainless steel. Check valves shall meet AWWA specification C508. Flanged end dimensions will be drilled to ANSI standard B16.1 class 125.

3.9.7 GATE VALVES

Gate valves will be resilient seated, 4" minimum diameter, with flanged ends, hand wheel operated, non-rising stem, epoxy coated, equipped with double O-ring-sealed stuffing box and Grade 316 stainless steel fasteners. Gate valves will meet AWWA specification C509 and C515. Flanged end dimensions will be drilled to ANSI standard B16.1 class 125.

3.9.8 CONTROL PANEL

The control panel will be isolated with a 200-amp fusible breaker disconnect housed in a NEMA 4X, stainless steel lockable cabinet.

The control panel enclosure will be Grade 316 stainless steel, NEMA 4X rated with a heat-reflecting hood. The minimum inside dimensions will be 36" wide x 48" high x 12" deep. Control voltage will be 120 VAC. **Control voltage transformer will be sized to support a 20 Amp circuit.** Control wiring will be 14 AWG stranded. The enclosure will be equipped with an aluminum dead front inner panel with cutouts for all circuit breakers; elapsed time meter (non-reset, hour and one-tenth hour, five digits); one duplex 120 VAC convenience outlet (GFI protected); a top mounted LED work light; minimum 24 inches in length; hand-off-automatic (HOA) switch for each pump; seal failure light for each pump (amber); run light for each pump (red); one trip light for each pump (amber); SCADA bypass switch, inside and outside light on-off switch.

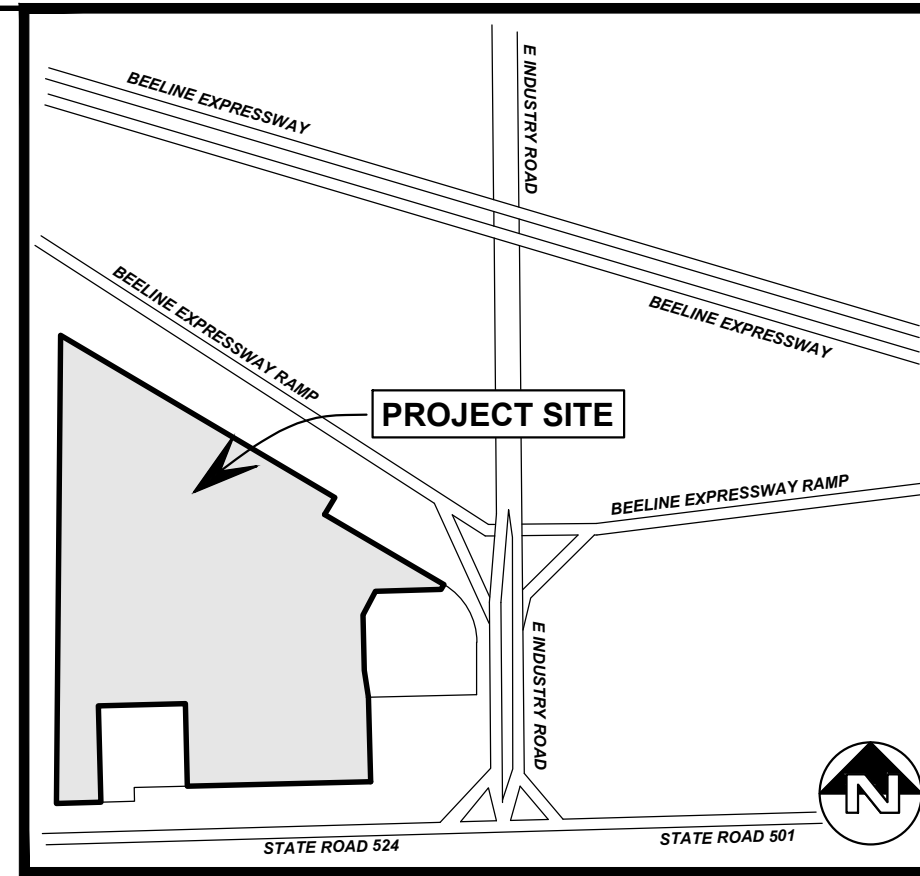
Floats will be used to provide level control. There will be one float for pump shut-off, one for lead pump turn-on, one for lag pump turn-on, and one for high-level alarm. Floats will be Roato-Float type-5 as manufactured by Anchor Scientific with all weights and switches encapsulated. Floats will operate on normal 24 VAC supplied from a step-down 120 VAC to 24 VAC transformer located in the control panel. Float wiring from control panel to pump J-box will be a minimum of #14 AWG copper wire. City will provide signal cable that will run from the control panel to the pump J-box in the same conduit as the float wiring.

Motor starters will be NEMA-rated with three-leg protection, circuit breakers (molded case), and all pilot devices (switches, relays, lights) will be manufactured by **Square-D**.

The control panel will be equipped with a **Russel Stoll model JRS 1044FR 100-amp emergency generator receptacle** and emergency main circuit breaker with lockout from the normal main breaker. Panel will be equipped with ground and neutral terminal bars. A power distribution block will be installed after the main breaker. Two 10 feet by 3/4 inches copper-clad ground rod will be driven into the ground adjacent to the control

CIRRUS

BEING A RE-PLAT OF LOT 1, HOME DEPOT COCOA ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 57, PAGE 87, PUBLIC RECORDS BREVARD COUNTY FLORIDA, LYING IN SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST, CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT



PLAT BOOK _____, PAGE _____

SHEET 1 OF 4

SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST

DEDICATION

KNOW ALL MEN BY THESE PRESENTS, COCOA RETAIL, L.L.C., a North Carolina Limited Liability Company, being the owner in fee simple of the lands described in

CIRRUS

Hereby dedicates said lands and plat for the uses and purposes therein expressed and dedicates all public drainage and utility easements as further described in the notes or as shown hereon. The owner hereby 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 Lot 1A and Lot 1B for ingress and egress for law enforcement and emergency vehicles, emergency access and emergency maintenance.

By: _____
Printed Name: _____

SEAL

Attest: _____
Printed Name: _____

Attest: _____
Printed Name: _____

COCOA RETAIL, LLC
1111 METROPOLITAN AVENUE
SUITE 700
CHARLOTTE, NORTH CAROLINA 28236

STATE OF _____ COUNTY OF _____

The foregoing instrument was acknowledged before me by means of _____ physical presence _____ or online notarization, this _____ by the above named Limited Liability Company under the laws of the State of _____ 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.

NOTARY PUBLIC _____
My Comm. Expires _____

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 11/11/2019 he completed a 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 REVIEWING 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.

J. Barry. Cabannis
Reg. Florida Surveyor & Mapper #4524
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.

Jake Williams, Jr., MAYOR

ATTEST: _____
Carie Shealy, 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.

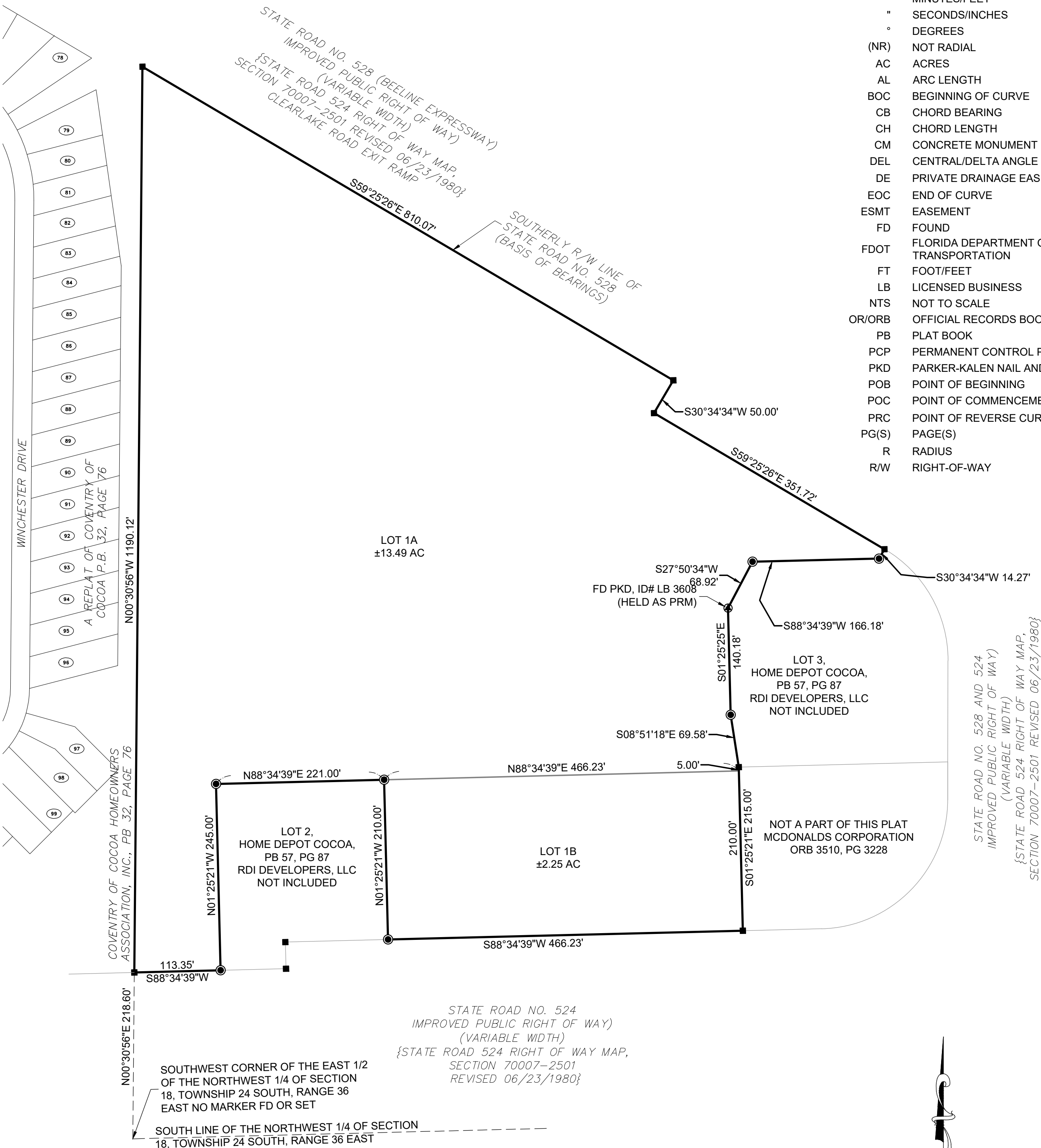
PLAT NOTES:

- BEARING REFERENCE: ASSUMED BEARING OF N00°30'56"E ON THE WEST LINE OF LOT 1, HOME DEPOT COCOA AS RECORDED IN PLAT BOOK 57, PAGE 87, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.
- SURVEY MONUMENTATION WITHIN THE SUBDIVISION SHALL BE SET IN ACCORDANCE WITH FLORIDA STATUTES, CHAPTER 177.091(9).
- 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.
- THE LANDS PLATTED HEREON ARE SUBJECT TO THE TERMS AND CONDITIONS OF THAT CERTAIN EASEMENT IN FAVOR OF FLORIDA GAS TRANSMISSION COMPANY AS REFERENCED IN FINAL JUDGMENT RECORDED IN OFFICIAL RECORDS BOOK 599, PAGE 315.
- THE LANDS PLATTED HEREON ARE SUBJECT TO THE TERMS, COVENANTS, CONDITIONS, EASEMENTS, RESTRICTIONS AND OTHER PROVISIONS SET FORTH IN DECLARATION OF RESTRICTIONS AND GRANT OF EASEMENTS BY INTERCHANGE ASSOCIATES, INC., A DELAWARE CORPORATION, RECORDED IN OFFICIAL RECORDS BOOK 3299, PAGE 3156.
- THE 36' SHARED ACCESS EASEMENT SHOWN ON LOT 1B IS HEREBY DEDICATED TO THE OWNERS OF LOT 1A FOR VEHICULAR AND PEDESTRIAN ACCESS.
- THE LANDS PLATTED HEREON ARE SUBJECT TO THE TERMS AND CONDITIONS OF THAT CERTAIN TWENTY (20) FOOT WIDE REUSE MAIN AND INGRESS/EGRESS EASEMENT IN FAVOR OF THE CITY OF COCOA SET FORTH IN REUSE MAIN AND WATER LINE & INGRESS/EGRESS EASEMENT RECORDED IN OFFICIAL RECORDS BOOK 3372, PAGE 4481. NOTE: THE TWENTY (20) FOOT WIDE WATER LINE AND INGRESS/EGRESS EASEMENT WHICH WAS ALSO GRANTED IN SAID INSTRUMENT WAS VACATED BY RESOLUTION NO. 2005-65 RECORDED IN OFFICIAL RECORDS BOOK 5510, PAGE 2725.
- THE LANDS PLATTED HEREON ARE SUBJECT TO THE TERMS AND CONDITIONS OF THAT CERTAIN TWENTY (20) FOOT WIDE EASEMENT FOR SANITARY SEWER FORCE MAIN AND A TWENTY (20) FOOT WIDE EASEMENT FOR SANITARY SEWER LINE IN FAVOR OF THE CITY OF COCOA SET FORTH IN FORCE MAIN AND SEWER LINE & INGRESS/EASEMENT RECORDED IN OFFICIAL RECORDS BOOK 3372, PAGE 4486. NOTE: A PORTION OF SAID EASEMENT(S) WAS/WERE VACATED BY RESOLUTION NO. 2005-100 RECORDED IN OFFICIAL RECORDS BOOK 5557, PAGE 4594.
- THE LANDS PLATTED HEREON ARE SUBJECT TO THE TERMS AND CONDITIONS OF THAT CERTAIN RIGHT OF WAY EASEMENT FROM INTERCHANGE ASSOCIATES, INC. IN FAVOR OF SOUTHERN BELL TELEPHONE AND TELEGRAPH COMPANY RECORDED IN OFFICIAL RECORDS BOOK 3387, PAGE 3308.
- COVENANT SET FORTH IN SHORT FORM LEASE BY AND BETWEEN INTERCHANGE ASSOCIATES, INC., LANDLORD, AND ECKERD CORPORATION, TENANT, RECORDED IN OFFICIAL RECORDS BOOK 3511, PAGE 710, AS ASSIGNED, MODIFIED, SUPPLEMENTED AND/OR AMENDED BY THE DOCUMENTS LISTED ON EXHIBIT A OF THAT CERTAIN INSTRUMENT BY AND BETWEEN CVS EGL 524 COCOA FL, L.L.C., SUCCESSOR IN INTEREST TO ECKERD CORPORATION, TENANT, RDI DEVELOPERS, LLC, SUCCESSOR IN INTEREST TO INTERCHANGE ASSOCIATES, INC., LANDLORD, ET AL, RECORDED IN OFFICIAL RECORDS BOOK 5563, PAGE 6287.

LEGAL DESCRIPTION

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.

- ABBREVIATIONS
- MINUTES/FEET
 - SECONDS/INCHES
 - DEGREES
 - NOT RADIAL
 - ACRES
 - ARC LENGTH
 - BEGINNING OF CURVE
 - CHORD BEARING
 - CHORD LENGTH
 - CONCRETE MONUMENT
 - CENTRAL/DELTA ANGLE
 - PRIVATE DRAINAGE EASEMENT
 - END OF CURVE
 - EASEMENT
 - FOUND
 - FLORIDA DEPARTMENT OF TRANSPORTATION
 - FOOT/FEET
 - LICENSED BUSINESS
 - NOT TO SCALE
 - OFFICIAL RECORDS BOOK
 - PLAT BOOK
 - PERMANENT CONTROL POINT
 - PARKER-KALEN NAIL AND DISK
 - POINT OF BEGINNING
 - POINT OF COMMENCEMENT
 - POINT OF REVERSE CURVATURE
 - PAGE(S)
 - RADIUS
 - RIGHT-OF-WAY



SURVEY SYMBOL LEGEND

- PERMANENT REFERENCE MONUMENT (PRM); FD 4X4 INCH CONCRETE MONUMENT WITH DISK STAMPED PRM LB4905, UNLESS OTHERWISE NOTED
- SET 5/8" IRON ROD & CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED
- SET MAG NAIL & DISK STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED

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.



B.S.E. CONSULTANTS, INC.
CONSULTING • ENGINEERING • LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-8674 FAX: (321) 725-1159
CERTIFICATE OF BUSINESS AUTHORIZATION: 4605
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

DATE: 08/31/20
DESIGN/DRAWN: ALS/AH
DRAWING# 11545_300_001
PROJECT# 11545

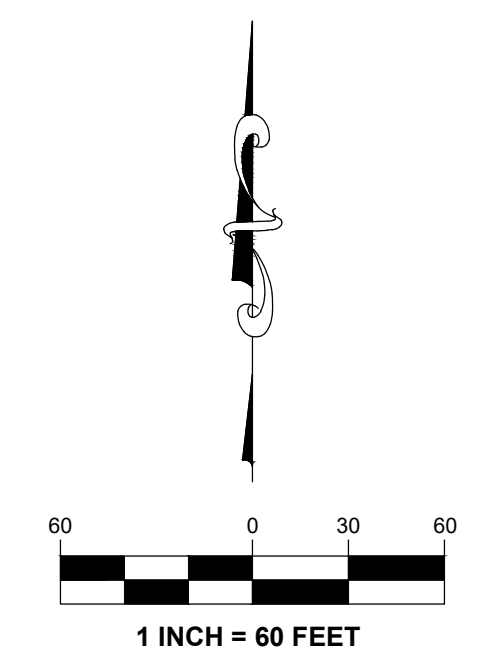
- THIS PLAT PREPARED BY -

CIRRUS

BEING A RE-PLAT OF LOT 1, HOME DEPOT COCOA ACCORDING
TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 57, PAGE
87, PUBLIC RECORDS BREVARD COUNTY FLORIDA, LYING IN
SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

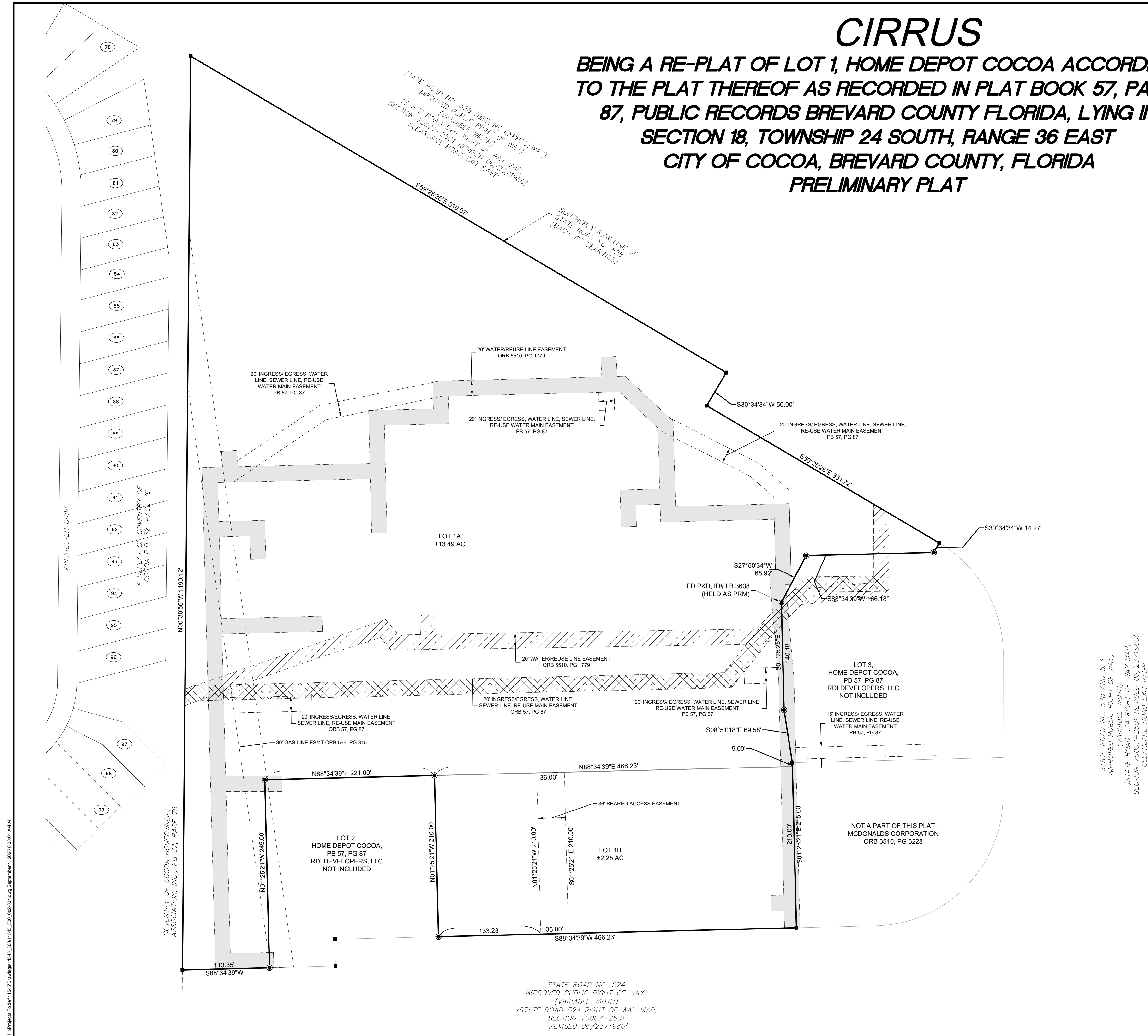
- SURVEY SYMBOL LEGEND**
- PERMANENT REFERENCE MONUMENT (PRM); FD 4X4 INCH CONCRETE MONUMENT WITH DISK STAMPED "PRM LB4905, UNLESS OTHERWISE NOTED"
 - SET 5/8" IRON ROD & CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED
 - ▲ SET MAG NAIL & DISK STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED

ABBREVIATIONS	
'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
(NR)	NOT RADIAL
AC	ACRES
AL	ARC LENGTH
BOC	BEGINNING OF CURVE
CB	CHORD BEARING
CDD	CENTRAL DRAINAGE DISTRICT
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
DEL	CENTRAL/DELTA ANGLE
DE	PRIVATE DRAINAGE EASEMENT
E	EAST
EOC	END OF CURVE
ESMT	EASEMENT
FD	FOUND
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FT	FOOT/FEET
LB	LICENSED BUSINESS
N	NORTH
NTI	NON-TANGENT INTERSECTION
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PKD	PARKER-KALEN NAIL AND DISK
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PRC	POINT OF REVERSE CURVATURE
PG(S)	PAGE(S)
R	RADIUS
R/W	RIGHT-OF-WAY
SEC	SECTION
S	SOUTH
W	WEST



- THIS PLAT PREPARED BY -

	B.S.E. CONSULTANTS, INC. CONSULTING - ENGINEERING - LAND SURVEYING 312 SOUTH HARBOR CITY BOULEVARD, SUITE 400, COCOA, FL 32909 PHONE: (321) 725-3474 FAX: (321) 725-1109 CERTIFICATE OF BUSINESS AUTHORIZATION: 0002 CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004005	DATE: 08/31/20 DESIGN/DRAWN: ALS/AH DRAWING# 11545_300_002 PROJECT# 11545
---	--	--



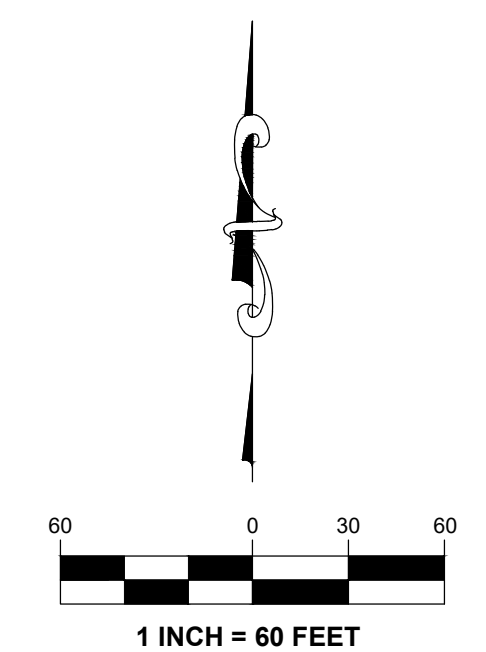
H:\Projects\Folder11545\Drawings\11545_300_002_004.dwg September 1, 2020 8:00:04 AM AH

CIRRUS

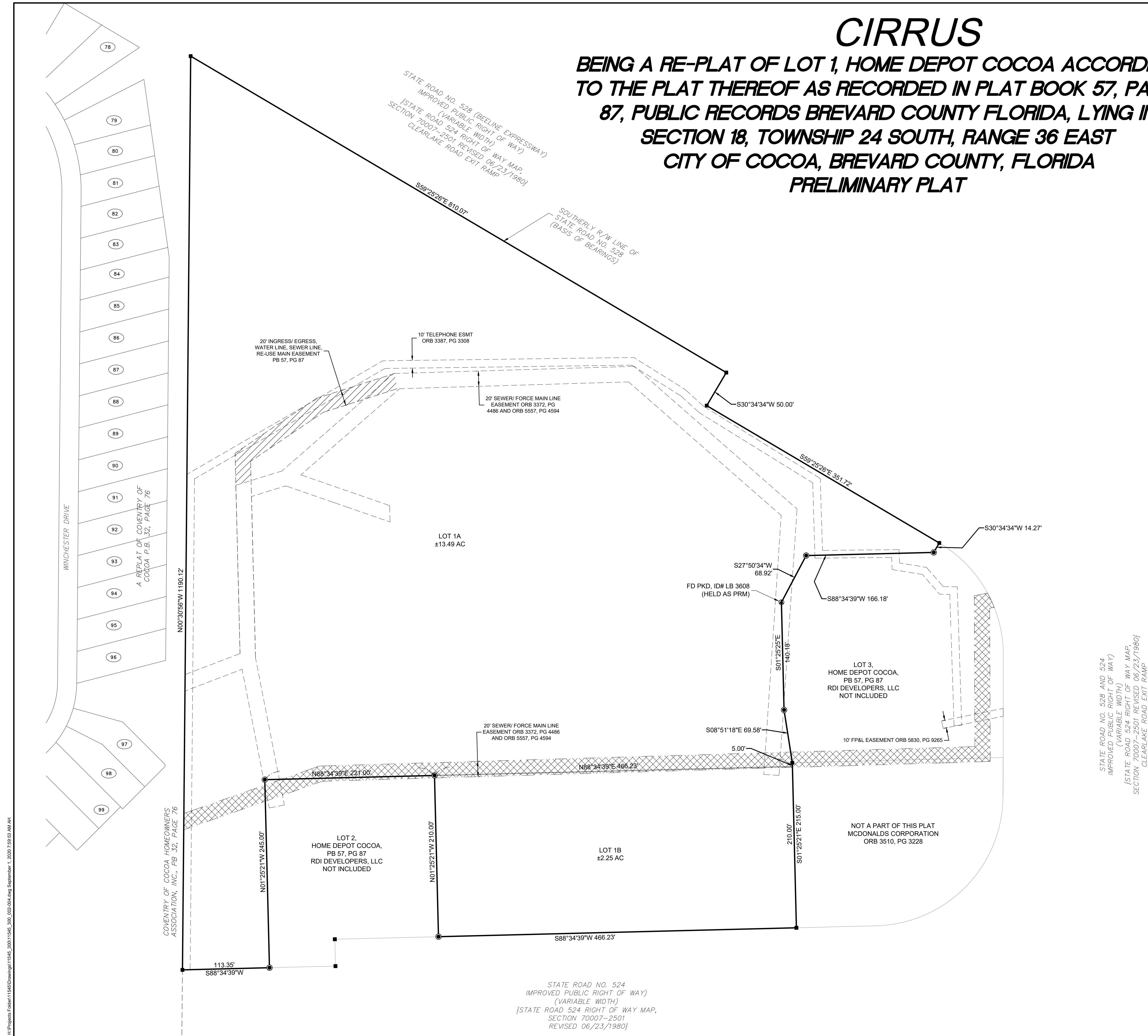
BEING A RE-PLAT OF LOT 1, HOME DEPOT COCOA ACCORDING
TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 57, PAGE
87, PUBLIC RECORDS BREVARD COUNTY FLORIDA, LYING IN
SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

SURVEY SYMBOL LEGEND
■ PERMANENT REFERENCE MONUMENT (PRM); FD 4X4
INCH CONCRETE MONUMENT WITH DISK STAMPED
PRM LB4905, UNLESS OTHERWISE NOTED
● SET 5/8" IRON ROD & CAP STAMPED "PRM LB4905"
UNLESS OTHERWISE NOTED
▲ SET MAG NAIL & DISK STAMPED "PRM LB4905"
UNLESS OTHERWISE NOTED

ABBREVIATIONS
' MINUTES/FEET
" SECONDS/INCHES
° DEGREES
(NR) NOT RADIAL
AC ACRES
AL ARC LENGTH
BOC BEGINNING OF CURVE
CB CHORD BEARING
CDD CENTRAL DRAINAGE DISTRICT
CH CHORD LENGTH
CM CONCRETE MONUMENT
DEL CENTRAL/DELTA ANGLE
DE PRIVATE DRAINAGE EASEMENT
E EAST
EOC END OF CURVE
ESMT EASEMENT
FD FOUND
FDOT FLORIDA DEPARTMENT OF
TRANSPORTATION
FT FOOT/FEET
LB LICENSED BUSINESS
N NORTH
NTI NON-TANGENT INTERSECTION
NTS NOT TO SCALE
OR/ORB OFFICIAL RECORDS BOOK
PB PLAT BOOK
PCP POINT OF COMPOUND
CURVATURE
PCP PERMANENT CONTROL POINT
PKD PARKER-KALEN NAIL AND DISK
POB POINT OF BEGINNING
POC POINT OF COMMENCEMENT
PRC POINT OF REVERSE CURVATURE
PG(S) PAGE(S)
R RADIUS
RW RIGHT-OF-WAY
SEC SECTION
S SOUTH
W WEST



- THIS PLAT PREPARED BY -



CIRRUS

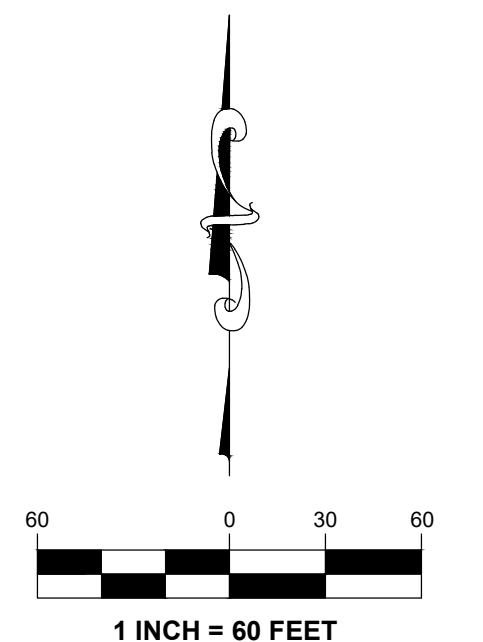
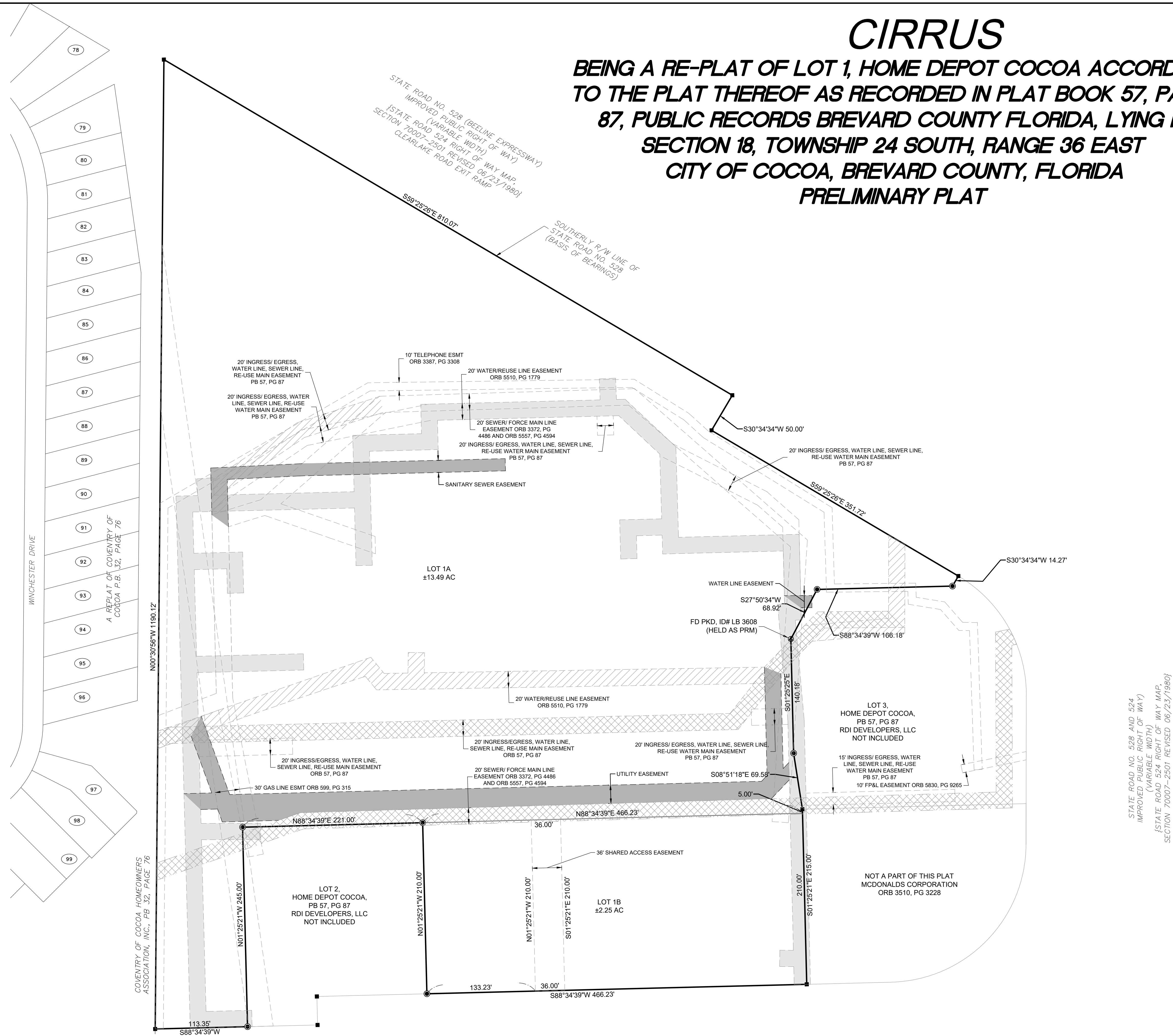
BEING A RE-PLAT OF LOT 1, HOME DEPOT COCOA ACCORDING
TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 57, PAGE
87, PUBLIC RECORDS BREVARD COUNTY FLORIDA, LYING IN
SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST
CITY OF COCOA, BREVARD COUNTY, FLORIDA
PRELIMINARY PLAT

SURVEY SYMBOL LEGEND

- PERMANENT REFERENCE MONUMENT (PRM); FD 4X4 INCH CONCRETE MONUMENT WITH DISK STAMPED "PRM LB4905, UNLESS OTHERWISE NOTED"
- SET 5/8" IRON ROD & CAP STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED
- ▲ SET MAG NAIL & DISK STAMPED "PRM LB4905" UNLESS OTHERWISE NOTED

ABBREVIATIONS

- ' MINUTES/FEET
- " SECONDS/INCHES
- ° DEGREES
- (NR) NOT RADIAL
- AC ACRES
- AL ARC LENGTH
- BOC BEGINNING OF CURVE
- CB CHORD BEARING
- CDD CENTRAL DRAINAGE DISTRICT
- CH CHORD LENGTH
- CM CONCRETE MONUMENT
- DEL CENTRAL/DELTA ANGLE
- DE PRIVATE DRAINAGE EASEMENT
- E EAST
- EOC END OF CURVE
- ESMT EASEMENT
- FD FOUND
- FDOT FLORIDA DEPARTMENT OF TRANSPORTATION
- FT FOOT/FEET
- LB LICENSED BUSINESS
- N NORTH
- NTI NON-TANGENT INTERSECTION
- NTS NOT TO SCALE
- OR/ORB OFFICIAL RECORDS BOOK
- PB PLAT BOOK
- PCP POINT OF COMPOUND CURVATURE
- PCP PERMANENT CONTROL POINT
- PKD PARKER-KALEN NAIL AND DISK
- POB POINT OF BEGINNING
- POC POINT OF COMMENCEMENT
- PRC POINT OF REVERSE CURVATURE
- PG(S) PAGE(S)
- R RADIUS
- R/W RIGHT-OF-WAY
- SEC SECTION
- S SOUTH
- W WEST



- THIS PLAT PREPARED BY -

SURVEY NOTES:

SURVEY OF A PARCEL OF LAND IN SECTION 18,TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA.

SURVEY FOR BOUNDARY AND LOCATIONS OF PERTINENT VISIBLE ABOVEGROUND IMPROVEMENTS.

UNDERGROUND IMPROVEMENTS AND/OR UTILITIES SHOWN AND NOTED HEREON WERE TAKEN FROM A PREVIOUS SURVEY OF THIS AREA PERFORMED BY THIS COMPANY.

BEARING REFERENCE: ASSUMED BEARING OF S85°25'26"E ON THE SOUTHERLY RIGHT-OF-WAY LINE OF STATE ROAD NO. 524 (BEELINE EXPRESSWAY) CLEARLAKE ROAD EAST BOUND EXIT RAMP, ACCORDING TO THE PLAT OF HOME DEPOT COCOA, AS RECORDED IN PLAT BOOK 57, PAGE 87, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.

THE SURVEYOR RELIED SOLELY ON INFORMATION CONTAINED WITHIN THAT CERTAIN FIRST AMERICAN TITLE INSURANCE COMPANY ALTA COMMITMENT FOR TITLE INSURANCE FILE NO.: 2061-4486840, ISSUING OFFICE FILE NUMBER: 2320-TBD, COMMITMENT DATE: OCTOBER 1, 2019 AT 8:00 A.M FOR INFORMATION REGAGRDING EASEMENTS AFFECTING AND/OR ENCUMBERING THE LANDS SURVEYED HEREON

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 MINIMUM TECHNICAL STANDARDS FOR SURVEYS AS REQUIRED BY CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE.

ALL BUILDING SET BACK REQUIREMENTS ARE GRAPHICALLY DEPICTED HEREON.

THIS PROPERTY HAS DIRECT ACCESS TO A DEDICATED PUBLIC STREET VIA DRIVEWAY CONNECTIONS ON STATE ROAD 528 RE-ROUTE (STATE ROAD 524).

ELEVATIONS SHOWN ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM, 1988 (NAVDS8)

DATUM CONVERSION: NAVD88 + 1.35 = NGVD29

THIS SURVEY IS SUBJECT TO ANY ADDITIONAL EASEMENTS, RESTRICTIONS, RESERVATIONS AND RIGHTS-OF-WAY OF RECORD, (EITHER PUBLIC OR PRIVATE), WHICH MAY EXIST AND WERE NOT FURNISHED TO THE SURVEYOR.

BUILDING HEIGHT RESTRICTED TO 66 FEET AS PER CITY OF COCOA, FLORIDA CODES

PROPERTY ADDRESS: 2320 HIGHWAY 524 UNIT HOMEDE, COCOA, FLORIDA 32926

DATE OF LAST FIELD WORK: 11/11/19

DESCRIPTION OF "THE PROPERTY" BY SURVEYOR:

PART OF LOT 1, HOME DEPOT COCOA, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 57, P PAGES 87 THROUGH 93, INCLUSIVE, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, LYING IN SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

LOT 1 OF SAID HOME DEPOT COCOA, LESS AND EXCEPT THE FOLLOWING DESCRIBED PARCEL OF LAND:

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 N01°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 N88°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 N88°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 S01°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 S88°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 N01°25'21"W, ALONG THE EAST LINE OF SAID LOT 2, A DISTANCE OF 210.00 FEET TO THE POINT OF BEGINNING, CONTAINING 2.25 ACRES, MORE OR LESS.

CONTAINING 13.49 NET ACRES, MORE OR LESS.

ZONING INFORMATION PER CITY OF COCOA, FLORIDA CODES:

ZONING CLASSIFICATION: GENERAL COMMERCIAL (C-G)

SETBACKS:
FRONT: 40 FEET
SIDE: 30 FEET WHEN CONTIGUOUS TO RESIDENTIAL AND 15 FEET WHEN CONTIGUOUS TO ANY OTHER ZONING
REAR: 30 FEET WHEN CONTIGUOUS TO RESIDENTIAL AND 20 FEET WHEN CONTIGUOUS TO ANY OTHER ZONING

NATIONAL FLOOD INSURANCE PROGRAM

1. MAP No. 12009C0320G
2. COMMUNITY No. 12020G
3. PANEL No. 0320
4. SUFFIX: G
5. MAP REVISION: MARCH 17, 2014
6. THIS PROPERTY IS LOCATED IN FLOOD ZONE "X UNSHADED" - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

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
FPL 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
NW NEIGHBORHOOD IDENTIFICATION
N&D NAIL AND DISK
NAVDS8 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

DESCRIPTION OF "SHARED ACCESS EASEMENT" AREA BY SURVEYOR:

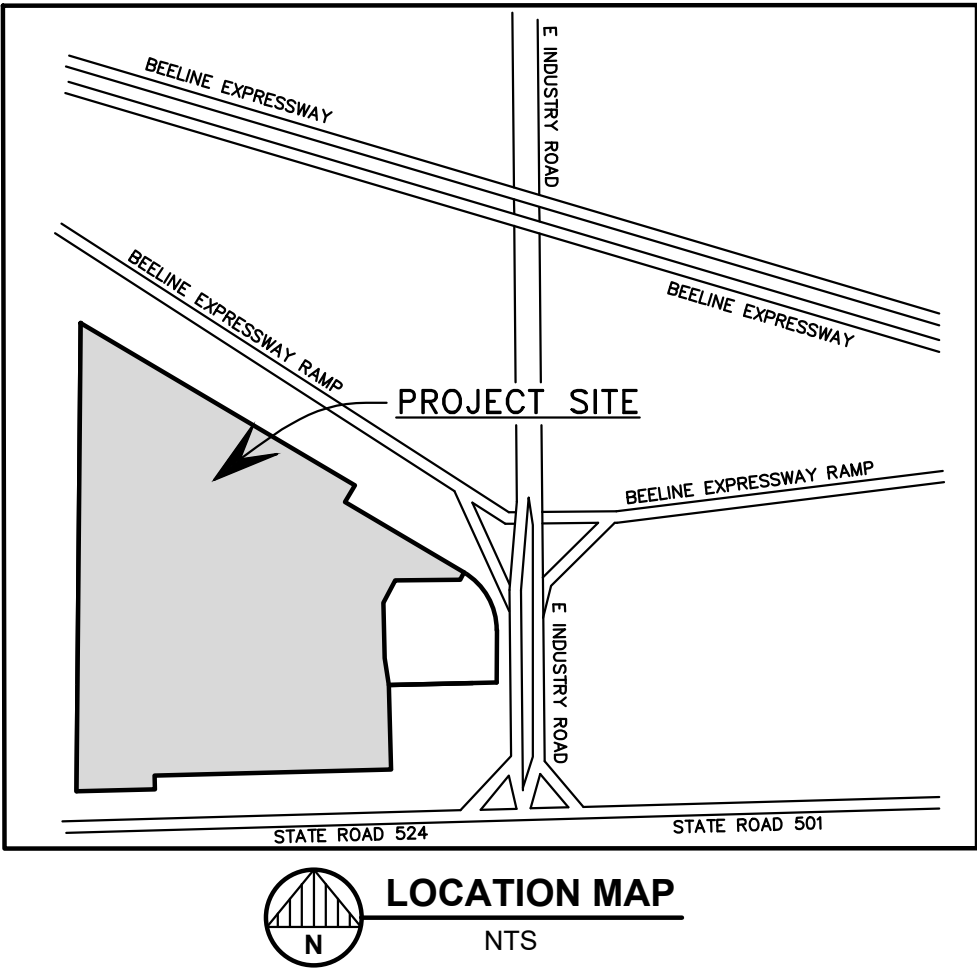
PART OF LOT 1, HOME DEPOT COCOA, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 57, P PAGES 87 THROUGH 93, INCLUSIVE, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, LYING IN SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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 N01°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 N88°34'39"E A DISTANCE OF 221.00 FEET TO THE NORTHEAST CORNER OF SAID LOT 2; THENCE CONTINUE N88°34'39"E, ALONG THE EASTERLY EXTENSION OF THE NORTH LINE OF SAID LOT 2, A DISTANCE OF 133.23 FEET TO THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED; THENCE CONTINUE N88°34'39"E, ALONG SAID EASTERLY EXTENSION OF THE NORTH LINE OF SAID LOT 2, A DISTANCE OF 36.00 FEET; THENCE S01°25'21"E A DISTANCE OF 210.00 FEET A POINT ON THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD NO. 524; THENCE S88°34'39"W, ALONG SAID NORTH RIGHT-OF-WAY LINE, A DISTANCE OF 36.00 FEET; THENCE N01°25'21"W A DISTANCE OF 210.00 FEET TO THE POINT OF BEGINNING, CONTAINING 7560 SQUARE FEET, MORE OR LESS.

DESCRIPTION OF "RETAINED BY SELLER" AREA BY SURVEYOR:

PART OF LOT 1, HOME DEPOT COCOA, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 57, P PAGES 87 THROUGH 93, INCLUSIVE, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, LYING IN SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST, 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 N01°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 N88°34'39"E A DISTANCE OF 221.00 FEET TO THE NORTHEAST CORNER OF SAID LOT 2; THENCE CONTINUE N88°34'39"E, ALONG THE EASTERLY EXTENSION OF THE NORTH LINE OF SAID LOT 2, A DISTANCE OF 133.23 FEET TO THE POINT OF BEGINNING OF THE PARCEL OF LAND HEREIN DESCRIBED; THENCE CONTINUE N88°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 S01°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 S88°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 N01°25'21"W, ALONG THE EAST LINE OF SAID LOT 2, A DISTANCE OF 210.00 FEET TO THE POINT OF BEGINNING, CONTAINING 2.25 ACRES, MORE OR LESS.



ITEM NUMBERS BELOW ARE IN DIRECT RELATIONSHIP TO THOSE NUMBERS IN SCHEDULE B-II EXCEPTIONS IN CERTAIN FIRST AMERICAN TITLE INSURANCE COMPANY ALTA COMMITMENT FOR TITLE INSURANCE FILE NO.: 2061-4486840, ISSUING OFFICE FILE NUMBER: 2320-TBD, COMMITMENT DATE: OCTOBER 1, 2019 AT 8:00 A.M:

- SURVEYOR HAS NO KNOWLEDGE OF ANY DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, CREATED, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES FOR VALUE OF RECORD THE ESTATE OR INTEREST OR MORTGAGE THEREON COVERED BY THIS COMMITMENT.
- SURVEYOR HAS NO KNOWLEDGE OF ANY RIGHTS, INTERESTS, OR CLAIMS OF PARTIES IN POSSESSION OF THE LAND NOT SHOWN BY THE PUBLIC RECORDS.
- SURVEYOR HAS NO KNOWLEDGE OF ANY ENCRoACHMENT, ENCUMBRANCE, VIOLATION, VARIATION OR ADVERSE CIRCUMSTANCE AFFECTING THE TITLE OTHER THAN AS MAY BE NOTED AND/OR SHOWN HEREON.
- SURVEYOR HAS NO KNOWLEDGE OF ANY LIEN, FOR SERVICES, LABOR, OR MATERIALS IN CONNECTION WITH IMPROVEMENTS, REPAIRS OR RENOVATIONS PROVIDED BEFORE, ON, OR AFTER DATE OF POLICY, NOT SHOWN BY THE PUBLIC RECORDS.
- SURVEYOR HAS NO KNOWLEDGE OF ANY DISPUTE AS TO THE BOUNDARIES CAUSED BY A CHANGE IN THE LOCATION OF ANY WATER BODY WITHIN OR ADJACENT TO THE LAND PRIOR TO DATE OF POLICY, AND ANY ADVERSE CLAIM TO ALL OR PART OF THE LAND THAT IS, AT DATE OF POLICY, OR WAS PREVIOUSLY UNDER WATER.
- TAXES OR SPECIAL ASSESSMENTS NOT SHOWN AS LIENS IN THE PUBLIC RECORDS OR IN THE RECORDS OF THE LOCAL TAX COLLECTING AUTHORITY, AT DATE OF POLICY. NOT A SURVEY MATTER
- SURVEYOR HAS NO KNOWLEDGE OF ANY MINERALS OR MINERAL RIGHTS LEASED, GRANTED OR RETAINED BY CURRENT OR PRIOR OWNERS.
- TAXES AND ASSESSMENTS FOR THE YEAR 2019 AND SUBSEQUENT YEARS, WHICH ARE NOT YET DUE AND PAYABLE. NOT A SURVEY MATTER

NOTES FOR STANDARD EXCEPTIONS: STANDARD EXCEPTIONS FOR PARTIES IN POSSESSION, FOR MECHANICS LIENS, AND FOR TAXES OR SPECIAL ASSESSMENTS NOT SHOWN AS LIENS IN THE PUBLIC RECORDS SHALL BE DELETED UPON RECEIPT OF AN ACCEPTABLE NON-LIEN AND POSSESSION AFFIDAVIT ESTABLISHING WHO IS IN POSSESSION OF THE LANDS, THAT THERE ARE NO LIENS OR ENCUMBRANCES UPON THE LANDS OTHER THAN AS SET FORTH IN THE COMMITMENT, THAT NO IMPROVEMENTS TO THE LANDS HAVE BEEN MADE WITHIN THE PAST 90 DAYS OR ARE CONTEMPLATED TO BE MADE BEFORE CLOSING THAT WILL NOT BE PAID IN FULL, AND THAT THERE ARE NO UNRECORDED TAXES OR ASSESSMENTS THAT ARE NOT SHOWN AS EXISTING LIENS IN THE PUBLIC RECORDS. ANY POLICIES ISSUED HEREUNDER MAY BE SUBJECT TO A SPECIAL EXCEPTION FOR MATTERS DISCLOSED BY SAID AFFIDAVIT.

STANDARD EXCEPTION(S) FOR QUESTIONS OF SURVEY MAY BE DELETED UPON RECEIPT AND REVIEW OF A PROPERLY CERTIFIED SURVEY MEETING THE FLORIDA MINIMUM TECHNICAL STANDARDS FOR ALL LAND SURVEYS DATED NO MORE THAN 90 DAYS PRIOR TO CLOSING OR SUCH OTHER PROOF AS MAY BE ACCEPTABLE TO THE COMPANY. ANY POLICIES ISSUED HEREUNDER MAY BE SUBJECT TO A SPECIAL EXCEPTION FOR MATTERS DISCLOSED BY SAID SURVEY OR PROOF.

