City of Cocoa

65 Stone Street
Cocoa, FL 32922

Meeting Agenda - Final

Tuesday, February 9, 2021

6:00 PM

Cocoa City Council Chambers

City Council

CALL TO ORDER

INVOCATION

PLEDGE OF ALLEGIANCE

ROLL CALL

II. APPROVAL OF AGENDA AND MINUTES:

AGENDA:

II.1 21-105 Approve the Agenda for the Regular meeting of February 9, 2021, as presented or with amendments.

Attachments: 02-09-2021 Short Agenda ADA.pdf

MINUTES:

II.2(a) 21-129 Approve the Minutes for the Regular Meeting of January 12, 2021, as written or with amendments.

Attachments: 01-12-2021 Minutes ADA.pdf
EXHIBIT A-E-Comment from L. Sinclair.pdf
EXHIBIT B-CC Presentation - DA - 100 Delannoy Ave.pdf
EXHIBIT C-E-Comments rec'd for 100 Delannoy Ave.pdf

II.2(b) 21-126 Approve the Minutes of the City Council Priority Planning Workshop on January 19, 2021, as written or with amendments.

Attachments: 01-19-2021 Workshop Minutes.pdf
EXHIBIT A: Solid Waste Presentation - CC Priority Meeting.pdf
EXHIBIT B: City Council Intro to Gov Finance.pdf

III. AWARDS AND PRESENTATIONS:

III.1 21-123 Proclamation: "Black History Month". (Mayor Blake)

Attachments: Proclamation: Black History Month.pdf

III.2 21-125 Fire Department Equipment Presentation. (Chief Lamm)

IV. DELEGATIONS:

In accordance with the City Council's rules and procedures, residents or tax-payers of the City (upon any subject of general or public interest), City employees (regarding his/her employment), and water and sewer customers (on matters related to the City's water and/or sewer system), may address the City Council under Delegations on items not on the printed agenda by filling out a speaker card.

Speaker cards are located outside the Council meeting room and should be provided to the City Clerk. Please observe the time limit of five (5) minutes while speaking under Delegations. Delegations shall be limited to thirty (30) minutes unless extended by Council.

V. CONSENT AGENDA:

V.1 21-66 Approve Task Order 2021-21 with Bussen Mayer Engineering Group, Inc. for Professional Engineering and Consulting Services for the Lakes at Cocoa Grove - Utility Extensions, Project No. WS21CG; To Approve a Resolution Amending the FY2021 Budget, BAF #21-045-T. (Utilities Director)

Attachments:
- TO_BUSSEN 2021-21 $101900.00 - UT-ENGIN.pdf
- BMEG Proposal - Lakes @ Cocoa Groves.pdf
- RFQ-17-16-COC.pdf
- RFQ-17-16-COC TRACK SHEET.pdf
- BMEG COI Exp 2-2021 and 10-2021.pdf
- Settlement Implementation Agreement-Recorded.pdf
- Budget Resolution FY 2021- ADA Compliant.docx
- BAF-21-045-T-UT-Cocoa Grove Utility ExtensionT.O. 2021-21 (2-9-21) Agenda

VI. PUBLIC HEARINGS:

VI.1 21-122 Pass on 1st Reading; Ordinance 03-2021: a ZONING MAP AMENDMENT consistent with Appendix A, Zoning, Article XXI, to change the Zoning Map designation of one (1) parcel totaling 15.74 acres from General Commercial to Mixed-Use Planned Unit Development, and consideration of a Binding Development Agreement / Final Planned Unit Development / Preliminary Subdivision consistent with Chapter 18 Subdivisions and Appendix A Zoning of the City Code for the Cirrus Mixed-Use PUD project on this same parcel. (Community Services Director)

Attachments:
- Ordinance 03-2021 Cirrus Rezoning CG to Mixed-Use PUD (003).pdf
- Exhibit B - Overall Site Plan.pdf
- Attachment One - Development Agreement 1-28-21.pdf
- Attachment Two - Final PUD plans 11-6-20.pdf
- Landscape Plan 11-6-20.pdf
- Building Renderings.pdf
- Garage Elevations.pdf
- Traffic Study 1-25-21.pdf
- Map - Cirrus Mixed-Use PUD.pdf
- Legal ad Proof (PZ and both CC).pdf

VII. COUNCIL BUSINESS:

VII.1 21-100 Approve the current Code Enforcement Lien for the property located at 5555 SR 524, be reduced to $1,306.90 as recommended by the Code Enforcement Board. (Interim Chief of Police)

Attachments:
- Lien Reduction Application 5555 SR 524.pdf
- Cost Affidavit Form -5555 SR 524.xlsx
- Staff Report for Lien Reduction-5555 SR 524.docx
- 18-164 NOV 5555 HWY 524 4-3-18.docx
- LIEN RECORDED.pdf
- Brevard County Property Appraiser.pdf

VII.2 21-101 Approve the current Code Enforcement Lien for the property located at 2610 N Cocoa Blvd., be reduced to $2,000.00 as recommended by the Code Enforcement Board. (Interim Chief of Police)

Attachments:
- Lien Reduction Application.pdf
- Cost Affidavit Form 2610 cocoaxlsx.xlsx
- Staff Report for Lien Reduction-2610.docx
- 17-594 NOV 2610 N Cocoa Blvd 7-25-17.docx
- CE-17-594 Order Imposing Lien.pdf

VII.3 21-81 Approve a Partial release for 1053 Hickory Ln. from the properties located at 1045 Olive St. & 1115 Broadmoor Dr., be reduced to administrative cost of $100.00 as recommended by the Code Enforcement Board. (Interim Chief of Police)

Attachments: Staff Report forpartial release-1053 Hickorydocx.docx

VIII. CITY BUSINESS:

MULTI-YEAR CONTRACTS:

VIII.1 21-94 Approve Participation in a Cooperative Purchase Agreement with Insituform Technologies, LLC, for Cured in Place Pipe (CIPP) Rehabilitation Services and Sanitary Sewer Cleaning & CCTV Inspections of Main Line Sewers Utilizing the City of Daytona Beach Contract No. 0118-2600, effective February 6, 2019 through February 5, 2020, Renewal February 6, 2020 through February 5, 2022

Attachments:
Insituform Proposal - City of Cocoa FY2021 Lining Project.pdf
Standard Form for New Piggyback Contract No. 0118-2600 (Insituform).pdf
City of Daytona Authorization.pdf
City of Daytona Beach Insituform Contract #0118-2600 Effective 2-6-19 to 2-5-2
City of Daytona Beach Insituform Contract #0118-2600 Renewal 2-6-20 to 2-5-2
City of Daytona Beach Insituform Contract #0118-2600 Renewal 2-6-21 to 2-5-2
City of Daytona Beach Insituform Contract Pricing #0118-2600.pdf
E-Verify Contractor Affidavit Contract No. 0118-2600 (Insituform).pdf
Insituform COI Exp 7-1-21.pdf

IX. INFORMATIONAL AGENDA:

X. REPORTS:

XI. ADJOURNMENT

XII. NOTICE TO THE PUBLIC:

This is a public meeting. All interested parties may attend in person. 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.

Additionally, interested persons may view or listen to the meeting electronically at the following internet sites:
(1) https://tinyurl.com/s5e875r or
(2) https://cocoa.legistar.com/DepartmentDetail.aspx?ID=26365&GUID=FF9D3369-D354-4FAB-800A-57D0AEE30153&Mode=MainBody

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

Interested persons may submit their written comments or questions regarding the meeting prior to the meeting through Email at meetings@cocoafl.org, or via E-comments through the online agenda. Any electronic comments submitted will be made part of the meeting record. Written comments or questions not relevant to the Council meeting agenda will not be made part of the meeting record but will be maintained as public record.

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 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.

Although members of the public are entitled to be heard by the City Council on certain items on the meeting agenda pursuant to the City Council Rules of Procedure, members of the public are not entitled to an immediate response by either administrative staff members or Council; however, the City Council or administrative staff may provide a response at their discretion. When presenting before the City Council, all comments or questions should be directed to the Mayor or the chair of the meeting. Comments or questions should not be made directly to administrative staff without permission from the Mayor or chair.
Public debate by individual speakers from the audience on public hearing items shall be limited to three (3) minutes. Applicants or representatives of recognized groups with special interests in a matter shall be limited to ten (10) minutes; and total debate on a single issue shall be limited to thirty (30) minutes. Only one presentation per person per item shall be allowed.

A Council member may add an item to the agenda during the meeting only at the time the agenda is approved. If the item requires action by the Council, then it may be added to the agenda by an affirmative vote of the Council, and written documentation must be submitted at the time the item is added to the agenda. Matters may also be raised by the Council, City Manager or City Attorney under reports and acted upon by the City Council.

This agenda is posted on the Municipal Bulletin Board and at the Central Brevard Library and Reference Center in Cocoa for public review.

Legislation Details (With Text)

File #:	21-105	**Version:**	1	**Name:**	
Type:	Agenda			**Status:**	Agenda Ready
File created:	1/27/2021			**In control:**	City Council
On agenda:	2/9/2021			**Final action:**	
Title:	Approve the Agenda for the Regular meeting of February 9, 2021, as presented or with amendments.				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	02-09-2021 Short Agenda ADA.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: January 27, 2021
Agenda Date: February 9, 2021
Prepared By: Carie Shealy, City Clerk
Through:
Requested Action:
Approve the Agenda for the Regular meeting of February 9, 2021, as presented or with amendments.

BACKGROUND:

The City Council approves the agenda for all its regular meetings at the beginning of such meetings.

STRATEGIC PLAN CONNECTION:

NA

BUDGETARY IMPACT:

NA

PREVIOUS ACTION:

The City Council has approved its agenda for all regular meetings at the beginning of such meetings.

RECOMMENDED MOTION:

Approve the Agenda for the Regular meeting of February 9, 2021, as presented or with amendments.

Agenda
City of Cocoa
Regular Meeting of The City Council

Date: February 9, 2021
Time: 6:00 pm
Location: 65 Stone Street Cocoa, FL 32922

I. Opening Matters:

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

II. Approval of Agenda and Minutes:

1. Agenda: Regular Meeting of February 9, 2021 (21-105)

2. Minutes: (a) Regular Meeting of January 12, 2021 (21-129)
(b) City Council Priority Planning Workshop on January 19, 2021 (21-126)

III. Awards and Presentations:

1. Black History Month Proclamation. (21-123). (Mayor Blake)

2. Fire Department Equipment Presentation. (21-125). (Chief Lamm)

IV. Delegations:

In accordance with the City Council's rules and procedures, residents or tax-payers of the City (upon any subject of general or public interest), City employees (regarding his/her employment), water and sewer customers (on matters related to the City's water and/or sewer system), and any person on any item on the agenda (except *Emergency items, Ministerial items, Quasi-judicial items, and Public Hearing items),* may address the City Council under Delegations by filling out a speaker card.

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V. Consent Agenda:

1. Approve Task Order 2021-21 with Bussen Mayer Engineering Group, Inc. for Professional Engineering and Consulting Services for the Lakes at Cocoa Grove - Utility Extensions, Project No. WS21CG; To Approve a Resolution Amending the FY2021 Budget, BAF #21-045-T. (21-66). (Utilities Director)

VI. Public Hearings:

1. Pass on 1st Reading; Ordinance 03-2021: a ZONING MAP AMENDMENT consistent with Appendix A, Zoning, Article XXI, to change the Zoning Map designation of one (1) parcel totaling 15.74 acres from General Commercial to Mixed-Use Planned Unit Development, and consideration of a Binding Development Agreement / Final Planned Unit Development / Preliminary Subdivision consistent with Chapter 18 Subdivisions and Appendix A Zoning of the City Code for the Cirrus Mixed-Use PUD project on this same parcel. (21-122). (Community Services Director)

VII. Council Business:

1. Approve the current Code Enforcement Lien for the property located at 5555 SR 524, be reduced to $1,306.90 as recommended by the Code Enforcement Board. (21-100). (Interim Chief of Police)

2. Approve the current Code Enforcement Lien for the property located at 2610 N. Cocoa Blvd., be reduced to $2,000.00 as recommended by the Code Enforcement Board. (21-101). (Interim Chief of Police)

3. Approve a Partial release for 1053 Hickory Ln . from the properties located at 1045 Olive St. & 1115 Broadmoor Dr., be reduced to administrative cost of $100.00 as recommended by the Code Enforcement Board. (21-81). (Interim Chief of Police)

VIII. City Business:

Multi-Year Contracts:

1. Approve Participation in a Cooperative Purchase Agreement with Insituform Technologies, LLC, for Cured in Place Pipe (CIPP) Rehabilitation Services and Sanitary Sewer Cleaning & CCTV Inspections of Main Line Sewers Utilizing the

City of Daytona Beach Contract No. 0118-2600, effective February 6, 2019 through February 5, 2020, Renewal February 6, 2020 through February 5, 2022. (21-94). (Utilities Director)

IX. Informational Agenda:

None.

X. Reports:

- Advisory Boards and Committees
- City Manager & Administration
- City Attorney
- City Council

XI. Adjournment:

XII. Notice To The Public:

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Legislation Details (With Text)

File #:	21-129	**Version:**	1	**Name:**	
Type:	Minutes			**Status:**	Minutes
File created:	2/2/2021			**In control:**	City Council
On agenda:	2/9/2021			**Final action:**	
Title:	Approve the Minutes for the Regular Meeting of January 12, 2021, as written or with amendments.				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	01-12-2021 Minutes ADA.pdf EXHIBIT A-E-Comment from L. Sinclair.pdf EXHIBIT B-CC Presentation - DA - 100 Delannoy Ave.pdf EXHIBIT C-E-Comments rec'd for 100 Delannoy Ave.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 2, 2021
Agenda Date: February 9, 2021
Prepared By: Carie Shealy, City Clerk
Through:
Requested Action:
Approve the Minutes for the Regular Meeting of January 12, 2021, as written or with amendments.

BACKGROUND:

NA

STRATEGIC PLAN CONNECTION:

NA

BUDGETARY IMPACT:

NA

PREVIOUS ACTION:

The City Council approves the minutes of all its meetings following transcription.

RECOMMENDED MOTION:

Approve the Minutes for the Regular Meeting of January 12, 2021, as written or with amendments.

MINUTES
City of Cocoa
Regular Meeting of The City Council

January 12, 2021

A Regular City Council Meeting was held on Tuesday, January 12, 2021, in Cocoa City Hall, in City Council Chambers, located at 65 Stone Street, in Cocoa, Florida, 32922, as publicly noticed.

I. Opening Matters:

Mayor Blake called the meeting to order at 6:14 p.m.

Officer Chris Hattaway provided the invocation and Councilmember Dyal led the assembly in the Pledge of Allegiance to the Flag of the United States of America.

The City Clerk took the roll.

PRESENT:	Michael C. Blake	Mayor
	James Goins	Deputy Mayor
	Rip Dyal	Councilmember
	Lavander Hearn	Councilmember
	Anthony Garganese	City Attorney
	Stockton Whitten	City Manager
	Carie Shealy	City Clerk
ABSENT:	Lorraine Koss	Councilmember

OTHER STAFF MEMBERS PRESENT:

Matthew Fuhrer, Assistant City Manager; Tammy Gemmati, Administrative Services Director; Jack Walsh, Utilities Director; John Hankins, Interim Chief of Police; Jonathan Lamm, Fire Chief; Bryant Smith, Public Works Director; Rebecca Bowman, Finance Director; Nancy Bunt, Community Services Director; Jason McCuen, Helpdesk Support Tech; Rob Beach, Chief Technology Officer; Dodie Selig, Planning and Zoning Manager; and Samantha Senger, Assistant to the City Manager/PR Specialist.

City Manager Whitten advised that Councilmember Koss was under the weather and could not make it to this meeting or to the Cocoa CRA meeting prior to this.

II. Approval of Agenda and Minutes:

1. Agenda: Regular Meeting of January 12, 2021 (21-31)

2. Minutes: (a) Swearing-In Ceremony/Special City Council Meeting of November 17, 2020 (21-28)
(b) Council Priority Planning Workshop on December 3, 2020 (21-32)
(c) Regular Meeting of December 8, 2020 (21-33)

*** MOTION by Councilmember Dyal; Seconded by Mayor Blake, to permanently move Reports to the end of the agenda.**

AYES: Blake, Goins, Dyal, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

*** MOTION by Deputy Mayor Goins; Seconded by Councilmember Hearn, to approve the Minutes for the Swearing In Ceremony/Special City Council Meeting of November 17, 2020; the Council Priority Planning Workshop on December 3, 2020; and the Regular Meeting of December 8, 2020, as written.**

AYES: Blake, Goins, Dyal, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

III. Awards and Presentations:

None.

IV. Delegations:

Dee, Cocoa, Florida, has been witness to senior abuse by landlords abusing tax payers. It is a very serious situation. She would like to meet with the Mayor and the City Manager.

Jennifer Kenny, 1917 Quail Ridge Court, Apt. 1901, Cocoa, requested a copy of the traffic study for Otterbein Ave. for the apartment complex being built. This item is not on the agenda but she would like a link or a paper copy to be provided.

Stephanie Carder-Gallon, 1003 N. Cocoa Blvd, Cocoa, Dakota Detailing, Cocoa, was requesting the shade structure that was on one of the City's properties. She wanted to see if she could obtain that and was willing to pay to have it removed. She felt it would bring beauty to her business.

Terrance Thomas, 704 Rosa L. Jones, Cocoa, spoke about a fence that he was repairing at 708 Rosa L. Jones. There was a police chase where the individual came through the property and a gun was held to his kids. He was putting up and repairing the fence when stopped by a code officer. He is trying to secure the property so that his kids can play. He asked that the permit be given so that he can finish it.

Bernice Cox, 701 Aurora St., Cocoa, asked if speakers under Delegations had to be residents of the City of Cocoa.

In response, Attorney Garganese noted that those who can speak are citizens and property owners, sewer and water customers. City employees can speak on matters of employment. There were statutory changes about five years ago that gave leeway for anyone to speak on items that will be disposed and acted upon by City Council. There are also rules of first amendment.

Ms. Cox further mentioned Public Works and that they posted No Parking at Any Time signs down by Provost Park and Arlington Apartments. Code has been there constantly to ensure that no one is parking. Lastly, she pointed out that Councilmember Hearn has already proven himself to be Cocoa strong and had a toy drive at this house over the holidays and was a part of the trash bash. He also substituted at Endeavor in his district.

Donna Kettner, 103 Derby St., Cocoa, and owner of Green Apples, was sad to hear about the passing of Jake Williams. She pointed out that he would always respond if she called. She spoke about the flooding behind her building and would like to speak with Mr. Fuhrer and the City Manager about crime and the noise ordinance. She also questioned Mardi Gras being held in the Village during a pandemic.

City Manager Whitten advised that Council had extended E-Comments after the Governor's order ended. There are some concerns with some of the language in E-Comments, but to be fair, the same rules apply to all of those who have provided E-Comments in the past and the whole comment will be read.

Larry Sinclair, 1052 Mitchell St., Cocoa, E-Comment[1] was read into the record.

~~**V. Reports:**~~

- **Reports was permanently moved to the end of the Agenda, after Informational.**

VI. Consent Agenda:

1. Approve Task Order 2021-20 with Bussen Mayer Engineering Group, Inc. for Final Engineering Services for the Indian River Drive Gravity Sewer Areas J & K; To Approve a Resolution Amending the FY2021 Budget; BAF #21-040-A. (21-14). (Utilities Director)

   Mr. Walsh advised that they would be seeking reimbursement from the Indian River Lagoon Program so they are hoping to get the costs back for this project.

2. Approve Change Order #2 to P.O. 75893 with CE Power Solutions of Florida, Lakeland, Florida, in the Amount of $1,352; Approve a Resolution Authorizing the City Manager to Approve Additional Change Orders in an Amount not to Exceed $3,064 for a Project Total of $68,396. (21-19). (Utilities Director)

3. Approve a Resolution Amending the FY21 Budget, BAF# 21-039-A, through the use of Fund Balance, to Provide Budget for Several Projects Rolling into the New Year, and to Provide Budget for CARES Funding #107-2020. (21-4). (Finance Director)

4. Approval of revised COVID-19 Emergency Paid Sick Leave and Expanded Family Medical Leave Policies extending benefits through March 31, 2021. (21-67). (Administrative Services Director)

*** MOTION by Deputy Mayor Goins; Seconded by Councilmember Dyal, to approve the Consent agenda.**

AYES: Blake, Goins, Dyal, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

VII. Public Hearings:

[1] EXHIBIT A: E-Comment from L. Sinclair

1. Consideration of a Binding Development Agreement between the City of Cocoa, Florida and M&R United, Inc. consistent with Appendix A Zoning of the City Code, to approve a conceptual development plan for a Single-Story Commercial Building type with retail development and a drive-thru use, on a parcel of land in the Waterfront Sub-district of the Cocoa Waterfront Overlay District. (21-49). (Community Services Director)

Ms. Selig provided a presentation[2] on the Binding Development agreement for 100 Delannoy Avenue.

She advised this would be an agreement between the City and M & R United, Inc. It is currently a single-story building and the intent is to build a new single story building.

A project summary was provided and she pointed out that this would be a single-story commercial building consisting of two retail spaces and a quick serve restaurant with a drive-thru which would be a nationally recognized coffee shop.

Ms. Selig discussed in detail some of the provisions of the agreement and the Conceptual Development Plan was shown as well as elevations and renderings.

She advised that a traffic study had been done and she explained what would be done as a result of that study.

Mr. Smith touched on some of the safety improvements regarding this project and DOT related to the area. He explained the reasoning behind the design and pointed out that the project is scheduled for mid to late 2022. He felt that the modifications should make a pretty big impact in the area. He was aware that there have been talks about more traffic generation with this establishment, however, it would be pass-by which means traffic was already on the road.

Mayor Blake asked about the cars stacking up in the drive thru and asked if because the building was elongated, if that would offset the stacking. In response, Mr. Smith noted that would be very unusual and provided an example of how the cars could possible stack up.

The Planning & Zoning Board recommended approval of this item on December 15, 2020.

Ms. Selig read E-Comments[3] from the following into the record: Tom Wasdin; Albert Ingham; Dr. Staci Hawkins-Smith; David Collins; and Michael Knieval.

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2 EXHIBIT B: Presentation: Binding Development Agreement/100 Delannoy Ave.

3 EXHBIIT C: E-Comments from Wasdin, Ingham, Hawkins-Smith, Collins, & Knievel

Mayor Blake opened the hearing to the public.

- Michael DeChristopher, 1777 Wavecrest St., Merritt Island, property owner in the Village and is in support of project.
- Aleck Greenwood, 640 Brevard Avenue, Cocoa, was in support of this project and believes it will put Cocoa on the map.
- Ed Green, 104 Riverside Drive, Cocoa, felt very fortunate to have the Shaw family involved in this project and believes it was a good development but voiced his concerns with traffic safety.
- Pam Shaia, 308 Brevard Avenue, Cocoa and representing HCVMS spoke of their concerns for traffic safety. They did a survey and she provided statistics on the survey. The redevelopment of this site was very important to the Village and was fortunate that there was a property owner willing to invest in this. She asked that this project not be continued and to consider the traffic hazards to the property.
- Nancy Elliott, 3406 Indian River Drive and 318 Delannoy, Cocoa, mentioned that she was on the BOA and was one of the two negative votes. She noted that a traffic study was developed for a national recognized coffee shop chain and on the agenda it was referred to as a quick serve restaurant. She thought the language should be consistent and reiterated her concerns about the traffic study.
- Ralph Perrone, 2398 Newfound Harbor Drive, Merritt Island, has two commercial buildings right in the location of this and he voiced his support for the project.
- Scott Sewall, 607 Florida Ave., Cocoa, owner of business and as a lifelong real estate developer he was in support of this project and thanked the Shaw family.
- Diana Lynn, 9 Stone Street, Cocoa, owner of the Dog n' Bone spoke in favor of the development. She was very familiar with the Shaw family and their businesses flourish where ever they are at. She sees this as a positive and knows that they will do everything it takes to take care of the safety issues.
- Jim Milbourn, 93 Delannoy Avenue #304, Cocoa, spoke about Mike Shaw and mentioned that he was an excellent business man who will do things the right way. He believes that this will help the City of Cocoa.
- Sarah Milbourn, 93 Delannoy Ave. #304, Cocoa, does not want to lose the Shaw's and this project will be great for Cocoa. She highly recommended him.

There being no further comments, Mayor Blake closed the hearing to the public.

* **MOTION by Mayor Blake; Seconded by Deputy Mayor Goins, to approve a Binding Development Agreement between the City of Cocoa, Florida and M&R United, Inc. consistent with Appendix A Zoning of the City Code, to**

approve a conceptual development plan for a Single-Story Commercial Building type with retail development and a drive-thru use, on a parcel of land in the Waterfront Sub-district of the Cocoa Waterfront Overlay District.

AYES: Blake, Goins, Dyal, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

2. Consideration of a Future Land Use Map (FLUM) Amendment consistent with Florida Statute Chapter 163, for an Applicant Initiated request to change the Future Land Use Map designation of one (1) parcel from Brevard County "Community Commercial" to City of Cocoa "Industrial". (21-51). (Community Services Director)

Attorney Garganese read Ordinance No. 01-2021 into the record, by title only as follows. He advised that this was the first reading of the ordinance.

ORDINANCE NO. 01-2021

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA, RELATING TO COMPREHENSIVE PLANNING; AMENDING THE FUTURE LAND USE MAP FOR ONE (1) PARCEL OF REAL PROPERTY WITHIN THE CITY OF COCOA, CONSISTING OF 0.60 ACRES, MORE OR LESS, ON STATE ROAD 520, WEST OF COX ROAD AND EAST OF TOWNSEND ROAD, BEING LEGALLY DESCRIBED ON EXHIBIT "A" ATTACHED HERETO; CHANGING THE FUTURE LAND USE MAP DESIGNATION OF THE REAL PROPERTY FROM BREVARD COUNTY "COMMUNITY COMMERCIAL" TO CITY OF COCOA "INDUSTRIAL"; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, INCORPORATION INTO THE COMPREHENSIVE PLAN, SEVERABILITY, AND AN EFFECTIVE DATE AND LEGAL STATUS OF THE PLAN AMENDMENT.

Mayor Blake opened the hearing to the public. There being no response, the public portion of the hearing was closed.

* **MOTION by Deputy Mayor Goins; Seconded by Councilmember Hearn, to approve Ordinance No. 01-2021 on First Reading.**

AYES: Blake, Goins, Dyal, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

3. Second & Final Reading: Ordinance No. 20-2020: repealing Section 2-76 of the City Code related to reimbursement of travel related expenses; directing that the Finance Director update the Financial Operations Manual (FOM), and recognizing

that future travel and per diem reimbursement policies will be established by resolution of the City Council rather than by ordinance. (21-52). (Finance Director)

Ms. Bowman noted this was the second and final reading which changes the adoption of the travel policy from ordinance to resolution.

Attorney Garganese read Ordinance No. 20-2020 into the record, by title only, as follows. He advised this was the second and final reading of the Ordinance.

ORDINANCE NO. 20-2020

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA; REPEALING SECTION 2-76 OF THE CITY CODE RELATED TO REIMBURSEMENT OF TRAVEL EXPENSES; RECOGNIZING THAT THE CITY COUNCIL MAY ESTABLISH FUTURE TRAVEL POLICIES BY RESOLUTION; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, INCORPORATION INTO THE CODE, SEVERABILITY, AND AN EFFECTIVE DATE.

Mayor Blake opened the hearing to the public. There being no response, the public portion of the hearing was closed.

* **MOTION by Councilmember Hearn; Seconded by Councilmember Dyal, to a approve Ordinance No. 20-2020 on Second and Final Reading.**

AYES: Blake, Goins, Dyal, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

VIII. Council Business:

1. Consider the application of Sharri Scott as the 2nd Alternate Member to the Code Enforcement Board. (21-34). (Administrative Services Director)

* **MOTION by Deputy Mayor Goins; Seconded by Councilmember Dyal, to approve the item.**

AYES: Blake, Goins, Dyal, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

2. Consider the Appointment of Patricia Weeks as a Regular member and Kaitlyn Aliano as 2nd Alternate to the Board of Adjustment. (21-35). (Administrative Services Director)

*** MOTION by Councilmember Dyal; Seconded by Deputy Mayor Goins, to approve the item.**

AYES: Blake, Goins, Dyal, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

Mayor Blake recognized Ms. Weeks in the assembly.

3. Consider the Appointment of Dawn Horr as a Regular member of the Sustainability Advisory Board. (21-37). (Administrative Services Director)

Mayor Blake asked for clarification on the Sustainability Advisory Board and what its purpose and goals are.

Ms. Bunt advised that they have been in existence for about two years and assured him she would provide him with the resolution. They meet on the first Thursday of each month and have working group meetings as well. They are currently reviewing their Resiliency Plan.

Mayor Blake asked if there was a sunset date or if the board will continue and asked to be provided all information on the board.

*** MOTION by Councilmember Hearn; Seconded by Mayor Blake, to approve the item.**

AYES: Blake, Goins, Dyal, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

4. Consider whether to allow City of Cocoa Emergency Ordinance No. 13-2020 Requiring Face Coverings to remain in effect or terminate the Ordinance. (21-43). (Assistant City Manager)

Attorney Garganese advised that reading of the ordinance was not necessary and that it was up to Council if they wanted to terminate the emergency ordinance. If it is not terminated it will remain in effect. There was one modification which was to add the face shield.

Mayor Blake asked if it could be changed to review every ninety days. Attorney Garganese noted that would require a motion and a technical change that could be done after the meeting. It would be a simple change to Section 10 of the ordinance.

Attorney Garganese advised that when this is brought back the Emergency Ordinance will have the change from thirty to ninety days.

5. Approve the requested 2021 street closures in association with the proposed Special Events. (21-50). (Assistant to the City Manager/Public Information Officer)

* **MOTION by Councilmember Dyal; Seconded by Deputy Mayor Goins, to approve the item.**

AYES: Blake, Goins, Dyal, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

IX. City Business:

1. Approve Resolution No. 2021-004, City of Cocoa Travel Policy. (21-53). (Finance Director)

* **MOTION by Mayor Blake; Seconded by Deputy Mayor Goins, to approve the item.**

AYES: Blake, Goins, Dyal, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

2. Council authorization to apply for a National Park Service African American Civil Rights Grant in the amount of $30,000 to conduct historical research and documentation of the Civil Rights Case, Gilbert vs. Board of Public Instruction of Brevard County, Florida. Documentation will be used as an educational display in the Leon and Jewel Collins Museum of African American History and Culture. (21-61). (Community Services Director)

* **MOTION by Councilmember Hearn; Seconded by Councilmember Dyal, to approve the item.**

AYES: Blake, Goins, Dyal, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

3. Consideration of a Binding Development Agreement between the City of Cocoa, Florida and Project Sunshine granting the waiver set forth therein pursuant to Section 15-21 of the City Code. (21-73). (Community Services Director)

* **MOTION by Mayor Blake; Seconded by Councilmember Dyal, to approve the item.**

AYES: Blake, Goins, Dyal, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

Multi-Year Contracts:

4. Approve Task Order 2021-18 with Carollo Engineers, Inc. to Update the Wastewater System Capital Plan, Project WS1210; To Approve as a Multi-year Contract from FY2021 through FY2022. (21-36). (Utilities Director)

* **MOTION by Councilmember Dyal; Seconded by Councilmember Hearn, to approve the item.**

AYES: Blake, Goins, Dyal, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

X. Informational Agenda:

1. FY 2021 Budget Adjustment Report. (21-21). (Finance Director)

2. Approved change orders to construction contracts that the City Council has authorized the City Manager, by resolution, to approve in excess of the City Manager's spending authority. (21-24). (Finance Director)

3. Data showing the relation between the estimated and actual income and expenses to date. (21-25). (Finance Director)

4. Fire Incident Summary Report for November 2020. (21-6). (Fire Chief)

5. Fire Incident Summary Report for December 2020. (21-62). (Fire Chief)

6. Cumulative purchase approvals over $35,000 and under $50,000 for period 10/01/2020 to 11/30/2020. (21-9). (Finance Director)

REPORTS:

Ms. Bowman spoke about a new statute that took effect January 1, 2021 regarding the use of the E-Verify system to verify employer status with contractors/sub-contractors. Information would be sent out to all contractors and staff so that they are aware.

Mr. Smith provided an update on a request for FDOT to review Forrest Avenue and Peachtree Avenue. Those studies have been concluded and construction of

two new pedestrian crosswalks have been done. Additionally, the resurfacing of College Green would be completed in a month or so.

At the request of the Mayor, Mr. Smith provided an update on the crossing light at Endeavor. Mr. Smith explained that Brevard County does signal maintenance but he would follow up on both of the lights with issues in that area.

Councilmember Dyal advised that the lights at the Black Tulip were still out. In response, Mr. Smith explained that those were managed by FPL. He assured him they would put pressure on them but they would be fixed on their schedule.

Councilmember Hearn asked about speed humps on North Carolina and if there is a timeline for the surveys to go out. In response, Mr. Smith advised that the person making the request would initiate the survey, not staff. They are going to go ahead and do the study in order to keep ahead of it. Police and Fire would also be included.

Mayor Blake thanked Mr. Smith for the explanation of the procedure.

Mr. Walsh reminded all of the Utilities Advisory Board meeting on January 27, 2021 at 6 p.m. in Council Chambers.

Chief Lamm provided an update on COVID-19. He announced that there are currently 1,503,482 cases in Florida; 24,594 cases in Brevard County with 559 deaths; and 2,236 cases in Cocoa. There are 93 active cases in the City limits.

He advised that as predicted we are trending upward since Thanksgiving. Vaccines are going out and testing sites will begin to transition to vaccine sites as well. The City is staying vigilant on emergency management for both citizens and employees.

Chief Lamm noted that in regards to vaccinations of Cocoa's first responders, they have chosen to partner with Rockledge Medical Center, as it is an easier distribution point to send employees to. Cocoa was one of the first two communities to have first responders vaccinated in the county. The next phase will include firefighters who are not EMT's or paramedics, along with essential workers such as utility workers etc.

Mayor Blake asked if the City was at liberty to put out a website of locations. In response, it was pointed out that it was on the website already and was updated

regularly. Chief Lamm stressed that if a site is not on the county's website or if it is not an approved state health site, then it has not been authorized.

City Manager Whitten reminded Council that the Chief of Police solicitation closes on January 22, 2021 so if their committee representative had not been submitted to please do so.

He advised that Magnolia Blossoms is budgeted each year in the amount of $500 for their Thanksgiving meal, however, this year they asked to use it for a Christmas meal instead. He authorized it but wanted to make Council aware.

It was a Consensus among Council for those funds to be used for the Christmas meal.

City Manager Whitten advised that he would be making some improvements in Chambers and asked for additional staff to sit in the staff seating, as he feels that is important. He asked for the addition of two spots and wanted to apprise Council of that request.

Lastly, he introduced Interim Police Chief John Hankins.

Councilmember Dyal spoke of his attendance at the First Responder 5K and stated that one of Cocoa's officers ran with all of his equipment on and pushing two kids in a stroller. He ran it in 33 minutes.

He hoped all had a good holiday and a good New Year. He was ready to hit the ground running and glad to see Interim Chief Hankins here and working with them.

Councilmember Hearn advised of a structure fire last week off of Rosetine and knows the owner of the house. He was thankful for Cocoa's men and women at the Fire Department for getting there and being able to save the structure.

He would love to reach out to Cocoa High School and to recognize their football team in some manner. He wished all a Happy New Year and welcomed Interim Chief Hankins.

Lastly, he mentioned that last Saturday there was a group in District 1 picking up trash and doing a neighborhood clean-up. It was a great time and a great event.

Deputy Mayor Goins agreed that the trash pick-up was a great time and it was great to see citizens out cleaning up their community. He spoke about an issue in the right of ways and requested companies do a better job at picking up trash before they mow.

He announced the Community Game Night event at Joe Lee Smith Center this Saturday night, January 16, 2021. COVID protocols will be taken. It is from 7:00 – 10:00 p.m.

Deputy Mayor Goins spoke in reference to Code Enforcement codes. He was not sure of the process but feels that some of those codes might be outdated. He believed the City could be a little more flexible in regards to parking in grass and asked that Codes be reviewed.

City Manager Whitten asked if there were any other areas of the Code he would like to be reviewed. In response, Deputy Mayor Goins noted he has a few others he would like to be looked into and asked Council to review them and they could all look at them together.

In closing, Deputy Mayor Goins stated that 2020 was rough but 2021 should be started right. He believes that with the new Starbucks and other developments things were looking good. He stressed that just because Council does not always agree on an item they are still listening.

Ms. Bunt announced that the request for proposals for the Michael C. Blake subdivision was out. The appraisal also came back on the Rosa L. Jones property and they will be working on infill lots that the City owns as well.

Mayor Blake thanked staff for the Economic Development Breakfast. He thought it was wonderful.

City Manager Whitten agreed it was a nice breakfast and advised they had originally scheduled Linda Weatherman to speak but she could not attend. He thanked staff and noted they were trying to foster relationships between different areas in Brevard County.

Councilmember Dyal added that he toured the Water/Sewer Plant with the Citizens Academy and thought it was great.

Mayor Blake welcomed all back from the holidays and wished all a Happy New Year. He mentioned that all lives matter and reminded all to buy local, spend local, and keep it local.

XI. Adjournment:

*** MOTION by Councilmember Dyal; Seconded by Deputy Mayor Goins, to adjourn the Regular meeting of January 12, 2021.**

AYES: Blake, Dyal, Goins, Hearn

THE MOTION CARRIED UNANIMOUSLY (4-0)

The meeting adjourned at 8:14 p.m.

_____

Michael C. Blake, Mayor

ATTEST:

_____

Carie E. Shealy, MMC, City Clerk

From:	Lawrence W. (Larry) Sinclair
To:	Michael Blake; James Goins; Lorraine Koss; Herbert Dyal; Carie Shealy
Cc:	Anthony Garganese (OrlandoLaw); Stockton Whitten; Matthew Fuhrer; Lawrence W. (Larry) Sinclair; Samantha Senger
Subject:	My Complete ecomment for Jan 12, 2021 Council Delegations
Date:	Monday, January 11, 2021 4:38:22 PM
Attachments:	EBFC279980A34603BAA0A41622425148[141896011].png

EXTERNAL MESSAGE - USE CAUTION WITH LINKS AND ATTACHMENTS!

Mayor Blake, City Manager Whitten and City Attorney Garganese:

In August 2020 the previous Mayor took it upon himself to defame, libel and slander myself, Broadmoor Acres Community Restoration and Preservation Inc and city staff with the aide and cooperation of then Interim City Manager Fuhrer by accusing myself, BACRAP and City Staff of being engaged in a development scheme. Deputy Mayor Goins took it upon himself to put his 2 cents in these baseless accusations to try and further his involvement in a Section 8 development Goins and Williams had promised city owned property to developers for.

Williams announced a call for an FBI Investigation.

I am formally giving the City Notice that any and all alleged information Williams is said to have turned over to FBI be made public without any further delay. I am formally giving the City of Cocoa notice to either publicly confirm an FBI investigation is active or to publicly put this scam by Williams to rest along with him.

I have not included one “alleged” member of council because I am still challenging that individuals qualifying to have even been on the ballot. While I have been contacted and asked to drop my challenge to Hearn let me be clear in stating exactly what I stated to Mr. Hearn in a personal meeting with him. I am not going to attack him but on the same token I am ***NOT*** withdrawing or dropping my court challenge against him or the City of Cocoa.

I would be remiss if I did not mention and be completely transparent that I believe I was contacted and asked to drop my challenge of Hearn’s election because it is believed Hearn would cast a favorable vote on an upcoming Council Agenda item. Especially when these very same individuals thought the charter and law should apply to others but not Hearn. I would point out that should Hearn cast a vote that was later nullified with his removal by the courts the City would only find itself in yet another pickle.

I also have a real issue with individuals in this city injecting themselves in matters and setting meetings where they freely drop council members names in their efforts to accomplish a particular goal. This activity in my opinion can constitute sunshine law violations and we simply do not need anymore of those than we already have and had with Koss, Goins, Williams et al.

I cannot and will not compromise myself, or my sincere belief that the rules and the laws should apply to EVERYONE, and allow myself to be bought off to allow the charter and the law to be violated because it benefits someone I know.

Lawrence (Larry) Sinclair
Author-Photographer-Investigative Journalist



1052 Mitchell Street
Cocoa, Florida 32922
(321) 417-4213 Cell
https://larrysinclair.com

"When you look in the mirror and see no change, and still keep faith, knowing that in time you will get there if you stay focused and on track, that's the difference between those who succeed and those who fail."

NOTICE: This E-mail (including attachments) is covered by the Electronic Communications PrivacyAct, 18 U.S.C. 2510-2521, is confidential and may be legally priviledged. If you are not the intended recipient, you are hereby notified that any retention, disseminaton, distribution or copying of this communication is strictly prohibited. Please reply to the sender that you have received the message in error, then delete it and any attachments.

Binding Development Agreement
100 Delannoy Avenue

January 12, 2021

EXHIBIT B: Presentation-Binding Development Agreement/100 Delannoy Ave.

Project Summary

- Binding Development Agreement between the City of Cocoa, Florida and M&R United, Inc.
- Conceptual Development Plan for 100 Delannoy Ave
- a Single-Story Commercial Building type with retail development and a drive-thru use
- Future Land Use: Mixed-Use
- Zoning: Central Business District and Waterfront Sub-district of the Cocoa Waterfront Overlay District
- Exhibits:
  - Conceptual Development Plan
  - Conceptual Landscape Plan
  - Building Elevations
  - Traffic Study

Project Summary

- The property owner desires to redevelop the site by constructing a Single-Story Commercial Building consisting of 2 retail spaces, each with 1,713 sq.ft., and a Quick Serve Restaurant space totaling 2,500 sq.ft. with a drive-thru facility, which must be limited to a nationally recognized coffee shop chain.

- Of special note: a “drive thru facility” use requires approval of a Special Exception by the Board of Adjustment (BOA). The Applicant submitted a Special Exception application which was heard by the BOA on December 16, 2020. The Board voted to approve the Special Exception with conditions.
  - Approval of the Special Exception shall be dependent upon City Council approval of the related Development Agreement and subject to all terms and conditions contained therein.

Project Summary

- The Cocoa Waterfront Overlay District, Article XI, Sec. 22(N), contains additional requirements for drive-thru establishments.

(N) Drive Thru Establishments. Private frontage standards shall be met for drive thru establishments and must adhere to the following standards:

1. *Drive thru lanes shall be located in the rear of the building and not visible from any street.*
2. *Drive through lanes should be integrated into the building.*
3. *When access to a drive-thru facility from the rear of a site is not possible, then a side drive-thru is permissible provided that all of the following requirements are met:*

a) *Drive-thru facilities shall be screened to minimize visual and noise impacts to residences and to preclude visibility from any streets or sidewalks. A masonry wall and landscape buffer shall screen drive-thru facilities. The wall shall be one foot higher than the facilities being screened on all sides where access is not needed;*

b) *No portion of queuing or access lanes or driveways shall be located between the building and the street or within 40 ft. from the primary façade of the building; and*

c) *Corner lots, the drive-thru shall be located on the side of the building that is furthest from the corner.*

Project Summary

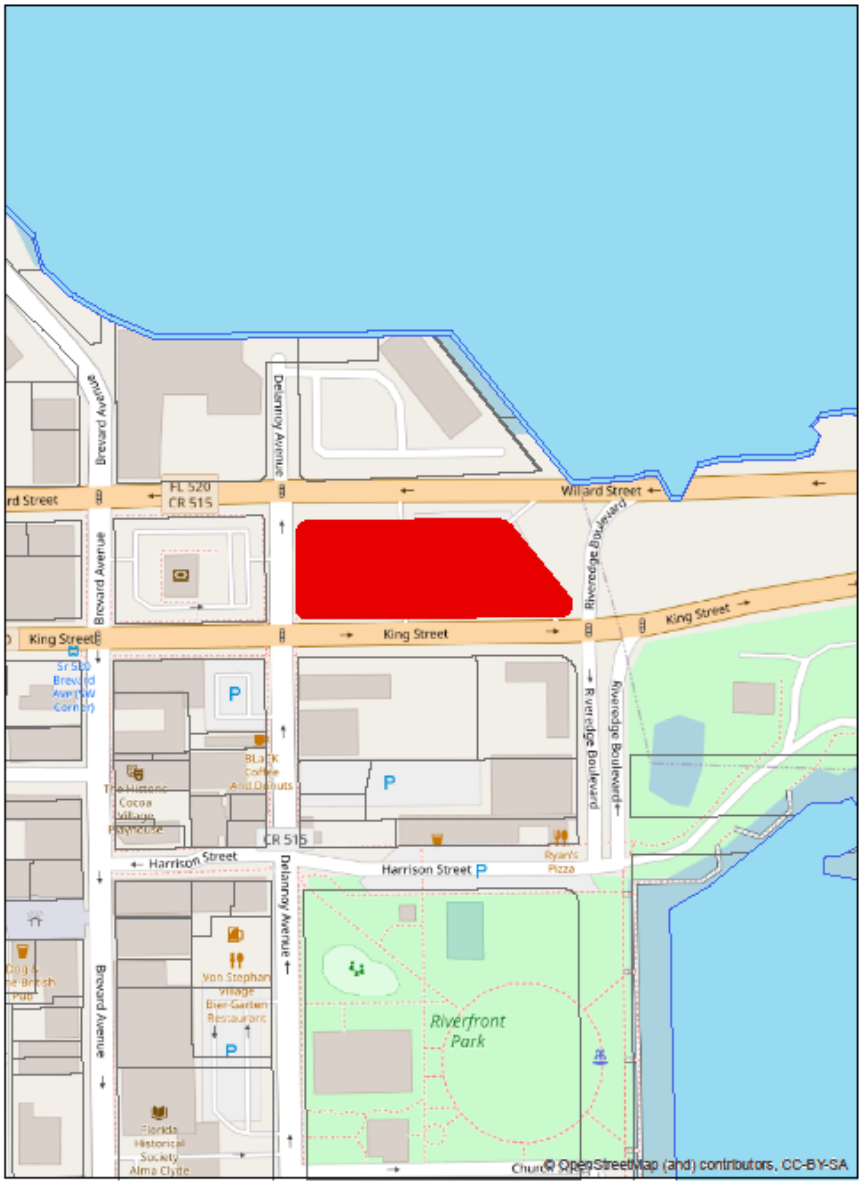
The City recognizes the difficulty of meeting these requirements on a property that is bounded on all sides by public right-of-way.

Therefore, the Developer has proposed to enter into the Development Agreement.

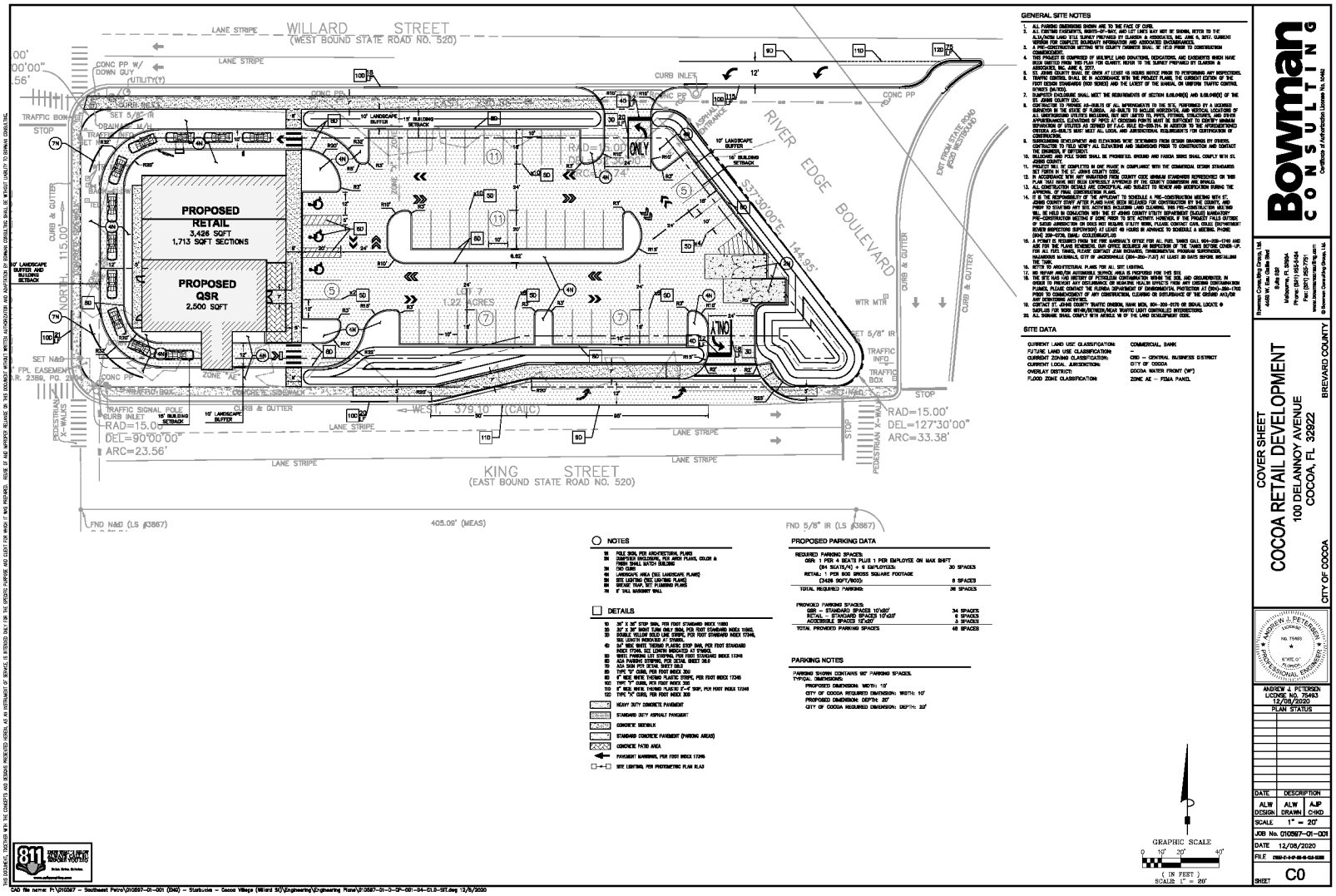
Development Agreement Provisions:

- Minimum frontage buildout required (50%) will be decreased by the development agreement to 0% for the east side, 23% for the north side and 16% for the south side.
- No masonry wall surrounding the entire drive thru lane passage will be provided. Instead a vegetative hedge will be installed to provide visual screening of vehicles in the drive thru lane and to help reduce the noise amplification that would be created by sound bounce-back from a solid masonry wall.
- Through the Development Agreement, the Applicant has proposed to provide a public parking easement for the parking lot on the property after the close of business hours for the nationally recognized coffee shop chain anchor tenant.

100 Delannoy Ave



Conceptual Development Plan



Bowman CONSULTING
Certificate of Authorization License No. 10482

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Melbourne, FL 32934
Phone: (321) 253-4144
Fax: (321) 253-4145
www.BowmanConsulting.com
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COVER SHEET
COCOA RETAIL DEVELOPMENT
100 DELANNOY AVENUE
COCOA, FL 32922
BREVARD COUNTY
CITY OF COCOA

ANDREW J. PETERSEN
LICENSE NO. 73483
STATE OF FLORIDA
PROFESSIONAL ENGINEER

ANDREW J. PETERSEN
LICENSE NO. 73483
12/08/2020
PLAN STATUS

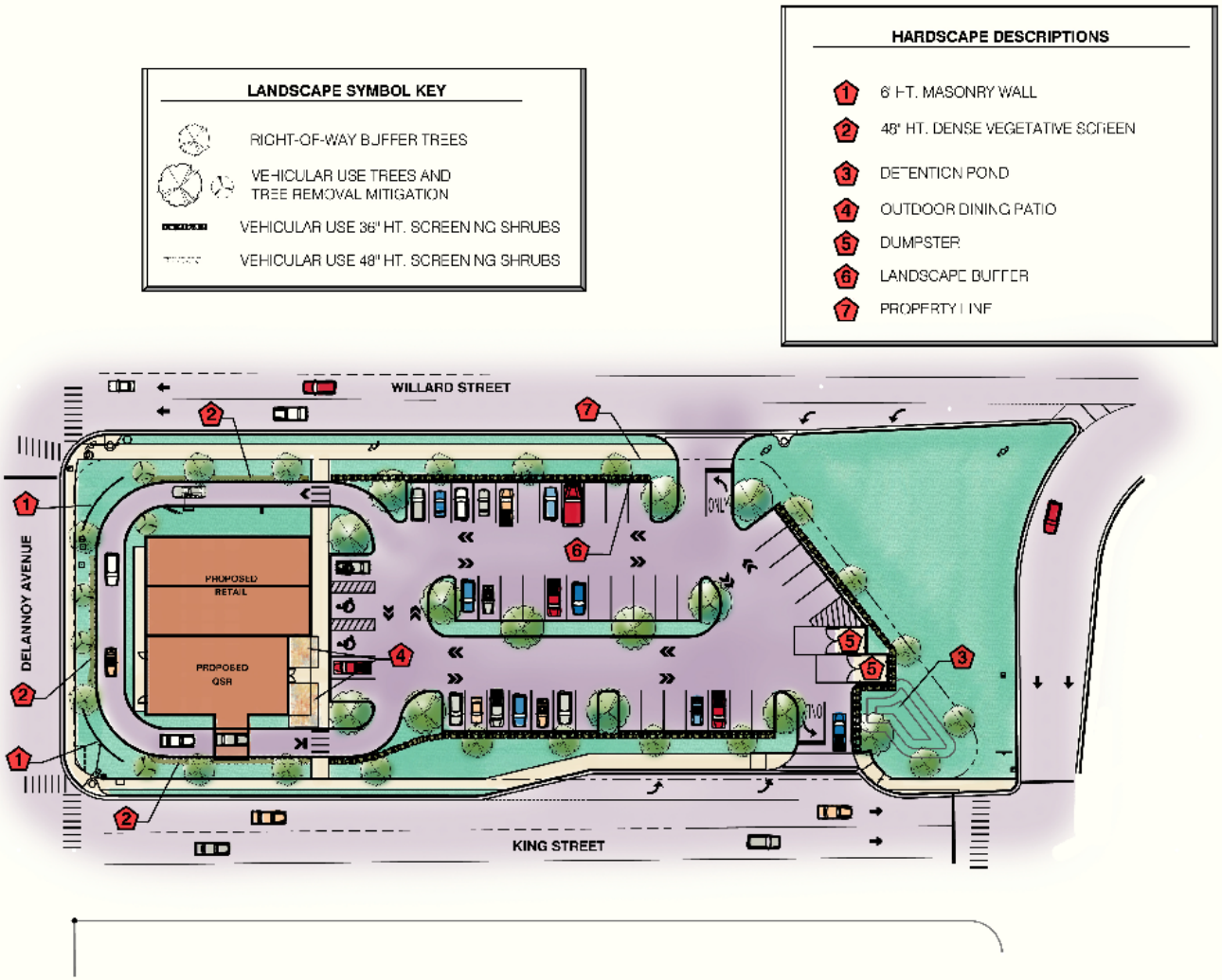
DATE	DESCRIPTION

ALW DESIGN	ALW DRAWN	AJP CHKD
SCALE	1" = 20'	
JOB No.	010597-01-001	
DATE	12/08/2020	
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811 Know what's below. Call before you dig.

CAD file name: P:\010597 – Southeast Petro\010597-01-001 (DAG) – Starbucks – Cocoa Village (Willard St)\Engineering\Engineering Plans\P10597-01-0-CP-001-04-01.0-SIT.dwg 12/8/2020

Conceptual Development Plan



Elevations and Renderings



EAST ELEVATION

Elevations and Renderings



NORTH ELEVATION

Elevations and Renderings



WEST ELEVATION

Elevations and Renderings



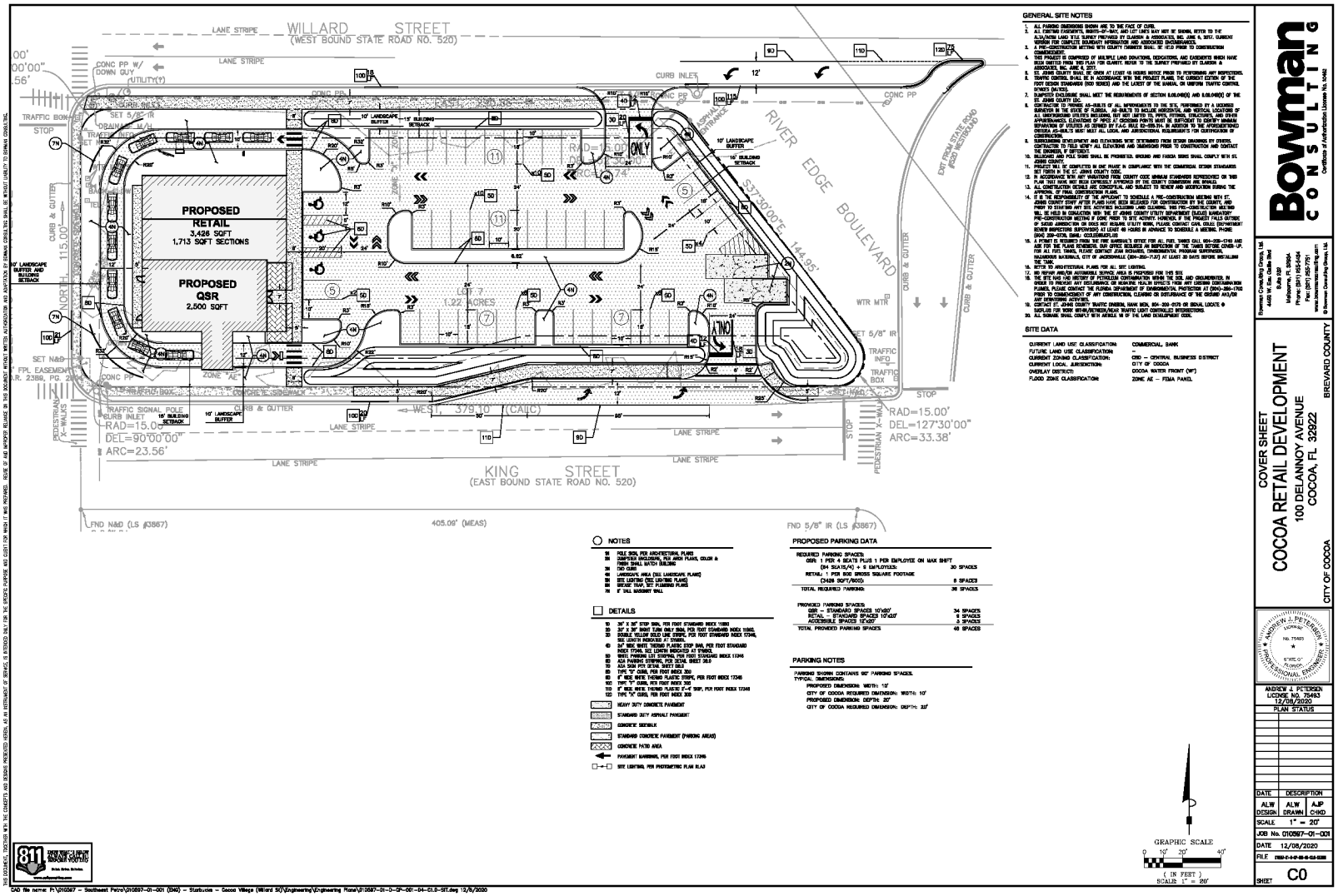
SOUTH ELEVATION

Project Summary

- Traffic Study submitted by the Applicant indicates that additional modifications to the site are necessary to ensure safe ingress and egress to the site. A section detailing these modifications was added to the draft development agreement including the addition of a raised pork-chop (median) to be installed on Willard St. just after the turn onto Riveredge Blvd.in order to create a deceleration lane for traffic slowing on Willard St. to move out of the thru-traffic lane.