- EASEMENT IN FAVOR OF FLORIDA GAS TRANSMISSION COMPANY AS REFERENCED IN FINAL JUDGMENT RECORDED IN OFFICIAL RECORDS BOOK 599, PAGE 315. AFFECTS PROPERTY, SHOWN AND NOTED HEREON
- TERMS, COVENANTS, CONDITIONS, EASEMENTS, RESTRICTIONS AND OTHER PROVISIONS SET FORTH IN DECLARATION OF RESTRICTIONS AND GRANT OF EASEMENTS BY INTERCHANGE ASSOCIATES, INC., A DELAWARE CORPORATION, RECORDED IN OFFICIAL RECORDS BOOK 3299, PAGE 3156. AFFECTS PROPERTY, EASEMENTS ARE BLANKET TYPE AND ARE NOT PLOTTED OR SHOWN HEREON
- SHORT FORM LEASE BY AND BETWEEN INTERCHANGE ASSOCIATES, INC., A DELAWARE CORPORATION, LANDLORD, AND WINN DIXIE STORES, INC., TENANT, RECORDED IN OFFICIAL RECORDS BOOK 3299, PAGE 3164 AND THE TERMS, COVENANTS, CONDITIONS, EASEMENTS, RESTRICTIONS AND OTHER PROVISIONS CONTAINED THEREIN. LEASE TERMINATED PER TERMS IN DOCUMENT
- A TWENTY (20) FOOT WIDE REUSE MAIN AND INGRESS/EGRESS EASEMENT IN FAVOR OF THE CITY OF COCOA SET FORTH IN REUSE MAIN AND WATER LINE & INGRESS/EGRESS EASEMENT RECORDED IN OFFICIAL RECORDS BOOK 3372, PAGE 4481. NOTE: THE TWENTY (20) FOOT WIDE WATER LINE AND INGRESS/EGRESS EASEMENT WHICH WAS ALSO GRANTED IN SAID INSTRUMENT WAS VACATED BY RESOLUTION NO. 2005-65 RECORDED IN OFFICIAL RECORDS BOOK 5510, PAGE 2725. EASEMENT TERMINATED AND NO LONGER IN EFFECT PER REFERENCED RESOLUTION
- TWENTY (20) FOOT WIDE EASEMENT FOR SANITARY SEWER FORCE MAIN AND A TWENTY (20) FOOT WIDE EASEMENT FOR SANITARY SEWER LINE IN FAVOR OF THE CITY OF COCOA SET FORTH IN FORCE MAIN AND SEWER LINE & INGRESS/EASEMENT RECORDED IN OFFICIAL RECORDS BOOK 3372, PAGE 4481. NOTE: A PORTION OF SAID EASEMENTS WAS WERE VACATED BY RESOLUTION NO. 2005-100 RECORDED IN OFFICIAL RECORDS BOOK 5557, PAGE 4594. AFFECTS PROPERTY, NOTED AND SHOWN HEREON
- BILL OF SALE (SEWER LINES, WATER MAINS AND APPURTENANCES) FROM INTERCHANGE ASSOCIATES, INC. TO THE CITY OF COCOA RECORDED IN OFFICIAL RECORDS BOOK 3372, PAGE 4491. NOT A SURVEY MATTER
- BILL OF SALE (WATER LINES, WATER MAINS AND APPURTENANCES) FROM INTERCHANGE ASSOCIATES, INC. TO THE CITY OF COCOA RECORDED IN OFFICIAL RECORDS BOOK 3372, PAGE 4495. NOT A SURVEY MATTER
- RIGHT OF WAY EASEMENT FROM INTERCHANGE ASSOCIATES, INC. IN FAVOR OF SOUTHERN BELL TELEPHONE AND TELEGRAPH COMPANY RECORDED IN OFFICIAL RECORDS BOOK 3387, PAGE 3308. AFFECTS PROPERTY, SHOWN AND NOTED HEREON
- COVENANT SET FORTH IN SHORT FORM LEASE BY AND BETWEEN INTERCHANGE ASSOCIATES, INC., LANDLORD, AND ECKERO CORPORATION, TENANT, RECORDED IN OFFICIAL RECORDS BOOK 3511, PAGE 710, AS ASSIGNED, MODIFIED, SUPPLEMENTED AND/OR AMENDED BY THE DOCUMENTS LISTED ON EXHIBIT A OF THAT CERTAIN INSTRUMENT BY AND BETWEEN CVS EGL 524 COCOA, FL, L.L.C., SUCCESSOR IN INTEREST TO ECKERO CORPORATION, TENANT, RDI DEVELOPERS, LLC, SUCCESSOR IN INTEREST TO INTERCHANGE ASSOCIATES, INC., LANDLORD, ET AL, RECORDED IN OFFICIAL RECORDS BOOK 5583, PAGE 8287. NOT A SURVEY MATTER
- SHOPPING CENTER EASEMENT AGREEMENT BY AND BETWEEN INTERCHANGE ASSOCIATES, INC. AND MCDONALD'S CORPORATION RECORDED IN OFFICIAL RECORDS BOOK 3516, PAGE 4332, AS AFFECTED BY ASSIGNMENT OF MAINTENANCE CONTRIBUTION BY AND BETWEEN RDI DEVELOPERS, LLC, A NEW YORK LIMITED LIABILITY COMPANY (SUCCESSOR TO INTERCHANGE ASSOCIATES, INC.), ASSIGNOR, AND HOME DEPOT U.S.A., INC., A DELAWARE CORPORATION, ASSIGNEE, RECORDED IN OFFICIAL RECORDS BOOK 5859, PAGE 8901. AFFECTS PROPERTY, EASEMENTS ARE BLANKET TYPE AND ARE NOT PLOTTED OR SHOWN HEREON
- WATER LINE & INGRESS/EGRESS EASEMENT AGREEMENT BY AND BETWEEN INTERCHANGE ASSOCIATES, INC. AND THE CITY OF COCOA RECORDED IN OFFICIAL RECORDS BOOK 5510, PAGE 1779. AFFECTS PROPERTY, NOTED AND SHOWN HEREON
- EASEMENT GRANTED BY RDI DEVELOPERS TO FAVOR OF FLORIDA POWER & LIGHT COMPANY RECORDED IN OFFICIAL RECORDS BOOK 5830, PAGE 9265. (NOTE: THERE IS NO EXHIBIT A, AS REFERRED TO IN SAID INSTRUMENT, RECORDED AS PART OF SAID INSTRUMENT.) EASEMENT DOES NOT ENCUMBER PROPERTY. EASEMENT IS LOCATED OUTSIDE OF PROPERTY BOUNDARY AND IS NOTED AND SHOWN HEREON
- RESTRICTIONS, DEDICATIONS, CONDITIONS, RESERVATIONS, EASEMENTS AND OTHER MATTERS CONTAINED ON THE PLAT OF HOME DEPOT COCOA, AS RECORDED IN PLAT BOOK 57, PAGES 87 THROUGH 93, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS AFFECTED BY SCRIVENER'S ERROR AFFIDAVITS RECORDED IN OFFICIAL RECORDS BOOK 5870, PAGE 4433 AND OFFICIAL RECORDS BOOK 5873, PAGE 5734 AND AS FURTHER AFFECTED BY RELEASE FROM RDI DEVELOPERS, LLC, A NEW YORK LIMITED LIABILITY COMPANY OF THE RESERVATION SET FORTH IN ITEM 3 OF THE "PLAT NOTES" SET FORTH UPON THE PLAT OF HOME DEPOT COCOA RECORDED IN OFFICIAL RECORDS BOOK 5859, PAGE 8901. AFFECTS PROPERTY, PLOTTABLE EASEMENTS REFERENCED ON THE ABOVE NAMED PLAT ARE SHOWN AND NOTED HEREON
- BILL OF SALE FROM RDI DEVELOPERS, LLC, A NEW YORK LIMITED LIABILITY COMPANY, TO HOME DEPOT U.S.A., INC., A DELAWARE CORPORATION, RECORDED IN OFFICIAL RECORDS BOOK 5859, PAGE 8898. NOT A SURVEY MATTER
- TERMS, CONDITIONS, RESTRICTIONS, EASEMENTS AND OTHER PROVISIONS CONTAINED IN THAT CERTAIN RESTRICTIVE COVENANTS AND EASEMENT AGREEMENT BY AND BETWEEN RDI DEVELOPERS, LLC, A NEW YORK LIMITED LIABILITY COMPANY AND HOME DEPOT U.S.A., INC., RECORDED IN OFFICIAL RECORDS BOOK 5859, PAGE 8905, AS AMENDED AND MODIFIED BY FIRST AMENDMENT TO RESTRICTIVE COVENANTS AND EASEMENT AGREEMENT BY AND BETWEEN RDI DEVELOPERS, LLC, A NEW YORK LIMITED LIABILITY COMPANY AND HOME DEPOT U.S.A., INC. RECORDED IN OFFICIAL RECORDS BOOK 5868, PAGE 8944. AFFECTS PROPERTY, EASEMENTS ARE BLANKET TYPE AND ARE NOT PLOTTED OR SHOWN HEREON
- RESTRICTIVE COVENANT SET FORTH IN SPECIAL WARRANTY DEED FROM HOME DEPOT U.S.A., INC., A DELAWARE CORPORATION TO COCOA RETAIL, LLC, A NORTH CAROLINA LIMITED LIABILITY COMPANY, RECORDED IN OFFICIAL RECORDS BOOK 1783, PAGE 2688. AFFECTS PROPERTY, NO PLOTTABLE EASEMENTS FOUND IN DOCUMENT
- SURVEYOR HAS NO KNOWLEDGE OF ANY TERMS, COVENANTS, CONDITIONS AND OTHER MATTERS CONTAINED IN ANY UNRECORDED LEASE(S) AND ALL RIGHTS THEREUNDER OF THE LESSEE(S) AND OF ANY PERSON CLAIMING BY, THROUGH OR UNDER THE LESSEE(S).

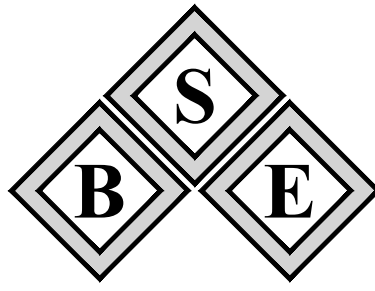
ALTA CERTIFICATION:

TO: FRAMEWORK GROUP, LLP, AKERMAN, LLP, COCOA RETAIL, LLC AND FIRST AMERICAN TITLE INSURANCE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1 THROUGH 6, 7(a), 7(b)(1), 7(c), 8, 9, 11, 13, 14 AND 16 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON 11/11/19.

H:\Projects\Florida\11545\Drawings\11545_1001.dwg June 22, 2020 6:16:51 AM JH

FIELD BOOK: COCOA BK 2	
PAGE(S): 34	
REVISIONS PER CLIENT	06/22/2020
DESIGN/DRAWN: LEH	DATE:06/08/2020



B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3074 FAX: (321) 725-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0404905

LOT 1, HOME DEPOT COCOA

ALTA/NSPS LAND TITLE SURVEY

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

PROJECT NO.

11545

DRAWING NO.

11545_100_001

SHEET

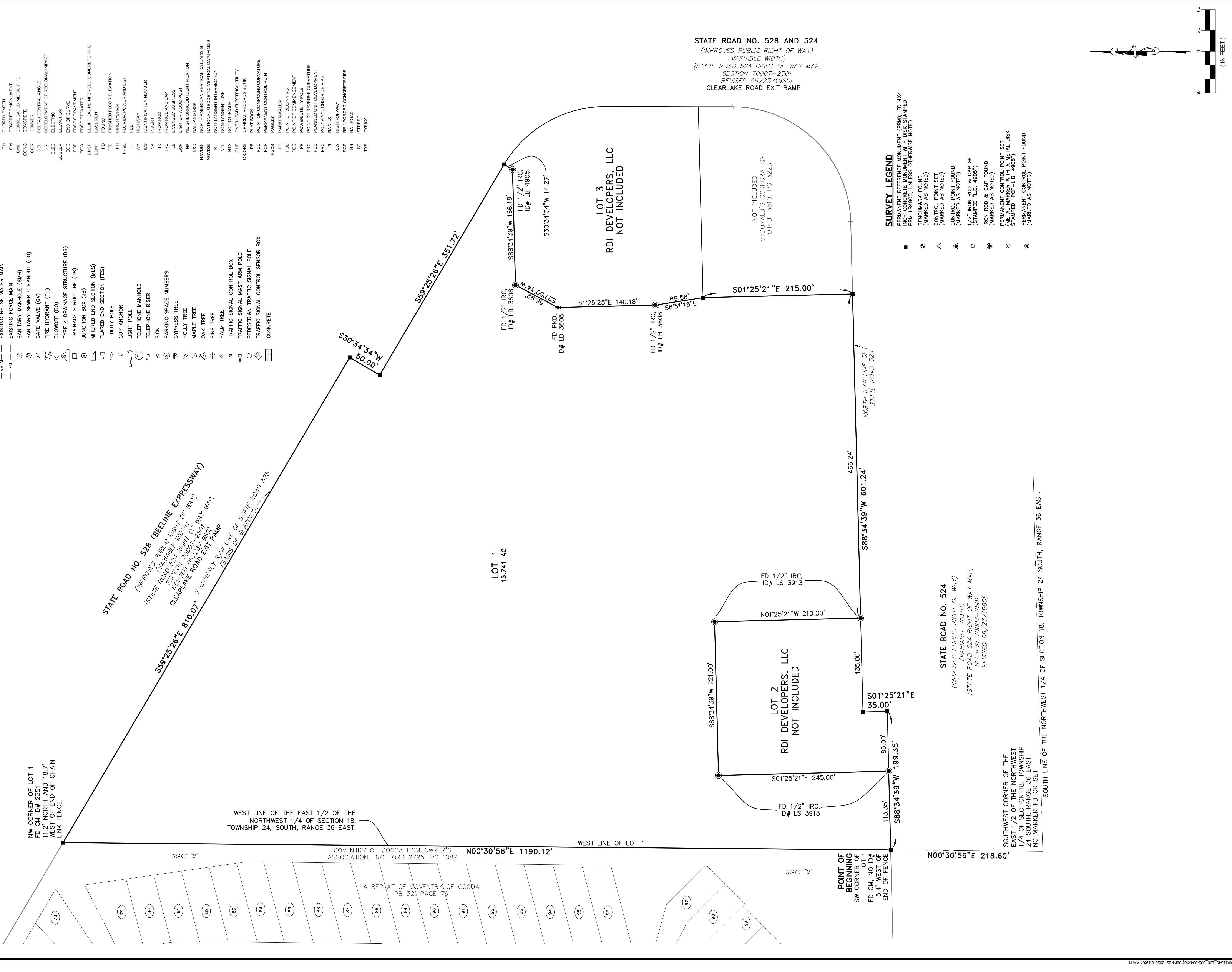
1 of 4

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

ABBREVIATIONS

TOPOGRAPHIC LEGEND	
---	EXISTING STORM DRAINAGE PIPE
---	EXISTING OVERHEAD WIRE
---	EXISTING WATER MAIN
---	EXISTING SANITARY SEWER
---	EXISTING REUSE WATER MAIN
---	EXISTING FORCE MAIN
---	SANITARY SEWER CLEANOUT (CO)
---	GATE VALVE (GV)
---	FIRE HYDRANT (FH)
---	BLOWOFF (BO)
---	TYPE 4 DRAINAGE STRUCTURE (DS)
---	DRAINAGE STRUCTURE (DS)
---	JUNCTION BOX (JB)
---	MITERED END SECTION (MES)
---	FLARED END SECTION (FES)
---	UTILITY POLE
---	GUY ANCHOR
---	LIGHT POLE
---	TELEPHONE MANHOLE
---	TELEPHONE RISER
---	SIGN
---	PARKING SPACE NUMBERS
---	CYPRESS TREE
---	HOLLY TREE
---	MAPLE TREE
---	OAK TREE
---	PINE TREE
---	PALM TREE
---	TRAFFIC SIGNAL CONTROL BOX
---	TRAFFIC SIGNAL MAST ARM POLE
---	TRAFFIC SIGNAL CONTROL SENSOR BOX
---	CONCRETE

AC	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BVD	BOULEVARD
BOC	BEGINNING OF CURVE
CL	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CL	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CON	CONCRETE
COB	CORNER OF BEGINNING
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ES	EXISTING
F	FINISHED FLOOR ELEVATION
FE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FL	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
N&D8	NORTH AMERICAN VERTICAL DATUM 1988
NOV09	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NW	NORTH WEST
NLS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC UTILITY
ORC08	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARTIAL
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
POI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
RW	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL



FIELD BOOK: COCOA BK.2 PAGE(S): 34		PROJECT NO. 11545	
DESIGN/DRAWN: LEH		DRAWING NO. 11545_100_002-004	
DATE: 04/07/2020		SHEET 2 of 4	
B.S.E. CONSULTANTS, INC. CONSULTING - ENGINEERING - LAND SURVEYING 312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 FORT MYERS, FLORIDA 33901 PHONE: (813) 723-1159 FAX: (813) 723-1159 CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 6805 BUSINESS AUTHORIZATION: 1800065		SCOTT M. GLAMBITZ PROFESSIONAL LAND SURVEYOR FLORIDA LICENSE NUMBER 4151	
LOT 1, HOME DEPOT COCOA			
ALTA/NSPS LAND TITLE SURVEY			

ITEM NUMBER	RECORDING INFORMATION	LIST TYPE	GRANTEE	STATUS
9	ORB 599, PAGE 315	GAS EASEMENT	FLORIDA GAS TRANSMISSION COMPANY	SHOWN & NOTED ON SURVEY
10	ORB 3299, PAGE 3156	BLANKET EASEMENT	VARIOUS	AFFECTS ENTIRE SITE, NOT PLOTTED
13	ORB 3372, PAGE 4486 AND ORB 5557, PAGE 4594	SEWER/FORCE MAIN LINE EASEMENT	CITY OF COCOA, FLA.	SHOWN & NOTED ON SURVEY
14	ORB 3372, PAGE 4491	BILL OF SALE	CITY OF COCOA, FLA.	AFFECTS ALL EXISTING ON SITE SEWER LINES AND WATER MAINS, EXISTING SEWER LINES AND WATER MAINS SHOWN AND NOTED ON HEREON
15	ORB 3372, PAGE 4495	BILL OF SALE	CITY OF COCOA, FLA.	AFFECTS ALL EXISTING ON SITE WATER LINES, WATER MAINS AND APPURTENANCES, EXISTING WATER LINES, WATER MAINS AND APPURTENANCES SHOWN AND NOTED ON HEREON
16	ORB 3387, PAGE 3308	TELEPHONE LINE EASEMENT	SOUTHERN BELL TELEPHONE AND TELEGRAPH COMPANY	SHOWN & NOTED ON SURVEY
18	ORB 3516, PAGE 4332 AND ORB 5859, PAGE 8901	BLANKET EASEMENT	McDONALD'S CORPORATION	AFFECTS ENTIRE SITE, NOT PLOTTABLE
19	ORB 5510, PAGE 1779	WATER/REUSE LINE EASEMENT	CITY OF COCOA, FLA.	SHOWN & NOTED ON SURVEY
20	ORB 5830, PAGE 9265	FP&L EASEMENT	FLORIDA POWER & LIGHT COMPANY	SHOWN & NOTED ON SURVEY, OUTSIDE BOUNDARIES OF SURVEYED PARCEL
21	PLAT BOOK 57, PAGE 87	INGRESS/EGRESS, WATER LINE, SEWER LINE, RE-USE WATER MAIN	CITY OF COCOA, FLA.	SHOWN AND NOTED ON SURVEY
23	ORB 5859, PAGE 8905 AND ORB 5868, PAGE 8944	BLANKET EASEMENT	RDI DEVELOPERS, LLC	AFFECTS ENTIRE SITE, NOT PLOTTED

SURVEY LEGEND

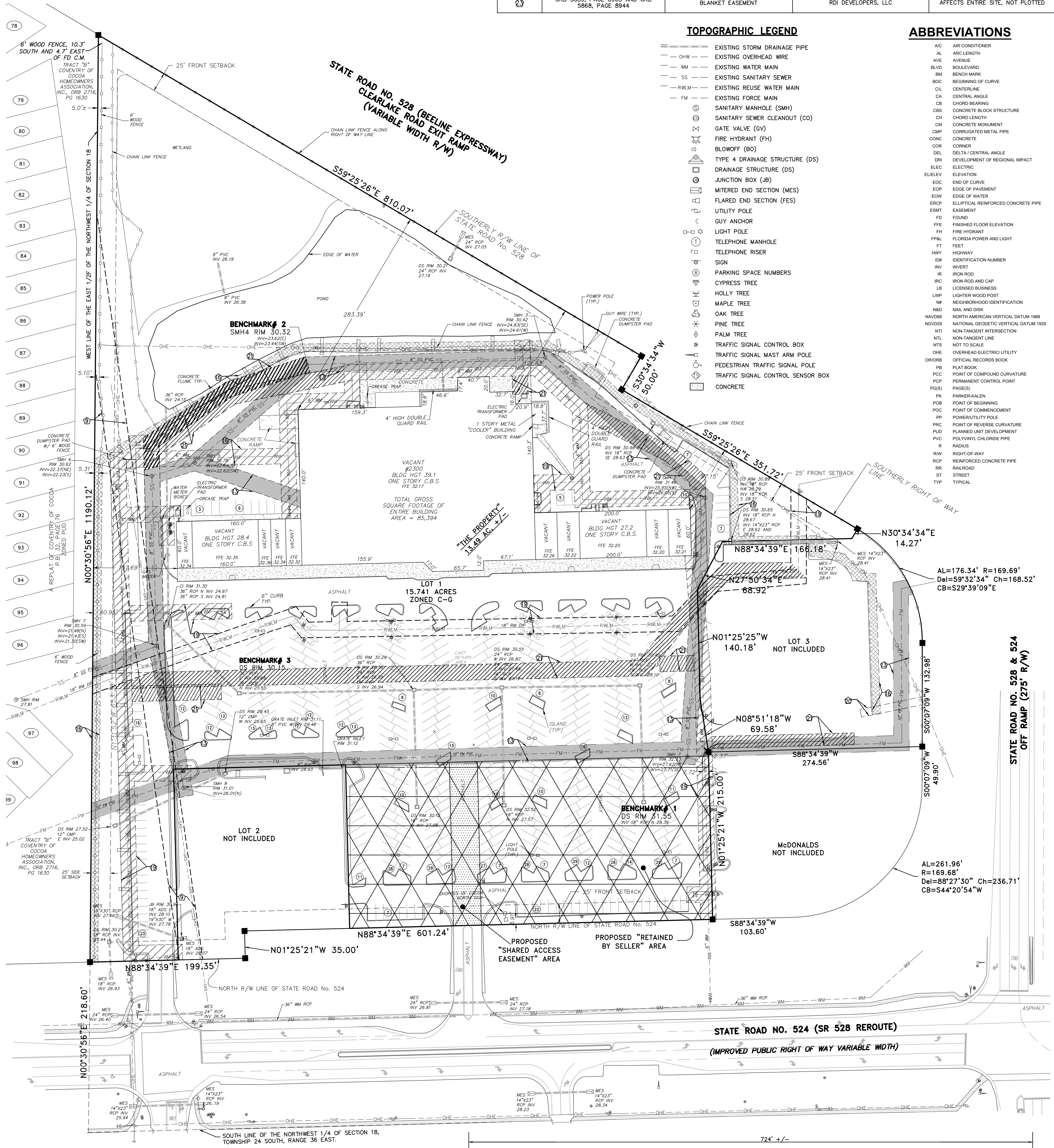
- PERMANENT REFERENCE MONUMENT (PRM); FD 4X4 INCH CONCRETE MONUMENT WITH DISK STAMPED PRM LB4905, UNLESS OTHERWISE NOTED
- BENCHMARK FOUND (MARKED AS NOTED)
- CONTROL POINT SET (MARKED AS NOTED)
- CONTROL POINT FOUND (MARKED AS NOTED)
- 1/2" IRON ROD & CAP SET (STAMPED "L.B. 4905")
- IRON ROD & CAP FOUND (MARKED AS NOTED)
- PERMANENT CONTROL POINT SET (METAL MARKER WITH A METAL DISK STAMPED "PCP-L.B. 4905")
- PERMANENT CONTROL POINT FOUND (MARKED AS NOTED)

TOPOGRAPHIC LEGEND

- EXISTING STORM DRAINAGE PIPE
- EXISTING OVERHEAD WIRE
- EXISTING WATER MAIN
- EXISTING SANITARY SEWER
- EXISTING REUSE WATER MAIN
- EXISTING FORCE MAIN
- SANITARY MANHOLE (SMH)
- SANITARY SEWER CLEANOUT (CO)
- GATE VALVE (GV)
- FIRE HYDRANT (FH)
- BLOWOFF (BO)
- TYPE 4 DRAINAGE STRUCTURE (DS)
- DRAINAGE STRUCTURE (DS)
- JUNCTION BOX (JB)
- MITERED END SECTION (MES)
- FLARED END SECTION (FES)
- UTILITY POLE
- GUY ANCHOR
- LIGHT POLE
- TELEPHONE MANHOLE
- TELEPHONE RISER
- SIGN
- PARKING SPACE NUMBERS
- CYPRESS TREE
- HOLLY TREE
- MAPLE TREE
- OAK TREE
- PINE TREE
- PALM TREE
- TRAFFIC SIGNAL CONTROL BOX
- TRAFFIC SIGNAL MAST ARM POLE
- PEDESTRIAN TRAFFIC SIGNAL POLE
- TRAFFIC SIGNAL CONTROL SENSOR BOX
- CONCRETE

ABBREVIATIONS

- AC AIR CONDITIONER
- AL ARC LENGTH
- AVE AVENUE
- BLVD BOULEVARD
- BM BENCHMARK
- 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
- ELEV ELEVATION
- EOC END OF CURVE
- EOP EDGE OF PAVEMENT
- EDW EDGE OF WATER
- ERCP ELLIPTICAL REINFORCED CONCRETE PIPE
- ESMT EASEMENT
- FD FOUND
- FFE FINISHED FLOOR ELEVATION
- FH FIRE HYDRANT
| FPAL | FLORIDA POWER AND LIGHT |
| FT | FEET |
| HWY | HIGHWAY |
| IDB | IDENTIFICATION NUMBER |
| INV | INVERT |
| IR | IRON ROD |
| IRC | IRON ROD AND CAP |
| LB | LICENSED BUSINESS |
| LWP | LIGHTER WOOD POST |
| NW | NEIGHBORHOOD IDENTIFICATION |
| NAD | NAIL AND DISK |
| NAV08 | NORTH AMERICAN VERTICAL DATUM 1988 |
| NAV029 | NATIONAL GEODETIC VERTICAL DATUM 1929 |
| NTI | NON-TANGENT INTERSECTION |
| NTL | NON-TANGENT LINE |
| NTS | NOT TO SCALE |
| OHE | OVERHEAD ELECTRIC/UTILITY |
| ORORB | 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 |
| RR | RIGHT-OF-WAY |
| RCP | REINFORCED CONCRETE PIPE |
| RR | RAILROAD |
| ST | STREET |
| TP | TYPICAL |



ABBREVIATIONS

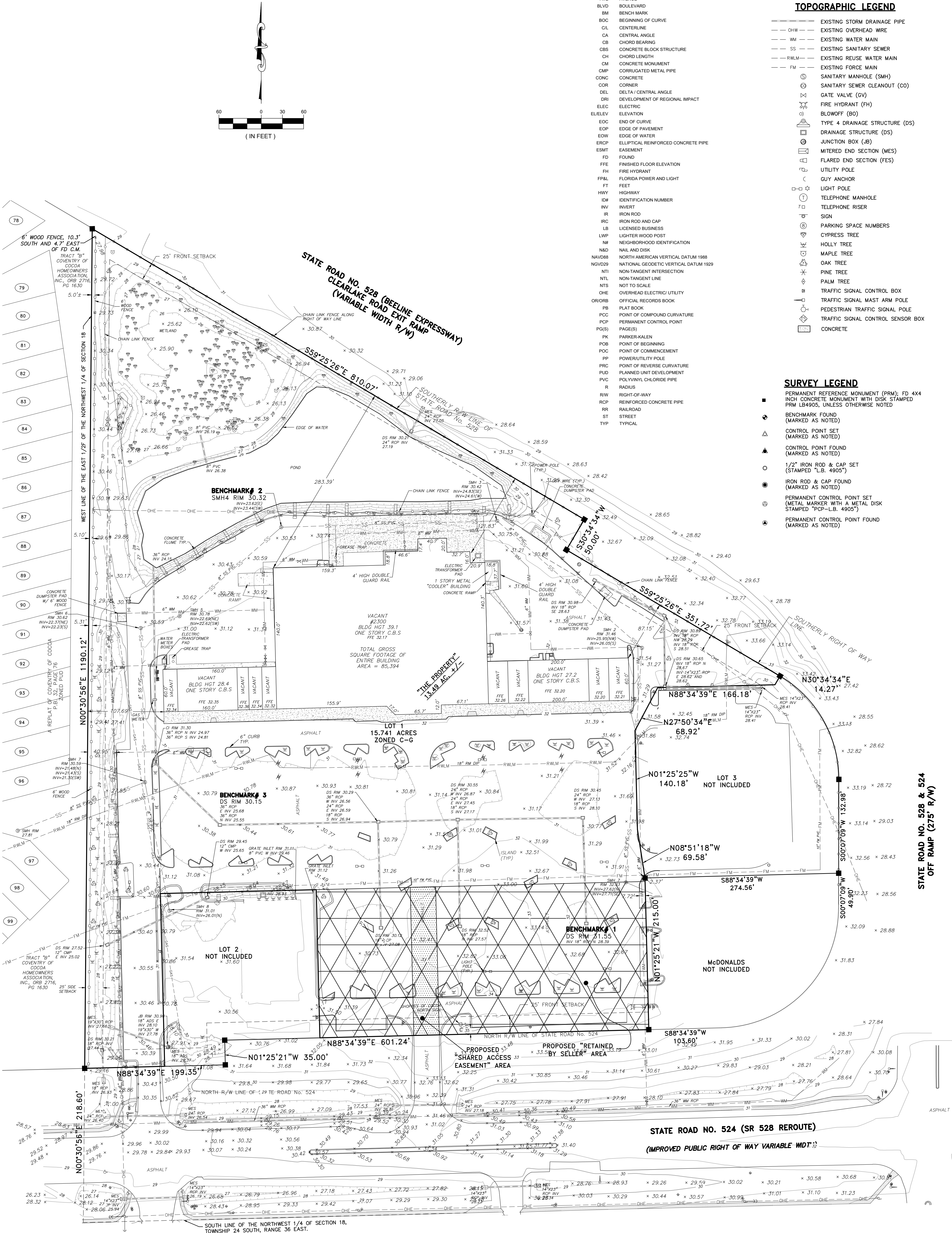
A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
CIL	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FRAL	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
IDB	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
NW	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAV08	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
OROR	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/O	RIGHT-OF-WAY
RCR	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

TOPOGRAPHIC LEGEND

---	EXISTING STORM DRAINAGE PIPE
---	EXISTING OVERHEAD WIRE
---	EXISTING WATER MAIN
---	EXISTING SANITARY SEWER
---	EXISTING REUSE WATER MAIN
---	EXISTING FORCE MAIN
⊙	SANITARY MANHOLE (SMH)
⊙	SANITARY SEWER CLEANOUT (CO)
⊙	GATE VALVE (GV)
⊙	FIRE HYDRANT (FH)
⊙	BLOWOFF (BO)
⊙	TYPE 4 DRAINAGE STRUCTURE (DS)
⊙	DRAINAGE STRUCTURE (DS)
⊙	JUNCTION BOX (JB)
⊙	MITERED END SECTION (MES)
⊙	FLARED END SECTION (FES)
⊙	UTILITY POLE
⊙	GUY ANCHOR
⊙	LIGHT POLE
⊙	TELEPHONE MANHOLE
⊙	TELEPHONE RISER
⊙	SIGN
⊙	PARKING SPACE NUMBERS
⊙	CYPRESS TREE
⊙	HOLLY TREE
⊙	MAPLE TREE
⊙	OAK TREE
⊙	PINE TREE
⊙	PALM TREE
⊙	TRAFFIC SIGNAL CONTROL BOX
⊙	TRAFFIC SIGNAL MAST ARM POLE
⊙	PEDESTRIAN TRAFFIC SIGNAL POLE
⊙	TRAFFIC SIGNAL CONTROL SENSOR BOX
⊙	CONCRETE

SURVEY LEGEND

■	PERMANENT REFERENCE MONUMENT (PRM); FD 4X4 INCH CONCRETE MONUMENT WITH DISK STAMPED PRM LB4905, UNLESS OTHERWISE NOTED
⊙	BENCHMARK FOUND (MARKED AS NOTED)
⊙	CONTROL POINT SET (MARKED AS NOTED)
⊙	CONTROL POINT FOUND (MARKED AS NOTED)
⊙	1/2" IRON ROD & CAP SET (STAMPED "L.B. 4905")
⊙	IRON ROD & CAP FOUND (MARKED AS NOTED)
⊙	PERMANENT CONTROL POINT SET (METAL MARKER WITH A METAL DISK STAMPED "PCP-L.B. 4905")
⊙	PERMANENT CONTROL POINT FOUND (MARKED AS NOTED)



TOPOGRAPHIC LEGEND

ABBREVIATIONS

SURVEY LEGEND

- PERMANENT REFERENCE MONUMENT (PRM); FD 4X4 INCH CONCRETE MONUMENT WITH DISK STAMPED PRM LB4905, UNLESS OTHERWISE NOTED
- BENCHMARK FOUND (MARKED AS NOTED)
- CONTROL POINT SET (MARKED AS NOTED)
- CONTROL POINT FOUND (MARKED AS NOTED)
- 1/2" IRON ROD & CAP SET (STAMPED "L.B. 4905")
- IRON ROD & CAP FOUND (MARKED AS NOTED)
- PERMANENT CONTROL POINT SET (METAL MARKER WITH A METAL DISK STAMPED "PCP-L.B. 4905")
- PERMANENT CONTROL POINT FOUND (MARKED AS NOTED)

- EXISTING STORM DRAINAGE PIPE
- EXISTING OVERHEAD WIRE
- EXISTING WATER MAIN
- EXISTING SANITARY SEWER
- EXISTING REUSE WATER MAIN
- EXISTING FORCE MAIN
- SANITARY MANHOLE (SMH)
- SANITARY SEWER CLEANOUT (CO)
- GATE VALVE (GV)
- FIRE HYDRANT (FH)
- BLOWOFF (BO)
- TYPE 4 DRAINAGE STRUCTURE (DS)
- DRAINAGE STRUCTURE (DS)
- JUNCTION BOX (JB)
- MITERED END SECTION (MES)
- FLARED END SECTION (FES)
- UTILITY POLE
- GUY ANCHOR
- LIGHT POLE
- TELEPHONE MANHOLE
- TELEPHONE RISER
- SIGN
- PARKING SPACE NUMBERS
- CYPRESS TREE
- HOLLY TREE
- MAPLE TREE
- OAK TREE
- PINE TREE
- PALM TREE
- TRAFFIC SIGNAL CONTROL BOX
- TRAFFIC SIGNAL MAST ARM POLE
- PEDESTRIAN TRAFFIC SIGNAL POLE
- TRAFFIC SIGNAL CONTROL SENSOR BOX
- CONCRETE

- A/C AIR CONDITIONER
- AL ARC LENGTH
- AVE AVENUE
- BLVD BOULEVARD
- BM BENCHMARK
- 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
- ELEV ELEVATION
- EOC END OF CURVE
- EOP EDGE OF PAVEMENT
- EOW EDGE OF WATER
- ERCP ELLIPTICAL REINFORCED CONCRETE PIPE
- ESMT EASEMENT
- FD FOUND
- FTE FINISHED FLOOR ELEVATION
- FH FIRE HYDRANT
- FP&L FLORIDA POWER AND LIGHT
- FT FEET
- HVY HIGHWAY
- IDW IDENTIFICATION NUMBER
- INV INVERT
- IR IRON ROD
- IRC IRON ROD AND CAP
- LB LICENSED BUSINESS
- LWP LIGHTER WOOD POST
- NTI NON-TANGENT INTERSECTION
- NL NON-TANGENT LINE
- NTS NOT TO SCALE
- OHE OVERHEAD ELECTRIC/UTILITY
- ORORB OFFICIAL RECORDS BOOK
- PB PLAT BOOK
- PCP POINT OF COMPOUND CURVATURE
- PPC 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
- RW RIGHT-OF-WAY
- RCP REINFORCED CONCRETE PIPE
- RR RAILROAD
- ST STREET
- TYP TYPICAL

SURVEY NOTES:

SURVEY OF LOT 1, HOME DEPOT COCOA, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 57, PAGE 87, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA LYING IN SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA.

SURVEY FOR LOCATIONS, TYPES AND SIZES OF ONSITE TREES.

BOUNDARY INFORMATION AND MONUMENTATION SHOWN WERE TAKEN FROM AN ALTA/NSPS AMERICAN LAND TITLE SURVEY OF THIS PROPERTY PREPARED BY THIS COMPANY, DRAWING

UNDERGROUND IMPROVEMENTS AND/OR UTILITIES SHOWN AND NOTED HEREON WERE TAKEN FROM A PREVIOUS SURVEY OF THIS AREA PERFORMED BY THIS COMPANY, DRAWING NO. 11545_100_001, PROJECT NO. 11545 DATED 06/08/2020 AND LAST REVISED 06/22/2020.

BEARING REFERENCE: ASSUMED BEARING OF S85°25'26"E ON THE SOUTHERLY RIGHT-OF-WAY LINE OF STATE ROAD NO. 528 (BEELINE EXPRESSWAY) CLEARLAKE ROAD EAST BOUND EXIT RAMP, ACCORDING TO THE PLAT OF HOME DEPOT COCOA, AS RECORDED IN PLAT BOOK 57, PAGE 87, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.

THE SURVEYOR RELIED SOLELY ON INFORMATION CONTAINED WITHIN THAT CERTAIN FIRST AMERICAN TITLE INSURANCE COMPANY ALTA COMMITMENT FOR TITLE INSURANCE FILE NO.: 2061-4486840, ISSUING OFFICE FILE NUMBER: 2320-TBD, COMMITMENT DATE: OCTOBER 1, 2019 AT 8:00 A.M FOR INFORMATION REGARDING EASEMENTS AFFECTING AND/OR ENCUMBERING THE LANDS SURVEYED HEREON

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 MINIMUM TECHNICAL STANDARDS FOR SURVEYS AS REQUIRED BY CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE.

ALL BUILDING SET BACK REQUIREMENTS ARE GRAPHICALLY DEPICTED HEREON.

THIS PROPERTY HAS DIRECT ACCESS TO A DEDICATED PUBLIC STREET VIA DRIVEWAY CONNECTIONS ON STATE ROAD 528 RE-ROUTE (STATE ROAD 524).

ELEVATIONS SHOWN ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM, 1988 (NAVD88)

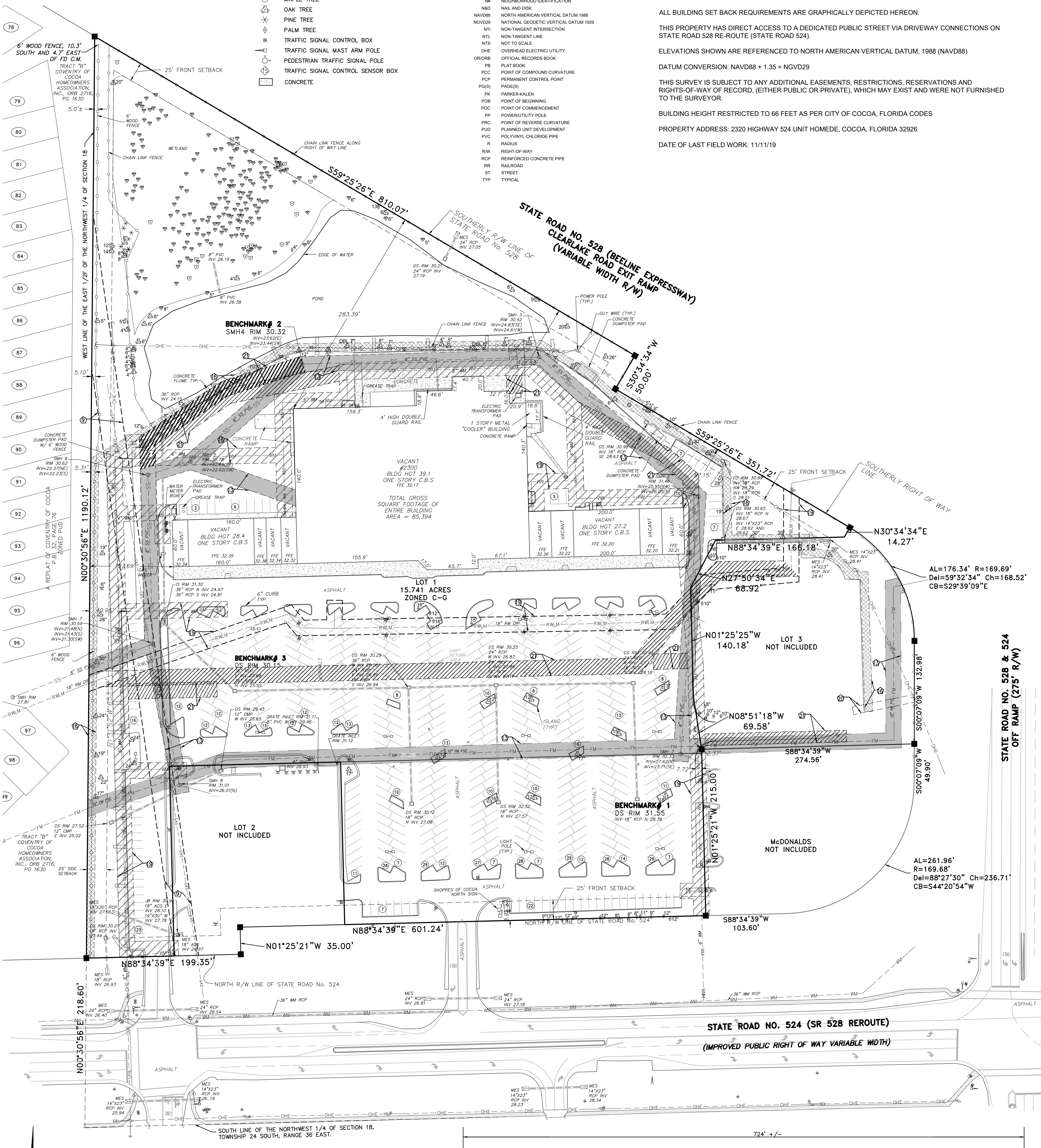
DATUM CONVERSION: NAVD88 + 1.35 = NGVD29

THIS SURVEY IS SUBJECT TO ANY ADDITIONAL EASEMENTS, RESTRICTIONS, RESERVATIONS AND RIGHTS-OF-WAY OF RECORD, (EITHER PUBLIC OR PRIVATE), WHICH MAY EXIST AND WERE NOT FURNISHED TO THE SURVEYOR.

BUILDING HEIGHT RESTRICTED TO 66 FEET AS PER CITY OF COCOA, FLORIDA CODES

PROPERTY ADDRESS: 2320 HIGHWAY 524 UNIT HOMEDE, COCOA, FLORIDA 32926

DATE OF LAST FIELD WORK: 11/11/19



FIELD BOOK: COCOA BK 2

PAGE(S): 48-49

DESIGN/DRAWN: LEH/IT DATE: 08/26/2020

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3074 FAX: (321) 725-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB004905

LOT 1, HOME DEPOT COCOA

TREE SURVEY

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 5611

PROJECT NO.

11545

DRAWING NO.

11545_100_009

SHEET

1 of 1

CIRRUS

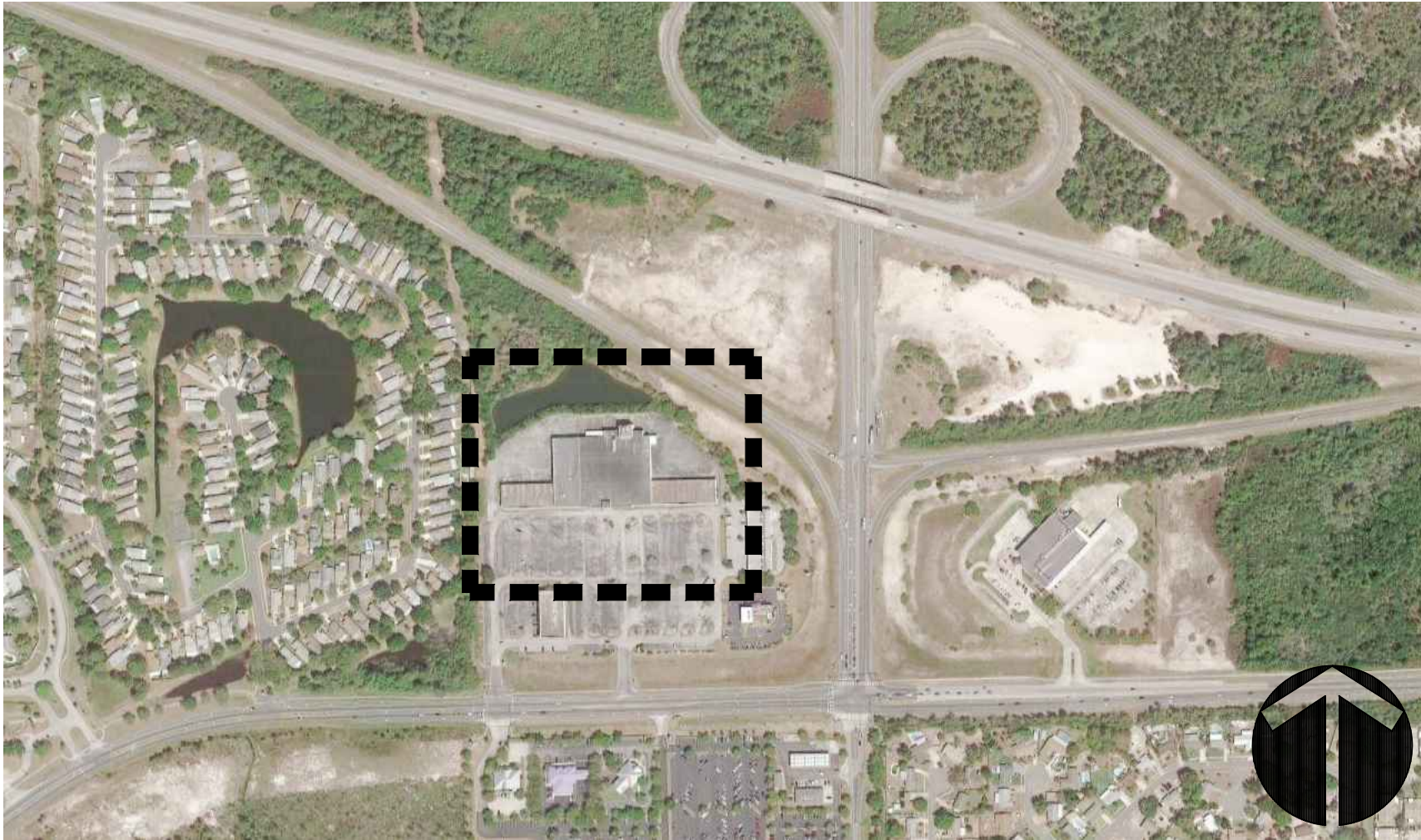
FRAMEWORK GROUP LLC

WILLIAMSON BLVD. | COCOA, FL 33606

CONSULTANTS

Client	FRAMEWORK GROUP LLC 1200 W. PLATT ST. STE. 201 TAMPA, FL. 33606
Civil Engineer	B.S.E. CONSULTANTS, INC. 312 S. HARBOR CITY BLVD. #4 MELBOURNE, FL 32901
Architect	CHARLAN BROCK & ASSOCIATES 1770 FENNEELL ST. MAITLAND, FL

PROJECT SITE VICINITY MAP



INDEX OF DRAWINGS

DRAWING	DRAWING TITLE	PERMIT SET
COVER	COVER	11/04/2020
LC1.00	LANDSCAPE CALCULATIONS AND SCHEDULES	11/04/2020
L1.00	LANDSCAPE SITE PLAN	11/04/2020
L1.01	LANDSCAPE SITE PLAN	11/04/2020
L1.02	LANDSCAPE SITE PLAN	11/04/2020
L1.03	LANDSCAPE SITE PLAN	11/04/2020
L2.00	LANDSCAPE DEVELOPMENT KEY	11/04/2020
L2.01	LANDSCAPE DEVELOPMENT PLAN	11/04/2020
L2.02	LANDSCAPE DEVELOPMENT PLAN	11/04/2020
L2.03	LANDSCAPE DEVELOPMENT PLAN	11/04/2020
L3.00	IRRIGATION DEVELOPMENT PLAN	NOT ISSUED
L3.01	IRRIGATION DEVELOPMENT PLAN	NOT ISSUED
L3.02	IRRIGATION DEVELOPMENT PLAN	NOT ISSUED
L3.03	IRRIGATION DEVELOPMENT PLAN	NOT ISSUED
L4.00	SITE LIGHTING PLAN	11/04/2020
L4.01	SITE LIGHTING PLAN	11/04/2020
L4.02	SITE LIGHTING PLAN	11/04/2020
L4.03	SITE LIGHTING PLAN	11/04/2020
LP1.00	POOL ENLARGEMENT SITE PLAN	11/04/2020
LP1.01	POOL ENLARGEMENT LANDSCAPE PLAN	11/04/2020
LP1.02	CLUBHOUSE IRRIGATION PLAN	NOT ISSUED
LP1.03	CLUBHOUSE GRADING PLAN	NOT ISSUED
LP2.00	EAST COURTYARD SITE PLAN	11/04/2020
LP2.01	EAST COURTYARD LANDSCAPE PLAN	NOT ISSUED
LP2.02	EAST COURTYARD GRADING PLAN	NOT ISSUED
LD-1	HARDSCAPE DETAILS	11/04/2020
LD-1.1	HARDSCAPE DETAILS	11/04/2020
LD-2	LANDSCAPE DETAILS	11/04/2020
LD-3	IRRIGATION DETAILS	NOT ISSUED
LD-4.1	IRRIGATION DETAILS	NOT ISSUED
LD-4.2	LANDSCAPE SPECIFICATIONS	11/04/2020
LD-5	IRRIGATION SPECIFICATIONS	11/04/2020



SITE FURNISHING SCHEDULE				
I.D.	QTY.	SYM.	TYPE	SPECIFICATION
SF-1	2		BENCH	TOURNESOL - YARRABILBA COLLECTION MODEL: YC-0200-72, SURFACE MOUNT, NO ARMS, WITH BACK, WOOD FINISH: BOULEVARD TREATED ASH, POWDER COAT: PUDDLE. FOR ORDER INFORMATION CONTACT BRIAN MITALO 847 867-9290
SF-2	1	N.A.	BUILT-IN BENCH	TOURNESOL - WALLY COLLECTION MODEL: LY-A30-72, WOOD AND STEEL WALL-HUNG FLAT BENCH, BOULEVARD TREATED ASH, POWDER COAT: PUDDLE. RADIUS OF CURVE: 5'. FOR ORDER INFORMATION CONTACT BRIAN MITALO 847 867-9290
SF-3	1	N.A.	CIRCULAR BUILT-IN BENCH	TOURNESOL - WALLY COLLECTION MODEL: LY-A30-72, WOOD AND STEEL WALL-HUNG FLAT BENCH, BOULEVARD TREATED ASH, POWDER COAT: PUDDLE. RADIUS OF CURVE: 18.5'. FOR ORDER INFORMATION CONTACT BRIAN MITALO 847 867-9290
SF-4	3	N.A.	TRELLIS BENCH	LANDSCAPE FORAS PARC VUE BENCH, WITH CUSTOM TRELLIS FEATURE
SF-5	1	N.A.	SHADE STRUCTURE	CUSTOM BUILT, SEE DETAIL 10, LD-1.1
SF-6	4	N.A.	TUUCI CABANA	TUUCI EQUINOX 10'X10', FRONT AND BACK W/ CURTAINS AND TIE BACKS,TRELLIS WALLS ON SIDES, METAL FINISH: ASH GREY, BED INCLUDED. COLOR: MINERAL BLUE, MOUNTING: 9'X9' 5.5. BOTTOM PLATE MOUNT. TO COORDINATE WITH STRUCTURAL. FOR MORE INFORMATION CONTACT BRAIN BERGIN 727-744-1701
SF-7	4		TUUCI UMBRELLA	TUUCI OCEAN MASTER MAX CLASSIC: OCTAGON, SOLID FINISH: POLISHED ALUMINUM, ALL COLORS TO BE COORDINATED WITH ID, G-PLATE SQUARE BASE, TO COORDINATE WITH STRUCTURAL FOR INSTALLATION ON SLOPED LAWN. FOR MORE INFORMATION CONTACT BRAIN BERGIN 727-744-1701
SF-8	3		GRILL	ARTISAN GRILLS - ARTISAN EAGLE SERIES 32" GRILL MODEL AAEP-32. CONTACT 1-800-345-2566 FOR ORDERING INFORMATION
SF-9	3	N.A.	GRILL CABINETS	DANVER - MODEL OGB3602 2 DOOR, STYLE: HAMPTON. QUOTE #: DT-121865-1
SF-10	2		FIRE BOWL	ELDERADO STONE: LYRA FIRE BOWL, BLACK SAND HONED, NATURAL GAS,ELEC. IGNITION W/AUTOMATIC SHUTOFF AND TIMER, 60" L X 24" X 15" H, WOOD TOP, (800) 925-1491
SF-11	2	N.A.	POOL SCUPPER	BOBE SMOOTH FLOW RADIUS SCUPPER, STAINLESS STEEL, EACH WITH CUSTOM BASE.
SF-12	1		WOOD ARBOR	SEE DETAIL 7, LD-1.1
SF-13	1	N.A.	DRINK RAIL	SEE DETAIL 8, LD-1.1
SF-14	1		SHADE STRUCTURE	CREATIVE SHADE SOLUTIONS. 12'x10' SHADE STRUCTURE, 4-POST, MIN. OF 9' CLEARANCE TO BOTTOM OF STRUCTURE. CONTACT (800) 836-4519 FOR ORDERING
SF-15	1		DOG WASTE BIN	SENTRY - DOG WASTE STATION, COLOR: GREEN. FOR ORDERING INFORMATION CONTACT (800) 789-2563
SF-16	1		DOG DRINKING FOUNTAIN	MOST DEPENDABLE FOUNTAINS - 350 SMSS, COLOR: GREEN. TO BE INSTALLED TO MANUFACTURER SPECS. FOR ORDERING INFORMATION, CONTACT (907) 867-0039
SF-17	5	N.A.	SPACE HISTORY PAVERS	CYCADIA MONUMENT CO., SEE DETAIL 4, LD-1, FOR ORDER INFORMATION CONTACT KEVIN CANTRELL 727 786-1551

MASTER PAVING SCHEDULE		
I.D.	TYPE	SPECIFICATION
P-1	PAVER	WAUSAU TILE - V SERIES - EXTERIOR TERRAZZO - GEO 8"x 2" PAVER, COLOR: ET-10. FOR ORDER INFORMATION CONTACT 800 388 8728
P-2	PLANK TILE PAVER	WAUSAU TILE -TIMBER 6" x 16" x 2" PAVER, COLOR: TB-30, FOR ORDER INFORMATION CONTACT 800-388-8728
P-3	POOL BORDER PAVER	ARTISTIC PAVERS - GRANITELOCK 4'X8' PAVER, MAIN FIELD COLOR: STERLING GREY, RUNNING BOND PARALLEL TO POOL EDGE, FOR ORDER INFORMATION CONTACT TODD ROCKFIELD 813 389-8011
P-4	POOL COPING	ARTISTIC PAVERS - GRANITELOCK BULLNOSE COPING 12'X24" PAVER, MAIN FIELD COLOR: ARCTIC WHITE, MITRE CORNERS. FOR ORDER INFORMATION CONTACT TODD ROCKFIELD 813 389-8011
P-5	POOL WATERLINE TILE	TESORO POOL TILE: CASCADE 6"x6", ALTERNATE PRODUCTS SHALL BE APPROVED BY L.A. PRIOR TO CONSTRUCTION, FOR ORDER INFORMATION CONTACT HANK HILTON 7272543572
P-6	POOL SHELL	KRYSTALKRETE: BLUE PEPPER, ALTERNATE PRODUCTS SHALL BE APPROVED BY L.A. PRIOR TO CONSTRUCTION
P-7	POOL STEP TILE/GUTTER TILE	LUV TILE: STEP TILE, A4200-2487 BLUEBERRY; GUTTER TILE 587 COBALT, ALTERNATE PRODUCTS SHALL BE APPROVED BY L.A. PRIOR TO CONSTRUCTION
P-8	COLORED CONCRETE	LM SCOFIELD COLOR ADMIXTURE CONCRETE COLOR BLUE SMOKE, SALT FINISH, FOR ORDER INFORMATION CONTACT ROB TARTAGLIA tartagliarob@aol.com
P-9	DOUBLE SCUPPER TILED WALL	TESORO FLOWER GLASS COLOR BODY GLASS MOSAICS: IRIS 2'X3' CLEAR FACE TAPE MOUNTED, ALTERNATE PRODUCTS SHALL BE APPROVED BY L.A. PRIOR TO CONSTRUCTION, FOR ORDER INFORMATION CONTACT HANK HILTON SURFACES9 727-254-3572
P-10	ARTIFICIAL TURF	SOUTHWEST GREENS OF FLORIDA - GB13, CONTACT WALTER SMITH, 352-494-1702 FOR ORDER INFORMATION, ALTERNATIVE - FOREVER LAWN, CONTACT CHRIS POWELL, 813-436-9222 FOR ORDER INFORMATION
P-11	COURTYARD PAVER	WAUSAU TILE - H SERIES - ESTATE - RECT. 4" x 8" x 2" PAVER, COLOR: 50/50 MIX OF HRT-32 AND HRT-15 FOR ORDER INFORMATION CONTACT 800 388 8728
P-12	BREEZE BLOCK PRIVACY WALL	TESSELLE ORB LULY 7.5" CEMENT BREEZE BLOCK, TO COORDINATE WITH ARCHITECT
P-13	VEHICULAR PAVERS	WAUSAU TILE - H SERIES - FRONTIER - 4" x 8" x 4" PAVER, 50/50 BLEND, COLORS: HFT-35, HFT-60 WITH SOLDIER COURSE OF HFT-65. FOR ORDER INFORMATION CONTACT 800 388 8728

NOTES:
• ALL CONCRETE IS TO HAVE A MIN. OF 3000 P.S.I.
• CONTRACTOR TO PROVIDE 5'x5' MOCK-UP OF ALL PAVING TYPES PRIOR TO CONSTRUCTION FOR OWNER/ L.A. APPROVAL
• ALL CONCRETE PAVERS ARE TO BE SEALED WITH TECHNISAL NATURAL LOOK SEALER.

FENCING MATERIAL SCHEDULE			
I.D.	QTY.	TYPE	SPECIFICATION
F-1	CONTRACTOR VERIFY	POOL FENCE	4' HT.COMMERCIAL GRADE ALUMINUM PICKET FENCE, COLOR: BLACK
F-2	CONTRACTOR VERIFY	POOL GATE	4' HT.COMMERCIAL GRADE ALUMINUM PICKET GATE, COLOR: BLACK, ACCESS CONTROLS T.B.D. BY OWNER
F-3	CONTRACTOR VERIFY	PEDESTRIAN GATE	6' HT. SOLID GATE, COLOR: BLACK, ACCESS CONTROLS T.B.D. BY OWNER
F-4	CONTRACTOR VERIFY	POOL EQUIPMENT FENCE	6' HT. CHAIN LINK FENCE, COLOR: BLACK, ACCESS CONTROLS T.B.D. BY OWNER
F-5	CONTRACTOR VERIFY	DOG PARK FENCE	4' HT.COMMERCIAL GRADE ALUMINUM PICKET FENCE, COLOR: BLACK, ACCESS CONTROLS T.B.D. BY OWNER
F-6	CONTRACTOR VERIFY	DOG PARK GATE	4' HT.COMMERCIAL GRADE ALUMINUM PICKET GATE, COLOR: BLACK, ACCESS CONTROLS T.B.D. BY OWNER
F-7	CONTRACTOR VERIFY	MAINTENANCE GATE	4' HT.COMMERCIAL GRADE ALUMINUM PICKET DOUBLE GATE, COLOR: BLACK, ACCESS CONTROLS T.B.D. BY OWNER
NOTES: • CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ALL FENCING TYPES AND GATES • CONTRACTOR TO COORDINATE WITH OWNER FOR ALL ACCESS REQUIREMENTS AT GATES AND PEDESTRIAN GATES			

PLANT MATERIAL SCHEDULE : POOL AREA									
PLANT MATERIAL NOTES: 1. THE CONTRACTOR SHALL BID AND BE RESPONSIBLE FOR THE PLANT SIZE AND NOT SOLELY BY THE CONTAINER. CONTAINER IS PROVIDED AS A MIN. SIZE 2. THE GENERAL CONTRACTOR/LANDSCAPE CONTRACTOR SHALL PERFORM A MIN. OF 3 SOIL TEST FROM VARIOUS LOCATION AROUND SITE AFTER FILL HAS BEEN COMPLETED. TEST SHALL BE SUBMITTED TO OWNER/LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO ANY PLANTS BEING INSTALLED. SITES LARGER THEN 10 ACRES SHALL HAVE A MIN. OF 5 SOILS SAMPLES TESTED. 3. IN A CONFLICT BETWEEN THE PLANS AND THE SPECIFICATIONS/PLANT MATERIAL SCHEDULE, THE PLANS SHALL GOVERN.									
QTY	CODE	BOTANICAL NAME	COMMON NAME	SPECIFICATION	NATIVE	DROUGHT TOLERANCE	NOTES		
TREES/PALMS									
5	BNM	BUTIAGRUS NABONNANDII X	MULE PALM	18' O.A.	YES	YES			
4	HYL	HYOPHORBE LAGENICAULIS	BOTTLE PALM	10' O.A.	NO	YES			
2	IAE	ILEX ATTENUATA 'EAGLESTON'	EAGLESTON HOLLY	10' HT. X 4-5' SPD., 2" CAL./1" D.B.H.	YES	YES			
3	LC	LIVISTONA CHINENSIS	CHINESE FAN PALM	8' C.T. 20-22' O.A.	NO	YES			
3	COS	CONOCARPUS ERECTUS SERICEUS	SILVER BUTTONWOOD STANDARD	15 GAL., 5-6' HT. x 36" SPRD., 3" CAL	YES	YES			
SHRUBS/GROUNDCOVERS									
156	ADM	ASPARAGUS DENSIFLORUS 'MEYERSII'	FOXTAIL FERN	3 GAL. 12-14" HT. x 10-12" SPD.	NO	NO			
40	EGB	EVOLVULUS GLOMERATUS	BLUE DAZE 'BLUE MY MIND'	1 GAL. 8" HT. FULL	NO	YES			
77	IGB	ILEX GLABRA	GEM BOX INKBERRY HOLLY	10' HT.X4' SPD.,2" CAL	YES	YES			
269	JM	JUNIPERUS CONFERTA COMPACTA	DWARF SHORE JUNIPER	1 GAL., 8" HT. X 12" SPD.	YES	YES			
40	JC	JASMINUM MULTIFLORUM	DOWNY JASMINE	3 GAL. 16" HT. X 12-14" SPD.	NO	YES			
23	LOS	LONICERA SEMPERVIRENS	CORAL HONEYSUCKLE	3 GAL., TRELLISED	NO	YES			
9	NC	NEOMARICA CAERULEA 'REGINA'	GIANT APOSTLE'S IRIS	3 GAL., 26" HT. x 10" SPD.	NO	YES			
65	POD	PODOCARPUS MACROPHYLLA	PODOCARPUS	7 GAL., 28" HT. x 16" SPD., DENSE	NO	YES			
45	RI	RAPHIOLEPIS INDICA 'WHITE'	DWARF INDIAN HAWTHORN	3 GAL., 16" HT. x 18" SPD., DENSE	YES	YES			

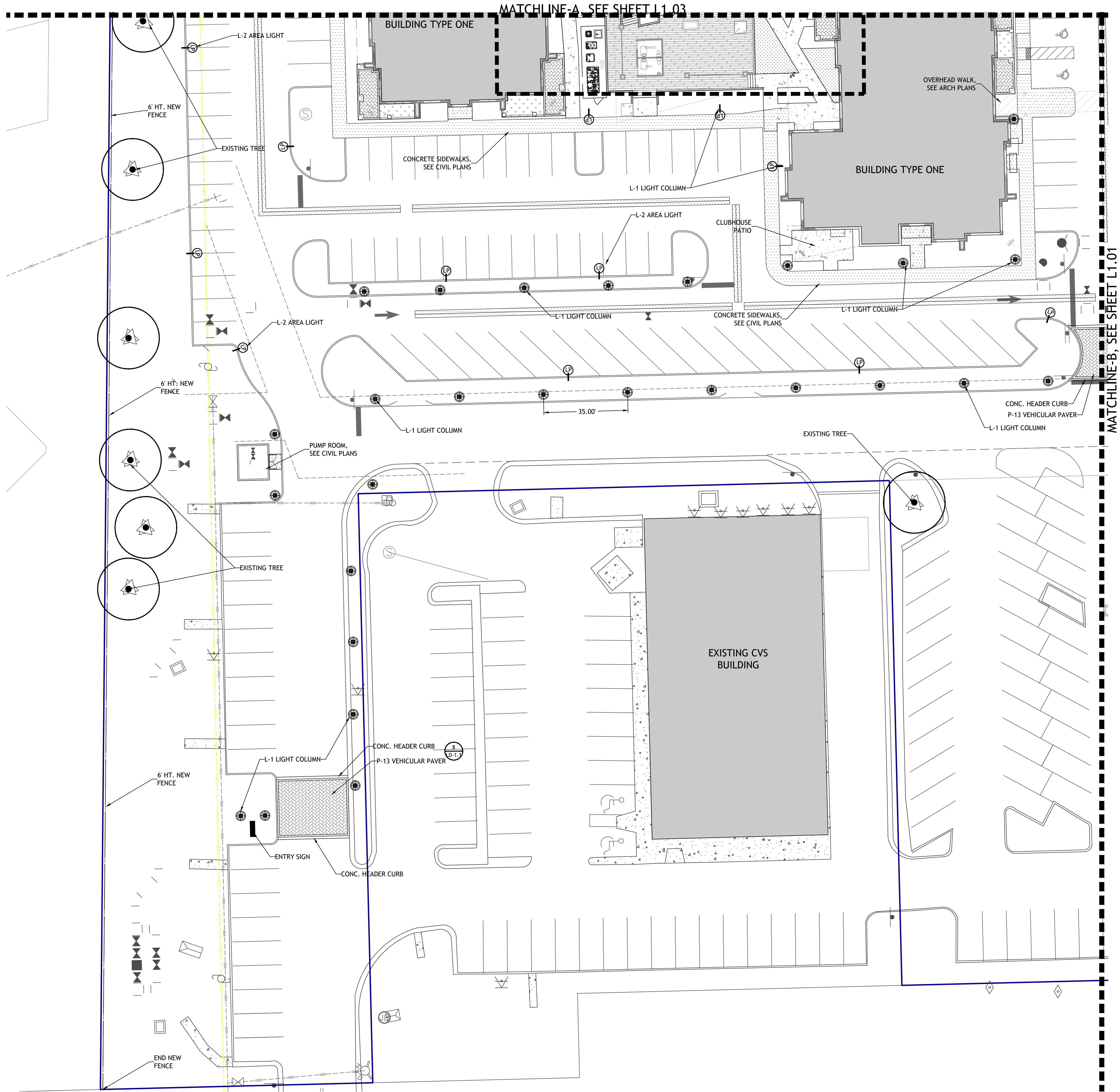
PLANT MATERIAL SCHEDULE : EAST COURTYARD									
PLANT MATERIAL NOTES: 1. THE CONTRACTOR SHALL BID AND BE RESPONSIBLE FOR THE PLANT SIZE AND NOT SOLELY BY THE CONTAINER. CONTAINER IS PROVIDED AS A MIN. SIZE 2. THE GENERAL CONTRACTOR/LANDSCAPE CONTRACTOR SHALL PERFORM A MIN. OF 3 SOIL TEST FROM VARIOUS LOCATION AROUND SITE AFTER FILL HAS BEEN COMPLETED. TEST SHALL BE SUBMITTED TO OWNER/LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO ANY PLANTS BEING INSTALLED. SITES LARGER THEN 10 ACRES SHALL HAVE A MIN. OF 5 SOILS SAMPLES TESTED. 3. IN A CONFLICT BETWEEN THE PLANS AND THE SPECIFICATIONS/PLANT MATERIAL SCHEDULE, THE PLANS SHALL GOVERN.									
QTY	CODE	BOTANICAL NAME	COMMON NAME	SPECIFICATION	NATIVE	DROUGHT TOLERANCE	NOTES		
TREES/PALMS									
7	ARS	ACER RUBRUM 'SUMMER RED'	RED MAPLE	12' HT. X 4' SPD., 3" CAL.	YES	YES			
6	BNM	BUTIAGRUS NABONNANDII X	MULE PALM	18' O.A.	YES	YES			
3	IAE	ILEX ATTENUATA 'EAGLESTON'	EAGLESTON HOLLY	14' O.A.. X 4-5' SPD.,4" C.T., 2" CAL.	YES	YES			
4	LC	LIVISTONA CHINENSIS	CHINESE FAN PALM	8' C.T. 20-22' O.A.	NO	YES			
1	MV	MAGNOLIA VIRGINIANA	SWEET BAY MAGNOLIA	10' HT. X 4' SPD., 2" CAL.	YES	YES			
1	SB	SALIX BABYLONICA	weeping WILLOW	12'-14" HT. x 4-5' SPD., 3.5" CAL.	NO	YES			
17	SP	SABAL PALMETTO	CABBAGE PALM	15' C.T.	YES	YES			
10	TD	TAXODIUM DISTICHUM	BALD CYPRESS	10' HT. X 4' SPD.	YES	YES			
1	UPB	ULMUS PARVIFOLIA 'BOSQUE'	BOSQUE ELM	16'-18" HT. X 5' SPD., 3" CAL.	NO	YES			
SHRUBS/GROUNDCOVERS									
124	CEB	CARISSA MACROCARPA 'EMERALD BLANKET'	EMERALD BLANKET CARISSA	3 GAL. 14" HT. x16" SPD.	NO	YES			
4	DRS	DURANATUS ERECTUS	DURANATA STANDARD	16" HT., x 18" SPD.	YES	YES			
12	EGB	EVOLVULUS GLOMERATUS	BLUE DAZE 'BLUE MY MIND'	1 GAL. 8" HT. FULL	NO	YES			
27	HPD	HAMELIA NODOSA	DWARF FIREBUSH	3 GAL., 16"-18" HT. X 14" SPD.	YES	YES			
12	JM	JASMINUM MULTIFLORUM	DOWNY JASMINE	3 GAL. 16" HT. X 12-14" SPD.	NO	YES			
62	SPB	SPARTINA BAKERI	SAND CORDGRASS	3 GAL., 18" HT. x 12" SPD.	YES	YES			

BUILDING LANDSCAPE	
ALLOW \$15,000 PER BUILDING FOR FOUNDATION LANDSCAPE	

MASTER LIGHTING SCHEDULE				
I.D.	QTY.	SYM.	TYPE	SPECIFICATION
LP-1	N.A.		SITE LIGHT	LUMENPULSE PUR100-120_277-CSL-M80-40K-CRI 80-3
LP-2	N.A.		LIGHT POLE	HESS AMERICA SE4000-LED-NW
LP-3	16		TREE UP LIGHTS	TARGETTI - DART SMALL 14W MWFL 30K, ITEM #: DASRPWFL23024, W/1E3013, EARTH STAKE: 1E3016
LP-4	64 L.F.	N.A.	STRAND LIGHTS	LUMINIS SYRIOS-LED SY310-L1L10-R30-120V-DGT-FS-K3-CAT3, 3 TREE STRAPS NEEDED FOR PALMS

NOTES:
• ALL PROPOSED LIGHTING LOCATIONS ARE SCHEMATIC. LANDSCAPE ARCH. TO APPROVE ALL LIGHT LOCATIONS PRIOR TO INSTALLATION. NO LIGHTS SHALL BE INSTALLED WITHOUT APPROVAL. ANY LIGHTS INSTALLED WITHOUT APPROVAL WILL BE REQUIRED TO BE MOVED AT THE CONTRACTORS COST IF CONFLICTS ARE PRESENT IN THE INSTALLED LOCATION.
• PROVIDE MINIMUM PHOTOCELL ON CONTROLS AND TIMER OFF WITH A MANUAL OVERRIDE SWITCH. ALL TRANSFORMERS TO BE MAGNETIC.
• CONTRACTOR TO VERIFY ELECTRICAL SOURCE LOCATION
• CONTRACTOR TO COMPLY WITH ALL STATE AND LOCAL ELECTRICAL BUILDING CODES

PLANT MATERIAL SCHEDULE									
PLANT MATERIAL NOTES: 1. THE CONTRACTOR SHALL BID AND BE RESPONSIBLE FOR THE PLANT SIZE AND NOT SOLELY BY THE CONTAINER. CONTAINER IS PROVIDED AS A MIN. SIZE 2. THE GENERAL CONTRACTOR/LANDSCAPE CONTRACTOR SHALL PERFORM A MIN. OF 3 SOIL TEST FROM VARIOUS LOCATION AROUND SITE AFTER FILL HAS BEEN COMPLETED. TEST SHALL BE SUBMITTED TO OWNER/LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO ANY PLANTS BEING INSTALLED. SITES LARGER THEN 10 ACRES SHALL HAVE A MIN. OF 5 SOILS SAMPLES TESTED. 3. IN A CONFLICT BETWEEN THE PLANS AND THE SPECIFICATIONS/PLANT MATERIAL SCHEDULE, THE PLANS SHALL GOVERN.									
QTY	CODE	BOTANICAL NAME	COMMON NAME	SPECIFICATION	NATIVE	DROUGHT TOLERANCE	NOTES		
TREES/PALMS									
13	ARS	ACER RUBRUM 'SUMMER RED'	RED MAPLE	12' HT. X 4' SPD., 3.5" CAL./2.5" D.B.H.	YES	YES			
2	BNS	BISMARKIA NOBILIS	BISMARK PALM	24' O.A. HEAVY TRUNKED, 10'-12' C.T.	NO	YES			
3	IAE	ILEX ATTENUATA 'EAGLESTON'	EAGLESTON HOLLY	10' HT. X 4-5' SPD., 3.5" CAL./2.5" D.B.HYES	YES	YES	FULL TO BASE		
8	INS	ILEX 'NELLIE R. STEVENS'	NELLIE STEVENS HOLLY	10' HT., 4' SPD., 3.5" CAL./2.5" D.B.H.	YES	YES	FULL TO BASE		
14	JS	JUNIPERUS VIR. SILICICOLA 'BRODIE'	SOUTHERN RED CEDAR	10' HT. X 3-4' SPD., 3.5" CAL./2.5" D.B.HYES	YES	YES	FULL TO BASE		
2	LIM	LAGERSTROEMIA INDICA 'MUSKOGEE'	GRAPE MYRTLE 'LAVENDER'	12-14' HT. x 5-6' SPD. /2.5" D.B.H.	NO	YES	MULTI-TRUNK, MIN. 3-5 TRUNKS		
29	LIN	LAGERSTROEMIA INDICA 'NATCHEZ'	GRAPE MYRTLE 'WHITE'	12-14' HT. x 5-6' SPD. /2.5" D.B.H.	NO	YES	MULTI-TRUNK, MIN. 3-5 TRUNKS		
5	LJT	LIGUSTRUM JAPONICUM TREE FORM	TREE FORM LIGUSTRUM	8' HT. x 8' SPD., MULTI-TRUNK	NO	YES	MIN. 3-5 TRUNKS		
5	MGB	MAGNOLIA GRANDIFLORA 'BRACKENS'	BRACKENS BROWN BEAUTY MAGNOLIA	10' O.A. X 4' SPD., 3.5" CAL./2.5" D.B.HYES	YES	YES			
22	SP	SABAL PALMETTO	CABBAGE PALM	SEE PLAN FOR CLEAR TRUNK HEIGHTS	YES	YES			
6	TD	TAXODIUM DISTICHUM	BALD CYPRESS	10' HT. X 4' SPD. 3.5" CAL./2.5" D.B.H.	YES	YES			
15	UPA	ULMUS PARVIFOLIA 'ALLEE 7552'	ALLEE ELM	12' HT. X 5' SPD., 4" CAL./3" D.B.H.	NO	YES			
SHRUBS/GROUNDCOVERS									
315	A	ANNUALS	ANNUALS	6" POT, FULL	NO	NO			
155	ADM	ASPARAGUS DENSIFLORUS 'MEYERSII'	FOXTAIL FERN	3 GAL. 12-14" HT. x 10-12" SPD.	NO	NO			
40	BOU	BOUGAINVILLEA 'HELEN JOHNSON'	DWARF BOUGAINVILLEA	3 GAL., 12" HT. X 12" SPD.	NO	YES			
190	DTV	DIANELLA TASMANICA	BLUEBERRY FLAX LILY	3 GAL., 16" HT. X 8" SPD., FULL	NO	YES			
70	FS	FEUJOA SELLOWIANA	PINEAPPLE GUAVA	3 GAL., 24" HT. X 12" SPD., DENSE	NO	YES			
30	HPD	HAMELIA NODOSA	DWARF FIREBUSH	3 GAL., 16"-18" HT. X 14" SPD.	YES	YES			
110	ICC	ILEX CORNUTA 'CARISSA'	CARISSA HOLLY	3 GAL., 18" HT. X 18" SPD.	NO	YES			
45	IVS	ILEX VOMITORIA 'STOKES DWARF'	DWARF YAUPOH HOLLY	3 GAL., 16" HT. X 12" SPD.	YES	YES			
70	JM	JASMINUM MULTIFLORUM	DOWNY JASMINE	3 GAL. 16" HT. X 12-14" SPD.	NO	YES			
240	LSS	LIGUSTRUM SINENSE 'SUNSHINE'	'SUNSHINE' LIGUSTRUM	3 GAL., 30" HT. X 18" SPD.	NO	YES			
257	MUH	MUHLENBERGIA CAPILLARIS	MUHLY GRASS	3 GAL., 18-24" HT. X 12"-14" SPD.	YES	YES			
120	PLC	PLUMBAGO 'IMPERIAL BLUE'	IMPERIAL BLUE PLUMBAGO	3 GAL., 22" HT. X 24" SPD.	NO	YES			
289	POM	PODOCARPUS MACROPHYLLA	PODOCARPUS	7 GAL., 28" HT. x 16" SPD., DENSE	NO	YES			
105	PQ	PASPALUM QUADRIFARIUM	EVERGREEN PASPALUM	3 GAL., 18-24" HT. X 12"-14" SPD.	YES	YES			



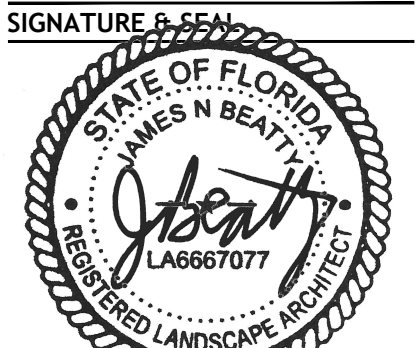
146 Second St. N. Ste. 302
St. Petersburg, FL 33701
T: 727.821.6699

CONSULTANTS
CIVIL ENGINEER
B.S.E. CONSULTANTS INC.
312 S. HARBOR CITY BLVD. #4
MELBOURNE FL
321.725.3674

ARCHITECTURE
Charlan Brock & Associates
1770 Fennell St.
Maitland FL
407.660.8900

OWNER
FRAMEWORK GROUP LLC
1200 W. PLATT ST. STE 201
TAMPA FL
813.443.0790

CIRRUS
WILLIAMSON BLVD.
COCOA FL



FL Registered Landscape Architect

PRICING SET

ISSUE DATE		
1	PERMIT SET	08-31-20
2	PRICING SET	09-17-20

REVISIONS

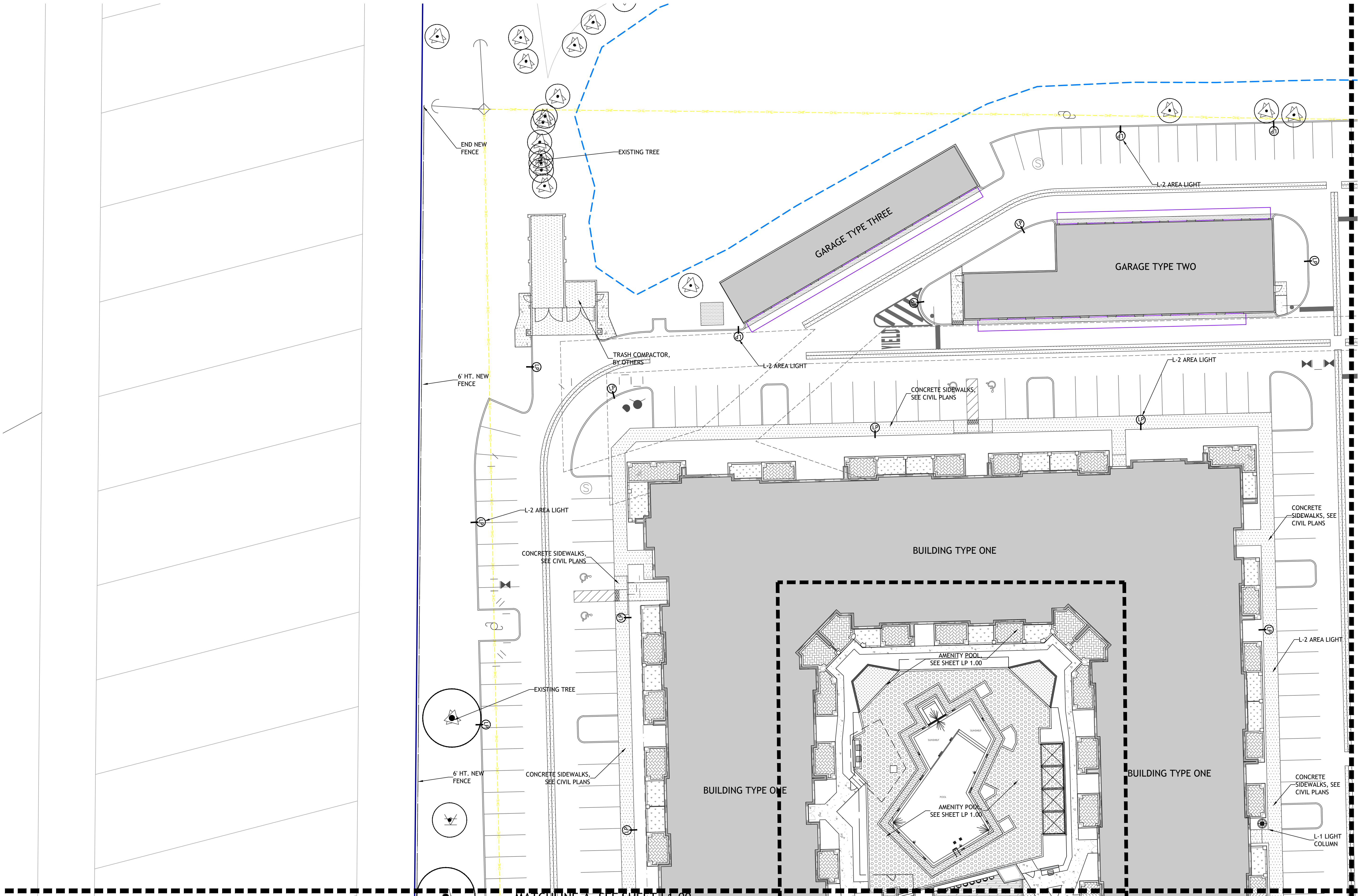
NO.	COMMENTS	DATE

SHEET INFORMATION
JOB NUMBER 20045
DRAWN BY JB/JW
CHECKED BY JB/HB

SCALE: 1"=20'-0"
0 10' 20' 40'

**LANDSCAPE
SITE PLAN**

L1.00



MATCHLINE-A, SEE SHEET L1.00

MATCHLINE-B, SEE SHEET L1.02



146 Second St. N. Ste. 302
St. Petersburg, FL 33701
T/ 727.821.6699

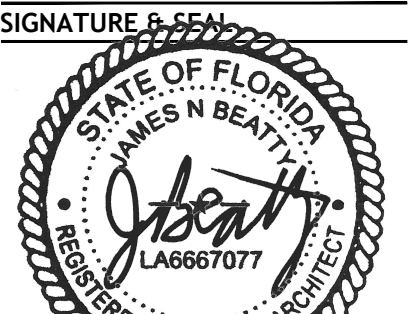
CONSULTANTS
CIVIL ENGINEER
B.S.E. CONSULTANTS INC.
312 S. HARBOR CITY BLVD. #4
MELBOURNE 1 FL
321.725.3674

ARCHITECTURE
Charlan Brock & Associates
1770 Fennell St.
Maitland 1 FL
407.660.8900

OWNER
FRAMEWORK GROUP LLC
1200 W. PLATT ST. STE 201
TAMPA 1 FL
813.443.0790

CIRRUS

WILLIAMSON BLVD.
COCOA | FL



FL Registered
PRICING SET

ISSUE DATE		
1	PERMIT SET	08-31-20
2	PRICING SET	09-17-20

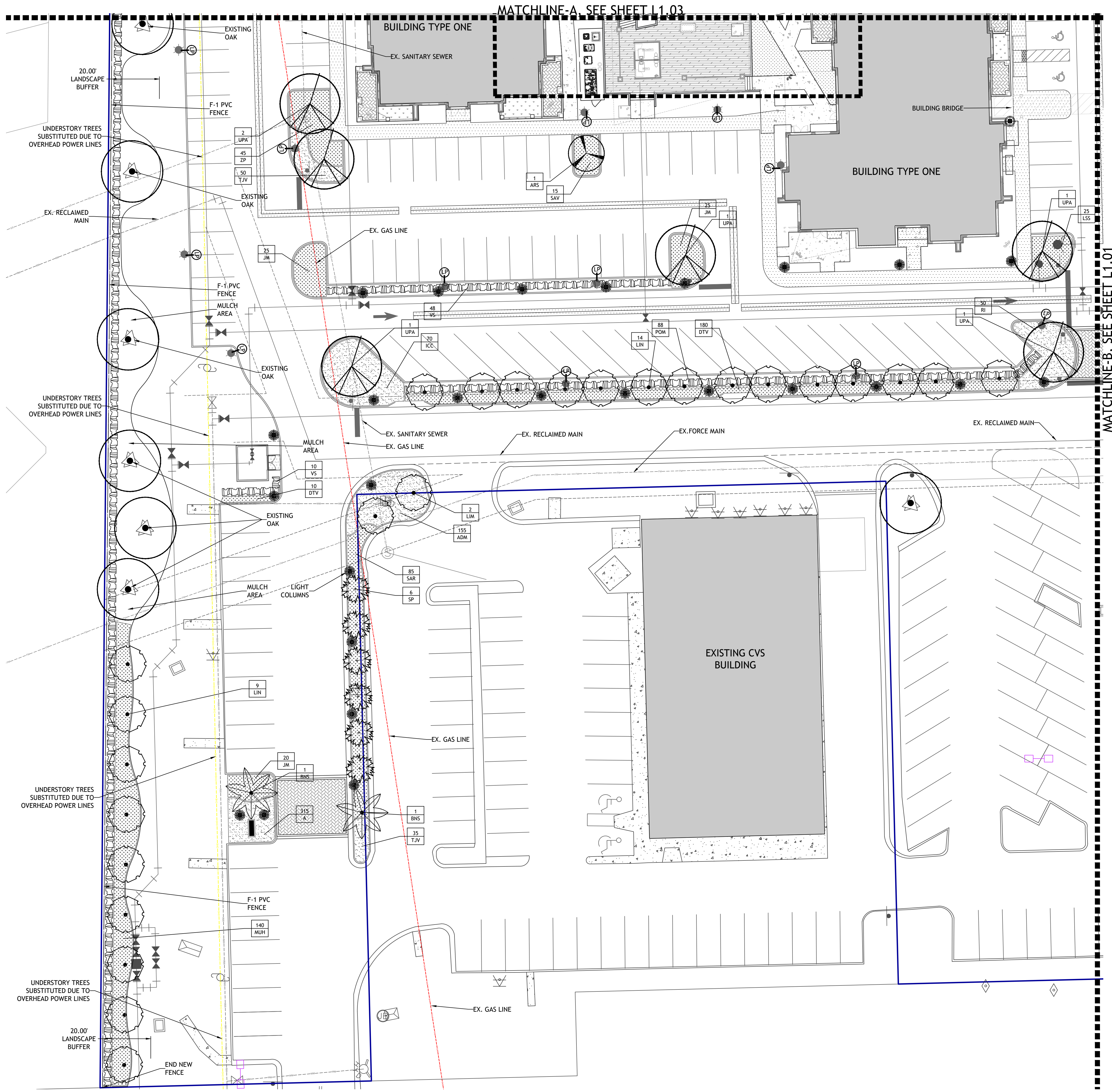
REVISIONS		

NO.	COMMENTS	DATE
SHEET INFORMATION		
JOB NUMBER	20045	
DRAWN BY	JB/JW	
CHECKED BY	JB/HB	

SCALE: 1"=20'-0"
0 10' 20' 40'

LANDSCAPE
SITE PLAN

L1.03



146 Second St. N. Ste. 302
St. Petersburg, FL 33701
T: 727.821.6699

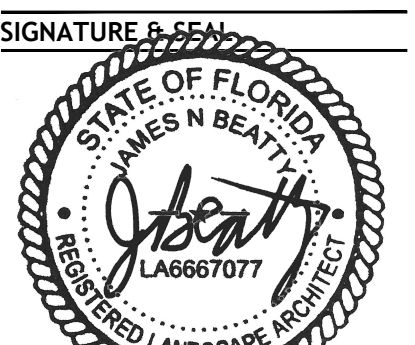
CIVIL ENGINEER
B.S.E. CONSULTANTS INC.
312 S. HARBOR CITY BLVD. #4
MELBOURNE FL
321.725.3674

ARCHITECTURE
Charlan Brock & Associates
1770 Fennell St.
Maitland FL
407.660.8900

OWNER
FRAMEWORK GROUP LLC
1200 W. PLATT ST. STE 201
TAMPA FL
813.443.0790

CIRRUS

WILLIAMSON BLVD.
COCOA FL



FL Registered Landscape Architect

PRICING SET

ISSUE DATE		
1	PERMIT SET	08-31-20
2	PRICING SET	09-17-20

REVISIONS

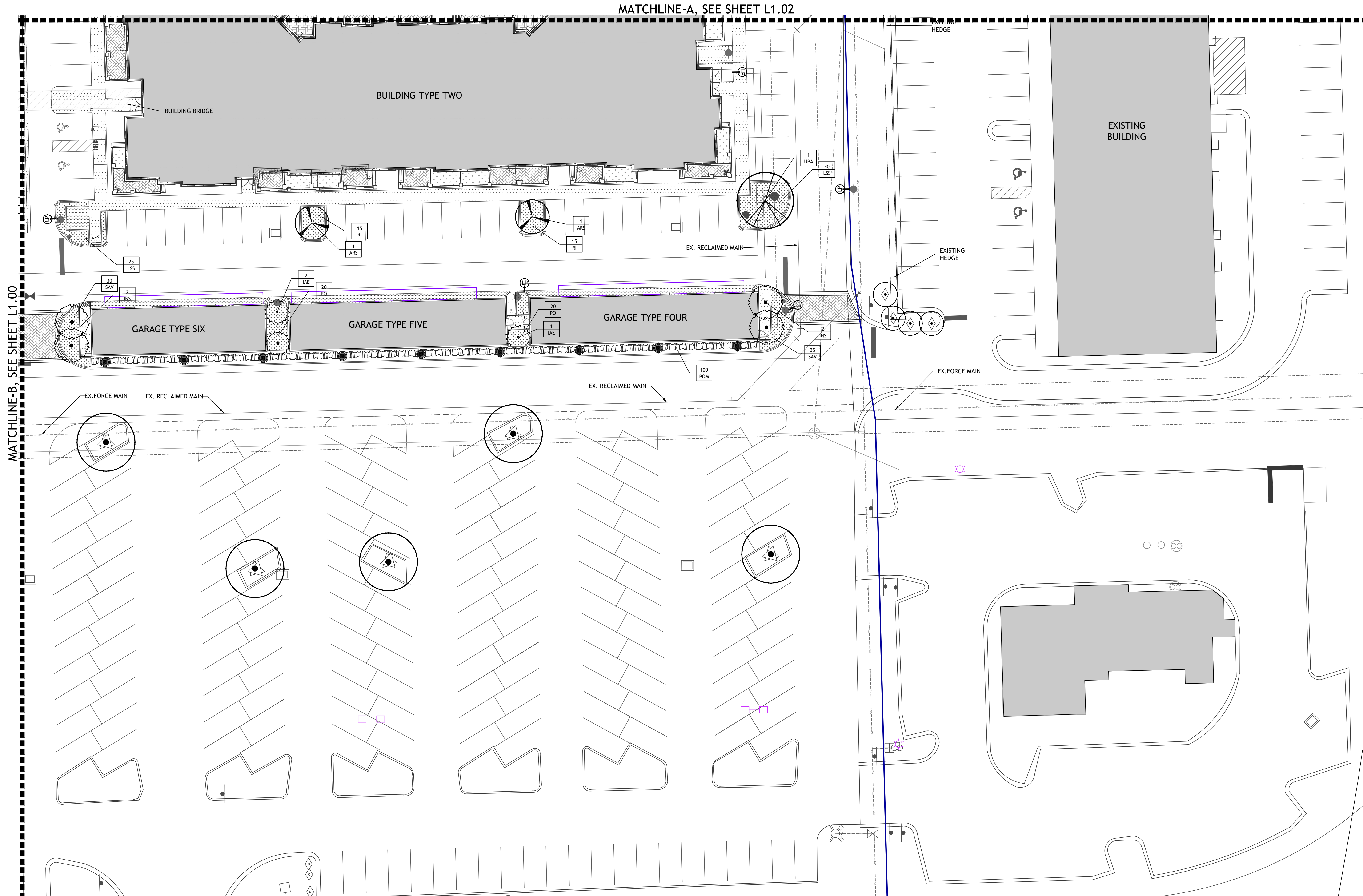
NO.	COMMENTS	DATE

SHEET INFORMATION
JOB NUMBER 20045
DRAWN BY JB/JW
CHECKED BY JB/HB

SCALE: 1"=20'-0"
0 10' 20' 40'

LANDSCAPE
DEVELOPMENT
PLAN

L2.00



146 Second St. N. Ste. 302
St. Petersburg, FL 33701
727.821.5699

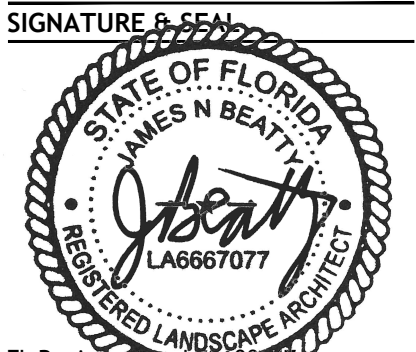
CONSULTANTS
CIVIL ENGINEER
B.S.E. CONSULTANTS INC.
312 S. HARBOR CITY BLVD. #4
MELBOURNE | FL
321.725.3674

ARCHITECTURE
Charlan Brock & Associates
1770 Fennell St.
Maitland | FL
407.660.8900

OWNER
FRAMEWORK GROUP LLC
1200 W. PLATT ST. STE 201
TAMPA | FL
813.443.0790

CIRRUS

WILLIAMSON BLVD.
COCOA | FL



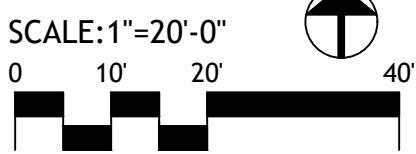
PRICING SET

ISSUE DATE		
1	PERMIT SET	08-31-20
2	PRICING SET	09-17-20

REVISIONS

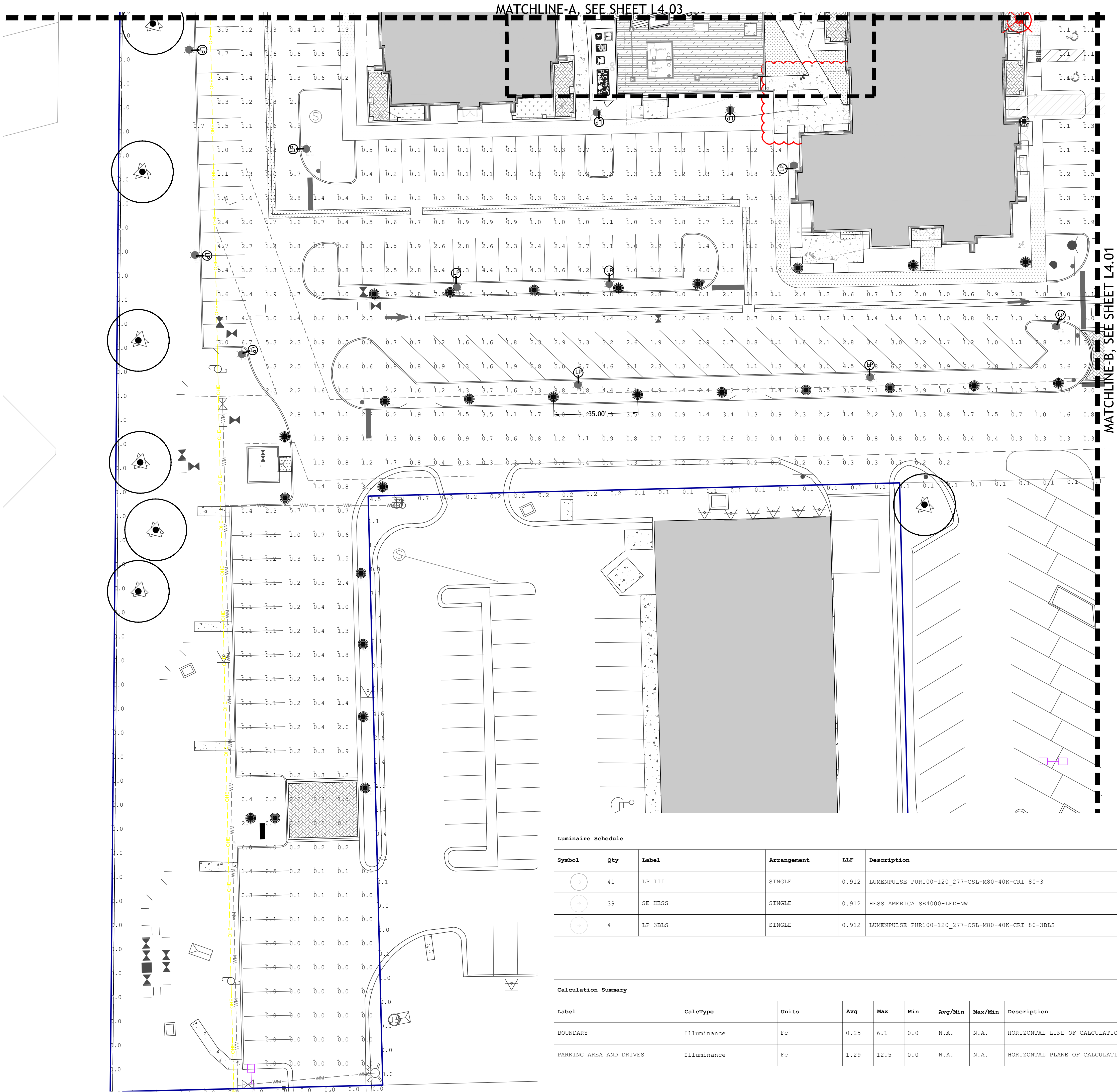
NO.	COMMENTS	DATE

SHEET INFORMATION	
JOB NUMBER	20045
DRAWN BY	JB/JW
CHECKED BY	JB/HB



LANDSCAPE
DEVELOPMENT
PLAN

L2.01



Luminaire Schedule									
Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	Total Watts	Lum. Lumens	BUG Rating
	41	LP III	SINGLE	0.912	LUMENPULSE PUR100-120_277-CSL-M80-40K-CRI 80-3	64	2624	8035	B2-U0-G2
	39	SE HESS	SINGLE	0.912	HESS AMERICA SE4000-LED-NW	36.2	1411.8	3831	B1-U4-G2
	4	LP 3BLS	SINGLE	0.912	LUMENPULSE PUR100-120_277-CSL-M80-40K-CRI 80-3BLS	64	256	4915	B0-U0-G2

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description
BOUNDARY	Illuminance	Fc	0.25	6.1	0.0	N.A.	N.A.	HORIZONTAL LINE OF CALCULATION AT ZERO FT AFG
PARKING AREA AND DRIVES	Illuminance	Fc	1.29	12.5	0.0	N.A.	N.A.	HORIZONTAL PLANE OF CALCULATION AT ZERO FT AFG



146 Second St. N. Ste. 302
St. Petersburg, FL 33701
T: 727.821.6699

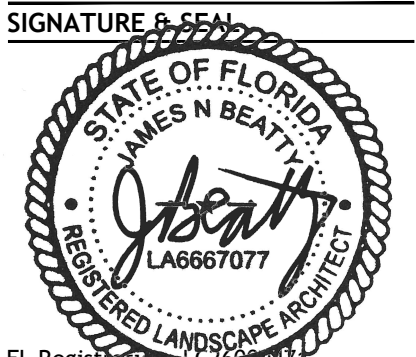
CONSULTANTS
CIVIL ENGINEER
B.S.E. CONSULTANTS INC.
312 S. HARBOR CITY BLVD. #4
MELBOURNE | FL
321.725.3674

ARCHITECTURE
Charlan Brock & Associates
1770 Fennell St.
Maitland | FL
407.660.8900

OWNER
FRAMEWORK GROUP LLC
1200 W. PLATT ST. STE 201
TAMPA | FL
813.443.0790

CIRRUS

WILLIAMSON BLVD.
COCOA | FL



PRICING SET

ISSUE DATE		
1	PERMIT SET	08-31-20
2	PRICING SET	09-17-20

REVISIONS

NO.	COMMENTS	DATE

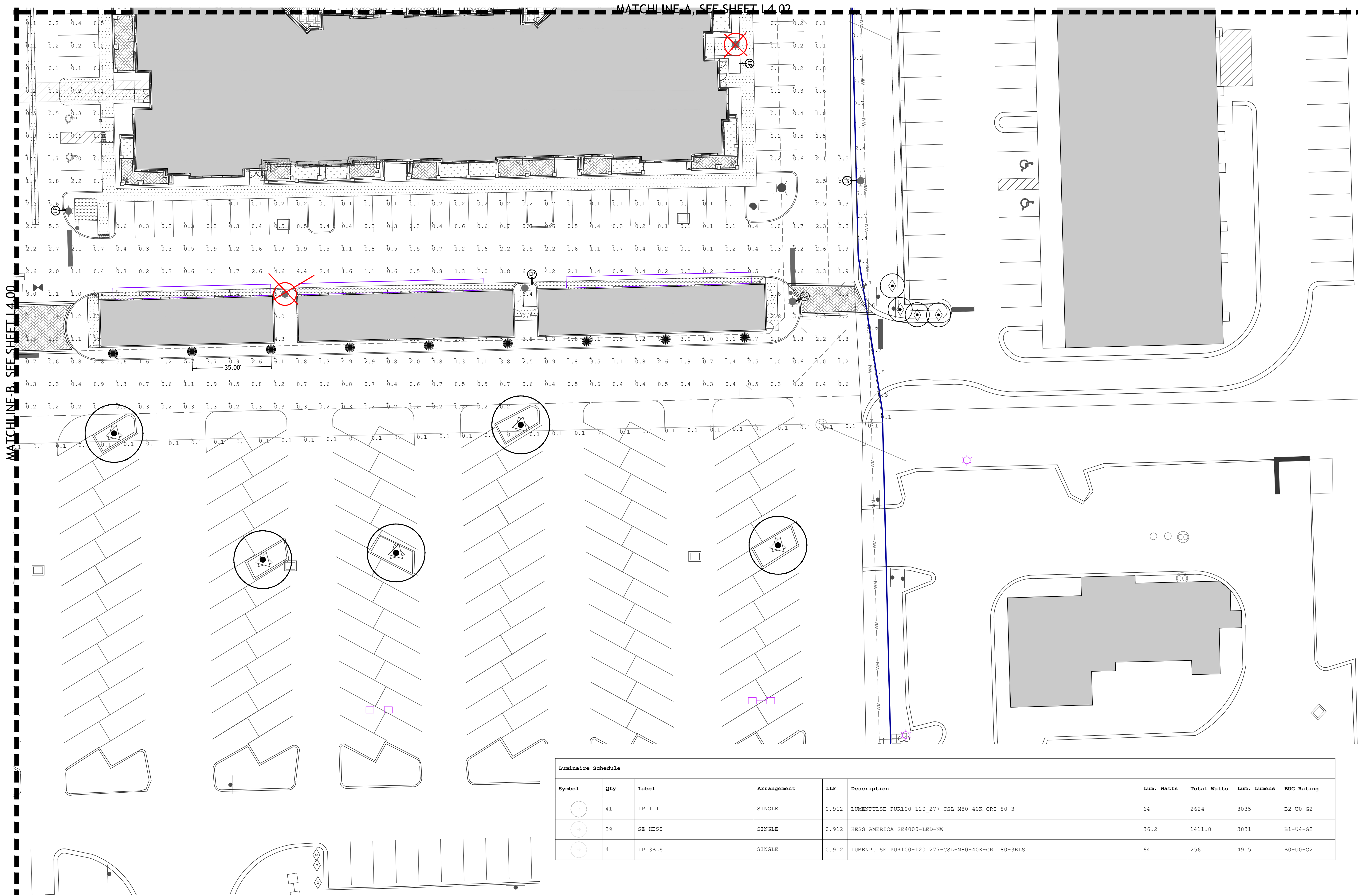
SHEET INFORMATION
JOB NUMBER 20045
DRAWN BY JB/JW
CHECKED BY JB/HB

SCALE: 1"=20'-0"
0 10' 20' 40'

**SITE
LANDSCAPE
LIGHTING**

L4.00

Copyright 2020 Booth Design Group



Luminaire Schedule									
Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	Total Watts	Lum. Lumens	BUG Rating
	41	LP III	SINGLE	0.912	LUMENPULSE PUR100-120_277-CSL-M80-40K-CRI 80-3	64	2624	8035	B2-U0-G2
	39	SE HESS	SINGLE	0.912	HESS AMERICA SE4000-LED-NW	36.2	1411.8	3831	B1-U4-G2
	4	LP 3BLS	SINGLE	0.912	LUMENPULSE PUR100-120_277-CSL-M80-40K-CRI 80-3BLS	64	256	4915	B0-U0-G2