- In addition, the Applicant was asked to address whether any negative safety impacts to motorists on SR 520 might arise due to queuing of the proposed drive-through. The Applicant's Traffic Study has demonstrated that, given anticipated wait times in the drive through and the location of the ingress/egress points on the site (which allow further queuing into the parking aisles if necessary), drive-through queuing/stacking should not occur to an extent that it may extend onto SR 520 and cause traffic hazards.

Conceptual Development Plan



Recommendation

Prior Action:

The Planning & Zoning Board recommended approval of the item on December 15, 2020.

Recommendation:

APPROVAL of a Binding Development Agreement between the City of Cocoa, Florida and M&R United, Inc. consistent with Appendix A Zoning of the City Code, to approve a conceptual development plan for a Single-Story Commercial Building type with retail development and a drive-thru use for a nationally-recognized coffee shop chain, on a parcel of land in the Waterfront Sub-district of the Cocoa Waterfront Overlay District.

EXHIBIT C: E-Comments from Wasdin, Ingham, Hawkins-Smith, Collins, & Knievel

Carie Shealy

From: Samantha Senger
Sent: Monday, January 11, 2021 12:57 PM
To: Dorothy Selig
Cc: Kristin Eick
Subject: Fwd: Starbucks application

Sent from my iPhone

Begin forwarded message:

From: tom wasdin <twcoach1@gmail.com>
Date: January 11, 2021 at 12:56:31 PM EST
To: Samantha Senger <ssenger@cocoafl.org>
Subject: Re: Starbucks application

EXTERNAL MESSAGE - USE CAUTION WITH LINKS AND ATTACHMENTS!

I sent a previous email recommending that the City approve the application for Starbucks. As an owner of over 70 Commercial and Residential units in Historic Cocoa Village,I again highly recommend that this project be approved. I recommend that the City and the Owner work out any issues to make this happen. A new business like Starbucks would be a boost to the VIllage. We do not want to miss this opportunity to bring a new business in to the Village. We live in the Village and have been in business in the Village for over 20 years. Tom and Susie Wasdin

On Wed, Dec 16, 2020 at 4:43 PM tom wasdin <twcoach1@gmail.com> wrote:

> I think the Starbucks would be a great addition to Historic Cocoa Village. I have reviewed the site plan and I think it makes sense to me. This is a very challenging site to work with. Please approve the application As a major property owner in the City, I am excited to support this project. Please make this happen. We don't want to lose this great opportunity.
>
> Tom Wasdin

Carie Shealy

From: Carie Shealy
Sent: Monday, January 11, 2021 10:17 AM
To: Nancy Bunt; Dorothy Selig
Subject: FW: 100 Delannoy ave Proposal

FYI—I have printed this email and also forwarded to Council.

From: Kathleen Frederick
Sent: Monday, January 11, 2021 10:13 AM
To: Carie Shealy <cshealy@cocoafl.org>
Subject: FW: 100 Delannoy ave Proposal

Carie,

I don't know if you received a copy of this email? Matt suggested sending it to you to consider forwarding to Council for the upcoming agenda item?

Thank you.

Kathy Frederick
Executive Secretary
City of Cocoa ~ City Manager's Office
65 Stone St., Cocoa, FL 32922
(321) 433-8737 I kfrederick@cocoafl.org
www.cocoafl.org

From: Albert Ingham <albertingham@gmail.com>
Sent: Monday, January 11, 2021 10:04 AM
To: Kathleen Frederick <kfrederick@cocoafl.org>
Subject: 100 Delannoy ave Proposal

EXTERNAL MESSAGE - USE CAUTION WITH LINKS AND ATTACHMENTS!

Hello Kathleen,

I am writing you today to express my opinions with the new drive-thru starbucks and other business plans for the Delannoy and 520 property. After reviewing the plans I feel there is NO safety hazard concerning vehicle or foot traffic. The plans appear to be well thought out having an easy entry and exit on both sides as well as a long enough drive-thru to accommodate all the traffic that would use the location.
That being said the location does not appear to be a part of Cocoa Village thus not affecting the historical feel and look to the community. Further more as a resident of Cocoa I feel that this proposed business plan will benefit our community greatly and will as provide many Job and career opportunities to many residents and help start lower our unemployment rates. Starbucks can hire up to 20 or 30 residents to work here. Please take all these points into consideration when the council makes their decision at the meeting. I really love living in this city and only want to see it grow in the right direction and this plan looks to be the best start in a long time. I wish you a happy new year and thank you very much for taking time to read about my concerns.

sincerely,

Albert Ingham

albertingham@gmail.com

(407)319-9742

Carie Shealy

From: Samantha Senger
Sent: Tuesday, January 12, 2021 2:00 PM
To: Dorothy Selig; Kristin Eick
Subject: FW: SUPPORT OF STARBUCKS

Samantha Senger, APR, APIO
Assistant to the City Manager and
Public Information Officer
65 Stone St., Cocoa, FL 32922
(321) 433-8685 I ssenger@cocoafl.org



Stay Connected: www.CocoaFL.org

From: Anastacia Hawkins <dramamamaCVP@hotmail.com>
Sent: Tuesday, January 12, 2021 1:31 PM
To: Samantha Senger <ssenger@cocoafl.org>
Cc: Mike Shah <Mike@southeastpetro.com>; Mahesh Shah <mikerashmi@gmail.com>; Rashmi Shah <rashmi@southeast-petro.com>
Subject: SUPPORT OF STARBUCKS

EXTERNAL MESSAGE - USE CAUTION WITH LINKS AND ATTACHMENTS!

Greetings Councilmembers,

The Shahs are longstanding supporters of Cocoa and the Space Coast community. They have truly been an active part in the history and success of our Playhouse and have a heart for people. Their business acumen and charitable natures make them benefactors to many businesses, charities, and organizations. As such, I fully support their plans to convert the old SunTrust bank to a Starbucks. I believe this will be an economic boon to our entire Village and the welfare of our community's economy.

Thank you so much!

Sincerely,

Dr. Anastacia Hawkins-Smith
Chief Executive Officer
The Historic Cocoa Village Playhouse

staci@cocoavillageplayhouse.com
(321) 636-5050 - Office
(321) 591-5007 - Cell

Carie Shealy

From: Samantha Senger
Sent: Monday, January 11, 2021 2:05 PM
To: Dorothy Selig
Cc: Kristin Eick
Subject: FW: Starbucks

I don't know if these are coming to my e-mail for some reason or to that meeting@cocoafl.org address but I am getting a bunch.

Samantha Senger, APR, APIO
Assistant to the City Manager and
Public Information Officer
65 Stone St., Cocoa, FL 32922
(321) 433-8685 I ssenger@cocoafl.org



Stay Connected: www.CocoaFL.org

From: dave collins <lachaloupe@aol.com>
Sent: Monday, January 11, 2021 1:55 PM
To: Samantha Senger <ssenger@cocoafl.org>
Subject: Starbucks

EXTERNAL MESSAGE - USE CAUTION WITH LINKS AND ATTACHMENTS!

Absolutely opposed,!

Carie Shealy

From: Kristin Eick
Sent: Monday, January 11, 2021 11:16 AM
To: Dorothy Selig
Subject: Fw: Starbuck proposal -support

EXTERNAL MESSAGE - USE CAUTION WITH LINKS AND ATTACHMENTS!

This didn't appear to be sent to your City email.

From: Samantha Senger <ssenger@cocoafl.org>
Sent: Monday, January 11, 2021 11:14 AM
To: Dodie Selig
Cc: Kristin Eick
Subject: [EXTERNAL] FW: Starbuck proposal -support

WARNING - EXTERNAL EMAIL: Ensure you trust this sender before clicking on any links or attachments. Please report any suspicious mail.

Samantha Senger, APR, APIO
Assistant to the City Manager and
Public Information Officer
65 Stone St., Cocoa, FL 32922
(321) 433-8685 I ssenger@cocoafl.org



Stay Connected: www.CocoaFL.org

From: Michael Knievel <mjk595@att.net>
Sent: Monday, January 11, 2021 11:08 AM
To: Samantha Senger <ssenger@cocoafl.org>
Subject: Starbuck proposal -support

EXTERNAL MESSAGE - USE CAUTION WITH LINKS AND ATTACHMENTS!

I SUPPORT the proposed Starbuck's drive-thru at former SunTrust site on Hwy 520 in Cocoa.
PLEASE NOTE: Florida has a very broad public records law. Most written communications (including contents of emails and email addresses) to or from City of Cocoa officials and employees regarding public business are public records available to the public and media upon request. Your written and e-mail communications may be subject to public disclosure. If you do not want your written and email communications released in

response to a public records request, do not send written or email communications to City of Cocoa officials and employees. Instead, contact this office by phone.

Legislation Details (With Text)

File #:	21-126	**Version:**	1	**Name:**	
Type:	Minutes			**Status:**	Minutes
File created:	2/1/2021			**In control:**	City Council
On agenda:	2/9/2021			**Final action:**	
Title:	Approve the Minutes of the City Council Priority Planning Workshop on January 19, 2021, as written or with amendments.				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	01-19-2021 Workshop Minutes.pdf EXHIBIT A: Solid Waste Presentation - CC Priority Meeting.pdf EXHIBIT B: City Council Intro to Gov Finance.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 1, 2021
Agenda Date: February 9, 2021
Prepared By: Carie Shealy, City Clerk
Through:
Requested Action:
Approve the Minutes of the City Council Priority Planning Workshop on January 19, 2021, as written or with amendments.

BACKGROUND:

N/A

STRATEGIC PLAN CONNECTION:

N/A

BUDGETARY IMPACT:

N/A

PREVIOUS ACTION:

The City Council approves the minutes of all its meetings following transcription.

RECOMMENDED MOTION:

Approve the Minutes of the City Council Priority Planning Workshop on January 19, 2021, as written or with amendments.

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MINUTES
City of Cocoa
City Council Priority Planning Workshop #2

January 19, 2021

A City Council Priority Planning Workshop was held on Tuesday, January 19, 2021 in City Council Chambers, located in Cocoa City Hall, 65 Stone Street, in Cocoa, Florida 32922, as publicly noticed.

I. Mayor Blake called the Workshop to order at 4:43 p.m.

Deputy Mayor Goins provided the invocation and Attorney Garganese led the assembly in the Pledge of Allegiance to the Flag of the United States of America.

PRESENT:	Michael C. Blake	Mayor
	James Goins	Deputy Mayor
	Rip Dyal	Councilmember
	Lavander Hearn	Councilmember
	Lorraine Koss	Councilmember
	Anthony Garganese	City Attorney
	Stockton Whitten	City Manager
	Carie Shealy	City Clerk

OTHER STAFF MEMBERS PRESENT:

Matthew Fuhrer, Assistant City Manager; Tammy Gemmati, Administrative Services Director; Jack Walsh, Utilities Director; John Hankins, Interim Chief of Police; Jonathan Lamm, Fire Chief; Bryant Smith, Public Works Director; Rebecca Bowman, Finance Director; Nancy Bunt, Community Services Director; Rob Beach, Chief Technology Officer; and Samantha Senger, Assistant to the City Manager/PR Specialist.

II. WORKSHOP ITEMS:

Mayor Blake welcomed everyone and City Manager Whitten explained why the workshop was being held.

City Manager Whitten noted that the solid waste contract expires in September of this year and this type of service takes a lot of time, especially to meet the

requirements of the contract. The City needs to start moving towards getting direction in regards to the waste contract. Additionally, he reminded Council that at the first workshop council directed staff to look into the possibility of bringing green waste services in house.

He further provided an overview of tonight's workshop and mentioned that they would also like to discuss e-comments.

City Manager Whitten spoke in regards to E-Comments and advised that the Governor's Executive Order 20-69 expired in November. The E-Comments system was purchased through April 2021. Staff also reached out to other municipalities to see how they handled e-comments and provided that information to Council.

Attorney Garganese provided an explanation and noted that we arrived where we are today due to the Governor's order. That order no longer exists and council can meet with a physical quorum and public are allowed attend. There is not requirement in the law that e-comments have to be received and each local government seems to be doing their own thing. Regardless, any member of the public can communicate with Council regarding an item. He pointed out that the question was is if they still want to take the e-comments in, do they want them read into the record, etc.

Mayor Blake sees this from both sides.

Councilmember Dyal felt that since the order expired November 1, 2020 the public should come in and speak in person.

Discussion was held on the different ways that comments can be submitted.

Councilmember Koss agreed with Councilmember Dyal and that people can be braver online than in person. She would like to have something put into the record event if they are not read into the record. This would allow for some decorum to be maintained.

Councilmember Hearn was in agreement to give citizens as many options as available to communicate but agrees for them not to be read into the record. He concurred with Councilmember Koss's option.

Deputy Mayor Goins felt that the e-comments should be ended and felt that some were taking advantage of it.

Mayor Blake summarized that Council's wishes were to no longer read the comments but to add them to the agenda and minutes.

City Attorney Garganese stated that this meeting was advertised that action could be taken and under law since they might take action they should open it up for public input.

Mayor Blake opened this item to the public. Mr. Aleck Greenwood agreed with Council.

* **MOTION by Councilmember Koss; Seconded by Councilmember Dyal, for E-Comments to no longer be read during the meeting into the record but to become a part of the record through the minutes.**

AYES: Blake, Goins, Dyal, Hearn, Koss

THE MOTION CARRIED (5-0)

2. Solid Waste Franchise Agreement Request for Proposal for Solid Waste Services

Mr. Smith provided a presentation[1] and noted he was going to expound on the current contract, green waste, and additional services that the City may want to look into.

He pointed out that the current contract with Waste Management started in 2011 and a five-year renewal was done in 2016 with an expiration date of September 30, 2021.

He shared some of the services provided and explained them in detail.

Mr. Smith provided the following future contract options:

1- Initiate a request to solicit proposals from qualified vendors to perform the requirements of the solid waste franchise agreement.

[1] EXHIBIT A: Solid Waste Presentation

2- Negotiate an extension with the current provider for a continuation of services with negotiated residential rates no to exceed $17.50 (additional services could be requested as a part of this negotiation pending agreement from each party)

3- Both items above can include options described later in this presentation related to green waste.

Current rates were discussed as well as issues and concerns with the current services from what they have heard from staff and Council in Public Works. Commercial rates vary by dumpster size and pick up frequency.

Potential solutions to vacant lots with solid and green waste on them were discussed in detail as well as residential evictions with bulk solid waste.

City Manager Whitten advised that these solutions being discussed were all about the image and aesthetics of the City.

Mayor Blake has no problem with trash that is generated with green containers, his problem is with the green waste. He has a pile that has been sitting out for three months. In response, Mr. Smith agreed and noted this was a complaint that they have heard frequently. They are supposed to tag those and notify dispatch. He believes that they have a potential solution for that issue. Mayor Blake was in favor of doing our own pick up. He thought one district per week would be good or if they completed that district they could move on to the next.

Discussion was held on equipment, costs, and the picking up of green waste if we were to bring those services in-house.

Mr. Smith felt that having calls for bulk pick up requests routed through Public Works would hold Waste Management more accountable. They could also log the request and keep track of how many they were getting. The city could also charge a fee anytime we have to go out to pick up the green waste in order to recoup costs.

Mayor Blake wants immediate attention when it comes to pick up and Mr. Smith believed that it should be no more than three days and that could be done with City staff.

Councilmember Hearn was in agreement about educating citizens. Mr. Smith advised that would be part of the negotiations and would need to be put on social media, water bills, etc. so that residents know what to do.

Councilmember Dyal stated that you can make money on recycling. In response, Mr. Smith advised that general recyclable materials were not a big market right now. Some areas are not even doing glass at this time.

Composting was discussed as well and Mr. Smith noted this would be done outside of the solid waste contract.

Mr. Smith provided a chart of annual costs over a ten-year period for in-house green waste.

City Manager Whitten reiterated that the contract would still require a seventy-two hour pick up and those not picked up within that time would be supplemented by the City clam truck. The City would have a call log and we would charge $25 to the contractor. This would be negotiated that no matter what if the City has to go out after the seventy-two hour mark we would ask for some sort of reimbursement.

Mr. Smith feels that once they start getting hit with reimbursement fees we will see a better rate of pick up.

Direction on Green Waste was as follows:

Mr. Smith noted that staff's recommendation was a combination of 2 & 3.

* **MOTION by Councilmember Dyal; Seconded by Councilmember Hearn, to go with Option #3, which in addition to Option #2 (continue with contracted green waste pick-up, but require bulk green waste calls to come through the City and not the Contractor Call Center. Staff could respond if there is a high volume of calls for an increased level of service), supplement bulk green waste pick-up with Public Works Staff. An additional Maintenance Worker II at $40,000/year would be required. Public Works can utilize existing equipment to perform this function.**

There were no comments from the public.

AYES: Blake, Goins, Dyal, Hearn, Koss

THE MOTION CARRIED UNANIMOUSY (5-0)

Further discussion was held on vacant lots and green waste, and timeliness for Code related violations to be resolved. One of the biggest complaints was the generation of commercial green waste.

Direction on RFP:

Mr. Smith provided options if they chose to do the RFP Process and provided a timeline as well.

City Manager Whitten advised that if Council wants staff to try to negotiate with the current contractor and were successful, it would be one of the lower rates in the county, even if we were near $17.50.

Councilmember Koss clarified that it would be for the same services, two day garbage pick-up, and would mirror the same contract. If the City wanted to include some other items it would not be included in the rate but would come from the general fund.

Mayor opened this item up to the public. No one from the public wished to speak.

* **MOTION by Deputy Mayor Goins; Seconded by Councilmember Dyal, to negotiate with the current vendor for the rate of $17.50 or lower.**

AYES: Blake, Goins, Dyal, Hearn, Koss

THE MOTION CARRIED (5-0)

Lastly, Mr. Smith asked for Council for direction on the incorporation of vacant lots and eviction lot pickups on an as needed basis to the contract.

Mayor Blake asked if they would need more Code budget. Mr. Smith advised he was not sure about their budget but assured him that Public Works would help Code in setting up a process.

Councilmember Hearn asked who was responsible for trash near homeless camps. Mr. Smith spoke in regards to that and mentioned that was a tough issue.

Further discussion was held on this issue.

Mayor opened this item to the public. There was no response.

* **MOTION by Councilmember Dyal; Seconded by Councilmember Hearn, to budget $10,000 annually and to incorporate this into the contract.**

AYES: Blake, Goins, Dyal, Hearn, Koss

THE MOTION CARRIED (5-0)

Lastly, he provided a timeline for the RFP process. The process will take about six to eight months.

After a question posed by Councilmember Koss regarding vendors in the area, Mr. Smith advised there were about three to five qualified vendors.

Mr. Smith pointed out that a ***DRAFT*** RFP was provided to Council which would be further refined, however, they are looking to mirror the current contract with a few updates.

City Manager Whitten noted that on page 3 section 6 the proposal format breaks out what the committee would be requiring. The committee would rank the proposals which would be public meetings, and then they will go from there. [2]

City Manager Whitten advised that the Chief of Police position closes on January 22, 2021 and he has received all of Council's appointments to the screening committee. At this time there are seventy-four applicants. HR will screen them and that will determine how many will proceed to the committee. The committee will be responsible for bringing a short list of applicants to him. There will also be some meet the candidate/community meetings as well.

Ms. Bowman provided a presentation[3] and an introduction to Government Finance and discussed the City's financial system and department responsibilities in detail.

She provided various budgetary items for Council to consider during the upcoming year such as labor negotiations, future state mandates, computer

[2] A break was taken at 6:26 p.m. and the Workshop reconvened at 6:43 p.m.

[3] EXHIBIT B: Introduction to Government Finance Presentation

system requirements, major construction projects, solid waste contract expiration, competitive salaries and the impact of COVID-19.

Mayor Blake pointed out that we were in a census year and spoke about the Consent Decree and redistricting.

Lastly, City Manager Whitten pointed out that Mr. Smith was working with FDOT on driver feedback signs on SR 520. There is already one southbound on Pineda.

* **MOTION by Deputy Mayor Goins; Seconded by Councilmember Dyal, to adjourn the Workshop.**

AYES: Blake, Goins, Dyal, Hearn, Koss

THE MOTION CARRIED (5-0)

. **The Workshop adjourned at 7:40 p.m.**

_____

Michael C. Blake, Mayor

ATTEST:

_____

Carie E. Shealy, MMC, City Clerk

Solid Waste Franchise Agreement

Request for Proposal for Solid Waste Services

January 19, 2021

EXHIBIT A: Solid Waste Franchise Agreement Presentation

Current Contract Overview

- A franchise agreement permits exclusive rights to a vendor for specified services related to residential and commercial solid waste services
- Current solid waste provider is Waste Management Inc. of Florida
- Current contract began in 2011 and was renewed for a final 5-year term in 2016 with an expiration date of September 30, 2021
- Contract provides service to approximately:
  - 5505 Single Family Residential Accounts
  - 31 Multifamily Auto-Cart Accounts (Not including Dumpsters)
  - 478 Dumpster Accounts
  - 208 Commercial Auto-Cart Accounts
    - **21 Commercial Accounts have Green/Vegetative Waste Accounts**
  - 346 City Controlled Units (Dumpsters, Solar Compactors, Auto-carts, Roll-off Containers, and Roadside Cans.)

Current Contract Overview

- Residential and Multiple Dwelling Unit collection and disposal services
  - Household Trash and Garbage twice a week (Monday & Thursday or Tuesday & Friday)
  - Single Stream Recycling once per week (Thursday or Tuesday)
  - Vegetative Waste once per week (Friday or Monday)
  - Bulk Trash and Vegetative Waste as requested by account holder
  - “Back-Door” service for medically disabled customers
- Commercial Collection and Disposal Services
  - Commercial Trash and Garbage twice per week
  - At an additional fee: Vegetative Waste and Recycling
- Service is typically provided through 64-gallon auto-carts

Current Contract Overview

- City Controlled Property Collection (No Direct Charge to the City)
  - Trash and Garbage twice a week
    - High volume pedestrian areas with roadside cans are serviced 2-4 times per week
  - Single Stream Recycling once per week
  - Vegetative Waste once per week
  - Bulk Trash and Vegetative Waste as needed
- Dumpster Service
  - Various Size and Frequency Collection determined by the Contractor and Account Holder
  - Roll-off/Open Top Container Pull
  - Compactor Pulls
  - Cocoa Village has a combination of autocarts and shared dumpsters with private agreements

Future Contract City Options

- Initiate a request to solicit proposals from qualified vendors to perform the requirements of the solid waste franchise agreement.
- Negotiate an extension with the current provider for a continuation of services with negotiated residential rates not to exceed $17.50 (additional services could be requested as part of this negotiation, pending agreement from each party).
- Both items above can include options described later in this presentation related to green waste.

Current Rates

- The current monthly rate structure related to single family residential solid waste are as follows:
  - Garbage: $10.28
  - Recycle: $3.30 (a $1.02 increase was approved by council on 7-22-20)
  - **Yard: $1.93**
  - Total: $15.51

  - Commercial rates vary by dumpster size and pick-up frequency

Current Service Issues/Concerns

- Vacant Lot Solid Waste
- Vacant Lot Green Waste
- Residential Evictions – Bulk Solid Waste
- Commercial Green Waste Generation
- Overall Green Waste Pick-up Concerns

Potential Solutions/Analysis

- Vacant Lot Solid and Green Waste
  - Establish a new fee in the contract, by debris type and size for on-call pickup within 72 hours (Public Works/Code Enforcement to Initiate)
  - City would need to budget for this service by a contractor or perform in-house within the right-of-way
- Residential Evictions – Bulk Solid Waste
  - Utilize on-call style pick-up, as mentioned above as a form of abatement
  - Code Enforcement Contractor performs abatement
  - Abatements require a minimum of 10 days and may result in a lien placed on the property.

- The City would need to budget these options annually through the General Fund Budget.

Potential Solutions/Analysis

- Commercial Green Waste Generation
  - This service is already provided, by subscription, to commercial property owners
  - **There are over 400 Commercial solid waste accounts (carts and dumpsters) and only 21 pay for green waste**
  - Typically, commercial properties handle this through a landscape contractor
  - Others leave waste on the Right-of-Way, with an expectation for the City to handle at no charge to them. This takes take staff time and resources. Ultimately, the City Taxpayers are covering this cost.
  - On June 24, 2020 Council approved for Code Enforcement to use the Solid Waste Contractor for green waste abatement. Abatements can only take place 10 days after proper notice with no response.

Overall Green Waste Pick-up Concerns

- City appearance due to unsightly green waste piles.
- Timeliness for Code Enforcement related violations to be resolved.
- Solutions:
  - Bring Green Waste In-house entirely (An estimated cost is provided in the next slides)
  - Potentially supplement the current services with additional Public Works Staff to field and possibly respond to bulk green waste calls as needed. This may require an administrative employee and additional maintenance workers, pending service requests.
  - Continue Code Enforcement action on violators

In-House Green Waste

- Current green waste services cost is $1.93/month or $23.16/year. This includes once per week and on-call bulk services.
- To match this level of service the following equipment and personnel are needed. Note that both owned and leased equipment were analyzed. Owning the equipment resulted in a lower 10 year cost and was used for the comparison with the contracted rates. A chart is provided for reference.

In-House Green Waste

- Equipment Needs:
  - One Grapple Claw Truck for Bulk Service - $201,691 [$24,025.10/year with O&M]
  - Three Diesel Rear Loaders (one as a back-up) - $699,906 [$81,558.60/year with O&M]
  - One Chipper/Shredder - $880,000 – {$106,500/year with O&M]
  - One Loader - $121,900 – [$16,046/year with O&M]
  - One Excavator - $123,500 – [$16,206/year with O&M]
  - **Initial capital investment of $2,026,997 and reoccurring costs of $41,636.00**

- Staffing Needs:
  - Three Heavy Equipment Operators
  - Six Maintenance Workers
  - Two Customer Service Reps for Billing and Call Center
  - One Green Waste Supervisor
  - **Approximately $471,165 annually, based on current hourly wages**

In-House Green Waste

- Estimated total annual cost for in-house green waste over a ten year period: $715,500.70
- State permitting would be required for mulching operations
- Break-even cost to the resident with no miscellaneous expenses or contingency built in:
  - Approximately $127.61/annually or $10.63/month
  - Approximately a 450.78% increase from the current $1.93 residential monthly rate

Residential Rate Increases (Florida)

- Recent Contracts
  - Brevard County – 39% Increase ($16.19/month)
  - Palm Bay – 91% Increase ($23.50/month) for once per week to twice per week service
  - Osceola County – 24.85% Increase, followed by a 16.97% Increase ($24.42)
  - Volusia County – New Rate of $19.98/month
- Negotiated Extension
  - Charlotte County – 2019 and 2020 saw 26.49% and 37.53% increases, each year ($18.91/month)
  - Hernando County – 46.47% ($14.40/month)
  - Hillsborough County – 50% Increase ($15.53/month)
  - Martin County – Projected 31% Increase ($18.10/month)

- Typical rates are adjusted to an average of approximately $18.88/month, compared to Cocoa's current rate of $15.51/month
- **All rates are likely to increase due to the new minimum wage bill**

In-House Green Waste



Council Direction On Solid Waste Services

- Negotiate with current vendor or issue a RFP
  - Staff suggests exploring both options to potentially provide the lowest possible rate to the account holders. If the residential rates can be negotiated at a rate of $17.50 or lower, a continuation may be ideal.
  - If pricing adjustment negotiations cannot be completed by February 9, 2021. The City will have an RFP ready for advertisement.
- Incorporate Vacant Lot (Green and Household/Bulk Waste) and Eviction (Household/Bulk Waste) Lot Pick-ups on an as needed basis to the contract.
  - Budget $10,000 annually for this as needed service and adjust as needed (estimated at 50+ pickups per year, pending size)
  - Private property pick-ups still need to be handled through Code Enforcement.

Council Direction on Green Waste

1. Continue with the current contract or new contract with the same terms
2. Continue with contracted green waste pick-up, but require bulk green waste calls to come through the City and not the Contractor Call Center. Staff could respond if there is a high volume of calls for an increased level of service.
3. In addition to Option #2, supplement bulk green waste pick-up with Public Works Staff. An additional Maintenance Worker II at $40,000/year would be required. Public Works can utilize existing equipment to perform this function.
4. Bring green waste in-house. This is a very high capital cost that will either require general fund subsidization or high resident costs. General Fund debt service would likely be needed. Up to two years would be needed to acquire equipment and staffing.

RFP Process and Timeline

- Advertise of 45 days
- City Manager to establish a review committee
- Accept proposals and hold presentations for review committee
- Review committee will recommend the highest scoring vendor to Council to initiate contract negotiations
- Vendor service begins on October 1, 2021

This is potentially a 6-8 month process including the negotiation period and finalization of the contract.

RFP Process and Timeline

Action	Date
Bid Advertised	February 10, 2021
Respondent Question Deadline	March 19, 2021
Bid Submissions & Opening	March 31, 2021
Bid Review and Presentations to Review Committee	April 8, 2021
Selection Committee Scoring Meeting	April 21, 2021
Selection Committee Recommendation to City Council for Contract Negotiations	April 27, 2021
Notice of Award	July 1, 2021
Notice to Proceed Effective Date	October 1, 2021

Introduction to Government Finance

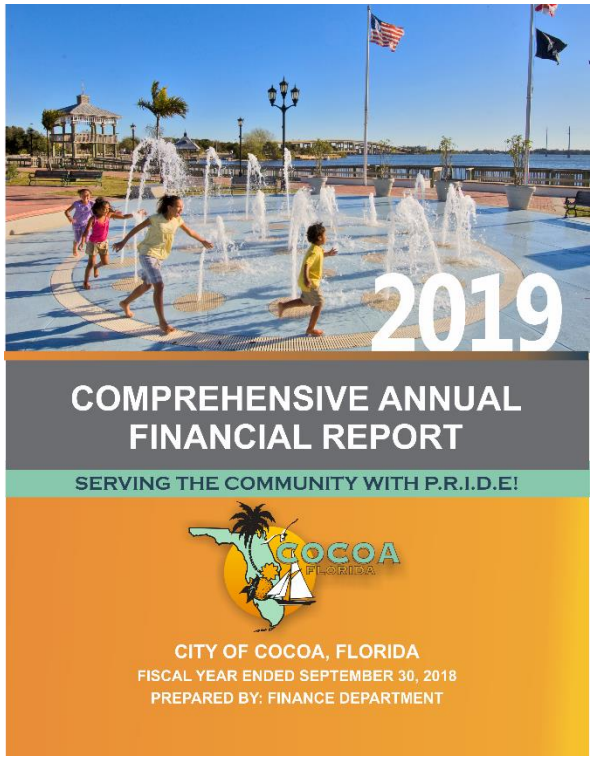
FINANCE DEPARTMENT

December 3, 2020

EXHIBIT B: Introduction to Government Finance Presentation

Finance Department Responsibilities

- Comprehensive Annual Financial Report (CAFR)
- Annual Audit
- Internal Controls
- Grant Compliance
- Budget Development
- Budgetary Analysis
- Purchasing
- Utility Payments
- Utility Meter Services
- Utility Billing
- Audits



Fund Types

- Governmental Funds (current resources)
  - General Fund – available for general purposes
  - CRA
  - Capital Projects
  - Other Special Revenue Funds
- Proprietary Funds (business-like)
  - Water/Sewer Fund
  - Stormwater Fund
- Internal Service Fund (cost recovery/break-even)
  - Health Insurance Fund
  - Workers' Compensation Fund

General Fund Fund Balance Reserve Policy

Fund Balance Reserve Policy - to ensure there will be adequate liquid resources to serve as a financial cushion for the General Fund.

- A minimum reserve requirement of 33% of total operating expenditures + $500,000 capital replacement reserve.
- Only used for Capital and One-Time expenses and **cannot** sustain recurring expenses
- Utilize **available** Fund Balance to fund projects
  - Emergency Response- Pandemic, Natural Disaster… ($4,091,410 – recent hurricanes; apx $1M – COVID-19);
  - Catalytic Capital/Economic Projects to enhance overall City growth and quality of life

FY21 Fund Balance Reserves = $11,995,106 (min. Reserve + Capital Reserve)

Stormwater Minimum Reserve Policy

Maintain a minimum unrestricted cash reserve = to 4 months operating & maintenance expenses

FY21 Reserve = $335,446

Water/Sewer Utility Fund Working Capital Reserve Policy

Maintain a minimum unrestricted cash reserve = to 6 months operating & maintenance expenses

Per bond covenants – maintain Renewal & Replacement reserve of $2,750,000 every year

Debt Service Reserve per bond covenants = $1,891,950

FY21 Reserve = $7,109,544 (Cash Reserve Only)

Budget Adoption

Budget Development

- Fiscal year is 10/1 to 9/30
- Budget must be balanced per Florida Statutes
- Must be adopted by Oct. 1 of each year
- Must adopt during the budget process:
  - Proposed Millage Rate
  - Proposed Budget
  - Tentative Millage Rate and Budget
  - Final Millage Rate and Budget

  Must be completed by dates established in TRIM

Truth in Millage (TRIM) Timeline

July

Brevard County Property Appraisers Office, sends Property Valuation Estimates and City Council Sets the Proposed Millage Rate. This Proposed Millage Rate is then Certified.

August

Brevard County Property Appraisers Office sends out “Notice of Proposed Property Tax”, which advertises the date time and place of the first Public Hearing.

September

- First Public Hearing held to Adopt a Tentative Budget and Millage Rate.
- Final Public Hearing to Adopt a Final Budget and Millage Rate.

Cocoa Budget Calendar

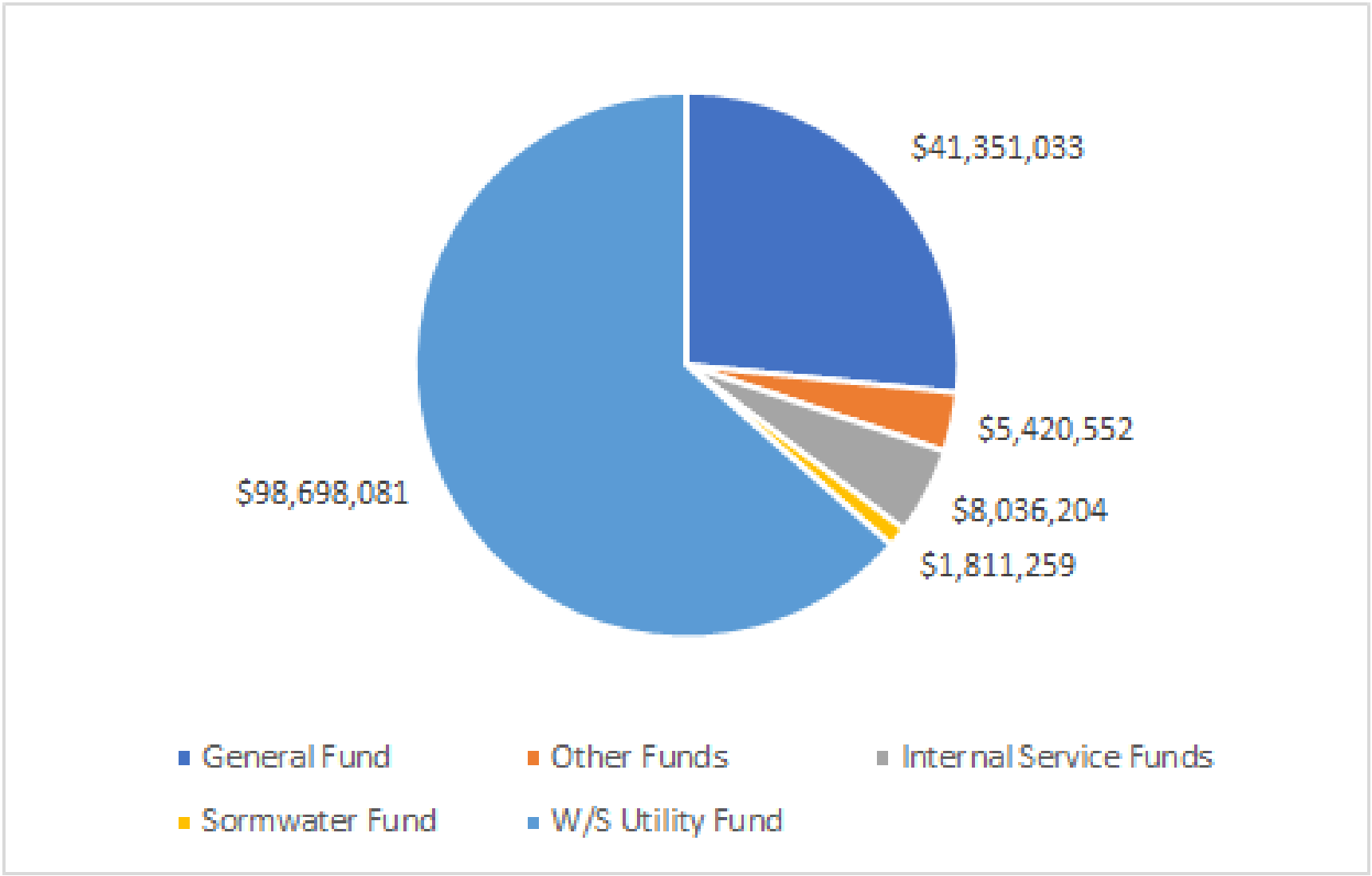
February	Capitol Improvement Projects (CIP) 5 Year Planning/Update
March	Budget Priorities Workshop / Department Entry
April	Finalize the CIP
May	Budget Module closes for entry / Departmental Meetings
June	Financial Sustainability and Budget Workshop
July	TRIM City Council sets the Proposed Millage Rate
August	Hold Public Hearings for Utility Rates, Fire Assessment & Stormwater Assessment
September	Hold Two Public Hearings for Budget and Millage Rates

CITIZEN INPUT

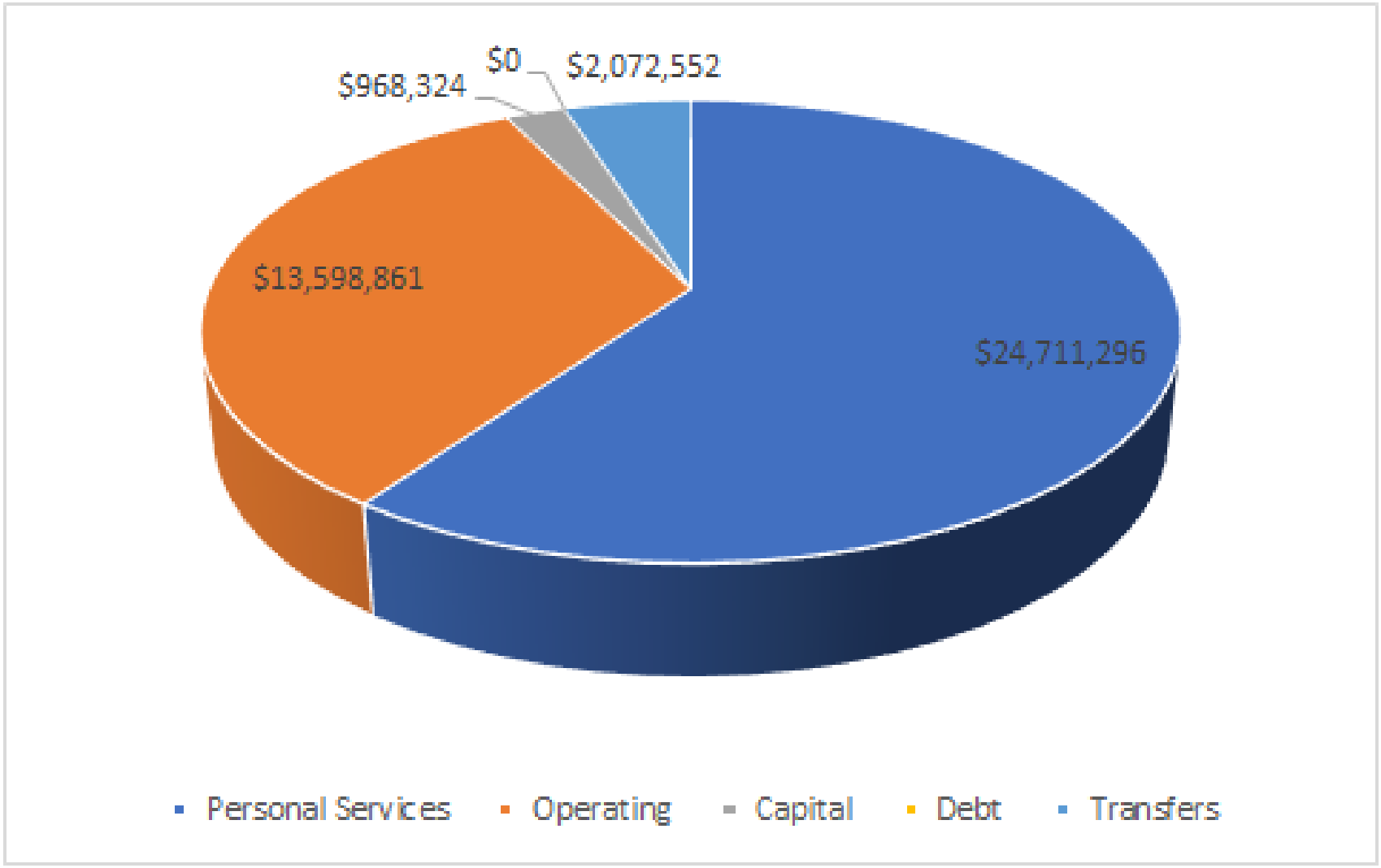
FY 21 Adopted Budget

FUND	FY 2021 FINAL	% of FY2021 BUDGET
Capital Project Funds	$91,628	0.1%
General Fund	$41,351,033	26.6%
Building Permit Fund	$536,646	0.3%
G.F. Debt Service Fund	$1,745,706	1.1%
Special Revenue Funds	$3,046,572	2.0%
Self Insurance Funds	$6,827,260	4.4%
Workers Compensation Fund	$1,208,944	0.8%
Stormwater	$1,811,269	1.2%
Water/Sewer Fund	$75,186,987	48.4%
Water/Impact Fees	$2,233,605	1.4%
Renewal & Replacement	$11,484,879	7.4%
WS Capital Project 2018 Bond Fund	-	-
WS Debt Service Fund	$9,792,610	6.3%
TOTAL	$155,317,139	100%

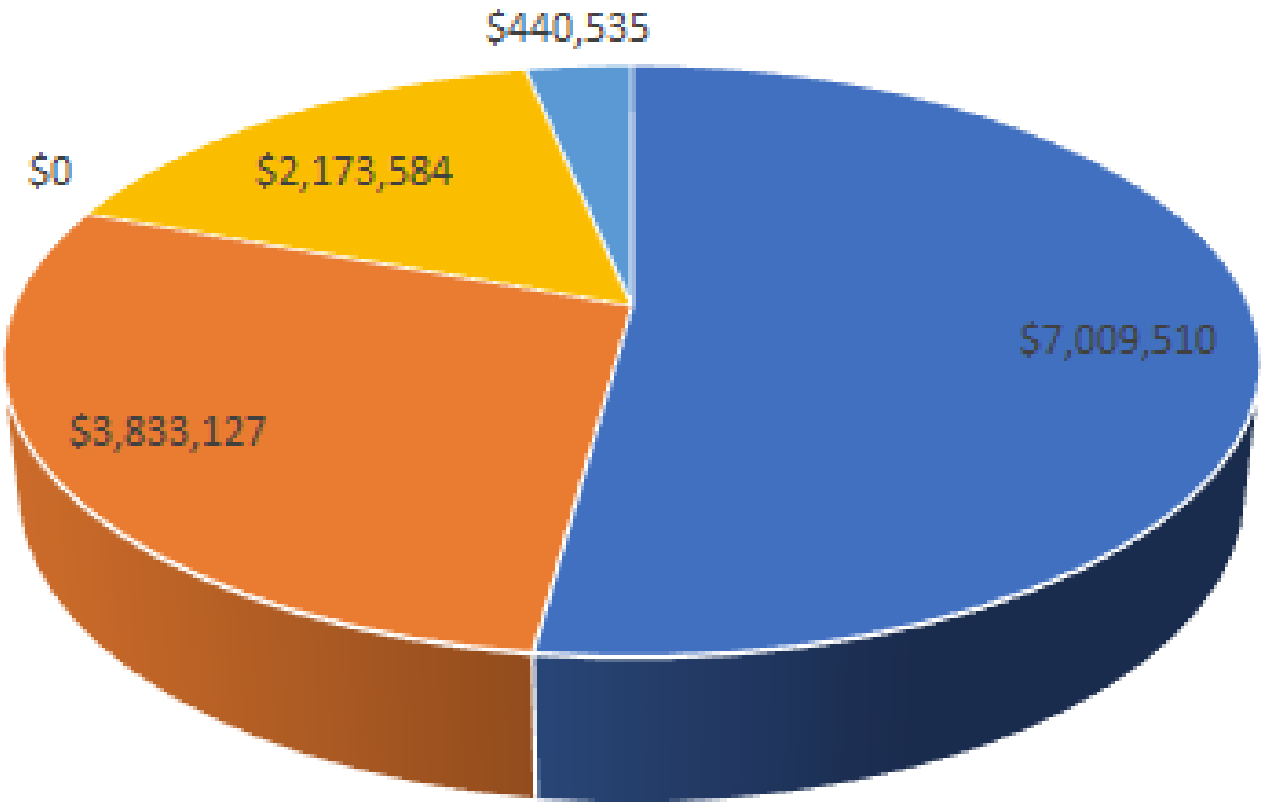
FY 2021 Adopted Budget by Fund



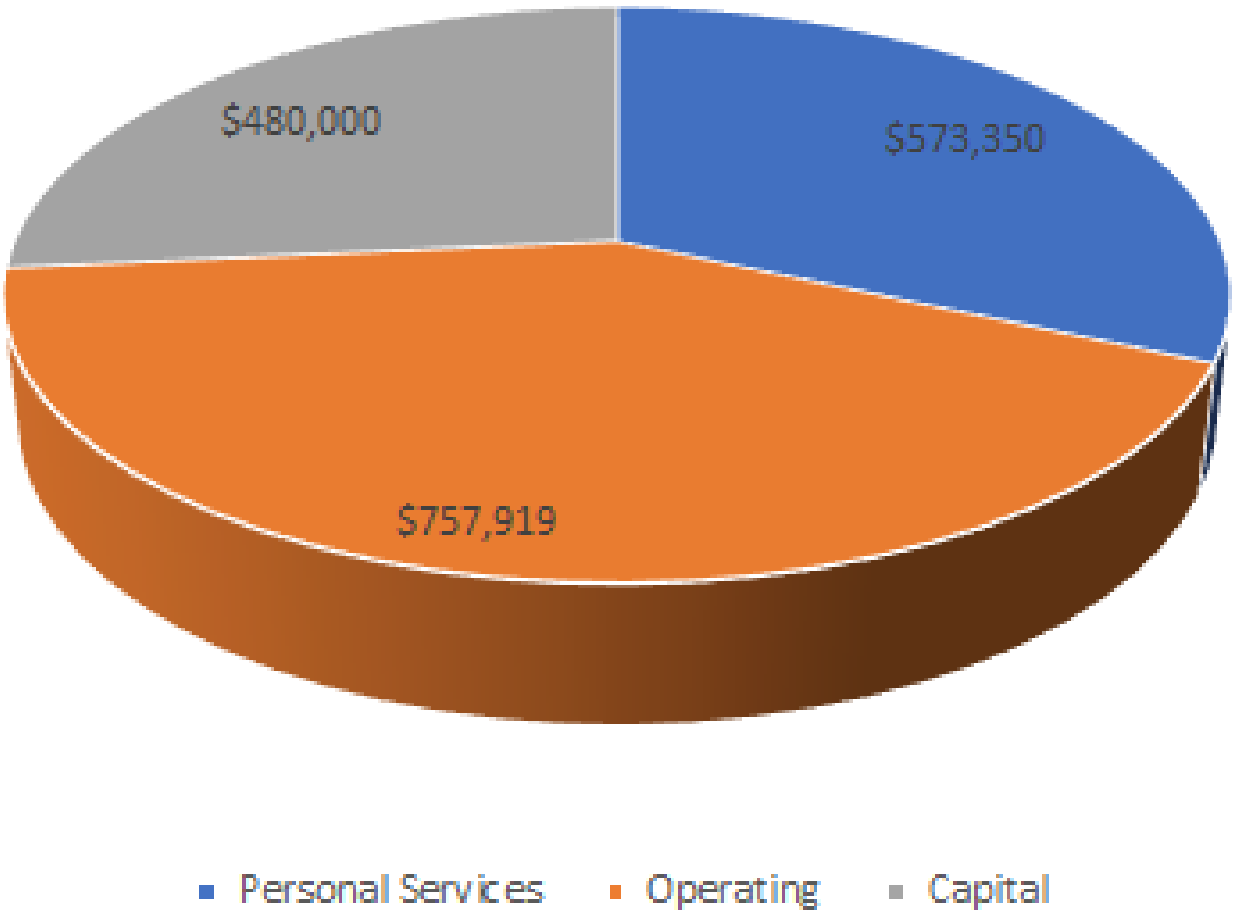
FY21 General Fund Budget



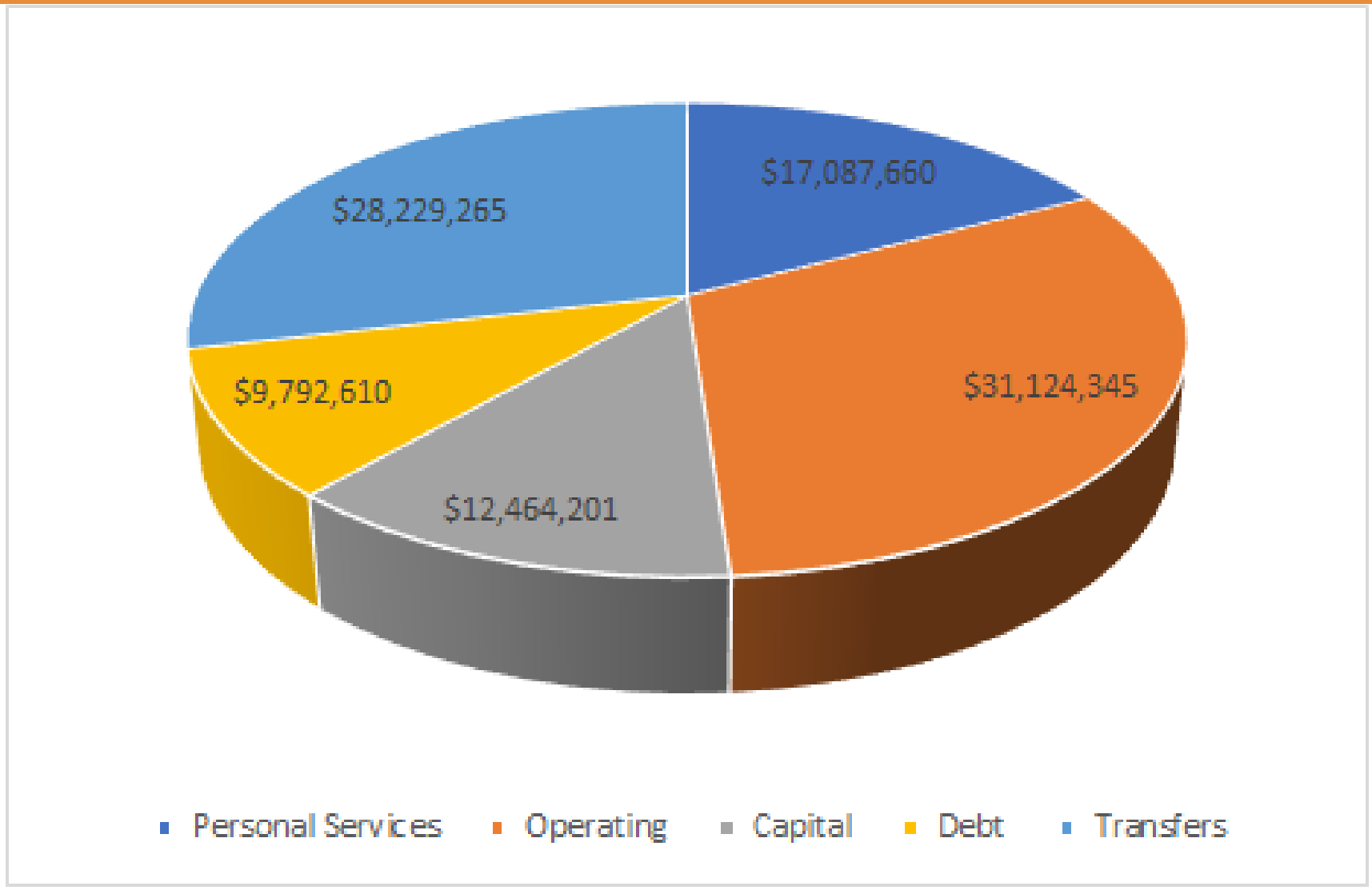
All Other Governmental Funds



FY21 Stormwater Budget



FY21 Water/Sewer Utility Fund Budget



General Fund Budget Adoption

1. Review increases in property values
2. Review/forecast/plan other revenues
3. Review personal services – personnel needs and benefits
4. Review operational needs – provision of basic services and mandated operational components
5. Review capital needs and requests from departments
6. FAMS analysis/sustainability analysis with Stantec/verification the budget will be sustainable for utility
7. Determine what can be taken out of budget or deferred if costs exceed revenues
8. Balance budget

Historical Review
Ad Valorem Tax Base

Fiscal Year	Valuation	% of Change
FY2009	$1,168,009,451	(0.9%)
FY2010	$1,025,224,075	(12.2%)
FY2011	$906,460,404	(11.6%)
FY2012	$797,859,898	(12.0%)
FY2013	$771,155,034	(3.3%)
FY2014	$773,867,625	0.4%
FY2015	$780,867,625	0.9%
FY2016	$817,760,975	4.7%
FY2017	$858,558,414	5.0%
FY2018	$890,566,389	3.5%
FY2019	$971,766,039	8.8%
FY2020	$1,099,762,247	13.2%
FY2021	$1,166,698,204	6.0%

FY2020 Millage Rates

Ranking	City	Current	Rolled-back	Adopted
1	Satellite Beach	8.8212	8.3428	8.7000
2	Palm Bay	8.4500	7.8995	8.4500
3	Titusville	7.9517	7.4951	7.7210
4	Melbourne	7.1878	6.8023	7.1878
5	Rockledge	6.2000	5.9223	6.1000
6	**Cocoa**	**5.9790**	**5.7844**	**5.9790**
7	Indialantic	6.2853	5.7743	5.9484
8	Cocoa Beach	5.7298	5.4480	5.8294
9	Cape Canaveral	3.8288	3.7495	3.7359
10	West Melbourne	2.6017	2.4936	2.6017

Note: The City of Cocoa Adopted Millage Rate has been the same since FY2015

FY2021 Gross Taxable Values

Ranking	City	Gross Taxable Value (in thousands)	Population	Millage Rate
1	Melbourne	$5,735,844	83,349	6.8650
2	Palm Bay	$4,814,134	115,322	7.8378
3	Titusville	2,238,078	46,497	7.9359
4	Cocoa Beach	$2,196,822	11,328	5.8294
5	West Melbourne	$1,909,861	23,607	2.5087
6	Rockledge	$1,707,607	27,292	6.0500
7	Cape Canaveral	$1,407,449	10,241	3.6396
8	Cocoa	$1,166,698	19,328	5.9790
9	Satellite Beach	$1,070,005	11,088	8.6312
10	Indialantic	$448,309	2,913	6.0923