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description
BOUNDARY	Illuminance	Fc	0.25	6.1	0.0	N.A.	N.A.	HORIZONTAL LINE OF CALCULATION AT ZERO FT AFG
PARKING AREA AND DRIVES	Illuminance	Fc	1.29	12.5	0.0	N.A.	N.A.	HORIZONTAL PLANE OF CALCULATION AT ZERO FT AFG



BOOTH
DESIGN GROUP

146 Second St. N. Ste. 302
St. Petersburg, FL 33701
T/ 727.821.6699

CONSULTANTS

CIVIL ENGINEER
B.S.E. CONSULTANTS INC.
312 S. HARBOR CITY BLVD. #4
MELBOURNE | FL
321.725.3674

ARCHITECTURE
Charlan Brock & Associates
1770 Fennell St.
Maitland | FL
407.660.8900

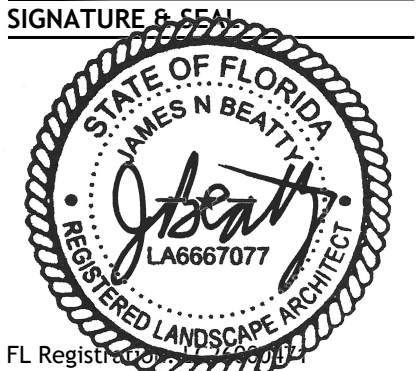
OWNER

FRAMEWORK GROUP LLC
1200 W. PLATT ST. STE 201
TAMPA | FL
813.443.0790

CIRRUS

WILLIAMSON BLVD.
COCOA | FL

SIGNATURE & SEAL



FL Registered Professional Engineer

PRICING SET		
ISSUE DATE		
1	PERMIT SET	08-31-20
2	PRICING SET	09-17-20

REVISIONS		

NO.	COMMENTS	DATE

SHEET INFORMATION

JOB NUMBER 20045
DRAWN BY JB/JW
CHECKED BY JB/HB

SCALE: 1"=20'-0"



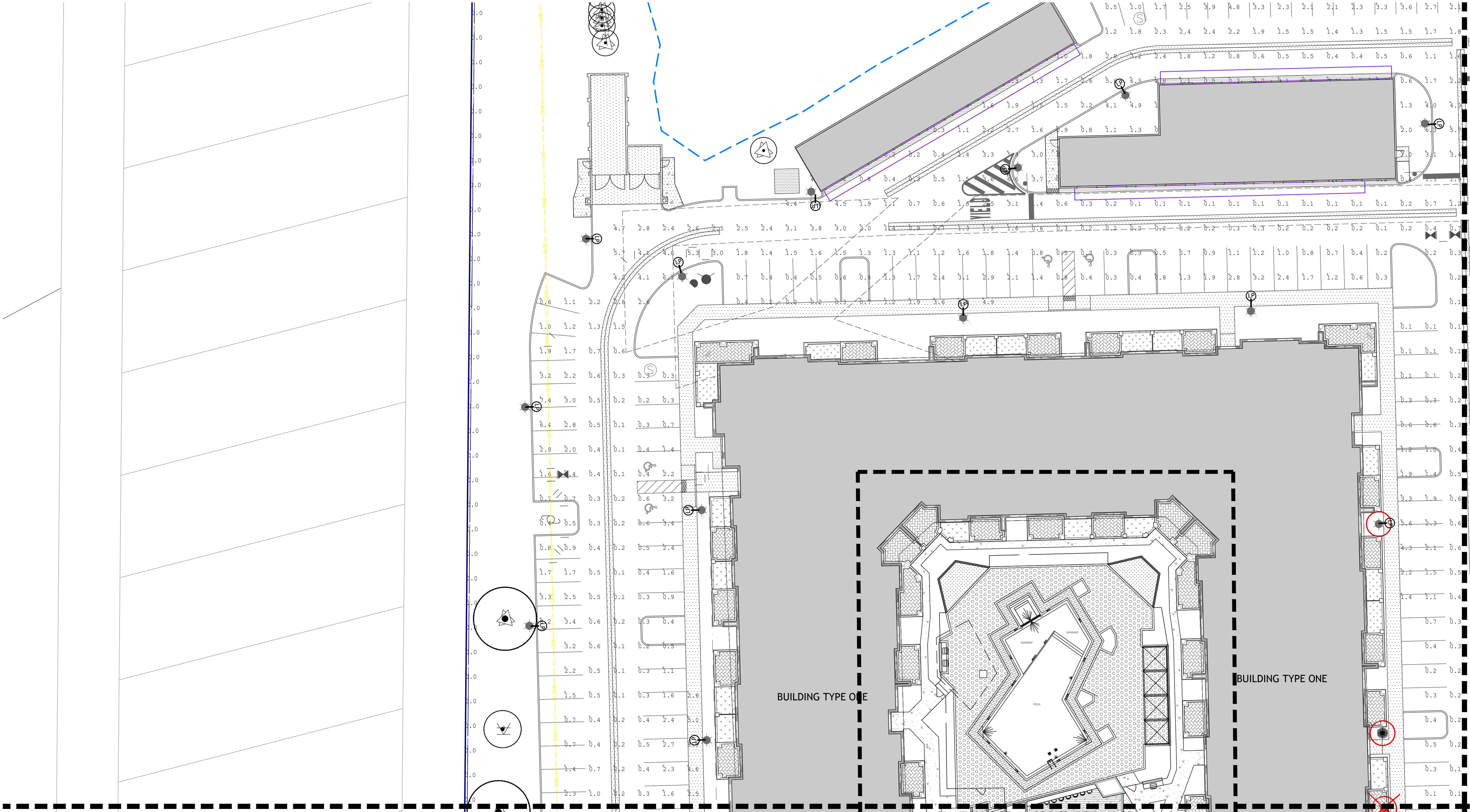
**SITE
LANDSCAPE
LIGHTING**

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description
BOUNDARY	Illuminance	Fc	0.25	6.1	0.0	N.A.	N.A.	HORIZONTAL LINE OF CALCULATION AT ZERO FT AFG
PARKING AREA AND DRIVES	Illuminance	Fc	1.29	12.5	0.0	N.A.	N.A.	HORIZONTAL PLANE OF CALCULATION AT ZERO FT AFG



Luminaire Schedule									
Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	Total Watts	Lum. Lumens	BUG Rating
	41	LP III	SINGLE	0.912	LUMENPULSE PUR100-120_277-CSL-M80-40K-CRI 80-3	64	2624	8035	B2-U0-G2
	39	SE HESS	SINGLE	0.912	HESS AMERICA SE4000-LED-NW	36.2	1411.8	3831	B1-U4-G2
	4	LP 3BLS	SINGLE	0.912	LUMENPULSE PUR100-120_277-CSL-M80-40K-CRI 80-3BLS	64	256	4915	B0-U0-G2

Calculation Summary									
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	
BOUNDARY	Illuminance	Fc	0.25	6.1	0.0	N.A.	N.A.	HORIZONTAL LINE OF CALCULATION AT ZERO FT AFG	
PARKING AREA AND DRIVES	Illuminance	Fc	1.29	12.5	0.0	N.A.	N.A.	HORIZONTAL PLANE OF CALCULATION AT ZERO FT AFG	



146 Second St. N. Ste. 302
St. Petersburg, FL 33701
T/ 727.821.5699

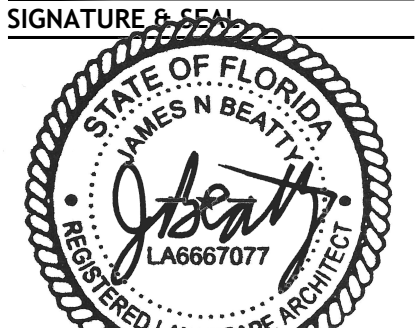
CONSULTANTS
CIVIL ENGINEER
B.S.E. CONSULTANTS INC.
312 S. HARBOR CITY BLVD. #4
MELBOURNE | FL
321.725.3674

ARCHITECTURE
Charlan Brock & Associates
1770 Fennell St.
Maitland | FL
407.660.8900

OWNER
FRAMEWORK GROUP LLC
1200 W. PLATT ST. STE 201
TAMPA | FL
813.443.0790

CIRRUS

WILLIAMSON BLVD.
COCOA | FL

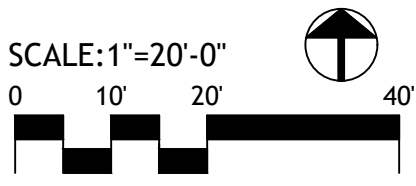


FL Registered
PRICING SET

ISSUE DATE		
1	PERMIT SET	08-31-20
2	PRICING SET	09-17-20

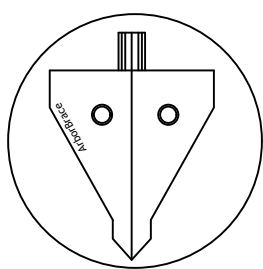
REVISIONS		

NO.	COMMENTS	DATE
SHEET INFORMATION		
JOB NUMBER	20045	
DRAWN BY	JB/JW	
CHECKED BY	JB/HB	

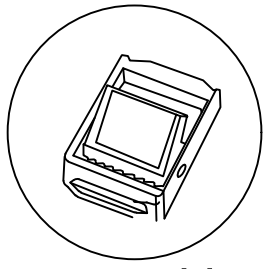


**SITE
LANDSCAPE
LIGHTING**

L4.03
Copyright 2020 Booth Design Group



ArborAnchor
ArborAnchor driven below grade to necessary depth (determined by soil, 1.5 to 2.5 feet as required)

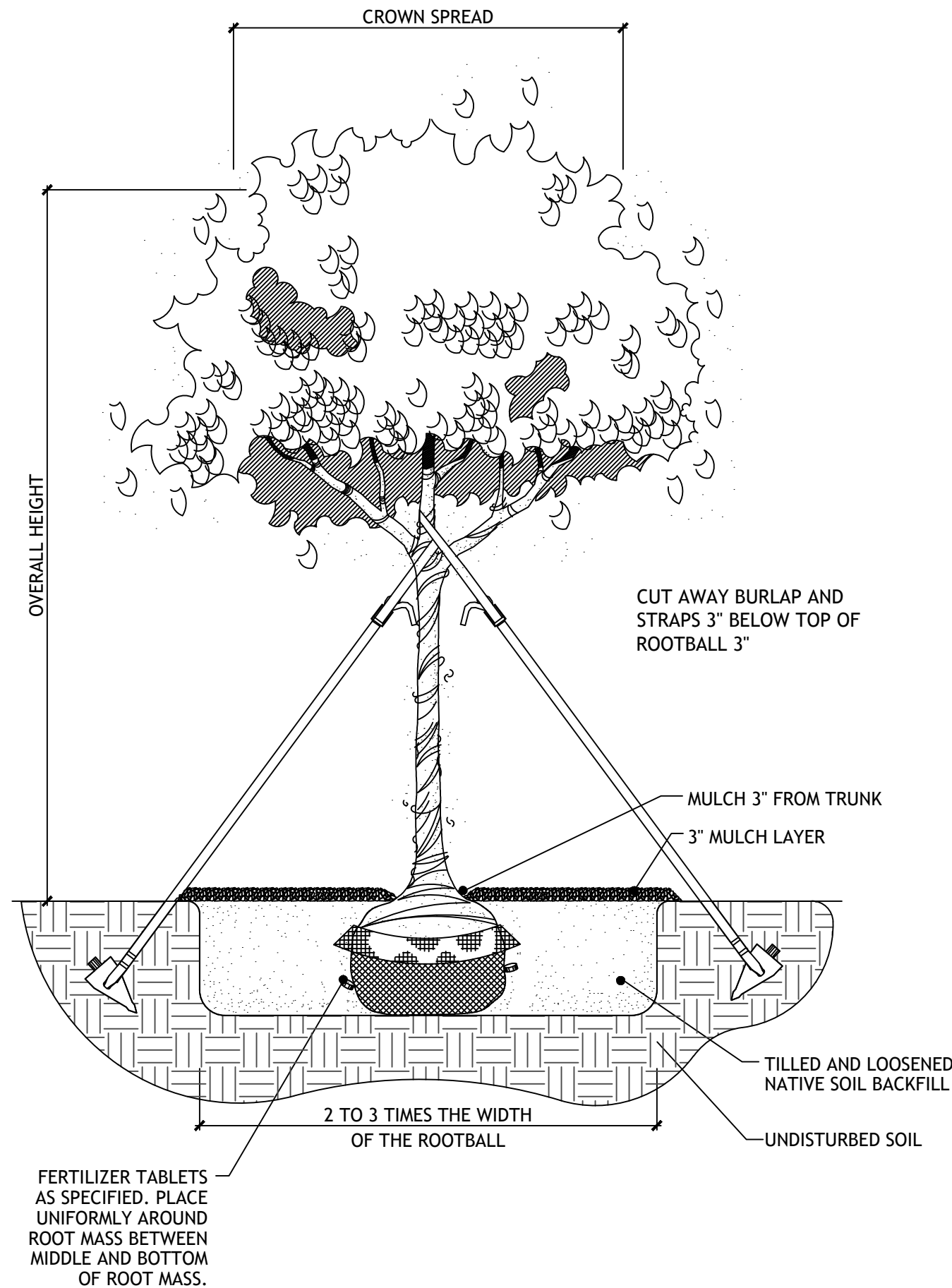


Tension Buckle
Loop loose end of webbing around leading branch of tree. Tie 1/2 knot onto backside of buckle. Pull buckle towards ArborAnchor to tension line.

Arborbrace Tree Guying Specifications:
ATG-R/ATG-HD
For up to 4" Caliper Trees
(3) Polypropylene guylines 3/4" X 12'-800 lb test, olive drab, UV resistant.
(3) Nickel plated spring cam-lock tension clips
(3) Arrowhead Nylon Anchors (4" X 3-3/4") or
(3) Arrowhead Metal Anchors for hard soil (4" X 3-3/4")

Arborbrace Tree Guying Specifications:
ATG-J
For up to 7" Caliper Trees
(3) Polypropylene/Polyester guylines 1" X 12'-1,000 lb test, olive drab, UV resistant
(3) 1-1/4" Nickel plated, non-rusting spring cam-lock tension clips (1,500 lb break strength)
(3) Arrowhead Aluminum Anchors for any soil type (5-1/2" X 4-1/2")

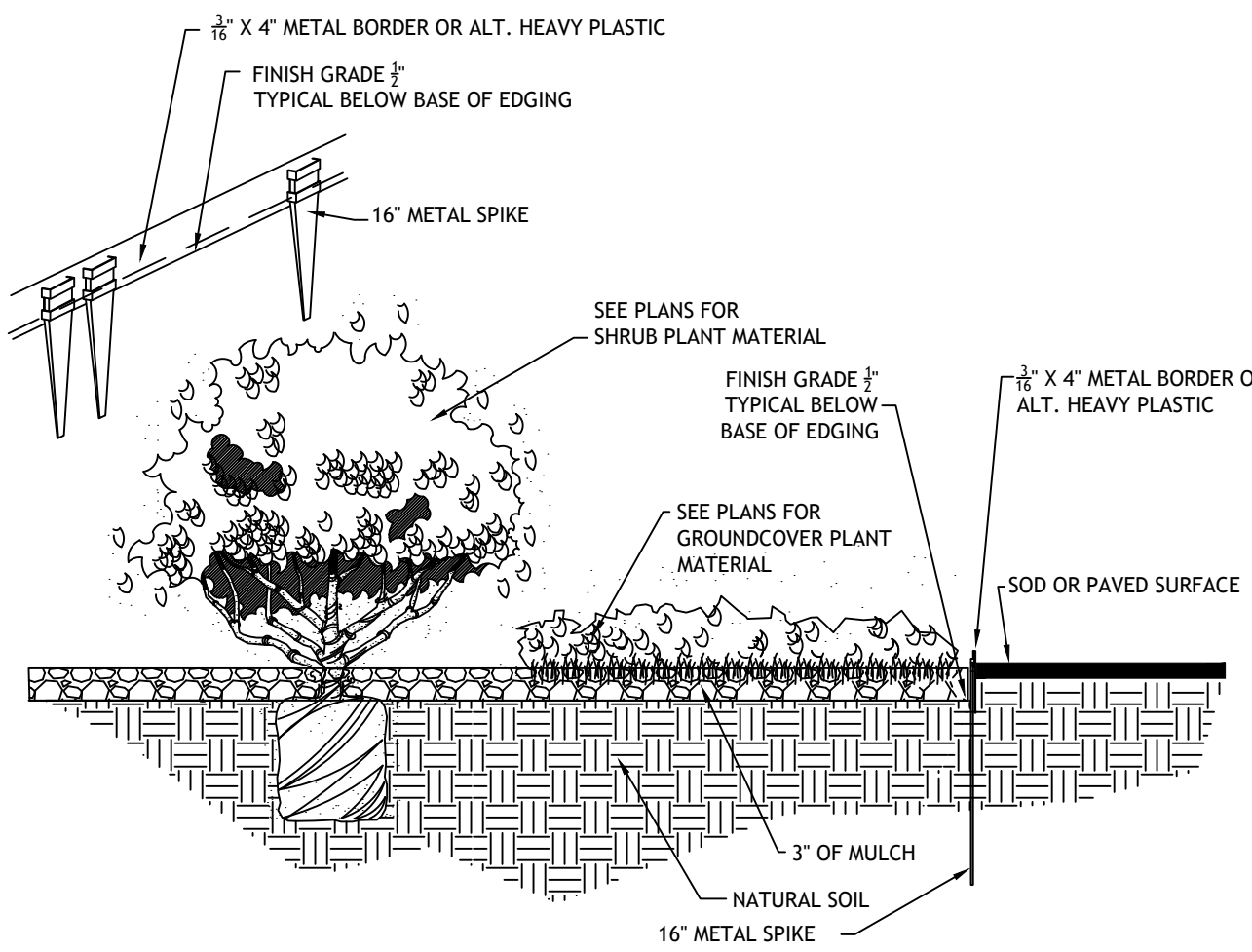
OTHER TREE STAKING SYSTEMS MAY BE ACCEPTABLE IF APPROVED



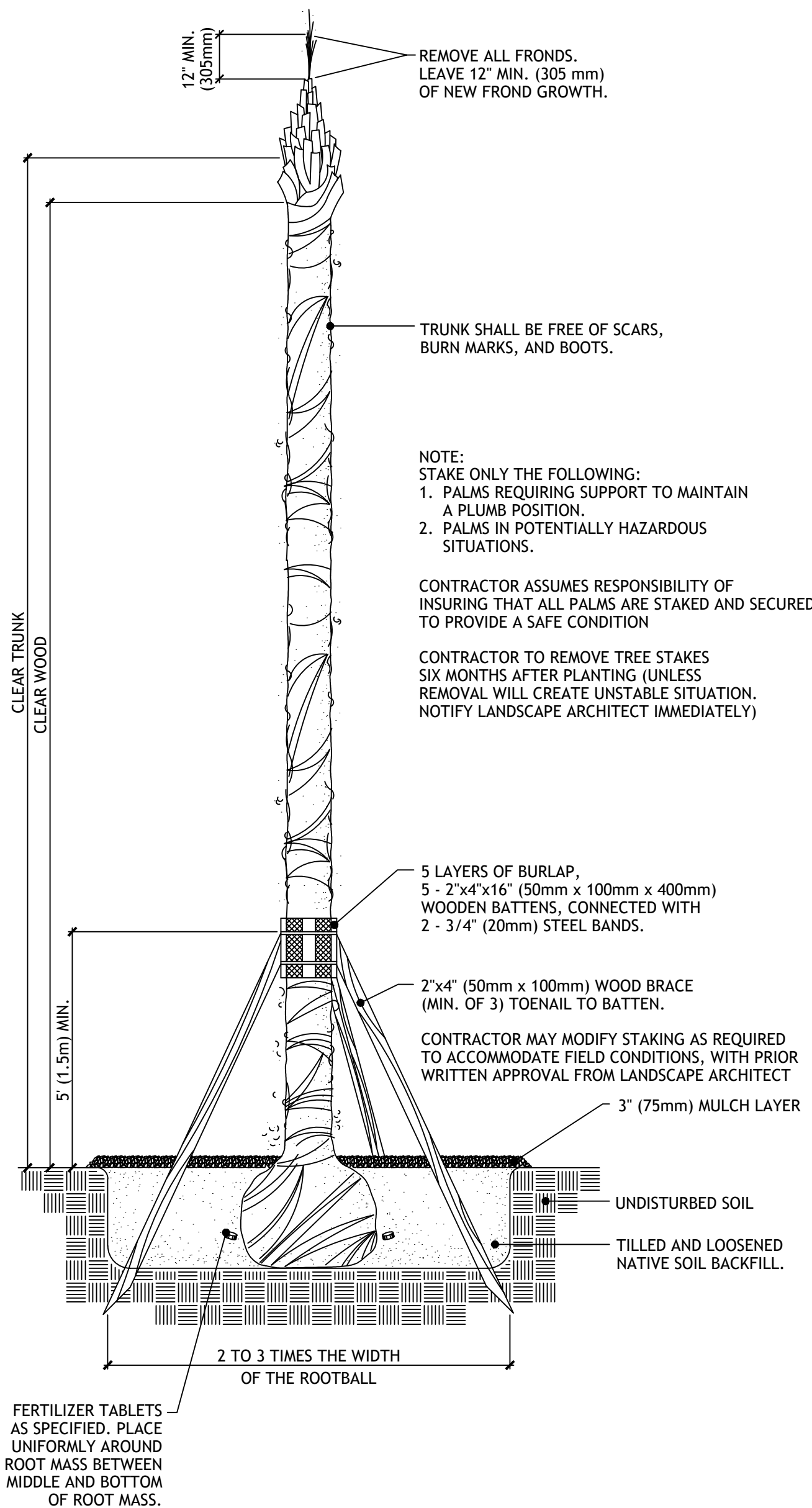
1 ARBOR BRACE TREE PLANTING DETAIL

SCALE: N.T.S.

NOTES:
1. ALUMINUM EDGING SHALL BE USED INSTEAD OF STEEL EDGING.
2. COLOR SHALL NATURAL (SILVER) ALUMINUM
3. CONTRACTOR SHALL PROVIDE SAMPLE FOR APPROVAL.

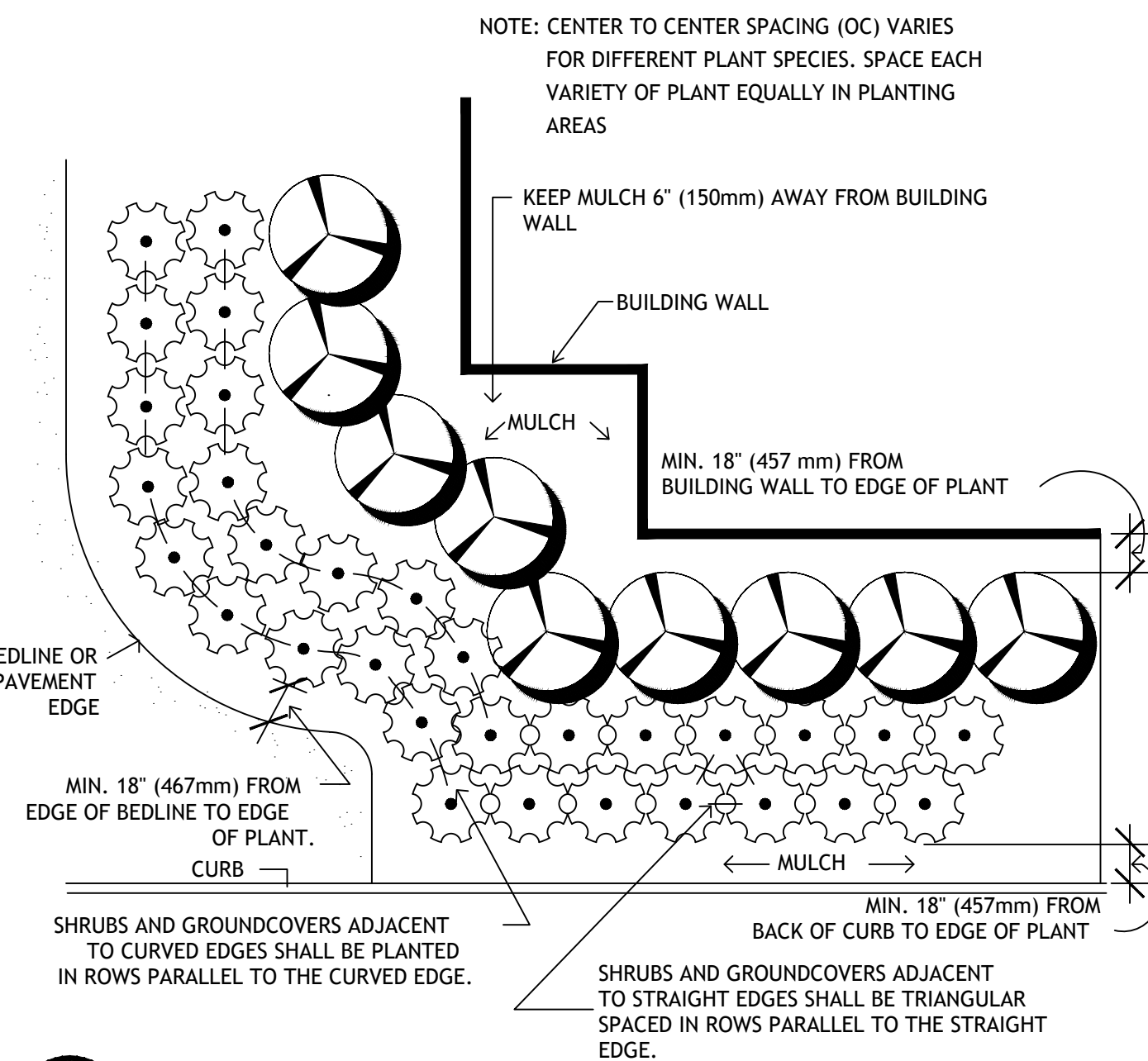


5 METAL LANDSCAPE BED EDGING



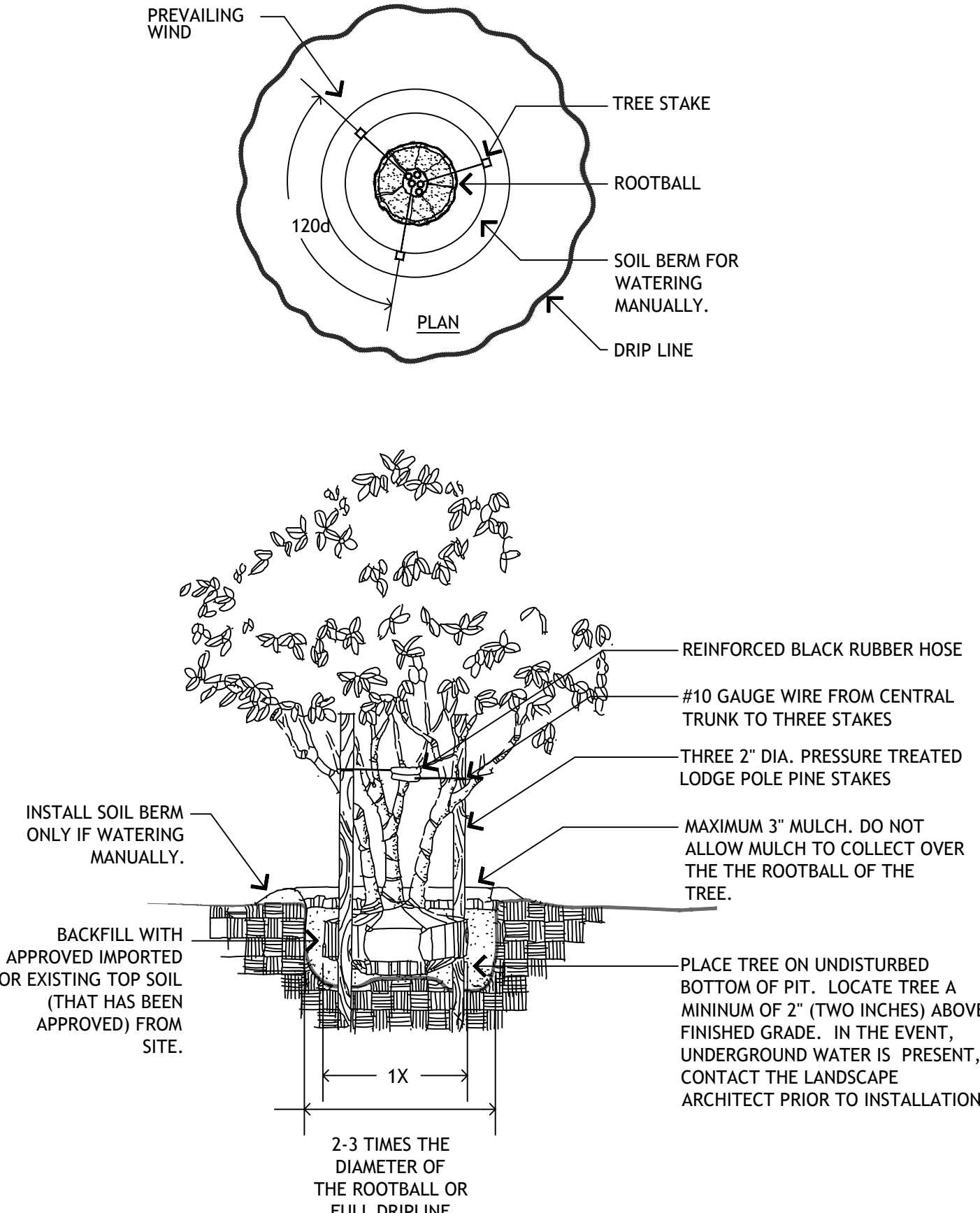
2 SABAL PALM PLANTING DETAIL

LD-2



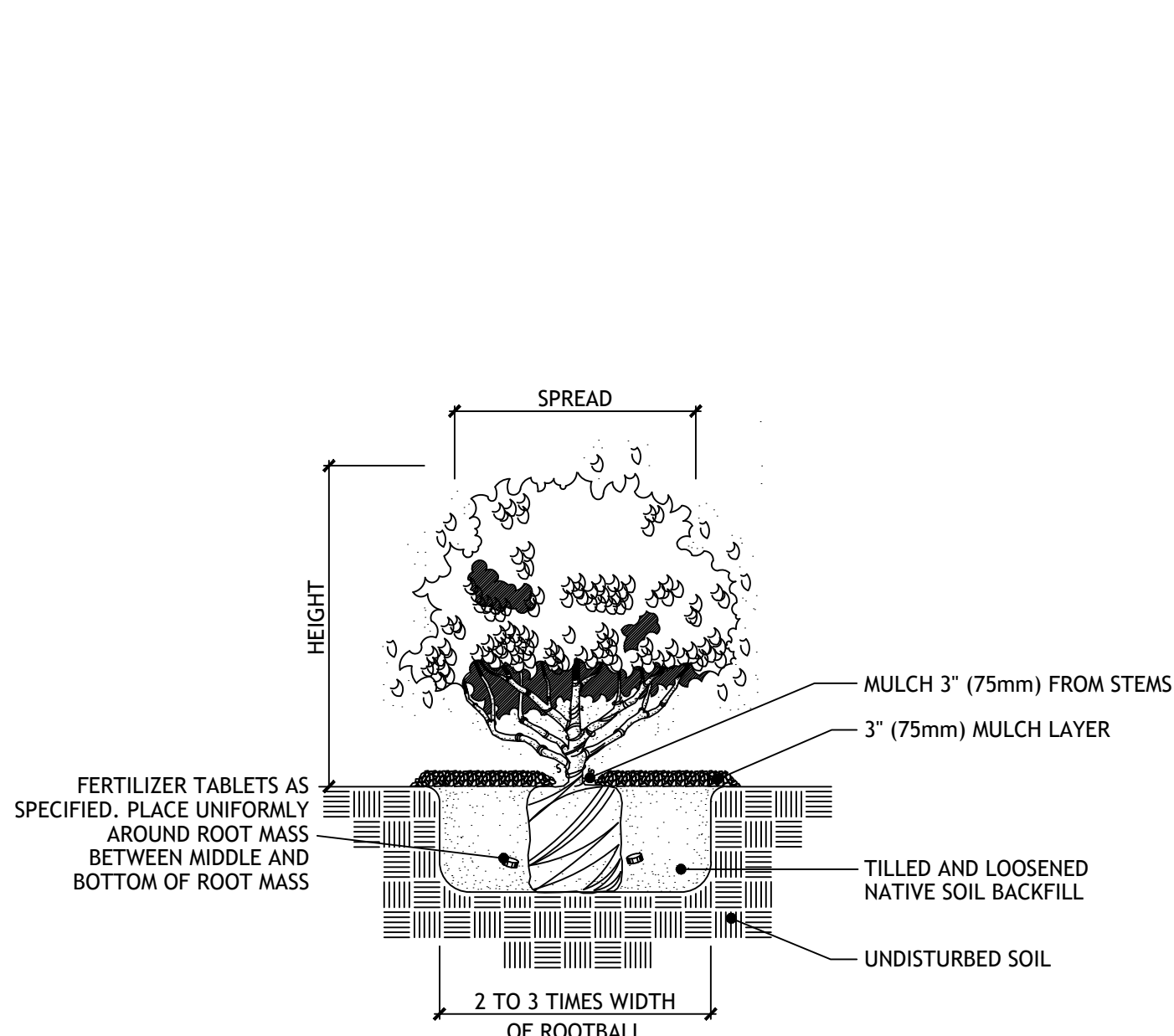
6 SHRUB AND GROUNDCOVER LAYOUT DETAIL

LD-2



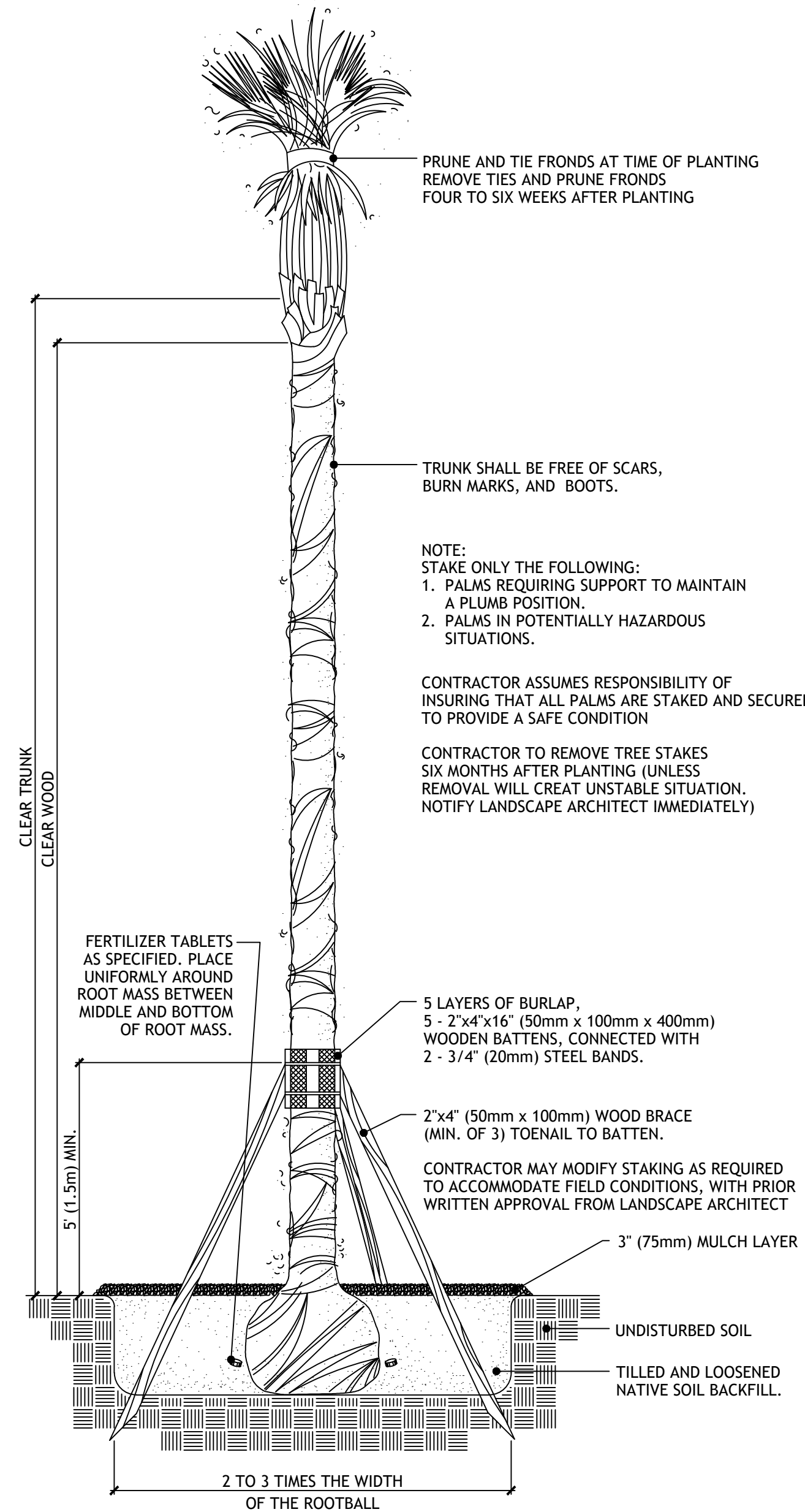
3 MULTI-TRUNK TREE PLANTING DETAIL

LD-2



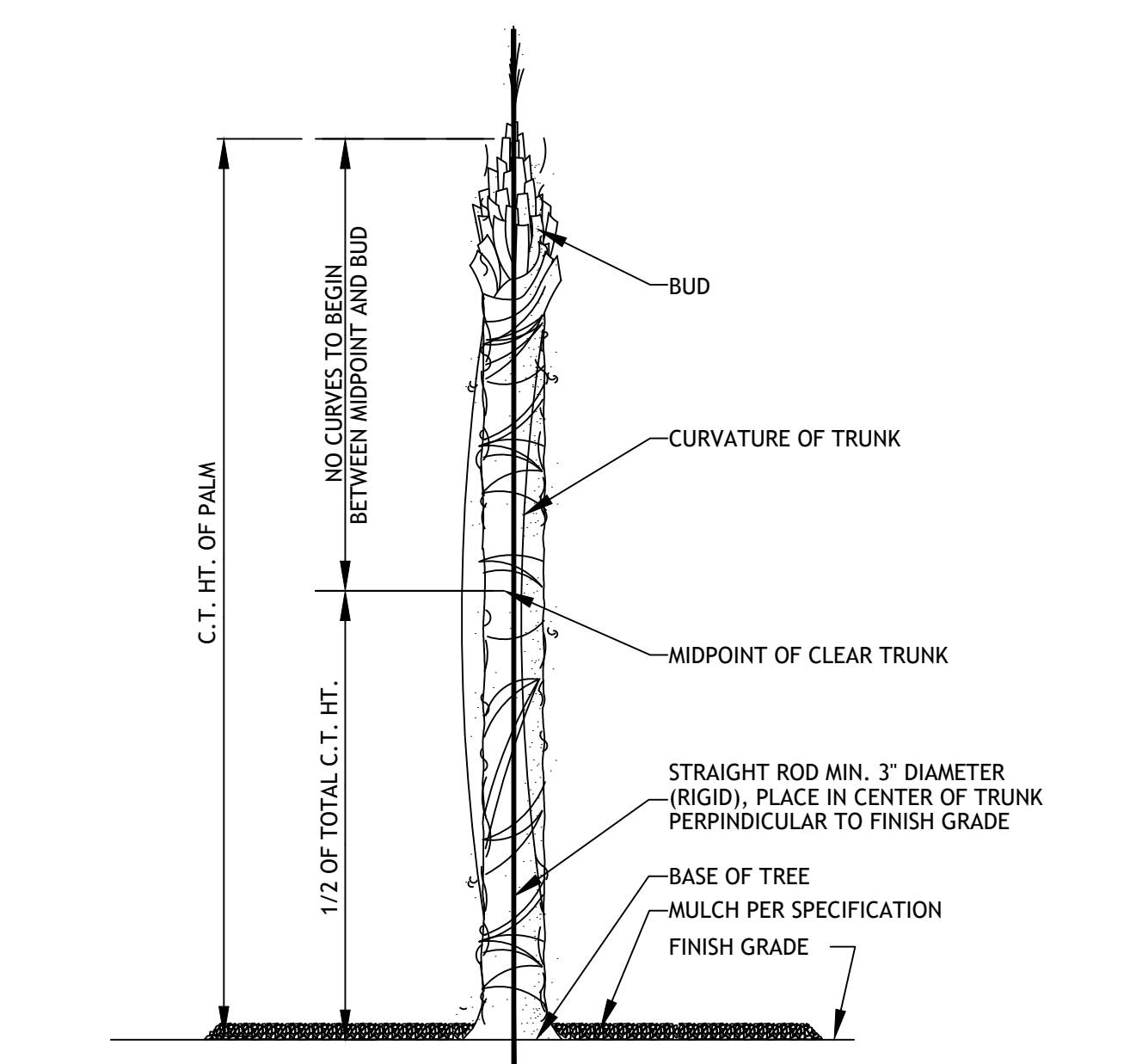
7 SHRUB PLANTING DETAIL

LD-2



4 PALM PLANTING DETAIL (EXCEPT SABAL PALMS)

LD-2



8 SABAL PALM ACCEPTABLE CURVATURE DETAIL

LD-2



146 Second St. N. Ste. 302
St. Petersburg, FL 33701
772.821.6699

CONSULTANTS

CIVIL ENGINEER
B.S.E. CONSULTANTS INC.
312 S. HARBOR CITY BLVD. #4
MELBOURNE 1 FL
321.725.3674

ARCHITECTURE
Charlan Brock & Associates
1770 Fennell St.
Maitland 1 FL
407.660.8900

OWNER

FRAMEWORK GROUP LLC
1200 W. PLATT ST. STE 201
TAMPA 1 FL
813.443.0790

CIRRUS

WILLIAMSON BLVD.
COCOA | FL

SIGNATURE & SEAL



FL Registered Professional Landscape Architect

PRICING SET

ISSUE DATE		
1	PERMIT SET	08-31-20
2	PRICING SET	09-17-20

REVISIONS

NO.	COMMENTS	DATE

SHEET INFORMATION
JOB NUMBER 20045
DRAWN BY JB/JW
CHECKED BY JB/HB

SCALE: N/A



LANDSCAPE
DETAILS

LD-2

Copyright 2020 Booth Design Group

0.01 GENERAL

A. The Contract Documents shall include the Plans, Details, Specifications, Bid Proposal, Contract Agreement, all Addenda, Special Conditions, and Installation Schedule (when required).

1.02 REQUIREMENTS OF REGULATORY AGENCIES

A. Comply with Federal, State, Local, and other duly constituted authorities and regulatory agencies, without additional cost to the Owner in matters pertaining to codes, safety, and environmental matters.

B. Any permits for the installation or construction of any of the work included under the contract which are required by any of the legally constituted authorities having jurisdiction, shall be arranged for by the Contractor and paid for directly by the Contractor, unless otherwise agreed upon in writing.

1.03 SCOPE OF WORK

A. All provisions of Contract, including General and Special Provisions and Plans, apply to the work specified in the Scope of Work. The Scope of Work includes everything for and incidental to executing and completing all landscape work shown on the Plans, Schedules, Notes and as specified herein.

B. Furnish and provide all labor, plants and materials, tools and equipment necessary to prepare the soil for plantings, to install and care for all plant materials (including finish grading if necessary); to remove any and/or transplant existing plants if indicated; to furnish, plant, fertilize, water, prune, brace, water, mulch and prune all plants all plant materials; and to execute all other Work as described herein or indicated on the Plans.

C. Work under this Section shall include labor and materials for final grading and raking to prepare the site for sodding, sprigging, or seeding, so finished lawn or playing field will appear even, uniform, will drain adequately, and will comply with the intent of the landscape drawings.

D. Initial maintenance of landscape materials as specified in this document.

1.04 QUALITY ASSURANCE

A. Landscape work shall be contracted to a single firm specializing in landscape work, who shall submit subcontract more than 40% of the work specified. All subcontractors under the control of the Contractor involved in the completion of the landscape work, shall be made known to the Owner and the Landscape Architect prior to their commencement of work on the project.

B. All work of this Section shall conform to the highest standard of landscape practices.

C. The Plant Material Schedule included with these Plans is provided only for the Contractor's convenience; it shall not be construed as to conflict or predominate over the Plans. If conflict between the Plans and the Specifications exists, the Plan shall predominate and be controlling the controlling document.

D. During this work, the Contractor shall be responsible for maintaining safety among persons in his employ in accordance with the standards set by the Occupational Safety and Health Act of 1970 (and all subsequent amendments). Owner and Landscape Architect shall be held harmless from any accident, injury or any other incident resulting from compliance or non-compliance with these standards.

E. The Contractor shall cooperate with and coordinate with all other trades whose work is built into or affects the work in this Section.

F. All appropriate utility companies and agencies shall be contacted 72 hours prior to excavation. "Sunshine" at 1-800-432-4770.

G. The Contractor shall carefully examine the site and all existing conditions affecting the work, such as: soil, obstructions, existing trees, utilities, etc. Report any conditions in conflict with the work to the Landscape Architect.

1.05 SUBMITTALS

A. The Contractor is required to submit two copies of typewritten instructions recommending procedures to be established by the Owner for maintenance of landscape work. These instructions must be submitted prior to the expiration of the required maintenance period and must cover maintenance procedures over a one year period.

B. Furnish unit prices for all plant and inert materials, including labor for all specified work.

1.06 ALTERNATES, ADDITIONS, DELETIONS, SUBSTITUTIONS

A. If there are additions/alternates included in these Plans and Specifications, the Contractor must propose prices to accomplish the work stated as additions/alternates at the time of bidding.

B. The Owner, through his Project Representative, reserves the right to add or deduct any of the work stated herein without rendering the Contract void.

C. The Contractor must have written approval by the Project Representative for any substitutions not previously agreed to in the purchase agreement. Installation without approval is entry at the Contractor's risk.

D. All material acquired through additions or substitutions shall be subject to all conditions and warranties stated herein.

1.07 ABBREVIATIONS/DEFINITIONS

A. O.A. or H.T.: The over-all-height of the plant measured from the ground to the natural, unstate state of the majority of the foliage, not including extreme leaves, branches or fronds.

B. C.T.: Clear trunk is measured from the ground to the bottom of the first leaf or frond stem with no foliage from trunk to specified height. For example, on Canary Island Date Palms or similar, the clear trunk measurement includes the "nut" at the base of the fronds.

C. C.W.: Clear wood is measured from the ground to the bottom of the base of the lowest leaf sheath or bud, trimmed in a natural manner. For example, on Canary Island Date Palms or similar, the clear wood measurement includes the "nut" at the base of the fronds.

D. S.P.: Spread, branches measured in natural untid position to the average crown diameter, not including extreme leaves, branches, or fronds.

E. S.T.R.T.: Straight trunk.

F. MIN.: Minimum.

G. GALL: Gallon container size, i.e., 1 gallon (3.8 liters), 3 gallon (11.4 liters), 7 gallon (26.5 liters), etc.

I. O.C.: On center, distance between plant centers.

J. DIA.: Diameter.

K. LVS: Leaves.

L. D.B.H.: Diameter or caliper of main trunk of tree as measured at breast height at 4 - 1/2 (1.37 meters) above grade.

M. CAL: Caliper, the outside diameter of up to a four inch (100 millimeters) tree is measured in inches (150 millimeters) above grade, larger trees are measured at 12 inches (300 millimeters) above grade.

N. B&B: Balled and burlapped in accordance with horticultural standards of the American Association of Nurserymen.

O. PPP: Plants per pot.

P. FG: Field grown

Q. STD: Standard, single, straight trunk.

R. Owner: To be known as that entity which holds title or control to the premises on which the work is performed.

S. Owner's Representative: Owner's on-site representative shall be responsible for approval of quantity and quality of materials specified and execution of installation.

T. Contractor: Shall refer to that person or enterprise commonly known as the Landscape Contractor.

U. Landscape Architect: This person or firm is the responsible representative of the Owner who produces the Landscape Plans and Specifications.

1.08 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Plant Materials:

1. Provide container grown or, if appropriate, freshly dug trees and shrubs. Do not prune prior to delivery. Do not bend or bind trees or shrubs in such a manner as to damage bark, break branches or destroy natural shape. Provide protective covering during delivery. If plant delivery is made in open vehicles, the entire load shall be suitably covered.
2. All plants are to be handled at all times so that roots or root balls are adequately protected from sun, cold or drying winds. No root balls for trees and container plants that have been cracked or broken shall be planted except upon special approval. Plants shall not be pulled by the tops or stems, nor handled in a rough or careless manner at any time.
3. Balled and burlapped plants shall be moved with firm, natural, balls of soil, not less than 1 foot diameter of ball to every 1 inch (25 millimeter) caliper of trunk; root ball depth shall be no less than 2/3 of root ball diameter. B & B plants which cannot be planted upon delivery shall have their root balls covered with moist soil or mulch.
4. Trees shall be dug with adequate balls, burlapped, and wire banded if needed. Root pruning to be done a minimum of 4 weeks before removal from the field and planting at the site. Root balls may not be encased in "grow bags" or other synthetic material, except plastic shrink wrap for transport only.
5. Remove all fronds from sabal palms prior to planting, but leave a minimum of 12 inches (300 millimeters) of new frond growth above the bud. Do not damage bud. On all other palms, only a minimum of palm fronds shall be removed from crown to facilitate moving and handling. "Clear trunk" shall be determined after minimum fronds have been removed. Balled and burlapped trees and shrubs shall be planted. Balled palms shall be planted within 24 hours of delivery.

6. Deliver trees and shrubs after preparations for planting have been completed and plant immediately. If planting is delayed more than 6 hours after delivery, set trees and shrubs in shade, protect from weather and mechanical damage, and cover to keep roots moist.

7. Label at least one tree and one shrub of each variety with a securely attached waterproof tag bearing legible designation of botanical and common name.

8. Sod: Time delivery so that sod will be placed within twenty four (24) hours after grading. Protect sod against drying and breaking by covering pallets of sod or placing in a shaded area.

1.09 JOB CONDITIONS

A. Acceptance of Job Conditions

1. The Contractor shall examine the sub-grade, verify elevations, observe the conditions under which work is to be performed and notify the Landscape Architect or Project Representative in writing of unsatisfactory conditions prior to beginning work. Do not proceed with the work until the unsatisfactory conditions have been corrected in a manner acceptable to the Landscape Architect. Start of work shall indicate acceptance of conditions and full responsibility for the completed work.
2. Proceed with and complete the landscape work as rapidly as portions of the site become available, working within the seasonal limitations for each kind of landscape work and following the approved schedule. If seasonal limitations apply, notify the Landscape Architect for adjustments to the Schedule.
3. Determine locations of all underground utilities and review for conflicts with planting procedures.
4. When adverse conditions to plant growth are encountered, such as rubble fill, drainage conditions or obstruction, the Contractor shall notify the Landscape Architect in writing prior to planting.
5. Plant trees and shrubs after final grades are established and prior to the planting of lawns, protecting lawn areas and promptly repairing damages from planting operations.

B. Scheduling of Work

1. The work shall be carried out to completion with the utmost speed. Immediately upon award of contract, the Contractor shall prepare a construction schedule and furnish a copy to the Owner's Representative and/or the Landscape Architect for approval. The Contractor shall carry out the work in accordance with the approved schedule.
2. If the Contractor incurs unforeseen costs, such as overtime hours, holidays, etc. in order to complete the work within the time stated in the Contract, and/or to maintain the progress schedule, all said costs shall be borne by the Contractor at no additional cost to the Owner.
3. The Owner's Representative, may request work stoppage. Upon written request from the Owner's Representative, the Landscape Contractor shall suspend delivery of material and stop all work for such a period as deemed necessary by the Owner's Representative. Upon receipt of such notice, the Landscape Contractor shall immediately confer with the Owner, the Owner's Representative, or the General Contractor with respect to any additional costs which may result from work stoppage.

C. Utilities

1. The Contractor shall perform work in a manner which will avoid conflicts with utilities. Locate and excavate, as required, to maintain a minimum 18" depth clearance. Maintain grade stakes set by others until removal is mutually agreed upon by all parties concerned.

2.00 PRODUCTS

2.01 MATERIALS

A. Plant Materials: Nomenclature

1. Plant species, sizes, etc. shall be per Plans and Specifications on Plant Material Schedule. Nomenclature is per Hortus Third, L.H. Bailey and E.Z. Bailey, 1976 (or latest edition), or Standardized Plant Names as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature, and as conforms with names accepted in the nursery trade.

B. Plant Materials: Quality Assurance

1. Provide healthy, vigorous stock grown under climatic conditions similar to conditions in the locality of the project. Plants shall have a habit of growth that is normal for the species and be sound, healthy, vigorous and free from insect pests or other diseases, plant diseases, defects, and injuries. Plants shall be well-branched and densely foliated when in leaf and shall have healthy, well-developed root systems.
2. Trees shall be heavily branched or, in the case of palms, be heavily leaved. Some plant materials may be collected stock with immediate terminal growth. All measurements shall provide tree species that have a single main trunk (central leader), unless otherwise stated. Trees that have the main trunk forming a "Y" shape or parallel branching are unacceptable.
3. Plant materials shall be as specified and shall be Florida #1 or better as to shape and quality for the species as outlined in Grades and Standards for Nursery Plants Parts I and II, Florida Department of Agriculture and Consumer Services (latest edition).
4. The Owner or Landscape Architect reserves the right to inspect plant materials either at the place of growth or at the project site prior to planting for compliance with requirements for name, variety, size, quality, or designated area.
5. Landscape materials shall be shipped with certificates of inspection as required by governmental authorities. The Contractor shall comply with all governing regulations that are applicable to landscape materials.
6. Do not make substitutions. If specified landscape material is not available, submit Landscape Architect proof of it being non-available. In such event, if the Landscape Architect designates an available source, such shall be acquired from designated source. When authorized, the Contractor shall be responsible for substitutions. Any substitutions shall be prepared, as well as any required adjustments to the Contract amount.
7. Height and/or width of trees shall be measured from ground up; width measurement shall be normal crown spread of branches with plants in the normal position. This measurement shall not include immediate terminal growth. All measurements shall be taken after pruning for specified sizes. All trees and shrubs shall conform to measurements specified in the Contract. Measurements shall be taken on plants larger than specified may be used with the approval of the Owner or Landscape Architect; with no increase to the Contract price. Plant materials shall not be pruned prior to delivery.
8. Plant Material shall be symmetrical, typical for variety and species. Plants used where symmetry is required shall be matched as nearly as possible.
9. Balled and burlapped plants shall have firm, natural balls of earth of sufficient diameter and depth to encompass the feeding root system necessary for full development of the plant and to conform with the standards of the American Association of Nurserymen. Root balls and tree trunks shall not be damaged by improper binding and/or baling & burlapping procedures.
10. Container-grown plants may be substituted for balled and burlapped plants or vice-versa provided the quality is equal or better than specified and the Landscape Architect approves the substitution.
11. Container-grown stock shall have been grown in containers for at least four months, but not over two years. If requested, samples must be shown to prove no root bound condition exists.

C. Grasses: Sod or Seed

1. Sod or seed (as/if specified) shall be of a species as stated on the Plan. Solid sod shall be of even thickness and with a good root structure, 95% free of noxious weed freshly mowed before cutting, and in healthy condition when laid. It must not be stacked more than 24 hours before laying and it must be grown in soil compatible to that in which it will be installed. (92.9 square meter) Fertilizer shall be applied to the sod and in which it will be installed. Sod must be kept moist prior to and after installation.
2. Seed shall be delivered to the site in unopened bags with certification tags in place. Purity, germination and weed content shall be as specified in the requirements.

D. Mulch:

1. Mulch shall be 100% recycled wood mulch, thoroughly mixed with a pre-emptive weed killer according to the label directions. If recycled mulch is not specified, the Contractor shall install pine bark, or other as specified on the plans
2. Install mulch to an even depth of 3 inches (75 millimeters) before compaction.

E. Fertilizer:

1. Granular fertilizer shall be uniform in composition; free flowing and suitable for application with application equipment received at the site in full, labeled, unopened bags bearing the name, trade name or trademark and warranty of the producer; fully conforming to State of Florida fertilizer laws.
2. All fertilizer shall bear the manufacturer's statement of analysis and shall contain the appropriate minimum amount of nutrients for the type of fertilizer specified.
3. Agriform 20-10-5 fertilizer tablets or approved equal, shall be placed in planting pit for all plant materials at time of installation and prior to completion of backfilling.
4. Ground cover and annual areas shall receive fertilization with Osmocote Time Release Fertilizer according to product instructions and rate.
5. For sod and seeded areas, fertilize with a complete granular fertilizer on Bahia and St. Augustine grass at the rate of one (1) pound (.4536 kilogram) of nitrogen per one thousand (1,000) square meters. Fertilizer shall be applied to the surface of the sod, grade, mixed granules, with 30% - 50% of the nitrogen being in slow or controlled release form. The ratio of nitrogen to potash will be 1:1 or 2:1 for complete fertilizer formulations. Phosphorus shall be no more than 1/4 the nitrogen level. They shall also contain magnesium and micronutrients such as (i.e. manganese, iron, zinc, copper, etc.).

F. Tree Staking Materials

1. For hardwood trees, approved below-grade staking shall be used at the rootball. per the planting detail. Metal strand guy wire shall not be used.
2. For single trunk palms, stakes shall be cut from 2 inch (50 millimeters) x 4 inch (100 millimeters) pressure treated lumber, with a stake with a minimum of 3 stakes per palm. Batten consisting of 5 layers of burlap and 5 – 2 inch (50 millimeter) x 4 inch (100 millimeter) by 16 inch (400 millimeter) wood connected with two – 3/4 inch (19 millimeter) steel bands shall be used around the palm trunk.
3. Other tree staking systems may be acceptable if approved.

G. Planting Soil

1. Unless stated on the plans or in the specifications, install plant material in tilled and loosened native soil backfill. It is the responsibility of the Landscape Contractor to test, prior to planting and at no additional cost to the Contract, any soils which may be unsuitable for the vigorous growth of plants. Unsuitable conditions shall be reported to the Landscape Architect immediately in writing.
2. When required, planting soil media shall be provided by the Contractor and shall consist of 1/3 peat and 2/3 sandy loam, with no lumps over 1 inch (25 millimeters).
3. Backfill and clean fill dirt provided by the Contractor shall be in a loose, friable soil. The soil must be free of rocks, sticks with a minimum of 3 stakes per palm. Batten consisting of 5 layers of burlap and 5 – 2 inch (50 millimeter) x 4 inch (100 millimeter) by 16 inch (400 millimeter) wood connected with two – 3/4 inch (19 millimeter) steel bands shall be used around the palm trunk.
4. Bed preparation for annual beds under 1 gallon (3.785 liters) container size shall consist of 3 inches (75 millimeters) of Florida peat or other approved organic soil amendment spread over full length and width of planting area. Rototill organic loam (150 millimeters) to 5 inches (200 millimeters) into native soil.

H. Soil Amendments:

1. Terra-Sorb AG or approved equal, soil amendment shall be mixed with native or planting soil for all trees, shrubs, ground cover, and annuals according to manufacturer's recommended application rates and methods, if specified on the Plans.

I. Tree Protection

1. Wood fencing shall be 2 inch (50 millimeters) x 4 inch (100 millimeters) pressure treated (p.s.) stock with lagging on horizontal members. Space vertical members 6 feet (1.83 meters) to 8 feet (2.44 meters) on center. The baricade shall be placed so as to protect the trunk of the tree from any zone in which is the base surround a tree within a circle described by the DBH of a one foot for each inch (25 millimeter) of the tree's diameter at breast height radius at 4 – 1/2 feet (1.37 meters) above grade.

J. Root Barrier System

1. Root barrier fabric shall be installed when specified in the plans and/or specifications for protection of adjacent paved surfaces according to specific product name or instruction. Install as directed by the manufacturer.

K. Packaged Materials:

1. Deliver packaged materials in containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored at the site.

L. Pesticides

1. Pesticides shall be only approved, safe brands applied according to manufacturer's directions.

3.00 EXECUTION

3.01 PREPARATION

A. Obstructions Below Ground:

1. It shall be the responsibility of the Contractor to locate and mark all underground utilities, irrigation lines and wiring prior to commencement of the work.
1. If underground construction, utilities or other obstructions are encountered in excavation of planting areas or pits, the Landscape Architect shall be immediately notified to select a relocated position for any materials necessary.

B. Grading and Preparation for Plant Materials

1. All proposed landscape areas containing existing turf grass or weeds shall be treated with Monsanto's "Round-Up" per manufacturer's specifications. All proposed landscape areas adjacent to water bodies shall be treated with Monsanto's "Rodeo" per the manufacturer's specifications.
2. New plant materials will not be installed until a 98% weed/turf eradication has been achieved. More than one application may be required to produce an acceptable planting bed.
3. A pre-emergent herbicide may be applied, but it is not a substitute for spray treatment of "Round-Up" or "Rodeo".
4. Should any plant material in the same, or adjacent beds be damaged by these chemicals, the same size, quantity and quality of plants shall be immediately replaced by the Contractor at no cost to the Owner.
5. Any necessary corrections or repairs to the finish grades shall be accomplished by the Contractor. All planting areas shall be carefully graded and raked to smooth, even finish grade, free from depressions, lumps, stones, sticks or other debris and such that they will conform to the required finish grades and provide uniform and satisfactory surface drainage without puddling.
6. The contractor shall remove debris (sticks, stones, rubbish) over 1 – 1/2 inches (38 millimeters) in any dimension from individual tree, shrub and hedge pits and dispose of the excavated material off site.

C. Preparation for Annual Bed Planting

1. Prepare native subgrade by rototilling or loosening by hand methods. Spread 3 inches of Florida peat (1/3), sandy loam (1/3), or other approved organic soil amendment over the full length and width of planting area for annuals. Rototill 150mm organic loam to 150 millimeters (6 inches) to 8 inches (200 millimeters) into the native soil. Grade the planting bed by "crowning" to insure that surface drainage, percolation, and aeration occur at rapid rates. Add Osmocote time release fertilizer according to product instructions and rate.

D. Preparation for Seeding and Sod Areas

1. All proposed sod areas containing existing turf grass or weeds shall be treated with Monsanto's "Round-Up" per manufacturer's specifications. All proposed sod areas adjacent to water bodies shall be treated with "Rodeo" per the manufacturer's specifications.
2. Limit preparation to areas which will be planted promptly after preparation. Loosen grade of seed and sod areas to a minimum depth of 4 inches (100 millimeters).
3. Immediately prior to any turf work, the Contractor shall finish grade the soil to a smooth, even surface assuring positive drainage away from buildings and the subsequent turf flush to the tops of adjacent curbs and sidewalks. The surface shall be sloped to existing yard drains.
4. A complete fertilizer shall be applied to St. Augustine or Bahia grass at a rate of one (1) pound (.4536 kilogram) of nitrogen per 1000 square feet (92.9 square meters). Fertilizer shall be commercial grade, mixed granules, with 30%-50% of the nitrogen being in slow or controlled release form. Thoroughly work fertilizer into the top 4 inches (100 millimeters) of soil.
5. Moisten prepared seed and sod areas before planting lawn if soil is dry. Water thoroughly and allow surface moisture to dry before planting lawns. Do not create a muddy soil condition.

3.02 INSTALLATION

A. Berm Construction (If specified)

1. Install berms at location and design shown on Plans and at the height and slope indicated. Height shown is for finished berm with soil at natural composition.
2. Exact location and configuration of berms may require modification to allow proper drainage; such changes will be coordinated with the Landscape Architect.
3. If shown on the Plan, construct berms using clean sandy loam fill dirt which is well-drained, free of rocks, roots, or other debris, with a soil pH of an acid nature (about 6 to 7.0). No heavily organic soil, such as muck or peat shall be used in berm construction.

B. Layout of Plant Materials:

1. Unless otherwise stipulated, plant materials shall be approximately located per the plans by scale measurements using established building, columns, curbs, screen walls, etc. as the measuring reference point. Slight shifting may be required to clear obstructions, prevent blockage of doors, etc.
2. Shrubs and ground covers shall be located and spaced as noted on the plant material schedule (if provided), otherwise plants will be placed in the planting beds at the normally accepted spacing for each species.
3. Leave a minimum 18 inch (450 millimeters) border of mulched space between outer edges of installed plant material and the bed line, curb, or building foundation wall for all plant sizes.
4. Any necessary "minor" adjustments in the layout of planting shall be made by the Contractor with the approval of the Landscape Architect in order to conform as nearly as possible to the intent of the plans.

Planting Procedures:

1. All shrubs, trees and ground covers or vines shall be planted in pits having vertical sides and being circular in outline. Planting pit shall be 3 to 5 times the width of the root ball and no deeper than the height of the root ball.
2. Plants shall be set straight or plumb, in the locations shown, at such level that after settlement normal or natural relationship of the top of the root ball with the ground surface will be established. With regards to proper nursery practices, plants under certain conditions (i.e. low and set deep) will benefit from being planted "high" with the root ball about 1 inch (25 millimeters) higher than the surrounding grade.
3. All plant materials shall be fertilized with Agriform 20-10-5 planting tablets, or approved equal, at time of installation and prior to completion of pit backfilling. Uniform planting tablets shall be placed in the soil directly around the root mass at a depth that is between the middle and the bottom of the root mass.
 - a. Application rate:

1 gallon (3.8 liter)	1 – 21 gram tablet
3 gallon (11.4 liter)	3 – 21 gram tablet
5 gallon (18.9 liter)	3 – 21 gram tablet
7 gallon (26.5 liter)	4 – 21 gram tablet
 - Tree:

3 tablets each 1/2 inch (12 millimeters) caliper
--
4. Native soil shall be used in back-filling plant pits or as specified. The Contractor shall be responsible for providing additional soil for building tree saucers.
5. When balled and burlapped plants are set, undisturbed native soil shall be left under the base of the root ball to prevent voids. Backfill filled and loosened native soil around the sides of the root ball. Remove the top 4 inches (100 millimeters) of soil, wire, and all balled material from the root ball. Do not remove these materials from the bottom of the root ball. Thoroughly water-in before bringing the back-fill up to the proper grade. Roots of bare plants shall be properly spread out, and planting soil carefully worked in among them. Culture to comply is cause for rejection.
6. Containerized plants shall be installed with undisturbed native soil left under the base of the root ball to prevent voids. Planting pit shall be 3 to 5 times the width of the root ball and no deeper than the height of the root ball. Backfill filled and loosened native soil around the sides of the root ball. Thoroughly water-in before bringing the backfill up to the proper grade.
7. Plant spacing shall be "on center" and varies with the different plant species. Space between a variety of plant species shall be 10 feet. Shrubs and ground covers adjacent to straight or curved edges shall be triangular-spaced in rows parallel to the straight edges. Plant minimum distance between shrubs (450 millimeters) from the back of the curb to the outside edge of the plant.
8. All azaleas shall be placed into a prepared bed of amended soil containing 50% weed-free Florida peat or approved equivalent. Root balls shall be scarified vertically at 120 degree angles in a triangular pattern.
9. Sabal palms may be planted deeper than normal if conditions warrant and if approved.

D. Sodding

1. During periods of drought, sod shall be watered sufficiently at its origin to moisten the soil adequately to the depth which is to be cut.
2. An application of 6-6-6, 40% organic, slow or controlled release fertilizer shall be made to all lawn areas prior to laying of the sod at a rate of one (1) pound of nitrogen (.4530 kilogram) per 1,000 square feet (92.9 square meters). The ground shall be wet down before the sod is laid in place.
3. Solid sod shall be laid tightly with closely abutting staggered joints with an even surface edge and sod edge, in a neat and clean manner to the edge of all the paving and shrub areas. Cut down soil level to 1 inch (25 millimeters) to 1 – 1/2 (38 millimeters) inches below top of curb prior to laying sod.
4. Within 2 hours after installing sod and prior to rolling, irrigate the sod. Sufficient water shall be applied to wet the sod thoroughly and to wet the sod to a depth of 2 inches (50 millimeters). Watering shall be done in a manner that will avoid erosion due to the application of excessive quantities, and the watering equipment shall be of a type that will prevent damage to the finished sod surface. Watering shall be repeated as necessary to keep the sod moist.
5. The sod shall be pressed firmly into contact with the sod bed using a turf roller or other approved equipment so as to eliminate air pockets, provide a true and even surface and insure knitting without any displacement of the sod or deformation of the spaces of sodded areas. The edges of the sod shall be smooth and shall conform to the grades indicated.
6. If, in the opinion of the Landscape Architect, top dressing is necessary after rolling, clean silica sand shall be used to fill voids. Evenly apply sand over the entire surface to be leveled, filling-in dips and voids and thoroughly watering into the sod areas.
7. On slopes steeper than 2:1 and as required, the sod shall be fastened in place with suitable wooden pins or by other approved method.

E. Seeding

1. Seed shall be installed or placed at the specifications of the State of Florida Department of Transportation. See plan for type of seed.

F. Tree Guying, Bracing and Staking:

1. Tree guying, staking and bracing shall be the responsibility of the Contractor per sound nursery practices, and shall be done per details shown on the Plans. For trees, a minimum of 2 stakes per tree or on optional 3 to 4 stakes per tree at equal spacing shall be used. Stakes shall be installed per the manufacturer's directions. All hardwood trees shall be staked with below-grade staking.
2. For single trunk palms, a minimum of 3 stakes per palm at 120 degree spacing shall be used. Install the stakes to below the planting of 3 layers of burlap and to 5 – 2 inch (50 millimeters) x 4 inch (100 millimeter) by 16 inch (400 millimeter) wood connected with two – 3/4 inch (19 millimeter) steel bands. Palms shall be staked with a minimum of 5 feet (1.5 meter) above-grade.
3. Contractor shall remove all palm guying, staking, and bracing from trees six (6) months after the date of final acceptance of the landscape work.
4. Contractor shall not remove below-grade staking and bracing from hardwood trees after the date of final acceptance of the landscape work.
5. Stakes only trees that require support to maintain a plumb position or are in potentially hazardous areas.

G. Mulching

1. All planting beds shall be weed-free prior to mulching.
2. All curb, roadway, and bed line edges will be "trenched" to help contain the applied mulch.
3. All plant beds and tree rings shall be mulched evenly with a 3 inch (75 mm) layer (before compaction) of 100% recycled wood mulch, or other mulch as specified on the Plans or General Notes.
4. Mulch shall not be placed against the trunks of plant materials or foundations of buildings. Maintain a minimum 6 inch (150 millimeters) clearance for trees and shrub trunks and a minimum 6 inch (150 millimeters) clearance for the walls of buildings.
5. For beds of annual flowers, a 12 inch wide (300 millimeter) x 3 inch (75 mm) top band of mulch shall be installed in front of the first row of annuals. Maintain a minimum 6 inches (150 millimeters) of non-mulched area from the outside edge of annuals.

H. Pruning

1. General pruning to maintain the natural shape and form of the plant shall be done by experienced personnel. Complex pruning operations or treatment of diseased tree members shall be done by a licensed arborist.
2. Upon acceptance by the Owner, prune any broken branches, remove crossed branches, and branches hanging below the clear trunk of the tree.

I. Clean-up

1. During landscape work, store materials and equipment where directed by the Owner.
2. The Contractor shall promptly remove any materials and equipment used on the job, keeping the area neat at all times. Upon completion of all planting, disposal of all excess soil and debris leaving pavements and work areas in a safe and orderly condition.
3. The clean-up of the site shall include the removal and proper disposal of the tree guying, staking, and bracing materials as described in these specifications.

J. Protection

1. The Contractor shall provide safeguards for the protection of workmen and others on, about, or adjacent to the work, as required under the parameters of the Occupational Safety and Health Administration (O.S.H.A.) standards.
2. The Contractor shall protect the Owner's and adjacent property from damage.
3. The Contractor shall protect the landscape work and materials from damage due to landscape operations. Maintain protection during installation and maintenance periods.
4. The Contractor shall provide protection (tree barricades) for all existing trees and palms as specified.

K. Repair of Damages

1. The Contractor shall repair all damage caused by his operations to other materials, property, or trades to a level equal in quality to the existing condition prior to damage.
2. The Contractor shall be held responsible for all damage done by his work or employees to other materials or trades or work. Patches and replacement of damaged work may be done by others, at the Owner's direction, but the cost thereof shall be paid by the Contractor.

Stolen Plant Materials and Other Materials Pertinent to the Project Installation

1. The Landscape Contractor shall be responsible for the entire replacement of plant materials and other materials pertinent to the project installation that are missing or stolen prior to the first final landscape inspection.

2. Plant materials that have been documented as installed and accepted by a landscape inspection performed by the Owner or the Owner's Representative shall not require replacement by the Landscape Contractor.

3. The Landscape Contractor shall be responsible for retaining the proper insurance coverage to protect against theft of plant materials and other materials pertinent to the project installation.

3.03 MAINTENANCE

A. The Contractor shall maintain all plant materials in a first class condition from the beginning of landscape construction until final acceptance. Cost of maintenance until final acceptance to be included in bid, no change orders for maintenance will be accepted.

B. Operations:

1. Maintenance shall include, but not be limited to, watering of turf and planting beds, mowing, fertilizing, cultivating, weeding, pruning, disease and pest control, replacement of dead materials, straightening, turf or planter settlement corrections, replacement of rejected materials, staking and guying repair and tightening, wash-out repairs and repainting, and any other procedures consistent with the good horticultural practice necessary to insure normal, vigorous and healthy growth of all work under the Contract. Mowing shall be consistent with the recommended height per the University of Florida Cooperative Extension Service.

2. Within the warranty period, the Contractor shall notify the Owner of any maintenance practices being followed or omitted which would be detrimental to the healthy vigorous growth of the landscape.

3. The Contractor shall be responsible for the final watering of not less than one inch of water for all planted materials before leaving the site.

3.04 INSPECTION, REJECTION, AND ACCEPTANCE

A. Inspection Contractor.

1. Upon completion of the installation, the Contractor will notify the Owner or the Owner's Representative that the job is ready for inspection. Within 15 days of notification, the installation will be inspected by the Landscape Architect. A written and/or graphic inspection report will be sent to the Owner and/or Landscape Architect.

2. If the Landscape Contractor's work is not completed and a final landscape inspection is requested by the Landscape Contractor, then all subsequent landscape inspections after the first inspection, including written and/or graphic inspection reports shall be charged to the Landscape Contractor at a rate of \$80.00 per hour. The Landscape Contractor shall be responsible for compensation to the Landscape Architect for all final inspections and reports under the above-mentioned circumstances.

B. Rejection and Replacement

1. The Landscape Architect shall be the final judge as to the suitability and acceptability of any part of the work. Plant material will be rejected if it does not meet the requirements set forth in the Plans and Specifications.

2. Replace any rejected materials immediately or not later than 20 days, and notify the Landscape Architect in writing that the correction has been made.

C. Acceptance

1. After replacement of rejected plant material (if any) have been made, and completion of all other correction items, the Owner or Owner's Representative will accept the project in whole.

2. Upon final acceptance, the Owner assumes responsibility for maintenance within the terms of the Contract. Acceptance will in no way invalidate the Contractor's warranty period.

3. The Contractor's warranty period will begin after final acceptance of the project by the Owner.

3.05 OWNER'S OPTIONS

A. If evidence exists of any lien or claim arising out of or in connection with default in performance of this Contract, the Owner shall have the right to retain any payment sufficient to discharge such claim and all costs in connection with discharging such claim.

B. Where the Specifications call for any stipulated item or an "approved equivalent", or in words to that effect, the Contractor shall indicate the price of the type and species specified in the proposal, giving the price to be added or deducted from his contract price. The final selection rests with the Owner or Owner's Representative.

C. Where plants installed do not meet Specifications, the Owner reserves the right to request plant replacement or an appropriate deduction from the Contract amount to compensate for the value not received from the under-specified plant materials. No additional compensation will be made to the Contractor for plants installed that exceed Specifications.

3.06 WARRANTY

A. The Contractor shall warrantly all trees furnished under this contract for a period of 1 year and all shrubs for a period of 4 months. Material which is either dead or in poor health during this period or at completion will be replaced at no charge to the Owner. Should any of the plant materials show 50% or more defoliation during the Warranty Period, due to the Contractor's use of poor quality or improper materials or workmanship, the Contractor, upon notice shall replace without delay same with no additional cost to the Owner. Should any plant require replacing, the new plant shall be given the equal amount of warranty.

4.00 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

1. The quantity of Landscape for which payment will be made shall be the actual number of units measured in place and accepted. The units measured shall be as listed in the Bid Schedule. If a payment item for Landscape is not specifically included in the Bid Schedule, the quantity for which payment will be made shall be the quantity required to complete the work.

4.02 PAYMENT

A. Payment for Landscape shall be made at the prices stated in the Bid Schedule. If a payment item for Landscape is not specifically included in the Bid Schedule, payment for the work specified in this Section shall be included in the several unit and lump sum prices for all applicable items of work.

END OF SECTION

146 Second St. N. Ste. 302
St. Petersburg, FL 33701
T/ 727.821.5699

CONSULTANTS

CIVIL ENGINEER
B.S.E. CONSULTANTS INC.,
312 S. HARBOR CITY BLVD. #4
MELBOURNE | FL
321.725.3674

ARCHITECTURE

Charlan Brock & Associates
1770 Fennell St.
Maitland | FL
407.660.8900

OWNER

FRAMEWORK GROUP LLC
1200 W. PLATT ST. STE 201
TAMPA | FL
813.443.0790

CIRRUS

WILLIAMSON BLVD.
COCOA | FL

SIGNATURE & SEAL

FL Registered Professional Engineer

PRICING SET

ISSUE DATE

1	PERMIT SET	08-31-20
2	PRICING SET	09-17-20

REVISIONS

NO.	COMMENTS	DATE

SHEET INFORMATION

JOB NUMBER	20045
DRAWN BY	JB/JW
CHECKED BY	JB/HE

SCALE: N/A

SECTION 02441 – IRRIGATION

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. The Bidding, Contractual and Special Conditions apply to all work herunder.

B. Related work specified or as shown elsewhere:

1. SECTION 02900 – LANDSCAPE

1.02 SCOPE OF WORK

A. Provide all labor, materials to install the specified Irrigation System as shown on the drawings and stated in the Technical Specifications.

B. Connection to existing water source on property at location shown on the drawings.

1.03 QUALITY ASSURANCE

A. Comply with Federal, State, County, Local and other duly constituted authorities and regulatory agencies.

B. Installation and materials shall conform to the Standards and Specifications for Turf and Landscape Irrigation Systems, Florida Irrigation Society, and the current Uniform Plumbing Code, Uniform Mechanical Code, state statutes and prevailing county and/or municipal ordinances.

1.04 JOB CONDITIONS

A. Responsibility to the Owner: The Contractor shall not wilfully install the plumbing irrigation system as specified in the Contract Documents when it is obvious in the field that there are obstructions, grade differences and/or discrepancies in area dimensions until such conditions are brought to the attention of the Landscape Architect.

B. Utilities and Structures: Attention is directed to the fact that overhead, underground and surface utilities, structures and vegetation are in the area of the work and must be protected against damage during the progress of the work.

C. Protection and Safety: The Contractor shall be responsible and liable for the protection and safety against injury of property and persons on or about the project site during the term of his work. The Contractor shall provide and properly maintain necessary warning signs and lights, barricades, railings and other safeguards. The Contractor shall conform with the current Occupational Safety and Health Standards.

D. Site Familiarity: The Contractor shall visit the project site to examine such conditions as soils, vegetation, utilities, structures, water supply, etc., as they will influence the work pursuant to bid submission and/or contract execution.

E. Utility Connections: Location of utility connections shall be shown on the plans or as shown by the utility company. The Contractor shall include in his bid all costs for such utility connections.

1.05 SUBMITTALS

A. Submit the following:

1. Submit proposed work schedule.

2. Product Data: Submit six (6) copies of manufacturer's technical data and installation instructions for underground sprinkler system. Submit samples of all materials and equipment to be installed on the project.

3. Equipment: Submit a schedule of equipment to be installed, to include: automatic controller, zone control valves, gate valves, vacuum breaker valves, pressure throttle valves, direct burial wire , pop-up rotor heads, pop-up spray heads, fixed shrub heads, bubbler heads, special purpose heads, emitter pipe, filters, fittings and valve boxes.

4. Design Data: Submit any all design data required under these specifications for all areas not shown on the irrigation plans that need irrigation rework of the existing system

1.06 DEFINITIONS AND ABBREVIATIONS

A. The Definitions and abbreviations given here below shall be considered a part of these specifications and shall apply to the interpretation and execution hereof.

1. P.S.I.: Static water pressure shall be given as pounds per square inch, abbreviated P.S.I., and where (1) P.S.I. shall equal 2.31 feet of head.

2. G.P.M.: Volume of water shall be given as gallons per minute abbreviated G.P.M.

3. Zone: A zone shall be defined as a group of heads or emitter pipes operating at the same time downstream under a common control valve. A zone shall be derived as further described hereinafter on the basis of available water pressure and volume and physical location/orientation.

4. P.V.C.: P.V.C. shall denote the abbreviation for polyvinyl chloride (schedule 40) material used in the manufacture of pipe and fittings as further specified hereinafter.

5. Polypipe and Polyconnectors: A flexible polyethylene pipe and fittings used in swing joints, head and pipe connectors and emitter systems.

6. Owner: That entity which holds title or control to the premises on which the work is performed.

7. Landscape Architect: This person or firm is the responsible representative of the Owner who produces the landscape and/or irrigation plans and specifications.

8. Contractor: In reference to these specifications, the "Contractor" shall mean the irrigation contractor bidding on and/or being awarded the contract for the work stipulated. Said Contractor shall be duly licensed and insured as an irrigation supplier/contractor to perform necessary water supply and distribution functions in the state, county and municipality where the work is to be executed.

9. Project: The project as referenced herein shall be that tract of real property where the irrigation system is to be installed.

10. Contract Documents: For the purposes of bid submission, contract agreement and execution of the work, the contract documents shall be binding upon all parties and shall include but not be limited to applicable plans, details, schedules, specifications and bidder instructions.

11. Equivalency: Relevant to manufacturer product lines specified herein, equivalents shall be of like type, manufacture, design, material, operation and performance. They shall be approved by the Landscape Architect.

12. The Plans: Design drawings and specifications provided by the Landscape Architect. In the event of conflict between the plans and the written specifications, the plans shall prevail.

PART 2 – MATERIALS

2.01 PRODUCTS

A. All material shall be of new stock and best grade of its kind, it shall be as specified unless otherwise specifically approved by the Landscape Architect. Materials not named shall be subject to approval or rejection by the Landscape Architect. In all cases, workmanship and material shall conform to the local plumbing code having jurisdiction. Materials shall be installed as recommended by the Manufacturer.

B. Available Manufacturers:

- Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include the following:
 - Rain Bird Sprinkler Mfg. Corp.
 - Hunter Industries
 - Netafim Irrigation
 - The Toro Co., Irrigation Division

C. Products the contractor wishes to substitute as an "Approved Equivalent" must be submitted to the Landscape Architect, in writing, a minimum of ten (10) days prior to the bid date. The Landscape Architect will provide either an approval or rejection of all products submitted in this fashion.

D. Plastic pipe shall be rigid, high impact, Type I, un-plasticized polyvinyl chloride. The pipe shall be homogeneous throughout and free from visible cracks, holes, foreign materials, blisters, deleterious wrinkles or dents and shall conform to the following dimensions and physical properties:

1. All plastic pipe shall be continuously and permanently marked with manufacturer's name, kind of pipe, material size, IPS, NSF approval, schedule and type.

2. Plastic pipe shall be as manufactured by Lasco, Celanese, Pacific Western, Johns Manville, Colonial, Universal, or as by specific emitter manufacturer.

3. Polyethylene pipe to be used for swing joints (for spray heads only), connectors or emitters, at appropriate P.S.I. ratings.

E. All main and lateral line piping used on this project shall be Schedule 40 P.V.C. unless otherwise approved in writing by the Landscape Architect and the Owner.

F. Pipe Fittings:

1. Plastic pipe fittings to be installed shall be medium weight injection molded for virgin Type II high impact un-plasticized rigid polyvinyl chloride (P.V.C.) molding compound. All plastic slip couplings shall be extruded fittings from same material as specified for plastic piping herein, unless otherwise approved by the Landscape Architect. Plastic pipe cement and lubricant shall be as recommended by pipe manufacturer.

2. Galvanized pipe and fittings: Where indicated, or required by code, use galvanized steel pipe ASA schedule 40 mild steel screwed pipe. Fittings shall be medium galvanized screwed, beaded malleable iron. Galvanized couplings shall be a merchant coupling.

3. Under Pavement Lines: All piping under concrete and asphalt vehicle pavement, curbs, unpaved areas subject to above normal loads shall be rigid P. V. C. Schedule 40.

G. Sprinkler Risers and Connectors:

1. Shrub risers are to be Schedule 40.

2. Pop-up spray connectors (from tee to head base) are to be threaded, flexible polyethylene.

3. Pop-up rotor connectors (from tee to head base) are to be rigid 1" Schedule 80 PVC or Marlex swing joints.

H. Valves:

1. Manufacturer's standard, of type and size required, and as herein further specified, clearly identified with purple markings or labels for Reclaimed Waste Water.

2. Automatic Circuit Valves: Globe or angle configuration valves operated by low-power solenoid, normally closed, manual flow adjustment. All electric/hydraulic control valves shall be fully compatible with the automatic controller with respect to the type of control, voltage, amperage or pressure specifications and "normal" sequence positioning.

3. Quick Coupling Valves (if specified): Shall have a brass two-piece body designed for working pressure of 150 P.S.I. operable with a quick coupler. Key size and type shall be as shown on the plans or presented in the equipment schedule. Cover to be clearly identified with purple markings for Reclaimed Waste Water.

1. Sprinkler Heads:

1. Manufacturer's standard unit designed to provide uniform coverage over entire area of spray shown on drawings at available water pressure. Top of head to be clearly identified with purple markings for Reclaimed Waste Water.

2. Pop-Up Spray: Fixed or adjustable pattern, with screw_type flow adjustment and stainless steel retraction spring.

3. Pop-up Rotary Sprays: Gear driven, full circle and part circle.

J. Valve Boxes:

1. All gate and control valves shall be set in valve boxes with snap lock covers flush with finished grade. Valve boxes shall be "Nelson 8500" or "Ametek".

K. Automatic Control System:

1. The automatic controllers shall be as specified on the Plans or shall be of a capacity as required to efficiently operate the zones throughout the building and parking lot sites. The 120 volt electrical power to the automatic controllers location is to be furnished by the Owner (See Facilities Manager for exact controller location). Irrigation Sub-Contractor shall make all connections in the low-voltage system between the automatic controller and the valves.

2. Schedule the controller time clocks to operate the system control as nearly as possible between the hours of 11:00 P.M. and 7:00 A.M, and on the days required by local watering guidelines for deep well water source systems.

L. Sleeves and Conduits:

1. All pipe and wiring under paving shall be placed in separate Schedule 40 P.V.C. sleeves and conduit respectively for the full pavement covered length. Sleeves and conduit are to be installed as shown on the Irrigation Plan or determined in the field. Sleeves and conduit shall be of adequate diameter to accommodate the pipe(s)/wire(s) with sufficient free play to allow removal and reinstallation without binding.

M. Control Wiring:

1. Connections between the automatic controllers and the electric control valves shall be made with direct burial wire AWG-U.F. #14-600 volt. Use red for pilot wire and white for common wire. Install in accordance with valve manufacturer's specifications and wire chart. Wiring shall occupy the same trench and shall be installed along the same route as pressure supply or lateral lines wherever possible. Place wire under water lines. Where more than one (1) wire is placed in a trench, the wiring shall be taped together at intervals of ten (10) feet. Tape to the bottom of the mainline at (8) foot intervals when in common trench. When wire only is placed in a trench, place under a continuous strip of subgrade: use pressure-treated southern yellow pine, 1" x 2", and attach to board at (8) foot intervals. An expansion cut shall be provided within three (3) feet of each wire connection and at least every one hundred (100) feet in length. Expansion cuts shall be formed by wrapping at least five (5) turns of wire around a pipe 1" (or more) in diameter, then without-wrap pipe. All splice fasteners shall be made with pan-tilt fasteners. All control wiring or tubing routed beneath or through pavements, walks, curbs and/or other structural elements shall be run through P.V.C. Schedule 40 conduit of sufficient diameter for wire pulling. All conduit and sleeves for irrigation pipes and control wiring shall be installed by the irrigation sub-contractor. The 120 volt electrical power to the controller location to be furnished by the Owner.

N. Valves:

1. General: Manufacturer's standard, of type and size required, and/or as specified on the Plans.

2. Gate Valves shall conform to federal specification WW 54, Type I, Class A, with all brass or bronze body, non-rising stem, "Kennedy #42" or "NIBCO #T-113".

3. Valves shall be clearly identified with purple markings and labels when Reclaimed Waste Water is used.

4. Automatic Circuit Valves: Globe or angle configuration valves operated by low-power solenoid, normally closed, manual flow adjustment. All electric/hydraulic control valves shall be fully compatible with the automatic controller with respect to the type of control, voltage, amperage or pressure specifications and "normal" sequence positioning.

5. Quick Coupling Valves: When specified, shall have a brass two-piece body designed for working pressure of 150 P.S.I. operable with a quick coupler. Key size and type shall be as shown on the plans or presented in the equipment schedule.

6. Other Valves: shall be as stated on the Plans.

O. Filters:

1. A Vu_Flow 60 mesh filter is required on all emitter systems. One filter will be required for each source of supply. Filters shall be located underground in an appropriately-sized meter box.

P. Backflow Prevention: (if applicable)

1. Backflow prevention shall be as approved by the local governing body.

Q. Emitter Pipe:

1. Emitter pipe shall be manufactured by one of the aforementioned suppliers for the express purpose of subsurface irrigation.

2. Pipe shall have prefabricated irrigation orifices placed 12 inches on center.

3. Emitter pipe, if different than those stated herein, must be approved in writing by the Landscape Architect.

PART 3 – EXECUTION

3.01 SYSTEM DESIGN

A. General:

1. The Contractor shall provide any additional irrigation design data required to complete the Contract Documents. All Contractor submitted design data must provide for a 100% coverage to all planting and sodded areas to be irrigated as shown on the plans.

B. Design Liability: 1. All irrigation design data provided by Contractor shall be the full liability of the Contractor. All such design data shall be consistent with manufacturer's materials and installation methods, code compliance, coverage, application, distribution and operation and the provided plans and technical specifications.

C. Design Pressures:

1. Design Pressures should be as recommended by the pipe and fitting manufacturer type of pipe selected, or as indicated on drawings.

D. Emitter Pipe Locations:

1. If design data is required, the Contractor is to provide final layout plans of the emitter system specified to reflect the zone and valve locations, and specified coverage.

2. The application rate shall not exceed the intake rate of the soil, and as recommended by the Manufacturer.

3. The system shall provide the capability of accomplishing complete watering of the entire area or areas, for the particular combination of soil type and vegetation being irrigated, within a period of time no greater than that currently being recommended by recognized authorities.

4. Friction losses for pipe will be determined by the Hazen-Williams Formula. The retardance coefficient for P.V.C. pipe shall be 150 and for galvanized steel pipe 100. "C" factors for other products shall be determined from Marks Mechanical Engineers Handbook or other comparable friction loss tables. Maximum water velocity shall not exceed 5 feet per second in any part of the system.

3.02 INSTALLATION

A. Comply with all requirements of the Uniform Plumbing Code.

B. Layout

1. The locations of heads are approximate. Make minor adjustments as necessary to avoid plantings and other obstructions and to obtain coverage. Pipe may be shown in building, concrete, and/or asphalt areas for clarity only. Locate all pipe in planting areas where appropriate.

2. Emitter lines shall be installed as shown on the Plans.

C. Excavation/Trenching

1. Trenches shall be dug straight. Trench bottoms shall be at true gradient providing support to pipe through its entire length and shall be free from rocks, clods, debris and sharp-edged objects. The minimum depth of lines measured to top of pipe, unless otherwise indicated on plans, shall be:

a. Main lines and quick coupler lines shall be 18".

b. Lateral sprinkler lines shall be 12".

c. Non-pressure rotor head lines shall be 15".

d. Emitter lines shall be 6"below finish grade.

e. Provide minimum cover of 18" for all control wiring.

2. Where required or indicated on the plans, existing sod shall be removed where trenches are to be dug, and shall be protected from drying and replaced within 48 hours. Sod shall be cut in such a manner that a minimum of 2" of soil remains on the roots. The soil should be moist, but not wet, to prevent excessive loss due to crumbling. This Irrigation Sub-Contractor shall have all the responsibilities to maintain sodding and grass; trees, shrubs, and plants; as required by Section 02900. This Irrigation Sub-Contractor may, at his option, contract with the Landscape, sodding and grass Sub-Contractor to handle this responsibility.

3. Back-fill shall not be placed until the installed irrigation system has been thoroughly inspected and tested by the Contractor (the Landscape Architect may request an inspection by his own personnel prior to back-filling of trenches). Back-fill material shall be approved soil, free from large rocks, debris or sharp objects. In general, the material removed from excavation may be used. Excavated rocky material shall be removed from the site and suitable fill material obtained for back-fill. Back-filling shall be done when pipe is not in an expanded or contracted condition due to temperature extremes. Cooling of the pipe can be accomplished by operation of the system for a short time before back-fill, or by back-filling in the early part of the morning before the heat of the day. Long runs of P. V. C. pipe shall be "ankered" in the trench to allow for contraction. Back-fill shall follow excavation with the least possible delay. Open trenches shall be adequately protected to cause the least possible hazard to and interference with people and animals. Back-fill shall be compacted in compliance with Earthwork Section. The operation shall be repeated until finished grade of back-filled trenches matches that of adjacent soil.

D. Water Connection:

1. Connect irrigation system to existing source on site. Connection shall include but may not be limited to the installation of appropriate gate valve, control valves, and concrete meter box as required. Coordination with affected persons in order to minimize irrigation downtime. Required modifications and/or relocations of equipment associated with the existing well shall be included in the irrigation work.

2. Municipal and County regulations must be adhered to during this and all other portions of work in this section.

E. Circuit Valves:

1. Provide union on downstream side.

2. Adjust automatic control valves to provide flow rate of rated operating pressure required for each sprinkler circuit.

3. Wherever possible, locate valves in plant bed areas for best concealment and accessibility.

4. Valves are to be installed in "Ametek" valve boxes, large enough to accommodate maintenance and operation of valves. Provide a 1/2" diameter river gravel slump 3" thick at bottom of valve pit.

F. Piping

1. Pipe shall be handled and stored in a manner to prevent damage. The plastic pipe and fittings shall be stored under cover, and shall be transported in a vehicle with a bed long enough to allow the length of pipe to lie flat so as not to be subject to undue bending or concentrated external load at any point. Any plastic pipe that has been dented or damaged shall not be used unless such damage has been cut and pipe is rejoined with a coupling.

2. Clean interior of pipe thoroughly and remove all dirt or foreign matter before lowering pipe into trench. Keep pipe clean during operations by plugs or other approved methods. The ends of all threaded pipe shall be reamed out full size with a long taper reamer so as to be partially bell-mouthed and perfectly smooth. All offsets shall be made with fittings. All water lines shall be thoroughly flushed out before heads are installed.

3. Lay pipe on solid sub_base, uniformly sloped without humps or depressions.

4. Install P.V.C. pipe in dry weather when temperature is above 40 degrees Fahrenheit in strict accordance with manufacturer's instructions. Allow joints to cure at least 24 hours at temperature above 40 degrees Fahrenheit before testing, unless otherwise recommended by manufacturer.

5. Welded joints shall be given at least 15 minutes set-up curing time before moving or handling. Pipe shall be partially center loaded to prevent arching and whipping under pressure. Plastic pipe shall be cut with a hand saw, hacksaw or other tool approved for such use in a manner so as to insure square ends. Burrs at cut ends shall be removed prior to installation so that a smooth unobstructed flow will be obtained. All plastic-to-plastic joints shall be solvent_weld joints. Only the solvent recommended by the pipe manufacturer shall be used. The solvent_weld joints shall be made in the following manner:

a. Thoroughly clean the mating pipe and fitting with a clean dry cloth.

b. Apply primer to all connections prior to applying solvent. Use only compatible primer following manufacturer's specifications.

c. Apply a uniform coat of solvent to outside of the pipe with a non-synthetic bristle brush. Apply solvent to the fitting in a similar manner.

d. Reapply a light coat of solvent to pipe and quickly insert it into the fitting. Give the pipe or fitting a quarter turn to insure even distribution of the solvent and make sure that the pipe is inserted to the full depth of the fitting socket.

e. Hold in position for 15 seconds. Wipe off excess solvent that appears at the outer shoulder of the fittings.

f. Core shall be taken so as not to use an excess amount of solvent thereby causing a burr or obstruction to form on the inside of the pipe. The joints shall be allowed to set at least 24 hours before pressure is applied to the system.

E. Pipe jointing, in general, shall be performed by competent tradesmen specially trained in the type of work required and using tools and equipment recommended by the manufacturers of the pipe, fittings or equipment.

F. Galvanized Steel Pipe and Fittings: Threads shall be sound, clean cut, and well fitting. Threaded joints shall be made up with the best quality pure joint compound or lead paste, carefully and smoothly placed on the male threads only, throughout the system. Any leaky joints shall be remade with new material. Use of thread cement or caulking to make joints tight will not be permitted. All cut ends shall be remade to full bore before assembly.

G. Plastic to Steel Connections: Male thread plastic to female thread steel shall be used. The same shall apply to plastic and brass or other metal. In no case shall metal be screwed into a plastic fitting. A non-hardening pipe dope such as "Permatex No. 2", or equal, shall be used on threaded plastic to metal joints, and light wrench pressure should be used.

H. Hose bibs:

1. If specified, shall be installed up stream of the electric valve in the same meter box. (Hose bibs may be used with a pressure gauge to check operating pressure.)

I. Miscellaneous Emitter Equipment:

1. Pressure gauges and other miscellaneous equipment may be required by the manufacturer for ideal operation of the emitter system. The Contractor shall provide all necessary equipment for the full operation of the emitter system as recommended by the manufacturer.

J. Sprinkler Heads and Adjustment:

1. Sprinkler heads shall be installed in a plumb position at intervals not to exceed the maximum spacing specified by the manufacturer for project conditions, or as indicated on the drawings.

2. Heads in turf areas shall be installed 2" minimum to 6" maximum away from the edge of the curb or walk, and shall be set 3/8" below the edge of the curb or walk. All heads shall be installed on flexible connectors or swing joints and shall allow for vertical adjustment of heads. 6" pop-up spray heads or pop-up rotors (where appropriate) shall be used in turf areas.

3. All groundcover areas, including mass plantings of dwarf shrubs not exceeding 22", shall be irrigated with 12" pop-up spray heads and extenders.

4. Shrub risers shall only be installed in hedges or mass plantings of large shrubs and are not to extend more than 3" above the installed height of the shrub. If risers are used in hedges abutting parking areas, they must be placed a minimum of 30" away from back of curb and imbedded in hedge so as not to be seen or damaged by vehicle overhang. All risers and other above-ground piping and fixtures shall be painted with a permanent flat black enamel paint. Stake all risers over 2' with 1/4" reinforcing rod fastened securely to riser.

5. Provide swing joints on all pop-ups and rotors located adjacent to vehicular and pedestrian ways. Flexible polypipe may be used as swing joints for spray heads only. All rotor heads shall be installed with rigid 1" Schedule 40 PVC swing joints.

6. Pop-up heads adjacent to vehicle pavement that is not curbed shall be installed with concrete donut protectors set flush with the top of the heads. Heads installed adjacent to pedestrian curbs or walks shall be installed 6" away from the curb or walk. Where adjacent to buildings, fences or similar structures, heads shall be installed 6" away from the structure.

7. Install no multiple assemblies on plastic lines. Provide each assembly with its own outlet.

8. Adjustable sprinklers shall be adjusted by fully opening the sprinkler farthest from the control valve. The manual adjustment of the control valve shall be opened slightly to obtain a 12" high spray at the sprinkler mentioned above. After this condition has been met, all other sprinklers in the section shall be adjusted for equal height sprays, regulating the control valve as required maintaining this condition. With pressure gauge on the sprinkler first opened, the control valve shall be adjusted to obtain the catalog rated pressure for the sprinkler installed. Individual heads shall be rotated as required to keep sprays within the areas of lawn or shrubbery. If it is determined that adjustments in the irrigation equipment will provide proper and more adequate coverage, make such adjustments prior to planting. Adjustments may also include changes in nozzle sizes and degrees of arcs as required.

3.03 SYSTEM CHECK

A. In no event shall the Contractor cover up or otherwise remove from view any work under this contract that has not been thoroughly inspected and tested. The Owner and/or Landscape Architect shall be present at time of inspection and testing. Any work covered prior to being inspected shall be opened to view by the Contractor at his expense. Notify the Owner and Landscape Architect when testing will be conducted.

B. Pressure Testing: All pressure lines shall be tested prior to back-fill of joints. As soon as lines are connected, flushed out, and valves are attached, cap all outlets and hydrostatically test at available pressure for a continuous 4 hour period, at the end of which the lines and joints shall be inspected. If leaks develop, the joint or joints shall be replaced, and the tests repeated until all leaks are repaired. Any covered pipe found to leak, shall be excavated and repaired at the Contractor's expense.

C. Operational Testing: The entire installation shall be placed in operation by the Contractor and tested in the presence of the Owner or his Representative for proper functioning as a whole. Location and arc of heads shall be adjusted if required to eliminate any dry spots, over-water or spillage on adjacent areas and to prevent over-spray onto walks, roadways and buildings as much as possible.

3.04 AS BUILT RECORDS AND ADDITIONAL EQUIPMENT

A. Furnish record drawings of "as built" conditions as follows:

1. Location of water supply.

2. Tie-in and Owner furnished electrical service and disconnects.

3. Location of valve controllers and other control equipment.

4. Routing and sizing of sprinkler pipe.

5. Location and type of sprinkler heads.

6. Location and size of gate and zone control valves.

7. Routing of zone control valve electrical wiring.

8. The location of all "as built" conditions different from the original drawing shall be to scale from permanent points of reference. Exact location of main lines, control cables, and control valves shall be shown.

B. The Contractor shall provide as part of this contract two sets of sprinkler wrenches for adjusting, cleaning or disassembling each type of sprinkler. Two each of any special tools required for any other equipment shall also be furnished.

C. Six (6) service manuals for all equipment used shall be furnished to the Owner. Manuals may be loose-leaf and should show drawings or exploded views of equipment and catalog number. Operation instructions for all equipment shall be furnished.

3.05 WARRANTY

A. The Irrigation Sub-Contractor and Contractor shall Warranty all materials employed in the irrigation installation, are installed as specified and is in accordance with best trade practices. The Warranty shall also state there are no unauthorized substitutions of materials.

B. The Irrigation Sub-Contractor and Contractor shall warrant the work for a period of one (1) year.

C. The Contractor shall be responsible to replace all plant materials which have declined in health or have died due to a defective irrigation system. The contractor shall replace affected plants with plants of some variety and value within ten days of notice.

D. Corrections: Should any trouble develop within the specified warranty period which in the opinion of the Owner is due to inferior or faulty materials and/or workmanship, the trouble shall be corrected without delay by the Contractor, to the satisfaction of and at no expense to the Owner.

E. Liability: Any and all damage to rain water drains, water supply lines, gas lines and/or other service lines, shall be repaired and made good by the Contractor at no extra cost to the Owner. It is the responsibility of the Contractor to be aware of the location of all utilities or other permanent or non-permanent installations and to protect these installations from any damage whatsoever.

END OF SECTION



146 Second St. N. Ste. 302
St. Petersburg, FL 33701
T/ 727.821.9699

CONSULTANTS

CIVIL ENGINEER

B.S.E. CONSULTANTS INC.

312 S. HARBOR CITY BLVD. #4
MELBOURNE | FL
321.725.3674

ARCHITECTURE

Charlan Brock & Associates

ORDINANCE NO. 03-2021

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA; AMENDING THE OFFICIAL ZONING MAP DESIGNATION OF ONE (1) PARCEL OF REAL PROPERTY, TOTALING 15.74 ACRES, MORE OR LESS, AND GENERALLY LOCATED ON STATE ROAD 524, DIRECTLY 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, FROM GENERAL COMMERCIAL (CG) TO PLANNED UNIT DEVELOPMENT (PUD); 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, the Planning and Zoning Board and City Staff of the City of Cocoa have recommended approval of this Ordinance; and

WHEREAS, the City Council of the City of Cocoa held two duly noticed public hearings on the proposed zoning change 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 to include

a change of classification from General Commercial (CG) to Planned Unit Development (PUD) for the real property depicted and described on **Exhibit A**, attached and incorporated herein by this reference, in accordance with the final development plan as kept on file with the City of Cocoa in File No. _____ and the Development Agreement dated _____, recorded in the Official Records of Brevard County at Book _____, Page _____. 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 _____, 2021.