Note: The City of Cocoa Adopted Millage Rate has been the same since FY2015

FY2021 Property Taxes Collectible

Ranking	City	Property Taxes	Population	Millage Rate
1	Melbourne	37,407,741	83,349	6.8650
2	Palm Bay	35,845,607	115,322	7.8378
3	Titusville	16,873,101	7.9359	7.9359
4	Cocoa Beach	12,165,849	11,328	5.8294
5	Rockledge	9,814,472	27,292	6.0500
6	Satellite Beach	8,773,654	11,088	8.6312
7	**Cocoa**	**6,626,904**	**19,328**	**5.9790**
8	Cape Canaveral	4,866,424	10,241	3.6396
9	West Melbourne	4,551,704	23,607	2.5087
10	Indialantic	2,594,669	2,913	6.0923

Note: The City of Cocoa Adopted Millage Rate has been the same since FY2015

FY2021 Ad Valorem per Capita

Ranking	City	Gross Ad Valorem Taxes	Amount Paid per Capita	Population	Ad Valorem as % of Total Revenue
1	Cocoa Beach	12,165,849	1,073.96	11,328	39%
2	Indialantic	2,594,669	890.72	2,913	63%
3	Satellite Beach	8,773,654	791.27	11.088	54%
4	Cape Canaveral	4,866,424	475.19	10,241	39%
5	Melbourne	37,407,741	448.81	83.349	36%
6	Titusville	16,873,101	362.89	46,497	32%
7	Rockledge	9,814,472	356.91	27,292	41%
8	**Cocoa**	**6,626,904**	**342.87**	**19,328**	**18%**
9	Palm Bay	35,845,607	310.83	115,322	38%
10	West Melbourne	4,551,704	192.81	23,607	22%

Property Increases Due to New Construction

Fiscal Year	New Construction	% of Increase
FY21	$15,283,427	22.83%
FY20	$50,168,675	39.20%
FY19	$25,192,917	31.03%
FY18	$7,322,322	22.88%
FY17	$15,059,110	36.91%

Setting the Millage Rate

<u>Options:</u>

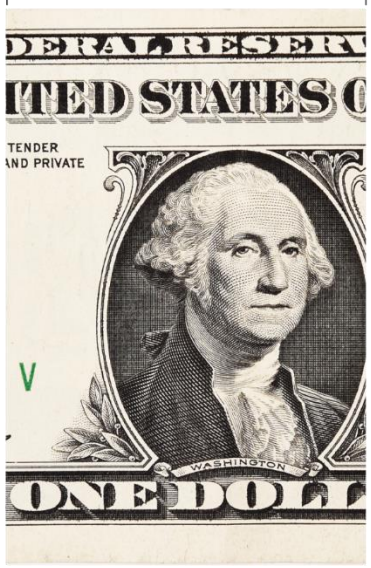
- **Rollback Rate** – millage rate to collect same amount of taxes as PY excluding new construction
- **Keep the Same** – results in <u>tax increase</u>
- **Majority Vote** – rolled back rate + % change in per capita FL personal income
- **2/3 Vote** – up to 110% of the majority vote max millage rate
- **Unanimous or Referendum** – any millage up to 10 mills

Your Tax Dollar

School Board
$0.35



City of Cocoa General Fund
$0.33



Brevard County General Fund
$0.22



Brevard County Other
$0.08



Other
$0.02



General Fund FAMS Model

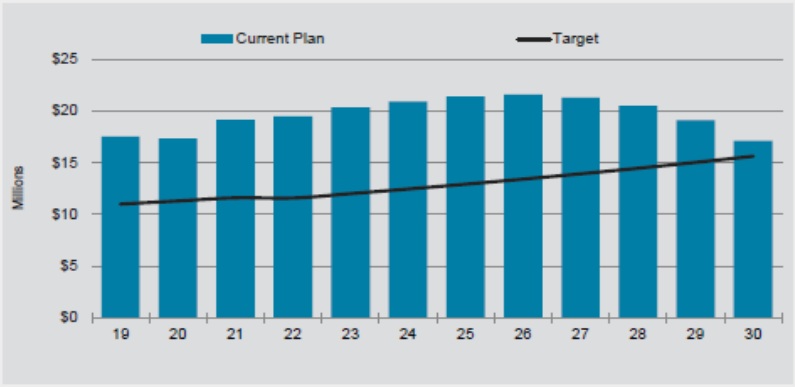
FAMS Financial Analysis & Management System | By Stantec

City of Cocoa, FL

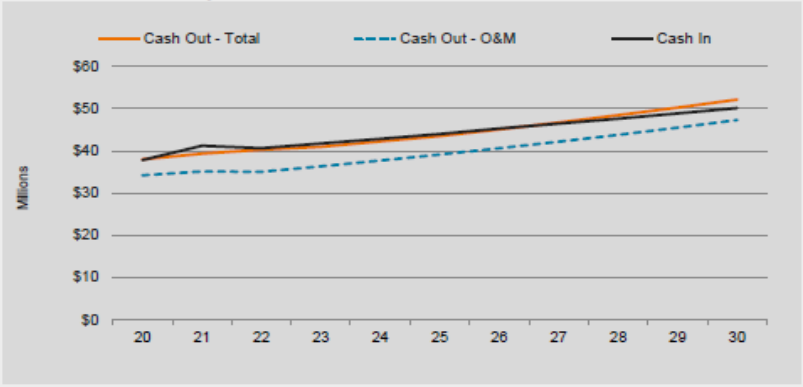
Stantec

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Millage Rate	5.9790	5.9790	5.9790	5.9790	5.9790	5.9790	5.9790	5.9790	5.9790	5.9790	5.9790
Existing Property Value Adj	12.6%	6.6%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
New Construction	N/A	N/A	1.0%	3.1%	1.0%	2.1%	3.2%	1.0%	1.0%	1.0%	1.0%
Cash Flow Surplus/(Deficit) $M	$ (0.19)	$ 1.85	$ 0.34	$ 0.83	$ 0.58	$ 0.48	$ 0.20	$ (0.28)	$ (0.81)	$ (1.39)	$ (2.01)
End of Year Fund Balance $M	$ 17.31	$ 19.16	$ 19.50	$ 20.33	$ 20.90	$ 21.38	$ 21.58	$ 21.30	$ 20.49	$ 19.11	$ 17.10
Target Fund Balance $M	$ 11.29	$ 11.59	$ 11.57	$ 12.00	$ 12.45	$ 12.91	$ 13.40	$ 13.92	$ 14.46	$ 15.02	$ 15.62
Balance % of Expenses	50.60%	54.54%	55.61%	55.90%	55.43%	54.65%	53.14%	50.51%	46.78%	41.98%	36.13%

End of Year Fund Balance



Revenues vs. Expenses



COCOA FLORIDA

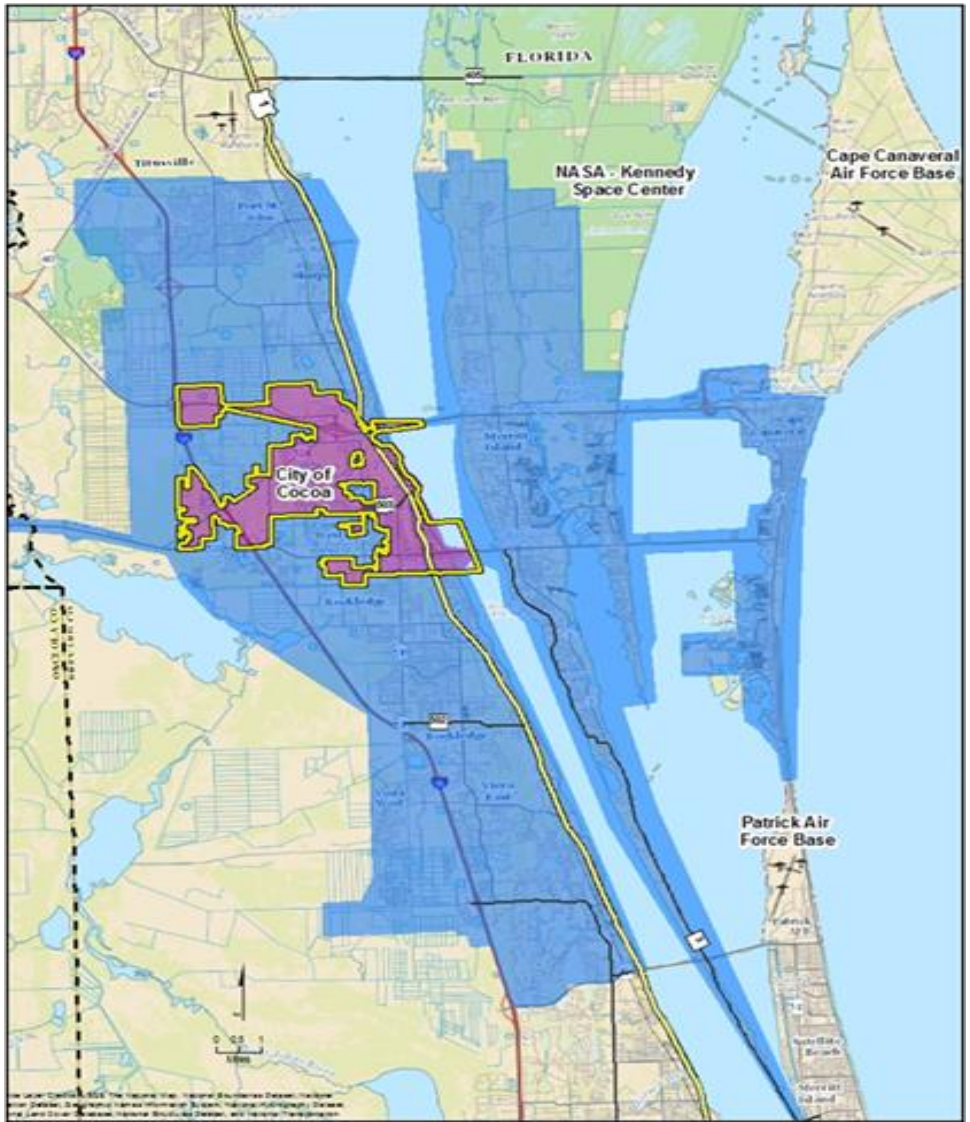
Balancing the General Fund Budget

Ad Valorem Revenue FY21	$ 6,626,904
Police Budget	$10,485,570
Fire Budget	$ 6,628,150
Net	($10,486,816)
Fire Assessment Collections	2,614,500
Difference (shortage)	($7,872,316)

Balancing the General Fund Budget

Total General Fund Revenue	$ 41,351,033.00
Utility Related Fees:	
W/S Admin Fees	6,585,764
Return on Investment (ROI)	7,810,388
Payment in Lieu of Franchise Fees	1,374,993
UT Billing Service Charges	2,600,546
Total Utility Fund Support	$ 18,371,691.00
General Fund Revenue without Utility Support	$ 22,979,342.00
Less:	
Police	10,485,570
Fire	6,628,150
General Fund Payment to CRAs	978,560
Amount Available to Fund all Other GF Services	$ 4,887,062

Cocoa Regional Utility



CITY OF COCOA
REGIONAL UTILITY BILLING

COCOA FLORIDA

Water & Sewer Fund Budget Adoption

1. Review changes in costs
2. Review adopted 5-year planned revenues
3. Review personal services – personnel needs and benefits
4. Review operational needs – provision of basic services and mandated operational components
5. Review capital needs
6. Review net position and compliance with bond covenants
7. FAMS analysis/sustainability analysis with Stantec/verification the budget will be sustainable for utility
8. Adjust utility rates or determine what can be taken out of budget or deferred if costs exceed revenues
9. Balance budget

Water/Sewer FAMS Model



Stormwater Fund Budget Adoption

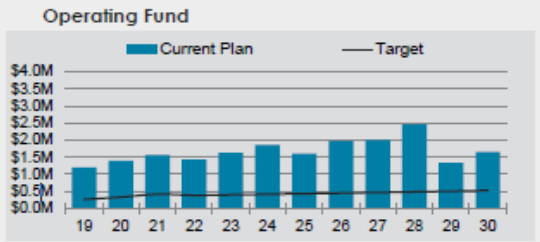
1. Review changes in costs
2. Review adopted 5-year planned revenues and CIP
3. Review personal services – personnel needs and benefits
4. Review operational needs – provision of basic services and mandated operational components
5. Review net position
6. FAMS analysis/sustainability analysis with Stantec/verification the budget will be sustainable for utility
7. Adjust stormwater rates or determine what can be taken out of budget or deferred if costs exceed revenues
8. Balance budget

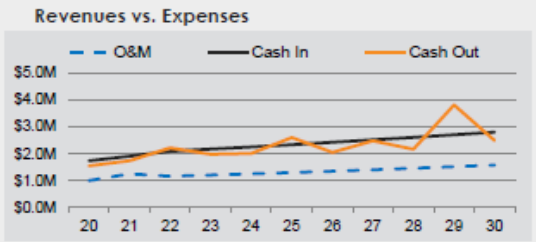
Stormwater FAMS Model

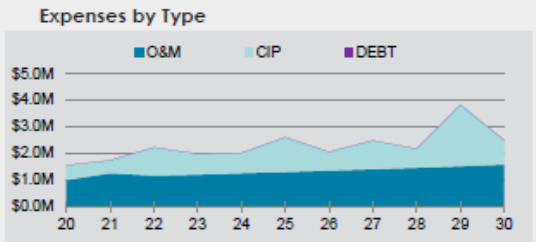
FAMS | CITY OF COCOA, FL

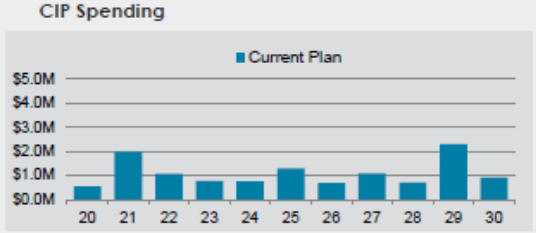
Stantec

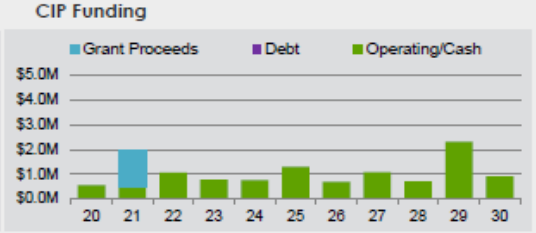
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2025	FY 2030
Revenue Adjustment Plan	0.00%	9.00%	9.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	29.83%	50.50%
Tier 1 SFR Assessment	$71.96	$78.43	$85.49	$88.05	$90.69	$93.42	$96.22	$99.10	$102.08	$105.14	$108.29		
Tier 2 SFR Assessment	$110.71	$120.67	$131.53	$135.48	$139.55	$143.73	$148.04	$152.48	$157.06	$161.77	$166.62		
Tier 3 SFR Assessment	$192.64	$209.97	$228.87	$235.73	$242.81	$250.09	$257.59	$265.32	$273.28	$281.48	$289.92		
Annual $ Change (Tier 2)		*$9.96*	*$10.86*	*$3.95*	*$4.06*	*$4.19*	*$4.31*	*$4.44*	*$4.57*	*$4.71*	*$4.85*		

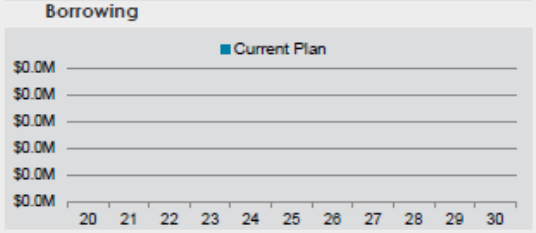












Other Budget Considerations

- Upcoming labor union negotiations
- Future State mandates
- Computer Systems requirements
- Major construction projects
- Solid Waste contract expiration
- Competitive Salaries
- COVID-19 Impact

Legislation Details (With Text)

File #:	21-123	**Version:**	1	**Name:**	
Type:	Awards/Presentations			**Status:**	Agenda Ready
File created:	2/1/2021			**In control:**	City Council
On agenda:	2/9/2021			**Final action:**	
Title:	Proclamation: "Black History Month". (Mayor Blake)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Proclamation: Black History Month.pdf				

Date	Ver.	Action By	Action	Result

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PROCLAMATION

WHEREAS, *during Black History Month, we celebrate the many achievements and contributions made by African-Americans to our economic, cultural, spiritual, and political development; and*

WHEREAS, *established by American historian Carter G. Woodson, the original celebration of Black History Week was observed on February 12, 1926. In 1976, as part of the nation's bicentennial, the week was expanded to a month; and*

WHEREAS, *the Black History Month 2021 theme, "Black Family: Representation, Identity and Diversity" explores the African diaspora, and the spread of Black families across the United States; and*

WHEREAS, *our Country's and State's black leaders and Cocoa's own esteemed African American citizens of past and present continue to forage through these times, building our nation and improving our city making it a better place for all to live and thrive; and*

WHEREAS, *it is also important to remember those civil rights pioneers like Dr. Martin Luther King, Jr. and Rosa Parks, who broke down racial barriers and inspired our nation, as well as the Reverend C.K. Steele of Tallahassee, Harry and Harriette Moore of Brevard County, Reverend H.K. Matthews of Pensacola, and other leaders who worked to promote justice and equal rights for all Americans regardless of race; and*

WHEREAS, *as we celebrate Black History Month, we recognize the many contributions of African-Americans to our country and recommit to being a nation of opportunity and hope for every citizen.*

NOW, THEREFORE, *I, Mayor Michael C. Blake, on behalf of the City Council of the City of Cocoa, Florida, do hereby proclaim the month of February 2021 as:*

"Black History Month"

SEAL

WHEREFORE, I have hereunto set my hand and caused the seal of the City of Cocoa to be affixed this 1st day of February, 2021.

Michael C. Blake

Mayor

ATTEST:

Carie Shealy

City Clerk

Legislation Details (With Text)

File #:	21-125	**Version:**	1	**Name:**	
Type:	Awards/Presentations			**Status:**	Agenda Ready
File created:	2/1/2021			**In control:**	City Council
On agenda:	2/9/2021			**Final action:**	
Title:	Fire Department Equipment Presentation. (Chief Lamm)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result

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Legislation Details (With Text)

File #:	21-66	**Version:**	1	**Name:**	
Type:	Resolution			**Status:**	Consent Agenda
File created:	1/4/2021			**In control:**	City Council
On agenda:	2/9/2021			**Final action:**	
Title:	Approve Task Order 2021-21 with Bussen Mayer Engineering Group, Inc. for Professional Engineering and Consulting Services for the Lakes at Cocoa Grove - Utility Extensions, Project No. WS21CG; To Approve a Resolution Amending the FY2021 Budget, BAF #21-045-T. (Utilities Director)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	TO_BUSSEN 2021-21 $101900.00 - UT-ENGIN.pdf BMEG Proposal - Lakes @ Cocoa Groves.pdf RFQ-17-16-COC.pdf RFQ-17-16-COC TRACK SHEET.pdf BMEG COI Exp 2-2021 and 10-2021.pdf Settlement Implementation Agreement-Recorded.pdf Budget Resolution FY 2021- ADA Compliant.pdf BAF-21-045-T-UT-Cocoa Grove Utility ExtensionT.O. 2021-21 (2-9-21) Agenda 21-66 FY21.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: January 4, 2021
Agenda Date: February 9, 2021
Prepared By: Norma E. Hernandez, Administrative Secretary
Through: John A. Walsh, P.E., Utilities Director
Requested Action:
To Approve Task Order 2021-21 with Bussen Mayer Engineering Group, Inc. for Professional Engineering and Consulting Services for the Lakes at Cocoa Grove - Utility Extensions, Project No. WS21CG; To Approve a Resolution Amending the FY2021 Budget, BAF #21-045-T

BACKGROUND:

The City of Cocoa and the Virgin Trains USA Florida, LLC executed a Settlement Implementation Agreement pursuant to two previous Development Agreements the property located at I-95 and State Road 528. The City of Cocoa has agreed to design, permit and construct water, sewer and reclaim services to this property subject to certain terms for development. Upon completion of the utility construction, the total utility expenses will be reimbursed by the Developer as stipulated in the agreement.

This task order for professional engineering and consulting services will consist of providing

engineering design in support of the proposed Lakes at Cocoa Grove subdivision, via extension of a force main, reuse main and waterline of undetermined size from existing utilities facilities generally located along Industry Road and extending west to the property. The subdivision is located at the northeast corner of the intersection of Interstate 95 and State Road 528 with approximately 350 single-family lots to be developed.

This proposal will provide the following services:

- Surveying Services
- Engineering Services
- Geotechnical Services

The total cost for this project is $101,900. The timing for the agreed upon utility extensions were not determined specifically and was not budgeted. Therefore, a budget transfer is necessary to move funds from Account No. 421-4010-536.39-00, Contingency, to Account No. 421-4055-536.63-00, WS21CG.

Staff recommends approval of this task order and budget transfer.

STRATEGIC PLAN CONNECTION:

N/A

BUDGETARY IMPACT:

Budgeted	No
If not budgeted, is amendment/transfer attached?	Yes, BAF #21-045-T
Amount Requested	$101,900
Account Number	421-4055-536-63-00, WS21CG
Account Name	Infrastructure
Source of Funds:	421-4010-536.39-00, Contingency

PREVIOUS ACTION:

None.

RECOMMENDED MOTION:

To Approve Task Order 2021-21 with Bussen Mayer Engineering Group, Inc. for Professional Engineering and Consulting Services for the Lakes at Cocoa Grove - Utility Extensions, Project No. WS21CG; To Approve a Resolution Amending the FY2021 Budget; BAF #21-045-T.

Embedded Secure Document

The file *https://cocoa.legistar.com/View.ashx?M=F&ID=9113164&GUID=E2F5BF08-40B0-4E6C-8306-F4D9F2C97D5D* is a secure document that has been embedded in this document. Double click the pushpin to view.



Bussen - Mayer Engineering Group, Inc.

December 10, 2020

John" Jack" Walsh, P.E., Director
City of Cocoa Utilities Department
351 Shearer Blvd
Cocoa, FL 32922
(Via E-Mail jwalsh@cocoafl.org)

RE: LAKES AT COCOA GROVE – UTILITY EXTENSIONS
BUSSEN-MAYER PROJECT NUMBER: 402208

Dear Mr. Walsh:

Pursuant to your request, Bussen-Mayer Engineering Group, Inc. (BMEG) is pleased to present this Task Order quote and proposal under our Continuing Consultant Contract with the City of Cocoa Utilities Department (CCUD), for professional engineering and consulting services relating to the above referenced project. We understand that this project consists of providing utility service (water and sewer) to the proposed Lakes at Cocoa Grove subdivision, per a stipulated Settlement Agreement, via extension of a forcemain, reuse main and waterline of undetermined size from existing CCUD facilities located in the adjacent road right-of-ways to the entrance of the proposed residential subdivision. The subdivision is located at the northeast corner of the intersection of Interstate 95 and S.R. 528, and Tax Parcel ID #24-35-10-00-3. Approximately 350 single family lots will be developed. The contemplated utility extensions are as follows;

a. Waterline – connection to the existing 12" watermain located on the west side of Grissom Parkway and extension along Osage St./Angelica St. or the adjacent canal right-of-way.

b. Forcemain – connection to the existing 12" forcemain located on the west side of Grissom Parkway and extension along Osage St./Angelica St. or the adjacent canal right-of-way.

c. Reuse – connection to the existing 12" Reclaimed Watermain located on the east side of Grissom Parkway and extension along Osage St./Angelica St. or the adjacent canal right-of-way.

Looping of the waterline at Bahia St. is included, as well as design of direct bore crossings for the waterline and reuse main from the project entrance south across and under S.R. 528. All utilities will be extended within the existing public right-of-ways of Osage St., Angelica St., Bahia St., and S.R. 528, or the canal right-of-way.

This proposal generally provides the required surveying, existing utilities investigation, soils analysis, engineering design and permitting services required for development of complete construction documents. Bidding and construction phase services are not included.

Based on this information we propose to provide the following specific scope of services in a timely fashion;

A. SURVEYING SERVICES

1. We will prepare a Right-of-Way Survey of the project limits, based on the recorded right-of-way deeds or maps available to the Surveyor. The project survey limits will include the Bahia St. right-of-way from the north side of Seville Ave. to the project limits, the Osage St./Angelica St. right-of-way from the east side of Grissom Pkwy. (or alternatively the drainage canal right-of-way).

   The boundary survey will include field flagging of existing right-of-way monumentation and/or setting of new corner monumentation as required. Right-of-way monuments will be placed at the PC and PT of all curves in the road or at 1,000 foot intervals (max). The survey will meet Florida Minimum Technical Standards and will be prepared in our standard 24"x36" format.

2. We will request underground utility locates through the Sunshine One Call process, prior to completion of the right-of-way survey. We will locate all above ground surface markings provided by the utility company representatives and reflect available information on the final survey. We will also conduct coordination with representatives from AT&T, FPL, City Gas, and the Brevard County Utilities Department, in order to obtain and plot any record information that is available for their specific utilities.

3. We will provide survey stakeout and boring locations as necessary for the geotechnical services described herein (i.e. design borings). We will obtain ground shots as each boring location.

4. We will complete a topographic investigation of the project limits, extending 25 feet outside of each project limit or right-of-way line. This topographic investigation will include the location of above ground improvements within the project limits, together with elevations on a 100 foot grid (max). Sections will be taken at 100 foot intervals. Complete data (ditch elevations, inverts, rims, pipe size, etc.) will be obtained for any existing drainage improvements or sewer system improvements within the project limits. All topographic information will be shown on the boundary survey, and will be based on NAV Datum of 1988.

5. We will establish baseline control points (construction baseline) and benchmark locations for construction purposes.

6. Deliverables to include four (4) copies of the certified survey, together with an AutoCAD copy and a certified pdf. copy of the survey in digital format.

B. ENGINEERING SERVICES

1. We will collect and review available data from the City, County, FDOT and utilities companies on existing and proposed facilities, sizes, elevations, materials, and operational data. This includes detailed on-site inspections. All available data will be included in the project existing conditions info presented in the plans.

2. We will complete water, sewer and reuse system calculations to determine appropriate line sizing and provide the applicable calculations booklets. (Note! Lift Station design for the subdivision is the responsibility of the developer).

3. We will complete a Geotechnical exploration and evaluation report including relevant pavement cores along the alignment (by Ardaman and Associates – subconsultant). This work will include four (4) pavement cores (one in Bahia St., and 3 along Osage/Angelica), together with five (5) roadside core borings.

4. We will prepare 30% Documents for review by the City's Utilities Department. These documents will include, at a minimum, the following information:
   a. Right-of-way and topographic survey.
   b. Proposed utilities routing, sizing, and location plan (water, sewer FM, Reuse Main).
   c. Identification of potential utility conflict locations.
   d. Geotechnical Report.
   e. Preliminary design plans and details.
   f. Preliminary construction cost estimate.

5. We will prepare 60% Documents for review by the City's Utilities Department. These documents will include, at a minimum, the following information:
   a. Adjudicated review comments from the 30% submittal.
   b. Preliminary specifications
   c. 60% Drawings including preliminary cross-sections, plan and profile drawings, construction details and direct bore or bore and jack at the S.R. 528 crossing.
   d. Updated cost estimate.

6. We will prepare 90% Documents for review by the City's Utilities Department. These documents shall provide sufficient detail for construction, including the following:
   a. Adjudicated 60% review comments.
   b. Permitting and Bidding schedule.
   c. Updated cost estimate.
   d. All required permit applications in draft form for City review and signature.
   e. Complete utility construction plans for final review.

7. We will prepare, submit and pursue approval of the following required construction permit applications;
   a. City of Cocoa Utilities Department/FDEP Sewage Collection System Permit (Dryline FM).
   b. City of Cocoa Utilities Department/FDEP Water Distribution System Permit.
   c. Brevard County Public Works Right-of-Way Use permit (if required)
   d. FDEP/NPDES Notice of Intent for Construction Discharge Permit
   e. FDOT Utility Permit

8. Upon receipt of the required permits, we will prepare 100% design plans and specifications for bid. Along with the Bid Documents, the following items will be included:
   a. Adjudicated 90% review comments.
   b. Updated bid schedule and preliminary construction schedule.
   c. Final Cost Estimate.

d. Final certified utility construction plans.

9. Permit Assistance -Permitting services will include responses to all Agency Requests for Additional Information (RAI) as required to obtain the permit. All permit application fees shall be paid by the Consultant, up to the maximum limit shown in Exhibit A attached.

We have prepared this proposal based on the following assumptions and conditions:

1. Bidding and construction phase services are not included. A separate proposal can be provided at the appropriate time for any required bidding and construction phase services.

2. Right-of-way and/or easement acquisition not included (not anticipated as a requirement).

3. Construction phasing is not included (not anticipated as a requirement).

4. Surveying services will meet Florida Minimal Technical Standards as set forth in Chapter 61G17-6 F.A.C. pursuant to Section 472.027 F.S.

5. Elevations to be based on NAVD 1988 datum; survey control to be based on NAD1983 datum (State Plane Coordinates).

6. Roadway realignment, structural design, and/or drainage system design is not included (not anticipated as a requirement).

7. Redesign of other existing utilities to address conflicts is not included.

8. ESTIMATED PROJECT SCHEDULE
(NTP = Notice to Proceed)

a.	Surveying Services	120 days from NTP
b.	Geotechnical Report	90 days from NTP
c.	30% submittal	180 days from NTP
d.	60%submittal	90 days from City response
e.	90% submittal & permit applications	90 days from City response
f.	100% plans and bid documents	45 days from City response and receipt of permits

Our proposed lump sum fee for providing the above described services would be as follows:

A.	SURVEYING SERVICES	$26,000.00
B.	ENGINEERING SERVICES	$75,900.00
B.3.	GEOTECHNICAL SERVICES	$ 9,800.00
	TOTAL	**$101,900.00**

These fees are based on the estimated man-hour breakdown attached and our standard hourly rates, as itemized and reflected in Exhibit "A" attached.

Invoicing for this project will be in accordance with the following schedule:

INVOICE PROCEDURES AND PAYMENT: BUSSEN-MAYER ENGINEERING GROUP, INC. shall submit invoices to the Client for work accomplished during each calendar month. For services provided on a Lump Sum basis, the amount of each monthly invoice shall be determined on the “percentage of completion method” whereby **BUSSEN-MAYER ENGINEERING GROUP, INC.** will estimate the percentage of the total work (provided on a Lump Sum basis) accomplished during the invoicing period.

It is hereby acknowledged that this **TASK ORDER** is an addendum to the master contract approved by the City of Cocoa on February 23, 2018 for engineering design, permitting and services for construction of utility conveyance system upgrades and expansions, and as such, this TASK ORDER is subject to all conditions and stipulations contained in said contract.

Should you have any questions or comments regarding this proposal, please feel free to contact the undersigned. This proposal is valid for a period of sixty (60) days from the date herein and subject to change thereafter. If you wish us to proceed with the above described services, please issue a work order number and Notice to Proceed for this project. Thank you for the opportunity to provide these services, and we look forward to working with you on this project.

Sincerely,

BUSSEN-MAYER ENGINEERING GROUP, INC.



Joseph W. Mayer, P.E.
President

Exhibit "A"

Man-Hour Breakdown-Basic Scope

LAKES AT COCOA GROVE UTILITIES EXTENSION

BMEG# 402208

12/10/20

	Hours	Rate	Subtotal		
A. SURVEYING SERVICES					
1. Right-of-Way survey (multiple roadways)					
Surveyor	20.00	$ 105	$ 2,100		
2-Man Field Crew	48.00	$ 100	$ 4,800		
AutoCAD Technician	54.00	$ 70	$ 3,780		
			Subtotal	$	10,680
2. Sunshine One utility locates/permit/ soft digs					
Surveyor	4.00	$ 105	$ 420		
2-Man Field Crew	12.00	$ 100	$ 1,200		
Office Assistant	6.00	$ 45	$ 270		
			Subtotal	$	1,890
3. Survey stakeout for coring locations.					
Surveyor	2.00	$ 105	$ 210		
2-Man Field Crew	6.00	$ 100	$ 600		
AutoCAD Technician	2.00	$ 70	$ 140		
			Subtotal	$	950
4. Topographic survey.					
Surveyor	12.00	$ 105	$ 1,260		
2-Man Field Crew	40.00	$ 100	$ 4,000		
AutoCAD Technician	72.00	$ 70	$ 5,040		
			Subtotal	$	10,300
5. Establish construction baseline and benchmark locations.					
Surveyor	4.00	$ 105	$ 420		
2-Man Field Crew	8.00	$ 100	$ 800		
AutoCAD Technician	8.00	$ 70	$ 560		
			Subtotal	$	1,780
6. Deliverables/reimbursables					
			Subtotal	$	400
				SURVEYING SERVICES TOTAL	**$ 26,000**

	Hours	Rate	Subtotal		
B. ENGINEERING SERVICES					
1. Review of available data.					
Project Engineer	4.00	$ 135	$ 540		
Project Manager	6.00	$ 115	$ 690		
Engineering Technician	8.00	$ 85	$ 680		
AutoCAD Technician	4.00	$ 70	$ 280		
Office Assistant	4.00	$ 45	$ 180		
			Subtotal	$	2,370
2. Utility Modeling/Calculations					
Project Engineer	16.00	$ 135	$ 2,160		
Project Manager	56.00	$ 115	$ 6,440		
Engineering Technician	18.00	$ 85	$ 1,530		
			Subtotal	$	10,130

3. Preparation of 30% documents for review by Client.					
Project Engineer	12.00	$ 135	$ 1,620		
Project Manager	16.00	$ 115	$ 1,840		
Engineering Technician	40.00	$ 85	$ 3,400		
AutoCAD Technician	88.00	$ 70	$ 6,160		
Office Assistant	4.00	$ 45	$ 180		
			Subtotal	$	13,200
B.3. Soils Testing (Ardaman)					
			Subtotal	$	9,800
4. Preparation of 60% documents for review by Client.					
Project Engineer	8.00	$ 135	$ 1,080		
Project Manager	20.00	$ 115	$ 2,300		
Engineering Technician	44.00	$ 85	$ 3,740		
AutoCAD Technician	120.00	$ 70	$ 8,400		
Office Assistant	4.00	$ 45	$ 180		
			Subtotal	$	15,700
5. Preparation of 90% documents for review by Client.					
Project Engineer	6.00	$ 135	$ 810		
Project Manager	16.00	$ 115	$ 1,840		
Engineering Technician	32.00	$ 85	$ 2,720		
AutoCAD Technician	48.00	$ 70	$ 3,360		
Office Assistant	4.00	$ 45	$ 180		
			Subtotal	$	8,910
6. Preparation, submit and pursue permit approvals.					
Project Engineer	12.00	$ 135	$ 1,620		
Project Manager	20.00	$ 115	$ 2,300		
Engineering Technician	20.00	$ 85	$ 1,700		
Office Assistant	10.00	$ 45	$ 450		
			Subtotal	$	6,070
6.A. Permit Application Fees (maximum limit):					
			Subtotal	$	3,500
7. Preparation of 100% design plans, specifications and bid documents.					
Project Engineer	8.00	$ 135	$ 1,080		
Project Manager	12.00	$ 115	$ 1,380		
Engineering Technician	12.00	$ 85	$ 1,020		
AutoCAD Technician	20.00	$ 70	$ 1,400		
Office Assistant	12.00	$ 45	$ 540		
			Subtotal	$	5,420
8. Reimbursables					
			Subtotal	$	800
			ENGINEERING SERVICES TOTAL	**$**	**75,900**
			TASK ORDER SERVICES TOTAL		**$101,900**

TERM: EXPIRES 02/22/2021
1ST Renewal Opt: 12 Month Exp:02/22/22
2nd Renewal Opt: 12 Month Exp:02/22/23

Approved By Council 12/12/17
Item: V.1 17-496

CONTINUING SERVICES AGREEMENT

Engineering Design, Permitting & Services For
Construction of Utility Conveyance Systems Upgrades & Expansion

THIS CONTINUING SERVICES AGREEMENT ("Agreement") is made and entered into this 23rd day of February 2018, by and between the **City of Cocoa,** a Florida municipal corporation ("City"), located at 65 Stone Street, Cocoa, Florida 32922, and **Bussen-Mayer Engineering Group, Inc.**, a Florida corporation ("Engineer"), whose address is 100 Parnell Street, Suite A, Merritt Island, Florida 32953.

WITNESSETH:

WHEREAS, City desires to obtain engineering design, permitting and services for construction of utility conveyance systems upgrades and expansion from time to time on an as-needed, task oriented basis; and

WHEREAS, the City has followed the selection and negotiation process set forth in the Florida's Consultants' Competitive Negotiation Act, Section 287.055, Florida Statutes; and

WHEREAS, Engineer participated in the selection and negotiation process; and

WHEREAS, Engineer is willing to provide such utility engineering services to the City under the terms and conditions stated herein.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties covenant and agree as follows:

1.0 TERM AND DEFINITIONS

1.1 Unless sooner terminated by either Party pursuant to the terms and conditions herein, this Agreement shall terminate on the third (3rd) anniversary of the Effective Date. The Parties shall have the option to extend the term for two (2) additional one (1) year terms. Any such extension shall only be by written amendment to this Agreement executed by both parties hereto.

1.2 The terms and conditions of any Task Order, as described in Section 2.0 hereof, shall be as set forth in such Task Order. Any Task in effect at the termination of this Agreement shall remain in effect until completion of said Task Order, and all of the terms and conditions of this Agreement shall survive until completion of all Task Orders.

1.3 Definitions. The following words and phrases used in this Agreement shall have the

following meaning ascribed to them unless the context clearly indicates otherwise:

a. "Agreement" or "Contract" shall be used interchangeably and shall refer to this Continuing Services Agreement, as may be amended from time to time, which shall constitute authorization for the Engineer to provide the engineering services approved by Task Order by the City and is also sometimes referred to herein to include all Task Orders approved hereunder.

b. "Effective Date" shall be the date on which the last signatory hereto shall execute this Agreement, and it shall be the date on which this Agreement shall go into effect. The Agreement shall not go into effect until said date.

c. "Engineer" shall mean Bussen-Mayer Engineering Group, Inc., a Florida corporation, and its principals, employees, resident project representatives (and assistants).

d. "Public Record" shall have the meaning given in Chapter 119, Florida Statutes.

e. "Reimbursable Expenses" shall mean the actual expenses incurred by Engineer or Engineer's independent professional associates and consultants which are directly related to travel and subsistence at the rates, and under the requirements of, Section 112.061, Florida Statutes, or any other actual and direct expenses the City agrees to reimburse by Task Order.

f. "Work" or "Services" shall be used interchangeably and shall include the performance of the work agreed to by the parties in a Task Order.

g. "Task Order" shall mean a written document approved by the parties pursuant to the procedure outlined in Section 2.0 of this Agreement, and any amendments thereto approved pursuant to the procedures outlined in Section 3.0 herein, which sets forth the Work to be performed by Engineer under this Agreement, and shall include, without the necessity of a cross-reference, the terms and conditions of this Agreement.

1.4 Engagement. The City hereby engages the Engineer and Engineer agrees to perform the Services outlined in this agreement for the stated fee arrangement. No prior or present representations shall be binding upon any of the parties hereto unless incorporated in this Agreement.

2.0 DESCRIPTION OF SERVICES

2.1 The City shall make request of Engineer to perform engineering services on a "task" basis. The City will communicate with Engineer, verbally or in writing, a general description of the task to be performed. The Engineer will generate a detailed Scope of Work document, prepare a Schedule, add a Not-to-Exceed-Budget or Lump Sum Fee to accomplish the task with a detailed cost breakdown based on the hourly rate schedule attached hereto as **Attachment "A"**, and send the thus

developed "Task Proposal" to the City. The detailed cost breakdown of the lump sum fee shall consist of a list of major sub-tasks and a man-hour breakdown for all work to be performed. The cost breakdown shall include all sub-consultant work and the Task Proposal shall include the written price proposals from all sub-consultants. The detailed cost breakdown shall include a line item for Reimbursable Expenses and the list of the expenses proposed to be eligible for reimbursement. The City will review the Task Proposal, and if the description is mutually acceptable, the parties will enter into a written "Task Order". The Scope of Services generally to be provided by the Engineer through a Task Order may include any engineering services for any City project and may contain written terms and conditions which are deemed supplemental to this Agreement.

The City will issue a notice to proceed to the Engineer in the form of a letter and an executed City purchase order. Upon receipt of the signed Task Order and the written notice to proceed from the City, the Engineer shall perform the services set forth in the Task Order.

2.2 The City reserves the right, at its discretion, to perform any services related to this Agreement or to retain the services of other engineering companies to provide professional engineering services. Further, the City does not guarantee that any Work will be assigned to Engineer under this Agreement. The City reserves the right to assign or contract for engineering services with any party at its sole discretion. No provision of this Agreement shall be construed to require the City to assign any Work or task to Engineer under this Agreement.

2.3 The Engineer may be asked to perform any engineering services related to conveyance projects. Utility conveyance projects will be related to water supply pipelines; potable water transmission and distribution pipeline systems, storage and pump stations; wastewater collection and force main pipelines, and transfer/lift stations; and reclaimed water storage and pumping systems, transmission and distribution pipeline systems. The Services that are required for conveyance projects shall include, but are not limited to, the following:

1. Planning Evaluations/Studies
2. Geotechnical Investigations
3. Land Surveying Services/Aerial Photography
4. GIS Support
5. Materials Testing
6. Condition Assessment of Pipelines and Conveyance Systems
7. Public Information Assistance
8. Cost Estimating Services
9. Grants assistance and state/federal funding assistance
10. Permitting Services
11. SCADA services per the City's Control Systems Configuration Standards
12. Design Services
    (a) 30 percent design completion submittals

(b) 60 percent design completion submittals
(c) 90/100 percent design completion submittals

13. Bidding Support Services
14. Construction Phase Services
    a) Engineering Services During Construction such as shop drawing review, responses to requests for information and progress meetings
    b) Periodic site visits
    c) Testing
    d) Certification of construction
    e) Record drawings
    f) Resident engineer, if required
    g) Construction management and inspection, if required
    h) Startup assistance/training
    i) O&M Manual Preparation, if required.
15. Additional services as requested

Projects types that may be presented for Engineer evaluation may include, but are not limited to:

- **Project Type A-Potable water distribution pipeline project**. The project shall involve new installation or upgrade/rehabilitation of potable water distribution pipeline(s). The project shall include pipeline(s) less than 20-inches in diameter and greater than 1,000 feet of installed pipe.
- **Project Type B- Water transmission pipeline project**. The project shall involve new installation or upgrade/rehabilitation of water transmission pipeline(s), carrying either raw or finished potable water. The project shall include pipeline(s) greater than or equal to 20-inches in diameter and greater than 1,500 feet of installed pipe.
- **Project Type C- Condition assessment.** The project shall involve determining appropriate testing methods, implementing a testing plan and assessing results to determining remaining life of an asset.
- **Project Type D-Wastewater collection or transmission pipeline project.** The project shall involve new installation or upgrade/rehabilitation of a wastewater collection system (gravity) or transmission pipeline (force main). The project shall include a minimum of 500 feet of pipe installed within public rights of way.
- **Project Type E-Wastewater lift station or water pump station project.** The project shall involve a new or upgraded wastewater lift station or water pump station project. Lift station or water pump station projects shall have at least two pumps. The firm capacity of the station shall be a minimum of 300 gallons per minute.

2.4 The maximum hourly rates and certain direct charges or unit prices, as applicable, that can be charged under this Agreement by Engineer, unless otherwise agreed by the City in writing, are set forth in Engineer's Response to the City's Request for Qualifications, which is attached hereto as

Exhibit "A" and fully incorporated herein by this reference.

3.0 CHANGES IN THE SCOPE OF WORK

3.1 City may make changes in the Services at any time by giving written notice to Engineer. If such changes increase (additional services) or decrease or eliminate any amount of Work, City and Engineer will negotiate any change in total cost or schedule modifications. If the City and the Engineer approve any change, the Task Order will be modified in writing to reflect the changes; and Engineer shall be compensated for said services in accordance with the terms of Section 5.0 herein. All change orders shall be authorized in writing by City's and Engineer's designated representative.

3.2 All of City's said Task Orders and amendments thereto shall be performed in strict accordance with the terms of this Agreement insofar as they are applicable.

4.0 SCHEDULE

4.1 Engineer shall perform services in conformance with the mutually agreed schedule set forth in the negotiated Task Order. Engineer shall complete all of said services in a timely manner and will keep City apprised of the status of work on at least a monthly basis or as otherwise reasonably requested by the City. Should Engineer fall behind the agreed upon schedule, it shall employ such resources so as to comply with the agreed-upon schedule.

4.2 No extension for completion of services shall be granted to Engineer without City's prior written consent, except as provided in Sections 3.1 and 19.1 herein.

4.3 Any cost caused by defective or ill-timed services shall be borne by the party responsible therefore.

5.0 METHODS OF PAYMENT FOR SERVICES AND EXPENSES OF ENGINEER

5.1 General Services. For basic and additional Services performed by Engineer's principals, employees, and resident project representatives (and assistants) pursuant to paragraphs 2.0 and 3.0, the City agrees to pay the Engineer an amount equal to that agreed upon by the parties for a particular Task Order. However, payment terms must be consistent with the terms and conditions in this Agreement. To the extent that the payment terms in any Task Order conflict with the payment terms set forth in this Agreement, the conflicting provisions of this Agreement shall prevail.

5.2 Additional Services Performed by Professional Associates and Consultants. For additional Services and Reimbursable Expenses of independent professional associates and

consultants employed by Engineer to render additional Services pursuant to paragraphs 2.0 and 3.0, the City agrees to pay the Engineer an amount equal to that billed Engineer by the independent professional associates and consultants. Prior to payment by the City, the Engineer shall submit to the City a copy of any written invoice received by Engineer from all independent professional associates and consultants which clearly evidences the amount billed by the independent professional associates and consultants for additional Services and any Reimbursable Expenses.

5.3 Witness Services. For witness or expert services rendered by Engineer's principals, employees, resident project representatives (and assistants), and independent professional associates and consultants on behalf of the City in any litigation, arbitration, or other legal or interested administrative proceeding in which the City is a named interested party, City agrees to pay the Engineer or independent professional associate or consultant, which is used as a witness or expert, an amount equal to that agreed upon by the party for a particular Task Order.

5.4 Florida Prompt Payment Act. Payment shall be due and payable as provided by the Florida Prompt Payment Act, Section 218.70 et. seq., Florida Statutes.

5.5 Miscellaneous. Under no circumstances shall actual or direct costs under this Agreement include costs associated with inefficiency, offsite or home office overhead, loss of productivity, consequential damages, legal or consulting costs, or costs associated with delays caused in whole or in part by the Engineer.

5.6 Errors and Deficiencies. Engineer shall not invoice the City or seek any compensation from the City to correct or revise any errors or deficiencies in Engineer's services provided under this Agreement.

5.7 Payment Offsets. To the extent that Engineer owes the City any money under this or any other Agreement with the City, the City shall have the right to withhold payment and otherwise back charge the Engineer for any money owed to the City by Engineer.

5.8 Payment not Waiver. The City's payment of any invoice under this Agreement shall not be construed or operate as a waiver of any rights under this Agreement or any cause of action arising out of the performance of this Agreement and Engineer shall remain liable to the City in accordance with applicable law for all damages to the City caused by Engineer's performance of any services provided under this Agreement.

5.9 Delay Remedy. The risk of any monetary damages caused by any delays in performing the Services under this Agreement and any Task Order are accepted and assumed entirely by the Engineer, and in no event shall any claim relating thereto for an increase in compensation be made or recognized. Engineer shall not make any claim nor seek any damages of any kind against the City for any delays, impacts, disruption or interruption caused by any delay. Engineer's remedy

for a delay shall be an equitable extension of time to perform the Services for each day of such delay that impacts the critical path of the schedule established under this Agreement or specific Task Order.

5.10 Acceptance of Payment. Acceptance of final payment by the Engineer for a specific Task Order shall constitute a release of all claims for payment which the Engineer may have against the City for that Task Order unless such claims are specifically reserved in writing and transmitted to the City by the Engineer prior to its acceptance. Said final payment shall not, however, be a bar to any claims that the City may have against the Engineer or to any remedies the City may pursue with respect to such claims.

5.11 Payment Adjustments. It is agreed that payment by the City of any billing will not constitute agreement as to the appropriateness of any item and that at the time of any final audit, all required adjustments will be made and reflected in a final payment. In the event that such final audit reveals an overpayment to the Engineer, the Engineer agrees to refund such overpayment to the City within ninety (90) days of notice of any such overpayment. Such refund shall not constitute a waiver by the Engineer for any claims relating to the validity of a finding by the City of overpayment.

5.12 Partial Payments. Payment made to the Engineer shall not constitute acceptance of the work or any portion thereof which is not in accordance with this Agreement. The City retains the right to pay only that percentage of the total contract amount that equals the same percentage that work completed bears to the total amount of work required to be performed under this Agreement. If the City objects to all or any portion of any invoice, it shall notify the Engineer of the same within five (5) days from the date of receipt and shall pay that portion of the invoice not in dispute. The parties shall immediately make every effort to settle the disputed portion.

6.0 RIGHT TO INSPECTION

6.1 City or its affiliates shall at all times have the right to review or observe the Services performed by Engineer.

6.2 No inspection, review, or observation shall relieve Engineer of its responsibility under this Agreement.

7.0 PROGRESS MEETING

7.1 City's designated Project Manager may hold periodic progress meetings on a monthly basis, or more frequently if required by the City, during the term of any Task Order entered into under this Agreement. Engineer's Project Manager and all other appropriate personnel shall attend such meetings as designated by City's Project Manager.

8.0 SAFETY

8.1 Engineer shall be solely and absolutely responsible and assume all liability for the safety and supervision of its principals, employees, resident project representatives (and assistants) while performing Services provided hereunder.

9.0 REASONABLE ACCESS

9.1 During the term of this Agreement, City shall grant Engineer reasonable access to the City's premises, records, and files for purposes of fulfilling its obligations under this Agreement.

10.0 INSURANCE

10.1 Liability Amounts. During the term of this Agreement, Engineer shall be responsible for providing the types of insurance and limits of liability as set forth below.

a. Professional Liability. Proof of professional liability insurance shall be provided to the City for the minimum amount of $3,000,000.00 per occurrence and in the aggregate with a deductible not greater than $50,000.00.

b. The Engineer shall maintain comprehensive general liability insurance in the minimum amount of $1,000,000.00 as the combined single limit for each occurrence, with a deductible no greater than $5,000.00, to protect the Engineer from claims of property damages and personal injury which may arise from any Services performed under this Agreement, whether such Services are performed by the Engineer or by anyone directly employed by or contracting with the Engineer.

c. The Engineer shall maintain comprehensive automobile liability insurance in the minimum amount of $1,000,000.00 combined single limit bodily injury and minimum $50,000.00 property damage as the combined single limit for each occurrence to protect the Engineer from claims for damages for bodily injury, including wrongful death, as well as from claims from property damage, which may arise from the ownership, use, or maintenance of owned and non-owned automobiles, including rented automobiles whether such operations be by the Engineer or by anyone directly or indirectly employed by the Engineer.

d. The Engineer shall maintain, during the life of this Agreement, adequate Workers' Compensation Insurance and Employers' Liability Insurance in at least such amounts as are required by law for all of its employees performing Work for the City pursuant to this Agreement.

10.2 Special Requirements. Current, valid insurance policies meeting the requirements herein identified shall be maintained during the term of this Agreement. Renewal certificates shall be sent to the City thirty (30) days prior to any expiration date. There shall also be a thirty (30) day

advance written notification to the City in the event of cancellation or modification of any stipulated insurance coverage. **The City shall be an additional named insured on stipulated insurance policies included in article l0.l.b and l0.l.c herein, as its interest may appear, from time to time.**

10.3 The insurance required by this Agreement shall include the liability and coverage provided herein, or as required by law, whichever requirements afford greater coverage. All of the policies of insurance so required to be purchased and maintained shall contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty (30) days' prior written notice has been given to the City, and the Engineer by certified mail, return receipt requested. All such insurance shall remain in effect until final payment. In the event that the Engineer shall fail to comply with the foregoing requirement, the City is authorized, but in no event shall be obligated, to purchase such insurance, and the City may bill the Engineer. The Engineer shall immediately forward funds to the City in full payment for said insurance. It is expressly agreed that neither the provision of the insurance referred to in this Agreement nor the City's acceptance of the terms, conditions or amounts of any insurance policy shall be deemed a warranty or representation as to adequacy of such coverage. All insurance coverage shall be with insurer(s) rated as A+ by Best's Rating Guide (or equivalent rating and rating service as reasonably determined by the City Manager) and licensed by the State of Florida to engage in the business of writing of insurance or provided through the London Market for Professional Liability Insurance. The Engineer shall cause its insurance carriers, prior to the effective date of this agreement to furnish insurance certificates specifying the types and amounts of coverage in effect pursuant hereto, the expiration dates of such policies, and a statement that no insurance under such policies will be canceled without thirty (30) days' prior written notice to the City in compliance with other provisions of this Agreement. Further copies of all relevant policies will be provided to the City within thirty (30) days of the effective date of this agreement. If the City has any objection to the coverage afforded by or other provision of the insurance required to be purchased and maintained by the Engineer in accordance with this Article on the basis of its not complying with the Agreement, the City shall notify the Engineer in writing thereof within thirty (30) days of the date of delivery of such certificates to the City. For all Work performed pursuant to this Agreement, the Engineer shall continuously maintain such insurance in the amounts, type, and quality as required by the Agreement.

10.4 Independent Associates and Consultants. All independent associates and consultants employed by Engineer to perform any Services hereunder shall fully comply with the insurance provisions contained in this paragraph.

11.0 COMPLIANCE WITH LAWS AND REGULATIONS

11.1 Engineer shall comply with all requirements of federal, state, and local laws, rules, regulations, standards, and/or ordinances applicable to the performance of Services under this Agreement.

12.0 REPRESENTATIONS

12.1 Engineer represents that the Services provided hereunder shall conform to all requirements of this Agreement and any Task Order, shall be consistent with recognized and sound engineering practices and procedures; and shall conform to the customary standards of care, skill, and diligence appropriate to the nature of the Services rendered. Engineer shall perform as expeditiously as is consistent with professional skill and care and the orderly progress of the Services performed hereunder. Engineer's services shall be consistent with the time periods established under this Agreement or the applicable Task Order. Engineer shall provide City with a written schedule for services performed under each Task Order and such schedule shall provide for ample time for the City to review, for the performance of consultants (if any), and for the approval of submissions by authorities having jurisdiction over the services. The Engineer's designated representative shall have the authority to act on Engineer's behalf with respect to the Services. In addition, Engineer's representative shall render decisions in a timely manner in order to avoid unreasonable delay in the orderly and sequential progress of the Services. Except with the City's knowledge and consent, the Engineer shall not engage in any activity, or accept any employment, interest or contribution that would reasonably appear to compromise the Engineer's professional judgment with respect to the Services. The Engineer shall review laws, codes, and regulations applicable to Engineer's Services. The Engineer's services and design shall comply with all applicable requirements imposed by all public authorities. The Engineer represents and warrants that it is familiar with, and accepts that it will perform the Services hereunder in a manner that complies with all applicable requirements of law, codes, and regulations. Engineer shall be responsible for the professional quality, technical accuracy and the coordination of all plans, studies, reports and other services furnished to the City under this Agreement. Unless this Agreement is terminated by the City, or terminated by Engineer for nonpayment of any proper invoices, or the City exercises its rights to perform the Services pursuant to Section 2.2 herein, Engineer shall be responsible for the satisfactory and complete execution of the Services described in this Agreement and any Task Order. The Engineer represents that it will carefully examine the scope of services required by the City in and Task Order, that it will investigate the essential requirements of the services required by the Task Order, and that it will have sufficient personnel, equipment, and material at its disposal top complete the services set forth in the Task Order in a good professional and workmanlike manner in conformance with the requirements of this Agreement.

12.2 Engineer represents that all principals, employees, and other personnel furnishing such Services shall be qualified and competent to perform the Services assigned to them and that such guidance given by and the recommendations and performance of such personnel shall reflect their best professional knowledge and judgment.

13.0 GUARANTEE AGAINST INFRINGEMENT

13.1 Engineer guarantees that all Services performed under this Agreement shall be free from claims of patent, copyright, and trademark infringement. Notwithstanding any other provision of this Agreement, Engineer shall indemnify, hold harmless, and defend City, its officers, directors, employees, agents assigns, and servants from and against any and all liability, including expenses, legal or otherwise, for actual or alleged infringement of any patent, copyright, or trademark resulting from the use of any goods, Services, or other item provided under this Agreement. Notwithstanding the foregoing, Engineer may elect to provide non-infringing services.

14.0 DOCUMENTS

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

IF THE ENGINEER HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE ENGINEER'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS, THE CITY CLERK, AT (321) 433-8484, cshealy@cocoafl.org, City Clerk's Office, 65 Stone Street, Cocoa, FL 32922.

Engineer is required to and agrees to comply with public records laws. Engineer shall keep and maintain all public records required by the City to perform the services as agreed to herein. Engineer shall provide the City, upon request from the City Clerk, copies of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided by law. Engineer shall ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term. Upon completion of the Agreement, Engineer shall transfer to

the City, at no cost, all public records in possession of the Engineer, provided the transfer is requested in writing by the City Clerk. Upon such transfer, Engineer shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. However, if the City Clerk does not request that the public records be transferred, the Engineer shall continue to keep and maintain the public records upon completion of the Agreement and shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City Clerk, in a format that is compatible with the information technology systems of the City. Should the City not possess public records relating to this Agreement which are requested to be inspected or copied by the City or any other person, the City shall immediately notify Engineer of the request and the Engineer shall then provide such records to the City or allow the records to be inspected or copied within a reasonable time. If the Engineer does not comply with a public records request, the City may enforce this Section to the extent permitted by law. Engineer acknowledges that if the Engineer does not provide the public records to the City within a reasonable time, the Engineer may be subject to penalties under Section 119.10, Florida Statutes. The Engineer acknowledges that if a civil action is filed against the Engineer to compel production of public records relating to this Agreement, the court may assess and award against Engineer the reasonable costs of enforcement, including reasonable attorney fees. All public records in connection with this Agreement shall, at any and all reasonable times during the normal business hours of the Engineer, be open and freely exhibited to the City for the purpose of examination, audit, or otherwise. Failure by Engineer to grant such public access and comply with public records laws and/or requests shall be grounds for immediate unilateral cancellation of this Agreement by the City upon delivery of a written notice of cancellation. If the Engineer fails to comply with this Section, and the City must enforce this Section, or the City suffers a third party award of attorney's fees and/or damages for violating Chapter 119, Florida Statutes, due to Engineer's failure to comply with this Section, the City shall collect from Engineer prevailing party attorney's fees and costs, and any damages incurred by the City, for enforcing this Section against Engineer. And, if applicable, the City shall also be entitled to reimbursement of all attorneys' fees and damages which the City had to pay a third party because of the Engineer's failure to comply with this Section. The terms and conditions set forth in this Section shall survive the termination of this Agreement.

a. Reuse of Documents. All documents, including but not limited to, drawings, specifications, and data, or programs stored electronically or otherwise, prepared by the Engineer and its independent contractors and associates pursuant to this Agreement or related exclusively to the Services described herein shall be owned by the City and may be reused by the City for any reason or purpose at anytime. However, the City agrees that the aforesaid documents are not intended or represented to be suitable for reuse by the City or others on any undertaking other than the Work outlined in this Agreement. Any reuse for an undertaking other than for the Work without verification or adaptation by the Engineer, or its independent contractors and associates if necessary, to specific purposes intended will be at the City's sole risk and without liability or legal exposure to the Engineer.

b. Ownership of Documents. The City and the Engineer agree that upon payment of fees due to the Engineer by the City for a particular design, report, inventory list, compilation, drawing, specification, model, recommendation, schedule or otherwise, said design, report, inventory list, compilation, drawing, specification, technical data, recommendation, model, schedule and other instrument produced by the Engineer in the performance of this Agreement, or any Work hereunder, shall be the sole property of the City, and the City is vested with all rights therein. The Engineer waives all rights of copyright in said design, report, inventory list, compilation, drawing, specification, technical data, recommendation, model, schedule and other instrument produced by the Engineer in the performance of this Agreement, and hereby assigns and conveys the same to the City whether in the possession or control of the Engineer or not.

c. Preexisting Ownership Rights to Documents. Notwithstanding any provisions to the contrary contained in this Agreement, Engineer shall retain sole ownership to its preexisting information not produced and paid for by the City under this Agreement including, but not limited to computer programs, software, standard details, figures, templates and specifications.

15.0 ASSIGNMENT

15.1 Engineer shall not assign or subcontract this Agreement, any Task Order hereunder, or any rights or any monies due or to become due hereunder without the prior, written consent of City.

15.2 If, upon receiving written approval from City, any part of this Agreement is subcontracted by Engineer, Engineer shall be fully responsible to City for all acts and/or omissions performed by the subcontractor as if no subcontract had been made.

15.3 If City determines that any subcontractor is not performing in accordance with this Agreement, City shall so notify Engineer, which shall take immediate steps to remedy the situation.

15.4 If any part of this Agreement is subcontracted by Engineer, prior to the commencement of any Work by the subcontractor, Engineer shall require the subcontractor to provide City and its affiliates with insurance coverage as set forth by the City.

16.0 INDEPENDENT CONTRACTOR

16.1 At all times during the term of this Agreement, Engineer shall be considered an independent contractor and not an employee of the City.

17.0 DEFAULT BY ENGINEER AND CITY'S REMEDIES

17.1 The City reserves the right to revoke and terminate this Agreement, without incurring penalty, and to rescind all rights and privileges associated with this Agreement in the following circumstances, each of which shall represent a default and breach of this Agreement:

a. Engineer defaults in the performance of any material covenant or condition of this Agreement and does not cure such other default within thirty (30) calendar days after written notice from the City specifying the default complained of, unless, however, the nature of the default is such that it cannot, in the exercise of reasonable diligence, be remedied within thirty (30) calendar days, in which case the Engineer shall have such time as is reasonably necessary to remedy the default, provided the Engineer promptly takes and diligently pursues such actions as are necessary therefor; or

b. Engineer is adjudicated bankrupt or makes any assignment for the benefit of creditors or Engineer becomes insolvent, or is unable or unwilling to pay its debts; or

c. Engineer has acted grossly negligent, as defined by general and applicable law, in performing the Services hereunder; or

d. Engineer has committed any act of fraud upon the City; or

e. Engineer has made a material misrepresentation of fact to the City while performing its obligations under this Agreement; or

f. Engineer has assigned this Agreement or any Task Order without the City's prior written consent.

17.2 Notwithstanding the aforementioned, in the event of a default by Engineer, the City shall have the right to exercise any other remedy the City may have by operation of law, without limitation, and without any further demand or notice.

17.3 In the event of such termination upon default and breach of this Agreement, any completed services performed by the Engineer under this Agreement shall, at the option of the City, become the City's property and the Engineer shall be entitled to receive equitable compensation for any work completed to the satisfaction of the City. The Engineer, however, shall not be relieved of liability to the City for damages sustained by the City by reason of any breach of the Agreement, and the City may withhold any payments to the Engineer for the purpose of setoff until such time as the amount of damages due to the City from the Engineer can be determined.

18.0 TERMINATION

18.1 Notwithstanding any other provision of this Agreement, City may, upon written notice to Engineer, terminate this Agreement, without penalty, if: (a) Engineer is in default pursuant to Section 17.0; (b) Engineer fails to comply with any condition or provision of this Agreement; or (c) Engineer is experiencing a labor dispute which threatens to have a substantial, adverse impact upon performance of this Agreement, without prejudice to any other right or remedy City may have under this Agreement.

18.2 In addition, either party may terminate for convenience without penalty at any time upon thirty (30) days advance written notice.

18.3 In the event of termination, City shall be liable only for the payment of all unpaid charges, determined in accordance with the provisions of this Agreement, for Work properly performed prior to the effective date of termination.

19.0 FORCE MAJEURE

19.1 Any delay or failure of either party in the performance of its required obligations hereunder shall be excused if and to the extent caused by acts of God; fire; flood; windstorm; explosion; riot; war; sabotage; strikes (with the exception of Engineer's labor force); extraordinary breakdown of or damage to City's affiliates' generating plants, their equipment, or facilities; court injunction or order; federal and/or state law or regulation; order by any regulatory agency; or cause or causes beyond the reasonable control of the party affected; provided that prompt notice of such delay is given by such party to the other and each of the parties hereunto shall be diligent in attempting to remove such cause or causes. If any circumstance of Force Majeure remains in effect for 60 days, either party may terminate this Agreement.

20.0 GOVERNING LAW & VENUE

20.1 This Agreement is made and shall be interpreted, construed, governed, and enforced in accordance with the laws of the State of Florida. Venue for any state action or litigation shall be Brevard County, Florida. Venue for any federal action or litigation shall be Orlando, Florida.

21.0 HEADINGS

21.1 Paragraph headings are for the convenience of the parties only and are not to be construed as part of this Agreement.

22.0 SEVERABILITY

22.1 In the event any portion or part of thereof this Agreement is deemed invalid, against public policy, void, or otherwise unenforceable by a court of law, the parties shall negotiate an equitable adjustment in the affected provision of this Agreement. The validity and enforceability of the remaining parts of this Agreement shall otherwise by fully enforceable.

23.0 WAIVER AND ELECTION OF REMEDIES

23.1 Waiver by either party of any term, condition or provision of this Agreement shall not be considered a waiver of that term, condition, or provision in the future.

23.2 No waiver, consent, or modification of any of the provisions of this Agreement shall be binding unless in writing and signed by a duly authorized representative of each party hereto.

24.0 THIRD PARTY RIGHTS

24.1 Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than City and Engineer.

25.0 PROHIBITION AGAINST CONTINGENT FEES

25.1 Engineer warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Engineer, to solicit or secure this Agreement, and that it has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the Engineer, any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Agreement. For the breach or violation of this provision, the City shall have the right to terminate the agreement without liability and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission, percentage, gift, or consideration.

26.0 ENTIRE AGREEMENT

26.1 This Agreement, including any Task Orders and Schedules, Attachments, Appendix's and Exhibits attached hereto, constitute the entire agreement between City and Engineer with respect to the Services specified and all previous representations relative thereto, either written or oral, are hereby annulled and superseded.

27.0 NO JOINT VENTURE

27.1 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.

28.0 ATTORNEY'S FEES

28.1 Should any litigation arise concerning this Agreement between the parties, the parties agree to bear their own costs and attorney's fees, whether at settlement, trial or on appeal.

29.0 COUNTERPARTS

29.1 This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be considered an original agreement; but such counterparts shall together constitute but one and the same instrument.

30.0 DRAFTING

30.1 City and Engineer each represent that they have both shared equally in drafting this Agreement and no party shall be favored or disfavored regarding the interpretation of this Agreement in the event of a dispute between the parties.

31.0 NOTICE

31.1 Any notices required to be given by the terms of this Agreement shall be delivered by hand or mailed, postage prepaid to:

For Engineer:
Bussen-Mayer Engineering Group, Inc.
Attention: Joseph W. Mayer, P.E.
100 Parnell Street, Suite A
Merritt Island, FL 32953
(321) 453-0010 Phone

For City:
City of Cocoa
Attention: City Manager
65 Stone Street
Cocoa, FL 32922
(321) 433-8688 Phone
(321) 433-8698 Fax

31.2 Either party may change the notice address by providing the other party written notice of the change.

31.3 Any Notice given as provided herein shall be deemed received as follows: if delivered by personal service, on the date so delivered; if delivered to an overnight courier service, on the business day immediately following delivery to such service; and if mailed, on the third business day after mailing.

32.0 SOVEREIGN IMMUNITY

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

33.0 CORPORATE REPRESENTATIONS BY ENGINEER

33.1 Engineer hereby represents and warrants to the City the following:

a. Engineer is duly registered and licensed to do business in the State of Florida and is in good standing under the laws of Florida, and is duly qualified and authorized to carry on the functions and operations set forth in this Agreement.

b. The undersigned representative of Engineer has the power, authority, and legal right to execute and deliver this Agreement on behalf of Engineer.

34.0 INDEMNIFICATION AND LIMITATION OF LIABILITY

34.1 The Engineer shall defend, indemnify and hold the City, its elected officials, officers, employees, agents, and volunteers harmless from any and all claims, injuries, damages, losses, costs or suits, including attorney fees, arising out of or resulting from the acts, errors or omissions of the

Engineer in performance or non-performance of this Agreement, except for injuries and damages caused by the sole negligence of the City.

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

34.2 Engineer shall also indemnify and hold harmless the City, and its officers (including its City Attorneys) and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by Engineer's breach caused by other persons employed by the Engineer in the performance of the Agreement and any Task Order.

The indemnity provisions set forth in Paragraphs 34.1 and 34.2 shall be considered separate and independent indemnity provisions.

34.3 For other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Engineer expresses its willingness to enter into this Agreement with the knowledge that the Engineer's recovery from the City to any action or claim arising from the Agreement is limited to a maximum amount of the sum of any Agreement amount that is owed by the City for services actually performed by the Engineer to the City's complete satisfaction, and in no case shall exceed the amount provided in article 32.1 herein. Nothing contained in this paragraph or elsewhere in this Agreement is in any way intended either to be a waiver of the limitation placed upon the City's liability as set forth in Section 768.28 Florida Statutes, or to extend the City's liability beyond the limits established in said Section 768.28 Florida Statutes; and no claim or award against the City shall include attorney's fees, investigative costs, expert fees, suit costs or pre-judgment interest.

35.0 ENGINEER'S PERSONNEL AT CONSTRUCTION SITE

35.1 The presence or duties of Engineer's personnel at a construction site, whether as onsite representatives or otherwise, do not make Engineer or Engineer's personnel in any way responsible for those duties that belong to City and/or the construction contractors or other entities, and do not relieve the construction contractors or any other entity of their obligations, duties, and responsibilities, including, but not limited to, all construction methods, means, techniques, sequences, and procedures necessary for coordinating and completing all portions of the construction work in accordance with the applicable construction contract documents and any health or safety precautions required by such construction work. Engineer and Engineer's personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions and have no duty for inspecting,

noting, observing, correcting, or reporting on health or safety deficiencies of the construction contractor(s) or other entity or any other persons at the site except Engineer's own personnel.

35.2 The presence of Engineer's personnel at a construction site is for the purpose of providing to City a greater degree of confidence that the completed work will conform generally to the applicable contract documents and that the integrity of the design concept as reflected in the contract documents has been implemented and preserved by the construction contractor(s). Engineer neither guarantees the performance of the construction contractor(s) nor assumes responsibility for construction contractor's failure to perform work in accordance with the contract documents. For this Agreement only, construction sites include places of manufacture for materials incorporated into the construction work, and construction contractors include manufacturers of materials incorporated into the construction work.

36.0 RECORD DRAWINGS

36.1 Record drawings, if required, will be prepared, in part, on the basis of information compiled and furnished by others, and may not always represent the exact location, type of various components, or exact manner in which the project was finally constructed. Engineer is not responsible for any errors or omissions in the information from others that is incorporated into the record drawings.

37.0 ADDITIONAL ASSURANCES

37.1 The Engineer for itself and its Sub-consultants, if any, certifies that:

a. No principal (which includes officers, directors, or executive) or individual holding a professional license and performing work under this Agreement is presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in any architecture, landscape architecture, engineering, or surveying activity by any Federal, State, or local governmental commission, department, corporation, subdivision, or agency;

b. No principal (which includes officers, directors, or executive) or individual holding a professional license and performing work under this Agreement, employee, or agent has employed or otherwise provided compensation to, any employee or officer of the City;

c. No principal (which includes officers, directors, or executive) or individual holding a professional license and performing work under this Agreement, employee, or agent has willfully offered an employee or officer of the City any pecuniary or other benefit with the intent to influence the employee or officer's official action or judgment; and

d. The undersigned is authorized to execute this Agreement on behalf of the Engineer and said signature shall bind the Engineer to this Agreement. No further action is required by the Engineer to enter into this Agreement other than Engineer's undersigned representative's execution of the Agreement.

IN WITNESS WHEREOF, the parties hereto caused this Agreement to be executed by their duly authorized representatives as of the date first written above.

CITY:	**ENGINEER:**
CITY OF COCOA	**BUSSEN-MAYER ENGINEERING GROUP, INC.**
By:	By:
Print Name/Title: John A. Titkanich Jr., City Manager	Print Name/Title: Joseph W. Mayer President

ATTEST:

By: _____
Carie Shealy, City Clerk

SEAL
CITY OF COCOA
FLORIDA

EXHIBIT A

Engineer's Response to City's Request for Qualifications

ATTACHMENT "A"

BUSSEN-MAYER ENGINEERING GROUP, INC.
STANDARD HOURLY RATES

Position	Rate
Chief Design Engineer	$135.00
Project Manager	$115.00
Project Engineer	$ 95.00
Surveyor	$105.00
Ecologist	$ 80.00
Engineer-Expert Witness	$150.00
Engineering Technician	$ 85.00
AutoCAD Technician	$ 70.00
2-Man Survey Crew	$100.00
Construction Inspector	$ 65.00
Clerical/Office Assistant	$ 45.00

Bussen-Mayer Engineering Group
100 Parnell St • Merritt Island, FL 32953
Phone 321/453-0010 • Fax 321/454-6885

Letter of Transmittal

To: City of Cocoa Utilities Dept.
Attn: John "Jack" Walsh, P.E., Director
351 Shearer Blvd
Cocoa, FL 32922
(Hand delivered)

Date 02/12/18

Job no. 402201

City of Cocoa Utilities Department

Copies	Description
1	Executed Contract w/ Attachment "A" hourly rates

These are transmitted:

- x For approval
- x For your use
- x As requested
- For review & comment

Comments:

Jack,
Let me know of you have any questions. Our proposed rates did not change from the previous contract.

Copy to:

Signed:

Joseph W. Mayer, P.E./ President

Office of the City Clerk
65 Stone Street I Cocoa, FL 32922
Phone: (321) 433-8480 I Fax: (321) 433-8455

February 28, 2018

Bussen-Mayer Engieering Group, Inc.
ATTN: Joseph W. Mayer, P.E.
100 Parnell Street, Suite A
Merritt Island, FL 32953

Re: Continuing Services Agreement for Engineering Design, Permitting & Services for Construction of Utility Conveyance Systems Upgrades & Expansion

To Whom It May Concern:

Enclosed is a fully executed and certified copy by the City of Cocoa of the above referenced agreement for your records.

If you have any questions or need further assistance, please contact my office at (321) 433-8484.

Sincerely,

Carie Shealy, MMC
City Clerk

~ TRACK SHEET ~

Continuing Services Agreement Contract - FINANCE DEPARTMENT

COMMODITY/SERVICE:	**Engineering Svc's for Design, Permitting, & Services during Construction of Utility Conveyance System Upgrades & Expansion**	**TERM: Agreement shall terminate on the (3rd) anniversary of the effective date. With the option to renew (2) two additional one (1) year terms. NTE 5 year Total**
VENDOR/CONTRACTOR:	**Bussen-Mayer Eng. #674** 263,698.00	
	Mead & Hunt #10228 68,870.99	
	Hazen & Sawyer 0.00	
Department Name:	Utilities	
Department Requestor	Jack Walsh	*Balances Verified By: Diane Kozlak*
VENDOR NUMBER:		*Date Verified: 01/06/21*
City/County/State Bid:	CITY OF COCOA	
Quote/Bid/Proposal No:	**RFQ-17-16-COC**	RENEWALS LEFT 2
Total # of Task Orders Issued for this Contract:	21	**Expires:** **2/22/2021**

TERM OF AGREEMENT

02/23/2018 to 02/22/2021 Approved By Council 12/12/17 V.1
1st 02/23/2021 TO 02/22/2022
2nd 02/23/2022 TO 02/22/2023

FY2018	46,857.50
FY2019	56,007.00
FY2020	229,704.49
FY2021	

PO AMOUNT CURRENTLY ENCUMBERED: $31,536
PO AMOUNT CURRENTLY PAID: $375,299
TOTAL: **$406,835**

BUSSEN-MAYOR ENGINEERING #674 — 0.00 — 302,826.50

TASK NO:	TASK DETAILS	ENCUMBERED	PAID
2018-01	**WFO-PO#2018-72691-35937** date 5/17/18 within the CM's signing authority **-- FY18** *valve replacements 8 different locations.* (1) 12" at Canal Crossing at Banana River Dr. (1) 4" intersection of of Canal Dr. & Date Drive (1) 6" & (1) 8" Dixon Blvd & Clearlake Rd. (1) 8" Seminole Dr. & Barton Blvd. (1) 4" (1) 6" (2) 8" Hayes Ave & Ridewood Ave. (1) 6" Gateway Dr. & Newfound Harbor (2) 6" Monte Carlo Ct & Popoise St.	0.00	30,104.00
	$6,276 FUNDS CARRY FORWARD -- FY19	0.00	5,334.60
	LIQUIDATED $941.40 (FINAL PAYMENT ON 9/26/19)		
2018-03	**WFO-PO#2018-72712-35964** date 5/17/18 within the CM's signing authority Surveying Services for Lot 30 Shakespere Park Section one - P.B. 14 PAGE 34	0.00	2,385.00
2018-04	**WFO-PO#2018-73045-36436** date 7/26/18 within the CM's signing authority East Coast Christian Center Fire Line and water service, survey topographic data,	0.00	6,502.50
	$2,207.50 FUNDS CARRY FORWARD -- FY19	0.00	0.00
	LQUIDATED $2207.50 (FINAL PAYMENT ON 9/26/19)		
2018-06	**WFO-PO#2018-73291-36839** date 09/20/18 within the CM's signing authority **-- FY19** Professional surveying and consulting services for Orange County Wellfield Descriptions Amount Paid $33,934.00 FY19	0.00	35,720.00
2019-08	**UT-PO#2019-75038-39008** date 08/20/19 within the CM's signing authority - $8510	0.00	8,510.00

TASK NO:	TASK DETAILS	ENCUMBERED	PAID
	RESERVED ON 07/10/19 BY US HIGHWAY 1/CAMP RD SURVEY PROJECT WS19FM Boundary survey and a topographic survey **Amount Paid $2,978.50 FY19** **Amount Paid $5,531.50 FY20** **$5531.50 FUNDS CARRY FORWARD -- FY20**	0.00	5,531.50
2020-10	**UT-PO#2020-75744-39860** date 11/25/19 $59,585 Council Approved: Indian River Drive Gravity Sewer (Area K)	0.00	59,585.00
2020-11	**UT-PO#2020-75740-39863** date 11/25/19 $84,540 Council Approved Indian River Drive Gravity Sewer (Area J)	0.00	84,510.00
2020-13	**UT-PO#2020-75928-40040** date 12/20/19 $2750 within the CM's signing authority Bidding services during construction	0.00	2,750.00
2020-14	**UT-PO#2020-76050-40223** date 02/04/2020 $52,755 Council Approved Professional Engineering Services during Construction	0.00	52,755.00
2020-15	**UT-PO#2020-75890-40041** date 12/31/19 $3202.50 within the CM's signing authority Orange St. Topographic Survey	0.00	3,202.50
2020-16	**UT-PO#2020-76157-40366** date 02/25/2020 $941.40 Original PO#72691 FY2018 *RESERVED BY MELINDA ON 01/08/20 ORIGINAL TASK ORDER NO. 2018-01*	0.00	941.40
2020-18	**UT-PO#2020-76623-40884** date 06/10/2020 $4,995.00 within the CM's signing authority *Cocoa Elevated Water Tank Site Topographic Survey*	0.00	4,995.00
2021-20	**UT-PO#2021-XXXX-XXXXX** date 0/0/20 $261,770.00 Council Approved Gravity Sewer Engineering Services *Indian River Drive - Area J $134,150.00* *Indian River Drive - Area K $126,320.00* *Sketch & Legal Temp Easements $650.00 Each (2)*	0.00	0.00
NOT TRACKING	**PO#2018-72596-35822** date 04/25/18 was not logged as a task order (CS) Plat Review Michael Blake Subdivision **(no task order used)** **PO#2018-72093-35169** date 01/24/18 using Brevard Cty - MOU combined effort Project utilizing the same vendor as Bevard County		
	UT-PO#2019-74085-37810 01/08/19 **$496** - (Confirmation) CONE RD DRAINAGE IMPROVMENTS OF AN ONGOING DRAINAGE & SEWER INSTALLATION PROJECT BY BREVARD COUNTY PUBLIC WORKS DEPATEMENT. **(NOT TRACKING)**		
2021-21	**UT-PO#2021-XXXX-XXXXX** date 0/0/20 $101,900.00 Council Approved Lakes at Cocoa Grove Utilities Extension BMEG# 402208	0.00	0.00

HAZEN & SAWYER #		0.00	0.00
TASK NO:	**TASK DETAILS**	**ENCUMBERED**	**PAID**
2019-05	**WFO-PO#2018-XXXXX-XXXXX** date XX/XX/18 within the CM's signing authority preliminary engineering svc's for the rehabilitation, repair and/or replacement of 8 critical aerial water main crossings. *RESERVED BY MELINDA (ON HOLD)* $49,500	0.00	0.00

TASK NO:	TASK DETAILS	ENCUMBERED	PAID

MEAD & HUNT	#10228	31,535.97	72,472.53
TASK NO:	**TASK DETAILS**	**ENCUMBERED**	**PAID**
2018-02 WS1410	**WFO-PO#2018-72676-35935** date 05/15/18 within the CM's signing authority **-- FY18** Lift Station #2 Standard Control Panel Design	0.00	7,866.00
	$874.00 FUNDS CARRY FORWARD -- FY19	0.00	8,639.00
	CO#1 - Date 01/25/19 $7,765.00 PANEL REPLACEMENT - Resolicit Quotes for (Material & Equipment Only) within the CM's signing authority - Completion Date 12/31/18		
2019-07 WS16MM	**UT-EN PO#2019-74901-38826** date 07/22/19 within the CM's signing authority $44,444.50 Marlin Manor & Pluckebaum Rd. Water Main Improvement Permitting & Bidding Amount Paid $5,121.00 FY19 Amount Paid $12,294.39 FY20	27,028.97	17,415.53
2019-09	**UT-EG PO#2019-75092-39085** date 9/10/19 within the CM's signing authority $2714 Lift Station #2 Bidding Phase Services for the Lift Station #2 Panel Rehab.	0.00	2,714.00
2020-12	**UT-EG PO#2020-75770-39851** date 12/09/19 within the CM's signing authority $27,742.00 Lift Station #2 Limited Construction Phase Services-Complete design and Permitting of Improvements	0.00	27,742.00
2020-17	**UT-EG PO#76406-40690** date 04/09/2020 within the CM's signing authority $3,932.00 West Hall Road/N. Tropical Trail Water Main Relocation	0.00	5,216.00
	CO#1 - Date 05/28/20 $1,284.00 within the CM's signing authority $1,284.00 County ROW Permit required		
2020-19	**UT-EG PO#76777-41177** date 07/23/2020 within the CM's signing authority $7,387.00 MCNABB Parkway Water Main Replacement	4,507.00	2,880.00

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 9/24/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
J.W. Edens & Company
P.O. Box 278
Titusville FL 32781-0278

CONTACT NAME: Shari McNeely
PHONE (A/C, No, Ext): (321)383-4554 **FAX (A/C, No):** (321)383-4523
E-MAIL ADDRESS: smcneely@jwedens.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Travelers Property Cas. of Ame	25674
INSURER B : Owners Insurance Company	
INSURER C : Travelers Casualty & Surety	19038
INSURER D : Hiscox Insurance Co	
INSURER E :	
INSURER F :	

INSURED
Bussen-Mayer Engineering Group, Inc.
100 Parnell Street
Merritt Island FL 32953

COVERAGES **CERTIFICATE NUMBER:** CL2092409928 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE / X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY / X PRO-JECT / LOC OTHER:			60-9A762805-TIL-20	2/1/2020	2/1/2021	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 1,000,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
B	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS / SCHEDULED AUTOS X HIRED AUTOS / X NON-OWNED AUTOS			5215039200	2/1/2020	2/1/2021	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) Uninsured motorist combined single	$ $ $ $ 1,000,000 $ 1,000,000
A	X UMBRELLA LIAB / X OCCUR EXCESS LIAB / CLAIMS-MADE DED / X / RETENTION $ 10,000			CUP5P430164	2/1/2020	2/1/2021	EACH OCCURRENCE AGGREGATE	$ 3,000,000 $
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N: N (N/A) (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			UB-0N269248-20-47-G	2/1/2020	2/1/2021	X PER STATUTE / X OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
D	Professional Liability Claims Made			URA1379050.20	10/1/2020	10/1/2021	$ 3,000,000 aggregate $ 1,000,000 Each Claim	$ 10,000 Ded Each Claim

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
General Liability policy has been endorsed with an Additional Insured endorsement in favor of the City of Cocoa.
The Professional Liability policy includes a Specific Project Excess for City of Cocoa - $2,000,000 excess of primary $1,000,000.

CERTIFICATE HOLDER
nhernandez@cocoafl.org
City of Cocoa
65 Stone Street
Cocoa, FL 32922

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
J. Wayne Edens/SHARI

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City of Cocoa
65 Stone St
Cocoa FL 32922

21/17

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

CFN 2019226469, OR BK 8564 PAGE 2243,
Recorded 10/16/2019 at 03:17 PM, Scott Ellis, Clerk of
Courts, Brevard County
Pgs:21

FOR RECORDING DEPARTMENT USE ONLY

SETTLEMENT IMPLEMENTATION AGREEMENT

(Residential Subdivision and Lake Amenity Excavation)

THIS SETTLEMENT IMPLEMENTATION AGREEMENT ("Agreement") is made and executed this 10th day of July, 2019, by and between the **CITY OF COCOA,** a Florida Municipal Corporation ("City"), whose address is 65 Stone Street, Cocoa, Florida 32922, and **VIRGIN TRAINS USA FLORIDA, LLC**, a foreign limited liability company organized in the State of Delaware ("Developer"), whose address is 161 NW 6th Street, Suite 900 Miami, FL 33136.

WITNESSETH:

WHEREAS, Developer has entered into a contract to purchase approximately 246 acres, more or less, of real property located north of State Road 528 and east of Highway I-95, Cocoa, Florida, more particularly described in Section 3 and depicted in Section 8 of this Agreement ("Property"); and

WHEREAS, the Property is subject to that certain City of Cocoa/Florida Space Needle, LLC Preceding Development Agreement, dated August 24, 2004 ("Preceding Development Agreement"); and

WHEREAS, the Property is also subject to that certain Stipulated Settlement Agreement entered into in Brevard County v. City of Cocoa, Case No. 05-2005-018141, which was recorded on January 9, 2008 in Official Record Book 5837, Page 2226 of Brevard County, Florida ("Stipulated Settlement Agreement"); and

WHEREAS, Developer desires to proceed with the acquisition of the Property and permit and construct a low-density residential subdivision (approx. 320 units) on the Property consistent with the terms and conditions of the Preceding Development Agreement and the

Settlement Agreement and as more specifically required by this Settlement Implementation Agreement; 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 in furtherance of implementing the terms and conditions of the Preceding Development Agreement and Stipulated Settlement Agreement.

3.0 The Property. The real property subject to this Agreement has tax parcel identification numbers of 24-35-10-00-3 and is legally described in **EXHIBIT "A"**, attached hereto and fully incorporated herein by this reference ("Property").

4.0 Condition Precedent - Acquisition of Property by Developer. Developer represents and warrants to the City that they have entered into a binding written contract to purchase the Property ("Purchase Agreement") and that the Developer intends to expeditiously pursue the completion of the closing on the Property upon the Effective Date of this Agreement. Based on this representation and warranty to the City, Developer further represents and warrants to the City that it is empowered to negotiate and enter into this Agreement. However, the acquisition of fee title to the Property by the Developer shall be a condition precedent to the Parties commitments and obligations set forth under this Agreement. As such, Developer shall keep the City fully apprised of the status of said closing and shall faithfully and expeditiously complete the closing within ninety (90) days of the Effective Date of this Agreement ('Closing Date"). At least ten (10) days prior to the Closing Date, the Developer shall provide the City Manager and City Attorney a complete copy of the title commitment (with copies of all supporting documents) for closing on the Property so the Parties can determine whether the title commitment including the items listed on Schedule B II Exceptions causes any impediment to the completion of the subdivision of the property as depicted on the Concept Plan described in Section 8.0 of this Agreement or the excavation of the lake amenity described in the Section 10.0 of this Agreement. The City in its reasonable and sole discretion may declare any such impediment as a default and Developer shall be afforded an opportunity to cure said default under Section 29.0 of this Agreement. If Developer fails to cure said default, the City Manager, in his sole discretion and by written notice, shall have the right to terminate this Agreement. Further, if Developer fails to complete the closing by the Closing Date, the City Manager shall have the right, in his sole discretion and by written notice, to either extend the Closing Date for a reasonable time period not to exceed one (1) year to allow Developer to complete the closing, or terminate this Agreement.

5.0 Project Description and Requirements. Developer shall design, permit and construct one of the premier, upscale low-density residential subdivisions in the City of Cocoa. The subdivision shall be created and constructed in a single phase and consist of approximately

320 residential lots and homes with a minimum living area under air of one thousand five hundred (1,500) square feet and an average living area under air of one thousand eight hundred (1,800) square feet, private streets, ample private recreational common area green space and amenities, including a private Amenity Center and a proposed 38-acre, more or less, amenity lake (the "Project"). The Developer may construct the homes in accordance with a phasing plan approved by the City. The Project shall have a homeowner's association, which shall be responsible for maintaining the common areas in perpetuity. The Project shall be constructed in accordance with the requirements set forth in this Agreement.

6.0 Zoning Application. Developer acknowledges that the current City Comprehensive Plan, Future Land Use Map designation on the Property is very low-density residential with several areas subject to a conservation overlay designation. Developer agrees to comply with the current Future Land Use Map designation. However, the Property does not currently have a City zoning designation. Therefore, in furtherance of compliance with the City's Comprehensive Plan, Developer agrees to seek a City zoning designation for the Property of RU-1-7, Single-Family Residential District, which is consistent with the very low-density residential Future Land Use Map designation. Within thirty (30) days of the Closing Date, , unless an extension is granted by the City Manager for good cause, Developer agrees to submit a complete rezoning application with the City to request approval of a RU-1-7 zoning designation. The City and Developer will process the application through completion within one hundred eighty (180) days of the date that a complete application has been submitted to the City, unless an extension is required and granted by the City Council. The City agrees to process said application consistent with the requirements of the City Code and law. Nothing contained herein shall be construed or interpreted as requiring the City Council to approve said application. The City Council will consider and act upon said application at its discretion at appropriate public hearings pursuant to the requirements of law. If the RU-1-7 application is denied by the City Council, the Developer shall submit and process a different rezoning application consistent with the very-low density residential Future Land Use Map designation until such time as the City Council approves an acceptable City zoning designation for the Property. Should a different zoning district be approved, Developer acknowledges that a modification to this Agreement may be required to comply with such approved district's dimensional and/or open space requirements.

7.0 Location of Ingress/Egress Points – North and Southeast Corner of Project. Pursuant to the Stipulated Settlement Agreement, the Project shall have two public road access points. The northern access point shall be at the existing southern terminus of Bahia Street. However, Brevard County is required to choose between two options for public road access at the southeastern corner of the Project: (1) Osage/Angelica Street or (2) south along the 100-foot wide drainage canal right-of-way connecting to Grissom Road. The Parties acknowledge that the County's choice will result in a small variation to the subdivision layout of several of the residential lots proposed within the southeast corner of the Project. To account for this variation, the Parties have agreed to two alternative Conceptual Development Plans for the Project, taking into account both options as more specifically set forth in Section 8.0 of this Agreement. Upon the Effective Date of this Agreement, the Parties agree to submit the two alternative Conceptual Development Plans to the County and formally request, in writing, that

the County choose one of the public road access options for the southeastern corner of the Project as required by the Stipulated Settlement Agreement. The Parties also agree to cooperate with each other in promptly obtaining the County's decision on the chosen public road access option at the southeastern corner of the Project. In addition, until the selection is made by the County, the Parties cannot estimate with reasonable certainty the potential cost to the Developer of the public road access to the Property, including the cost of any required land (especially if the drainage canal route is selected), road improvements, drainage, signalization at the Grissom Parkway, lighting or other special roadway requirement. As such, upon selection by the County, the Developer shall work with the County to promptly ascertain, in writing, the estimated cost of public road access, and provide a written copy of the same to the City, no later than six (6) months from the date of the County's selection. If the County's selected option results in unreasonably excessive estimated roadway costs on the Developer that are not economically feasible for the Project to financially support, using reasonable and customary home building industry standards relative to the density of the Project, the Developer may request, in writing, to meet with the City Manager to discuss and negotiate an alternative Concept Plan and any necessary amendments to this Agreement that make the Project economically feasible by reasonable and customary home building industry standards. Any alternative Concept Plan and amendments to this Agreement shall require City Council approval.

8.0 Two Alternative Conceptual Development Plans; Subdivision and Site Plan Approval.

8.1 Depending on the public road access point chosen by the County at the southeastern corner of the Project, the Project shall be substantially developed in accordance with one of the applicable alternative conceptual development plans which are attached hereto as **EXHIBIT "B"** and incorporated herein by this reference (**"Concept Plan"**). The Concept Plan is intended to be the general blueprint which details key aspects of the future physical development of the Property. The Concept Plan shall also serve as a necessary guide for future permit applications and permitting necessary to complete the construction of the Project. Developer shall have the obligation to further submit and obtain the City's approval of a final subdivision plat, final site plan and final engineering plans (**"Final Plans"**) consistent with the Concept Plan in all material respects and in compliance with the City Code and the amenities schedule required by Section 11.0 of this Agreement. Developer acknowledges and agrees that the Concept Plan was not created with specific surveyed dimensions and that during the Final Plans process such dimensions shall be surveyed, duly engineered, and provided to the City for consideration under applicable City Codes. The Concept Plan shall be subject to reasonable adjustments at the Final Plans phase in order to bring the Project into full compliance with the City Code, and as a result, the exact location, layout and dimensions of the lots, common areas, buildings, landscaping, entrances, utilities, parking and other site improvements may vary slightly between Concept Plan approval and approval of the Final Plans. Further, additional lots greater than the number of lots depicted on the Concept Plan may be approved at the City's discretion, provided the additional lots do not reduce the proposed amount of open space and recreational areas depicted on the Concept Plan. These changes shall be allowed as long as the changes are consistent with the development standards noted in this Agreement and preserve the

general character of the development shown on the Concept Plan. The City will not unreasonably withhold approval of the Final Plans and amenities schedule.

8.2 The Parties agree that time is of the essence to complete the Project. Therefore, if the County selects public road access on Osage/Angelica Street under the Stipulated Settlement Agreement, Developer shall have eighteen (18) months after said selection to obtain Final approval of the Final Plans unless otherwise agreed by the City Council. However, if the County selects public road access south along the 100 foot-wide drainage canal right-of-way, Developer shall have eighteen (18) months from the date that the County confirms to the Parties that it has received an order of taking or otherwise acquired the necessary lands or interests to allow the public road access to obtain Final approval of the Final Plans unless otherwise agreed to by the City Council.

9.0 Public Utilities; Project Completion and Reimbursement Obligations. Pursuant to Section 4.8 of the Preceding Development Agreement, the Developer has elected not to design, permit and construct the extension of the water, sewer and reclaimed utilities to the Property ("Utilities"). Therefore, the City will design, permit and construct the extension of the Utilities up to the point(s) of connection at the boundary of the Property as determined and deemed appropriate by the City, subject to the following terms and conditions:

(1) The City will design, permit, construct and make the Utilities available to the Property no later than the date that the Developer has: (a) completed and received a final completion certificate (e.g., evidence of final written approval) from the City for all on-site infrastructure to support the Project including, but not limited to, streets, street lights, on-site utilities, sidewalks, and stormwater facilities; (b) been issued and received building permits for at least ten (10) building permits approved by the City for residential units; and (c) commenced vertical construction of the ten residential homes on the Property ("Utility Completion Date"). Prior to commencing construction of the Utilities, the City shall provide the Developer a written estimate of the Total City Utility Expenses described in Subsection (2) below.

(2) Developer shall complete construction of the Project by obtaining all required certificates of occupancies within five (5) years from the Utility Completion Date ("Project Completion Obligation"). In furtherance of the Project Completion Obligation, within ninety (90) days from the date that the City completes the Utilities, the City will deliver written notice to the Developer documenting the expenses incurred by the City to design, permit and construct the extension of the Utilities to the Property ("Total City Utility Expenses"). Within sixty (60) days of receipt of said written notice, the Developer, at its expense, shall secure the reimbursement of the Total City Utility Expenses in the event the Developer fails to fully satisfy the Project Completion Obligation by providing the City with an irrevocable stand-by letter of credit in the amount of such expenses incurred by the City. The letter of credit shall be in favor of the City and shall be issued by a bank mutually agreed to by the Parties. The letter of credit shall be in a form acceptable to the City to effectuate the reimbursement, if required due to Developer's failure to make reimbursement pursuant to Subsection (3) below. The letter of credit shall be subject to being drawn upon by the City in the event that the Developer fails to fully satisfy the Project Completion Obligation. The letter of credit shall remain in effect until

such time the City provides written notice to the Developer that they have fully satisfied the Project Completion Obligation or the City receives reimbursement pursuant to Subsection (3) below, whichever occurs sooner. However, the City agrees that Developer may proportionately reduce the value of the letter of credit by the number of certificates of occupancies granted by the City for the homes constructed in the Project. Said reduction shall occur only at twenty percent (20%) intervals of construction. The letter of credit may also be reduced on an annual basis by the amount of any home rule special assessment collected on the Property pursuant to Subsection (4) below. Any reduction of the letter of credit shall require prior written notice to the City and confirmation by the City the reduction amount is accurate.

(3) Upon failure to fully satisfy the Project Completion Obligation, the City may provide Developer written notice declaring Developer in default under this Agreement and demanding full reimbursement, within thirty (30) days, of the Total City Utility Expenses, less any credits as a result of any home rule assessments paid pursuant to Subsection (4) below, if any. If Developer fails to timely make such payment, the City shall have the right to draw upon the letter of credit required by Subsection (2) above.

(4) The City shall have the right at any time to adopt and impose a home rule special assessment on the Property, and the lots created thereon, to recover the Total City Utility Expenses. In furtherance of said right, the Developer hereby voluntarily and irrevocably consents to said assessment and that the extension of Utilities constitutes a special benefit to the Property. Developer further agrees not to directly or indirectly contest or challenge such special assessment. The assessment, if imposed by the City, will be collected and enforced in accordance with the Uniform Method of Collection and Enforcement of Non-Ad Valorem Special Assessments under Florida law. In the event that a special assessment is imposed and the City collects the full amount of the Total City Utility Expenses by assessment, the City agrees to release the letter of credit obligation in full if still in effect pursuant to Subsection (2) above.

(5) Within one hundred eighty (180) days of the County's selection of the preferred public road access described in Section 7.0, the Developer shall convey a perpetual public utilities easement upon, over and under the Property that allows the City to connect the future public utilities constructed on the Property with the Barrera Property (approx. 267 acres) located south of State Road 528. It is anticipated that the easement will be a minimum of forty (40) feet and a maximum of sixty (60) feet in width and be located generally around the area where the Developer intends to construct the conveyance system under and over State Road 528 to support the excavation of the proposed lake pursuant to Section 10.0 of this Agreement. In conjunction with the Developer's construction of the conveyance system, Developer shall fully cooperate with the City to coordinate and assist the City's plans and efforts to permit, construct and install future public utilities under State Road 528 including the installation of one or more casings, conduits or culverts to support future water, sewer and reclaimed utilities. The Parties agree that the Developer's coordination, cooperation and assistance does not constitute permission, or the requirement to gain permission, for the City to place the casing, conduit or culverts in the said area which is not owned by the Developer. The Parties acknowledge that the property is not owned by the Developer and that the City must gain the necessary permissions and permits from

the property owner (Florida Department of Transportation) and any other required regulatory entity to perform the required utility work. However, the final location and required width of the easement area shall be required to satisfy the City's reasonable and necessary future utilities needs which shall be determined by the City's Utilities Director. The easement shall be in form approved by the City Attorney. During the construction of the required utility work by the City, the City agrees to coordinate its utility activities in a manner that does not interfere with the excavation operation or the construction and operation of the proposed future Brightline rail line.

(6) The Developer shall be responsible for the design, permitting and construction of all on-site utility infrastructure required to serve the Property including, but not limited to water, sewer, reclaimed stormwater pipes, sewer lift stations and pumps, electric lines and equipment, cable lines and equipment, phone lines and equipment, gas lines and equipment and other utility pipes, lines and equipment. Should City utility policy require that certain on-site water, sewer, reclaimed or stormwater utility infrastructure be conveyed to the City upon completion by the Developer, said conveyance of any such infrastructure shall be by written bill of sale along with any warranties and maintenance bonds or letters of credit.

(7) In the event the Developer fails to convey the utility easement required by Subsection (5) above, or obtain approval of the Final Plans required by Section 8.0 of this Agreement within the time schedule set forth in Section 8.2, or if the City declares, in writing, that Developer failed to complete the lake amenity as required by Section 10.0 either upon completion of the excavation or abandonment, the City's commitment to design, permit and construct the Utilities to the Property shall terminate and thereafter, the Developer, at Developer's sole expense, shall be fully responsible for the design, permitting and construction of the Utilities to the Property in accordance with City technical specifications and standards.

10.0 Permitting and Construction of Lake Amenity. Upon the Effective Date of this Agreement, the Developer shall be allowed to submit an application with the City for an excavation permit for purposes of constructing the proposed 38-acre, more or less, lake amenity as depicted on the Conceptual Plans. The excavation permit shall be subject to Chapter 12.5 of the City Code and shall be in the form of an Excavation Permit Agreement executed by the Parties. The Excavation Permit Agreement shall be subject to the terms and conditions of this Agreement, and any other applicable state and federal laws. The commencement of excavation shall be contingent upon the Developer closing on the Property and the City's determination that the title commitment does not identify any impediment to the completion of the subdivision of the Property or the excavation of the lake amenity as provided by Section 4.0 of this Agreement. The excavation site and Property shall be maintained and secured by the Developer in a safe and sanitary condition at all times in compliance with applicable laws, administrative rules, or City Code. Notwithstanding any other terms and conditions in this Agreement and the Excavation Permit Agreement, Developer, upon completion of the excavation, shall be required to complete the lake amenity in anticipation of, or in conjunction with, the residential subdivision required by this Agreement. Should the excavation be completed before the Final Plans are approved by the City, Developer shall be required to submit, for the City's approval, plans and specifications necessary for the Developer to complete the lake amenity including, but not limited to, bank

stabilization, seeding and final contouring and shaping of the lake to support the future subdivision and accommodate the future amenities required by amenity schedule approved by the City during Final Plans approval, including landscaping, walking trails, usable open space and other pedestrian friendly recreational and beautification features. The Excavation Permit Agreement shall be in a form approved by the City Manager and City Attorney, and the City Manager is authorized to execute the Excavation Permit Agreement on behalf of the City. In order to reduce and mitigate against any potential negative impacts of the excavation on surrounding properties, the Developer agrees to employ an excavation strategy that requires the excavation materials to be removed from the Property via a conveyance system running above or underneath State Road 528 for use by the future proposed Brightline railroad route along the State Road 528 corridor. Developer has represented to the City that they are pursuing a permit from the Florida Department of Transportation to employ this excavation strategy subject to the City permitting the excavation. However, during the excavation, access to and from the Property by excavation workers and to receive delivery of equipment and materials for the excavation shall be allowed via the existing public road network as specified in the excavation permit agreement. Notwithstanding the foregoing, should Developer choose to forego or substantially reduce the scope and size of the excavation, Developer acknowledges that a modification to this Agreement may be required by the City to at least modify the Concept Plan to incorporate more upland buildable areas and recreational space.

11.0 Other Project Recreational Amenities and Enhancements. As a condition of approval of the Final Plans, Developer shall design, permit and construct, at its own expense, the following minimum schedule of Project amenities and enhancements in scope and scale to adequately support the number of residential lots required for the Project:

(1) Central Amenity Center (community clubhouse) with a feature pool, open space area with a community pavilion (picnic tables and grills) along with a state-of-the-art modern tot-lot and playground. The City prefers that the tot-lot and playground be adequately covered from sun exposure by a playground UV rated canopy and shade trees and that the Developer shall seriously evaluate and consider providing such covering when the amenities schedule is approved during Final Plans approval.

(2) Multi-use sports field.

(3) Multipurpose courts (convertible for volleyball, basketball, pickleball and/or tennis).

(4) Smaller common open space lots and areas throughout the community that include small playgrounds and areas with benches. The City prefers that the playground and bench areas be adequately covered from sun exposure by a UV rated playground or other canopy and shade trees and that the Developer shall seriously evaluate and consider providing such covering when the amenities schedule is approved during Final Plans approval.

(5) Connected multipurpose trail throughout the community that connects to all recreational common open spaces including the existing lakes and lake amenity.

(6) A streetscape design deemed acceptable by the City, which emphasizes sidewalks, connectivity within the community, tree-lined streets, and decorative street lights to add appeal and security and decorative signage.
(7) Decorative and landscaped entrance features to the Project deemed acceptable to the City which may include a restricted gated entry feature.
(8) The City prefers that the residential driveways shall be constructed of stone or brick pavers, or stamped and stained concrete. The Developer shall seriously evaluate and consider providing such driveways during the approval of Final Plans.(9) All utilities constructed on the Property including, but not limited to, electric, water, sewer, reclaimed water, cable, phone, fiber optics, natural gas and other similar kinds of utilities to service the Property shall be constructed underground unless otherwise necessary to be above ground and approved by the City. Each lot and all common landscaped areas shall be equipped with in-ground reclaimed water irrigation systems to maximize the use of the City's reclaimed water service.
(10) The Project shall incorporate the use of energy efficient lighting systems, insulation and ENERGY STAR rated windows, low-flow water fixtures, modern heat pumps, energy efficient HVAC systems, and optional roof top solar panels.

Developer may also propose additional amenities for the City's consideration and approval. All Project amenities and enhancements shall be completed and finally accepted by the City in accordance with the written amenities construction schedule approved by the City in conjunction with the approval of the Final Plans. Upon approval, the written amenities construction schedule shall automatically be deemed incorporated within and made a part of this Agreement. All Project amenities and enhancements shall be maintained in perpetuity by the homeowner's association required to be created by this Agreement.

12.0 Building Elevations and Floor Plans. As condition of approval of the Final Plans, the Developer shall submit to the City for final approval building elevations and related floor plans for the proposed homes and Central Amenity Center (community clubhouse) to be constructed on the Property. Upon approval by the City, the building elevations and related floor plans shall be deemed incorporated herein by this reference and said buildings shall be constructed substantially in accordance with the approved building elevations and floor plans. Further, other aspects of the building façade and roof lines, color scheme, and architectural features depicted on the building may have to be adjusted during the City's final review and administrative approval procedures to issue a building permit. The design of the homes and Central Amenity Center (community clubhouse) shall create one aesthetically pleasing and unified Project.

13.0 Homeowner's Association. In conjunction with the approval of the final subdivision for the Project, the Developer shall create a mandatory homeowner's association to govern the Project in accordance with Chapter 720, Florida Statutes. The association shall also be governed by the covenants and restrictions created and recorded against the Property by the Developer as required by this Agreement. A copy of the association's articles of incorporation, by-laws and recorded covenants and restrictions shall be provided to the City prior to the

approval of the final subdivision. The homeowner's association shall be responsible for the perpetual maintenance and operation of all common areas and amenities constructed for the Project, shall govern the Project in accordance with the requirements of Florida law including the recorded covenants and restrictions and by-laws of the association, have the power to levy assessments and collect HOA fees, which are used to pay for the maintenance of the community common areas and any other designated areas that are detailed in the covenants and deeds applicable to the Project.

14.0 Model Homes. The City agrees to allow the Developer or Developer's chosen homebuilder(s) (hereinafter referred to in this Section as "Builder") for the Project to construct both a sales office and up to four (4) model homes to be used for the customary temporary marketing and sales activities of the Builder. The Builder shall have the right to utilize two garages in two model home units as the temporary sales office. The City represents that such marketing and sales activities shall be permitted through buildout of the Project. The City agrees to permit early construction of the model homes prior to or after plat approval, provided that, prior to construction of the model homes, stabilized access to the model home lots and adequate means of fire protection from a City-approved source of water are completed and the following conditions, which are deemed acceptable to Builder, are adhered to:

(a) The model homes shall remain under Builder's ownership and control until such time as a final certificate of occupancy for each model home unit is issued under the conditions set forth below. In other words, the Builder shall not contract for sale, sell, or lease any of the individual model home units until such time as the City issues a final certification of occupancy for each model home unit.

(b) The model homes shall be constructed on existing or proposed lots approved by the City, and any associated parking, pedestrian activity and other activities conducted by sales staff or the general public shall be adequately segregated from construction activities to ensure safety. Parking for the model homes shall be provided in a temporary parking lot to be located in an area approved by the City, which may consist of a mulch surface. Prior to a final certificate of occupancy being issued on the last remaining model home, the mulch surface shall be removed and the area shall either be prepared for home construction, open space or recreational amenity or seeded.

(c) The model sales office shall comply with all applicable state and city regulations regarding accessibility. In addition, Builder shall provide a minimal level of access to all model homes for potential homebuyers with disabilities by providing physical access (via ramp or lift) to the primary level each model home and making photographs of other levels within each home available to the customer.

(d) Prior to construction, the model homes shall be duly permitted by the City in accordance with the City's Code. As part of the building permit application, the Builder shall submit, along with all construction plans for the units, a duly certified boundary survey which shall depict the location and legal description of each individual model lot. The Builder acknowledges and agrees that this legal description is intended to coincide with the eventual

location of the lots as depicted and legally described on the final plat. The Builder shall assume full and complete responsibility in the event that said legal descriptions do not conform to the lot lines required by the City in the final plat. The Builder fully understands the construction of model homes before final plat is approved by the City may pose a risk to the Builder if the approved plat is not consistent with the layout of model home on the subject property, and that such risk may require modification or removal of the model home based on the approved plat before a final certificate of occupancy can be issued for the model home. The Builder agrees to defend, indemnify, and hold harmless the City from and against any and all damages, losses or claims arising from the layout and construction of the model home under this Agreement prior to preliminary and final plat approval as provided further in Section 32.0 of this Agreement.

(e) At such time as the City Building Official completes and approves a final inspection of the model homes, the City will issue a temporary certificate of occupancy. Said temporary certificate of occupancy shall be issued for each model home as a whole. Occupancy of the model home units shall be limited to the sales and marketing efforts for the Project until a final certificate of occupancy is issued for such model home units. It is intended that the model homes can be shown by sales staff to prospective buyers as long as the Building Official has issued the temporary certificate of occupancy and the model is not staffed continuously.

(f) Following completion of all required plat improvements, at the request of the Builder or at such time as the Project development is completed, whichever occurs sooner, the model home units shall be converted into permanent residential units and the City shall issue final certificates of occupancy for each model home unit, provided, that the City Building Official determines that such units are suitable for permanent residential occupancy and in compliance with the City Codes.

Nothing in this Section shall cause to limit the number of inventory homes (pre-sale, spec homes) that may be constructed on the Property. Violation of this Section will also constitute a violation of the City Code of Ordinances, and the provisions of this Section may also be enforced as provided therein. Any Builder desiring to construct a model home pursuant to this Section, other than Developer, shall be provided a copy of this Section by the Developer if Builder is not the owner of the subject property on which the model home will be constructed and shall automatically be deemed to have agreed to the terms and conditions herein as a condition of the issuance of a building permit by the City even if they are not the owner or have not consented, in writing, to the term and conditions of this Section.

15.0 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 acquisition of the Property by the Developer and the recording of this Agreement in the Public Records of Brevard County, Florida, the Agreement shall be a binding obligation upon the Property in accordance with the terms and conditions of this Agreement. Developer represents that it has voluntarily and willfully executed

this Agreement for purposes of binding himself and the Property to the terms and conditions set forth in this Agreement.

16.0 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.

17.0 Applicable Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida.

18.0 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.

19.0 Entire Agreement; Exhibits; Conflicts. This Agreement, the Preceding Agreement and Stipulated Settlement Agreement and all attached exhibits thereto supersede any other agreement, oral or written, regarding the development of the Property and contain the entire agreement between the City and Developer as to the subject matter hereof. The Exhibits attached hereto and referenced herein are hereby fully incorporated herein by this reference. To the extent that a conflict exists between provisions of this Agreement and the Preceding Agreement, the conflicting provisions of this Agreement shall apply. However, to the extent a conflict exists between the provisions of this Agreement and the Stipulated Settlement Agreement, the conflicting provisions of the Stipulated Settlement Agreement shall apply.

20.0 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.

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

22.0 Recordation. Upon full execution by the Parties and the closing required by Section 4.0 of this Agreement, this Agreement shall be recorded in the Public Records of Brevard County, Florida by the City.

23.0 Relationship of the Parties. The relationship of the Parties to this Agreement is contractual and Developer and any Builder described in Section 13.0 are independent contractors and not an agent of the City. Nothing herein shall be deemed to create a joint venture or principal-agent relationship between the Parties or any such Builder, and neither party nor Builder 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.

24.0 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).

25.0 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.

26.0 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.

27.0 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.

28.0 Specific Performance. Strict compliance shall be required with each and every provision of this Agreement. The Parties agree that failure to perform the obligations provided by this Agreement shall result in irreparable damage and that specific performance of these obligations may be obtained by a suit in equity.

29.0 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.

30.0 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.

31.0 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, an action for specific performance and/or injunctive relief. Prior to any party filing any action or exercising any remedy or right expressly provided in this Agreement as a result of a default

under this Agreement, the non-defaulting party shall first provide the defaulting party with written notice of said default. Upon receipt of said notice, the defaulting party shall be provided a forty-five (45) day (or such other time mutually agreed to in writing by the Parties) opportunity in which to cure the default to the reasonable satisfaction of the non-defaulting party prior to filing said action.

32.0 Termination. Except as expressly provided in this Agreement, this Agreement may only be terminated by mutual written consent of the Parties. If the Parties terminate this Agreement and the Agreement was recorded in the Official Records of Brevard County, the City shall record a notice of termination against the Property in the Official Records of Brevard County, Florida.

33.0 Indemnification and Hold Harmless. Developer shall be solely responsible for designing, permitting, constructing, operating and maintaining this Project. As such, in consideration of the rights and benefits afforded to and accepted by the Developer hereunder, Developer hereby agrees to indemnify, release, and hold harmless the City and its councilmembers, 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.