Michael C. Blake., Mayor

ATTEST:

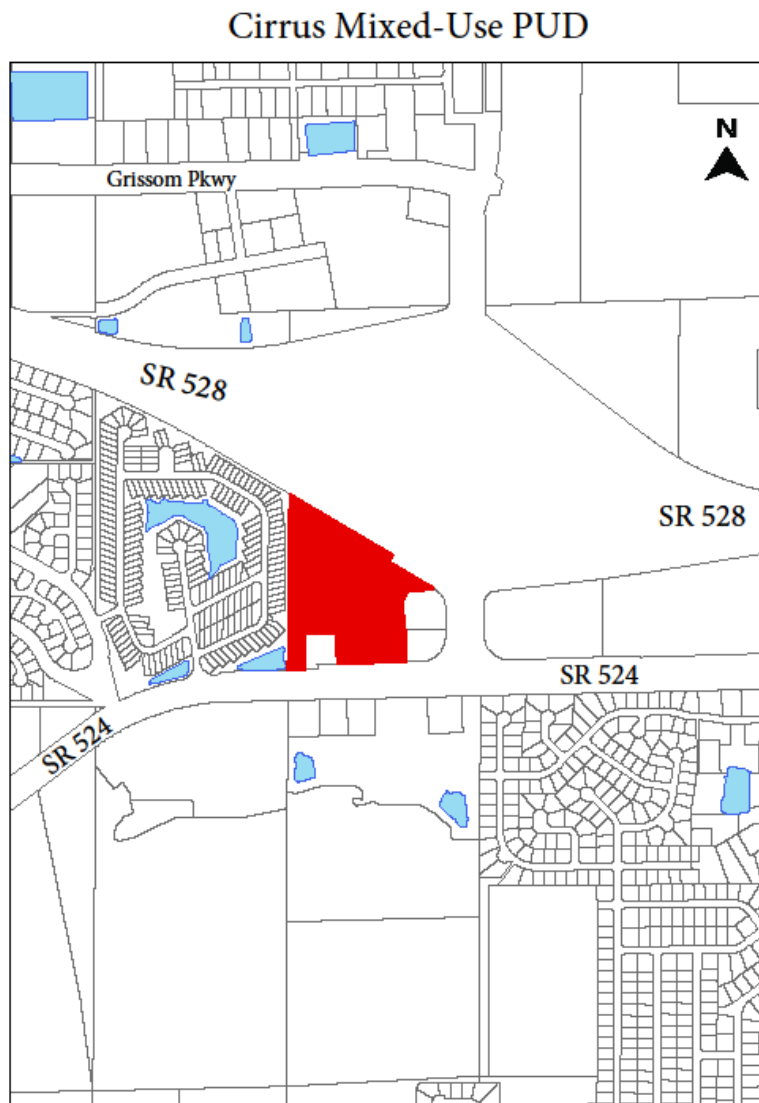
CARIE SHEALY, MMC
City Clerk

First Reading: _____
Legal Ad Published: _____
Effective Date: _____

EXHIBIT A

Legal Description and Depiction

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.









TRAFFIC IMPACT STUDY

COCOA APARTMENTS
CITY OF COCOA, BREVARD COUNTY



Prepared for:

Framework Group, LLC
1200 W Platt Street, Suite 201
Tampa, Florida 33603

Prepared by:

Traffic Planning and Design, Inc.
535 Versailles Drive
Maitland, Florida 32751
407-628-9955

August 2020

TPD № 5382

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 Apartments
LOCATION: City of Cocoa, Brevard County
CLIENT: Framework Group, 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: August 31, 2020

SIGNATURE:



TABLE OF CONTENTS

	Page
INTRODUCTION	1
EXISTING CONDITIONS ANALYSIS	3
Roadway Segment Analysis	
Intersection Analysis	
PROPOSED DEVELOPMENT AND TRIP GENERATION	6
Trip Generation	
Trip Distribution/Trip Assignment	
Significance Analysis	
PROJECTED TRAFFIC CONDITIONS	11
Roadway Segment Analysis	
Intersection Analysis	
Site Access and Auxiliary Lanes	
STUDY CONCLUSIONS	14
APPENDICES.....	15
A Space Coast/TPO Traffic Count Database	
B Intersection Traffic Counts & Adjustments Factors	
C Existing HCS Capacity Worksheets	
D ITE Trip Generation Sheets	
E Model Distribution Plot	
F Trends Analysis Worksheets	
G Projected HCS Capacity Worksheets	

TABLE OF CONTENTS, continued

LIST OF TABLES

	Page
Table 1 Existing P.M. Peak Hour Roadway Capacity Analysis.....	3
Table 2 Existing Intersection Capacity Analysis	4
Table 3 Trip Generation Summary.....	7
Table 4 Significance Analysis	10
Table 5 Projected Traffic Conditions Analysis	11
Table 6 Projected Intersection Capacity Analysis.....	12

LIST OF FIGURES

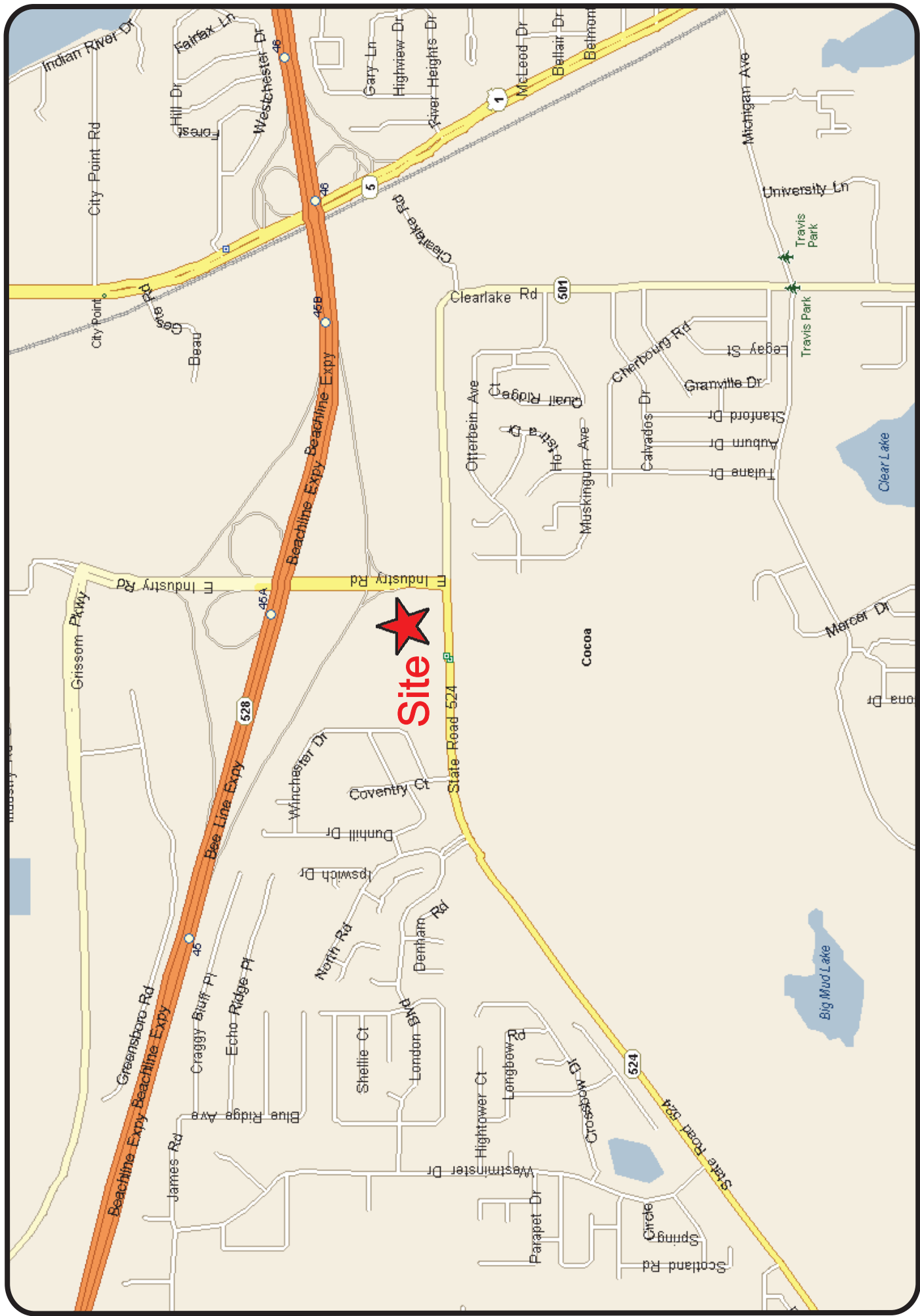
Figure 1 Site Location	2
Figure 2 Existing P.M. Peak Hour Traffic Volumes	5
Figure 3 Site Plan	8
Figure 4 Trip Distribution and Assignment.....	9
Figure 5 Projected P.M. Peak Hour Traffic Volumes	13

INTRODUCTION

This analysis was undertaken in order to assess the traffic impact of the proposed development of the Cocoa Apartments in Cocoa, Brevard County. Located in the northwest corner of the SR 524 and E. Industry Road intersection, the development will consist of 280 multi-family dwelling units and 20,000 square feet of retail commercial in an adjacent outparcel. **Figure 1** depicts the site location and the area roadways.

Data utilized in this study consisted of a site plan provided by Project Engineers, traffic volume data and Level of Service standards obtained from the Space Coast MPO. Additionally, intersection turning movement counts were collected by Traffic Planning and Design, Inc. staff.





Site Location

EXISTING CONDITIONS ANALYSIS

A capacity analysis was performed for the study roadway segments and intersections identified utilizing a 5% significance threshold as per Brevard County guidelines. As will be documented subsequently, only a short segment of SR 524 adjacent to the project site will be significantly impacted. Therefore, this and other adjacent roadway segments and the closest signalized intersections were included in the analysis. The analysis was conducted utilizing existing traffic volumes to establish the current operating conditions for the daily conditions for the roadway segments and P.M. peak hour traffic conditions for the intersections.

Roadway Segment Analysis

The adjacent roadway segments were analyzed by comparing their existing traffic volumes with the adopted LOS/capacities for daily traffic conditions. The existing daily traffic volumes and adopted LOS capacities were obtained from the Space Coast TPO. Pertinent pages from the traffic count database are included in **Appendix A**. The existing capacity analysis is summarized in **Table 1**.

Table 1
Existing P.M. Peak Hour Roadway Capacity Analysis

Seg. ID	Roadway Segment	No. of Lanes	Functional Classification	Adopted*		Existing Daily Volume	V/C Ratio	LOS
				LOS	MAV			
SR 524								
76	Cox Rd to London Blvd	2	Urban Minor Arterial	D	19,470	13,380	0.69	C
	London Blvd to Site Access	2	Urban Minor Arterial	D	19,470	13,380	0.69	C
	Site Access to Industry Rd	2	Urban Minor Arterial	D	19,470	13,380	0.69	C
Clearlake Road								
95/50	SR 524 to Otterbein Ave	4	Urban Minor Arterial	E	41,790	18,610	0.45	C
31	Otterbein Ave to Michigan Ave	4	Urban Minor Arterial	E	39,800	19,350	0.49	C
Industry Road								
198	SR 524 to Grissom Pkwy	4	Urban Minor Arterial	E	41,790	20,700	0.50	C
594	Grissom Pkwy to Cidco Rd	2	Urban Local	E	15,600	4,570	0.29	C

* Based on the Space Coast TPO Traffic Count Spreadsheets

As shown, the existing conditions analysis reveals that the study roadway segments currently operate satisfactorily above their adopted Level of Service capacity.



Intersection Analysis

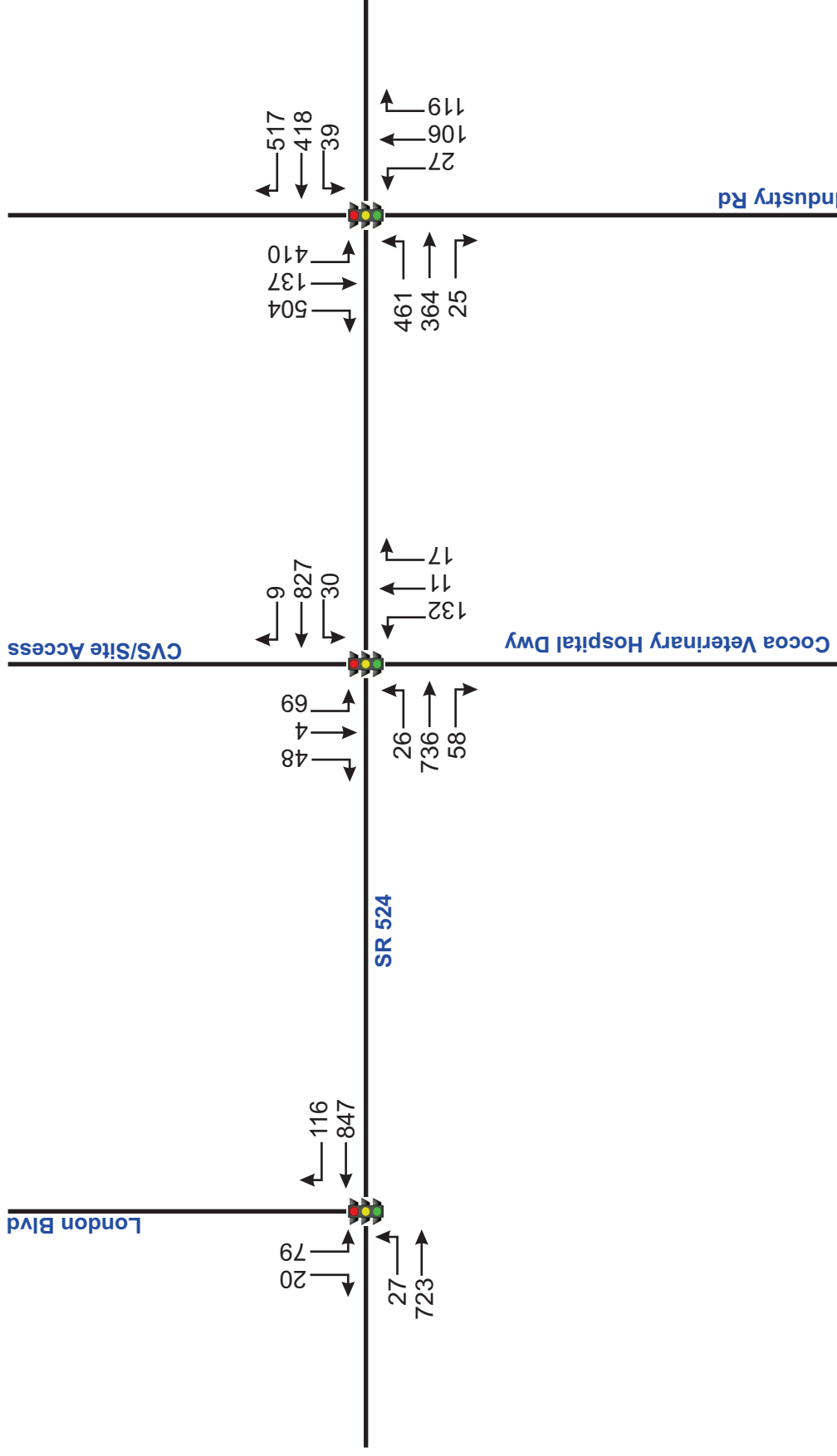
In addition to the adjacent roadway segments, three signalized intersections on SR 524 were included in the analysis. The intersections were analyzed in accordance with the procedures of the *Highway Capacity Manual (HCM 6E)* and *Highway Capacity Software (HCS)*. In the analysis, existing P.M. peak hour traffic volumes and intersection geometry were used. The intersection counts were made in August 2020 and may not represent normal traffic conditions due to COVID-19 pandemic. Therefore, a COVID factor of 1.23 was determined by comparing 2019 counts with the 2020 counts on Industry Road just north of SR 524. This factor was applied to the existing counts in addition to the Seasonal Factor (SF) of 1.11 obtained from FDOT for Brevard County. The adjusted intersection volumes in the form of turning movement counts are depicted in **Figure 2**. The intersection traffic counts and adjustments factors are included in **Appendix B**. The results of the intersection capacity analysis are summarized in **Table 2**.

Table 2
Existing Intersection Capacity Analysis

Intersection	Control	EB		WB		NB		SB		Overall	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 524/London Blvd	Signal	4.1	A	9.0	A	--	--	32.7	C	8.3	A
SR 524 & Site Entrance/SC west Entrance	Signal	21.6	C	24.4	C	61.4	E	65.2	E	28.7	C
SR 524 & Industry Rd	Signal	45.2	D	32.5	C	93.1	D	53.7	D	43.6	D

The study intersections currently operate at satisfactory Levels of Service. The *HCS* capacity analysis worksheets are included in **Appendix C**.





PROPOSED DEVELOPMENT AND TRIP GENERATION

The proposed development will consist of 280 multi-family dwelling units and 20,000 square feet of retail commercial. Access to the development will be provided by a signalized full access on SR 524 which currently serves the existing CVS store. **Figure 3** depicts the site plan and its access configuration. To determine the impact of the development in the area, an analysis of its trip generation characteristics was made. This included the determination of the number of trips generated by the site and their distribution onto the surrounding roadways.

Trip Generation

Trip generation rates were obtained from data contained in the Institute of *Transportation Engineers (ITE) Trip Generation Manual, 10th Edition*. The trip generation calculation of daily and P.M. peak hour volumes is summarized in **Table 3**, and the trip generation charts are included in **Appendix D**. The retail commercial development will generate 34% of its trips from the existing traffic stream on SR 524. Subtracting the pass-by trips results in new net trips to be added to the area roadways. The proposed development is estimated to generate 3,394 new net daily trips, 257 P.M. peak hour trips to be added to the area roadways.

Trip Distribution/Trip Assignment

To determine the distribution of the project trips in the area, the CFRPM (V6.1) was used. A slight modification was made to this model to add a TAZ representing the project and its SE data. Subsequently, the model was run with a Select Zone Analysis which produced a distribution of the project trips in the area. The model-generated distribution is included in **Appendix E**. The project trip distribution in the project vicinity is illustrated in **Figure 4**. Utilizing this distribution pattern, the development's daily and P.M. peak hour trips were assigned to the area roadways also shown in Figure 4.



Table 3
Trip Generation Summary

ITE Code	Land Use	Size*	Daily Trips		A.M. Peak Hour Generation				P.M. Peak Hour Generation			
			Rate	Trips	Rate**	Enter	Exit	Total	Rate**	Enter	Exit	Total
220	Multi-Family Residential	280 DU	7.4	2,076	0.45	29	98	127	0.53	93	55	148
820	Retail Commercial	20.0 KSF	100.6	2,012	0.94**	12	7	19	8.00	79	86	165
Total Trips			--	4,088	--	41	105	146	--	172	141	313
Pass-by Trips/Retail (34%) ***			--	694	--	4	3	7	--	27	29	56
Total Net New Trips			--	3,394	--	37	102	139	--	145	112	257

* DU = Dwelling Units, KSF=1,000 square feet

** Average Rate Used, other rates derived from ITE Equations ($R^2 > 0.75$)

***Obtained from the 3rd Edition of the ITE Trip Generation Handbook





Cocoa Apartments
Project No 5382
Figure 3

Significance Analysis

As per Brevard County procedures and requirements, the influence area of the proposed project will include those roadway segments where project trips consume 5% or more of the Maximum Allowable Volume (MAV). Based upon the significance test performed, as shown in **Table 4**, the project will consume 5% or more of the adopted MAV at only a short segment of SR 524 from the CVS/Site Access to Industry Road. This segment along with the adjacent roadway segments of SR 524, Industry Road and Clearlake Road were included in the analysis.

Additionally, the following intersections were included in the analysis:

- SR 524 & London Boulevard
- SR 524 & Site Entrance/CVS Entrance
- SR 524 & Industry Road

Table 4
Significance Analysis

Seg ID	Roadway Segment	Adopted		Project Trips		Significance **
		LOS	MAV	%*	Volume	
SR 524						
76	Cox Rd to London Blvd	D	19,470	17%	577	2.96
	London Blvd to Site Access	D	19,470	21%	713	3.66
	Site Access to Industry Rd	D	19,470	74%	2,512	12.90
Clearlake Road						
49/50	SR 524 to Otterbein Ave	E	41,790	42%	1,425	3.41
31	Otterbein Ave to Michigan Ave	E	39,800	37%	1,256	3.16
32	Michigan Ave to Rosetine St	E	39,800	18%	611	1.53
Industry Road						
198	SR 524 to Grissom Pkwy	E	41,790	32%	1,086	2.60
594	Grissom Pkwy to Cidco Rd	E	15,600	7%	238	1.52
Michigan Avenue						
48	Clearlake Rd to US 1	E	39,800	16%	543	1.36

*Highest Percentage on the Link

**Project Trips as % of MAV



PROJECTED TRAFFIC CONDITIONS

Projected traffic conditions were analyzed using projected traffic volumes for the roadway segments and study intersections in 2023. To determine the projected traffic volumes for the project's buildout year, background traffic volumes were combined with project trips. Background traffic volumes were estimated with the use of an annual growth rate of 2.00%. The historical trends analysis of traffic counts on SR 524 and Industry Road in the project vicinity indicated an annual growth rate ranging from 1.23% to 2.10% to the design year. The trends analysis charts are included in **Appendix F**.

Roadway Segment Analysis

Table 5 is an analysis of the projected traffic conditions for the study roadway segments. This table lists the roadway segments along with their number of lanes, functional classification, existing/ projected traffic volumes, LOS/capacity and resultant Level of Service. The table reveals that the roadway segments are projected to operate satisfactorily within their adopted LOS standards.

Table 5
Projected Traffic Conditions Analysis

Segment ID	Roadway Segment	# of Lns	Functional Classification	Adopted		Projected Daily Volume			V/C Ratio	Projected LOS
				LOS	MAV	Background*	Project Trips	Total Volume		
SR 524										
75	Cox Rd to London Blvd	2	Urban Minor Arterial	D	19,470	14,183	577	14,760	0.76	C
	London Blvd to Site Access	2	Urban Minor Arterial	D	19,470	14,183	713	14,896	0.77	C
	Site Access to Industry Rd	2	Urban Minor Arterial	D	19,470	14,183	2,512	16,695	0.86	C
Clearlake Road										
	SR 524 to Otterbein Ave	4	Urban Minor Arterial	E	41,790	19,727	1,425	21,152	0.51	C
	Otterbein Ave to Michigan Ave	4	Urban Minor Arterial	E	39,800	20,511	1,256	21,767	0.55	C
Industry Road										
198	SR 524 to Grissom Pkwy	4	Urban Minor Arterial	E	41,790	21,942	1,086	23,028	0.55	C
594	Grissom Pkwy to Cidco Rd	2	Urban Local	E	15,600	4,844	238	5,082	0.33	C

* Existing Volume X 1.06



Intersection Analysis

The projected traffic volumes at the study intersections, and the two site access driveways are depicted in **Figure 5**. The figure shows the background P.M. peak hour traffic along with traffic generated by the project. The intersections were analyzed utilizing *Highway Capacity Software (HCS)* in accordance with the *Highway Capacity Manual (HCM 6E)*. The results of this analysis as summarized in **Table 6** indicate satisfactory traffic operating conditions under projected conditions. The *HCS* capacity analysis worksheets are included in **Appendix G**.

Table 6
Projected Intersection Capacity Analysis

Intersection	Control	EB		WB		NB		SB		Overall	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 524/London Blvd	Signal	5.1	A	9.5	A	--	--	39.2	D	9.4	A
SR 524 & Industry Rd	Signal	43.2	D	33.0	C	46.3	D	67.2	E	47.8	D
SR 524 & Site Entrance/SC west Entrance	Signal	35.6	D	37.9	D	79.1	E	76.5	E	43.7	D

Site Access and Auxiliary Lanes

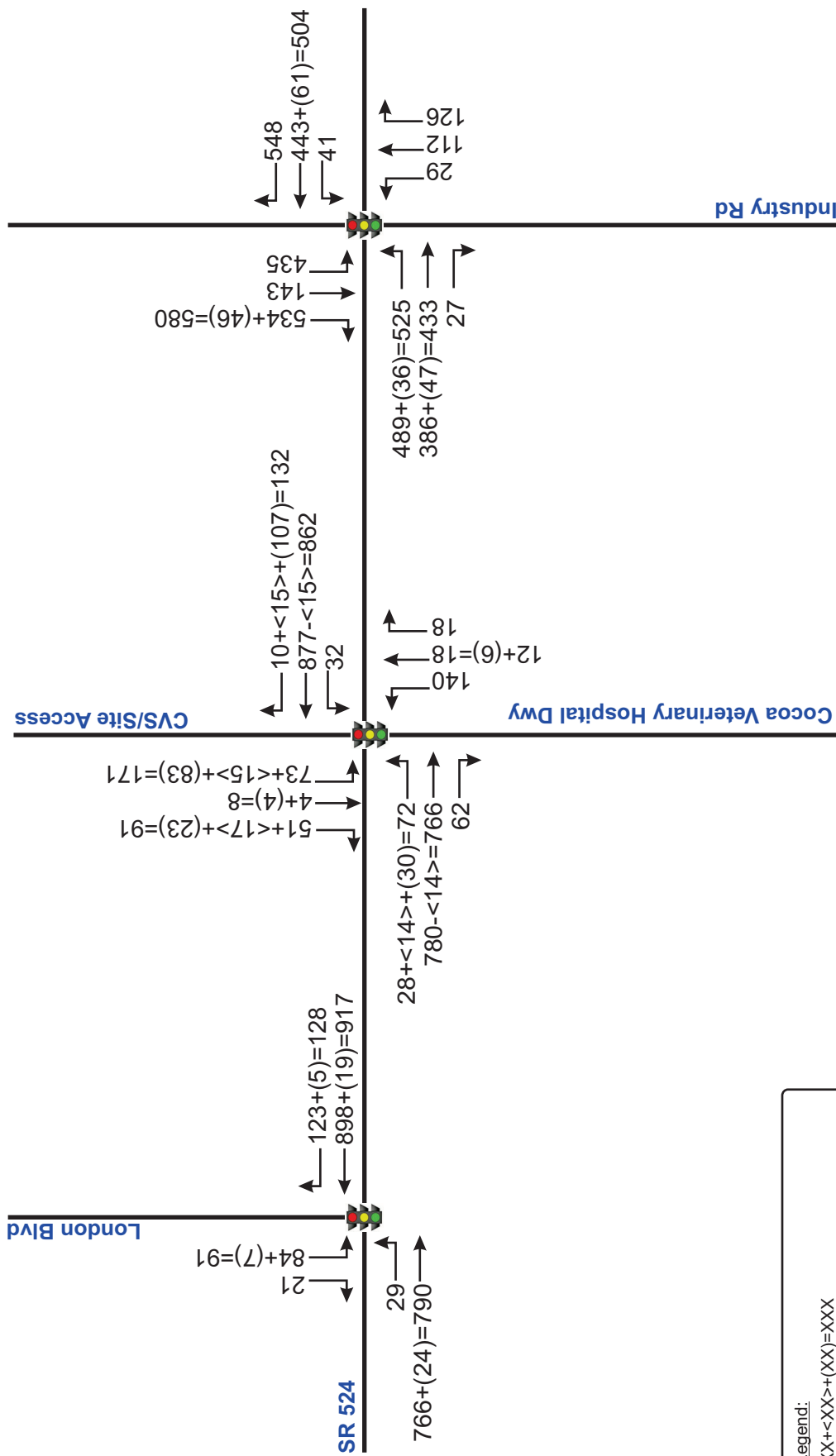
The site is proposed to be served by the existing signalized full access driveway on SR 524 which currently served the CVS store. A 465-foot long left turn lane and a 290-foot right turn lane exist at this site access driveway. To determine the adequacy of these turn lane lengths, the following analysis was performed:

Length Required = Deceleration Distance (DD) + Queue Length (QL)

- DD = 185 ft (for 45 mph), from FDOT Index 301
- Left Turn Lane required = 185 + 184 ft QL from HCS = 369 ft.
- Right Turn Lane Required = 185 + 110 ft QL from HCS = 295 ft

Based upon this analysis, the existing turn lane lengths are adequate.





STUDY CONCLUSIONS

This traffic analysis was conducted in order to assess the traffic impact of the proposed development of the Cocoa Apartments in Cocoa, Brevard County. Located in the northwest corner of the SR 524 and E. Industry Road intersection, the development will consist of 280 multi-family dwelling units and 20,000 square feet of retail commercial in an outparcel. The findings of this analysis are as follows:

- The proposed development will generate 3,394 new net daily trips and 257 P.M. peak hour trips.
- The analysis of existing conditions indicates that the impacted roadway segment and the study intersections currently operate at satisfactory Levels of Service.
- The analysis of projected traffic conditions revealed that the impacted roadway segments and the study intersections will not be deficient in traffic capacity. The roadway segments and the intersections are projected to operate at satisfactory Levels of Service with project trips added.
- The site is proposed to be served via an existing full access connection on SR 524 which is signalized. There are an existing right and left turn lanes which would be adequate for the projected turns as a result of the proposed development.



APPENDICES

APPENDIX A

Space Coast/TPO Traffic Count Database

SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2010 - 2019

ID	ROAD	SEGMENT (Sections)	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	Current MAV	Last Count Taken	Functional Classification
AREA: CENTRAL															
18	SPYGLASS HILL	MURRELL-PINEHURST	4,320	4,250	3,980	3,880	3,780	3,960	4,240	4,720	4,640	4,780	15,600	1/14/2019	Urban Minor Collector
	SR 520	ORANGE CO.-I-95	14,937	16,157	14,740	15,090	15,167	17,220	16,670	16,637	16,567	17,160			
534	SR 520	ORANGE CO.-SR 524	12,790	14,750	13,480	13,140	12,760	15,950	15,170	15,750	12,240	16,010	40,300	1/23/2019	Rural Principal Arterial Other
1	SR 520	SR 524-Friday	14,110	15,180	13,290	14,050	13,990	15,720	14,880	14,320	16,610	14,650	41,790	3/5/2019	Urban Principal Arterial-Other
84	SR 520	Friday-I-95	17,910	18,540	17,450	18,080	18,750	19,990	19,960	19,840	20,850	20,820	41,790	1/23/2019	Urban Principal Arterial-Other
	SR 520	I-95-CLEARLAKE	21,343	19,957	19,850	20,367	20,583	23,857	22,600	21,240	20,573	23,173			
2	SR 520	I-95-Burnett	20,710	19,420	19,910	20,200	21,440	24,190	22,190	21,780	21,740	21,650	41,790	1/28/2019	Urban Principal Arterial-Other
3	SR 520	Burnett-Range	21,640	20,040	20,350	19,980	19,680	24,180	22,970	21,040	20,040	21,280	41,790	1/28/2019	Urban Principal Arterial-Other
14	SR 520	Range-Clearlake	21,680	20,410	19,290	20,920	20,630	23,200	22,640	20,900	19,940	26,590	41,790	1/28/2019	Urban Principal Arterial-Other
	SR 520	CLEARLAKE-FISKE	22,115	21,390	20,045	20,815	21,385	24,880	24,575	22,915	22,735	22,115			
4	SR 520	Clearlake-Lake	19,950	19,630	18,380	19,160	19,560	22,860	22,870	20,200	20,800	20,400	39,800	1/23/2019	Urban Principal Arterial-Other
5	SR 520	Lake-Fiske	24,280	23,150	21,710	22,470	23,210	26,900	26,280	25,630	24,670	23,830	39,800	1/23/2019	Urban Principal Arterial-Other
	SR 520	FISKE-US 1	25,505	25,210	23,390	23,775	25,160	28,120	28,250	26,600	25,495	25,275			
6	SR 520	Fiske-Blake	25,490	25,310	23,390	23,820	25,090	28,270	28,430	26,540	25,550	25,280	41,790	1/23/2019	Urban Principal Arterial-Other
7	SR 520	Blake-US 1	25,520	25,110	NC	23,730	25,230	27,970	28,070	26,660	25,440	25,270	41,790	1/23/2019	Urban Principal Arterial-Other
	SR 520 (Eastbound)	US 1-CAUSEWAY (EB)	19,695	20,125	19,215	19,838	19,020	21,483	18,600	20,718	20,855	21,135			
8	SR 520	US 1-Forrest	13,790	15,200	14,530	15,570	17,090	18,210	13,820	16,750	17,250	16,830	19,440	1/22/2019	Urban Principal Arterial-Other
9	SR 520	Forrest-Brevard	21,780	21,710	20,280	21,020	19,560	21,850	19,620	22,460	20,930	22,250	19,440	1/22/2019	Urban Principal Arterial-Other
10	SR 520	Brevard-Delannoy	20,970	21,450	20,280	20,900	19,450	22,930	22,010	21,670	22,280	22,500	19,440	1/22/2019	Urban Principal Arterial-Other
11	SR 520	Delannoy-Riveredge	22,240	22,140	21,770	21,860	19,980	22,940	18,950	21,990	22,960	22,960	19,440	1/22/2019	Urban Principal Arterial-Other
	SR 520 (Westbound)	CAUSEWAY-US 1 (WB)	20,790	21,085	20,205	20,770	20,643	21,703	20,098	21,220	20,920	21,915			
12	SR 520	Causeway-Delannoy	22,570	23,220	21,860	22,160	21,250	23,700	23,050	21,130	22,990	22,780	19,440	1/22/2019	Urban Principal Arterial-Other
13	SR 520	Delannoy-Brevard	24,230	24,360	23,150	23,970	23,100	23,460	21,900	24,290	22,980	24,250	19,440	1/22/2019	Urban Principal Arterial-Other
15	SR 520	Brevard-Forrest	21,710	21,530	21,080	21,220	21,560	22,400	18,690	21,810	20,660	21,610	19,440	1/22/2019	Urban Principal Arterial-Other
87	SR 520	Forrest-US 1	14,650	15,230	14,730	15,730	16,660	17,250	16,750	17,650	17,050	19,020	19,440	1/22/2019	Urban Principal Arterial-Other
66	SR 524	SR 520-I-95	4,680	4,650	4,400	4,670	4,530	5,690	5,300	5,890	7,200	6,870	24,200	1/23/2019	Urban Minor Arterial
	SR 524	I-95-INDUSTRY RD	11,490	11,180	10,795	11,220	10,880	12,765	12,605	11,710	13,860	12,540			
73	SR 524	I-95-Cox	10,050	9,810	9,610	9,780	9,670	11,440	11,170	10,460	12,690	11,700	18,590	1/23/2019	Urban Minor Arterial
76	SR 524	Cox-Industry Rd	12,930	12,550	11,980	12,660	12,090	14,090	14,040	12,960	15,030	13,380	19,470	1/23/2019	Urban Minor Arterial
	SR 528	ORANGE CO.-I-95	26,750	28,240	26,205	27,835	28,320	34,205	31,740	33,780	40,640	37,805			
91	SR 528	ORANGE CO.-SR 407	29,770	31,790	28,950	30,820	30,220	37,830	35,120	37,330	40,640	42,560	43,000	3/12/2019	Rural Principal Arterial - Freeways & Expressways
90	SR 528	SR 407-I-95	23,730	24,690	23,460	24,850	26,420	30,580	28,360	30,230	NC	33,050	43,000	1/29/2019	Rural Principal Arterial - Freeways & Expressways
	SR 528	I-95-US 1	25,550	25,950	24,945	25,860	25,315	30,165	27,775	28,340	31,000	32,730			
93	SR 528	I-95-INDUSTRY RD	20,820	21,360	20,720	21,000	23,050	23,030	22,810	23,290	29,350	28,880	74,400	1/29/2019	Urban Principal Arterial - Freeways & Expressways
92	SR 528	INDUSTRY RD-US 1	30,280	30,540	29,170	30,720	27,580	37,300	32,740	33,390	32,650	36,580	74,400	1/29/2019	Urban Principal Arterial - Freeways & Expressways
25	STADIUM PKWY	WICKHAM-JAMIESON	4,890	5,090	5,910	6,550	6,890	7,810	8,480	9,150	10,460	11,240	17,700	1/14/2019	Urban Minor Arterial
	STADIUM PKWY	JAMIESON-I-95	15,500	15,880	15,585	16,515	16,965	17,707	18,173	19,337	20,273	20,780			
26	STADIUM PKWY	Jamieson-Viera Blvd	16,570	17,350	17,250	18,270	18,910	19,950	20,890	22,170	22,920	23,650	39,800	1/16/2019	Urban Minor Arterial
535	STADIUM PKWY	VIERA BLVD.-ROSEMOUNT DR	14,430	14,410	13,920	14,760	15,020	15,980	16,120	17,160	17,870	18,460	39,800	1/16/2019	Urban Minor Arterial
606	STADIUM PKWY	ROSEMOUNT DRIVE-I-95/FISKE						17,190	17,510	18,680	20,030	20,230	39,800	1/16/2019	Urban Minor Arterial
607	TAVISTOCK	JAMIESON-VIERA BLVD						3,300	3,680	3,720	3,780	3,620	15,600	1/14/2019	Urban Local
608	TAVISTOCK	VIERA BLVD-STADIUM PARKWAY						2,890	2,680	2,650	3,160	2,290	15,600	1/16/2019	Urban Local
	US 1	PINEDA-BARNES	32,480	33,950	27,120	29,530	31,853	32,577	32,687	30,737	32,013	31,497			
89	US 1	Pineda-Suntree Blvd	39,470	42,600	NC	33,100	37,580	37,310	38,750	34,340	38,730	37,540	41,790	1/14/2019	Urban Principal Arterial-Other
567	US 1	Suntree Blvd-Viera Blvd	30,740	31,160	28,680	28,770	31,550	32,650	31,520	30,670	31,070	29,740	41,790	3/6/2019	Urban Principal Arterial-Other
36	US 1	Viera Blvd-Barnes	27,230	28,090	25,560	26,720	26,430	27,770	27,790	27,200	26,240	27,210	41,790	3/13/2019	Urban Principal Arterial-Other
70	US 1	BARNES-EYSTER	24,700	25,800	23,920	26,150	25,690	25,980	26,300	25,060	26,090	26,340	41,790	3/12/2019	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: 2010 - 2019

ID	ROAD	SEGMENT (Sections)	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	Current MAV	Last Count Taken	Functional Classification
AREA: MERRITT ISLAND															
603	SPACE COMMERCE WAY	SR 3-NASA CAUSEWAY						3,090	3,040	3,780	3,440	4,960	12,900	2/18/2019	Rural Principal Arterial Other
	SR 520	HUMPHREY BR-S. BANANA	34,103	33,698	30,878	32,220	33,311	34,200	32,467	30,929	29,694	29,844			
101	SR 520	Bridge-N. Tropical	46,750	46,850	NC	44,390	46,090	48,440	44,400	44,820	39,660	43,440	59,900	2/4/2019	Urban Principal Arterial-Other
148	SR 520	N. Tropical-SR 3	38,370	38,460	37,670	37,240	34,900	39,820	37,210	36,850	35,640	35,120	59,900	2/6/2019	Urban Principal Arterial-Other
97	SR 520	SR 3-Plaza ent	34,550	33,760	33,430	31,820	34,410	33,630	32,070	29,870	28,700	25,840	62,900	2/4/2019	Urban Principal Arterial-Other
98	SR 520	Plaza ent-Plumosa	34,430	33,940	30,530	31,860	34,130	33,790	31,800	29,940	30,490	31,230	62,900	2/6/2019	Urban Principal Arterial-Other
99	SR 520	Plumosa-Mall ent	33,970	32,810	32,560	30,560	32,780	32,140	31,640	28,750	25,300	28,870	62,900	2/6/2019	Urban Principal Arterial-Other
100	SR 520	Mall ent-SykesCrkPkw	27,500	25,620	26,270	26,010	28,740	27,140	24,810	23,660	24,130	23,280	62,900	3/6/2019	Urban Principal Arterial-Other
149	SR 520	Sykes-Newfound HrbDr	34,630	34,170	32,270	32,520	33,160	34,480	35,170	30,740	31,000	30,070	62,900	2/13/2019	Urban Principal Arterial-Other
150	SR 520	Newfound Hbr-N Banana	28,560	27,750	27,330	27,290	28,940	29,920	28,670	26,820	26,050	25,830	62,900	2/13/2019	Urban Principal Arterial-Other
151	SR 520	N Banana-S Banana	28,170	29,920	26,960	28,290	26,650	28,440	26,430	26,910	26,280	24,920	62,900	2/13/2019	Urban Principal Arterial-Other
	SR 528	US 1-SR 401	36,903	36,847	35,343	37,053	37,850	39,243	37,940	39,587	38,480	39,403			
128	SR 528	US 1-N COURTENAY	45,990	46,150	43,000	44,700	45,760	49,740	48,660	48,600	44,630	46,100	74,400	3/6/2019	Urban Principal Arterial-Other
129	SR 528	N Crtny-N Banana Rv Dr	33,710	33,920	32,770	33,630	36,360	32,570	31,070	36,810	37,340	37,570	74,400	2/13/2019	Urban Principal Arterial-Other
127	SR 528	N Banana Rv Dr-SR 401	31,010	30,470	30,260	32,830	31,430	35,420	34,090	33,350	33,470	34,540	74,400	2/13/2019	Urban Principal Arterial-Other
123	SYKES CREEK	FORTENBERRY-SR 520	5,630	5,530	5,490	5,610	NC	5,610	5,390	5,440	4,830	4,670	33,800	2/6/2019	Urban Major Collector
121	SYKES CREEK	SR 520-MERRITT	12,460	11,970	12,010	11,770	12,210	12,640	12,680	12,070	12,570	12,010	39,800	2/6/2019	Urban Major Collector
108	SYKES CREEK	MERRITT-N BANANA	9,880	9,670	9,700	9,890	NC	10,610	11,080	10,970	10,660	10,090	17,700	2/18/2019	Urban Major Collector
AREA: CENTRAL															
75	ADAMSON	PINE-SR 524	4,360	5,220	4,720	4,880	4,700	5,210	5,380	5,340	6,100	5,100	17,700	3/5/2019	Urban Minor Collector
	BARNES	FISKE-MURRELL	16,580	16,410	15,420	15,060	15,460	15,895		13,145	13,835	17,545			
77	BARNES	FISKE-THREE MEADOWS DRIVE	16,580	16,410	15,420	15,060	15,460	15,940	UC	13,440	13,750	19,340	39,800	1/16/2019	Urban Principal Arterial-Other
604	BARNES	THREE MEADOWS DRIVE-MURRELL						15,850	UC	12,850	13,920	15,750	39,800	1/22/2019	Urban Principal Arterial-Other
72	BARNES	MURRELL-US 1	10,930	NC	9,560	NC	9,720	9,910	8,800	9,560	10,510	10,910	17,700	1/16/2019	Urban Principal Arterial-Other
49	CLEARLAKE	PLUCKEBAUM-SR 520	6,380	5,640	5,130	5,400	4,800	5,050	4,590	4,750	5,910	5,160	15,600	1/28/2019	Urban Major Collector
	CLEARLAKE	SR 520-MICHIGAN	20,650	18,265	17,620	15,747	15,933	18,307	18,030	16,990	17,407	16,327			
29	CLEARLAKE	SR 520-Lake	16,580	13,250	12,650	11,550	11,640	14,160	13,400	12,810	14,590	12,870	39,800	3/5/2019	Urban Minor Arterial
30	CLEARLAKE	Lake-Dixon	19,470	17,740	17,010	16,010	16,210	19,620	19,120	18,200	18,010	17,110	39,800	1/29/2019	Urban Minor Arterial
31	CLEARLAKE	Dixon-Rosetine	23,220	20,620	20,250	NC	19,950	NC	21,570	NC	19,620	NC	39,800	1/30/2018	Urban Minor Arterial
32	CLEARLAKE	Rosetine-Michigan	23,330	21,450	20,570	19,680	NC	21,140	NC	19,960	NC	19,000	39,800	3/5/2019	Urban Minor Arterial
	CLEARLAKE	MICHIGAN-SR 524	20,023	19,460	18,100	17,233	17,727	19,817	19,927	18,193	18,640	17,783			
39	CLEARLAKE	Michigan-Otterbein	22,180	21,620	20,360	18,910	18,410	21,290	21,320	19,970	20,550	19,530	39,800	1/29/2019	Urban Minor Arterial
50	CLEARLAKE	Otterbein-N. Wal-Mart Ent.	17,100	16,580	14,920	14,120	15,520	16,960	16,090	14,810	15,770	15,210	41,790	1/29/2019	Urban Minor Arterial
95	CLEARLAKE	WAL-MART-SR 524	20,790	20,180	19,020	18,670	19,250	21,200	22,370	19,800	19,600	18,610	41,790	1/29/2019	Urban Minor Arterial
61	COX	SR 520-SR 524	4,400	4,180	3,210	4,260	4,100	4,560	4,810	4,240	4,460	4,370	17,700	1/23/2019	Urban Major Collector
69	COX	SR 524-JAMES	2,670	2,520	2,550	2,580	2,490	2,760	2,690	2,600	2,660	2,630	17,700	1/23/2019	Urban Major Collector
	DIXON	CLEARLAKE-US 1	12,173	11,320	10,970	9,855	9,630	10,160	10,415	10,303	10,758	10,340			
47	DIXON	Clearlake-Pineda St	12,740	11,740	11,490	10,280	10,320	11,360	11,290	10,920	11,070	10,620	39,800	3/5/2019	Urban Minor Arterial
51	DIXON	Pineda St-Fiske	11,820	11,250	10,760	9,590	9,420	10,260	10,130	10,240	10,490	10,390	39,800	3/13/2019	Urban Minor Arterial
46	DIXON	Fiske-Byrd Plaza ent	12,640	11,430	NC	10,140	9,800	10,220	10,760	10,560	11,260	10,780	39,800	3/5/2019	Urban Minor Arterial
45	DIXON	Byrd Plaza Ent-US 1	11,490	10,860	10,660	9,410	8,980	8,800	9,480	9,490	10,210	9,570	39,800	1/29/2019	Urban Minor Arterial
	FISKE	I-95-BARTON	23,645	21,390	20,990	21,360	21,805	23,125	23,310	22,190	24,190	25,015			
44	FISKE	I-95/Barnes-Eyster	23,210	21,050	21,060	21,880	22,160	24,690	25,080	24,190	25,820	27,300	41,790	1/16/2019	Urban Principal Arterial-Other
96	FISKE	Eyster-Barton	24,080	21,730	20,920	20,840	21,450	21,560	21,540	20,190	22,560	22,730	41,790	1/22/2019	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

APPENDIX B

Intersection Traffic Counts & Adjustments Factors

National Data & Surveying Services

Intersection Turning Movement Count

Location: E Industry Rd & SR 524
City: Cocoa
Control: Signalized

Project ID: 20-130167-003
Date: 2020-08-26

Total

NS/EW Streets:	E Industry Rd				E Industry Rd				SR 524				SR 524				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	3	21	21	0	78	15	108	0	101	78	3	0	37	83	80	0	628
4:15 PM	4	18	18	0	77	35	91	0	92	72	10	0	34	73	115	0	639
4:30 PM	10	16	32	0	64	21	83	1	72	60	3	0	33	91	96	0	582
4:45 PM	3	22	16	0	81	29	87	0	73	57	2	0	24	59	87	1	541
5:00 PM	2	23	23	0	58	24	92	0	112	68	5	0	34	87	91	0	619
5:15 PM	8	26	22	0	81	37	98	0	95	45	9	0	28	61	88	0	598
5:30 PM	10	20	16	0	64	32	75	0	66	61	1	1	39	71	84	0	540
5:45 PM	6	21	28	0	61	26	80	0	54	56	4	0	25	71	67	0	499
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	46	167	176	0	564	219	714	1	665	497	37	1	254	596	708	1	4646
	11.83%	42.93%	45.24%	0.00%	37.65%	14.62%	47.66%	0.07%	55.42%	41.42%	3.08%	0.08%	16.29%	38.23%	45.41%	0.06%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	20	77	87	0	300	100	369	1	338	267	18	0	128	306	378	1	2390
PEAK HR FACTOR :	0.500	0.875	0.680	0.000	0.926	0.714	0.854	0.250	0.837	0.856	0.450	0.000	0.865	0.841	0.822	0.250	0.935
			0.793				0.948				0.856				0.916		

Project ID: 20-130167-003
Date: 2020-08-26

National Data & Surveying Services

Intersection Turning Movement Count

Location: E Industry Rd & SR 524
City: Cocoa
Control: Signalized

Project ID: 20-130167-003
Date: 2020-08-26

HT

NS/EW Streets:	E Industry Rd				E Industry Rd				SR 524				SR 524				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	0	0	0	0	2	0	5	0	10	2	0	0	0	3	3	0	25
4:15 PM	0	0	0	0	5	1	2	0	15	2	0	0	0	4	2	0	31
4:30 PM	0	1	0	0	2	0	4	0	7	1	0	0	0	1	2	0	18
4:45 PM	0	0	0	0	1	0	6	0	8	0	0	0	1	1	3	0	20
5:00 PM	0	0	0	0	1	0	7	0	7	2	0	0	0	2	1	0	20
5:15 PM	0	0	0	0	4	0	4	0	9	0	0	0	0	0	5	0	22
5:30 PM	0	0	0	0	1	0	4	0	9	2	0	0	0	0	0	0	16
5:45 PM	0	0	0	0	1	0	3	0	5	0	0	0	0	0	1	0	10
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1	0	0	17	1	35	0	70	9	0	0	1	11	17	0	162
	0.00%	100.00%	0.00%	0.00%	32.08%	1.89%	66.04%	0.00%	88.61%	11.39%	0.00%	0.00%	3.45%	37.93%	58.62%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	1	0	0	10	1	17	0	40	5	0	0	1	9	10	0	94
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.500	0.250	0.708	0.000	0.667	0.625	0.000	0.000	0.250	0.563	0.833	0.000	0.758
			0.250				0.875				0.662				0.833		

National Data & Surveying Services

Intersection Turning Movement Count

Location: E Industry Rd & SR 524
City: Cocoa
Control: Signalized

Project ID: 20-130167-003
Date: 2020-08-26

Bikes

NS/EW Streets:	E Industry Rd				E Industry Rd				SR 524				SR 524				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES :	NL 0	NT 0	NR 0	NU 0	SL 1	ST 0	SR 1	SU 0	EL 0	ET 0	ER 0	EU 0	WL 0	WT 1	WR 0	WU 0	TOTAL 3
APPROACH %'s :	50.00%				0.00%				50.00%				0.00%				
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.500

National Data & Surveying Services

Intersection Turning Movement Count

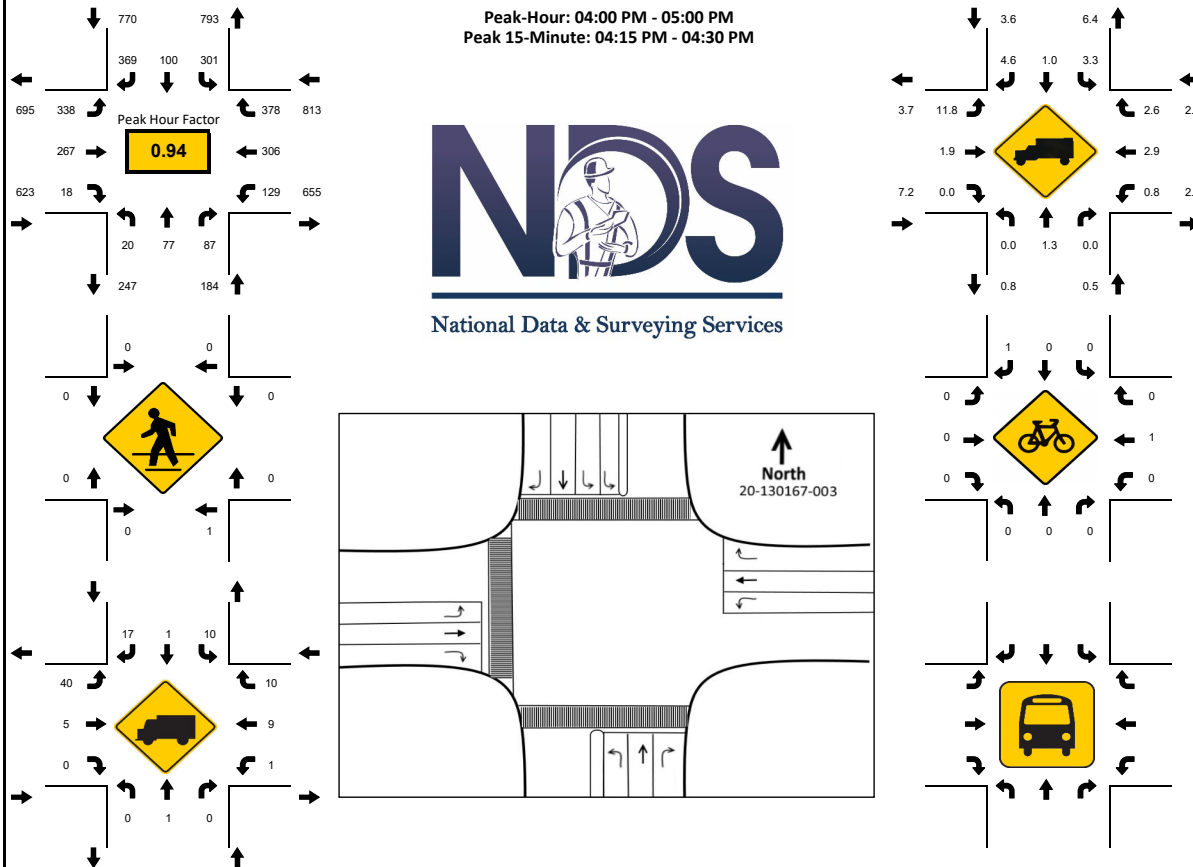
Location: E Industry Rd & SR 524 **Project ID:** 20-130167-003
City: Cocoa **Date:** 2020-08-26