34.0 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, severe adverse weather conditions or a United States economic recession declared by the National Bureau of Economic Research that temporarily makes it commercially impractical for Developer to complete the construction of the Project and sell the required residential homes ("Uncontrollable Event"), then, notwithstanding any provision of this Agreement to the contrary except as expressly provided below, 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 impacted party shall give notice to the other party, stating the period of time the occurrence is expected to continue, and he extended time period shall be agreed to in writing by the Parties and said agreement shall not be unreasonably withheld by either party. The impacted party shall use diligent efforts to end the failure or delay and ensure the effects of such force majeure event are minimized. The impacted party shall resume the performance of its obligations as soon as reasonably practicable after the removal of the cause. A force majeure event shall not excuse the Developer's requirement to

provide and maintain in effect a letter of credit under Section 9.0 of this Agreement or a performance and maintenance bond required by City Code. In addition, a United States economic recession force majeure event shall not excuse Developer from completing the Final Plans in accordance with the time periods required by Section 8.0 of this Agreement. The Parties agree that the provisions of Section 252.363, Florida Statutes do not apply to this Agreement or are hereby waived to the extent that such provisions are deemed to apply. Notwithstanding the aforesaid, the Parties may extend any Time Period as expressly provided elsewhere in this Agreement or as otherwise mutually agreed to in writing.

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

CITY OF COCOA

By: _____
Jake Williams Jr., Mayor

ATTEST:

By: _____
Carie Shealy, MMC, City Clerk

APPROVED AS TO FORM AND LEGALITY
For the use and reliance of the City of Cocoa, Florida only.

Date: 7.10.2019
By: _____
Anthony A. Garganese, City Attorney for the City of Cocoa, Florida

CITY SEAL

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

Signature of Witness

Samantha Johnson
Printed Name of Witness

Signature of Witness

Janice Cremarosa
Printed Name of Witness

VIRGIN TRAINS USA FLORIDA, LLC

Print name and title: Patrick Goddard
President
Virgin Trains USA

Date: 6/14/19

STATE OF Florida
COUNTY OF Miami-Dade

The foregoing instrument was acknowledged before me this 14th day of June, 2019, by Patrick Goddard the President of Virgin Trains USA a Florida LLC. He is personally known to me or produced _____ as identification.

(NOTARY SEAL)

JANICE LEON
MY COMMISSION # GG 263937
EXPIRES: February 1, 2023
Bonded Thru Notary Public Underwriters

(Notary Public Signature)

Janice Leon
(Print Name)

Notary Public, State of Florida
Commission No.: GG263937
My Commission Expires: 02/01/23

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 SHALL AUTOMATICALLY BE DEEMED NULL AND VOID.

Exhibits:

A – Legal Description
B – Two Alternative Concept Plans

EXHIBIT "A"

Legal Description

PARCEL 1

A parcel of land lying in the North Half of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 329.44 feet to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 44 seconds East, along said North line a distance of 2266.28 feet; thence departing said North line of Section 10, South 00 degrees 32 minutes 12 seconds East, a distance of 2235.09 feet to a point on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence South 88 degrees 36 minutes 31 seconds West (Calculated measurement) South 88 degrees 40 minutes 54 seconds West (Deed), along said existing North right of way line a distance of 454.64 feet; thence North 87 degrees 19 minutes 06 seconds West, a distance of 638.49 feet, to a point of curvature of a curve concave to the Northeast, having a radius of 900.00 feet a central angle of 31 degrees 18 minutes 50 seconds (Calculated measurement) 31 degrees 18 minutes 48 seconds (Deed), thence Northwesterly along the arc of said curve a distance of 491.88 (calculated measurement) 491.87 (Deed) feet; thence North 56 degrees 04 minutes 39 seconds West (Calculated measurement) North 56 degrees 00 minutes 19 seconds West (Deed), a distance of 398.70 (Calculated measurement) 398.75 (Deed) feet to a point of curvature of a non-tangent curve concave to the North having a radius of 969.79 feet, a central angle of 37 degrees 46 minutes 38 seconds, thence Northwesterly along the arc of said curve a distance of 639.42 feet, to a point on the East right of way line of State Road No. 9 (Interstate 95); thence North 00 degrees 11 minutes 53 seconds West, along said East right of way line of State Road No. 9 (Interstate 95), a distance of 566.36 feet; thence North 01 degrees 55 minutes 04 seconds West, a distance of 300.93; thence North 01 degrees 20 minutes 38 seconds West, a distance of 476.50 feet to the POINT OF BEGINNING.

LESS AND EXCEPT THE AREA FOR BORROW PIT NO. 19 AND HAUL ROAD AS SET FORTH IN CIRCUIT COURT MINUTE BOOK 57, PAGE 479, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, OTHER THAN THE REVERSIONARY INTEREST, DESCRIBED AS FOLLOWS:

BORROW PIT NO. 19

A parcel of land in the Northwest Quarter of Northwest Quarter of Section 10, Township 24 South, Range 35 East, described as follows:

Commence on the North boundary of said Section 10, at a point 150 feet East from the Northwest corner thereof, run thence South 00 degrees 12 minutes 38 seconds East 50 feet; thence North 89 degrees 59 minutes 22 seconds East, 499.83 feet to the Northwest corner of Borrow Pit No. 19 and the POINT OF BEGINNING; continue thence North 89 degrees 59 minutes 22 seconds East 600 feet; thence South 00 degrees 00 minutes 38 seconds East 550 feet; thence South 89 degrees 59 minutes 22 seconds West 600 feet; thence North 00 degrees 00 minutes 38 seconds West 550 feet to the POINT OF BEGINNING.

AND

HAUL ROUTE FOR BORROW PIT NO. 19

That part of the Northwest Quarter of Northwest Quarter of Section 10, Township 24 South, Range 35 East, lying South and within 50 feet of a line described as follows:

Begin at the Northwest corner of Borrow Pit No. 19 as described above, run thence South 89 degrees 59 minutes 22 seconds West 499.83 feet to the end of said line as herein described.

PARCEL 2

A parcel of land lying in the North Half of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 2595.72 feet to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 44 seconds East, along said North line of Section 10 a distance of 70.51 feet, to the North Quarter corner of Section 10; thence South 89 degrees 57 minutes 56 seconds East, along said North line of Section 10, a distance of 1926.93 feet; thence departing said North line South 00 degrees 32 minutes 12 seconds East, a distance of 2404.54 feet, to a point on a curve on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence along said existing North right of way line and along said curve that is concave to the South, having a radius of 5879.58 feet, a central angle of 15 degrees 41 minutes 33 seconds; thence Westerly, along the arc of said curve, a distance of 1610.32 feet; thence South 88 degrees 36 minutes 31 seconds West (Calculated measurement) South 88 degrees 40 minutes 54 seconds West (Deed), a distance of 404.03 feet; thence departing said North right of way line North 00 degrees 32 minutes 12 seconds West, a distance of 2235.09 feet, to the POINT OF BEGINNING.

PARCEL 3

A parcel of land lying in the North Half Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 2666.23 feet to the North Quarter corner of Section 10; thence South 89 degrees 57 minutes 56 seconds East, along said North line of Section 10, a distance of 1926.93 feet, to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 56 seconds East, along said North line of said Section 10, a distance of 738.58 feet to the Northeast corner of Section 10; thence South 00 degrees 32 minutes 12 seconds East, along the East line of said Section 10, a distance of 2602.18 feet, to a point on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence North 74 degrees 59 minutes 21 seconds West, along said existing North right of way line, a distance of 693.63 feet, to a point of curvature of a curve concave to the South, having a radius of 5879.58 feet, a central angle of 00 degrees 42 minutes 35 seconds, thence Westerly, along the arc of said curve, a distance of 72.84 feet; thence departing said North right of way line North 00 degrees 32 minutes 12 seconds West, a distance of 2404.54 feet, to the POINT OF BEGINNING.

PARCEL 4

A parcel of land being the North 290 feet of the Southwest One Quarter of Section 12, Township 24 South, Range 35 East, Tallahassee Base Meridian, Brevard County, Florida, lying West of the Westerly right of way of Grissom Parkway, being part of the lands described in Official Records Book 549, Page 354 and being more particularly described by meets and bounds as follows:

Commence at a concrete monument occupying the Northwest corner of the Southwest One-Quarter of aforesaid Section 12; thence South 00 degrees 15 minutes 49 seconds East, along the West line of the Southwest One Quarter, a distance of 290.01 feet; thence South 89 degrees 54 minutes 34 seconds East, parallel to and 290.00 feet South of the North line of the Southwest One-quarter, a distance of 501.02 feet to a point on the Westerly right of way line of Grissom Parkway, said point lying on a radial circular curve, concave to the Northwest, having a radius of 1705.02 feet and a central angle of 11 degrees 38 minutes 02 seconds; thence Northwesterly, along said Westerly right of way line and the arc of said curve a distance of 346.20 feet (chord bearing North 32 degrees 51 minutes 07 seconds West) to the North line of the Southwest One-Quarter; thence North 89 degrees 54 minutes 34 seconds West, along said North line, a distance of 314.89 feet to the POINT OF BEGINNING.

LESS AND EXCEPT that portion conveyed to Brevard County Board of County Commissioners recorded in Official Records Book 2923, Page 1070; and in Official Records Book 2923, Page 1073, all of the Public Records of Brevard County, Florida.

PARCEL 5

The West 318 feet of the South Half of the South Half of the South Half of the North Half, LESS the North 30 feet for road and LESS the South 100 feet and the West 100 feet for canal, Section 11, Township 24 South, Range 35 East, Brevard County, Florida. Also known as Tract 6, Block 16, CANAVERAL GROVES SUBDIVISION, according to the Map thereof, as recorded in Survey Book 2, Page 621, Brevard County, Florida.

EXHIBIT
B
Page 1 of 2

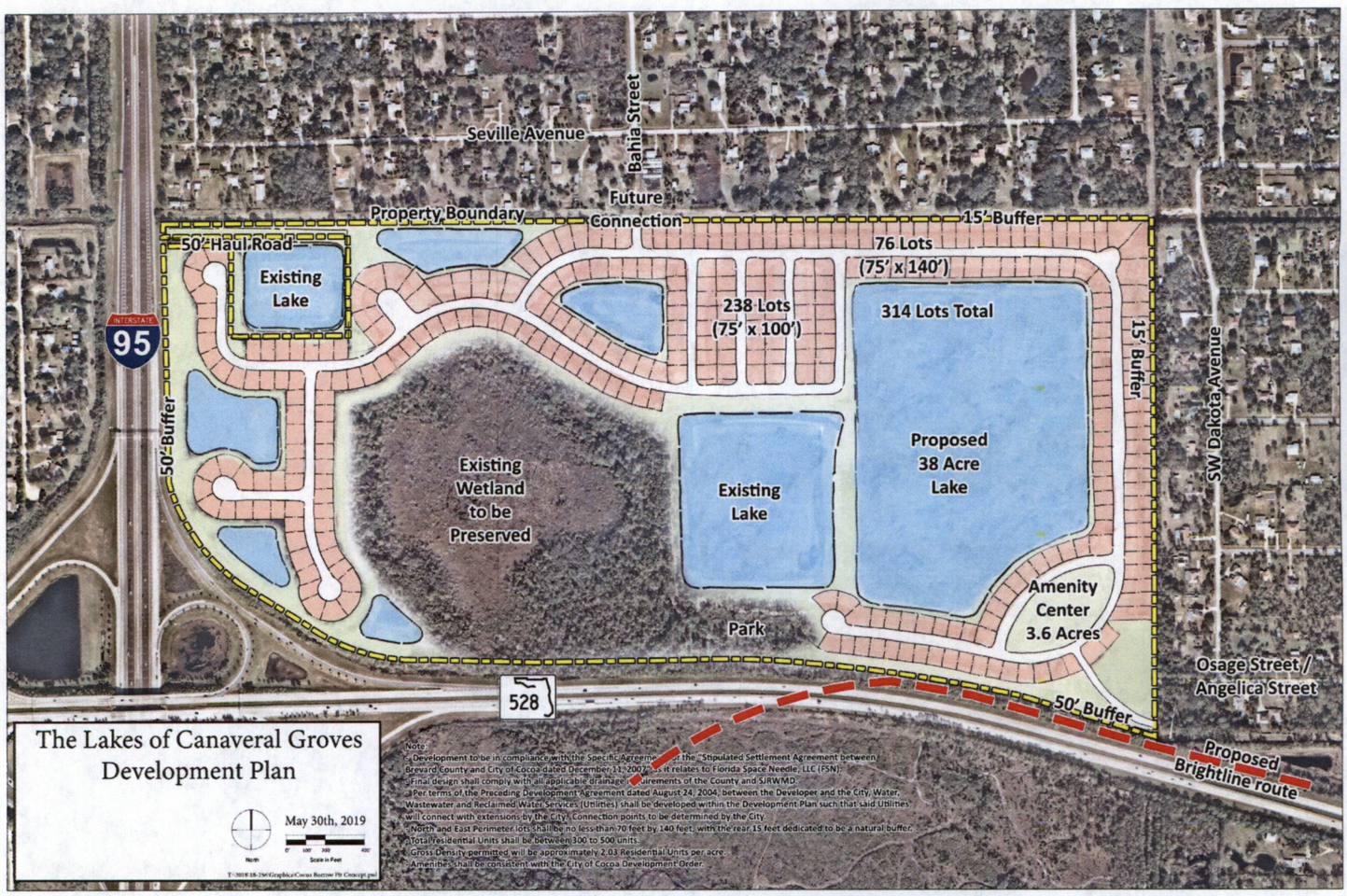
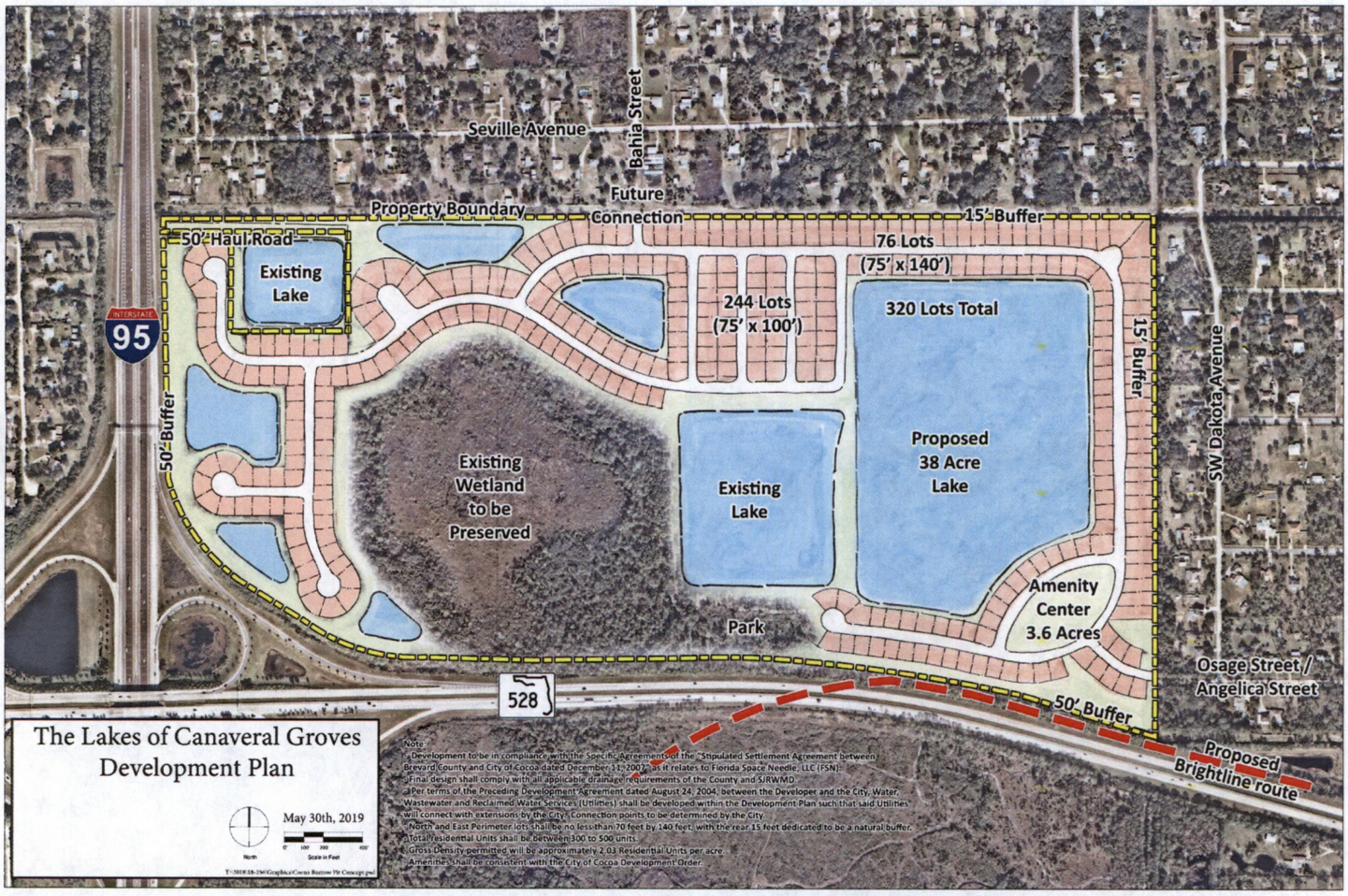


EXHIBIT
B
Page 2 of 2



The Lakes of Canaveral Groves Development Plan

May 30th, 2019

North

Scale in Feet

T:\2018\18-256\Graphics\Cocoa Burrow Plt Concept.psd

Note:

- Development to be in compliance with the Specific Agreement of the "Stipulated Settlement Agreement between Brevard County and City of Cocoa dated December 11, 2002, as it relates to Florida Space Needle, LLC (FSN)."
- Final design shall comply with all applicable drainage requirements of the County and SJRWMD.
- Per terms of the Preceding Development Agreement dated August 24, 2004, between the Developer and the City, Water, Wastewater and Reclaimed Water Services (Utilities) shall be developed within the Development Plan such that said Utilities will connect with extensions by the City. Connection points to be determined by the City.
- North and East Perimeter lots shall be no less than 70 feet by 140 feet, with the rear 15 feet dedicated to be a natural buffer.
- Total residential Units shall be between 300 to 500 units.
- Gross Density permitted will be approximately 2.03 Residential Units per acre.
- Amenities shall be consistent with the City of Cocoa Development Order.

RESOLUTION NO. 2021-008

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COCOA, FLORIDA, AMENDING THE CITY OF COCOA BUDGET FOR FISCAL YEAR 2021; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT RESOLUTIONS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council of the City of Cocoa adopted the final budget for the fiscal year commencing on October 1, 2020, and ending on September 30, 2021, at a Regular meeting held on September 23, 2020; and

WHEREAS, in accordance with Article XII, Section 5 of the City of Cocoa Charter, whereby the Council may, at any time by resolution, transfer any unused and unencumbered appropriation or portion thereof from one office or department to another; and

WHEREAS, the City Council deems it to be in the best interest of the City of Cocoa to amend its budget as provided in this resolution.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COCOA, as follows:

SECTION 1. The 2020-2021 fiscal year budget shall be amended as detailed in the attached sheets.

SECTION 2. All prior resolutions or prior resolutions inconsistent with this resolution are hereby repealed to the extent of the conflict.

SECTION 3. This resolution shall become effective immediately upon its 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 9th day of February, 2021.

_____
Michael C. Blake, Mayor

ATTEST:

_____
Carie Shealy, MMC, City Clerk

City of Cocoa Budget Adjustment Form FY 2021 - 21-045-T

SELECT ADJUSTMENT TYPE: BUDGET TRANSFER | REQUESTING DEPARTMENT #: Utilities/4055 | DATE PREPARED: 01/04/21

'FROM' ACCOUNT(S)

ADJUSTMENT AMOUNT	ACCOUNT NUMBER	PROJECT NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	AMENDED BUDGET	ADJUSTED BUDGET	UNENCUMBERED BALANCE
($ 101,900)	421-4010-536.39-00		Contingency	$ 1,145,413	$ 640,731	$ 538,831	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
($ 101,900)	TOTAL						

'TO' ACCOUNT(S)

ADJUSTMENT AMOUNT	ACCOUNT NUMBER	PROJECT NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	AMENDED BUDGET	ADJUSTED BUDGET	UNENCUMBERED BALANCE
$ 101,900	421-4055-536.63-00	WS21CG	Infrastructure	$ 144,141	$ 1,806,674	$ 1,908,574	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 101,900	TOTAL						

REASON/JUSTIFICATION FOR ADJUSTMENT:

Budget transfer necessary to fund Task Order 2021-21 with Bussen Mayer for the Lakes @ Cocoa Grove Utility Extensions, Project No. WS21CG.

Agenda File ID #21-66

Council/Board APPROVAL REQUIRED? *YES* (●) *NO* ( ) *DATE APPROVED:* 02/09/21 *RESOLUTION #:*

City Council approval is needed for all transfers greater than $50,000 and transfers between Departments / Funds. All CRA adjustments are required to go their respective boards.

1/7/21	Norma Hernandez — Digitally signed by Norma Hernandez DN: dc=org, dc=cocoafl, ou=Utilities, cn=Norma Hernandez, email=nhernandez@cocoafl.org Date: 2021.01.07 12:26:18 -05'00'	2/1/21	Lora Howell — Digitally signed by Lora Howell Date: 2021.02.01 08:36:24 -05'00'		
Date	Requestor's Signature	Date	Finance Approval Signature	Date	Finance Director's Signature
	John "Jack" Walsh — Digitally signed by John "Jack" Walsh Date: 2021.01.07 13:33:05 -05'00'	2/1/21	Lora Howell — Digitally signed by Lora Howell Date: 2021.02.01 08:36:54 -05'00'		
Date	Department Director's Signature	Date	Deputy Fin. Director's Signature	Date	City Manager's Signature

FINANCE USE ONLY:

Date Entered: _____ Entered By: _____ Group #: _____

Legislation Details (With Text)

File #:	21-122	**Version:**	1	**Name:**	
Type:	Ordinance			**Status:**	Public Hearing
File created:	1/29/2021			**In control:**	City Council
On agenda:	2/9/2021			**Final action:**	
Title:	Pass on 1st Reading; Ordinance 03-2021: a ZONING MAP AMENDMENT consistent with Appendix A, Zoning, Article XXI, to change the Zoning Map designation of one (1) parcel totaling 15.74 acres from General Commercial to Mixed-Use Planned Unit Development, and consideration of a Binding Development Agreement / Final Planned Unit Development / Preliminary Subdivision consistent with Chapter 18 Subdivisions and Appendix A Zoning of the City Code for the Cirrus Mixed-Use PUD project on this same parcel. (Community Services Director)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Ordinance 03-2021 Cirrus Rezoning CG to Mixed-Use PUD (003).pdf Exhibit B - Overall Site Plan.pdf Attachment One - Development Agreement 1-28-21.pdf Attachment Two - Final PUD plans 11-6-20.pdf Landscape Plan 11-6-20.pdf Building Renderings.pdf Garage Elevations.pdf Traffic Study 1-25-21.pdf Map - Cirrus Mixed-Use PUD.pdf Legal ad Proof (PZ and both CC).pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: January 29, 2021
Agenda Date: February 9, 2021
Prepared By: Dodie Selig, Planning & Zoning Manager
Through: Nancy A. Bunt, Community Services Director
Requested Action:
Pass on 1st Reading; Ordinance 03-2021: a ZONING MAP AMENDMENT consistent with Appendix A, Zoning, Article XXI, to change the Zoning Map designation of one (1) parcel totaling 15.74 acres from General Commercial to Mixed-Use Planned Unit Development, and consideration of a Binding Development Agreement / Final Planned Unit Development / Preliminary Subdivision consistent with Chapter 18 Subdivisions and Appendix A Zoning of the City Code for the Cirrus Mixed-Use PUD project on this same parcel.

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 (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

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 C Commons Shopping C (south of SR524)
East	Commercial	C-G and N-C	Retail and McDonalds (adjacent) and US Po (east of South Industr
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. A sidewalk connection has been proposed that is not yet reflected on the development plans. This has been added 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. In addition, the sidewalk connection to be added will likely result in the loss of several parking spaces. A waiver for those spaces will be incorporated into the Development Agreement.

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.

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.

STRATEGIC PLAN CONNECTION:

N/A

BUDGETARY IMPACT:

N/A

PREVIOUS ACTION:

The Planning & Zoning Board heard multiple development applications related to the Mixed-Use PUD project proposed on this property and made the following recommendation with conditions on February 3, 2021:

The Planning & Zoning Board recommended 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

The Planning & Zoning Board voted to approve the Large-Scale Site Plan with the conditions set forth below:

1. The Large-Scale Site Plan shall not be effective until and unless the Development Agreement / Final PUD / Preliminary Subdivision have been approved by City Council.

Development Agreement

2. A Waiver will be added to Phase 1 of the Development Agreement to allow a minimum 2.5" dbh at planting for trees on the landscape plan that are not counted as replacement trees.
3. A Waiver will be added to Phase 1 of the Development Agreement to allow a reduction in the total number of parking spaces required based on the addition of a sidewalk connection along the southwest access aisle.

Subdivision

4. The Amended and Restated Restrictive Covenants and Easement Agreement shall address maintenance of common access driveway and shall be recorded prior to Final Subdivision approval by City Council.

Civil Plans

5. Revise landscape plans to increase 4 trees from 2.5" to 4" dbh at planting and increase 1 tree from 2.5" to 6" dbh at planting.
6. Provide a sidewalk, landscape buffer and parallel parking spaces along the west side of the entry access drive aisle in place of the existing 90-degree parking spaces.

Traffic Impact Analysis

7. Provide an updated Traffic Impact Analysis that includes the "Arbors at Cocoa Landings" project in the analysis.

RECOMMENDED MOTION:

Pass on 1st Reading; Ordinance 03-2021: a ZONING MAP AMENDMENT consistent with Appendix A, Zoning, Article XXI, to change the Zoning Map designation of one (1) parcel totaling 15.74 acres from General Commercial to Mixed-Use Planned Unit Development with the following conditions:

1. The Large-Scale Site Plan shall not be effective until and unless the Development Agreement / Final PUD / Preliminary Subdivision have been approved by City Council.

Development Agreement

2. A Waiver will be added to Phase 1 of the Development Agreement to allow a minimum 2.5" dbh at planting for trees on the landscape plan that are not counted as replacement trees.
3. A Waiver will be added to Phase 1 of the Development Agreement to allow a reduction in the total number of parking spaces required based on the addition of a sidewalk connection along the southwest access aisle.

Subdivision

4. The Amended and Restated Restrictive Covenants and Easement Agreement shall address maintenance of common access driveway and shall be recorded prior to Final Subdivision approval by City Council.

Civil Plans

5. Revise landscape plans to increase 4 trees from 2.5” to 4” dbh at planting and increase 1 tree from 2.5” to 6” dbh at planting.
6. Provide a sidewalk, landscape buffer and parallel parking spaces along the west side of the entry access drive aisle in place of the existing 90-degree parking spaces.

Traffic Impact Analysis

7. Provide an updated Traffic Impact Analysis that includes the “Arbors at Cocoa Landings” project in the analysis.

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.

Cirrus Mixed-Use PUD

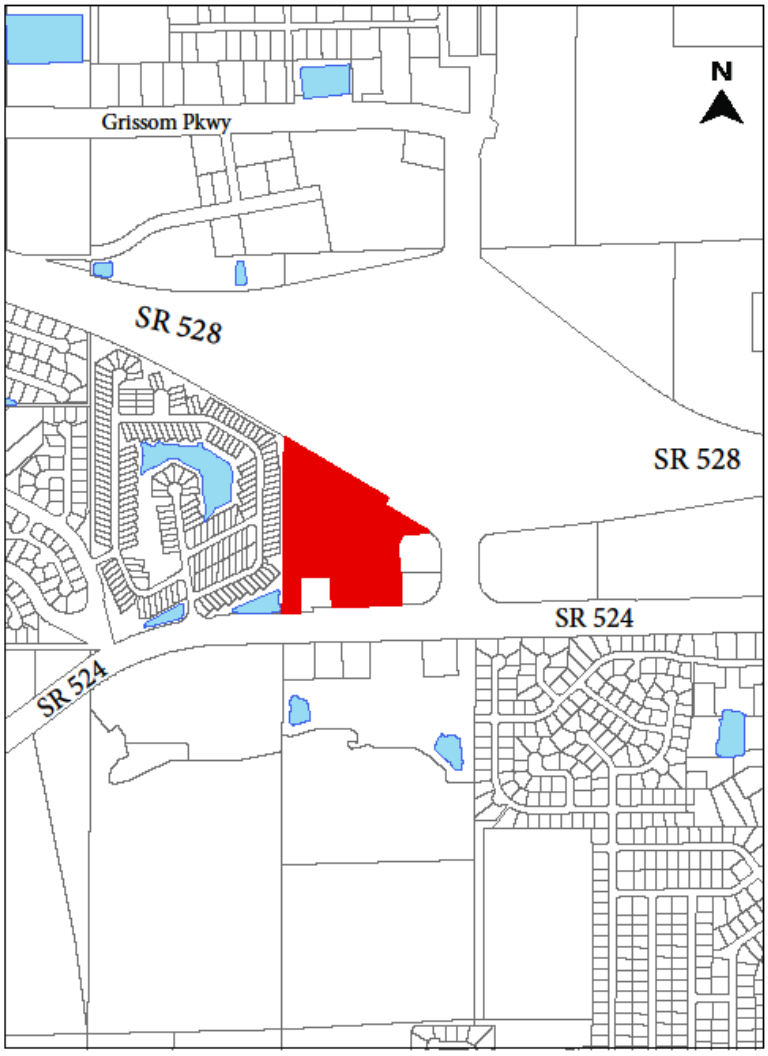
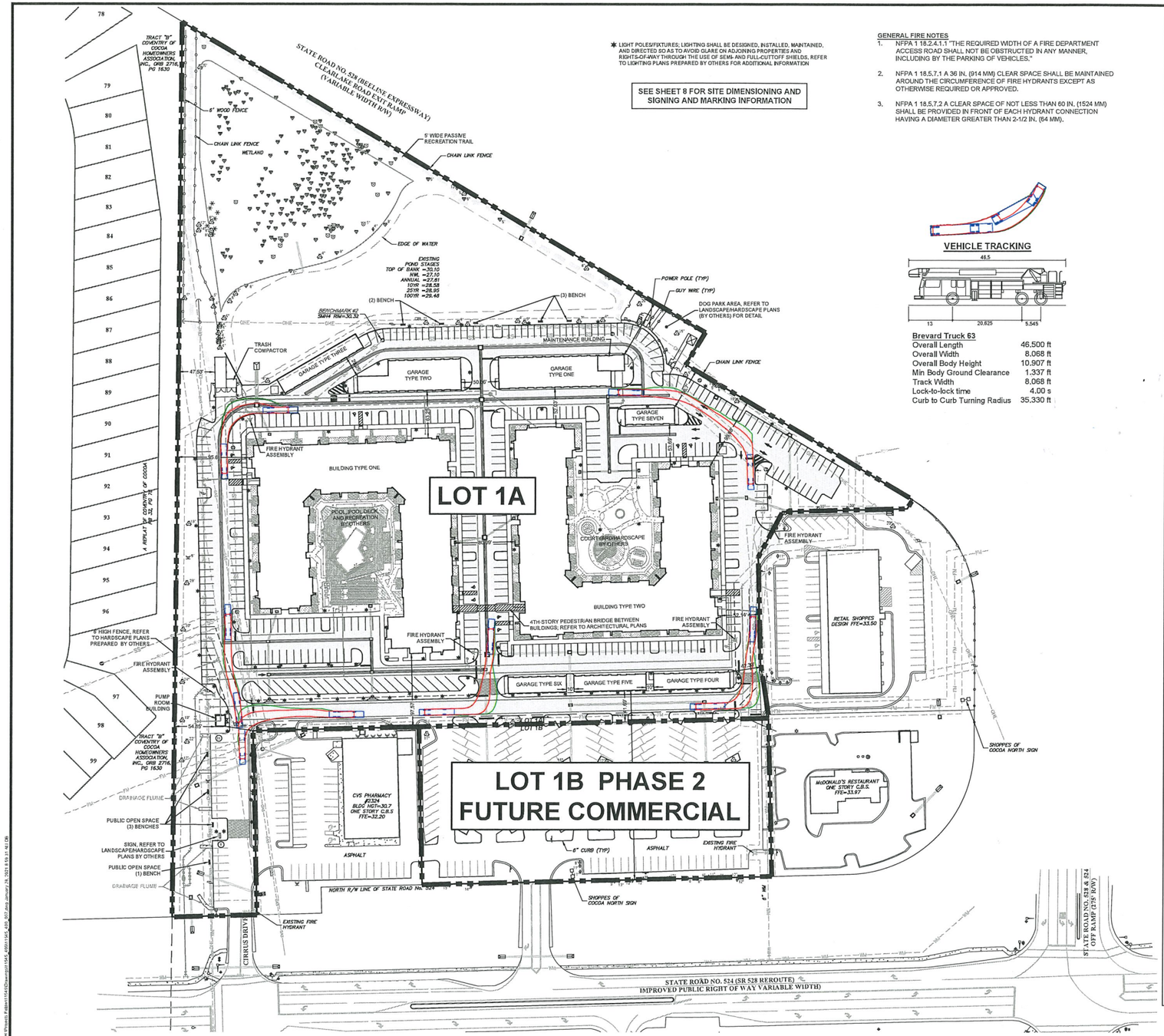


Exhibit B



✱ LIGHT POLES/FIXTURES; LIGHTING SHALL BE DESIGNED, INSTALLED, MAINTAINED, AND DIRECTED SO AS TO AVOID GLARE ON ADJOINING PROPERTIES AND RIGHTS-OF-WAY THROUGH THE USE OF SEMI- AND FULL-CUTOFF SHIELDS. REFER TO LIGHTING PLANS PREPARED BY OTHERS FOR ADDITIONAL INFORMATION

SEE SHEET 8 FOR SITE DIMENSIONING AND SIGNING AND MARKING INFORMATION

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).

VEHICLE TRACKING

Brevard Truck 63	
Overall Length	46.500 ft
Overall Width	8.068 ft
Overall Body Height	10.907 ft
Min Body Ground Clearance	1.337 ft
Track Width	8.068 ft
Lock-to-lock time	4.00 s
Curb to Curb Turning Radius	35.330 ft

ZONING
EXISTING ZONING = GENERAL COMMERCIAL (C-G)
PROPOSED ZONING = MIXED-USE PUD
FUTURE LAND USE = COMMERCIAL

UTILITIES
ALL PROPOSED UTILITIES SHALL BE UNDERGROUND INSTALLATION.

SANITARY SEWER EASEMENTS SHALL BE CENTERED OVER THEIR FINAL AS-BUILT LOCATION.

OVERALL SITE AREA = ±15.74 ACRES
MULTI-FAMILY PARCEL (LOT 1A) = ±13.49 ACRES
COMMERCIAL PARCEL (LOT 1B) = ± 2.25 ACRES
EXISTING STORMWATER LAKE = ± 1.21 ACRES
EXISTING WETLAND/SURROUNDING AREA = ±1.6 ACRES

GROSS SITE AREA = OVERALL SITE AREA (±15.74 AC) - PRESERVATION AREAS (±1.6 AC) = ±14.14 ACRES

BUILDINGS
BUILDING HEIGHTS:
BUILDING TYPES ONE AND TWO TOP RIDGE OF BUILDING ROOF NOT TO EXCEED 57 FEET
GARAGES = 13 FEET MAXIMUM

PROPOSED # OF MULTI-FAMILY UNITS = 280 TOTAL

BUILDING TYPE 1 (WEST) 4 STORIES	
1ST FLOOR	= 44,408 SQ FT
2ND FLOOR	= 44,439 SQ FT
3RD FLOOR	= 44,667 SQ FT
4TH FLOOR	= 44,853 SQ FT
TOTAL	= 178,367 SQ FT

FLOOR AREA RATIO = (178,367 / 685,685) = 26.0%

BUILDING TYPE 2 (EAST) 4 STORIES	
1ST FLOOR	= 43,728 SQ FT
2ND FLOOR	= 44,444 SQ FT
3RD FLOOR	= 44,696 SQ FT
4TH FLOOR	= 44,959 SQ FT
TOTAL	= 177,827 SQ FT

FLOOR AREA RATIO = (177,827 / 685,685) = 25.9%

GARAGE TYPE ONE	=	6,585 SQ FT
GARAGE TYPE TWO	=	4,860 SQ FT
GARAGE TYPE THREE	=	2,560 SQ FT
GARAGE TYPE FOUR	=	2,125 SQ FT
GARAGE TYPE FIVE	=	2,015 SQ FT
GARAGE TYPE SIX	=	1,625 SQ FT
GARAGE TYPE SEVEN	=	1,396 SQ FT
TOTAL	=	21,166 SQ FT
PUMP ROOM	=	202 SQ FT
TRASH COMPACTOR	=	1,154 SQ FT
POOL PAVILION	=	2,801 SQ FT
TOTAL	=	4,157 SQ FT

LOT 1A IMPERVIOUS AREA

BUILDINGS	= 113,459 SQ FT	2.60 ACRES	19.30%
SIDEWALK/CONCRETE	= 24,245 SQ FT	0.55 ACRES	4.12%
PAVEMENT	= 179,568 SQ FT	4.12 ACRES	30.56%
TOTAL	= 317,272 SQ FT	7.28 ACRES	53.98%

LOT 1A PERVIOUS AREA

GREEN SPACE	= 147,735 SQ FT	3.39 ACRES	25.13%
EXISTING POND	= 53,089 SQ FT	1.21 ACRES	9.03%
EXISTING WETLAND/ SURROUNDING AREA	= 69,701 SQ FT	1.60 ACRES	11.86%
TOTAL	= 270,505 SQ FT	6.21 ACRES	46.02%
LOT 1A TOTAL AREA	= 587,777 SQ FT	13.49 ACRES	100.00%

LOT 1B IMPERVIOUS AREA

CURB/CONCRETE	= 975 SQ FT	0.02 ACRES	0.89%
PAVEMENT	= 84,827 SQ FT	1.95 ACRES	86.67%
TOTAL	= 85,802 SQ FT	1.97 ACRES	87.56%

LOT 1B PERVIOUS AREA

GREEN SPACE	= 12,106 SQ FT	0.28 ACRES	12.44%
LOT 1B TOTAL AREA	= 97,908 SQ FT	2.25 ACRES	100.00%

OPEN SPACE REQUIREMENTS
15% RECREATION SPACE REQUIRED = 2.12 ACRES (14.14 ACRES x15%)
RECREATION SPACE PROVIDED

BUILDING 1		
CLUBHOUSE	= 11,800 SQ FT	= 0.27 ACRES
POOL COURTYARD	= 16,840 SQ FT	= 0.39 ACRES
BUILDING 2		
ROOFTOP LOUNGE/DECK	= 1,651 SQ FT	= 0.04 ACRES
COURTYARD	= 15,463 SQ FT	= 0.35 ACRES
DOG PARK	= 4,800 SQ FT	= 0.11 ACRES
PASSIVE RECREATION TRAIL (5' WIDE)	= 39,525 SQ FT	= 0.91 ACRES
PASSIVE STORMWATER POND AREA	= 5,900 SQ FT	= 0.14 ACRES

TOTAL RECREATION SPACE PROVIDED = 2.2 ACRES > REQUIRED 2.12 ACRES

PARKING
TYPICAL STANDARD PARKING STALL PROVIDED SHALL HAVE A RECTANGULAR AREA A MINIMUM OF 9.5 FEET IN WIDTH AND 18 FEET IN LENGTH.

COMPACT PARKING SPACES ARE PROVIDED AND SHALL HAVE A RECTANGULAR AREA A MINIMUM OF 8.5 FEET IN WIDTH AND 16 FEET IN LENGTH.

THE WIDTH OF PARKING SPACES FOR DISABLED PERSONS SHALL BE IN ACCORDANCE WITH STATE AND FEDERAL REQUIREMENTS.

REQUIRED PARKING

TYPE	# OF UNITS		
EFFICIENCY	20	1 SPACE/UNIT	= 20 SPACES
1 BEDROOM	133	1.5 SPACE/UNIT	= 200 SPACES
2 OR MORE BEDROOM	127	2 SPACE/UNIT	= 254 SPACES
TOTAL	280		= 474 SPACES

PROVIDED PARKING

10'x18' EXISTING PARKING	=	20
9.5'x18' STANDARD PARKING	=	230
12'x18' HANDICAP PARKING	=	10
8.5'x16' COMPACT PARKING	=	112 (24.7%)
GARAGE UNITS	=	79
TOTAL PARKING PROVIDED	=	451 SPACES
		1.61 SPACES PER UNIT

MINIMUM REQUIRED NUMBER OF HANDICAP STALLS = 9 STALLS
10 PROVIDED HANDICAP STALLS

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 4937
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION LB8043636

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

Digitally signed by Scott M Glaubitz
DN: c=US, o=BSE Consultants Inc, ou=A01410D000001682D5EC8910000E3, cn=Scott M Glaubitz
Date: 2021.01.28 09:42:21 -05'00'

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

80 0 30 60
(IN FEET)
VERTICAL DATUM: NAVD88

1	
2	
3	
4	
5	
6	
7	
CITY COMMENTS	01/29/21
CITY COMMENTS	10/06/20
DATE:	08/31/20
DESIGN/DRAWN:	ALS/DRB

PROJECT TITLE
CIRRUS

SHEET TITLE
OVERALL SITE PLAN

PROJECT NO.
11545

DRAWING NO.
11545_400_007

SHEET
7 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.

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

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

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

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;

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

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 beheld 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.

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.

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.

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

[Signature Pages Follow]

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

City of Cocoa

By: _____
Michael C. Blake, Mayor

_____
Signature of Witness

_____
Printed Name of Witness

Date: _____

_____
Signature of Witness

_____
Printed Name of Witness

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.

(NOTARY SEAL)

_____
(Notary Public Signature)

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

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

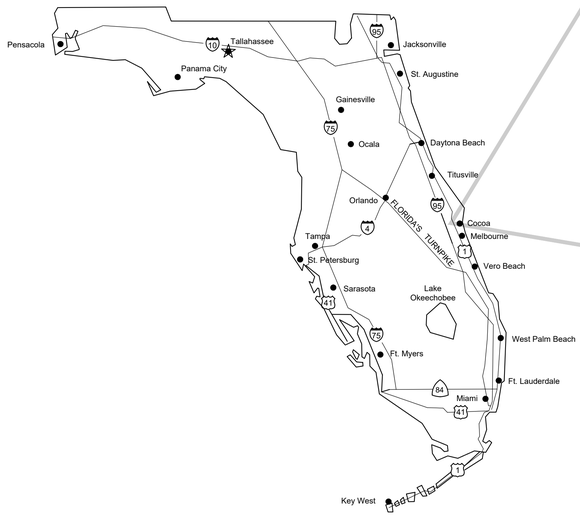
EXHIBIT A
LEGAL DESCRIPTION

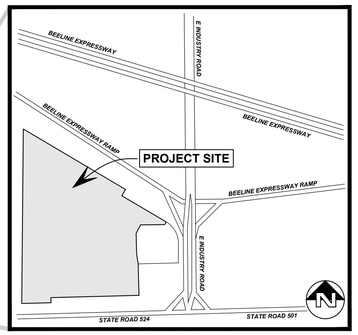
EXHIBIT B
OVERALL SITE PLAN

CIRRUS

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

SHEET INDEX		
SHEET #	**DRAWING #**	**SHEET TITLE**
1	11545_400_001	COVER SHEET
2	11545_400_002	SYMBOLS AND ABBREVIATIONS
3	11545_400_003	EXISTING CONDITIONS PLAN
4	11545_400_004	STORM WATER POLLUTION PREVENTION PLAN (SWPPP)
5	11545_400_005	DEMOLITION PLAN
6	11545_400_006	MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION
7	11545_400_007	OVERALL SITE PLAN
8	11545_400_008	SITE PLAN
9	11545_400_009	UTILITY PLAN
10	11545_400_010	OVERALL PAVING, GRADING, AND DRAINAGE PLAN
11	11545_400_011	PAVING, GRADING, AND DRAINAGE PLAN
12	11545_400_012	PAVING, GRADING AND DRAINAGE DETAILS
13	11545_400_013	FDOT DETAILS
14	11545_400_014	CITY OF COCOA DETAILS
15	11545_400_015	CITY OF COCOA DETAILS
16	11545_400_016	CITY OF COCOA TECHNICAL PROVISIONS
17	11545_400_017	CITY OF COCOA TECHNICAL PROVISIONS
18	11545_400_018	CITY OF COCOA TECHNICAL PROVISIONS
19	11545_400_019	CITY OF COCOA TECHNICAL PROVISIONS (WASTEWATER)
PLAT DOCUMENT		
--	11545_300_001	PRELIMINARY PLAT
SURVEY		
--	11545_100_001-004	ALTA SURVEY
1 OF 1	11545_100_009	TREE SURVEY





LOCATION MAP
N.T.S.

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.

GENERAL PROJECT STATEMENT
THE CIRRUS PROJECT CONSISTS OF THE REDEVELOPMENT OF LOT 1 (PB57 PGS 87-93) FROM A COMMERCIAL/RETAIL DEVELOPMENT TO A MIXED USE PUD. THE MULTI-FAMILY COMPONENT OF THE PROJECT INCLUDES TWO (2) RESIDENTIAL BUILDINGS CONTAINING A TOTAL OF 280 UNITS WITH AN INTEGRATED VERTICAL CLUBHOUSE, POOL AND LOUNGE AREAS, AND SINGLE-STORY PARKING GARAGES. THE COMMERCIAL AREA, ALONG SR 524, AT THIS TIME WILL CONTINUE TO EXIST AS A PARKING AREA. ANY FUTURE PLANS TO DEVELOP THIS AREA WILL NEED TO BE SUBMITTED TO THE CITY OF COCOA FOR REVIEW/APPROVAL. THE CIRRUS PROJECT WILL CONTINUE TO USE THE EXISTING/FUNCTIONING STORMWATER MANAGEMENT SYSTEM AND ITS ASSOCIATED OUTFALLS.

LAND USE: COMMERCIAL
ZONING: MIXED USE PUD (PLANNED UNIT DEVELOPMENT)

NOTES:
1. LIGHTING SHALL BE DESIGNED, INSTALLED, AND MAINTAINED AND DIRECTED SOA S TO AVOID GLARE ON ADJOINING PROPERTIES AND RIGHT-OF-WAY THROUGH THE USE OF SEMI- AND FULL-CUTOFF SHIELDS.

OWNER
FRAMEWORK GROUP, LLP
1200 W. PLATT ST., SUITE 201
TAMPA, FL 33606
(813) 244-3865

ENGINEER
B.S.E.CONSULTANTS, INC.
312 SOUTH HARBOR CITY BOULEVARD
SUITE 4
MELBOURNE, FLORIDA 32901
(321) 725-3674

ARCHITECT
CHARLAN BROCK ASSOCIATES
1770 FENNELL ST.
MAITLAND FL 32751
(407) 660-8900 EXT. 49

LANDSCAPE ARCHITECT
BOOTH DESIGN GROUP
146 SECOND STREET NORTH, SUITE 302
ST. PETERSBURG, FL 33701
(727) 821-5699

FRAMEWORK GROUP, LLP
1200 W. PLATT ST., SUITE 201
TAMPA, FL 33606
(813) 244-3865

- PREPARED BY -

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

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VERTICAL DATUM: NAVD88

1 CITY COMMENTS	10/30/20
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DESIGN/DRAWN:	ALS/DRB

PROJECT TITLE
CIRRUS

SHEET TITLE
COVER SHEET

PROJECT NO.
11545

DRAWING NO.
11545_400_001

SHEET
1 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.

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LANDSCAPE SYMBOL LEGEND

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

SYMBOL LEGEND

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

ABBREVIATIONS

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

ABBREVIATIONS

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

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1 CITY COMMENTS	10/30/20
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PROJECT TITLE

CIRRUS

SHEET TITLE

SYMBOLS AND ABBREVIATIONS

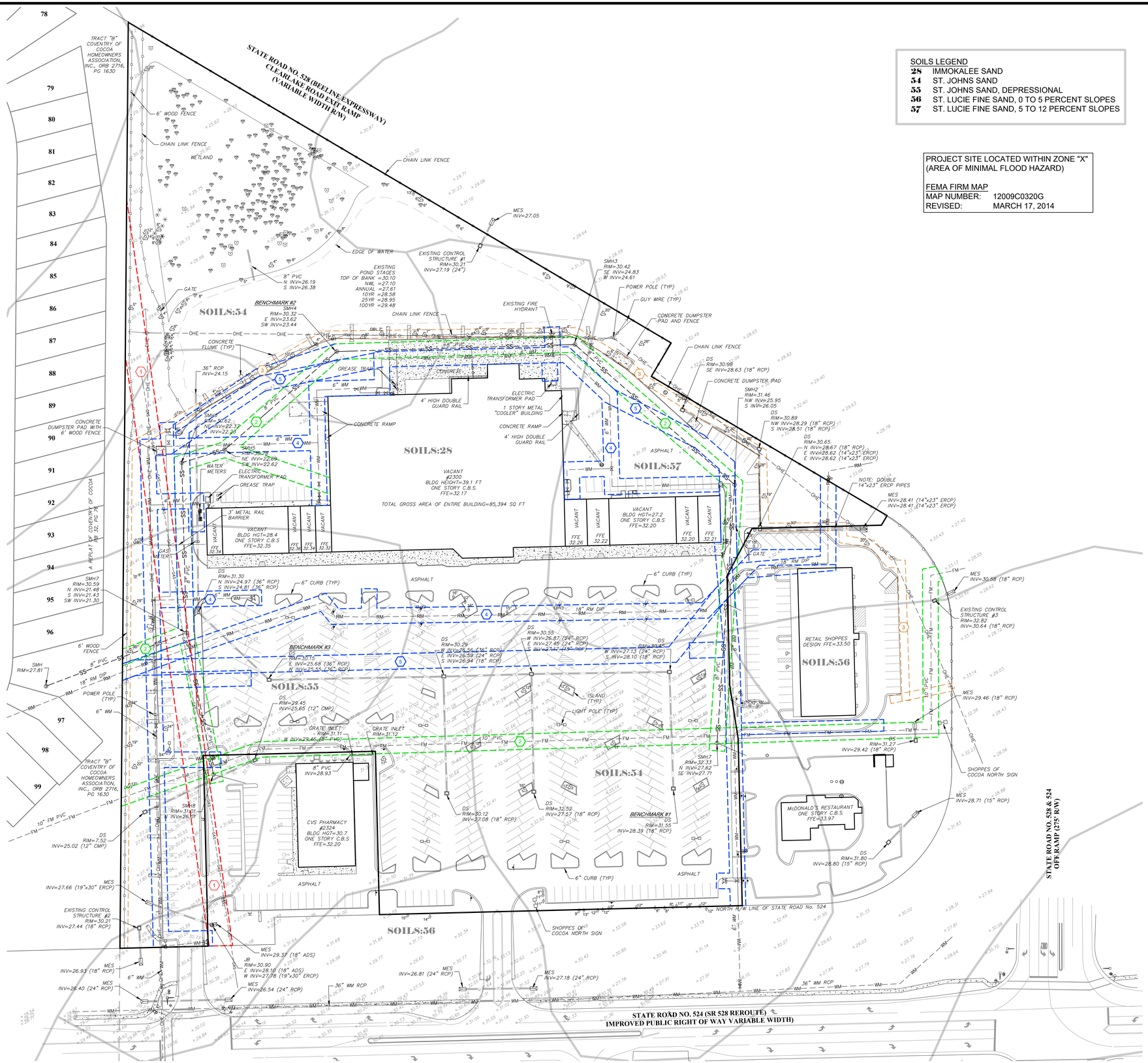
PROJECT NO.
11545

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11545_400_002

SHEET
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SOILS LEGEND	
28	IMMOKALEE SAND
54	ST. JOHNS SAND
55	ST. JOHNS SAND, DEPRESSIONAL
56	ST. LUCIE FINE SAND, 0 TO 5 PERCENT SLOPES
57	ST. LUCIE FINE SAND, 5 TO 12 PERCENT SLOPES

PROJECT SITE LOCATED WITHIN ZONE "X"
(AREA OF MINIMAL FLOOD HAZARD)

FEMA FIRM MAP
MAP NUMBER: 12009C0320G
REVISED: MARCH 17, 2014

TREE LEGEND

- CYPRUS TREE
- HOLLY TREE
- MAPLE TREE
- PALM TREE
- PINE TREE
- OAK TREE

SEE SHEET 2 FOR ADDITIONAL SYMBOL LEGENDS AND ABBREVIATIONS

1. GAS EASEMENT (ORB 599, PG 315)
2. SEWER/FORCE MAIN EASEMENT (ORB 3372, PG 4486) (ORB 5557, PG 4594)
3. TELEPHONE LINE EASEMENT (ORB 3387, PG 3308)
4. WATER/REUSE EASEMENT (ORB 5510, PG 1779)
5. INGRESS/EGRESS, WATER, SEWER, REUSE EASEMENT (PB 57, PG 87)

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60 0 30 60
(IN FEET)
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PROJECT TITLE
CIRRUS

SHEET TITLE
EXISTING CONDITIONS PLAN

PROJECT NO.
11545

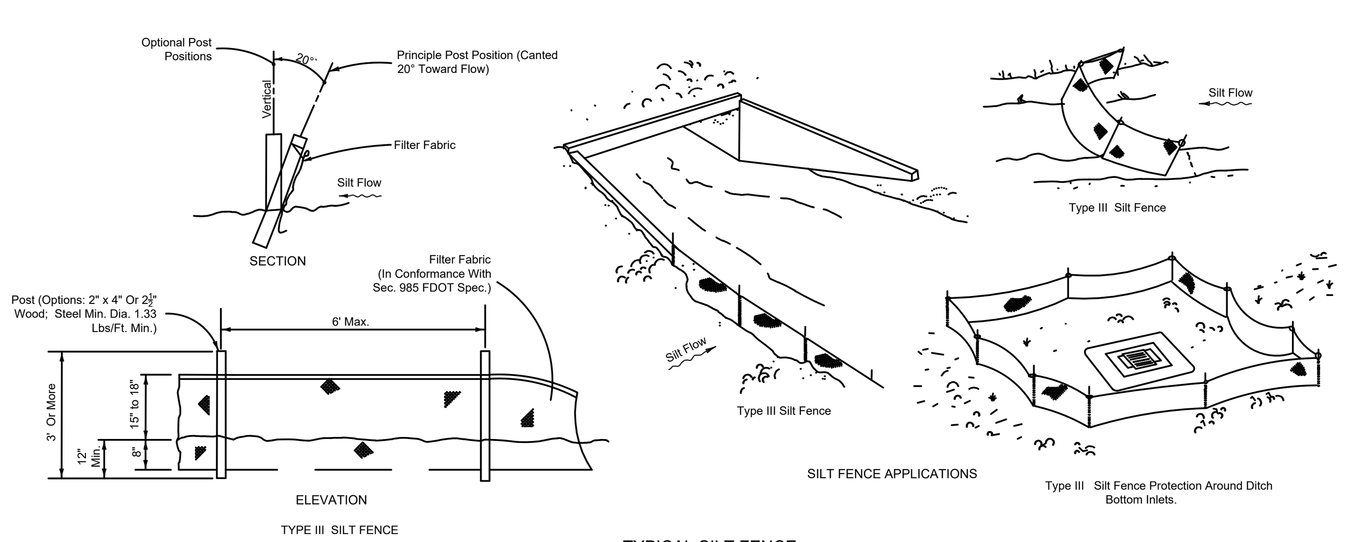
DRAWING NO.
11545_400_003

SHEET
3 of 19

Soil data provided by: Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Brevard County, Florida.

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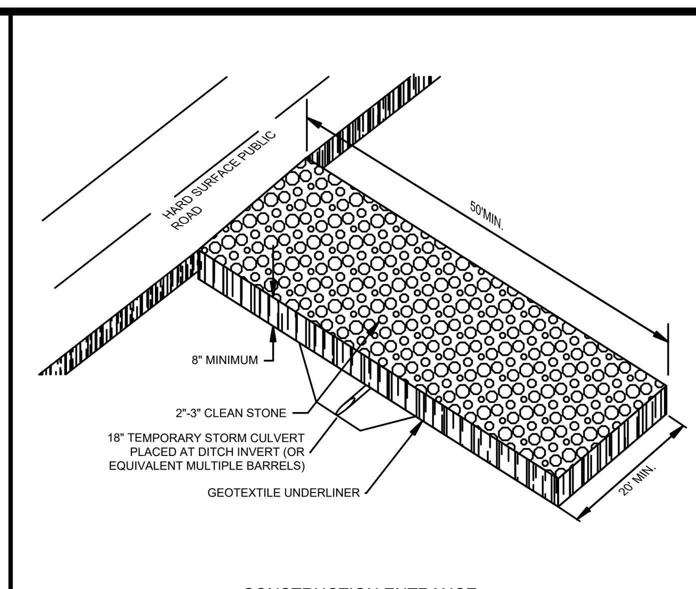
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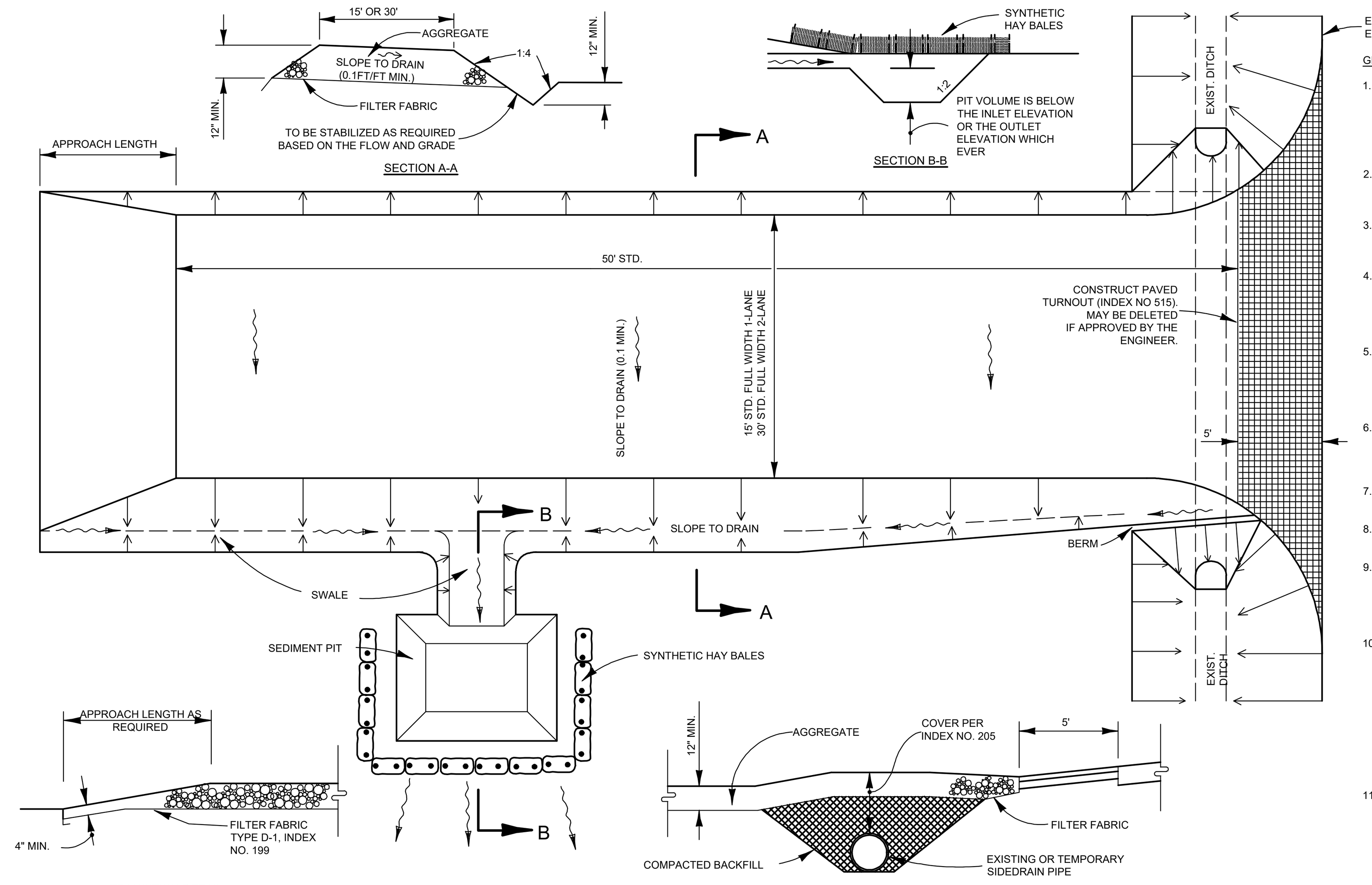
Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

Note: Silt Fence to be paid for under the contract unit price for Staked Silt Fence (LF).

TYPICAL SILT FENCE
N.T.S.
FIGURE 1



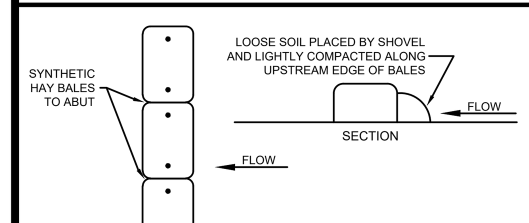
CONSTRUCTION ENTRANCE
NTS
FIGURE 2



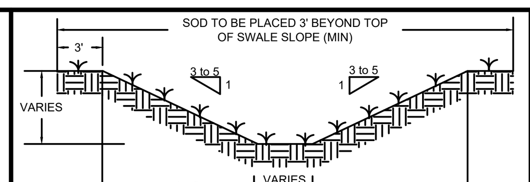
GENERAL NOTES

1. A SOIL TRACKING PREVENTION DEVICE (STPD) SHALL BE CONSTRUCTED AT LOCATION DESIGNATED BY THE ENGINEER FOR POINTS OF EGRESS FROM UNSTABILIZED AREAS OF THE PROJECT TO PUBLIC ROADS WHERE OFFSITE TRACKING OF MUD COULD OCCUR. TRAFFIC FROM UNSTABILIZED AREAS OF THE CONSTRUCTION PROJECT SHALL BE DIRECTED THRU A STPD. BARRIERS, FLAGGING, OR OTHER POSITIVE MEANS SHALL BE USED AS REQUIRED TP LIMIT AND DIRECT VEHICULAR EGRESS ACROSS STPD.
2. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE TECHNIQUE TO MINIMIZE OFFSITE TRACKING OF SEDIMENT. THE ALTERNATIVE MUST BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ITS USE.
3. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE STPD AGGREGATE AND CONSTRUCTION MUD) SHALL BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER.
4. AGGREGATES SHALL BE DESCRIBED IN SECTION 901 EXCLUDING 901-2.3. AGGREGATES SHALL BE FDOT SIZE #1. IF THIS SIZE IS NOT AVAILABLE, THE NEXT AVAILABLE SMALLER SIZE AGGREGATE MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER. SIZES CONTAINING EXCESSIVE SMALL AGGREGATE WILL TRACK OFF THE PROJECT AND ARE UNSUITABLE.
5. THE SEDIMENT PIT SHOULD PROVIDE A RETENTION VOLUME OF 3600 CUBIC FEET/ACRE OF SURFACE AREA DRAINING TO THE PIT.
WHEN THE STPD IS ISOLATED FROM OTHER DRAINAGE AREAS, THE FOLLOWING PIT VOLUMES WILL SATISFY THIS REQUIREMENT:
15' X 50' = 100 CU. FT. 30' X 50' = 200 CU. FT.
6. AS AN OPTION TO THE SEDIMENT PIT, THE WIDTH OF THE SWALE BOTTOM CAN BE INCREASED TO OBTAIN THE VOLUME. WHEN THE SEDIMENT PIT OR SWALE VOLUME HAS BEEN REDUCED TO ONE HALF, IT SHALL BE CLEANED. WHEN THE SWALE IS USED, SYNTHETIC HAY BALES OR SILT FENCE SHALL BE PLACED ALONG THE ENTIRE LENGTH.
7. THE SWALE DITCH DRAINING THE STPD SHALL HAVE A 0.2% MINIMUM AND A 0.1% MAXIMUM GRADE ALONG THE STPD AND TO THE SEDIMENT PIT.
8. MITERED AND SECTIONS ARE NOT REQUIRED WHEN THE SIDEDRAIN PIPE SATISFIES THE CLEAR ZONE REQUIREMENTS.
9. THE STPD SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM ITS FUNCTION. TO PREVENT OFFSITE TRACKING, THE STPD SHALL BE RINSED (DAILY WHEN IN USE) TO MOVE ACCUMULATED MUD DOWNWARD THRU THE STONE. ADDITIONAL STABILIZATION OF THE VEHICULAR ROUTE LEADING TO THE STPD MAY BE REQUIRED TO LIMIT THE MUD TRACKED.
10. A STPD SHALL BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR SOIL TRACKING PREVENTION DEVICE, EA. THE UNIT PRICE SHALL CONSTITUTE FULL COMPENSATION FOR CONSTRUCTION, MAINTENANCE, REPLACEMENT OF MATERIALS, REMOVAL, AND RESTORATION OF THE AREA UTILIZED FOR THE STPD; INCLUDING BUT NOT LIMITED TO EXCAVATION, GRADING, TEMPORARY PIPE (INCLUDING MES WHEN REQUIRED), FILTER FABRIC, AGGREGATE, PAVED TURNOUT (INCLUDING ASPHALT AND BASE CONSTRUCTION), DITCH STABILIZATION, APPROACH ROUTE STABILIZATION, SEDIMENT REMOVAL AND DISPOSAL, WATER, RINSING AND CLEANING OF THE STPD AND CLEANING OF THE PUBLIC ROADS, GRASSING AND SOD, SYNTHETIC HAY BALES SHALL BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR HAY OR STRAW BAILED, EA. SILT FENCE SHALL BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE, LF.
11. THE NOMINAL SIZE OF A STANDARD STPD IS 15' X 50' UNLESS OTHERWISE SHOWN IN THE PLANS. IF THE VOLUMES OF ENTERING AND EXITING VEHICLES WARRANT, A 30' WIDTH STPD MAY BE USED IF APPROVED BY THE ENGINEER, WHEN A DOUBLE WIDTH (30') STPD IS USED, THE PAY QUANTITY SHALL BE 2 FOR EACH LOCATION.

SOIL TRACKING PREVENTION DEVICE
NTS
FIGURE 2A

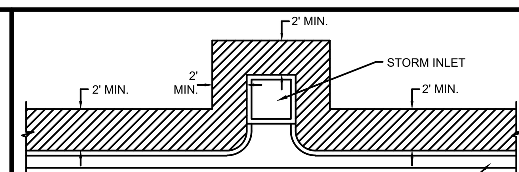


SYNTHETIC HAY BALE BARRIER
NTS
FIGURE 3



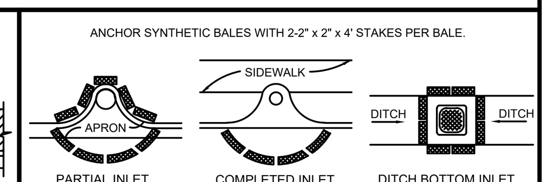
(TO BE USED FOR ANY TEMPORARY SWALES REQUIRED DURING CONSTRUCTION)
NOTE: SLOPES SHALL BE 3 TO 5 UNLESS OTHERWISE NOTED (TYP)

TYPICAL SWALE SECTION
N.T.S.
FIGURE 4



SOD ALONG CURB AND AROUND INLET
N.T.S.
FIGURE 5

ANCHOR SYNTHETIC BALES WITH 2-2" x 2" x 4' STAKES PER BALE.



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES:SYNTHETIC HAY BALES
N.T.S.
FIGURE 6

NOTE: SEE ** STORMWATER MANAGEMENT CRITERIA FOR MINIMUM STANDARDS.

THIS PLAN IS INTENDED TO COMPLY WITH APPROPRIATE CONDITIONS OF THE BREVARD COUNTY LAND DEVELOPMENT REGULATIONS, THE RULES OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, CHAPTER 17-25, F.A.C., AND THE ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT, DURING ALL CONSTRUCTION ACTIVITIES. THE PLAN ADDRESSES THE FOLLOWING AREAS:

1. GENERAL EROSION CONTROL
2. PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION.
3. CONTROL OF WIND EROSION.

THE VARIOUS TECHNIQUES OR ACTIONS IDENTIFIED UNDER EACH SECTION INDICATE THE APPROPRIATE SITUATION WHEN THE TECHNIQUES SHOULD BE EMPLOYED. ALSO IDENTIFIED IS A CROSS-REFERENCE TO A DIAGRAM OR FIGURE REPRESENTING THE TECHNIQUE.

IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED BMP(S). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS REQUIRED BY NPDES AND AS NECESSARY FOR EACH SPECIFIC APPLICATION.

SECTION 1 GENERAL EROSION CONTROL

GENERAL EROSION CONTROL BMP'S SHALL BE EMPLOYED TO MINIMIZE SOIL EROSION AND POTENTIAL LAKE SLOPE CAVE-INS. WHILE THE VARIOUS TECHNIQUES REQUIRED WILL BE SITE AND PLAN SPECIFIC, THEY SHOULD BE EMPLOYED AS SOON AS POSSIBLE DURING CONSTRUCTION ACTIVITIES.

CLEARED SITE DEVELOPMENT AREAS NOT CONTINUALLY SCHEDULED FOR CONSTRUCTION ACTIVITIES SHALL BE COVERED WITH HAY OR OVER SEEDED AND PERIODICALLY WATERED SUFFICIENTLY TO STABILIZE THE TEMPORARY GROUND COVER.

SLOPES OF BANKS OF RETENTION / DETENTION PONDS SHALL BE CONSTRUCTED NOT STEEPER THAN 3H:1V FROM TOP OF BANK TO TWO FEET BELOW NORMAL WATER LEVEL UNLESS SPECIFIED OTHERWISE.

SOD SHALL BE PLACED IN A MINIMUM OF A 2- FOOT WIDE STRIP ADJOINING ALL CURBING AND AROUND ALL INLETS AS SHOWN IN FIGURE 5 OR AS REQUIRED BY THE LANDSCAPE PLAN OR CONTRACT DOCUMENTS. SOD SHALL BE PLACED BEFORE SILT BARRIERS, SHOWN IN FIGURE 8, ARE REMOVED.

SECTION 2 PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION.

SURFACE WATER QUALITY SHALL BE MAINTAINED BY EMPLOYING, AT A MINIMUM, THE FOLLOWING BMP'S AND OTHER MEASURES AS REQUIRED IN THE PLANNING AND CONSTRUCTION OF ALL IMPROVEMENTS.

WHERE PRACTICAL, STORM WATER SHALL BE CONVEYED BY SWALES.

EROSION CONTROL MEASURES SHALL BE EMPLOYED TO MINIMIZE TURBIDITY OF SURFACE WATERS LOCATED DOWNSTREAM OF ANY CONSTRUCTION ACTIVITY. WHILE THE VARIOUS MEASURES REQUIRED WILL BE SITE SPECIFIC, THE FOLLOWING MEASURES SHALL BE UTILIZED AS A MINIMUM.

IN GENERAL EROSION SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM LOCATION.

STORM WATER INLETS SHALL BE PROTECTED DURING CONSTRUCTION AS SHOWN IN FIGURES 5,6, AND 8. PROTECTION MEASURES SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL REMAIN IN PLACE UNTIL SODDING AROUND INLETS IS COMPLETE OR AS OTHERWISE REQUIRED.

HEAVY CONSTRUCTION EQUIPMENT PARKING AND MAINTENANCE AREAS SHALL BE DESIGNED TO PREVENT OIL, GREASE, AND LUBRICANTS FROM ENTERING SITE DRAINAGE FEATURES INCLUDING STORM WATER COLLECTION AND TREATMENT SYSTEMS. CONTRACTOR SHALL PROVIDE BROAD DIKES, SYNTHETIC HAY BALES OR SILT SCREENS AROUND, AND SEDIMENT SUMPS WITHIN, SUCH AREAS AS REQUIRED TO CONTAIN SPILLS OF OIL, GREASE OR LUBRICANTS. CONTRACTORS SHALL HAVE AVAILABLE AND SHALL USE ABSORBENT FILTER PADS OR OTHER METHODS TO CLEAN UP SPILLS AS SOON AS POSSIBLE AFTER OCCURRENCE.

SILT BARRIERS SHALL BE ERECTED AS SHOWN PRIOR THE INITIATION OF CLEARING OR EARTHWORK AND SHALL REMAIN UNTIL VEGETATIVE COVER OR ALL DISTURBED AREAS HAVE BEEN ESTABLISHED OR AS REQUIRED BY THE OWNER. SILT BARRIERS SHALL BE CONTINUOUSLY MAINTAINED FOR ENTIRE PROJECT DURATION. SILT BARRIERS SHALL NOT BE REMOVED UNTIL APPROVED BY THE OWNER. SILT BARRIERS, ANY SILT WHICH ACCUMULATES BEHIND THE BARRIERS, AND ANY FILL USED TO ANCHOR THE BARRIERS SHALL BE REMOVED PROMPTLY AFTER THE END OF THE MAINTENANCE PERIOD SPECIFIED FOR THE BARRIERS.

WHERE REQUIRED TO PREVENT EROSION FROM SHEET FLOW ACROSS BARE GROUND FROM ENTERING A LAKE OR SWALE AND IN THE ABSENCE OF AN ACCEPTABLE TEMPORARY LAKE OR SUMP AREA, A TEMPORARY SUMP SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON THE GROUND DRAINING TO THE SUMP.

SECTION 3 CONTROL OF WIND EROSION

WIND EROSION SHALL BE CONTROLLED BY EMPLOYING BMP'S WHICH SHALL INCLUDE THE FOLLOWING AND/OR OTHER METHODS AS A MINIMUM:

BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE TRANSPORT OF FUGITIVE DUST. IT MAY BE NECESSARY TO LIMIT CONSTRUCTION VEHICLE SPEED IF BARE EARTH HAS NOT BEEN EFFECTIVELY WATERED. IN NO CASE SHALL FUGITIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.

AS SOON AS PRACTICAL AFTER COMPLETION OF CONSTRUCTION, BARE EARTH AREAS SHALL BE VEGETATED.

AT ANY TIME BOTH DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS MAY INCLUDE ERECTION OF DUST CONTROL FENCES. IF REQUIRED, DUST CONTROL FENCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAIL FOR A SILT FENCE SHOWN IN FIGURE 1 EXCEPT THE MINIMUM HEIGHT SHALL BE 4 FEET.

SWPPP COORDINATOR DUTIES

THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING AND ALL OTHER REQUIREMENTS OF THE EPA, FDEP, SJRWMD, AND BREVARD COUNTY REGULATIONS:

1. MAINTAIN RECORDS OF CONSTRUCTION ACTIVITIES, INCLUDING:
   DATES WHEN MAJOR GRADING ACTIVITIES OCCUR.
   DATES WHEN CONSTRUCTION ACTIVATES TEMPORARILY CEASE ON A PORTION OF THE SITE.
   DATES WHEN STABILIZATION MEASURES ARE INITIATED ON SITE.
   RECORDS MUST BE MAINTAINED AT THE JOB SITE.
2. PREPARE INSPECTION REPORTS SUMMARIZING:
   QUALIFICATIONS OF INSPECTOR.
   DAILY RAINFALL TOTALS.
   MEASURES/AREAS INSPECTED.
   CHANGES NECESSARY TO THE SWPPP.
   INSPECTIONS SHALL BE COMPLETED ON A WEEKLY BASIS; AND AFTER RAINFALL EVENTS EXCEEDING 1/2" INTENSITY.
3. A SAMPLE INSPECTION FORM SHALL BE SUPPLIED TO THE CONTRACTOR FOR HIS USE. CONTRACTOR MUST UTILIZE THIS INSPECTION FORM OR AN APPROVED EQUIVALENT.
4. CONTRACTOR MUST EXECUTE NPDES CERTIFICATION FORM AND INSURE THAT ALL SUBCONTRACTORS RESPONSIBLE FOR EROSION CONTROL MEASURES EXECUTE THE NPDES CERTIFICATION FORM. COPIES OF THIS CERTIFICATION MUST BE PROVIDED TO THE OWNER PRIOR TO THE START OF ANY NEW CONSTRUCTION, AND COPIES SHALL BE MAINTAINED AT THE JOB SITE.
5. REPORT RELEASES OF REPORTABLE QUANTITIES OF OIL OR HAZARDOUS MATERIALS (IF THEY OCCUR):
   NOTIFY NATIONAL RESPONSE CENTER @ 1-800-424-8802.
   NOTIFY PERMITTING AUTHORITY IN WRITING WITHIN 14 DAYS.
   MODIFY THE POLLUTION PREVENTION PLAN TO INCLUDE IMPROVED MANAGEMENT CONTROLS.
6. MODIFY THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS NECESSARY TO:
   COMPLY WITH MINIMUM PERMIT REQUIREMENTS WHEN NOTIFIED BY THE EPA, ADDRESS CHANGES IN DESIGN, CONSTRUCTION OPERATION OR MAINTENANCE WHICH HAVE AN AFFECT ON THE POTENTIAL FOR DISCHARGE OF POLLUTANTS INTO STATE WATERS.
   PREVENT REOCCURRENCE OF REPORTABLE QUANTITY RELEASES HAZARDOUS MATERIAL, OIL, AND OR FUEL.
7. AT THE COMPLETION OF THE PROJECT AND AS A CONDITION OF FINAL PAYMENT, CONTRACTOR SHALL PROVIDE THE OWNER WITH TWO COPIES OF THE THE ABOVE DESCRIBED REPORTS IN A CONSOLIDATED REPORT FORMAT; THREE RING BINDERS OR EQUIVALENT.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING AND MAINTAINING A COPY OF DEP DOCUMENT NO. 62-621.300(4)(A). THIS PERMIT IS THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION GENERIC PERMIT FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES THAT DISTURB ONE OR MORE ACRES OF LAND.
9. ALL FERTILIZERS, HERBICIDES, AND PESTICIDES TO BE APPLIED, STORED, AND DISPOSED OF PER THE MANUFACTURER RECOMMENDATIONS.
10. CONTRACTOR IS RESPONSIBLE TO ASSURE THAT ALL WASTE, SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTE ARE PROPERLY CONTROLLED AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE STATE, LOCAL, AND FEDERAL REGULATIONS.

GENERAL MAINTENANCE PLAN

THE FOLLOWING MAINTENANCE PLAN IS GENERAL IN NATURE AND IS INTENDED TO PROVIDE A GUIDELINE FOR THE CONTRACTOR. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COMPLETE THE PROJECT IN CONFORMANCE WITH THE NPDES STANDARDS AND APPROVED PLANS AND PERMITS.

SHORT TERM:

1. ALL EROSION CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY 1/2" RAINFALL EVENT, BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ALL NEEDED REPAIRS WILL BE RECORDED AND MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. SEDIMENT BUILDUP WILL BE CLOSELY MONITORED AND REMOVED FROM INLET PROTECTION DEVICES TO ENSURE PROPER MANAGEMENT AND STORAGE CAPACITIES. SEDIMENT CONTROL DEVICES SHALL BE CLEANED OR REPLACED WHEN THE SEDIMENT CONTROL NO LONGER WORKS EFFECTIVELY AS DESIGNED.
3. THE SEDIMENT CONTROLLING SILT FENCE SHALL BE MAINTAINED AND/OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
4. ALL SEEDED AREAS SHALL BE RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VEGETATIVE COVER, ADEQUATE TO PREVENT EROSION TO OFFSITE AREAS.
5. AS NEEDED, NEW OR ADDITIONAL WORKERS WILL BE INFORMED OF THE PLAN DETAILS IN THE OPERATION AND MAINTENANCE OF PLAN FEATURES.

LONG TERM:

1. ALL VEGETATED AREAS WILL BE MAINTAINED IN ADEQUATE CONDITION TO PROVIDE PROPER GROUND COVER, THEREBY REDUCING EROSION POTENTIAL.
2. AREAS WHERE VEGETATION IS LOST WILL BE RESTABILIZED AND MAINTAINED AS NECESSARY TO RESTORE PROPER GROUND COVER.
3. STRUCTURAL MEASURES WILL BE EXAMINED AT LEAST ANNUALLY AND MAINTENANCE PERFORMED AS NEEDED.

GENERAL CONSTRUCTION SEQUENCING PLAN

THE FOLLOWING CONSTRUCTION SEQUENCING IS GENERAL IN NATURE AND IS INTENDED TO PROVIDE A GUIDELINE FOR THE CONTRACTOR. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COMPLETE THE PROJECT IN CONFORMANCE WITH THE NPDES STANDARDS AND APPROVED PLANS AND PERMITS.

1. OBTAIN PLAN APPROVAL AND OTHER APPLICABLE PERMITS.
2. FLAG THE WORK LIMITS OF CONSTRUCTION AND IDENTIFY AREAS NOT TO BE DISTURBED.
3. HOLD PRE CONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION. WEEKLY REVIEWS OF EROSION, SEDIMENT, AND STORM WATER CONTROLS WILL BE CONDUCTED. REVIEWS WILL ALSO BE CONDUCTED WITHIN 24 HOURS FOLLOWING ALL RAIN EVENTS EXCEEDING 1/2" INTENSITY.
4. INSTALL SEDIMENT CONTROLS AS THE FIRST CONSTRUCTION ACTIVITY.
5. INSTALL STORM DRAIN WITH STABILIZED INLET PROTECTION AT THE CONSTRUCTION ENTRANCE/EXIT.
6. INSTALL TEMPORARY STABILIZED CONSTRUCTION ENTRANCE/EXIT.
7. COMPLETE SITE CLEARING EXCEPT FOR AREAS DESIGNATED NOT TO BE DISTURBED.
8. ROUGH GRADE SITE, STOCKPILE TOPSOIL, CONSTRUCT WATERWAYS, INSTALL CULVERTS AND OUTLET PROTECTION (INSTALL SEDIMENT CONTROLS AND SILT FENCING AS NEEDED).
   BARE AREAS OF EXPOSED LAND SHALL BE MULCHED AND SEEDED ONCE GRADING HAS BEEN COMPLETED.
9. FINISH THE SLOPES AROUND BUILDING DIRT PADS AS SOON AS ROUGH GRADING IS COMPLETE.
10. COMPLETE FINAL GRADING FOR ROADS AND STABILIZE WITH APPROVED MATERIAL.
11. COMPLETE FINAL GRADING OF GROUNDS, TOPSOIL CRITICAL AREAS, AND PERMANENTLY VEGETATE, LANDSCAPE, AND MULCH.
12. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSPECTED WEEKLY AND FOLLOWING 1/2" RAINFALL EVENTS. NEEDED REPAIRS WILL BE RECORDED WITHIN 24 HOURS, AND CORRECTED IMMEDIATELY.
13. AFTER SITE IS STABILIZED, REMOVE ALL TEMPORARY MEASURES AND INSTALL PERMANENT VEGETATION ON THE DISTURBED AREAS.

SPECIAL NOTICE:

THE CERTIFICATIONS BELOW ARE INCLUDED FOR INFORMATIONAL PURPOSES ONLY. OFFICIAL EXECUTED CERTIFICATIONS ARE KEPT IN THE PROJECT FILE.

CONTRACTORS CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND AND SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER."

NAME:..______________________________
TITLE:..______________________________
COMPANY NAME:.......................______________________________
COMPANY ADDRESS:................______________________________

COMPANY PHONE #:.................(___) ___-____
PROJECT SITE DESCRIPTION:....

SIGNATURE:____

DATE OF CERTIFICATION:_____________________________

ENGINEERS CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

NAME:.. Scott M. Glaubitz, P.E./Hassan Kamal, P.E.
TITLE:.. President/Vice President
COMPANY NAME...................... B.S.E. Consultants, Inc.
COMPANY ADDRESS:.............. 312 S. Harbor City Blvd., Suite 4
Melbourne, Florida 32901
COMPANY PHONE #:.................(321) 725-3674
PROJECT SITE DESCRIPTION:....

SIGNATURE:____

DATE OF CERTIFICATION:____________________________

CORPORATE OFFICERS CERTIFICATION

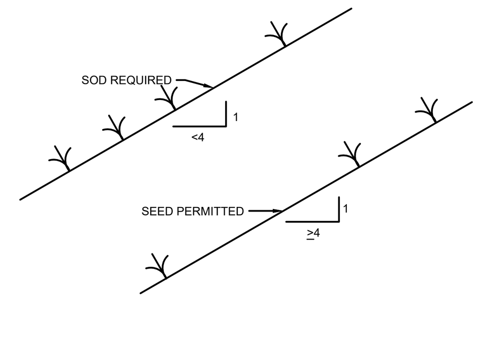
"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

NAME:..
TITLE:..
COMPANY NAME.........................
COMPANY ADDRESS:..................

COMPANY PHONE #:.................
PROJECT SITE DESCRIPTION:....

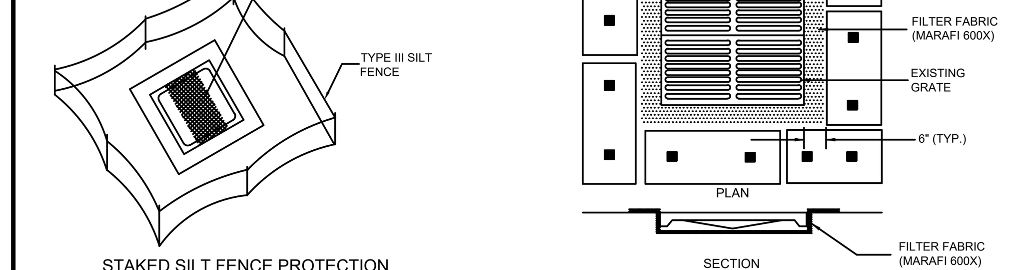
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DATE OF CERTIFICATION:____________________________



NOTE: REFER TO SPECIFICATIONS AND POND CROSS SECTIONS AND DETAILS FOR SLOPE PLANTING AND ANY SPECIALTY EROSION AND CONTROL MEASURES

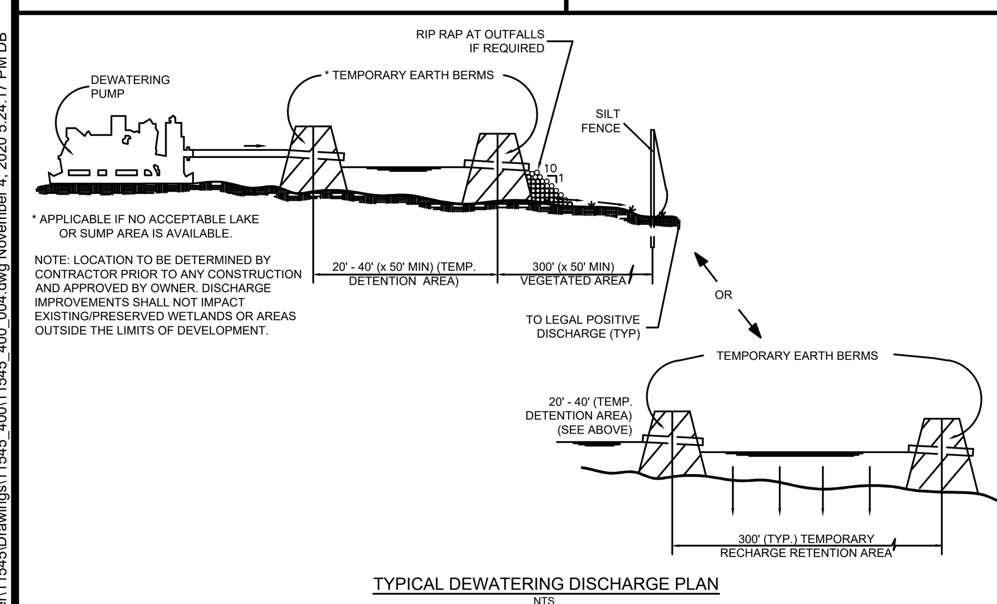
GRASS SLOPES
N.T.S.
FIGURE 7



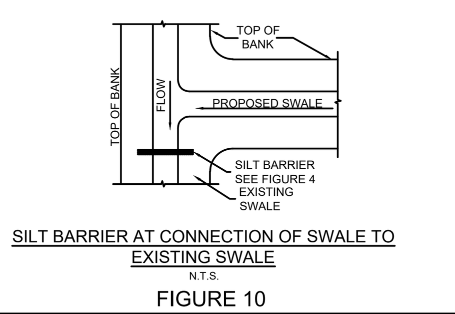
STAKED SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS

SYNTHETIC HAY BALE PROTECTION AROUND DITCH BOTTOM INLETS

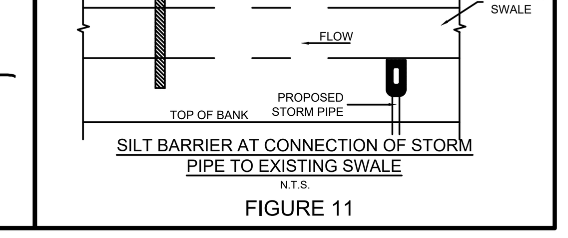
SEDIMENT CONTROL DETAIL
NTS
FIGURE 8



TYPICAL DEWATERING DISCHARGE PLAN
NTS
FIGURE 9



SILT BARRIER AT CONNECTION OF SWALE TO EXISTING SWALE
N.T.S.
FIGURE 10



SILT BARRIER AT CONNECTION OF STORM PIPE TO EXISTING SWALE
N.T.S.
FIGURE 11

NON-SYNTHETIC HAY BALES SHALL NOT BE PERMITTED

GENERAL SITE INFORMATION

SITE DESCRIPTION:
DEVELOPMENT OF A 280 UNIT MULTI-FAMILY PROJECT

TOTAL AREA:
±15.74 ACRES

DISTURBED AREA:
±9.5 ACRES

QUALITY RECEIVING SURFACE WATERS AND WETLANDS:
EXISTING STORM WATER POND WITH DISCHARGE TO FDOT DITCH

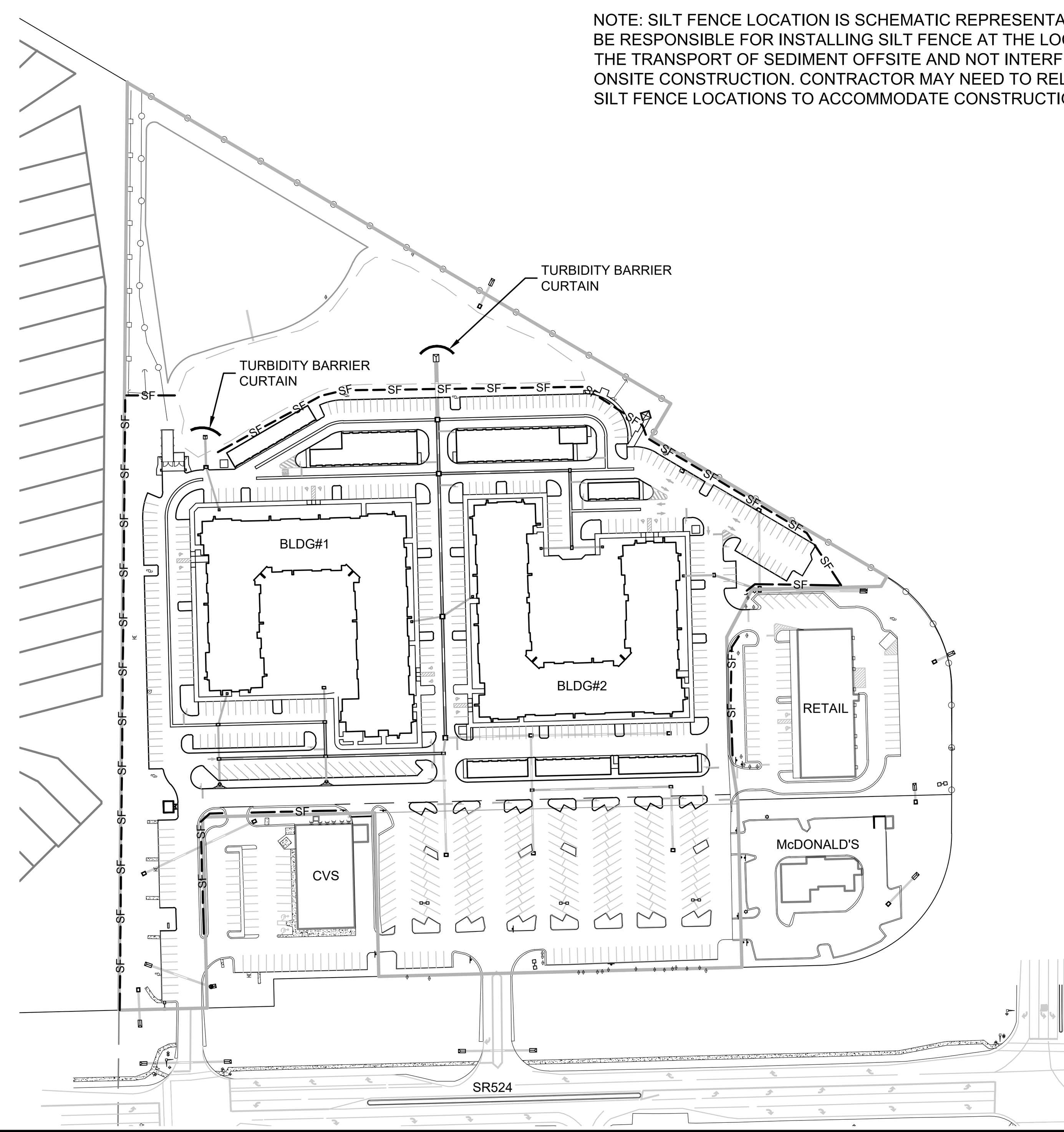
EXISTING SOIL TYPES:
IMMOKOLEE, ST JOHNS AND ST LUCIE SANDS

STORM WATER POLLUTION PREVENTION MEASURES & CONTROLS:
THERE ARE A VARIETY OF CONTROLS PROPOSED FOR THIS SITE. SOME CONTROLS ARE INTENDED TO FUNCTION TEMPORARILY AND WILL BE USED AS NEEDED FOR POLLUTANT CONTROL. THESE INCLUDE TEMPORARY SEDIMENT BARRIERS AND SILT FENCES. FOR MOST DISTURBED AREAS, PERMANENT STABILIZATION WILL BE ACCOMPLISHED BY COVERING THE SOIL WITH PAVEMENT OR VEGETATION.

SOIL STABILIZATION:
THE PURPOSE OF SOIL STABILIZATION IS TO PREVENT SOIL FROM LEAVING THE SITE. IN THE NATURAL CONDITION, SOIL IS STABILIZED BY NATIVE VEGETATION. THE PRIMARY TECHNIQUES TO BE USED AT THIS PROJECT FOR STABILIZATION AFTER CONSTRUCTION WILL BE TO PROVIDE PROTECTIVE TURF GRASS OR PAVEMENT.

NOTES:
ACCESS SHALL BE PROVIDED BY AN UNOBSTRUCTED ALL WEATHER DRIVING SURFACE CAPABLE OF SUPPORTING THE LOADS IMPOSED BY RESPONDING APPARATUS OF NOT LESS THAN 20 FEET AND SHALL BE MAINTAINED DURING CONSTRUCTION (SEE FIGURE 2). THE LOCATION OF EROSION CONTROL FEATURES SHOWN ON THIS PLAN REPRESENTS MINIMUM REQUIREMENTS. DEPENDING UPON THE CONTRACTORS OPERATIONS, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO INSTALL AND MAINTAIN ANY NECESSARY EROSION CONTROL FACILITIES NEEDED TO CONTROL EROSION OR THE DISCHARGE OF TURBIDITY INTO DOWNSTREAM WATERS OR ADJACENT PROPERTY.

NOTE: SILT FENCE LOCATION IS SCHEMATIC REPRESENTATION. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING SILT FENCE AT THE LOCATION NEEDED TO PREVENT THE TRANSPORT OF SEDIMENT OFFSITE AND NOT INTERFERE WITH THE REQUIRED ONSITE CONSTRUCTION. CONTRACTOR MAY NEED TO RELOCATE/REPLACE/ADJUST SILT FENCE LOCATIONS TO ACCOMMODATE CONSTRUCTION SEQUENCING.



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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

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DESIGN/DRAWN:	ALS/DRB

PROJECT TITLE

CIRRUS

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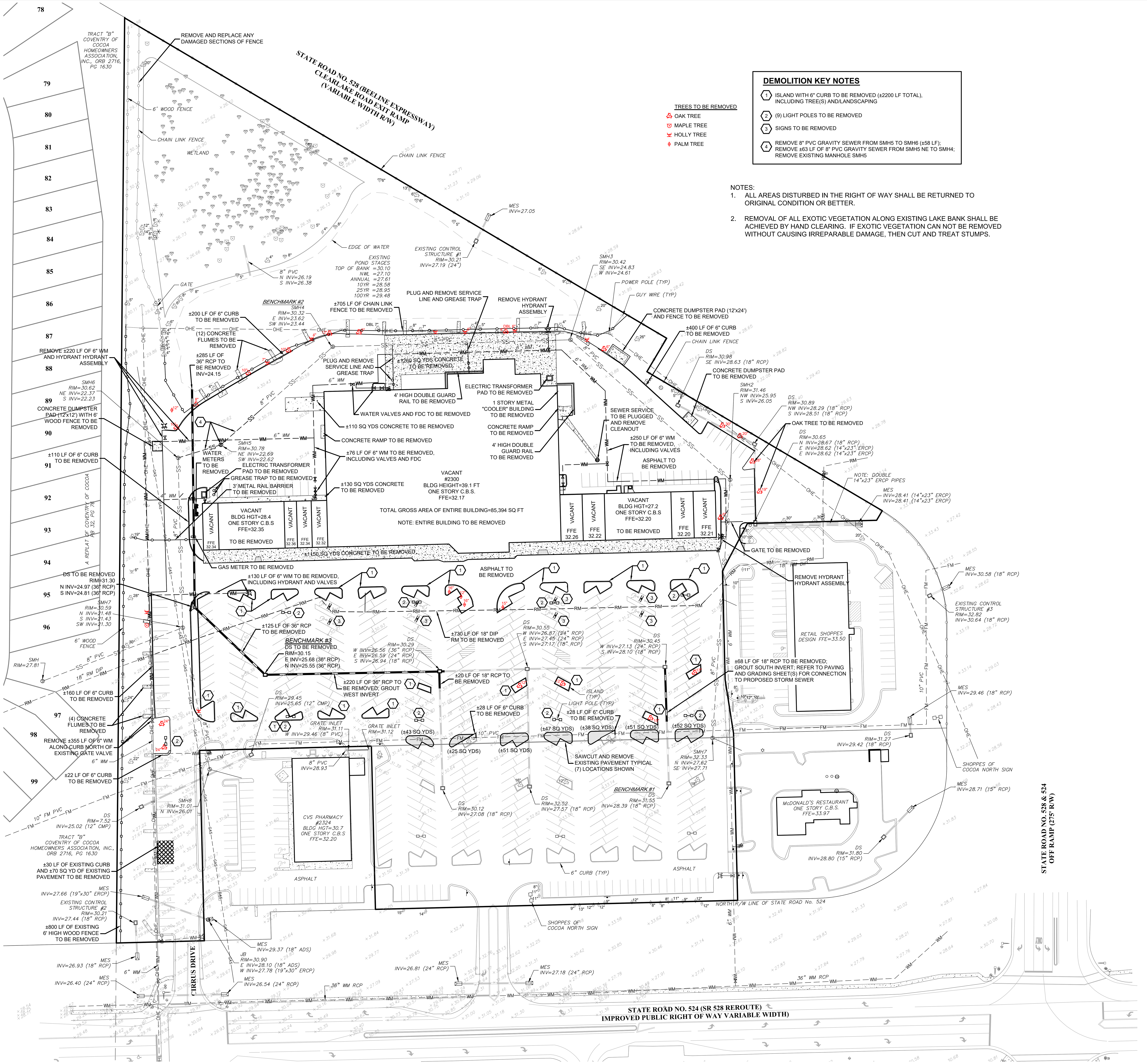
STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

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11545

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4 of 19

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DEMOLITION KEY NOTES

1. ISLAND WITH 6" CURB TO BE REMOVED (±2200 LF TOTAL), INCLUDING TREE(S) AND/LANDSCAPING
2. (9) LIGHT POLES TO BE REMOVED
3. SIGNS TO BE REMOVED
4. REMOVE 8" PVC GRAVITY SEWER FROM SMH5 TO SMH6 (±58 LF); REMOVE ±63 LF OF 8" 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:
1. ALL AREAS DISTURBED IN THE RIGHT OF WAY SHALL BE RETURNED TO ORIGINAL CONDITION OR BETTER.
2. 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.

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PROJECT TITLE
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DEMOLITION PLAN

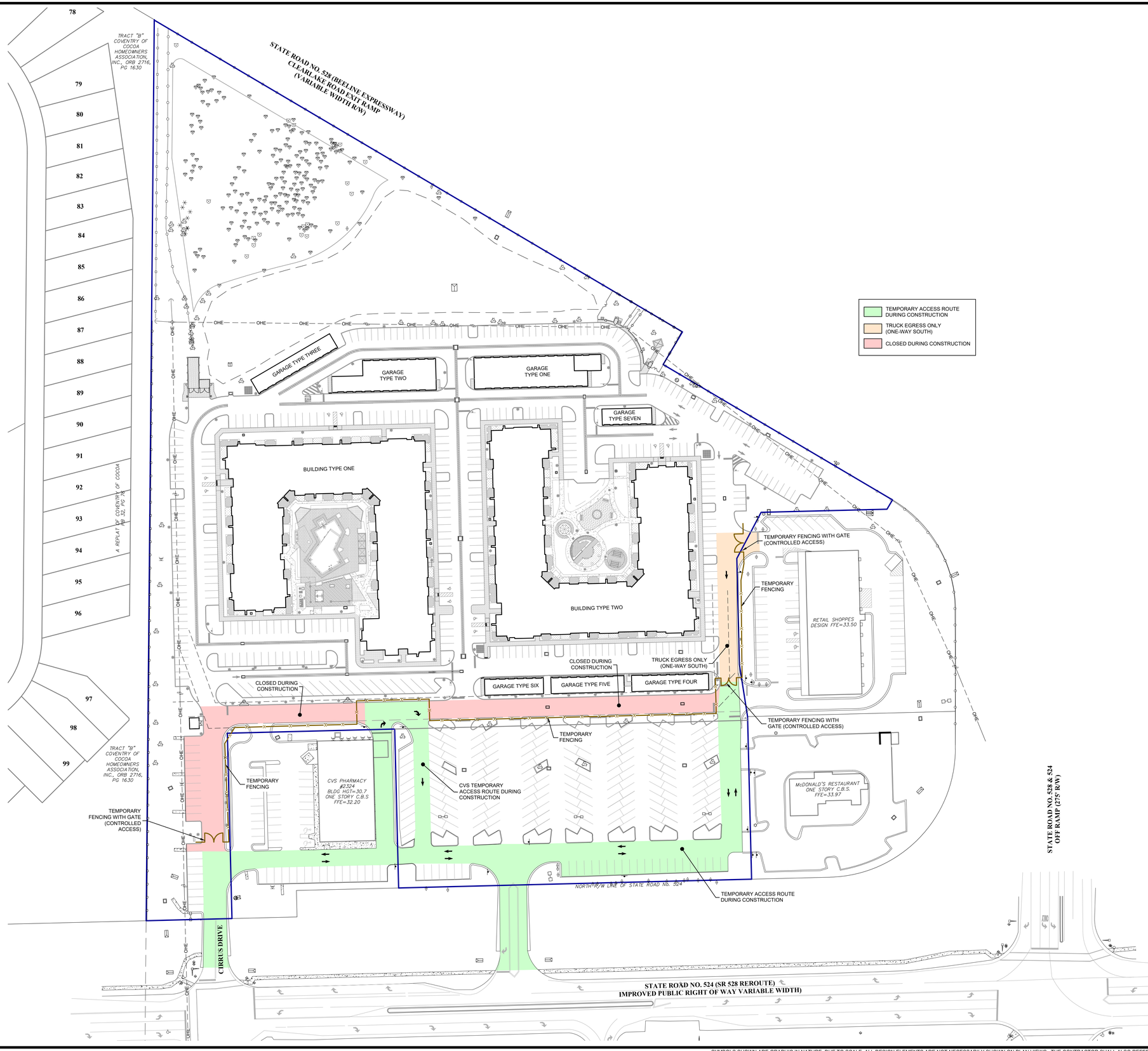
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5 of 19

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.

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MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION

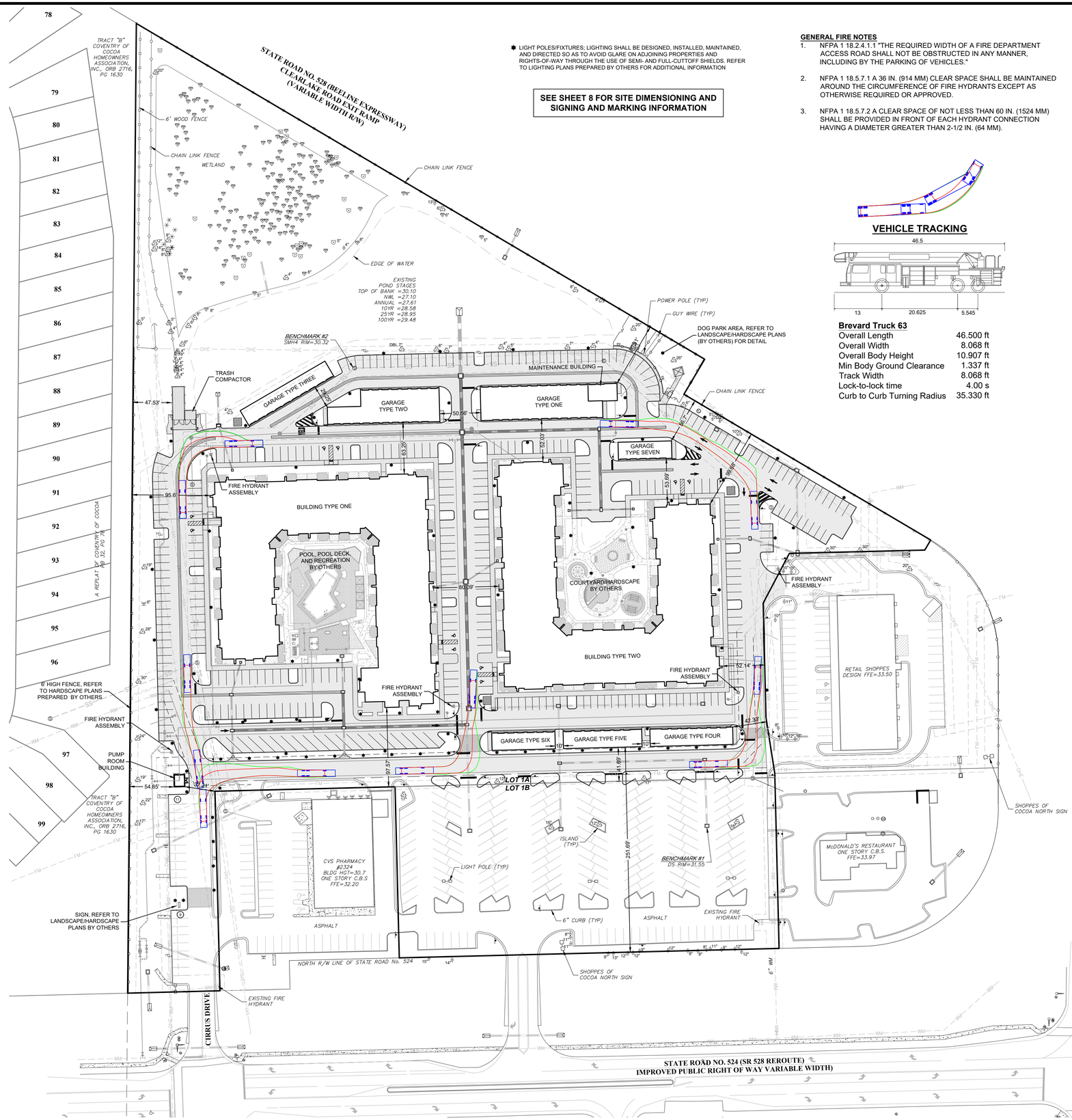
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SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



✱ LIGHT POLES/FIXTURES; LIGHTING SHALL BE DESIGNED, INSTALLED, MAINTAINED, AND DIRECTED SO AS TO AVOID GLARE ON ADJOINING PROPERTIES AND RIGHTS-OF-WAY THROUGH THE USE OF SEMI- AND FULL-CUTTOFF SHIELDS. REFER TO LIGHTING PLANS PREPARED BY OTHERS FOR ADDITIONAL INFORMATION

SEE SHEET 8 FOR SITE DIMENSIONING AND SIGNING AND MARKING INFORMATION

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).

VEHICLE TRACKING

Brevard Truck 63

Overall Length	46.500 ft
Overall Width	8.068 ft
Overall Body Height	10.907 ft
Min Body Ground Clearance	1.337 ft
Track Width	8.068 ft
Lock-to-lock time	4.00 s
Curb to Curb Turning Radius	35.330 ft

ZONING
EXISTING ZONING = MIXED USE PUD
FUTURE LAND USE = COMMERCIAL

UTILITIES
ALL PROPOSED UTILITIES SHALL BE UNDERGROUND INSTALLATION.

SANITARY SEWER EASEMENTS SHALL BE CENTERED OVER THEIR FINAL AS-BUILT LOCATION.

LOT 1A = ±13.49 AC
LOT 1B = ± 2.25 AC
TOTAL = ±15.74 AC

BUILDINGS
BUILDING HEIGHTS:
BUILDING TYPES ONE AND TWO TOP RIDGE OF BUILDING ROOF NOT TO EXCEED 57 FEET
GARAGES = 13 FEET MAXIMUM

PROPOSED # OF MULTI-FAMILY UNITS = 280 TOTAL

BUILDING TYPE 1 (WEST)	4 STORIES
1ST FLOOR	= 44,408 SQ FT
2ND FLOOR	= 44,439 SQ FT
3RD FLOOR	= 44,667 SQ FT
4TH FLOOR	= 44,853 SQ FT
TOTAL	= 178,367 SQ FT

FLOOR AREA RATIO = (178,367 / 685,685) = 26.0%

BUILDING TYPE 2 (EAST)	4 STORIES
1ST FLOOR	= 43,728 SQ FT
2ND FLOOR	= 44,444 SQ FT
3RD FLOOR	= 44,696 SQ FT
4TH FLOOR	= 44,959 SQ FT
TOTAL	= 177,827 SQ FT

FLOOR AREA RATIO = (177,827 / 685,685) = 25.9%

GARAGE TYPE ONE	=	6,585 SQ FT
GARAGE TYPE TWO	=	4,860 SQ FT
GARAGE TYPE THREE	=	2,560 SQ FT
GARAGE TYPE FOUR	=	2,125 SQ FT
GARAGE TYPE FIVE	=	2,015 SQ FT
GARAGE TYPE SIX	=	1,625 SQ FT
GARAGE TYPE SEVEN	=	1,396 SQ FT
TOTAL	=	21,166 SQ FT
PUMP ROOM	=	202 SQ FT
TRASH COMPACTOR	=	1,154 SQ FT
POOL PAVILION	=	2,801 SQ FT
TOTAL	=	4,157 SQ FT

LOT 1A IMPERVIOUS AREA

BUILDINGS	= 113,459 SQ FT	2.60 ACRES	19.30%
SIDEWALK/CONCRETE	= 24,245 SQ FT	0.55 ACRES	4.12%
PAVEMENT	= 179,568 SQ FT	4.12 ACRES	30.56%
TOTAL	= 317,272 SQ FT	7.28 ACRES	53.98%

LOT 1A PERVIOUS AREA

GREEN SPACE	= 165,841 SQ FT	3.82 ACRES	28.31%
EXISTING POND	= 53,069 SQ FT	1.21 ACRES	8.97%
EXISTING WETLAND	= 51,595 SQ FT	1.18 ACRES	8.74%
TOTAL	= 270,505 SQ FT	6.21 ACRES	46.02%
LOT 1A TOTAL AREA	= 587,777 SQ FT	13.49 ACRES	100.00%

LOT 1B IMPERVIOUS AREA

CURB/CONCRETE	= 975 SQ FT	0.02 ACRES	0.89%
PAVEMENT	= 84,827 SQ FT	1.95 ACRES	86.67%
TOTAL	= 85,802 SQ FT	1.97 ACRES	87.56%

LOT 1B PERVIOUS AREA

GREEN SPACE	= 12,106 SQ FT	0.28 ACRES	12.44%
LOT 1B TOTAL AREA	= 97,908 SQ FT	2.25 ACRES	100.00%

PARKING
TYPICAL STANDARD PARKING STALL PROVIDED SHALL HAVE A RECTANGULAR AREA A MINIMUM OF 9.5 FEET IN WIDTH AND 18 FEET IN LENGTH.

COMPACT PARKING SPACES ARE PROVIDED AND SHALL HAVE A RECTANGULAR AREA A MINIMUM OF 8.5 FEET IN WIDTH AND 16 FEET IN LENGTH.

THE WIDTH OF PARKING SPACES FOR DISABLED PERSONS SHALL BE IN ACCORDANCE WITH STATE AND FEDERAL REQUIREMENTS.

REQUIRED PARKING

TYPE	# OF UNITS		
EFFICIENCY	20	1 SPACE/UNIT	= 20 SPACES
1 BEDROOM	133	1.5 SPACE/UNIT	= 200 SPACES
2 OR MORE BEDROOM	127	2 SPACE/UNIT	= 254 SPACES
TOTAL	280		= 474 SPACES

PROVIDED PARKING

10'x18' EXISTING PARKING	=	20
9.5'x18' STANDARD PARKING	=	231
12'x18' HANDICAP PARKING	=	10
8.5'x16' COMPACT PARKING	=	112 (24.7%)
GARAGE UNITS	=	79
TOTAL PARKING PROVIDED	=	452 SPACES
		1.61 SPACES PER UNIT

MINIMUM REQUIRED NUMBER OF HANDICAP STALLS = 9 STALLS
10 PROVIDED HANDICAP STALLS

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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

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(IN FEET)
VERTICAL DATUM: NAVD88

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

PROJECT TITLE
CIRRUS

SHEET TITLE
OVERALL SITE PLAN

PROJECT NO.
11545

DRAWING NO.
11545_400_007

SHEET
7 of 19

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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.