Project ID: 20-130167-003

Date: 2020-08-26

NS/EW Streets:	E Industry Rd		E Industry Rd		SR 524		SR 524		
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	1	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB 0	WB 0	EB 0	WB 1	NB 0	SB 0	NB 0	SB 0	TOTAL 1
APPROACH %'s :			0.00%	100.00%					
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	1	0	0	0	0	1
PEAK HR FACTOR :			0.250						0.250

PROJECT ID: 20-130167-003
DATE: 08/26/2020

[illegible]

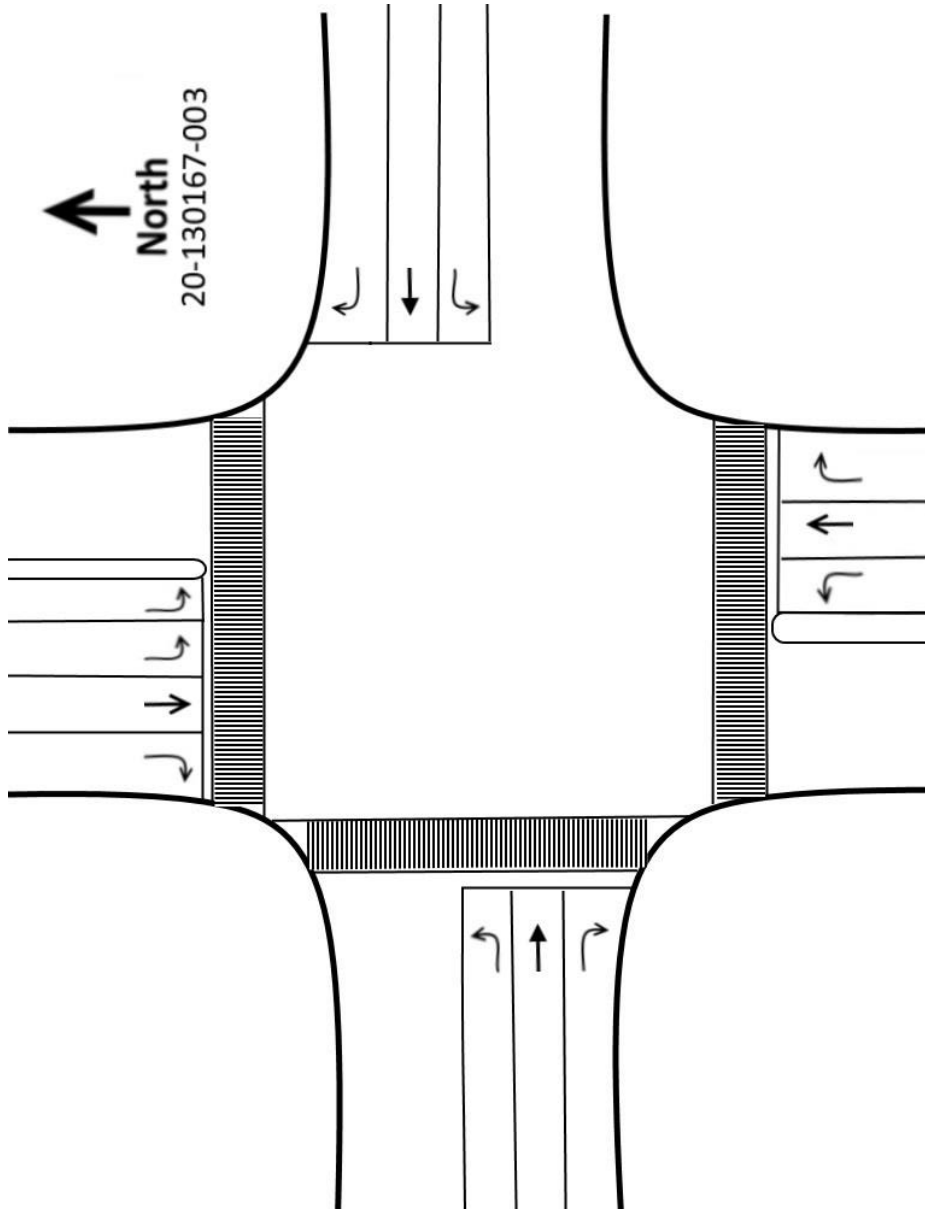


National Data & Surveying Services



N/S Street: **E Industry Rd**

Speed: **45 MPH**



E/W Street: **SR 524**

Speed: **55 MPH**

Site Code: **20-130167-003**

Date: **08/26/2020**

Weather: **Sunny**

City: **Cocoa**

County: **Brevard**

Count Times: **16:00 - 18:00**

Control: **Signalized**

SIGNAL TIMING

PHASES	1	2	3
NL/SL	-	00:17	00:18
SL/ST	00:27	00:14	00:13
NT/ST	00:24	00:21	00:17
EL/WL	00:20	-	00:25
EL/ET	-	00:49	00:12
WL/WT	00:03	-	-
ET/WT	00:23	00:36	00:44

National Data & Surveying Services

Intersection Turning Movement Count

Location: CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy & SR 524

City: Cocoa

Control: Signalized

Project ID: 20-130167-002

Date: 2020-08-26

Total

NS/EW Streets:		CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy				CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy				SR 524				SR 524				
PM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM		16	1	3	0	13	1	2	0	5	156	11	0	8	168	0	0	384
4:15 PM		25	1	1	0	9	0	5	0	4	148	12	0	8	153	1	0	367
4:30 PM		25	2	5	0	19	3	9	0	5	106	12	0	6	151	1	0	344
4:45 PM		24	3	3	0	9	0	10	0	6	124	7	0	4	143	3	1	337
5:00 PM		22	2	4	0	13	0	11	0	4	161	11	0	4	158	1	0	391
5:15 PM		25	0	2	0	12	1	4	0	7	122	21	0	7	154	1	1	357
5:30 PM		30	0	0	0	9	1	7	0	4	112	7	0	4	127	0	0	301
5:45 PM		27	2	3	0	8	2	9	0	3	92	10	0	8	141	0	0	305
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :		194	11	21	0	92	8	57	0	38	1021	91	0	49	1195	7	2	2786
		85.84%	4.87%	9.29%	0.00%	58.60%	5.10%	36.31%	0.00%	3.30%	88.78%	7.91%	0.00%	3.91%	95.37%	0.56%	0.16%	
PEAK HR :		04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :		96	8	13	0	50	3	35	0	19	539	42	0	22	605	6	1	1439
PEAK HR FACTOR :		0.960	0.667	0.650	0.000	0.658	0.250	0.795	0.000	0.792	0.837	0.875	0.000	0.688	0.957	0.500	0.250	0.920
		0.914				0.710				0.852				0.972				

National Data & Surveying Services

Intersection Turning Movement Count

Location: CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy & SR 524
City: Cocoa
Control: Signalized

Project ID: 20-130167-002
Date: 2020-08-26

Cars

NS/EW Streets:	CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy				CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy				SR 524				SR 524				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	16	1	3	0	13	1	2	0	5	143	11	0	7	160	0	0	362
4:15 PM	25	1	1	0	9	0	5	0	4	132	11	0	7	148	1	0	344
4:30 PM	25	2	5	0	19	3	9	0	5	98	12	0	5	148	1	0	332
4:45 PM	24	3	3	0	9	0	10	0	6	116	7	0	4	137	3	1	323
5:00 PM	22	2	4	0	13	0	11	0	4	152	11	0	3	149	1	0	372
5:15 PM	25	0	2	0	12	1	4	0	7	113	21	0	7	151	1	1	345
5:30 PM	30	0	0	0	9	1	6	0	4	101	6	0	4	123	0	0	284
5:45 PM	27	2	3	0	8	2	9	0	3	86	10	0	8	137	0	0	295
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	194	11	21	0	92	8	56	0	38	941	89	0	45	1153	7	2	2657
	85.84%	4.87%	9.29%	0.00%	58.97%	5.13%	35.90%	0.00%	3.56%	88.11%	8.33%	0.00%	3.73%	95.53%	0.58%	0.17%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	96	8	13	0	50	3	35	0	19	498	41	0	19	582	6	1	1371
PEAK HR FACTOR :	0.96	0.667	0.650	0.000	0.658	0.250	0.795	0.000	0.792	0.819	0.854	0.000	0.679	0.977	0.500	0.250	0.921
			0.914				0.710				0.835				0.974		

National Data & Surveying Services

Intersection Turning Movement Count

Location: CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy & SR 524
City: Cocoa
Control: Signalized

Project ID: 20-130167-002
Date: 2020-08-26

HT

NS/EW Streets:	CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy				CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy				SR 524				SR 524				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	0	0	0	0	0	0	0	0	0	13	0	0	1	8	0	0	22
4:15 PM	0	0	0	0	0	0	0	0	0	16	1	0	1	5	0	0	23
4:30 PM	0	0	0	0	0	0	0	0	0	8	0	0	1	3	0	0	12
4:45 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	6	0	0	14
5:00 PM	0	0	0	0	0	0	0	0	0	9	0	0	1	9	0	0	19
5:15 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	3	0	0	12
5:30 PM	0	0	0	0	0	0	1	0	0	11	1	0	0	4	0	0	17
5:45 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	4	0	0	10
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	1	0	0	80	2	0	4	42	0	0	129
					0.00%	0.00%	100.00%	0.00%	0.00%	97.56%	2.44%	0.00%	8.70%	91.30%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	41	1	0	3	23	0	0	68
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.641	0.250	0.000	0.750	0.639	0.000	0.000	0.739
										0.618				0.650			

National Data & Surveying Services

Intersection Turning Movement Count

Location: CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy & SR 524
City: Cocoa
Control: Signalized

Project ID: 20-130167-002
Date: 2020-08-26

Bikes

NS/EW Streets:	CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy				CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy				SR 524				SR 524				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
4:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	1	1	0	0	0	0	0	0	0	0	2	0	0	2	0	0	6
APPROACH %'s :	50.00%	50.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	1	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	4
PEAK HR FACTOR :	0.25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.500	0.000	0.000	0.500

Intersection Turning Movement Count

Location: CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dr. & SR 524 **Project ID:** 20-130167-002
City: Cocoa **Date:** 2020-08-26

Date: 2020-08-26

NS/EW Streets:	CVS Pharmacy Entrance/Cocoa		CVS Pharmacy Entrance/Cocoa		SR 524		SR 524		
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	2	0	0	0	0	2	4
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	2	0	0	2	0	4
TOTAL VOLUMES :	EB 0	WB 0	EB 2	WB 2	NB 0	SB 0	NB 2	SB 2	TOTAL 8
APPROACH %'s :			50.00%	50.00%			50.00%	50.00%	
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

ID: 20-130167-002
City: Cocoa

ID: 20-130167-002

City: Cocoa

CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy

SOUTHBOUND

	AM	0	0	0	0	0	AM
NONE							NONE
NONE							NONE
04:15 PM - 05:15 PM	PM	35	3	50	0	33	PM

Day: Wednesday

Date: 08/26/2020

PEAK HOURS

COUNT PERIODS

04:00 PM - 06:00 PM

SR 524

EASTBOUND

AM	NOON	PM
0	0	736
0	0	0
0	0	19
0	0	539
0	0	42

CONTROL

Signalized

TEV	0	0	1439
PHF	AM	NOON	PM
			0.92

SR 524

WESTBOUND

PM	NOON	AM
6	0	0
605	0	0
22	0	0
1	0	0
603	0	0

Cars (AM)

NORTHBOUND

macy Entrance/Cocoa Veterinary Hos

PM	67	0	96	8	13	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

HT (AM)

Cars (NOON)

Pedestrians (Crosswalks)

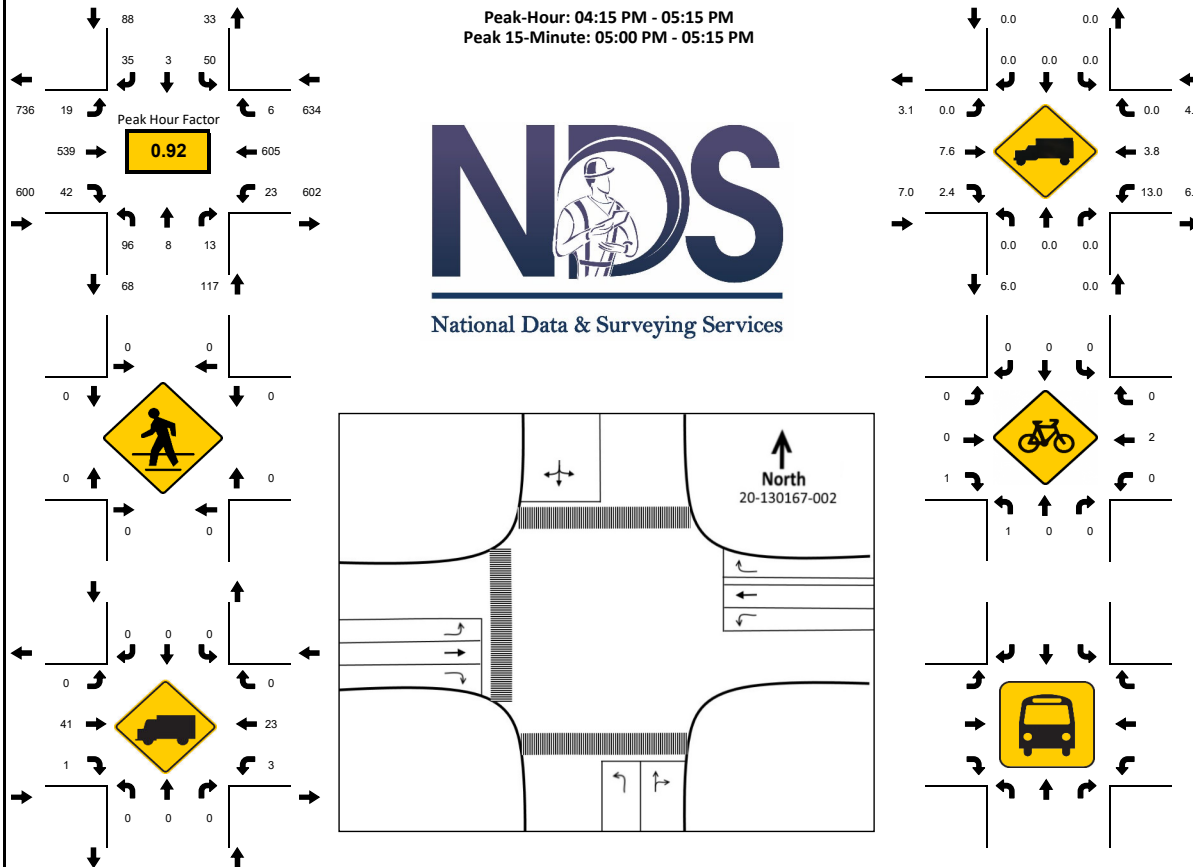
HT (NOON)

Cars (PM)

Pedestrians (Crosswalks)

HT (PM)

PROJECT ID: 20-130167-002
DATE: 08/26/2020

[illegible]



National Data & Surveying Services

Site Code: **20-130167-002**

Date: **08/26/2020**

Weather: **Sunny**

City: **Cocoa**

County: **Brevard**

Count Times: **16:00 - 18:00**

Control: **Signalized**

SIGNAL TIMING

PHASES	1	2	3
NT/ST	00:23	00:24	00:16
WL/WT	-	-	00:13
ET/WT	01:07	01:09	01:08

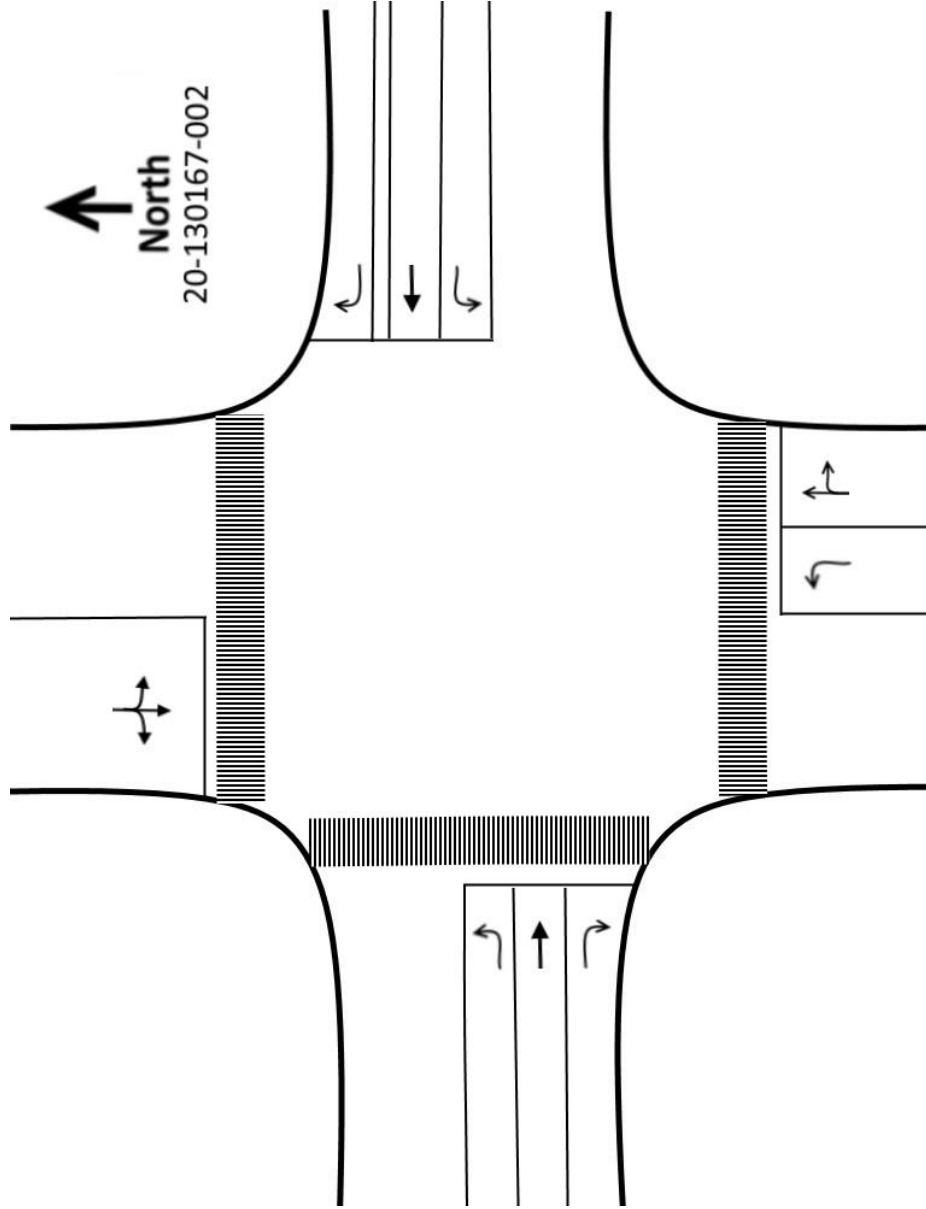


N/S Street: **CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy**

Speed: **N/A**

E/W Street: **SR 524**

Speed: **55 MPH**



National Data & Surveying Services

Intersection Turning Movement Count

Location: London Blvd & SR 524
City: Cocoa
Control: Signalized

Project ID: 20-130167-001
Date: 2020-08-26

Total

NS/EW Streets:	London Blvd				London Blvd				SR 524				SR 524				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	0	0	0	0	14	0	6	0	2	152	0	0	0	160	20	0	354
4:15 PM	0	0	0	0	22	0	2	0	6	146	0	0	0	155	28	0	359
4:30 PM	0	0	0	0	12	0	2	0	4	109	0	0	0	153	18	0	298
4:45 PM	0	0	0	0	10	0	4	0	8	123	0	0	0	153	19	0	317
5:00 PM	0	0	0	0	24	0	4	0	5	149	0	0	0	140	31	0	353
5:15 PM	0	0	0	0	17	0	2	0	6	134	0	0	0	167	22	0	348
5:30 PM	0	0	0	0	19	0	4	0	10	104	0	0	0	128	31	0	296
5:45 PM	0	0	0	0	13	0	1	0	12	96	0	0	0	133	24	0	279
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	131	0	25	0	53	1013	0	0	0	1189	193	0	2604
PEAK HR :	04:00 PM - 05:00 PM				83.97%	0.00%	16.03%	0.00%	4.97%	95.03%	0.00%	0.00%	0.00%	86.03%	13.97%	0.00%	
PEAK HR VOL :	0	0	0	0	58	0	14	0	20	530	0	0	0	621	85	0	TOTAL
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.659	0.000	0.583	0.000	0.625	0.872	0.000	0.000	0.000	0.970	0.759	0.000	1328
							0.750			0.893				0.964			0.925

National Data & Surveying Services

Intersection Turning Movement Count

Location: London Blvd & SR 524
City: Cocoa
Control: Signalized

Project ID: 20-130167-001
Date: 2020-08-26

Cars

NS/EW Streets:	London Blvd				London Blvd				SR 524				SR 524				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	0	0	0	0	13	0	6	0	2	140	0	0	0	152	19	0	332
4:15 PM	0	0	0	0	20	0	2	0	6	131	0	0	0	152	27	0	338
4:30 PM	0	0	0	0	12	0	2	0	4	100	0	0	0	149	17	0	284
4:45 PM	0	0	0	0	10	0	4	0	8	116	0	0	0	147	19	0	304
5:00 PM	0	0	0	0	24	0	4	0	5	140	0	0	0	134	31	0	338
5:15 PM	0	0	0	0	16	0	2	0	6	126	0	0	0	162	22	0	334
5:30 PM	0	0	0	0	19	0	4	0	10	92	0	0	0	123	31	0	279
5:45 PM	0	0	0	0	13	0	1	0	12	90	0	0	0	129	24	0	269
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	127	0	25	0	53	935	0	0	0	1148	190	0	2478
					83.55%	0.00%	16.45%	0.00%	5.36%	94.64%	0.00%	0.00%	0.00%	85.80%	14.20%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	55	0	14	0	20	487	0	0	0	600	82	0	1258
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.688	0.000	0.583	0.000	0.625	0.870	0.000	0.000	0.000	0.987	0.759	0.000	0.930
							0.784				0.893				0.953		

National Data & Surveying Services

Intersection Turning Movement Count

Location: London Blvd & SR 524
City: Cocoa
Control: Signalized

Project ID: 20-130167-001
Date: 2020-08-26

HT

NS/EW Streets:	London Blvd				London Blvd				SR 524				SR 524					
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU		
4:00 PM	0	0	0	0	1	0	0	0	0	12	0	0	0	8	1	0	22	
4:15 PM	0	0	0	0	2	0	0	0	0	15	0	0	0	3	1	0	21	
4:30 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	4	1	0	14	
4:45 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	6	0	0	13	
5:00 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	6	0	0	15	
5:15 PM	0	0	0	0	1	0	0	0	0	8	0	0	0	5	0	0	14	
5:30 PM	0	0	0	0	0	0	0	0	0	12	0	0	0	5	0	0	17	
5:45 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	4	0	0	10	
TOTAL VOLUMES :	NL 0	NT 0	NR 0	NU 0	SL 4	ST 0	SR 0	SU 0	EL 0	ET 78	ER 0	EU 0	WL 0	WT 41	WR 3	WU 0	TOTAL 126	
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	93.18%	6.82%	0.00%		
PEAK HR :	04:00 PM - 05:00 PM																	TOTAL
PEAK HR VOL :	0	0	0	0	3	0	0	0	0	43	0	0	0	21	3	0	70	
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.717	0.000	0.000	0.000	0.656	0.750	0.000	0.795	
						0.375				0.717				0.667				

National Data & Surveying Services

Intersection Turning Movement Count

Location: London Blvd & SR 524
City: Cocoa
Control: Signalized

Project ID: 20-130167-001
Date: 2020-08-26

Bikes

NS/EW Streets:	London Blvd				London Blvd				SR 524				SR 524				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	5
PEAK HR :	04:00 PM - 05:00 PM								0.00% 100.00% 0.00% 0.00%				0.00% 66.67% 33.33% 0.00%				TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	1	0	0	0	2	1	0	4
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.500	0.250	0.000	0.500

National Data & Surveying Services

Intersection Turning Movement Count

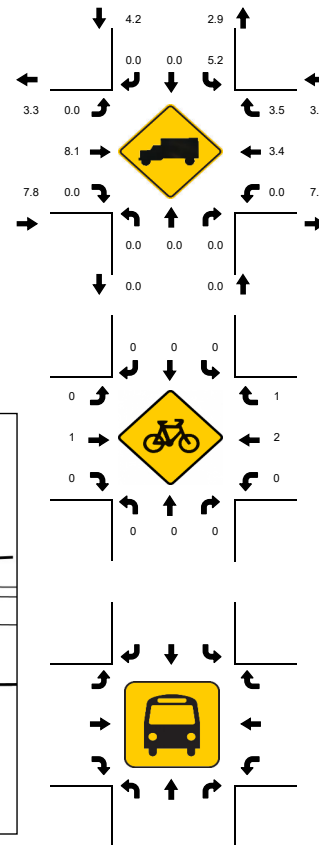
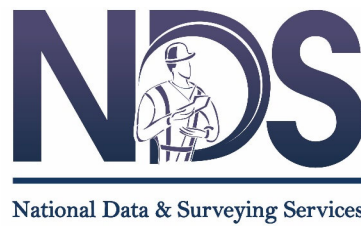
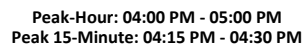
Location: London Blvd & SR 524 **Project ID:** 20-130167-001
City: Cocoa **Date:** 2020-08-26

Project ID: 20-130167-001
Date: 2020-08-26

NS/EW Streets:

NS/EW Streets:

PROJECT ID: 20-130167-001
DATE: 08/26/2020

[illegible]

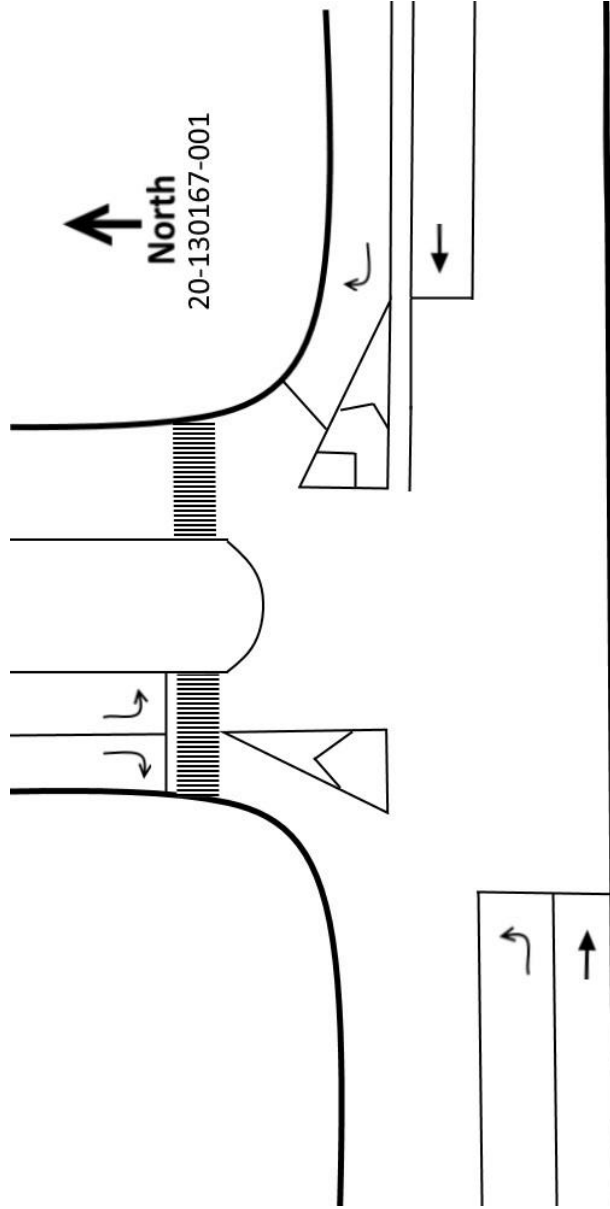


National Data & Surveying Services



N/S Street: **London Blvd**

Speed: **25 MPH**



E/W Street: **SR 524**

Speed: **55 MPH**

Site Code: **20-130167-001**

Date: **08/26/2020**

Weather: **Sunny**

City: **Cocoa**

County: **Brevard**

Count Times: **16:00 - 18:00**

Control: **Signalized**

SIGNAL TIMING

PHASES	1	2	3
SL/SR	00:23	00:20	00:17
ET/WT	02:38	00:44	02:00

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 7000 BREVARD COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.91 PSCF
1	01/01/2019 - 01/05/2019	1.03	1.13
2	01/06/2019 - 01/12/2019	1.00	1.10
3	01/13/2019 - 01/19/2019	0.97	1.07
4	01/20/2019 - 01/26/2019	0.96	1.05
* 5	01/27/2019 - 02/02/2019	0.94	1.03
* 6	02/03/2019 - 02/09/2019	0.92	1.01
* 7	02/10/2019 - 02/16/2019	0.90	0.99
* 8	02/17/2019 - 02/23/2019	0.90	0.99
* 9	02/24/2019 - 03/02/2019	0.89	0.98
* 10	03/03/2019 - 03/09/2019	0.88	0.97
* 11	03/10/2019 - 03/16/2019	0.88	0.97
* 12	03/17/2019 - 03/23/2019	0.89	0.98
* 13	03/24/2019 - 03/30/2019	0.90	0.99
* 14	03/31/2019 - 04/06/2019	0.91	1.00
* 15	04/07/2019 - 04/13/2019	0.92	1.01
* 16	04/14/2019 - 04/20/2019	0.93	1.02
* 17	04/21/2019 - 04/27/2019	0.94	1.03
18	04/28/2019 - 05/04/2019	0.96	1.05
19	05/05/2019 - 05/11/2019	0.98	1.08
20	05/12/2019 - 05/18/2019	0.99	1.09
21	05/19/2019 - 05/25/2019	1.01	1.11
22	05/26/2019 - 06/01/2019	1.02	1.12
23	06/02/2019 - 06/08/2019	1.03	1.13
24	06/09/2019 - 06/15/2019	1.05	1.15
25	06/16/2019 - 06/22/2019	1.05	1.15
26	06/23/2019 - 06/29/2019	1.05	1.15
27	06/30/2019 - 07/06/2019	1.05	1.15
28	07/07/2019 - 07/13/2019	1.05	1.15
29	07/14/2019 - 07/20/2019	1.06	1.16
30	07/21/2019 - 07/27/2019	1.06	1.16
31	07/28/2019 - 08/03/2019	1.07	1.18
32	08/04/2019 - 08/10/2019	1.08	1.19
33	08/11/2019 - 08/17/2019	1.08	1.19
34	08/18/2019 - 08/24/2019	1.10	1.21
35	08/25/2019 - 08/31/2019	1.11	1.22
36	09/01/2019 - 09/07/2019	1.12	1.23
37	09/08/2019 - 09/14/2019	1.13	1.24
38	09/15/2019 - 09/21/2019	1.14	1.25
39	09/22/2019 - 09/28/2019	1.12	1.23
40	09/29/2019 - 10/05/2019	1.10	1.21
41	10/06/2019 - 10/12/2019	1.07	1.18
42	10/13/2019 - 10/19/2019	1.05	1.15
43	10/20/2019 - 10/26/2019	1.05	1.15
44	10/27/2019 - 11/02/2019	1.04	1.14
45	11/03/2019 - 11/09/2019	1.04	1.14
46	11/10/2019 - 11/16/2019	1.03	1.13
47	11/17/2019 - 11/23/2019	1.03	1.13
48	11/24/2019 - 11/30/2019	1.03	1.13
49	12/01/2019 - 12/07/2019	1.03	1.13
50	12/08/2019 - 12/14/2019	1.03	1.13
51	12/15/2019 - 12/21/2019	1.03	1.13
52	12/22/2019 - 12/28/2019	1.00	1.10
53	12/29/2019 - 12/31/2019	0.97	1.07

* PEAK SEASON

14-FEB-2020 15:39:28

830UPD

5_7000_PKSEASON.TXT

Covid Factor

Sta 435	ADT	27,000
Sta 434	ADT	22,100

From Synopsis Report @ Sta 434

PM Peak Hour = 1,584 vpl

$$SF_{Factor} = 1.10 \rightarrow 1,584 \times 1.10 = 1,742 \text{ vpl}$$

$$K = 1,742 / 22,100 = 0.0788$$

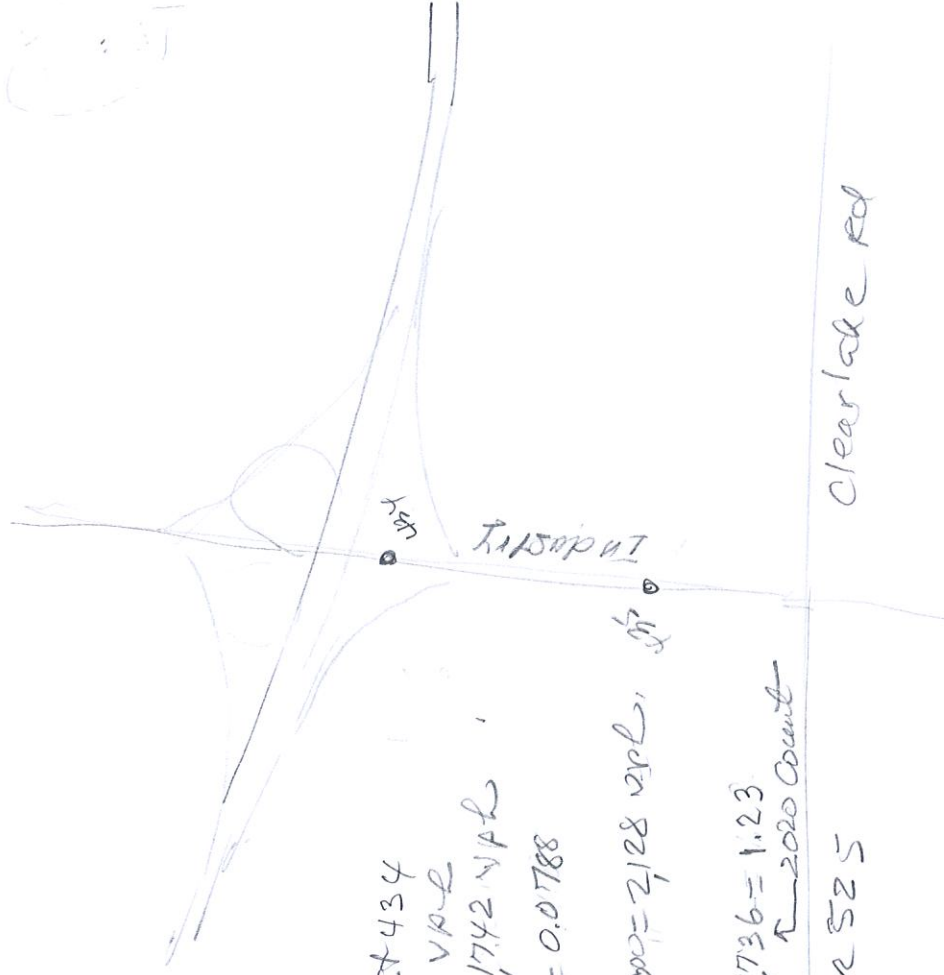
$$\text{PM Peak Hour Count @ Sta 435} = 0.0788 \times 27,000 = 2,128 \text{ vpl}$$

$$\text{Covid Factor} = 2,128 / 1,736 = 1.23$$

2020 Count

SR 525

Clearlake Rd



COUNTY: 70
STATION: 0434
DESCRIPTION: ON SR-524, 0.232 MI. N OF SR-501 (UV)
START DATE: 08/21/2019
START TIME: 0000

TIME	DIRECTION: N				TOTAL	DIRECTION: S				TOTAL	COMBINED TOTAL	
	1ST	2ND	3RD	4TH		1ST	2ND	3RD	4TH			
0000	28	29	16	27	100	7	15	18	18	58	158	
0100	33	6	10	8	57	17	11	19	22	69	126	
0200	8	8	7	13	36	18	7	9	14	48	84	
0300	15	10	14	26	65	8	18	18	19	63	128	
0400	23	21	32	41	117	22	21	36	25	104	221	
0500	36	43	52	65	196	40	41	77	95	253	449	
0600	58	82	96	106	342	90	125	152	205	572	914	
0700	111	95	107	109	422	190	255	261	315	1021	1443	
0800	103	110	133	125	471	224	216	273	265	978	1449	
0900	98	108	107	104	417	212	198	162	191	763	1180	
1000	133	101	106	139	479	178	162	182	170	692	1171	
1100	105	108	99	118	430	152	199	172	176	699	1129	
1200	128	136	110	143	517	234	200	181	180	795	1312	
1300	136	134	143	127	540	174	204	174	155	707	1247	
1400	124	107	104	103	438	174	201	214	198	787	1225	
1500	142	124	141	177	584	228	213	272	250	963	1547	
1600	144	157	151	159	611	214	244	248	233	939	1550	
1700	168	137	159	143	607	262	265	227	223	977	1584	
1800	126	107	99	95	427	183	159	136	119	597	1024	
1900	92	103	79	86	360	130	115	109	98	452	812	
2000	89	84	75	57	305	81	103	90	73	347	652	
2100	50	40	44	30	164	49	50	65	36	200	364	
2200	39	37	27	24	127	31	45	35	26	137	264	
2300	21	19	28	14	82	25	28	23	15	91	173	
24-HOUR TOTALS:					7894						12312	20206

DIRECTION: N				DIRECTION: S			
HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	800						
P.M.	1615						
DAILY	1615						

APPENDIX C

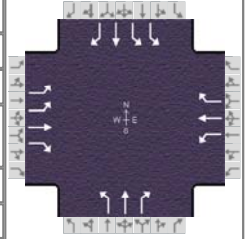
Existing HCS Capacity Worksheets

HCS7 Signalized Intersection Results Summary

General Information

Agency	TPD, Inc.		
Analyst	BH	Analysis Date	8/28/2020
Jurisdiction	Brevard County	Time Period	P.M. Peak Existing
Urban Street	SR 524	Analysis Year	2020
Intersection	SR 524 & Industry Rd	File Name	SR 524 & Industry
Project Description	Cocoa Apartment		

Intersection Information



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	461	364	25	39	418	517	27	106	119	410	137	504

Signal Information

Cycle, s	106.1	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	4.2	6.4	26.0	3.4	8.1	21.9		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	4.0	4.0	4.0		
				Red	2.0	2.0	2.0	2.0	2.0	2.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	22.7	44.4	10.2	32.0	9.4	27.9	23.5	42.0
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	4.9	5.0	4.9	5.0	5.0	5.2	5.0	5.2
Queue Clearance Time (g_s), s	16.5	19.3	4.4	28.0	3.7	9.2	14.6	37.0
Green Extension Time (g_e), s	0.2	9.1	0.0	0.0	0.0	6.5	3.0	0.0
Phase Call Probability	1.00	1.00	0.71	1.00	0.57	1.00	1.00	1.00
Max Out Probability	1.00	0.28	1.00	1.00	1.00	0.03	0.00	1.00

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (v), veh/h	490	387	27	41	445	550	29	113	127	436	146	536
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1900	1610	1810	1900		1810	1900	1610	1757	1900	1610
Queue Service Time (g_s), s	14.5	17.3	1.1	2.4	24.5		1.7	5.3	7.2	12.6	5.8	35.0
Cycle Queue Clearance Time (g_c), s	14.5	17.3	1.1	2.4	24.5		1.7	5.3	7.2	12.6	5.8	35.0
Green Ratio (g/C)	0.16	0.36	0.36	0.04	0.25		0.03	0.21	0.21	0.17	0.34	0.34
Capacity (c), veh/h	552	688	583	72	466		58	392	333	580	645	546
Volume-to-Capacity Ratio (X)	0.888	0.563	0.046	0.574	0.955		0.491	0.287	0.381	0.752	0.226	0.981
Back of Queue (Q), ft/ln (95 th percentile)	289	296.4	18.3	55.3	520.5		39.2	109.6	126.6	232.4	115	621.2
Back of Queue (Q), veh/ln (95 th percentile)	11.6	11.9	0.7	2.2	20.8		1.6	4.4	5.1	9.3	4.6	24.8
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	43.8	27.1	21.9	50.0	39.5		50.5	35.5	36.2	42.2	25.1	34.7
Incremental Delay (d_2), s/veh	16.1	1.1	0.0	9.9	30.6		8.8	0.6	1.0	2.8	0.3	33.7
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	59.9	28.2	22.0	59.9	70.1	0.0	59.3	36.1	37.3	45.0	25.3	68.4
Level of Service (LOS)	E	C	C	E	E	A	E	D	D	D	C	E
Approach Delay, s/veh / LOS	45.2		D	32.5		C	39.1		D	53.7		D
Intersection Delay, s/veh / LOS	43.6						D					

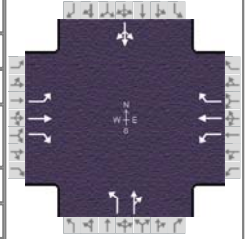
Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.11		B	2.45		B	2.30		B	2.28		B
Bicycle LOS Score / LOS	1.98		B	2.20		B	0.93		A	2.33		B

HCS7 Signalized Intersection Results Summary

General Information

Agency	TPD, Inc.		
Analyst	BH	Analysis Date	8/28/2020
Jurisdiction	Brevard County	Time Period	P.M. Peak Existing
Urban Street	SR 524	Analysis Year	2020
Intersection	SR 524 & CVS Entrance	File Name	SR 524 & CVS En
Project Description	Cocoa Apartment		



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	26	736	58	30	827	9	132	11	17	69	4	48

Signal Information

Cycle, s	115.1	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	3.6	0.3	65.2	11.3	10.7	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	0.0	4.0	4.0	4.0	0.0		
				Red	2.0	0.0	2.0	2.0	2.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2		4		8
Case Number	2.0	3.0	2.0	3.0		10.0		12.0
Phase Duration, s	9.6	71.2	9.9	71.5		17.3		16.7
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0		6.0		6.0
Max Allow Headway (MAH), s	4.9	4.9	4.9	4.9		5.0		5.1
Queue Clearance Time (g_s), s	3.8	38.4	4.0	46.6		11.0		10.6
Green Extension Time (g_e), s	0.0	17.2	0.0	18.8		0.4		0.3
Phase Call Probability	0.60	1.00	0.65	1.00		1.00		0.99
Max Out Probability	1.00	0.24	1.00	0.13		0.56		0.44

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (v), veh/h	28	800	63	33	899	10	143	30			132	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1713			1727	
Queue Service Time (g_s), s	1.8	36.4	2.0	2.0	44.6	0.3	9.0	1.9			8.6	
Cycle Queue Clearance Time (g_c), s	1.8	36.4	2.0	2.0	44.6	0.3	9.0	1.9			8.6	
Green Ratio (g/C)	0.03	0.57	0.57	0.03	0.57	0.57	0.10	0.10			0.09	
Capacity (c), veh/h	56	1076	912	61	1081	916	178	168			161	
Volume-to-Capacity Ratio (X)	0.502	0.743	0.069	0.533	0.831	0.011	0.807	0.181			0.815	
Back of Queue (Q), ft/ln (95 th percentile)	41.6	511.6	29.6	47.7	609.3	4.4	202.9	36.8			190.8	
Back of Queue (Q), veh/ln (95 th percentile)	1.7	20.5	1.2	1.9	24.4	0.2	8.1	1.5			7.6	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	55.0	18.7	11.3	54.8	20.3	10.8	50.9	47.7			51.3	
Incremental Delay (d_2), s/veh	9.5	2.2	0.0	9.9	2.8	0.0	13.2	0.7			13.9	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Control Delay (d), s/veh	64.5	20.9	11.3	64.7	23.1	10.8	64.1	48.4			65.2	
Level of Service (LOS)	E	C	B	E	C	B	E	D			E	
Approach Delay, s/veh / LOS	21.6		C	24.4		C	61.4		E	65.2		E
Intersection Delay, s/veh / LOS	28.7						C					

Multimodal Results

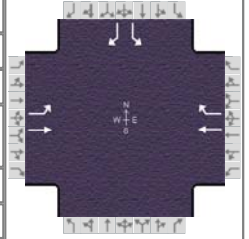
	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	1.89		B	1.67		B	2.14		B	2.16		B
Bicycle LOS Score / LOS	1.96		B	2.04		B	0.77		A	0.70		A

HCS7 Signalized Intersection Results Summary

General Information

Agency	TPD, Inc.		
Analyst	BH	Analysis Date	8/28/2020
Jurisdiction	Brevard County	Time Period	P.M. Peak Existing
Urban Street	SR 524	Analysis Year	2020
Intersection	SR 524 & London Blvd	File Name	SR 524 & London
Project Description	Cocoa Apartment		

Intersection Information



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	27	723			847	116				79		20

Signal Information

Cycle, s	73.7	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	2.7	47.7	5.3	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0		
				Red	2.0	2.0	2.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2				8
Case Number	1.0	4.0		7.3				9.0
Phase Duration, s	8.7	62.4		53.7				11.3
Change Period, ($Y+R_c$), s	6.0	6.0		6.0				6.0
Max Allow Headway (MAH), s	4.9	4.9		4.9				5.1
Queue Clearance Time (g_s), s	2.4	14.2		26.5				5.4
Green Extension Time (g_e), s	0.0	20.6		21.1				0.3
Phase Call Probability	0.45	1.00		1.00				0.89
Max Out Probability	1.00	0.11		0.08				0.01

Movement Group Results

Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2	12				3		18
Adjusted Flow Rate (v), veh/h	29	786			921	126				86		22
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900			1900					1810		
Queue Service Time (g_s), s	0.4	12.2			24.5					3.4		
Cycle Queue Clearance Time (g_c), s	0.4	12.2			24.5					3.4		
Green Ratio (g/C)	0.71	0.76			0.65					0.07		
Capacity (c), veh/h	359	1453			1229					131		
Volume-to-Capacity Ratio (X)	0.082	0.541			0.749					0.655		
Back of Queue (Q), ft/ln (95 th percentile)	5.2	57.3			257.4					75.1		
Back of Queue (Q), veh/ln (95 th percentile)	0.2	2.3			10.3					3.0		
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00			0.00					0.00		
Uniform Delay (d_1), s/veh	8.1	3.5			8.9					33.3		
Incremental Delay (d_2), s/veh	0.1	0.4			1.3					7.6		
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0					0.0		
Control Delay (d), s/veh	8.3	3.9			10.3	0.0				41.0		0.0
Level of Service (LOS)	A	A			B	A				D		A
Approach Delay, s/veh / LOS	4.1	A		9.0	A		0.0			32.7	C	
Intersection Delay, s/veh / LOS	8.3						A					

Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	0.63		A	1.86		B	1.95		B	1.95		B
Bicycle LOS Score / LOS	1.83		B	2.21		B						F

APPENDIX D

ITE Trip Generation Sheets

Multifamily Housing (Low-Rise) (220)

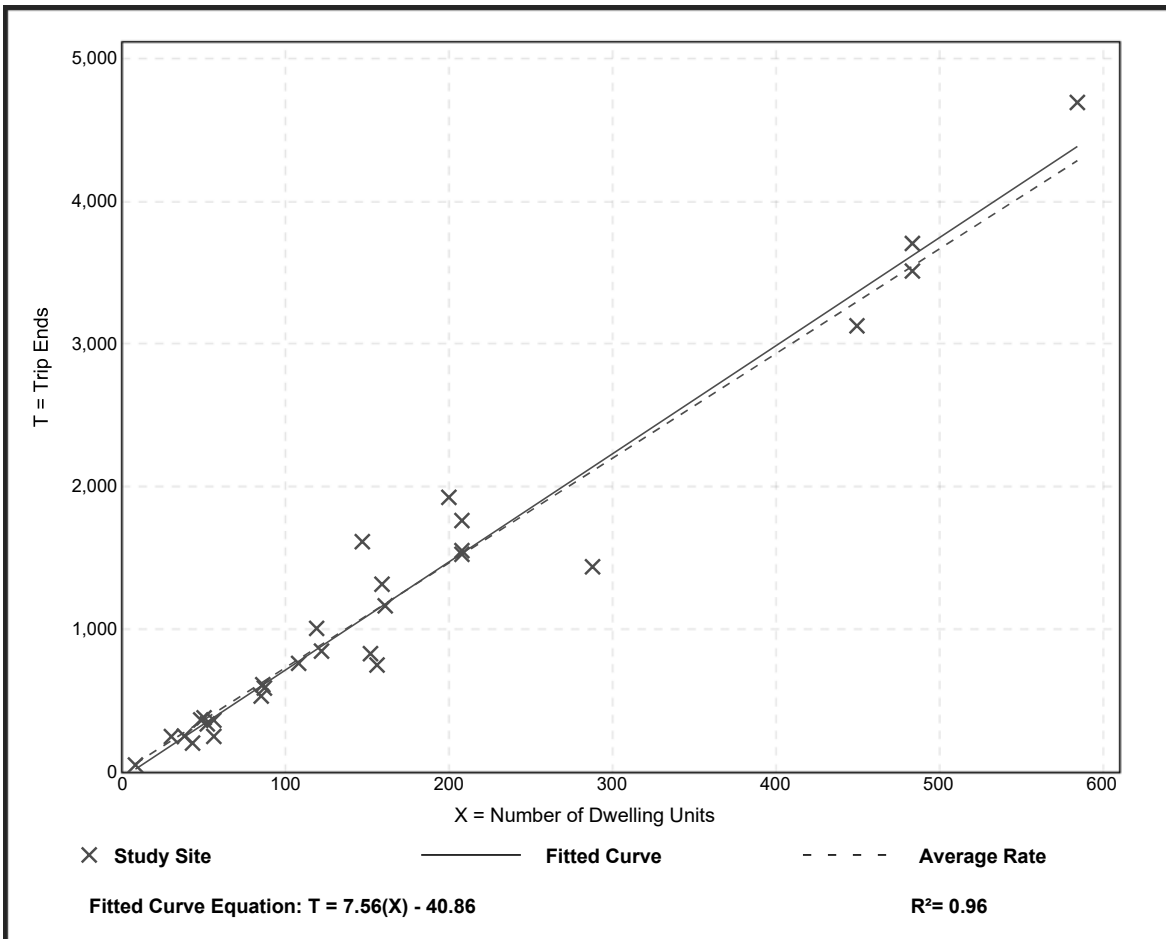
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 29
Avg. Num. of Dwelling Units: 168
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.32	4.45 - 10.97	1.31

Data Plot and Equation



Multifamily Housing (Low-Rise) (220)