* LIGHT POLES/FIXTURES; LIGHTING SHALL BE DESIGNED, INSTALLED, MAINTAINED, AND DIRECTED SO AS TO AVOID GLARE ON ADJOINING PROPERTIES AND RIGHTS-OF-WAY THROUGH THE USE OF SEMI- AND FULL-CUTTOFF SHIELDS. REFER TO LIGHTING PLANS PREPARED BY OTHERS FOR ADDITIONAL INFORMATION

TRACT "B" COVENTRY OF COCOA HOMEOWNERS ASSOCIATION, INC., ORB 2716, PG 1630

6' WOOD FENCE

CHAIN LINK FENCE

EXISTING POND STAGES
TOP OF BANK =30.10
NWL =27.10
ANNUAL =27.61
10YR =28.58
25YR =28.95
100YR =29.48

EDGE OF WATER

BENCHMARK #2
SMH4 RIM=30.32

POWER POLE (TYP)

GUY WIRE (TYP)

STATE ROAD NO. 528 (BEELINE EXPRESSWAY)
CLEARLAKE ROAD EXIT RAMP
(VARIABLE WIDTH R/W)

DOG PARK AREA, REFER TO LANDSCAPE/HARDSCAPE PLANS (BY OTHERS) FOR DETAIL

TRASH COMPACTOR

GARAGE TYPE THREE

GARAGE TYPE TWO

GARAGE TYPE ONE

MAINTENANCE BUILDING

GARAGE TYPE SEVEN

6" YELLOW STRIPE AND 18" YELLOW GORE

WHITE "YIELD" STRIPING

24" STOP BAR AND STOP SIGN (TYP)

6' SIDEWALK

BUILDING TYPE ONE

POOL, POOL DECK, AND RECREATION BY OTHERS

COURTYARD/HARDSCAPE BY OTHERS

BUILDING TYPE TWO

PROVIDE WHITE DIRECTIONAL ARROWS AS SHOWN

RETAIL SHOPPES
DESIGN FFE=33.50

"ONE WAY DO NOT ENTER" SIGN

WHITE DIRECTIONAL ARROW

GARAGE TYPE SIX

GARAGE TYPE FIVE

GARAGE TYPE FOUR

6" HEADER CURB

6" CURB (TYP)

ASPHALT

ISLAND (TYP)

PUMP ROOM BUILDING

6' HIGH FENCE, REFER TO HARDSCAPE PLANS PREPARED BY OTHERS

CVS PHARMACY
#2324
BLDG HGT=30.7
ONE STORY C.B.S
FFE=32.20

BENCHMARK #1
DS RIM=31.55

McDONALD'S RESTAURANT
ONE STORY C.B.S.
FFE=33.97

(COMPACT) 8.5' 16'

R3' TYP

R2' R15' R10' R36' R25'

24' 18' 6' 9.5'

30 0 15 30
(IN FEET)

VERTICAL DATUM: NAVD88

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PARKING COUNTERS

STANDARD
COMPACT
GARAGE

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

PROJECT TITLE

CIRRUS

SHEET TITLE

SITE PLAN

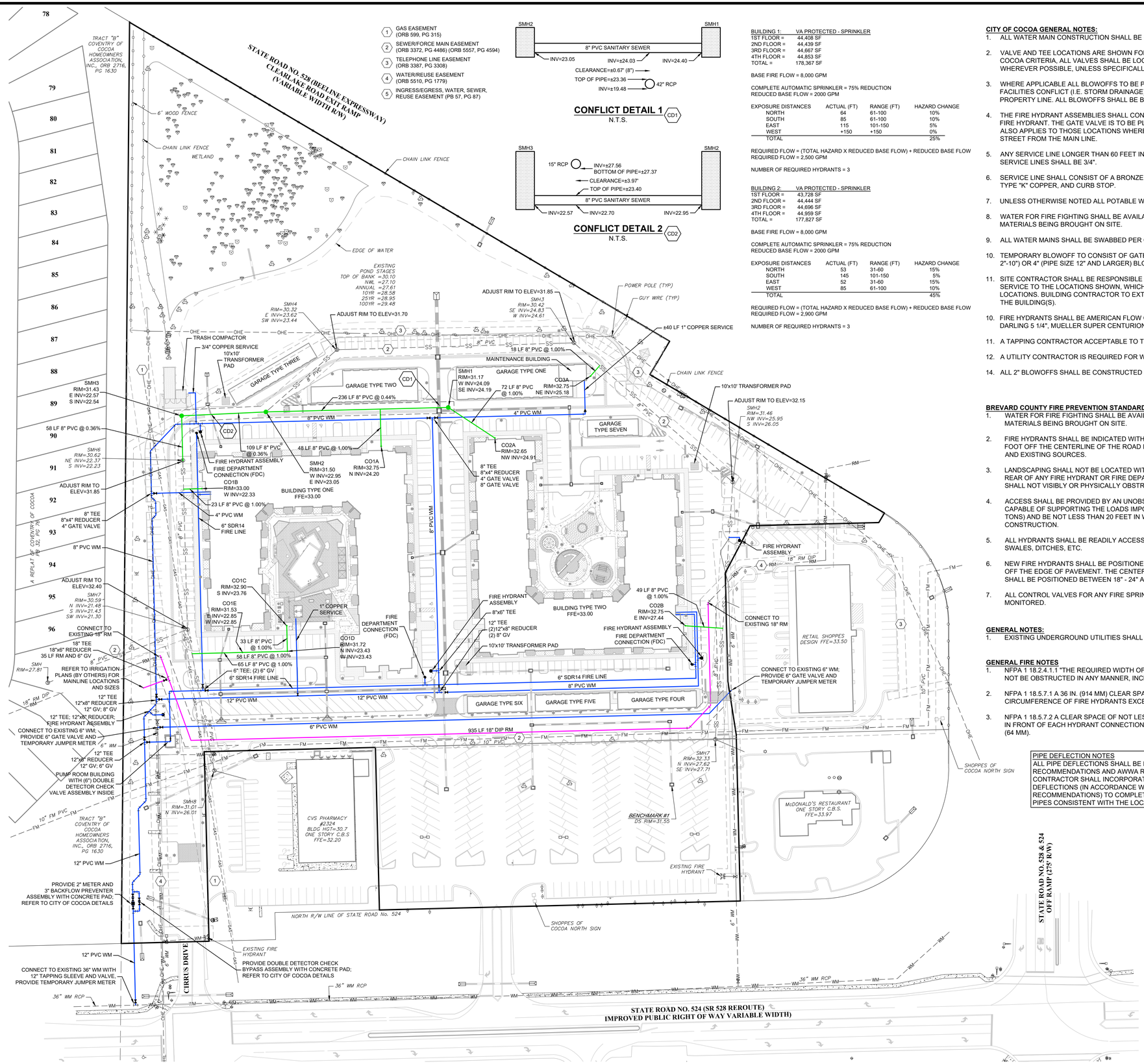
PROJECT NO. 11545

DRAWING NO. 11545_400_008

SHEET 8 of 19

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1. GAS EASEMENT (ORB 599, PG 315)
2. SEWER/FORCE MAIN EASEMENT (ORB 3372, PG 4486) (ORB 5557, PG 4594)
3. TELEPHONE LINE EASEMENT (ORB 3387, PG 3308)
4. WATER/REUSE EASEMENT (ORB 5510, PG 1779)
5. INGRESS/EGRESS, WATER, SEWER, REUSE EASEMENT (PB 57, PG 87)

CONFLICT DETAIL 1 CD1
N.T.S.

CONFLICT DETAIL 2 CD2
N.T.S.

BUILDING 1:	VA PROTECTED - SPRINKLER
1ST FLOOR =	44,408 SF
2ND FLOOR =	44,439 SF
3RD FLOOR =	44,667 SF
4TH FLOOR =	44,853 SF
TOTAL =	178,367 SF

BASE FIRE FLOW = 8,000 GPM

COMPLETE AUTOMATIC SPRINKLER = 75% REDUCTION
REDUCED BASE FLOW = 2000 GPM

EXPOSURE DISTANCES	ACTUAL (FT)	RANGE (FT)	HAZARD CHANGE
NORTH	64	61-100	10%
SOUTH	85	61-100	10%
EAST	115	101-150	5%
WEST	+150	+150	0%
TOTAL			25%

REQUIRED FLOW = (TOTAL HAZARD X REDUCED BASE FLOW) + REDUCED BASE FLOW
REQUIRED FLOW = 2,500 GPM

NUMBER OF REQUIRED HYDRANTS = 3

BUILDING 2:	VA PROTECTED - SPRINKLER
1ST FLOOR =	43,728 SF
2ND FLOOR =	44,444 SF
3RD FLOOR =	44,696 SF
4TH FLOOR =	44,959 SF
TOTAL =	177,827 SF

BASE FIRE FLOW = 8,000 GPM

COMPLETE AUTOMATIC SPRINKLER = 75% REDUCTION
REDUCED BASE FLOW = 2000 GPM

EXPOSURE DISTANCES	ACTUAL (FT)	RANGE (FT)	HAZARD CHANGE
NORTH	53	31-60	15%
SOUTH	145	101-150	5%
EAST	52	31-60	15%
WEST	85	61-100	10%
TOTAL			45%

REQUIRED FLOW = (TOTAL HAZARD X REDUCED BASE FLOW) + REDUCED BASE FLOW
REQUIRED FLOW = 2,900 GPM

NUMBER OF REQUIRED HYDRANTS = 3

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).
10. FIRE HYDRANTS SHALL BE AMERICAN FLOW CONTROL MODEL #B-84-B; 6", AMERICAN DARLING 5 1/4", MUELLER SUPER CENTURION 250 5 1/4" OR CLOW MEDALLION 5 1/4".
11. A TAPPING CONTRACTOR ACCEPTABLE TO THE CITY OF COCOA IS REQUIRED FOR TAPS.
12. A UTILITY CONTRACTOR IS REQUIRED FOR WATER MAIN INSTALLATION.
14. 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.

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

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(IN FEET)
VERTICAL DATUM: NAVD88

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

PROJECT TITLE
CIRRUS

SHEET TITLE
UTILITY PLAN

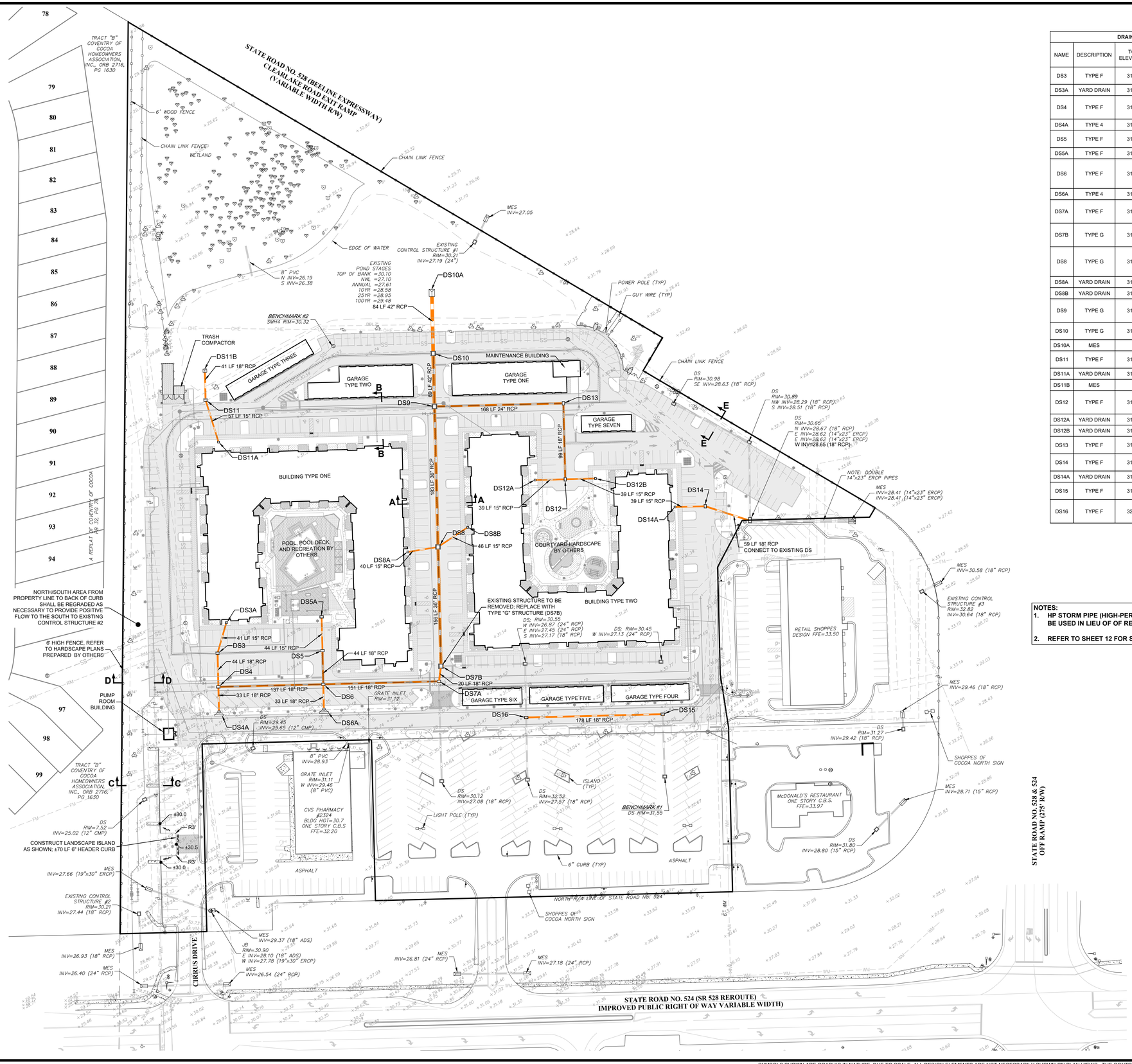
PROJECT NO.
11545

DRAWING NO.
11545_400_009

SHEET
9 of 19

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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	W =25.40 N =25.40 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	N =25.00 W =25.75 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 =28.25	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:

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

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60 0 30 60
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DATE:	08/31/20
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PROJECT TITLE

CIRRUS

SHEET TITLE

OVERALL PAVING, GRADING, AND DRAINAGE PLAN

PROJECT NO.
11545

DRAWING NO.
11545_400_010

SHEET
10 of 19

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NOTES:
1. HP STORM PIPE (HIGH-PERFORMANCE POLYPROPYLENE PIPE) MAY BE USED IN LIEU OF 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)

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1 CITY COMMENTS	10/30/20
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PROJECT TITLE
CIRRUS

SHEET TITLE
PAVING, GRADING, AND DRAINAGE PLAN

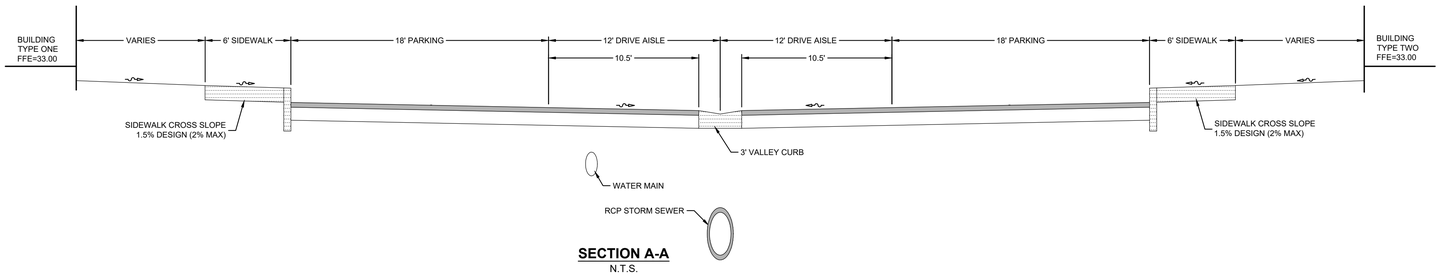
PROJECT NO.
11545

DRAWING NO.
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SHEET
11 of 19

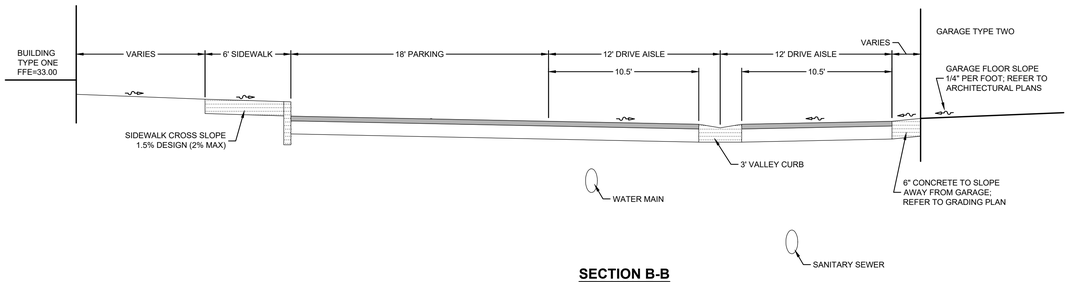
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SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

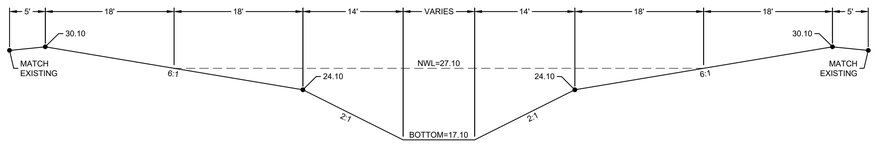


SECTION A-A
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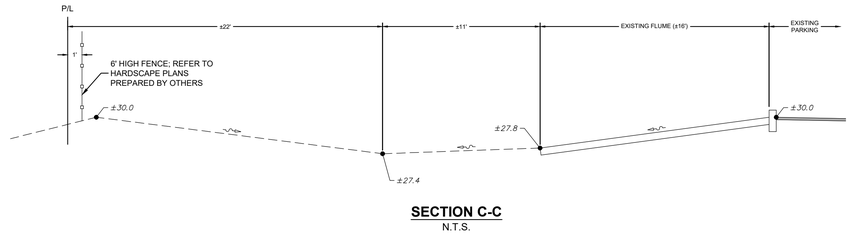
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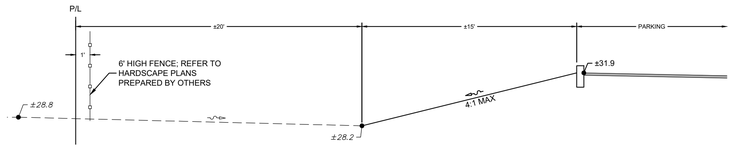
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N.T.S.



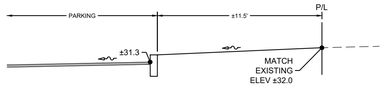
EXISTING POND SECTION
N.T.S.



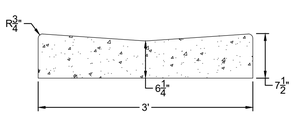
SECTION C-C
N.T.S.



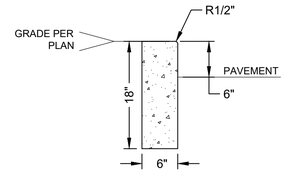
SECTION D-D
N.T.S.



SECTION E-E
N.T.S.



3' VALLEY CURB
N.T.S.



HEADER CURB
N.T.S.

STREET NAME SIGN NOTES:

1. SIGNS IN PUBLIC R.O.W. SHALL BE GREEN WITH 5/8" WHITE BORDER AND WHITE LETTERS AND NUMBERS.
2. SIGNS IN PRIVATE R.O.W. SHALL BE WHITE WITH 5/8" BLACK BORDER AND BLACK LETTERS AND NUMBERS.
3. STREET NAME BLADES SHALL BE RIVETED TOGETHER AT EACH CORNER WITH 3/16" SMALL FLANGE AVEX RIVETS. ATTACH BLADES TO POST WITH CHERRY-MATE ALUMINUM RIVETS, # BALM6BP34, OR 5/16" X 2-1/2" S.S. BOLTS, 1-1/4" X 5/16" S.S. FENDER WASHERS, W/ S.S. STOP HEX NUT HAVING NYLON INSERTS (LOCK NUTS).

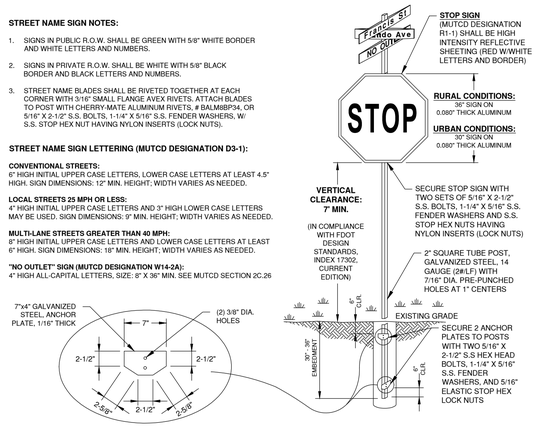
STREET NAME SIGN LETTERING (MUTCD DESIGNATION D3-1):

CONVENTIONAL STREETS:
6" HIGH INITIAL UPPER CASE LETTERS, LOWER CASE LETTERS AT LEAST 4.5" HIGH. SIGN DIMENSIONS: 12" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

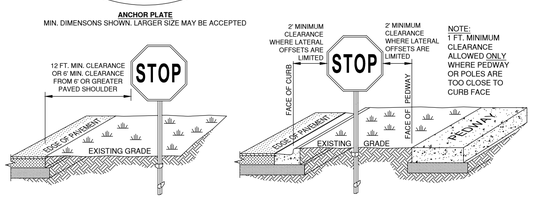
LOCAL STREETS 25 MPH OR LESS:
4" HIGH INITIAL UPPER CASE LETTERS AND 3" HIGH LOWER CASE LETTERS MAY BE USED. SIGN DIMENSIONS: 9" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

MULTI-LANE STREETS GREATER THAN 40 MPH:
8" HIGH INITIAL UPPER CASE LETTERS AND LOWER CASE LETTERS AT LEAST 6" HIGH. SIGN DIMENSIONS: 18" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

"NO OUTLET" SIGN (MUTCD DESIGNATION W14-2A):
4" HIGH ALL-CAPITAL LETTERS, SIZE: 8" X 36" MIN. SEE MUTCD SECTION 2C.26



ANCHOR PLATE
MIN. DIMENSONS SHOWN. LARGER SIZE MAY BE ACCEPTED

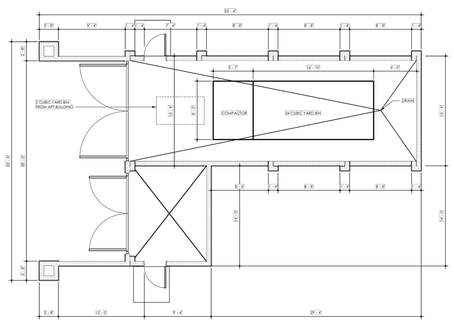


HORIZONTAL CLEARANCE (WITHOUT CURB AND GUTTER)

NOTE:
1 FT. MINIMUM CLEARANCE ALLOWED ONLY WHERE PEDWAY OR POLES ARE TOO CLOSE TO CURB FACE

HORIZONTAL CLEARANCE (WITH CURB AND GUTTER)

STOP SIGN AND STREET MARKER DETAILS



TRASH COMPACTOR DETAIL

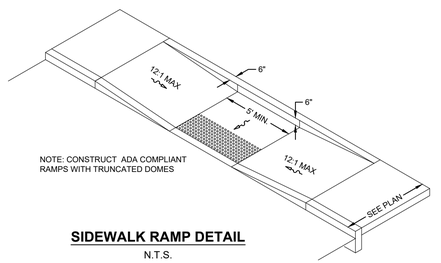
TYPICAL PAVEMENT SECTION

1. 1-1/2" TYPE SP-12.5 ASPHALTIC CONCRETE
2. 8" BASE WITH FDOT APPROVED PRIME/TACK COAT — OPTIONS:
   - LIMEROCK, L.B.R. 100 MIN.
   - CEMENTED COQUINA SHELL, F.D.O.T. APPROVED, L.B.R. 100 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180
3. 8" STABILIZED SUB-GRADE, L.B.R. 50 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180 (EXTEND 12" BEYOND CURB)

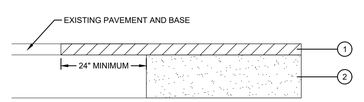
OR

ALTERNATE PAVEMENT SECTION

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



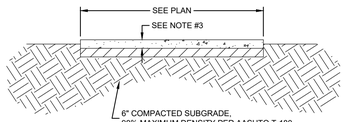
SIDEWALK RAMP DETAIL
N.T.S.



1. 1-1/2" TYPE S-III ASPHALT
2. 8" BASE

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.



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.

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CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

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STATE OF FLORIDA, No. 33659 No. 4151

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

VERTICAL DATUM: NAVD88

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

PROJECT TITLE

CIRRUS

SHEET TITLE

PAVING, GRADING AND DRAINAGE DETAILS

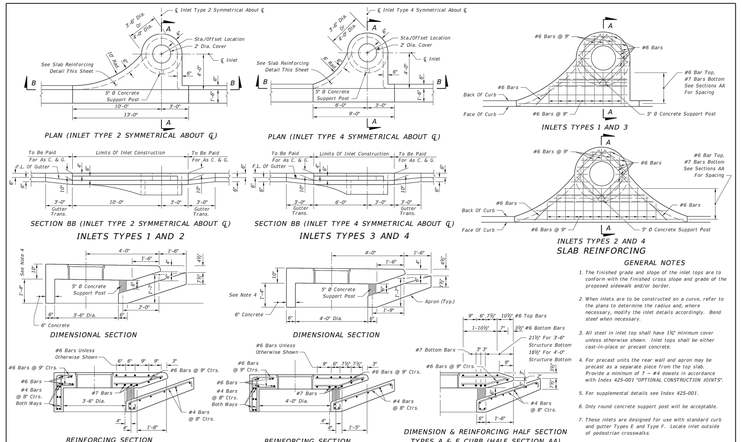
PROJECT NO.
11545

DRAWING NO.
11545_400_012

SHEET
12 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.

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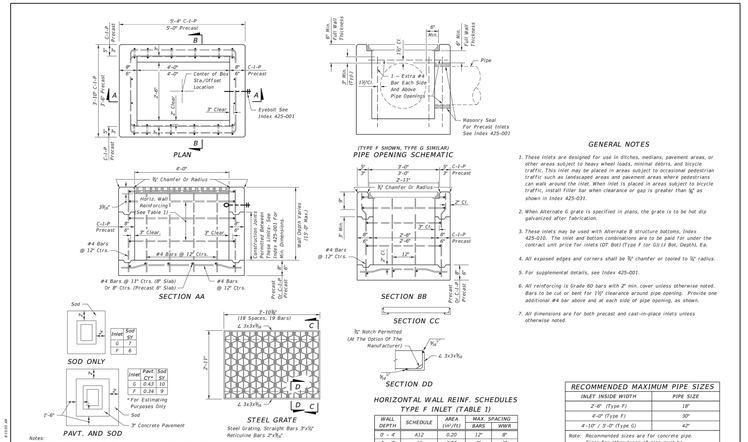


TRANSVERSE SECTIONS FOR INLETS TYPES 1, 2, 3 & 4

GENERAL NOTES

1. The finished grade and slope of the inlet tops are to conform with the finished cross slope and grade of the proposed sidewalk and/or border.
2. When inlets are to be constructed on a curve, refer to the plans to determine the radius and, where necessary, modify the inlet details accordingly. Bend steel when necessary.
3. All steel in inlet top shall have 1½" minimum cover unless otherwise shown. Inlet tops shall be either cast-in-place or precast concrete.
4. For precast units the rear wall and apron may be precast as a separate piece from the top slab. Provide a minimum of 7 — #4 dowels in accordance with Index 425-001 "OPTIONAL CONSTRUCTION JOINTS".
5. For supplemental details see Index 425-001.
6. Only round concrete support post will be acceptable.
7. These inlets are designed for use with standard curb and gutter Types E and Type F. Locate inlet outside of pedestrian crosswalks.
8. For structure bottoms see Index 425-010.
9. Inlet to be paid for under the contract unit price for inlets (Curb) (Type_), Each.

LAST REVISION 11/01/17	REVISION	DESCRIPTION:	FDOT FY 2020-21 STANDARD PLANS	CURB INLET TOPS TYPES 1, 2, 3 AND 4	INDEX 425-020	SHEET 1 of 1



notes:
1. Pavement and/or sod to be used only where called for in the plans.
2. Cost of paving to be included in cost of inlet.

PAVEMENT AND SODDING

GENERAL NOTES

1. These inlets are designed for use in ditches, medians, pavement areas, or other areas subject to heavy wheel loads, minimal debris, and bicycle traffic. This inlet may be placed in areas subject to occasional pedestrian traffic such as landscaped areas and pavement areas where pedestrians can walk around the inlet. When inlet is placed in areas subject to bicycle traffic, install filler bar when clearance or gap is greater than ¾" as shown in Index 425-031.
2. When Alternate G grate is specified in plans, the grate is to be hot dip galvanized after fabrication.
3. These inlets may be used with Alternate B structure bottoms, Index 425-010. The inlet and bottom combinations are to be paid for under the contract unit price for inlets (Curb) (Type_) For 1st Gt.) Bot, Depth), Ea.
4. All exposed edges and corners shall be ½" chamfer or tooled to ½" radius.
5. For supplemental details, see Index 425-001.
6. All reinforcing is Grade 60 bars with 2" min. cover unless otherwise noted. Bars to be cut or bent for 1½" clearance around pipe opening. Provide one additional #4 bar above and at each side of pipe opening, as shown.
7. All dimensions are for both precast and cast-in-place inlets unless otherwise noted.

HORIZONTAL WALL REINF. SCHEDULES TYPE F INLET (TABLE 1)

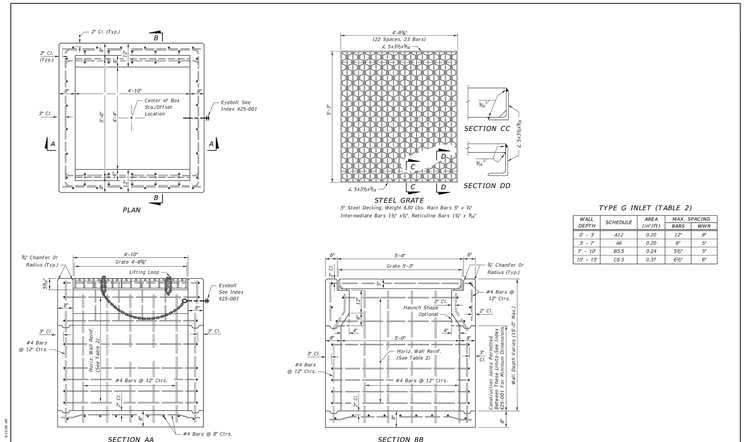
WALL DEPTH	SCHEDULE	AREA (in²/ft)	MAX. SPACING BARS	MAX. SPACING WWR
0' – 4'	A12	0.20	12"	9"
4' – 7'	A6	0.20	6"	5"
7' – 12'	B5.5	0.24	5½"	5"
12' – 13'	Special 1	0.26†	5"	4"

RECOMMENDED MAXIMUM PIPE SIZES

INLET INSIDE WIDTH	PIPE SIZE
2'-0" (Type F)	18"
4'-0" (Type F)	30"
4'-10" / 5'-0" (Type G)	42"

Note: Recommended sizes are for concrete pipe. Sizes for other types of pipe must be verified for fit in accordance with Index 425-001. For larger pipe sizes see Note 3.

LAST REVISION 11/01/17	REVISION	DESCRIPTION:	FDOT FY 2020-21 STANDARD PLANS	DITCH BOTTOM INLET TYPES F AND G	INDEX 425-053	SHEET 1 of 2



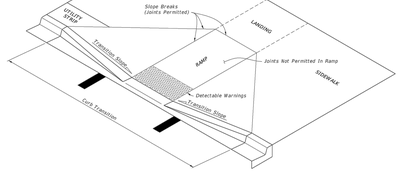
TYPE G INLET (TABLE 2)

WALL DEPTH	SCHEDULE	AREA (in²/ft)	MAX. SPACING BARS	MAX. SPACING WWR
0' – 2'	A12	0.20	12"	9"
2' – 7'	A6	0.20	6"	5"
7' – 10'	B5.5	0.24	5½"	5"
10' – 13'	C8.5	0.3†	4½"	4"

LAST REVISION 11/01/17	REVISION	DESCRIPTION:	FDOT FY 2020-21 STANDARD PLANS	DITCH BOTTOM INLET TYPES F AND G	INDEX 425-053	SHEET 2 of 2

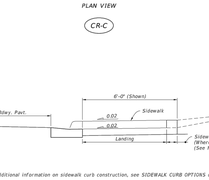
GENERAL NOTES:

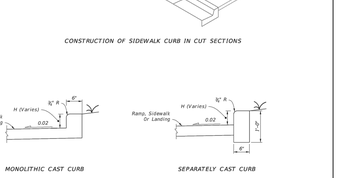
1. Cross Slopes and Grades:
   - A. Sidewalk, ramp, and landing slopes (i.e. 0.02, 0.05, and 1:12) shown in this Index are maximums. With approval of the Engineer, provide the minimum feasible slope where the requirements cannot be met.
   - B. Landings must have cross-slopes less than or equal to 0.02 in any direction.
   - C. Maintain a single longitudinal slope along each side of the curb ramp. Ramp slopes are not required to exceed 15 feet in length.
   - D. Joints permitted at the location of Slope Breaks. Otherwise locate joints in accordance with Index 522-001. No joints are permitted within the ramp portion of the Curb Ramp.
2. Curb, Curb and Gutter, and/or Sidewalk:
   - A. Refer to Index 522-001 for concrete thickness and sidewalk details.
   - B. Remove any existing curb, curb and gutter, or sidewalk to the nearest joint beyond the curb transition or to the extent that no remaining section is less than 5 feet long.
3. Curb Ramp Alpha-Identification:
   - A. Sidewalk curb ramp alpha-identifications (e.g. CR-A) are provided for reference purposes in the Plans.
   - B. Alpha-identifications CR-I and CR-J are intentionally omitted.
4. Detectable Warnings:
   - A. Install detectable warnings in accordance with Specification 527.
   - B. Place detectable warnings across the full width of the ramp or landing, to a minimum depth of 2 feet measured perpendicular to the curb line and no greater than 5 feet from the back of the curb or edge of pavement.
   - C. If detectable warnings are shown in the Plans on slopes greater than 5%, align the truncated domes with the centerline of the ramp; otherwise, the truncated domes are not required to be aligned.
5. Detectable Warnings – Acceptance Criteria:
   - A. Color and texture shall be complete and uniform.
   - B. 90% of individual truncated domes shall be in accordance with the Americans with Disabilities Act Standards for Transportation Facilities, Section 705.
   - C. There shall be no more than 4 non-compliant domes in any one square foot.
   - D. Non-compliant domes shall not be adjacent to other non-compliant domes.
   - E. Surfaces shall not deviate more than 0.10" from a true plane.



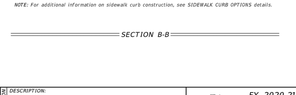
CURB RAMP NOMENCLATURE

LAST REVISION 11/01/19	REVISION	DESCRIPTION:	FDOT FY 2020-21 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 1 of 8



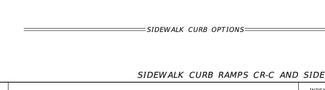


CONSTRUCTION OF SIDEWALK CURB IN CUT SECTIONS



NOTE: For additional information on sidewalk curb construction, see SIDEWALK CURB OPTIONS details.

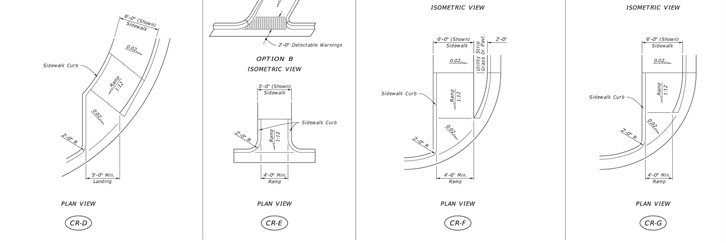
SECTION B-B



SIDEWALK CURB OPTIONS

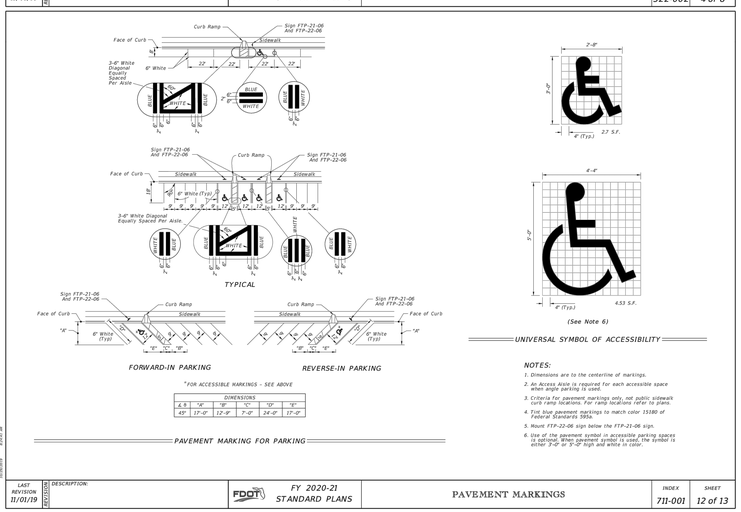
SIDEWALK CURB RAMPS CR-C AND SIDEWALK CURB

LAST REVISION 11/01/18	REVISION	DESCRIPTION:	FDOT FY 2020-21 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 3 of 8



SIDEWALK CURB RAMPS CR-D, CR-E, CR-F & CR-G

LAST REVISION 11/01/18	REVISION	DESCRIPTION:	FDOT FY 2020-21 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 4 of 8



*FOR ACCESSIBLE MARKINGS - SEE ABOVE

DIMENSIONS						
∠ θ	"A"	"B"	"C"	"D"	"E"	
45°	17'-0"	12'-9"	7'-0"	24'-0"	17'-0"	

PAVEMENT MARKING FOR PARKING

NOTES:
1. Dimensions are to the centerline of markings.
2. An Access Aisle is required for each accessible space when angle parking is used.
3. Criteria for pavement markings only, not public sidewalk curb ramp locations. For ramp locations refer to plans.
4. Tint blue pavement markings to match color 15180 of Federal Standards 595a.
5. Mount FTP-22-06 sign below the FTP-21-06 sign.
6. Use of the pavement symbol in accessible parking spaces is optional. When pavement symbol is used, the symbol is either 3'-0" or 5'-0" high and white in color.

LAST REVISION 11/01/19	REVISION	DESCRIPTION:	FDOT FY 2020-21 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 12 of 13

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

VERTICAL DATUM: NAVD88

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

PROJECT TITLE
CIRRUS

SHEET TITLE
FDOT DETAILS

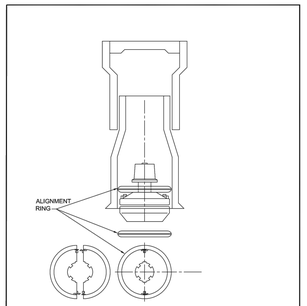
PROJECT NO.
11545

DRAWING NO.
11545_400_013

SHEET
13 of 19

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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.

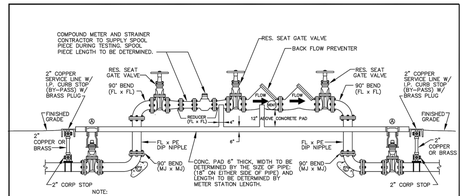


NOTES:
1. FOR ALL VALVES REGARDLESS OF SIZE AND DEPTH.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

ALIGNMENT RING

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: ALIGNMENT RING	



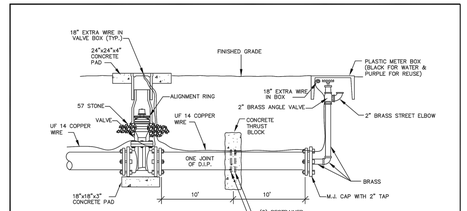
NOTE:
1. ASSEMBLY IS TO BE PAINTED RUST-O-THANE NO. 9407-1854 (BLUE)
2. ALL ABOVE GROUND BOLTS AND NUTS TO BE #304 STAINLESS STEEL.
3. ALTHREAD ROD WILL NOT BE PERMITTED.
4. 12" MIN. CLEARANCE FROM THE VENT ON THE BACKFLOW PREVENTER TO THE CONCRETE PAD.
5. 45° BENDS MAY BE USED WHEN PRIOR APPROVED BY ENGINEER.
6. ALL FITTINGS ARE RESTRAINED.
7. IN LIEU OF CONCRETE SUPPORTS, ADJUSTABLE STAINLESS STEEL SUPPORTS ALLOWED.
8. 2" COPPER SERVICE LINE TO BE INSTALLED ON BRASS SADDLE OR WELDED BOSS. 2" BRASS MAY BE USED IN LIEU OF COPPER.

Ⓐ REFER TO GATE VALVE & VALVE BOX DETAIL.
Ⓑ REFER TO THRUST BLOCK NOTES & DETAILS.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

3 INCH AND LARGER METER WITH BACKFLOW PREVENTER ABOVE GROUND INSTALLATION

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: 3 IN AND LARGER METER WITH BACKFLOW rev	



NOTE: PERMANENT BLOW-OFFS DO NOT REQUIRE A JOINT OF D.I.P. OR A VALVE. ALSO ALL BLOW-OFFS NEED TO BE PLACED AT PROPERTY LINES.

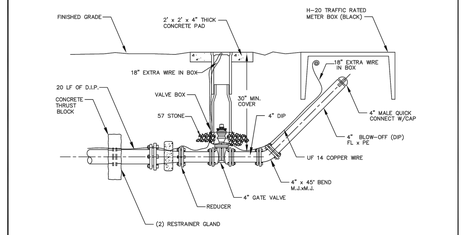
PROPER AMOUNT OF RESTRAINED PIPE UPSTREAM OF VALVE MAY BE USED IN LIEU OF THRUST COLLAR.

2" BLOW-OFF FOR 10" WATER MAINS AND SMALLER

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

BLOW-OFF DETAIL 1

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: BLOW OFF DETAIL 1	

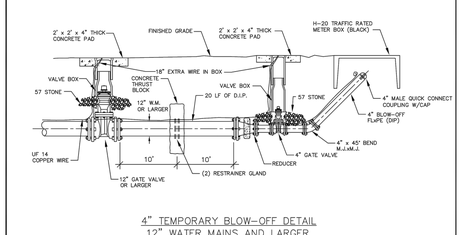


4" PERMANENT BLOW-OFF FOR 12" WATER MAINS AND LARGER

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

BLOW-OFF DETAIL 2

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 2 OF 3
ACAD NAME: BLOW OFF DETAIL 2	

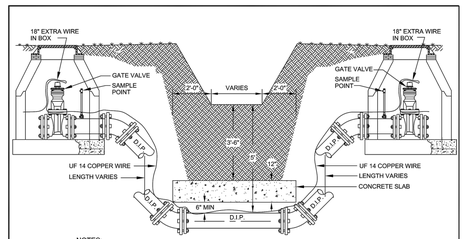


4" TEMPORARY BLOW-OFF DETAIL
12" WATER MAINS AND LARGER

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

BLOW-OFF DETAIL 3

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 3 OF 3
ACAD NAME: BLOW OFF DETAIL 3	

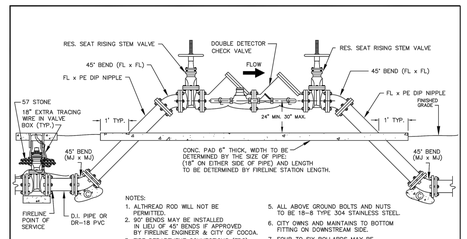


NOTES:
1. MAIN SHALL BE RESTRAINED JOINT D.I. PIPE AND EXTEND 5' ON EITHER SIDE OF THE DRAINAGE DITCH.
2. CONCRETE SLAB SHALL BE 2' WIDER THAN THE PIPE O.D. AND A MINIMUM WIDTH OF 6'.
3. CONCRETE SHALL BE 2500 PSI COMPRESSIVE STRENGTH WITH FIBERMESH REINFORCEMENT.
4. PER FDEP, ISOLATION VALVE CLOSEST TO THE WATER SOURCE WILL HAVE TWO PERMANENT TAPS AND WILL BE IN A MANHOLE.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

CANAL OR DRAINAGE DITCH CROSSING

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: CANAL OR DRAINAGE DITCH CROSSING	



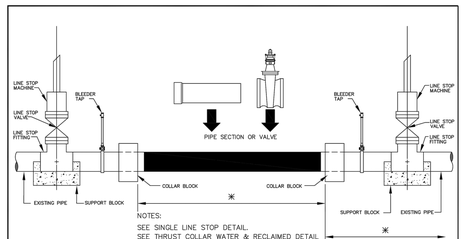
NOTES:
1. ALTHREAD ROD WILL NOT BE PERMITTED.
2. 90° BENDS MAY BE INSTALLED IN LIEU OF 45° BENDS IF APPROVED BY FIRELINE ENGINEER & CITY OF COCOA.
3. FIRE DEPARTMENT CONNECTIONS (FDC) WILL NOT BE PERMITTED ON ABOVE GROUND PIPING.
4. ASSEMBLY TO BE PAINTED RUST-OLEUM 9400 SYSTEM (RED) BY THE CITY, PAID FOR BY THE CONTRACTOR.
5. ALL ABOVE GROUND BOLTS AND NUTS TO BE 18-8 TYPE 304 STAINLESS STEEL.
6. CITY OWNS AND MAINTAINS TO BOTTOM FITTING ON DOWNSTREAM SIDE.
7. FOUR TO SIX BOLLARDS MAY BE REQUIRED, SPACED 18" FROM CENTERLINE.
8. A FIRELINE CONTRACTOR SHALL BE REQUIRED FROM THE FIRELINE POINT OF SERVICE.

Ⓒ REFER TO THRUST BLOCK NOTES & DETAILS.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

DOUBLE CHECK DETECTOR ASSEMBLY

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: DOUBLE CHECK DETECTOR ASSEMBLY	

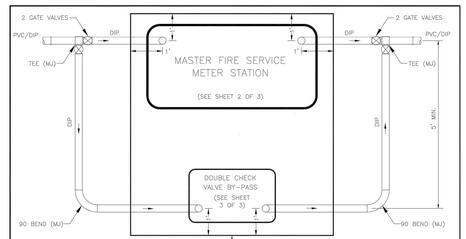


NOTES:
SEE SINGLE LINE STOP DETAIL.
SEE THRUST COLLAR WATER & RECLAIMED DETAIL
4"–8" LINE STOP REQUIRES 1" BLEEDER TAP
10" AND LARGER REQUIRES 2" BLEEDER TAP
SEE "SERVICE CONNECTIONS" SPECIFICATIONS
SEE APPENDIX "A" FOR APPROVED MATERIAL
✳ SEE RESTRAINED PIPE TABLE

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

DOUBLE LINE STOP DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: DOUBLE LINE STOP DETAIL	

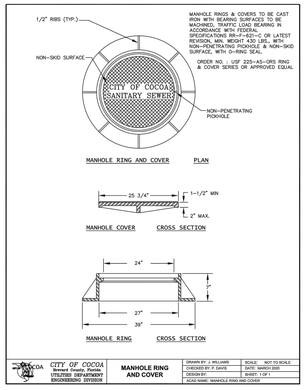


NOTES:
1. ALL UNDERGROUND PIPING IS TO BE DUCTILE IRON WITH RESTRAINED MECHANICAL JOINTS, POLYETHYLENE WRAPPED
2. PIPING SIZES TO BE DETERMINED BY THE ENGINEER OF RECORD AND APPROVED BY COCOA UTILITIES
3. ALL WORK IS TO CONFORM TO CITY OF COCOA STANDARDS.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

MASTER METER ASSEMBLY PLAN

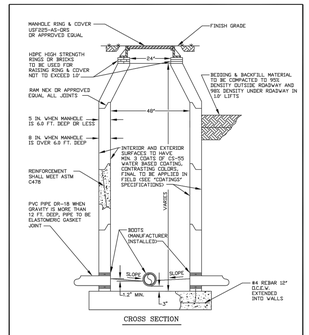
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 3
ACAD NAME: MASTERMETERASSEMBLY1	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

MANHOLE RING AND COVER

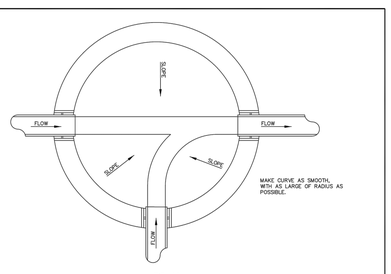
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CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: MANHOLE RING AND COVER	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

TYPICAL MANHOLE

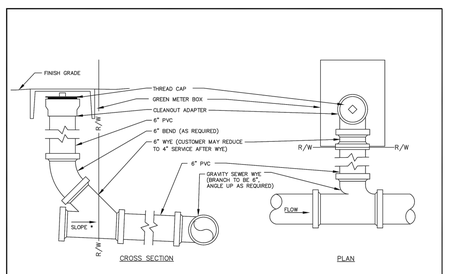
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TYPICAL MANHOLE	



CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

MANHOLE INVERT

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: MANHOLE INVERT	

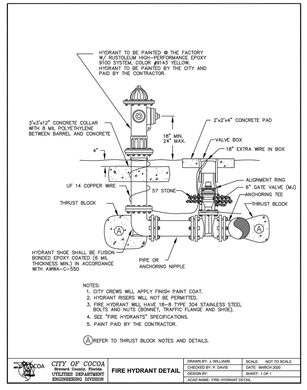


* MINIMUM SLOPE PER TECHNICAL SPECIFICATIONS

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

SINGLE SERVICE DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: SINGLE SERVICE DETAIL	



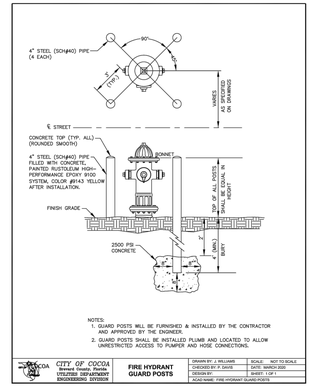
NOTES:
1. CITY CREWS WILL APPLY FINISH PAINT COAT.
2. HYDRANT RISERS WILL NOT BE PERMITTED.
3. FIRE HYDRANT BOLTS (BONNET, TRAFFIC FLANGE AND SHOE).
4. SEE "FIRE HYDRANTS" SPECIFICATIONS.
5. PAINT PAID BY THE CONTRACTOR.

Ⓐ REFER TO THRUST BLOCK NOTES AND DETAILS.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

FIRE HYDRANT DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: FIRE HYDRANT DETAIL	

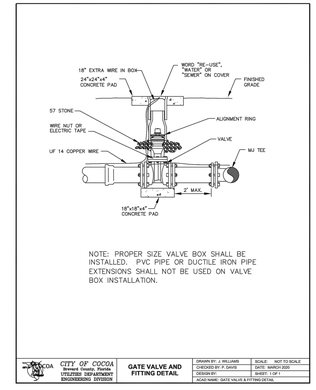


NOTES:
1. GUARD POSTS WILL BE FURNISHED & INSTALLED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
2. GUARD POSTS SHALL BE INSTALLED PLUMB AND LOCATED TO ALLOW UNRESTRICTED ACCESS TO PUMPER AND HOSE CONNECTIONS.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

FIRE HYDRANT GUARD POSTS

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: FIRE HYDRANT GUARD POSTS	

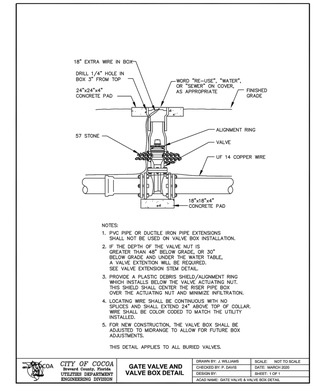


NOTE: PROPER SIZE VALVE BOX SHALL BE INSTALLED. PVC PIPE OR DUCTILE IRON PIPE EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

GATE VALVE AND FITTING DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: GATE VALVE & FITTING DETAIL	



NOTES:
1. PVC PIPE OR DUCTILE IRON PIPE EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.
2. IF THE DEPTH OF THE VALVE NUT IS GREATER THAN 48" BELOW GRADE, OR 30" BELOW GRADE IN PAVED AREAS OR TABLE, A VALVE EXTENTION WILL BE REQUIRED. SEE VALVE EXTENSION STEM DETAIL.
3. PROVIDE A PLASTIC DEBRIS SHIELD/ALIGNMENT RING WHICH INSTALLS BELOW THE VALVE ACTUATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE ACTUATING NUT AND MINIMIZE INFILTRATION.
4. LOCATING WIRE SHALL BE CONTINUOUS WITH NO SPLICES AND SHALL EXTEND 24" ABOVE TOP OF COLLAR. WIRE SHALL BE COLOR CODED TO MATCH THE UTILITY INSTALLED.
5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS.

THIS DETAIL APPLIES TO ALL BURIED VALVES.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

GATE VALVE AND VALVE BOX DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: GATE VALVE & VALVE BOX DETAIL	

CITY OF COCOA UTILITIES TECHNICAL PROVISIONS

RESTRAINED PIPE TABLE
WATER AND RECLAIMED WATER MAINS

TYPE	MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S) PIPE SIZE						
	4"	6"	8"	10"	12"	16"	20"	24"
90°BEND	21	29	38	45	53	66	79	91
45°BEND	9	12	16	19	22	45	33	38
22-1/2°BEND	5	6	8	9	11	14	16	19
11-1/4°BEND	3	3	4	5	6	7	8	9
PLUG, BRANCH OF TEE, VALVE	58	82	107	128	151	193	234	273

NOTES:
1. FITTINGS SHALL BE RESTRAINED JOINTS.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. ALL LINE VALVES AND THROUGH RUN OF TEES SHALL BE RESTRAINED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:

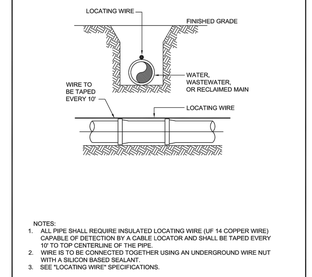
   WORKING PRESSURE: 150 PSI
   SOIL DESIGNATION: SM (SAND SILT)
   LAYING CONDITIONS: 3

6. TABLE IS FOR PVC AND WRAPPED DUCTILE IRON.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

RESTRAINED PIPE TABLE WATER & RECLAIMED WATER MAINS

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: RESTRAINED PIPE TABLE (WATER AND RECLAIMED	

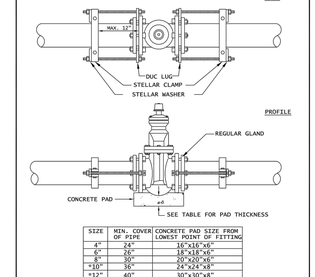


NOTES:
1. ALL PIPE SHALL REQUIRE INSULATED LOCATING WIRE (UF 14 COPPER WIRE) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE TAPED EVERY 10' TO TOP CENTERLINE OF THE PIPE.
2. WIRE IS TO BE CONNECTED TOGETHER USING AN UNDERGROUND WIRE NUT WITH A SILICON BASED SEALANT.
3. SEE "LOCATING WIRE" SPECIFICATIONS.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

LOCATING WIRE DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: LOCATION WIRE DETAIL	



SIZE	MIN. COVER OF PIPE	CONCRETE PAD SIZE FROM LOWEST POINT OF FITTING
4"	24"	16"x16"x6"
6"	26"	18"x18"x6"
8"	30"	20"x20"x6"
*10"	36"	24"x24"x8"
*12"	40"	30"x30"x8"

* NOTE: 10" AND 12" REQUIRE TWO CLAMPS AND FOUR RODS PER SIDE.

VALVES INSTALLED PER MANUFACTURER'S RECOMMENDATION ON DIP AND PVC.

CITY OF COCOA — Brevard County, Florida — UTILITIES DEPARTMENT — ENGINEERING DIVISION

VALVE INSERT FOR A.C. PIPE

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: VALVE INSERT	

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CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

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

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

VERTICAL DATUM: NAVD88

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

PROJECT TITLE

CIRRUS

SHEET TITLE

CITY OF COCOA DETAILS

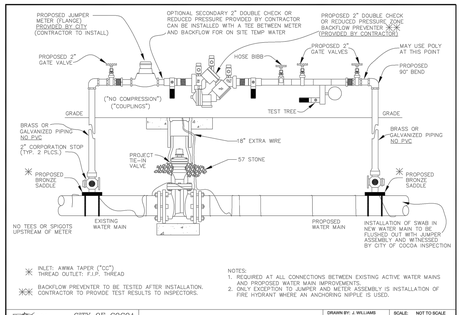
PROJECT NO. 11545

DRAWING NO. 11545_400_014

SHEET 14 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.