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: 42

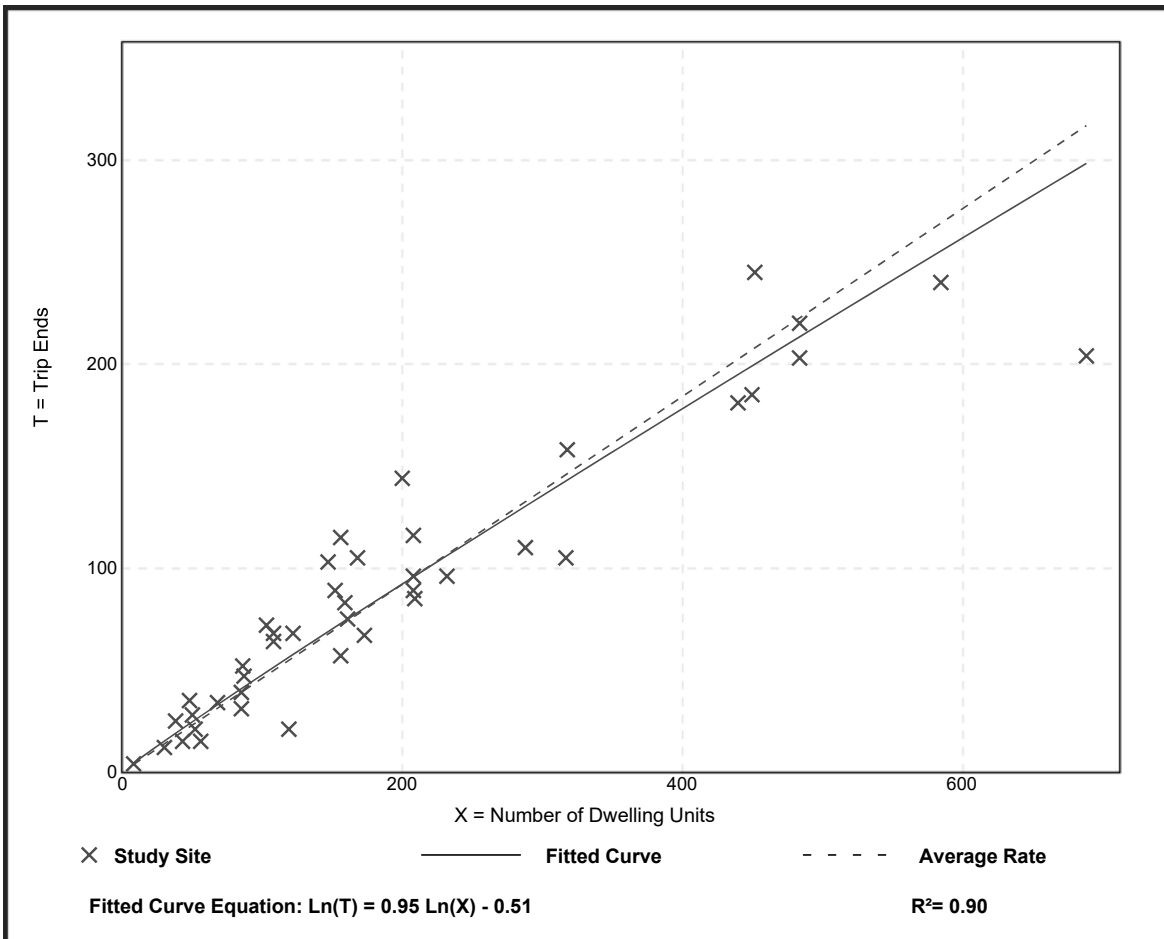
Avg. Num. of Dwelling Units: 199

Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.46	0.18 - 0.74	0.12

Data Plot and Equation



Multifamily Housing (Low-Rise) (220)

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: 50

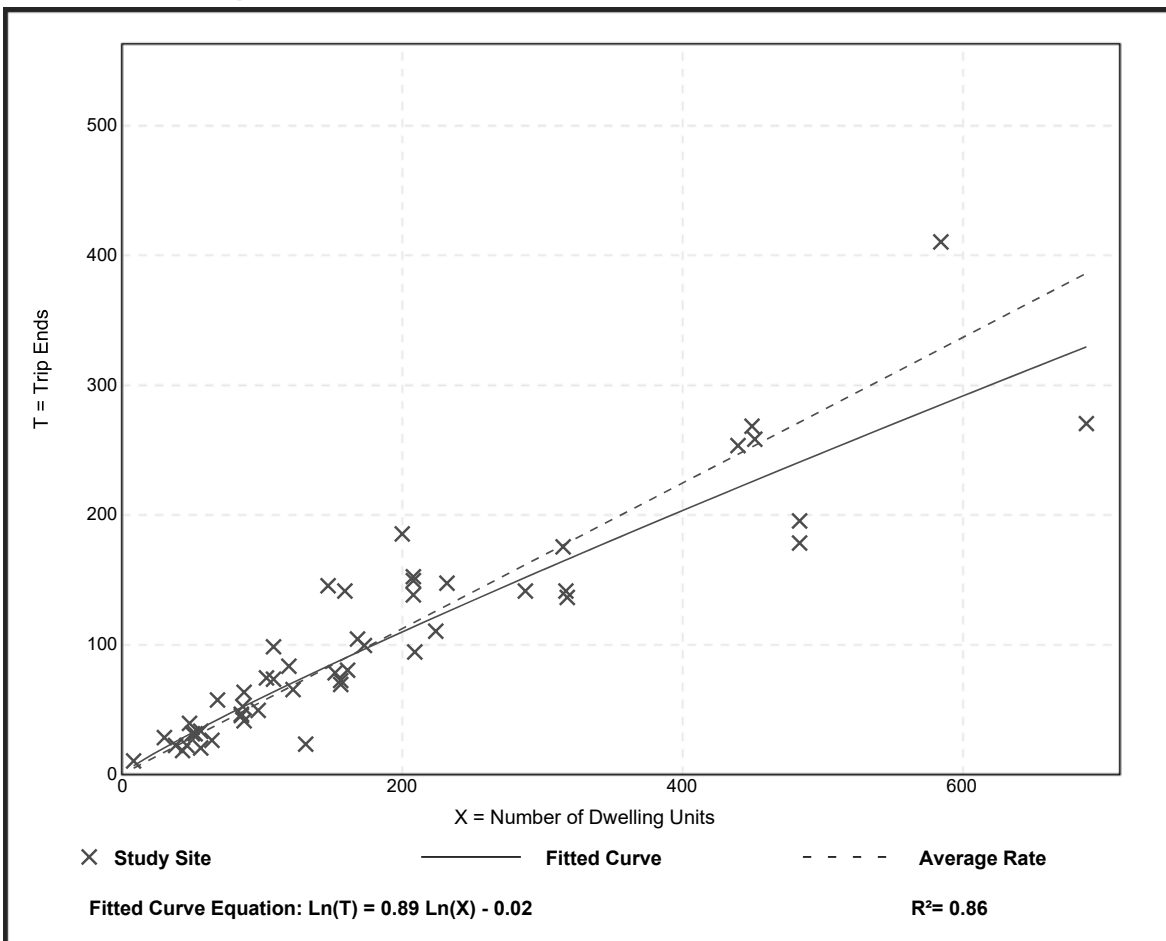
Avg. Num. of Dwelling Units: 187

Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.56	0.18 - 1.25	0.16

Data Plot and Equation



Shopping Center (820)

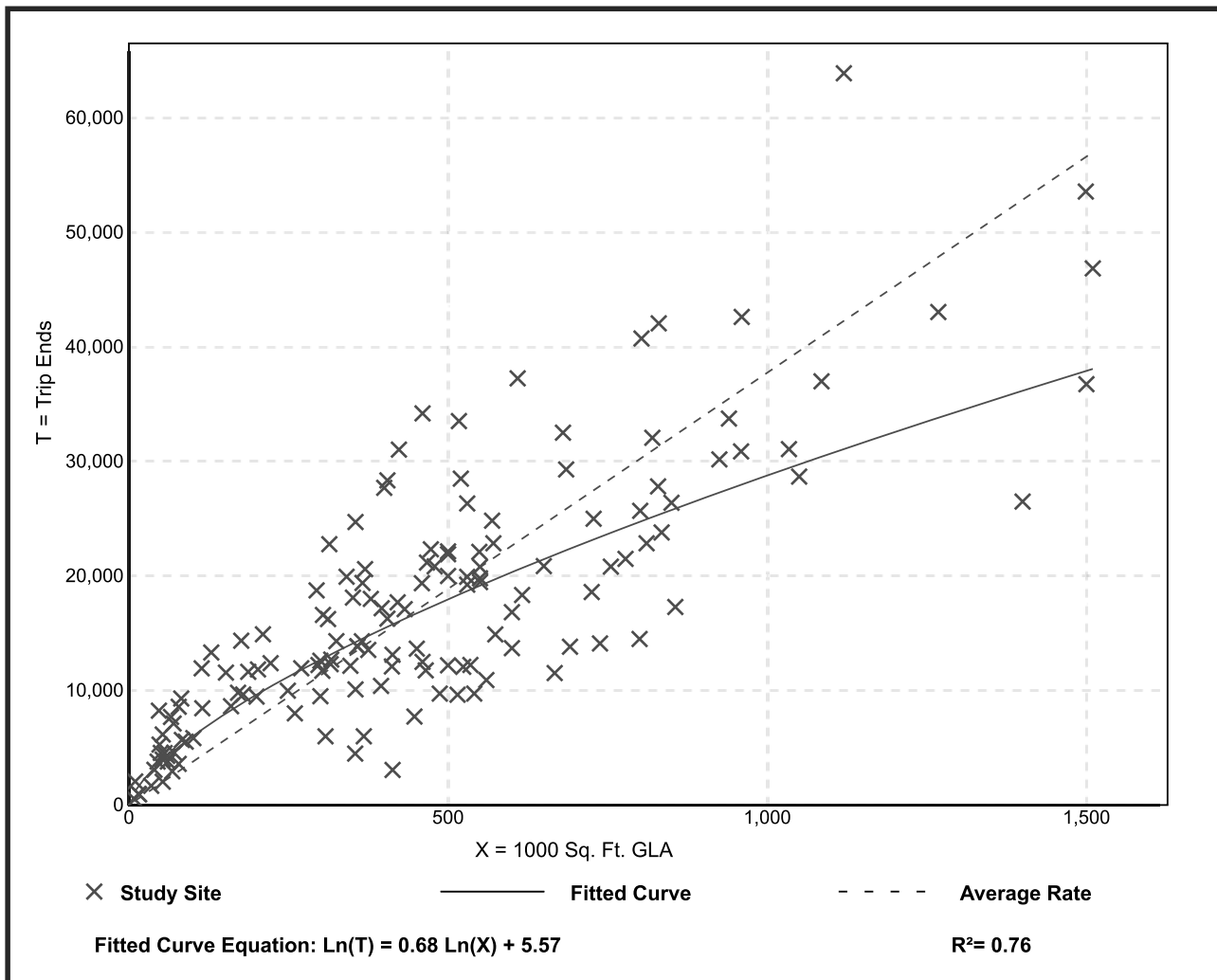
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 147
Avg. 1000 Sq. Ft. GLA: 453
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
37.75	7.42 - 207.98	16.41

Data Plot and Equation



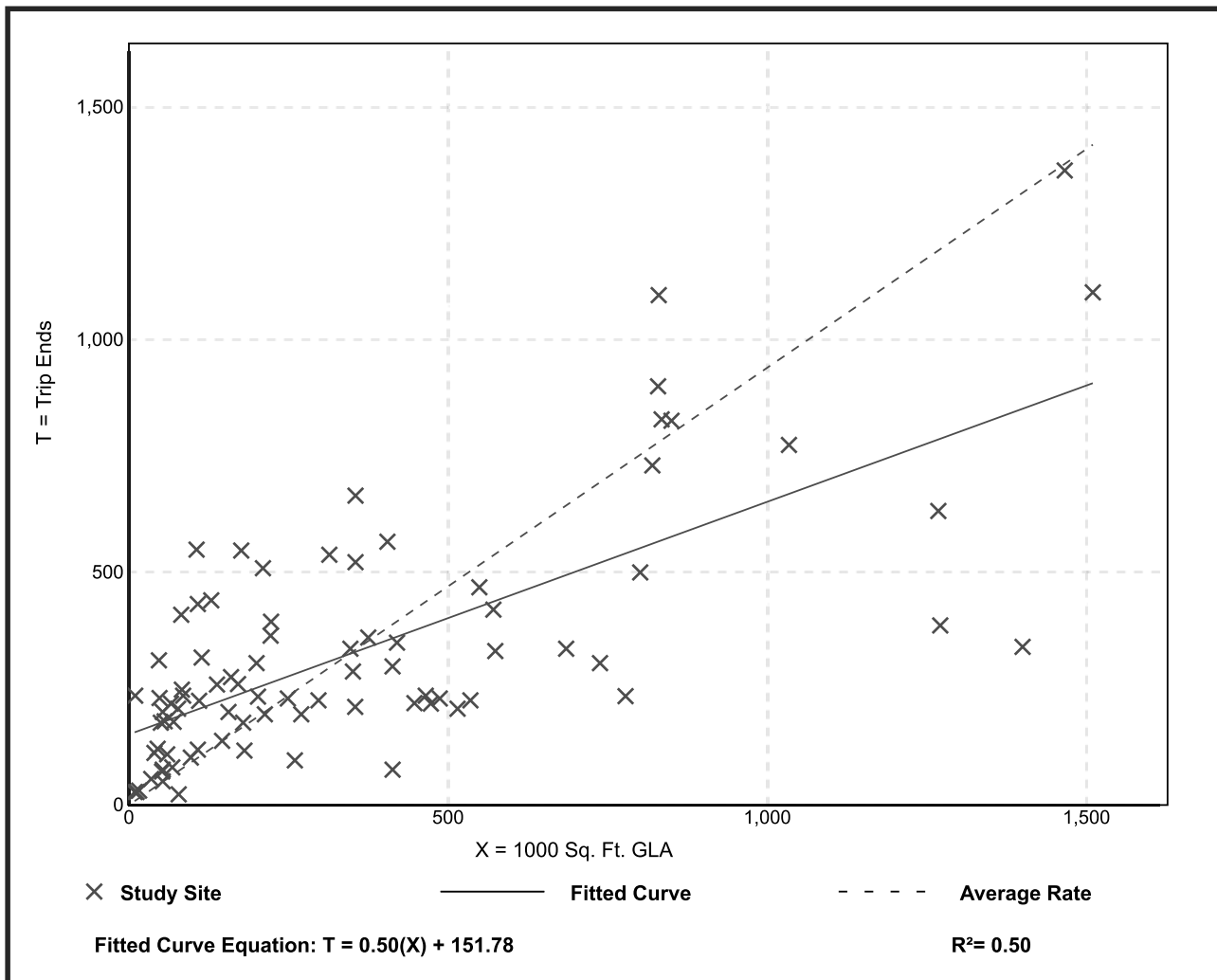
Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 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: 84
 Avg. 1000 Sq. Ft. GLA: 351
 Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
0.94	0.18 - 23.74	0.87

Data Plot and Equation



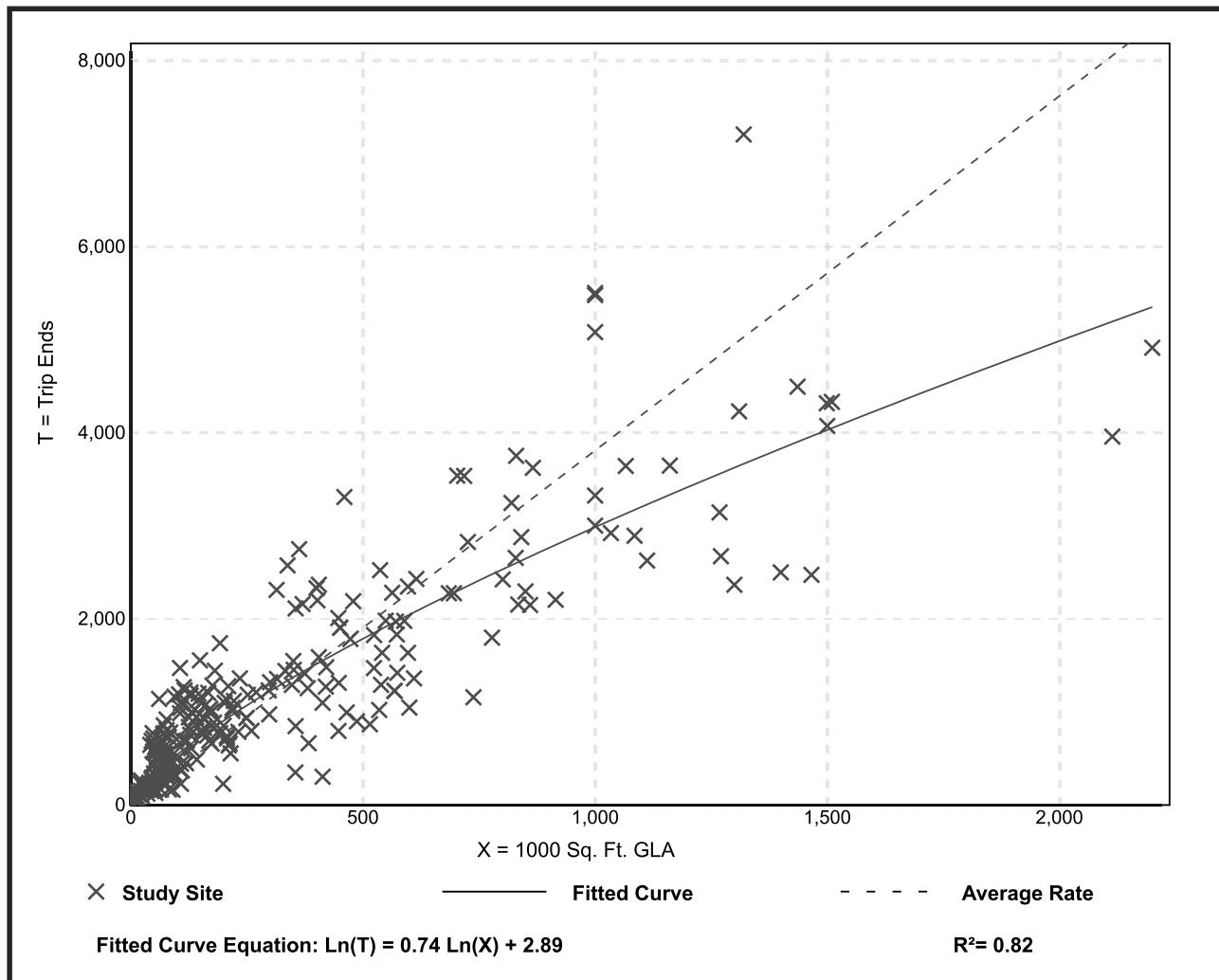
Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 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: 261
 Avg. 1000 Sq. Ft. GLA: 327
 Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.81	0.74 - 18.69	2.04

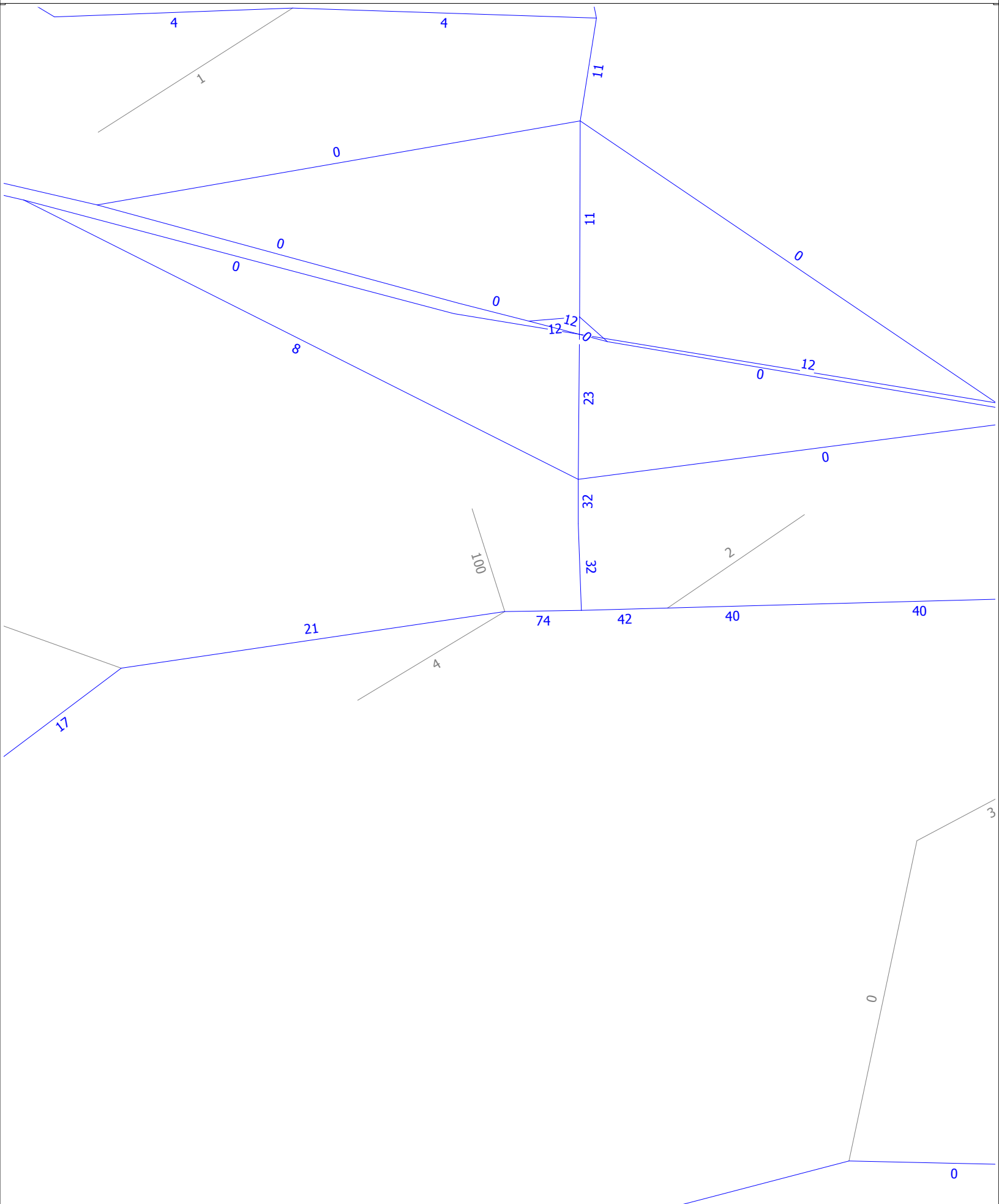
Data Plot and Equation

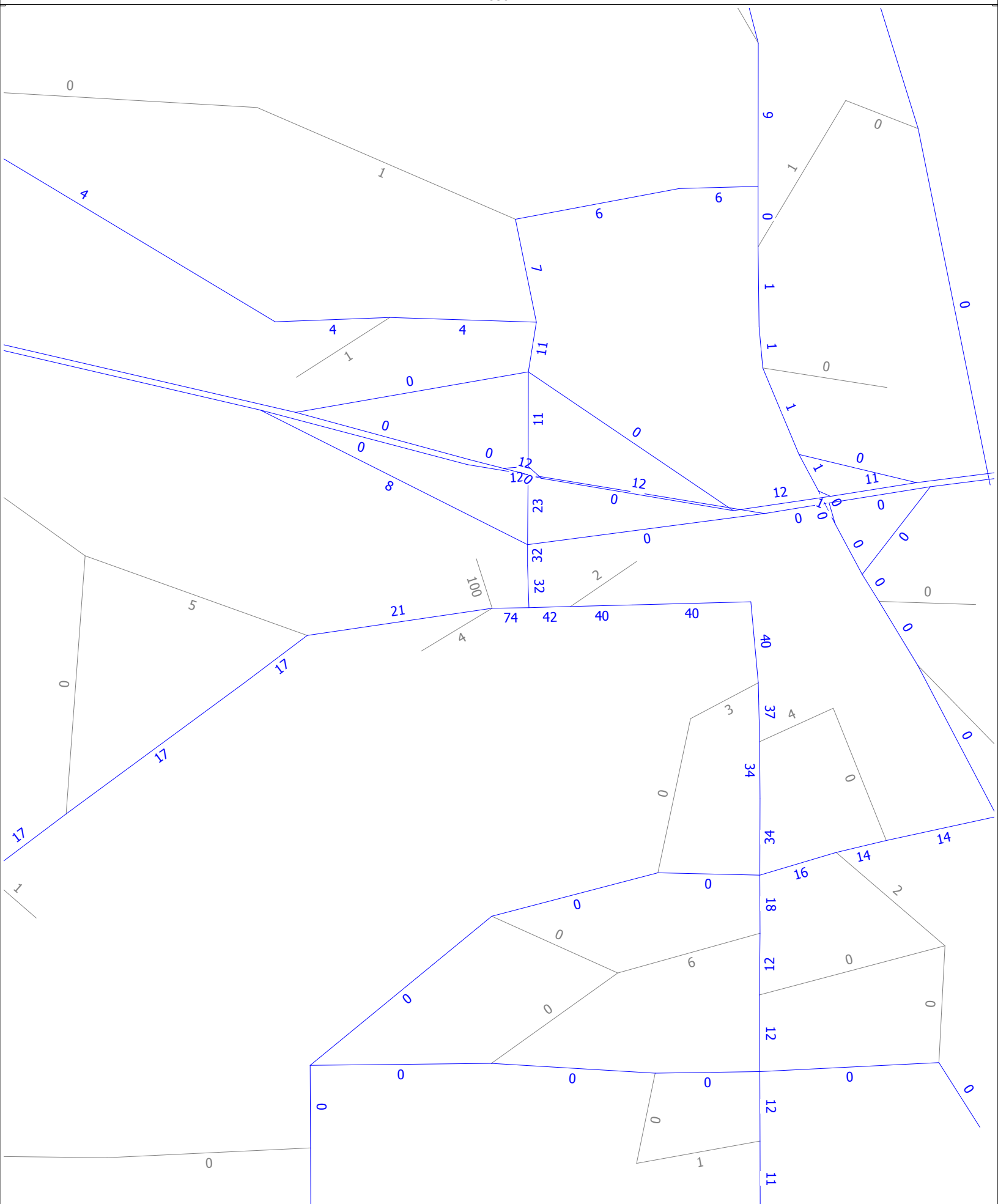


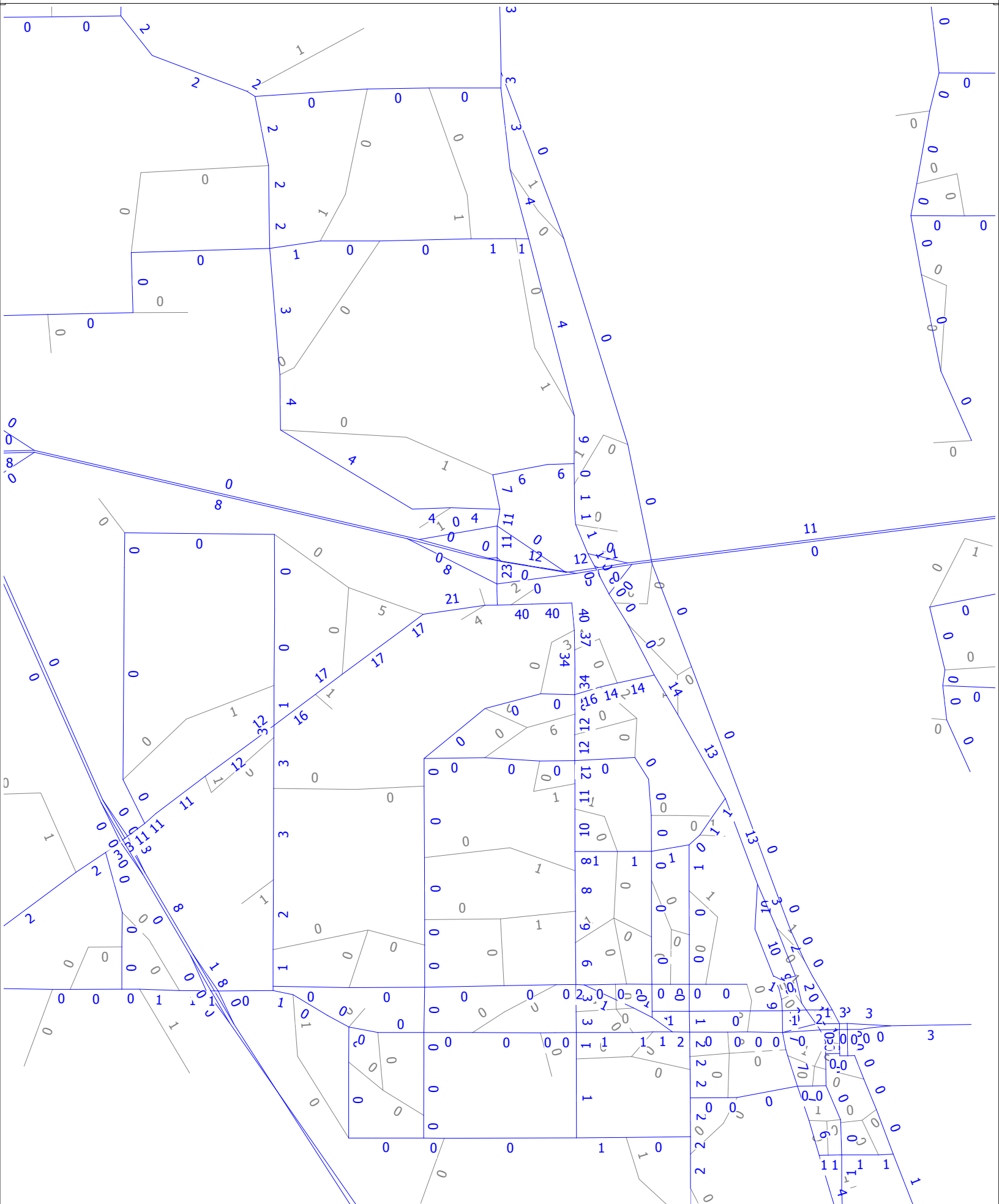
APPENDIX E

Model Distribution Plot

Cocoa Apartments
P5382







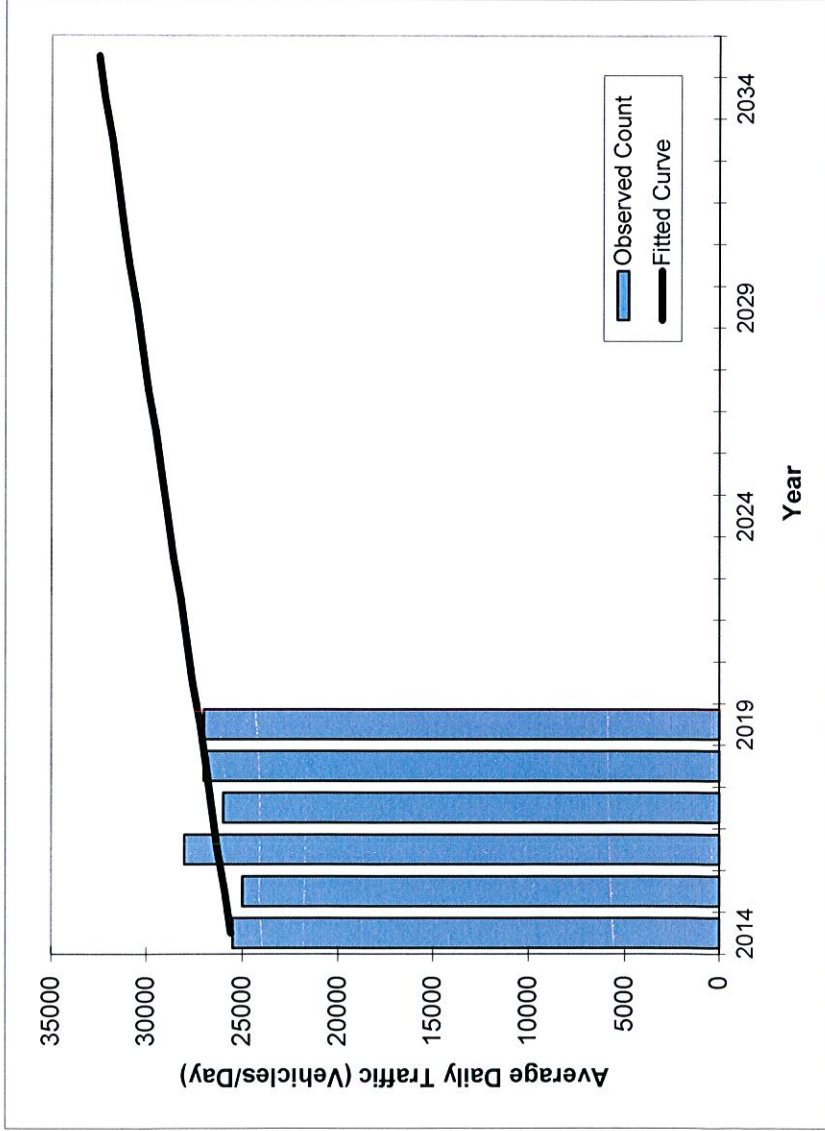
APPENDIX F

Trends Analysis Worksheets

Traffic Trends - V3.0 SR 524 , 0.054 MI N of SR 501 --

FIN#	1234
Location	1

County:	Brevard (70)
Station #:	70-0435
Highway:	SR 524 , 0.054 MI N of SR 501



** Annual Trend Increase:	329
Trend R-squared:	30.43%
Trend Annual Historic Growth Rate:	1.25%
Trend Growth Rate (2019 to Design Year):	1.23%
Printed:	27-Aug-20
Straight Line Growth Option	

Year	Traffic (ADT/AADT)	
	Count*	Trend**
2014	25500	25600
2015	25000	25900
2016	28000	26300
2017	26000	26600
2018	27000	26900
2019	27000	27200
2021 Opening Year Trend		
2021	N/A	27900
2023 Mid-Year Trend		
2023	N/A	28600
2025 Design Year Trend		
2025	N/A	29200
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 70 - BREVARD

SITE: 0435 - ON SR-524, 0.054 MI. N OF SR-501 (UVL)

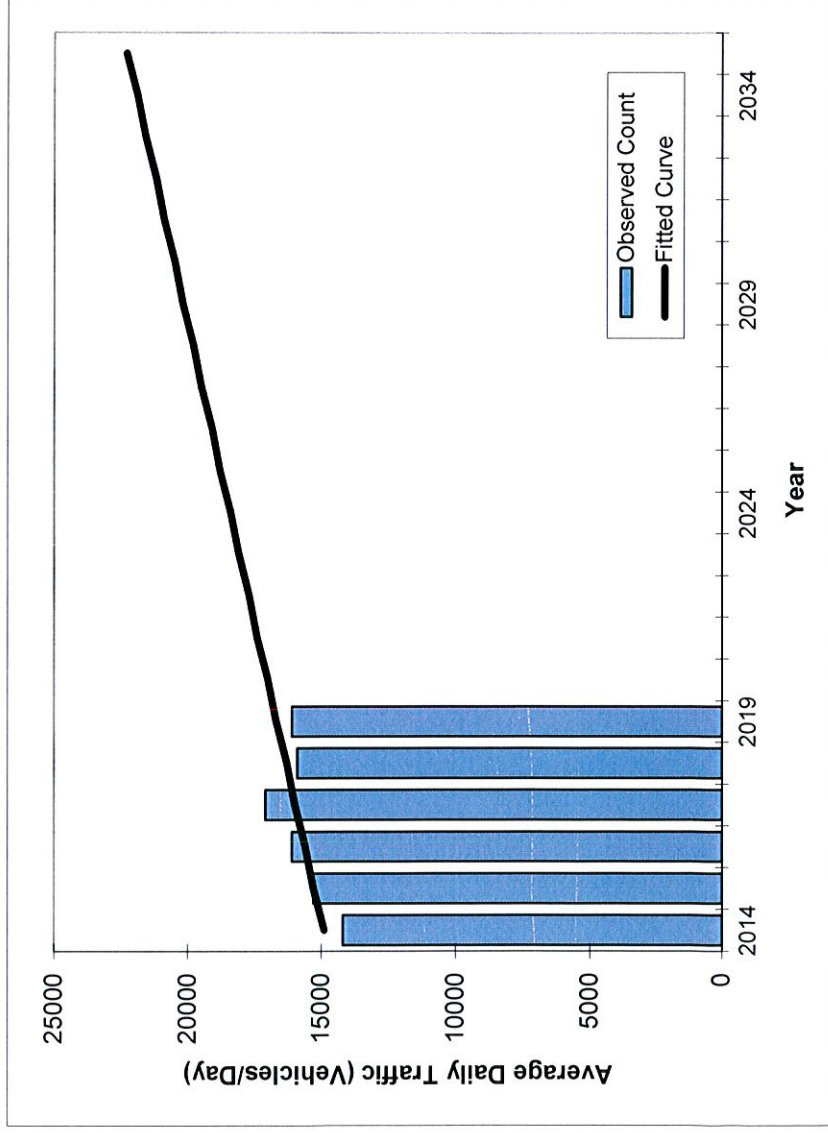
YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----	-----	-----	-----	-----	-----
2019	27000 S	N 14500	S 12500	9.00	54.70	9.10
2018	27000 F	N 14500	S 12500	9.00	54.10	10.30
2017	26000 C	N 14000	S 12000	9.00	54.30	10.60
2016	28000 C	N 12500	S 15500	9.00	53.40	6.50
2015	25000 C	N 12500	S 12500	9.00	53.80	6.40
2014	25500 C	N 13500	S 12000	9.00	53.80	7.10
2013	21000 C	N 11000	S 10000	9.00	54.20	8.90
2012	23000 C	N 11500	S 11500	9.00	53.60	6.80
2011	23000 C	N 11500	S 11500	9.00	54.30	7.20
2010	21000 C	N 10000	S 11000	10.91	56.02	5.70
2009	23500 C	N 12000	S 11500	11.80	61.02	7.40
2008	24000 C	N 12500	S 11500	11.37	57.79	6.70
2007	25500 C	N 13000	S 12500	9.20	54.21	6.00
2006	24500 C	N 12500	S 12000	11.35	57.22	7.80
2005	23000 C	N 9000	S 14000	11.30	53.80	4.80
2004	19400 C	N 10000	S 9400	10.10	56.80	3.90

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends - V3.0 SR 524 , 0.664 MI . W of SR 501 --

FIN#	1234
Location	1

County:	Brevard (70)
Station #:	70-0426
Highway:	SR 524 , 0.664 MI . W of SR 501



** Annual Trend Increase:	351
Trend R-squared:	46.10%
Trend Annual Historic Growth Rate:	2.42%
Trend Growth Rate (2019 to Design Year):	2.10%
Printed:	27-Aug-20
Straight Line Growth Option	

Year	Traffic (ADT/AADT)	
	Count*	Trend**
2014	14200	14900
2015	15300	15300
2016	16100	15600
2017	17100	16000
2018	15900	16300
2019	16100	16700
2021 Opening Year Trend		
2021	N/A	17400
2023 Mid-Year Trend		
2023	N/A	18100
2025 Design Year Trend		
2025	N/A	18800
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 70 - BREVARD

SITE: 0426 - ON SR-524, 0.664 MI. W OF SR-501 (UVL)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----	-----	-----	-----	-----	-----
2019	16100 F	E 8200	W 7900	9.00	54.70	9.10
2018	15900 C	E 8100	W 7800	9.00	54.10	10.30
2017	17100 C	E 8600	W 8500	9.00	54.30	10.60
2016	16100 C	E 8100	W 8000	9.00	53.40	6.50
2015	15300 C	E 7600	W 7700	9.00	53.80	6.40
2014	14200 C	E 7200	W 7000	9.00	53.80	7.10
2013	12100 C	E 5400	W 6700	9.00	54.20	8.90
2012	13400 C	E 6700	W 6700	9.00	53.60	6.80
2011	14500 C	E 7300	W 7200	9.00	54.30	7.20
2010	15000 C	E 7400	W 7600	10.91	56.02	5.70
2009	15000 C	E 7400	W 7600	11.80	61.02	7.40
2008	15200 C	E 7800	W 7400	11.37	57.79	6.70
2007	15800 C	E 7900	W 7900	10.03	55.54	6.00
2006	15000 C	E 7500	W 7500	11.35	57.22	7.80
2005	16700 C	E 8300	W 8400	11.30	53.80	7.60
2004	14400 C	E 7200	W 7200	10.10	56.80	3.90

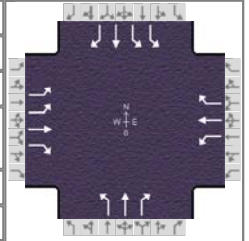
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

APPENDIX G

Projected HCS Capacity Worksheets

HCS7 Signalized Intersection Results Summary

General Information					Intersection Information	
Agency	TPD, Inc.				Duration, h	0.25
Analyst	BH	Analysis Date	8/28/2020		Area Type	Other
Jurisdiction	Brevard County	Time Period	P.M. Peak Projected		PHF	0.94
Urban Street	SR 524	Analysis Year	2023		Analysis Period	1 > 7:00
Intersection	SR 524 & Industry Rd		File Name	SR 524 & Industry Rd.xus		
Project Description	Cocoa Apartment					



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	525	433	27	41	502	548	29	112	126	435	143	580

Signal Information												
Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	4.6	10.5	34.0	3.9	9.2	21.8		
				Yellow	4.0	4.0	4.0	4.0	4.0	4.0		
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	2.0	2.0	2.0		

											
1	2	3	4	5	6	7	8	9	10	11	12

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	27.1	56.5	10.6	40.0	9.9	27.8	25.1	43.0
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	4.9	5.0	4.9	5.0	5.0	5.2	5.0	5.2
Queue Clearance Time (g_s), s	19.5	25.1	4.7	36.0	3.9	8.3	16.4	39.0
Green Extension Time (g_e), s	1.6	0.0	0.0	0.0	0.0	0.0	2.7	0.0
Phase Call Probability	1.00	1.00	0.77	1.00	0.64	1.00	1.00	1.00
Max Out Probability	0.86	1.00	1.00	1.00	1.00	1.00	0.01	1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (v), veh/h	559	461	29	44	534	583	31	119	102	463	152	543
Adjusted Saturation Flow Rate (s), veh/h/ln	1853	1847	1699	1909	2004		1909	2004	1699	1853	2004	1699
Queue Service Time (g_s), s	17.5	23.1	1.2	2.7	31.2		1.9	6.2	6.3	14.4	6.8	37.0
Cycle Queue Clearance Time (g_c), s	17.5	23.1	1.2	2.7	31.2		1.9	6.2	6.3	14.4	6.8	37.0
Green Ratio (g/C)	0.18	0.42	0.42	0.04	0.28		0.03	0.18	0.18	0.16	0.31	0.31
Capacity (c), veh/h	653	778	715	73	568		61	364	308	590	618	524
Volume-to-Capacity Ratio (X)	0.855	0.592	0.040	0.596	0.940		0.503	0.328	0.331	0.785	0.246	1.036
Back of Queue (Q), ft/ln (95 th percentile)	335.1	402.9	20.5	66.5	637.6		47.6	139.9	120.3	277.3	147.8	761.9
Back of Queue (Q), veh/ln (95 th percentile)	13.3	14.8	0.8	2.6	25.3		1.9	5.5	4.8	11.0	5.9	30.2
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	47.9	26.8	20.4	56.8	42.0		57.1	42.7	42.8	48.5	31.1	41.5
Incremental Delay (d_2), s/veh	8.8	1.5	0.0	10.6	24.1		8.8	0.7	0.9	3.3	0.3	48.9
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	56.8	28.2	20.5	67.4	66.2	0.0	65.9	43.5	43.7	51.8	31.4	90.4
Level of Service (LOS)	E	C	C	E	E	A	E	D	D	D	C	F
Approach Delay, s/veh / LOS	43.2	D		33.0		C	46.3	D		67.2	E	
Intersection Delay, s/veh / LOS	47.8						D					

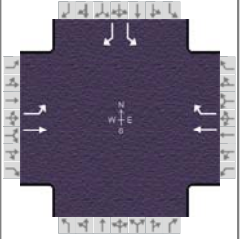
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.15	B	2.55	C	2.31	B	2.29	B
Bicycle LOS Score / LOS	2.22	B	2.40	B	0.90	A	2.40	B

HCS7 Signalized Intersection Results Summary

General Information

Agency	TPD, Inc.		
Analyst	BH	Analysis Date	8/28/2020
Jurisdiction	Brevard County	Time Period	P.M. Peak Projected
Urban Street	SR 524	Analysis Year	2023
Intersection	SR 524 & London Blvd	File Name	SR 524 & London
Project Description	Cocoa Apartment		

Intersection Information



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	29	790			917	128				91		21

Signal Information

Cycle, s	86.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	3.2	58.3	6.6	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0		
				Red	2.0	2.0	2.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2				8
Case Number	1.0	4.0		7.3				9.0
Phase Duration, s	9.2	73.4		64.3				12.6
Change Period, ($Y+R_c$), s	6.0	6.0		6.0				6.0
Max Allow Headway (MAH), s	4.9	4.9		4.9				5.1
Queue Clearance Time (g_s), s	2.4	20.7		32.6				6.6
Green Extension Time (g_e), s	0.0	24.3		25.6				0.3
Phase Call Probability	0.53	1.00		1.00				0.95
Max Out Probability	1.00	0.23		0.17				0.03

Movement Group Results

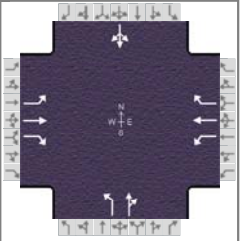
	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2	12				3		18
Adjusted Flow Rate (v), veh/h	32	859			997	139				99		23
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1710			1900					1810		
Queue Service Time (g_s), s	0.4	18.7			30.6					4.6		
Cycle Queue Clearance Time (g_c), s	0.4	18.7			30.6					4.6		
Green Ratio (g/C)	0.74	0.78			0.68					0.08		
Capacity (c), veh/h	335	1341			1287					138		
Volume-to-Capacity Ratio (X)	0.094	0.640			0.774					0.715		
Back of Queue (Q), ft/ln (95 th percentile)	8.3	103.6			324.8					103.3		
Back of Queue (Q), veh/ln (95 th percentile)	0.3	4.1			13.0					4.1		
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00			0.00					0.00		
Uniform Delay (d_1), s/veh	9.6	4.0			9.4					38.8		
Incremental Delay (d_2), s/veh	0.2	0.9			1.5					9.4		
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0					0.0		
Control Delay (d), s/veh	9.7	4.9			10.9	0.0				48.2		0.0
Level of Service (LOS)	A	A			B	A				D		A
Approach Delay, s/veh / LOS	5.1	A		9.5	A		0.0			39.2		D
Intersection Delay, s/veh / LOS	9.4						A					

Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	0.63	A		1.86	B		1.95	B		1.95	B	
Bicycle LOS Score / LOS	1.96	B		2.36	B						F	

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	TPD, Inc.			Duration, h	0.25
Analyst	BH	Analysis Date	8/28/2020	Area Type	Other
Jurisdiction	Brevard County	Time Period	P.M. Peak Projected	PHF	0.92
Urban Street	SR 524	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	SR 524 & CVS Entrance	File Name	SR 524 & CVS Entrance.xus		
Project Description	Cocoa Apartment				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	72	766	62	32	862	132	140	18	18	171	8	91

Signal Information														
Cycle, s	152.8	Reference Phase	2											
Offset, s	0	Reference Point	End											
Uncoordinated	Yes	Simult. Gap E/W	On	Green	4.6	70.9	8.0	15.3	24.0	0.0				
				Yellow	4.0	4.0	4.0	4.0	4.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	2.0	2.0	0.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2		4		8
Case Number	2.0	3.0	2.0	3.0		10.0		12.0
Phase Duration, s	14.0	90.9	10.6	87.5		21.3		30.0
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0		6.0		6.0
Max Allow Headway (MAH), s	4.9	4.9	4.9	4.9		5.0		5.1
Queue Clearance Time (g_s), s	8.6	55.2	4.9	71.5		14.7		22.7
Green Extension Time (g_e), s	0.0	7.7	0.0	9.7		0.6		1.2
Phase Call Probability	0.96	1.00	0.77	1.00		1.00		1.00
Max Out Probability	1.00	0.00	1.00	0.00		0.05		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (v), veh/h	78	833	67	35	937	143	152	28			245	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1800			1768	
Queue Service Time (g_s), s	6.6	53.2	3.0	2.9	69.5	7.0	12.7	2.2			20.7	
Cycle Queue Clearance Time (g_c), s	6.6	53.2	3.0	2.9	69.5	7.0	12.7	2.2			20.7	
Green Ratio (g/C)	0.05	0.56	0.56	0.03	0.53	0.53	0.10	0.10			0.16	
Capacity (c), veh/h	94	1056	895	55	1014	859	181	180			278	
Volume-to-Capacity Ratio (X)	0.829	0.789	0.075	0.633	0.924	0.167	0.839	0.157			0.880	
Back of Queue (Q), ft/ln (95 th percentile)	186.5	768.2	47.7	70.4	1003.1	113.5	266.6	46.1			385.7	
Back of Queue (Q), veh/ln (95 th percentile)	7.5	30.7	1.9	2.8	40.1	4.5	10.7	1.8			15.4	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	72.0	27.0	15.8	73.5	32.9	18.3	67.8	63.0			63.2	
Incremental Delay (d_2), s/veh	44.6	2.6	0.1	15.8	6.1	0.1	14.2	0.6			13.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Control Delay (d), s/veh	116.6	29.6	15.9	89.3	39.0	18.4	82.0	63.6			76.5	
Level of Service (LOS)	F	C	B	F	D	B	F	E			E	
Approach Delay, s/veh / LOS	35.6		D	37.9		D	79.1		E	76.5		E
Intersection Delay, s/veh / LOS	43.7						D					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	1.92		B	1.81		B	2.15		B	2.17		B
Bicycle LOS Score / LOS	2.10		B	2.33		B	0.79		A	0.89		A

CITY OF COCOA

NOTICE OF PUBLIC HEARING AND ZONING MAP AMENDMENT

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

For "Cirrus" Mixed-Use PUD and Apartments:

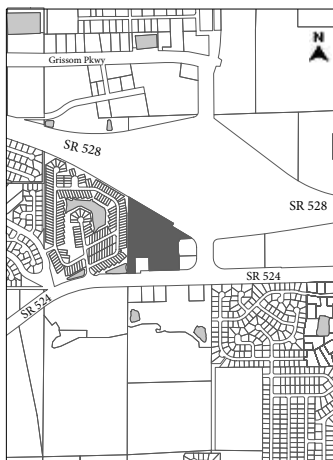
- A. APPROVAL OF A DEVELOPMENT AGREEMENT / PRELIMINARY SUBDIVISION / LARGE SCALE SITE PLAN (Cirrus Apartments) consistent with Chapter 18 Subdivisions and Appendix A Zoning of the City Code. The property owner desires to develop a mixed-use planned unit development project containing 280 apartment units and future commercial uses. The subject property is generally located on State Road 524, directly south of State Road 528 and west of East Industry Road, in Cocoa, FL. The property is identified as Parcel # 24-36-18-27--1.

AND

Ordinance No. 03-2021

- B. AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA; AMENDING THE OFFICIAL ZONING MAP DESIGNATION OF ONE (1) PARCEL OF REAL PROPERTY, TOTALING 15.74 ACRES, MORE OR LESS, AND GENERALLY LOCATED ON STATE ROAD 524, DIRECTLY 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, FROM GENERAL COMMERCIAL (CG) TO PLANNED UNIT DEVELOPMENT (PUD); PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, SEVERABILITY, AND AN EFFECTIVE DATE.

Cirrus Mixed-Use PUD



**PLANNING & ZONING BOARD/ LOCAL PLANNING AGENCY
PUBLIC HEARING WILL BE HELD ON
February 3, 2021**

**CITY COUNCIL 1st PUBLIC HEARING WILL BE HELD ON
February 9, 2021**

**CITY COUNCIL 2nd PUBLIC HEARING WILL BE HELD ON
February 23, 2021**

**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, FL**

Public Participation and Special COVID-19 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>
- These documents and information pertaining to the above may also be inspected at the Community Services Department, between 9:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8535.

Members of the public have several options to participate in the public hearings.

- (1) In-person attendance. Due to the COVID-19 Emergency and the need to maintain social distancing, meetings in the City Hall Council Chambers are limited to fifty (50) members in the audience at any one time. Members of the public may utilize the contact information provided below to contact the City Clerk and determine if restrictions on physical attendance at the City Council Chambers have been lifted prior to the date of the public hearings.
- (2) Commenting in advance of the meeting. Interested persons are encouraged to provide written comments in advance of the hearings by emailing meeting@cocoafl.org or mailing to the following address:

City of Cocoa
Attn: Dodie Selig, Planning and Zoning Manager
65 Stone Street
Cocoa, FL 32922

Mailed comments must be received prior to 4:00 p.m. on the date of the hearing to be read into the record.

- (3) Viewing and Commenting In Real Time. Interested persons are encouraged to view and listen to the hearings live by accessing the meetings at the following internet addresses:

- City of Cocoa meeting calendar at <https://cocoa.legistar.com/Calendar.aspx>

Interested persons may submit their written comments or questions during the hearings by email at: meeting@cocoafl.org. Interested persons who wish to provide public input during the meeting will also be able to do so by accessing the e-comment link for this meeting using the Legistar calendar link above.

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 a quasi-judicial hearing is highly encouraged to immediately contact Dodie Selig, Planning and Zoning Manager, at (321) 433-8510 or dselig@cocoafl.org, to make proper arrangements for presentation of witnesses and/or evidence. All witnesses must be identified and all evidentiary documents and exhibits that are intended to be distributed to the P&Z/LPA and City Council must be submitted to Ms. Selig via email or mail prior to the hearing.

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: Carie Shealy, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8484 or via email at cshealy@cocoafl.org.

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 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 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 Local Planning Agency and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.

Cirrus Mixed-Use PUD