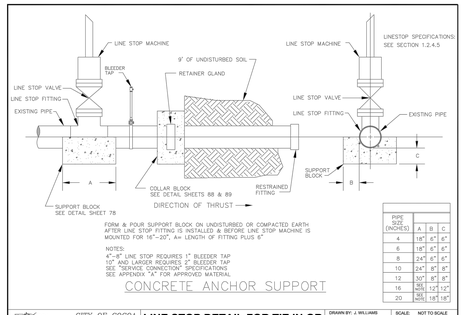
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CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

JUMPER METER ASSEMBLY

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: JUMPER METER ASSEMBLY	



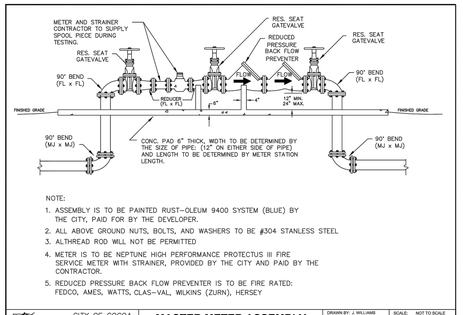
CONCRETE ANCHOR SUPPORT

PIPE SIZE (INCHES)	A	B	C
4	18"	6"	6"
6	18"	6"	6"
8	24"	6"	6"
10	24"	8"	8"
12	30"	8"	8"
16	36"	12"	12"
20	48"	18"	18"

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

LINE STOP DETAIL FOR TIE IN OR CAPPING EXISTING WATER MAIN

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: LINE STOP DETAIL FOR TIE IN OR CAPPING EXISTING WATER MAIN	

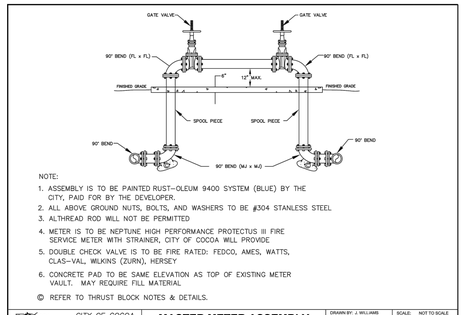


NOTE:
1. ASSEMBLY IS TO BE PAINTED RUST–OLEUM 9400 SYSTEM (BLUE) BY THE CITY, PAID FOR BY THE DEVELOPER.
2. ALL ABOVE GROUND NUTS, BOLTS, AND WASHERS TO BE #304 STANLESS STEEL
3. ALTHREAD ROD WILL NOT BE PERMITTED
4. METER IS TO BE NEPTUNE HIGH PERFORMANCE PROTECTUS III FIRE SERVICE METER WITH STRAINER, PROVIDED BY THE CITY AND PAID BY THE CONTRACTOR.
5. REDUCED PRESSURE BACK FLOW PREVENTER IS TO BE FIRE RATED: FEDCO, AMES, WATTS, CLAS–VAL, WILKINS (ZURN), HERSEY

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

MASTER METER ASSEMBLY METER STATION DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 3 OF 3
ACAD NAME: MASTERMETERSTATIONDETAIL V2	



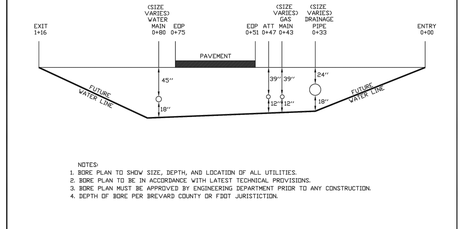
NOTE:
1. ASSEMBLY IS TO BE PAINTED RUST–OLEUM 9400 SYSTEM (BLUE) BY THE CITY, PAID FOR BY THE DEVELOPER.
2. ALL ABOVE GROUND NUTS, BOLTS, AND WASHERS TO BE #304 STANLESS STEEL
3. ALTHREAD ROD WILL NOT BE PERMITTED
4. METER IS TO BE NEPTUNE HIGH PERFORMANCE PROTECTUS III FIRE SERVICE METER WITH STRAINER, CITY OF COCOA WILL PROVIDE
5. DOUBLE CHECK VALVE IS TO BE FIRE RATED: FEDCO, AMES, WATTS, CLAS–VAL, WILKINS (ZURN), HERSEY
6. CONCRETE PAD TO BE SAME ELEVATION AS TOP OF EXISTING METER VAULT, MAY REQUIRE FILL MATERIAL

© REFER TO THRUST BLOCK NOTES & DETAILS.

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

MASTER METER ASSEMBLY DOUBLE CHECK BYPASS

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 3 OF 3
ACAD NAME: MASTERMETERSTATIONDETAIL V3	



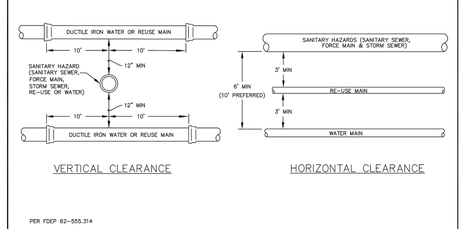
NOTES:
1. ALTHREAD ROD WILL NOT BE PERMITTED.
2. FIRE DEPARTMENT CONNECTIONS (FDC) WILL NOT BE PERMITTED ON ABOVE GROUND PIPING.
3. ASSEMBLY TO BE PAINTED RUST–O–THANE RED NO. 9405–1611
4. ALL ABOVE GROUND BOLTS AND NUTS TO BE 18–8 TYPE 304 STAINLESS STEEL.
5. CITY OWNS AND MAINTAINS TO BOTTOM FITTING ON DOWNSTREAM SIDE.
6. FOUR TO SIX BOLLARDS MAY BE REQUIRED, SPACED 18" FROM CENTERLINE.
7. A FIRELINE CONTRACTOR SHALL BE REQUIRED FROM THE FIRELINE POINT OF SERVICE.

© REFER TO "THRUST BLOCK" NOTES & DETAILS.

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

"N" PATTERN DOUBLE CHECK DETECTOR ASSEMBLY

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: N PATTERN DOUBLE CHECK DETECTOR ASSEMBLY	



STEP–1 PLACE TUBE OF POLYETHYLENE MATERIAL AROUND PIPE PRIOR TO LOWERING PIPE INTO TRENCH.

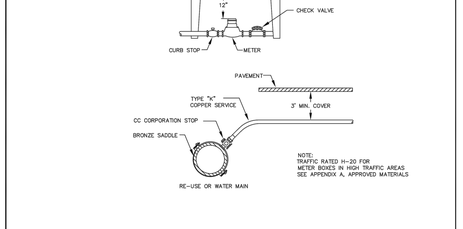
STEP–2 PULL THE TUBE OVER THE LENGTH OF THE PIPE. TAPE TUBE TO PIPE AT JOINT. FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH THREE HORIZONTAL TURNS OF TWO–INCH WIDE PLASTIC TAPE TO HOLD PLASTIC TUBE AROUND SPIGOT END.

STEP–3 ADJACENT TUBE OVERLAPS FIRST TUBE AND IS SECURED WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE WILL BE LOOSE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED INTO AN OVERLAP ON TOP OF THE PIPE AND HELD IN PLACE BY MEANS OF PIECES OF THE PLASTIC TAPE AT APPROXIMATELY THREE TO FIVE FOOT INTERVALS.

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

POLYETHYLENE WRAP

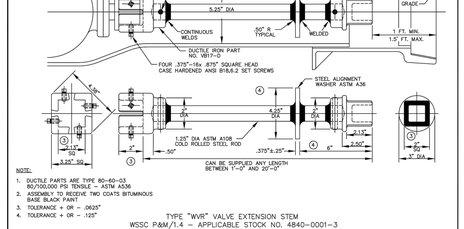
DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: POLY WRAP	



CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

SOLID SLEEVE DETAIL

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: SOLID SLEEVE DETAIL	



A–RESTRAINED JOINT
B–45° BEND (MJ)

* ALL PIPING UNDER STORM DRAINAGE TO BE DIP PER CITY SPECIFICATIONS
ALL PIPE CLEARANCES TO BE PER FDEP SPECIFICATIONS (CHAPTER – 62 – 610 FAC)

PER FDEP 62–555.314

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

STORM DRAIN CROSSING

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: STORM DRAIN CROSSING	

NOTE: FOR VALVE ASSEMBLY, SEE "VALVE" DETAIL

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

TAPPING SADDLE AND VALVE

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TAPPING SADDLE AND VALVE	

THRUST BLOCK NOTES

1.) WRAP ALL FITTINGS WITH POLYETHYLENE FILM BEFORE POURING THRUST BLOCK, MARKING CERTAIN TO KEEP CONCRETE AWAY FROM ALL BOLTS, GLANDS, AND FLANGES.

2.) THRUST BLOCKS TO BE POURED AGAINST UNDISTURBED EARTH.

3.) REQUIRED VOLUMES OF BEARING AREAS TO BE AS SHOWN IN CHART. ADJUSTMENTS, IF NEEDED, WILL BE ALLOWED TO CONFORM TO TEST PRESSURE AND ALLOWABLE SOIL BEARING STRESS AS SHOWN IN SPECIFICATIONS.

4.) BEARING AREA FOR TRANSIT BLOCKS ON HORIZONTAL BENDS IS BASED ON A TEST PRESSURE OF 150 P.S.I. AND SOIL BEARING STRESS OF 2,000 P.S.F., THE DEPTH TO THE THRUST BLOCK BASE TO BE EQUAL TO OR GREATER THAN TWICE THE HEIGHT. (EXAMPLE: IF BLOCK IS 2' THICK, THE BASE IS TO BE NO GREATER THAN 4' BELOW GRADE.)

5.) VERTICAL BEND THRUST BLOCKS TO BE THE SAME AS HORIZONTAL BENDS.

6.) BEARING AREA OF THRUST BLOCK TO BE NOT LESS THAN ONE SQUARE FOOT.

MINIMUM BEARING AREA (SQ. FT.)

LETTER	PIPE SIZE 4"	6"	8"	10"	12"	16"	20"
A	1–1/2	2–3/4	5	7–1/4	10–1/4	18	27–1/2
B(22–1/2)	3/4	1	2	3	4	7	11
B (45°)	1	2–1/4	3–3/4	5–1/2	8	13–3/4	21
C	2	4	7	11–1/4	16–1/2	25–1/4	39

THE FIGURES IN THIS TABLE REPRESENT AREA OF CONCRETE BLOCKING AGAINST THE VERTICAL TRENCH WALL OF UNDISTURBED EARTH IN SQUARE FEET AT 2000 P.S.F. SOIL BEARING CAPACITY.

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

THRUST BLOCK NOTES & DETAILS

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: THRUST BLOCK NOTES & DETAILS	

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

THRUST COLLAR WATER AND RECLAIMED

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 2
ACAD NAME: THRUST COLLAR WATER AND RECLAIMED 1 OF 2	

SCHEDULE OF DIMENSIONS AND MATERIALS

PIPE SIZE (INCHES)	DIMENSIONS (FT.) A	B	C	D	TIE RODS REQ'D DIA. (in.)	NO.
4	2.0	2.0	1.0	2.0	3/4	2
6	2.0	2.0	1.0	4.0	3/4	2
8	3.0	3.0	1.0	5.0	3/4	2
10	4.0	3.0	1.0	8.0	3/4	4
12	5.0	3.0	1.0	10.0	3/4	4
16	*	*	*	*	*	*
20	*	*	*	*	*	*
24	*	*	*	*	*	*

NOTE: THRUST COLLAR AREAS TO BE COMPUTED ON BASIS OF 2000 LBS/SF SOIL RESTRAINT BEARING. SOIL DENSITY ASSUMED 120 PCF. SOIL COHESION 20°.

NOTES:
1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
3. BEDDING, BACKFILL AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE: 150 PSI.
7. TIE RODS TO BE 3/4" SS 18-8 TYPE 304.

★ TO BE DESIGNED BY ENGINEER OF RECORD.

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

THRUST COLLAR WATER AND RECLAIMED

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 2 OF 2
ACAD NAME: THRUST COLLAR WATER AND RECLAIMED 2 OF 2	

NOTES:
1. BORE PLAN TO SHOW SIZE, DEPTH, AND LOCATION OF ALL UTILITIES.
2. BORE PLAN TO BE IN ACCORDANCE WITH LATEST TECHNICAL PROVISIONS.
3. BORE PLAN MUST BE APPROVED BY ENGINEERING DEPARTMENT PRIOR TO ANY CONSTRUCTION.
4. DEPTH OF BORE PER BREVARD COUNTY OR FDOT JURISTICTION.

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

TYPICAL BORE PLAN

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TYPICAL BORE PLAN	

1. IF DEPTH IS 30" OR >, PIPE MAY BE PVC PER CITY SPECIFICATIONS
2. IF DEPTH IS 30" TO 24", PIPE TO BE DIP PER CITY SPECIFICATIONS

VERTICAL CLEARANCE

HORIZONTAL CLEARANCE

PER FDEP 62–555.314

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

TYPICAL REQUIRED SEPARATION

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TYPICAL REQUIRED SEPARATION	

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

TYPICAL 3/4"– 2" SERVICE LINE

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: TYPICAL SERVICE LINE	

NOTE:
1. DUCTILE PARTS ARE TYPE 80–60–03 80,700,000 PSI TENSILE – ASTM A536
2. ASSEMBLY TO RECEIVE TWO COATS BITUMINOUS BASE BLACK PAINT
3. TOLERANCE + OR – .0625"
4. TOLERANCE + OR – .125"

TYPE "WVR" VALVE EXTENSION STEM
WSSC P&M/1.4 – APPLICABLE STOCK NO. 4840–0001–3

CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT, ENGINEERING DIVISION

VALVE EXTENSION STEM FOR W.S.S.C. VALVE BOXES

DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
CHECKED BY: P. DAVIS	DATE: MARCH 2020
DESIGN BY:	SHEET: 1 OF 1
ACAD NAME: VALVE EXTENSION STEM	

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

VERTICAL DATUM: NAVD88

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

PROJECT TITLE
CIRRUS

SHEET TITLE
CITY OF COCOA DETAILS

PROJECT NO.
11545

DRAWING NO.
11545_400_015

SHEET
15 of 19

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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.

1.1 GENERAL

These Technical Provisions and Standard Details identifies design, installation, inspection, and acceptance specifications to be used for water, wastewater, and reclaimed water systems that will be maintained and operated by the City of Cocoa. All potable water, wastewater, and reclaimed water mains and appurtenances must be installed in accordance with this Manual, the City of Cocoa Cross Connection Control Program Manual, the City of Cocoa Utilities Handbook, and the approved plans.

Contractor requirements include:

Furnishing all labor, materials, tools and equipment necessary or incidental to the construction.

Obtaining and paying for all permits, inspections, and other official fees in connection with the work.

Arranging a pre-construction conference with the Engineering Inspection Division. **All fees must be paid prior to the pre-construction meeting.** It is required that the pre-construction meeting be held prior to ordering materials.

Scheduling materials inspection (24-hour notice), open ditch inspection, pressure/leakage test, and final inspection.

Provide all documents per the project requirement letter, including but not limited to As Built Drawings, Bills of Sale, Easements, etc.

Make certain that no public water/wastewater lines are placed on private property.

Any deviation from these requirements must be approved in writing by the Utilities Director or his designee prior to commencement of construction.

Fees charged by the City are set by City Council by resolution and are listed on the appendix "Water Service Rates and Charges" made a part of the Utilities Handbook. Fees are subject to change without notice. The most current fees will be charged.

The Utilities Department and Engineering Division are located at 351 Shearer Blvd., Cocoa, Florida, 32922. The telephone number is (321) 433-8701; facsimile number is (321) 433-8708.

1.2 DEFINITIONS

The term "**approved equal**" is used to mean a part or item that has been approved in writing by the Technical Provision and Standard Details Advisory Committee or the Utilities Director. A written request must be made in order to have an item accepted as an approved equal. Written specifications on the part or item must be furnished with the request.

Approved Tapping/Linestop Contractor - A Contractor who has been approved by the Engineering Division to perform taps or linestops within the Cocoa Water System. A current list is maintained and available through the Engineering Division.

Backflow Preventer Assembly - A backflow preventer assembly, also called a cross connection control (CCC) device, is a mechanical or non-mechanical device used to prevent the flow of water from a non-potable source to the potable water distribution system. Approved backflow preventers are testable assemblies composed of two independently acting, approved check valves, including tightly closing resilient seated shutoff valves attached at each end of the assembly, and fitted with properly located resilient seated test cocks.

Canal - A trench, the bottom of which is normally covered by water, with the upper edges of its two sides normally above water.

City - Means the City of Cocoa.

Collection Mains - Wastewater gravity mains.

Competent Person - A person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Distribution Main - Any water main twelve inches (12") and smaller.

Domestic - Means made or manufactured in the USA.

Drainage Ditch or Irrigation Ditch - A man-made trench which is dug for the purpose of draining water from the land or for transporting water for use on the land and which is not built for navigational purposes.

Force Main - Wastewater main under pressure.

Manual - City of Cocoa Utilities Technical Specification and Standard Details Manual

Normal Working Day - Monday through Friday, excluding CITY holidays.

Normal Working Hours - Hours are between the hours of 8:00 a.m. to 5:00 p.m. of a NORMAL WORKING DAY.

Passivated - Treated or coated metal to reduce the chemical reactivity of its surface.

Stainless Steel - A steel alloy with a minimum of 10.5% to 11% chromium.

Substantial Completion - The point when the construction project has been finished to the point that the City of Cocoa can use the project for the purpose it was intended.

Swale - A manmade trench which:

A. Has a top width-to-depth ratio of the cross-section equal to or greater than 6:1, or side slopes equal to or greater than three feet horizontal to one foot vertical;
B. Contains contiguous areas of standing or flowing water only following a rainfall event; C. Is planted with or has stabilized vegetation suitable for soil stabilization, stormwater treatment, and nutrient uptake;
D. Is designed to take into account the soil erodibility, soil percolation, slope, slope length, and drainage area to prevent erosion and reduce pollutant concentration of any discharge.

Technical Provision and Standard Details Committee - Committee whose members shall consist of the manager, or their designee, of the following UTILITIES staff: Engineering, Inspections, Water Field Operations, and Sewer Field Operations. The committee evaluates and proposes revisions for the design standards, specifications, drawings, products and procedures for the Manual.

Transmission Main - Any water main sixteen inch (16") and larger. Fourteen-inch (14") pipelines are not acceptable.

Utilities - Utilities Department of the City of Cocoa, Cocoa, Florida, and/or its designated representative(s).

Utilities Handbook - The City of Cocoa Utilities Handbook produced by the Customer Service Division of the Finance Department.

Whenever a specification from a specific source is cited, the most current revision of that specification will be used. **The word "shall" is mandatory, and the word "may" is permissive.**

Unless otherwise specified, "**City**" means City of Cocoa; "**Utilities Department**" means City of Cocoa Utilities Department; "**Engineering Division**" means City of Cocoa Utilities Engineering Division, **"Inspections or Inspector"** means City of Cocoa Utilities Engineering Inspections Division.

1.3 ABBREVIATIONS

American Association of State Highway and Transportation Officials - AASHTO
Asbestos Cement - AC
Association of PVC Pipe Manufacturers - Uni-Bell American National Standards Institute - ANSI American Society of Civil Engineers - ASCE American Society of Mechanical Engineers - ASME American Society for Testing and Materials - ASTM American Water Works Association - AWWA
American Water Works Association Tapered Thread - CC American Society of Sanitary Engineers - ASSE
Automatic Transfer Switch - ATS
City of Cocoa - CoC Copper Clad Steel - CCS
Copper Development Association - CDA Cross Connection Control - CCC Dimension Ratio - DR
Double Check Backflow Assembly - DC Double Check Detector Assemblies - DCDA Dry Film Thickness - DFT
Ductile Iron Pipe Research Association - DIPRA Ductile Iron Pipe - DIP
Engineer of Record - EOR
Florida Administrative Code - FAC
Florida Department of Environmental Protection - FDEP Florida Department of Transportation - FDOT
Florida East Coast Rail Road - FECRR
Foundation for Cross-Connection Control and Hydraulic Research - FCCCHR Flange - FL
Factory Mutual - FM
High-Density Polyethylene - HDPE Horizontal Directional Drilling - HDD Jack and Bore - J&B
Maintenance of Traffic - MOT
Manual on Uniform Traffic Control Devices - MUTCD National Association of Corrosion Engineers - NACE National Fire Protection Association - NFPA
National Sanitation Foundation - NSF National Standard Thread - NST
Non-rising stem - NRS
Original Equipment Manufacturer - OEM Outside Screw and Yoke - OS&Y
National Pollution Discharge Elimination System - NPDES Plain End - PE
Polyvinylchloride - PVC
Precautionary Boil Water Notice - PBWN Portable Changeable Message Signs - PCMS
Pre-stressed Concrete Cylinder Pressure Pipe - PCCP Project Manager - PM
Pounds per Square Inch - PSI Raised Pavement Marker - RPM
Reduced Pressure Backflow Assembly - RP Reduced Pressure Detector Assembly- RPDA Reinforced Concrete Pressure Pipe - RCP Stainless Steel - SS
Technical Provision and Standard Details - TPSD Traffic Control Plan - TCP
Underwriters Laboratories - UL Unified Numbering System - UNS Variable Frequency Drive - VFD

2.1 WATER MAIN CROSSINGS

2.1.1 GENERAL

In all cases where sanitary gravity or force mains cross water mains the crossing shall meet the vertical and horizontal separation requirements of FAC Rule 62-555.314. When separation requirements cannot be met, the Engineer of Record 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.

2.2 MATERIALS SPECIFICATIONS

2.2.1 PIPE

2.2.1.1 Polyvinyl Chloride Pressure Pipe, 4" - 12"

Polyvinyl chloride pressure pipe (sizes 4" through 12") will be cast iron pipe equivalent outside diameter Class 235 (DR 18) conforming to the American Water Works Association's (AWWA) specification C900 and will be blue or white in color. Pipe will be in standard 20-foot lengths. All joints will be of the elastomeric-gasket type with thickened, integral solid-wall bell or coupling with the same DR as the barrel. All PVC pipe and couplings will bear the UL label and NSF approval for potable water.

2.2.1.2 Fusible Polyvinyl Chloride Pipe, 4" - 12"

Polyvinyl chloride pressure pipe (size 4" through 12") will be cast iron pipe equivalent outside diameter and a pressure rating of 235 PSI (DR 18) conforming to AWWA specification C900 and will be blue or white in color. Fusible PVC pipe shall be supplied by Underground Solutions, Inc. It shall be installed in accordance with the suppliers' specifications. All PVC pipe will bear the UL label and NSF approval for potable water.

2.2.1.3 Ductile Iron Pipe

Ductile iron pipe will be cement-lined pressure Class 350 for 12-inch diameter and smaller and Class 250 for 16-inch and larger conforming to AWWA specification C151. Water main and storm drain crossing conflicts will be properly designed by the project engineer and approved by theUtilities Department prior to installation. Water mains that are less than 10 feet apart from building foundations or other permanent objects will be ductile iron pipe. In no case will water mains be located less than 5 feet from foundations. The above distances will be doubled for water mains larger than 8" in diameter. Polyethylene sleeve conforming to AWWA specification C105 will be provided for all installations. The polyethylene sleeve will be sealed with tape and shall be blue for water mains.

2.2.1.4 High Density Polyethylene (HDPE) Pipe

HDPE pipe is generally not accepted in the City of Cocoa water system, except as a carrier pipe for a pressurized utility main.

2.2.1.5 Reclaimed Water

PVC pipe installed in reclaimd water systems will be Class 235 (DR 18) conforming to AWWA specification C900 and will be purple in color. Ductile iron pipe installed in the reclaimed water system will be pressure Class 350 for 12" and smaller and pressure Class 250 for 16" and larger, provided 3 feet of cover can be maintained. Where cover is less than 3 feet, pressure Class 350 is required. Polyethylene sleeve conforming to AWWA specification C105 will be provided for all installations. The polyethylene sleeve will be sealed with tape and shall be purple for reclaimed water mains.

2.2.2 VALVES, VALVE BOXES, AND VALVE EXTENSIONS

2.2.2.1 Resilient Seat Gate Valves, 4" - 36"

Resilient seat gate valves will have mechanical joint ends as manufactured by **American Flow Control; AVK; M&H; U.S. Pipe; Clow; Mueller** or an approved equal. The resilient seat gate valves must conform to AWWA specification C509 or C515 and be manufactured in the U.S.A. Resilient seats will be of natural or synthetic rubber and be fully encapsulated to gate. Valves will have 18-8 Type 304 Stainless Steel bolts and nuts. The interior and exterior of the valve body will be fusion-bonded epoxy coated in accordance with AWWA specification C550 in order to provide a corrosion-resistant seat. The coating must be applied in a manner to withstand the action of line fluids and operation of the sealing gate under long-term service. Valve seats must seal by compression only. Wedging or sliding of the resilient seat is not acceptable. Valves will be supplied with 2"-square operating nuts and be designed to provide a bubble tight seal regardless of direction of flow. Opening the valve will be in the counterclockwise direction. Valves 16" and larger will have Bevel Gear Operators. For gate valves 16" and larger to be stood up straight, the 2" operating nut must have 12" of cover. Engineer of Record or Contractor must demonstrate the 12" of cover over the 2" operating nut can be achieved by showing all pertinent dimensions. Tapping valves shall have a centering ring.

2.2.2.2 Butterfly Valves, 16" and Larger

Butterfly valves shall be used for above ground service. Butterfly valves shall have flanged ends, be rubber seated, 90o tight closing type, short body. The interior and exterior will be fusion-bonded epoxy coated in accordance with AWWA specification C550. The valve shaft will be of 316 Stainless Steel. Body dimensions and minimum shaft diameter will be in accordance with Tables 1 and 3 of AWWA specification C504. The valve seat will be of molded natural or synthetic rubber, will be mechanically secured to the disc or to the valve body, and will mate against a stainless-steel seat surface. The gear ratio will be such as to require not more than 50-foot pounds of input torque to operate the valve against the worst case of a water flow velocity of 10 feet per second at a pressure of 100 psi differential. A torque-limiting device will be supplied if the allowable operator input is less than 450-foot pounds. Butterfly valves will have a factory installed hand wheel. The valve will open when the operator nut is turned counterclockwise. **Butterfly valves will not be used for buried service.**

2.2.2.3 Valves, 2"

Two-inch valves for use with the 2" blow-off gate valve will be rated at 125 SWP or 200 WOG. All 2" gate valves must meet all EPA and DEP requirements regarding lead and zinc contents. Brass fittings and 2" brass wheel valves are shall be used on blow-offs. All valves must be manufactured in the U.S.A.

2.2.2.4 Valve Boxes

Valve boxes and lids must be manufactured in the U.S.A. Boxes and lids must be structurally equal to those produced by **East Jordan Iron Works** or **Tyler** and must have 5-1/4" minimum inside diameter. Cast iron valve boxes will consist of a circular cast iron top and bottom section. The depth must be determined, and the appropriate valve box must be installed. No PVC or Ductile is permitted in the valve box. Boxes must be set flush with finished ground surface in such a manner as to permit easy use of a valve wrench and to prevent surface loads from being transmitted to the valve or pipe. Box sections must be telescopic and adjustable. Valve box lids should have the word "WATER" or "SEWER" or "REUSE", as appropriate, cast on the top. A concrete pad (24" L x 24" W x 4" D) will be poured around all boxes at finished grade level unless the valve is located in a paved roadway or parking lot. A Valve identification plate engraved to indicate the type, size, and number of turns will be securely anchored to the concrete pad. Valve identification plates for valves 12" and larger will also indicate the torque necessary for actuation.

2.2.2.5 Valve Extensions

If the depth of the valve nut is greater than 48" below grade, or 30" below grade and under the water table, a valve extension stem will be required. The extension will have a centering collar and will be mechanically attached to the valve operating nut, such as extensions manufactured by the General Engineering Company, Model #4840-0001-3, or an approved equal to be determined by the Engineering Supervisor or his/her designee.

2.2.2.6 Valve Box Debris Shield

All buried valves 4-inch through 12-inch requiring a valve box shall be furnished with a valve box shield (alignment device). The device shall minimize debris infiltration and center the valve box over the operating nut. The device shall be of HDPE or plastic and colored white or black. It shall be furnished in two pieces that will lock together under the operating nut without requiring the removal of the operating nut. The device shall not affect the operation of the valve. No one-piece device will be accepted. The device shall be **Box Lok**, **American** or approved equal.

2.2.2.7 Insert Valve Specification

The Insert Valve shall conform to the following:

The Ductile Iron 250 p.s.i.g. Insert Valve shall be a Resilient Wedge Gate Valve designed for use in potable water, raw water, reclaimed water, wastewater and backflow control systems. The host pipe shall not be a permanent component of the Insert Valve. The ductile iron body, bonnet, and wedge provide strength and a pressure rating that meets or exceeds the requirements of AWWA C515. Insert Valve shall be ductile iron construction meeting ASTM A536 Grade 65-45-12.Sizes 12" and smaller must be capable of working on Cast/Grey Iron or Ductile Iron Class A, B, C and D, IPS PVC, C900 and C909 PVC, Steel, AC pipe diameters without changing either top or bottom portion of split valve body. The Insert Valve shall have a 250 psig maximum working pressure. The pressure rating markings must be cast into the body of the insert valve. The construction of the Resilient Wedge shall comply with AWWA C509 requirements. The ductile iron wedge shall be fully encapsulated with EPDM rubber by a high pressure and high temperature compression or injection mold process. The resilient wedge shall seat on the valve body and not the pipe to obtain the optimum seating and flow control results. The resilient wedge shall be totally independent of the carrier pipe. The resilient wedge shall not come into contact with the carrier pipe or depend on the carrier pipe to create a seal. The Resilient wedge must ride inside the body channels to maintain wedge alignment throughout its travel. The insert valve is fully epoxy coated on the interior and the exterior. Valve shall be coated with a minimum of 10 mils epoxy in compliance with AWWA C550 and certified to ANSI/NSF-61. The stuffing box, operating stem and resilient wedge (complete bonnet and all moving parts) shall be removable, repairable and or replaceable under pressure.

See "Appendix A" Approved Materials for approved Insert Gate Valves.

2.2.3 BACKFLOW PREVENTERS

2.2.3.1 General

All connections to the City of Cocoa potable water system shall contain a backflow preventer assembly as required in the "City of Cocoa Cross Connection Control Program Manual". Backflow preventer assemblies shall be in accordance with AWWA specification C510, ASSE 1048, UL 1469, and as listed in "Appendix A" of this document. All backflow preventers shall be installed per Standard Details in "Appendix B". Backflow preventers on fire line and commercial services shall have test certifications submitted and approved prior to final inspection.

Backflow preventers will have interior fusion bonded epoxy coating 5 to 12 mils and will be installed above grade in accordance with manufacturer's recommendations on a concrete slab adjacent to the meter. Check valves must have bronze seats.

Commercial Services: Cross connection control device required for commercial service, including multi-family residences, shall be a reduced pressure (RP) backflow preventer unless otherwise approved by the Engineering Division.

Residential Services: Cross connection control device required for residential service shall be a dual check backflow preventer.

Construction Sites: Cross connection control device required for temporary construction jumpers shall be a double check backflow preventer. The Contractor shall provide test certifications on the jumper backflow preventer before the jumper is placed into service.

2.2.3.2 Fire Services

Cross connection control devices for fire line systems shall be double check detector assemblies (DCDA) or reduced pressure detector assemblies (RPDA). DCDA and RPDA shall meet the requirements of the Florida Building Code and must be supplied with a ¾-inch or larger bypass assembly. DCDA will be accepted as a complete approved assembly in accordance with the section on "Backflow Prevention and Cross-Connection Control" in the Utilities Handbook. The Engineering Division will inspect the interior of the DCDA prior to installation. DCDA must be installed horizontally above ground in a grassed or non-traffic area. The DCDA will be installed with 24" minimum and 30" maximum clearance from finished grade. "N" shaped DCDA will be accepted on a case-by-case basis. Fire lines requiring an RP2 will be handled on a case-by-case base. The Engineering Division shall paint the DCDA, to be paid for by the Developer/Contractor.

2.2.3.3 Meter Station Backflow Preventer

Backflow Preventers for the large meter stations (3-inch and larger) are a Reduced Pressure Zone Assembly and manufactured in accordance with AWWA C511. The assembly will be installed so as the relief valve opening will be a minimum of 12" above concrete slab. If the meter station is in a planter, the top of the planter is considered the flood rim and the relief valve opening shall be 12" above the concrete slab. The Engineering Division shall paint the meter station assembly, to be paid for by the Developer/Contractor.

2-inch meter stations may be allowed on a case-by-case basis as approved by the Engineering Division.

2.2.3.4 Backflow Preventer Certification Test

The Contractor will provide test certifications on the jumper backflow preventer before jumper is placed into service. Backflow preventers on fire-line and meter stations will have test certifications submitted and approved prior to final inspection.

2.2.4 FITTINGS

All fittings must be of the mechanical joint type with an approved joint restraint, or push-on joint with a gasket joint field restraint system. All fittings must be manufactured in the U.S.A.

2.2.4.1 Cast Iron

Cast iron fittings will be AWWA specification C110; Class 250, cement lined with inside seal coating. The fittings will be bituminous coated on the outside and be wrapped with 6 mil polyethylene (sealed with tape). Cast iron fittings are only to be used in larger applications where ductile iron fittings are not available.

2.2.4.2 Ductile Iron, 4" - 16"

Ductile iron compact fittings (sizes 4" through 16") must conform to AWWA specification C153. Ductile iron compact fittings will be mechanical joint with an interior cement lining with seal coating and an exterior bituminous coating. All fittings will be wrapped with 6 mil polyethylene (sealed with tape).

2.2.4.3 Bolts

All buried mechanical joint bolts and nuts must be CORTEN Steel. All above ground bolts and nuts for flanged fittings must be 18-8 Type 304 stainless steel. Never-seize/Anti-seize shall be applied to all SS bolts and nuts.

2.2.4.4 Tapping Sleeve

Tapping sleeves on mains 4" to 12" in diameter will be all Stainless Steel Sleeves.

The All Stainless Steel Sleeve shall be fabricated from 304 Stainless Steel. They shall have a pass through bolt design and full circumferential gasket to provide 360° seal around the pipe. The tapping sleeve is to be fully passivated to return the stainless steel to its highest corrosion resistance stage.

Sleeves on mains 16" to 24" in diameter will be fabricated steel with O-ring seal, fusion bonded, epoxy coated with 304 stainless steel nuts and bolts or M.J. ductile iron body. Sleeves on mains larger than 24" will be handled on a case-by-case basis.

Tapping Sleeves for reinforced concrete mains will be handled on a case-by-case basis. The sleeves will have a fusion-bonded epoxy coating on the entire body and throat assembly. The straps and bolts shall be 18-8 Type 304 stainless steel.

The tapping valve must have centering ring and conform to Section 2.2.2.1 "Resilient Seat Gate Valves" in these Technical Provisions.

Tapping saddles to be placed on asbestos concrete (AC) pipe shall be an **JCM A432** All Stainless-Steel Sleeve or equal.

2.2.4.5 Line Stop Sleeve Specifications

Sizes 4" through 12"

Sleeve/Body

The entire Line Stop sleeve shall be fabricated from 304 Stainless Steel. They shall have a pass-through bolt design and provide 360° seal around the pipe. The line stop sleeve is to be fully passivated to return the stainless steel to its highest corrosion resistance stage. Outlet on sleeve will be full port, i.e. on 8" sleeve, outlet will be 8", on 6" sleeve, outlet will be 6".

Bolts, Nuts & Washers

18-8 Type 304 Stainless Steel, the bolts shall be track head type and furnished with permanently lubricated heavy-hex nuts and stainless washers.

Gasket

The full circumferential gasket shall be molded of synthetic rubber compounded for use with water salt solutions, mild acids, bases and sewage. The gasket shall have a gridded surface, be a full 1/4" thick with 304 stainless steel bridge plates molded flush into the gasket and have a raised hydromechanical outlet seal to seal against line surges and water hammer.

Pressure Rating

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

Line Stop Sleeves shall be a **JCM A440 Line Stop Sleeve** or approved equal.

2.2.5 FIRE HYDRANTS

Fire hydrants must be manufactured in accordance with AWWA specification C502. Hydrants must have bronze-to-bronze main seat threading surfaces. They will be traffic type with drain holes plugged at the factory. Fire hydrants will have 18-8 Type 304 Stainless Steel bolts and nuts (bonnet, traffic flange and shoe).

Hydrants will have a minimum 5-1/4" main valve opening, with one 4-1/2" pumper nozzle, and two 2-1/2" hose nozzles. Nozzles to have NST threads. Stem couplings are to be cast iron or stainless steel. The upper valve plate must be bronze. The hydrant shoe will be coated inside with fusion-bonded epoxy, 6 mil minimum. All hydrants will be painted at the factory with Rustoleum high-performance epoxy 9100 system, non-lead, dry film thickness 5 to 8 mils, color #9143 Yellow. City crews will apply finish paint to each new fire hydrant after the Contractor has paid the appropriate fees.

Finish grade is to be established and the proper length hydrant is to be installed by the Contractor prior to acceptance by the City. All nozzles will be a minimum of 18" and a maximum of 24" above finished grade. A 6" mechanical joint hydrant connection will be provided using a hydrant valve-anchoring tee with integrally cast standard mechanical joint gland on 6" plain end branch. The Contractor will not be allowed to install risers on hydrants. At final inspection, if it is determined that a fire hydrant is not at grade, the Contractor shall purchase a proper length hydrant and install it under the direction of the Engineering Division.

2.2.6 SERVICE CONNECTIONS, 3/4"-2"

All service connections will be single connections. Services that are 3/4" and 1" are to be type K annealed temper soft copper. All connections are to be of the flare type. 1-1/2" and 2" services are to be of type K drawn temper in straight lengths or annealed temper if furnished in coils. Absolutely no lead-based solder joints will be accepted. Any repairs of service lines will be by flare-to-flare coupling. No compression fittings will be accepted. Taps in the pipe will be the same nominal diameter as the service line. Service taps in PVC pipe will be drilled with a shellcutter designed to cut PVC pipe, and the PVC plug will be removed.

Brass goods furnished under this specification shall be new and unused. All fittings shall conform to ANSI/AWWA Standard C800, latest revision.

All brass components in contact with potable water must be made from either CDA/UNS Brass Alloys C89520 or C89833 with a maximum lead content of .25% by weight. Brass alloys not listed in ANSI/AWWA C800 Paragraph 4.1.2 are not approved. All service fittings shall be certified as suitable for contact with drinking water by an ANSI accredited organization in accordance with ANSI/NSF Standard 61. All fittings shall be stamped or embossed with a mark or name indicating that the product is manufactured from the low-lead alloy as specified above.

Brass saddles shall be made from CDA/UNS C83600 and are exempt from the "no lead" requirement.

2.2.6.1 Saddles

Saddles must be used for all connections to PVC, AC and D.I. pipe. Saddles must be all brass with "CC" threads as manufactured by **Mueller Company**, or **Ford Meter Box Company**. The pipe sizes for these manufacturers are noted below (approved materials are also listed in "Appendix A"):

MUELLER: For ductile iron pipe sizes 4" to 12", for 3/4" and 1" services, the single strap design must be used. For 1-1/2" and 2" services, the BR 2 B double strap design must be used.

FORD: For pipe sizes 4" to 12", for 3/4" and 1" services, the style 101B single strap design must be used. For 1-1/2" and 2" services, the style 202B double strap design must be used. For pipe sizes 16" and larger, for 3/4", 1", 1-1/2," and 2" services, the style 202B double strap design must be used.

An approved equal may be used in lieu of any of the above-listed designs/models.

2.2.6.2 Curb Stops, 3/4" - 2"

Curb stops 3/4" and 1" in size will be flare-by-meter coupling. **Curb stops must have locking wings and a swivel meter nut.** Curb stops that are 1-1/2" or 2" will be flare-by-meter flange with locking wing or an approved equal. All curb stops shall be centered in the meter box and installed in a horizontal position.

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:	

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

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

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

VERTICAL DATUM: NAVD88

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

PROJECT TITLE

CIRRUS

SHEET TITLE

CITY OF COCOA TECHNICAL PROVISIONS

PROJECT NO.

11545

DRAWING NO.

11545_400_016

SHEET

16 of 19

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

2.2.6.3 Corporation Stops, 3/4" - 2"

All corporation stops for water service ¾" thru 2" will be brass and have "CC" inlet threads and copper flare outlet. 2" Corporation stops for "jumpers" will be "CC"-by- F.I.P.

2.2.6.4 Meter Boxes

Meter boxes for traditional meters are to be plastic with an iron flipper lid with a full pin hinge. Meter boxes for radio-read meters must have a lid compatible with City's AMR meter antennae (4-1/2" round). Service locations will be permanently cut and painted on concrete curb or the street with a blue "W" for potable water or a purple "R" for reclaimed. Reclaimed services will be located at the opposite lot corner from water services where practical or with five feet minimum separation.

For larger 1-1/2 and 2-inch meters, 17" x 30" meter boxes shall be used.
For areas that are anticipated for high traffic areas, a traffic rate H-20-meter box shall be used. Reclaimed Water services will be set in purple meter boxes of materials per above. They are also required to have a 3" x 5" permanent plastic tag, secured to the curb stop with a nylon tie wrap, which will be supplied. Tags will be inscribed, "RECLAIMED WATER DO NOT DRINK".

2.3 PROTECTION OF PROPERTY AND OBSTRUCTIONS

2.3.1 PROTECTION

Temporary supports and/or adequate protection and maintenance must be provided on all underground and surface structures encountered in the progress of the work. Structures that have been disturbed will be restored to a condition equal to their original state upon completion of the work.

2.3.2 OBSTRUCTIONS

All utility owners must be notified prior to beginning construction. Any known obstructions will be shown on the plans; however, Contractor is solely responsible for field verifying existing conditions. The utmost caution will be taken in all operations to avoid damage to existing obstructions whether or not shown on the plans. Damage to other utilities will be at the Contractor's expense.

If the Contractor encounters any unforeseen obstructions during construction, the Contractor shall immediately cease work in that area and notify the Engineer of Record (EOR). The EOR shall design and provide detailed drawings to correct the situation. The drawings shall be submitted to the Engineering Division for approval. After approval by the Engineering Division, a set of approved drawings will be given to the contractor and they may resume work.

2.3.3 EXISTING ASBESTOS CEMENT WATERMAINS

In areas where asbestos cement water mains are existing, water main relocations or replacements may be necessary. If new construction of facilities is over, under, or near asbestos cement water mains, it shall require that the asbestos cement water main be changed out to polyvinyl chloride pipe or ductile iron pipe. All asbestos cement pipe that is replaced shall be removed and disposed of by the contractor unless specifically directed in writing by the City to abandon in place. New pipe material shall depend upon the type and location of the facilities being constructed. The Developers Engineer shall design the replacement and submit it for the Engineering Division approval. The Developer is responsible for all design, materials, labor, equipment, testing, and costs for the replacement. Contractor shall remove and dispose of AC pipe in accordance with FAC Codes 62-204.800 and 62-257.

2.3.4 ABANDONMENT OF ASBESTOS CEMENT PIPE

Where asbestos cement water mains have been directed by the City to be abandoned in place they shall be filled with a sand/cement grout by the contractor. Grout shall be injected within the pipe sections to be abandoned where the ends of the sections shall be capped and or plugged. The grouting program shall consist of pumping sand-cement grout with suitable chemical additives at pressures necessary to fill the pipe sections to prevent the potential for future collapse. The rate of pumping shall not exceed six (6) cubic feet per minute. The pumping pressures shall be in the range of 100 to 150 psi.

The Contractor shall provide standpipes and/or additional means of visual inspections as required by the City to determine if adequate grout material has filled the entire pipe section(s).

2.4 TRENCH PREPARATION

2.4.1 EXCAVATION

A trench will be opened so that the pipe can be installed to the alignment and depth required. It will be excavated only so far in advance of pipe placement as necessary. The trench will be excavated to the depth required to provide a uniform and continuous bearing support for the pipe or undisturbed ground. Bell holes will be provided at each joint to permit jointing to be made and inspected properly.

During excavation, if ashes, cinders, muck or other organic material considered unsuitable is discovered at the bottom of the trench at sub-grade, unsuitable material will be removed and backfilled with approved material. This material will be compacted in layers to provide a uniform and continuous bearing characteristic of that area's soil condition. Where the bottom of the trench at sub-grade consists of unstable material to such a degree that it cannot be removed and replaced with an approved material to support the pipe properly, a suitable foundation must be constructed. Excavated material will be piled in such a manner that it will not endanger work or obstruct natural watercourses, sidewalks or driveways. Fire hydrants under pressure, valve boxes, or other utility controls will be left unobstructed and accessible at all times. Gutters will be kept clear or other satisfactory provisions will be made for street drainage.

2.4.2 SHORING AND BRACING

Open cut trenches must be sloped, shored or braced as required by all governing State law, municipal ordinances, OSHA Standards, and as may be necessary to protect life, property, or the work. Trench bracing may be removed after backfilling has been completed or has been brought up to such an elevation as to permit its safe removal. The use of a trenching box may be used in place of sheeting and bracing where appropriate. The Contractor is required to have a Competent Person designated and in charge at all times while workers are in the trench.

2.4.3 DE-WATERING

Excess water must not be allowed in the trench at any time. An adequate supply of well points, headers or pumps, all in first-class operating condition, may be used to remove the water. The use of gravel and pumps will also be an acceptable means of removing the water. The trench will be excavated no more than the available pumping facilities are capable of de-watering. Discharge from pumps will be accommodated in accordance with the St. Johns River Water Management District's requirements. The Contractor is responsible for obtaining all de-watering permits such as NPDES permit.

2.5 PIPE LINE CONSTRUCTION

2.5.1 GENERAL

All water mains, service lines, and appurtenances must be installed as specified on the approved plans and in accordance with the Standard Detail Sheet. Installation will conform to AWWA specification C600 except as modified herein.

Domestic water service can only come from a Distribution main. When water service is requested and the only water main available is a Transmission main, a large tap and section of pipe shall be installed on the Transmission Main for the water service.

The minimum size tap on a Transmission Main shall be a six (6) inch.

2.5.2 MATERIAL HANDLING

2.5.2.1 Precautions

Every precaution will be taken to prevent damage to pipe and piping materials during transportation and delivery to the work site. Under no condition will pipe be dropped, bumped, dragged or picked up by inserting forks into end of pipe. Pipe lifted by placing forks into pipe shall be removed from job site.

2.5.2.2 Damaged Materials

If in the process of transportation, unloading or handling, any pipe or fitting is damaged, it will be rejected and removed from the site.

2.5.2.3 Storage

Pipe fittings and specials will be stored in a manner which will assure the protection of the material from damage and which will keep it clean.

2.5.3 INSPECTION OF MATERIALS

Materials delivered to the job site will be subject to inspection by the Engineering Division prior to installation. Contractor shall notify Inspections 24 hours in advance. All materials found to be defective or not meeting specifications during inspection or during the progress of the work will be rejected and removed from the job site without delay. All materials delivered to the job site will be in accordance with the materials specifications. Materials not inspected by the Engineering Division prior to installation will be uncovered by the Contractor at their expense to verify compliance with these specifications. The Contractor will furnish copies of the packing list(s) for materials upon demand.

2.5.4 PIPE PLACEMENT

The bottom of the trench will not be excavated below the specified grade. If undercutting occurs, the bottom of the trench will be brought up to the original grade with approved material and thoroughly compacted, as directed by the Engineering Division. Before placing pipe into the trench, the outside of the spigot and the inside of the bell will be wiped clean, dry, and free from oil and grease. Every precaution will be taken to prevent foreign material from entering the pipe. During placement operation, no debris, tools, clothing or other material will be placed in the pipe.

All mechanical joints will be made up in strict accordance with the manufacturer's specifications. Beveled ends will be removed from PVC pipe entering a mechanical joint. The bell will be carefully cleaned before the gasket is inserted. Gaskets must be evenly seated, the gland placed in position with the bolts, and evenly tightened. All slip joints will be made up in strict accordance with the manufacturer's specifications.

After placing a length of pipe in the trench, the spigot end will be centered in the bell, the pipe forced home, brought to correct alignment, and covered with an approved backfill material. Ductile iron pipe will be backfilled to the centerline of the pipe and compacted to ninety-five percent (95%) of standard Proctor T-99.

PVC pipe will be backfilled in accordance with the manufacture's recommendations for the laying conditions.

Pipe will be installed with 30" minimum cover. Maximum cover of 42" will be accepted. Cover depth will be determined from proposed finish grade as indicated on the plans. At times when pipe placement is not in progress, the open ends of pipe must be closed by a watertight plug or other approved means. This provision will apply during the lunch hour as well as overnight. If water is in the trench, the seal will remain in place until the trench is pumped completely dry.

All underground water main shall meet the horizontal and vertical separation requirements in FAC 62-555.314 as related to sanitary force main and gravity main, reclaim mains, and storm water gravity and force mains.

Pipe installed under swales shall be D.I. and have 3 feet minimum cover. D.I. pipe to be centered on swale. If more than one joint of pipe is necessary, restrained joint pipe is required. See "Swale Crossing" detail and definitions.

Pipe installed under canal or drainage ditch shall conform to all FDEP requirements. Pipe shall be restrained joint D.I. pipe with gate valves on both sides of canal/ditch. D.I. pipe shall have 5 feet minimum cover with a concrete cap. See "Canal or Drainage Ditch Crossing" detail and definitions.

2.5.5 LOCATING WIRE

A UF 14 Copper Wire that allows for the location of the pipe using an induced current line locator will be installed on all potable water, reclaimed water, and wastewater mains. The wire must be placed on the top of the pipe and taped approximately every ten feet. A run of wire must run from the main to each hydrant. Each fire hydrant must have one wrap of the wire around the barrel located at final grade.

Wire color shall be blue for water, green for wastewater, and purple for reclaimed.

A run of wire will also be brought up in each valve box. The wire will have 18 inches of excess length. Wire is to be connected together using an underground wire nut with a **silicone-based sealant.**

The CCS wire shall meet the following requirements. HDPE Insulation of 30 mils, #14 AWG conductor, maximum Ohms resistance of 8.28 ohms per 1000 ft., breaking load 256 lbs.

When directional drilling is used, one continuous #10 CCS **extra high strength** locator wire shall be installed. The CCS wire shall meet the following requirements. HDPE Insulation of 45 mils, #10 AWG conductor, maximum Ohms resistance of 0.999 ohms per 1000 ft., breaking load 1150 lbs.

2.5.6 SERVICE LINE LOCATION

Service lines will be located at alternating lot lines outside the sidewalk within two feet of the right-of-way line as shown on approved plans or in a grassed area behind the curb if located in other than a subdivision.

Reclaimed service line is to be located adjacent to sewer cleanouts.

2.5.7 BACKFILLED MATERIAL AND INSPECTION

All backfilling material will be free from cinders, ashes, refuse, vegetable or organic material, boulders, rocks, stones, or other material which is considered unsuitable. When backfill material is not specified on the plans, backfilling with the excavated material may be acceptable provided that such material is suitable for backfilling. Pipe should be backfilled as soon as possible to minimize the length of open trench. Pipe joints, valves, fittings, and thrust blocks will be left uncovered until inspection by the Engineering Division has been completed.

2.5.8 VALVES AND FITTINGS

All valves and fittings will be set and joined to the pipe in the proper location as shown on the plans. Valves should be installed outside of the pavement where practical. A roadway valve box will be provided for every valve. This valve box must not transmit shock or stress to the valve. Valve will have alignment ring installed and valve box centered and plumb over the wrench nut of the valve. The box cover is to be flush with the surface of the finished pavement or grade level as specified in the plans. A 24"-square concrete pad 4" in thickness will be poured around the valve box when it is located outside of pavement. A bronze or stainless-steel disc will be cast into the pad for all valves 12" or larger. Valve nomenclature to be stamped into the disc will include the valve size, type, manufacturer's initials, number of turns, and direction to open the valve. (Example: 12" G.V. U.S.P. 20 c.c.w.)

All valves will be located within two feet of the tee, see detail "Gate Valve and Fitting."

When solid sleeves or couplings are used to join/tie-in pipelines, a Spacer Piece shall be installed if there is a gap in the pipeline.

2.5.9 FIRE HYDRANTS

All fire hydrants (hydrants) will be located as shown on the plans and marked on the pavement with a blue reflector. On unpaved streets, a blue reflector will be affixed to a post and placed as close to the edge of the road as feasible to be easily visible. The hydrants will be located in such a manner as to provide complete accessibility and in a manner so that the possibility of damage from vehicles or injury to pedestrians will be minimized. All hydrants must stand plumb and the bury line of the hydrant at the finished grade. Hydrants installed in State highway rights-of-way will be placed in accordance with any F.D.O.T. requirements. Contractors shall not turn or add risers to hydrants. All hydrants will be connected to the main in the manner shown on the Standard Detail Sheet. If the installation of the hydrant requires the hydrant to be greater than 40 ft. away from the fire hydrant valve, an additional valve shall be installed. If the fire hydrant valve ends up in asphalt of a major road (not subdivision) an additional hydrant valve regardless of distance shall be installed.

2.5.10 RESTRAINED PIPE JOINTS

The 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.

2.5.11 THRUST BLOCKS AND COLLARS

Restrained joint systems are the preferred method. Thrust blocks may only be used with the City's prior approval at bends, fire hydrants, and as specified on the plans, in accordance with the Standard Detail Sheet. Metal harnesses, tie rods, or clamps of adequate strength to prevent movement may be installed at locations where thrust blocks are not practical. Rods and clamps will be stainless steel. A 20-foot length of ductile iron pipe will be installed at all main endings and a concrete thrust collar will be poured around the pipe at a distance of 10 feet from the end of the joint. In lieu of concrete thrust collar, restrained pipe upstream of the proposed concrete thrust collar may be used.

2.5.12 JACK AND BORE, PIPE INSTALLED IN CASINGS

Pipe to be installed under pavement where open trenching is not permitted will be installed through a steel casing that has been jacked and bored. The casing pipe will be six to eight inches larger than the outside diameter of the bells on the Ductile Iron pipe. The Engineer of Record will design the casing and bore to meet FDOT or FECRR requirements.

Ductile Iron pipe of the appropriate Class will be installed in the casing. Water mains must be pushed or pulled through the casing on stainless steel casing spacers with polyethylene skids attached to the pipe with stainless steel straps. The stainless-steel casing spacers with polyethylene skids will be placed in accordance with manufacturer's recommendations. Casing spacers must be manufactured by Cascade or an approved equal. Restrained joints are required on mains installed inside casings.

JACK AND BORE

J&B installed under FDOT roadways shall conform to the latest FDOT Road and Bridge Construction design standards. J&B installed under FECRR shall conform to FECRR requirements.

2.5.13 HORIZONTAL DIRECTIONAL DRILLING

Only DIP and Fusible PVC may be horizontal directional drilled (HDD) under pavement or surface waterway crossings. The HDD pipe shall only extend to 10 feet on each side of the crossing. Then the piping will change to the standard piping material.

HDD installed under FDOT roadways shall conform to the latest FDOT Road and Bridge Construction design standards.

ENGINEERING PROCEDURE HORIZONTAL DIRECTIONAL DRILLS

PRECONSTRUCTION CONFERENCE

1. A preconstruction conference will be required. The preferred attendees for the preconstruction shall be but not limited to:

   The directional bore contractor (preferably the Field Superintendent) The

   permitting agency

   Engineer of Record

   City Engineering Division Representative

   Inspector for the project

HDD CONTRACTOR

1. Approval required prior to the HDD, the HDD contractor shall submit a bore plan (see sample drawing in "Appendix B") to the Engineering Division for approval. The bore plan shall be a scaled drawing or computer generated drawing showing the following information but not limited to: (see drawing "Typical Bore Plan")

   The entrance and exit location

   Profile of the bored pipe

   All utilities including their depths and clearances from reamer

   Width of the right of way

   Pavement width

   Length of the bore

   The bore plan shall be signed by the responsible person in charge of the bore.

2. The HDD contractor shall follow the minimum clearances as shown below from the bottom of the water main to the top of the reamer:

   Water mains 12" and greater minimum clearance is 18" Water

   mains 10" and less minimum clearance is 12"

3. The HDD contractor will be responsible for obtaining locates for all utilities in accordance with Chapter 556 of the Florida Statutes.
4. The HDD contractor shall notify the City of Cocoa Inspection Division 48 hours in advance of the bore and notify the appropriate permitting agency per the conditions of the permit.

ENGINEERING INSPECTOR

1. An approved copy of the bore plan will be given to Engineering Inspection Division.
2. The Inspector for the project will have a copy of the bore plan at the project site.
3. Prior to the HDD the Inspector shall verify that the materials at the project site for the directional bore are in accordance with the City of Cocoa's latest technical provisions and standard details.
4. The Inspector shall verify the following prior to the commencement of the HDD:

   a. Verify that the HDD contractor has obtained his/her utility locates;
   b. Verify that all utilities have been visually spotted by the HDD contractor;
   c. Verify that the permitting agency has been notified of the HDD; and d. Witness the calibration of the sonde.

5. The Inspector shall remain at the project site until completion of the HDD. Any discrepancies shall be immediately reported to the Engineering Division. Once the corrective action is determined, the proper authority will be notified.

COMPLETION OF THE BORE

1. A bore log shall be submitted to the Engineering Division after completion of the bore.

2.5.14 BLOWOFFS

Flushing blow-offs are to be installed and constructed as shown on the Standard Detail Sheet. Blow-off materials include 2" brass for nipples, brass threaded fittings, 2" brass angle wheel valve, and plastic meter box (purple for reclaimed). The plastic meter box is to be installed at grade over the wheel valve. The angle wheel valve will be within six inches of finished grade and will be plugged with a brass plug. 4" blow-offs will be required on both potable water and reclaimed water mains 12" and larger and must be constructed as shown on the Standard Detail Sheet. A reclaimed tag will be installed on reclaimed main blow-offs in a reclaimed meter box.

Brass used in potable water shall meet the low lead requirements as set forth in Section 2.1.6, "Service Connections".

2.6 TIE-INS TO EXISTING SYSTEMS

2.6.1 GENERAL

The Contractor is not to operate any valve or remove any thrust block from City-owned mains except under direct supervision of an Inspector of the Engineering Division. The Contractor may need a post restraining the existing piping for the tie-in as required by the Engineering Division. All Contractors must follow the procedures listed below for connecting new mains to existing water systems.

2.6.1.1 Mains 8" and smaller

Existing tie-in valves will be operated and pressure tested to verify water tightness prior to the proposed tie-in. Existing system valves that are not water tight, shall have a new valve installed immediately adjacent (within 2') to the existing valve. The Contractor will provide a 2" tap on the new main and a 2" tap on the existing main at the tie-in valve. A 2" jumper equipped with a City supplied meter and contractor supplied backflow preventer (double check) will be installed. The jumper will be utilized for filling the main, flushing the main, providing water for bacteriological sampling, and maintaining pressure in the main after a successful bacteriological test. The proposed tie-in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from FDEP and the City. The Engineer of Record will be required to provide an executed FDEP certificate of completion prior to clearance. After clearance, the tie- in valve will be opened, the jumper removed, and the main thoroughly flushed under the supervision of the Inspector. All other existing valves closed as part of the job will be opened by the contractor under the supervision of Engineering Division.

2.6.1.2 Mains 10" and Larger

The same procedure as noted for mains 8" and smaller will be used for mains 10" and larger except that the jumper will be utilized only for filling the main, providing water for bacteriological sampling, and maintaining pressure in the main after a successful bacteriological test. The tie-in valve can be opened for flushing and during chlorination only under the supervision of the Engineering Inspection Division. The tie-in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from FDEP and the City. After clearance, the tie- in valve will be opened, the jumper removed, and the main thoroughly flushed under the supervision of the Inspector. All other existing valves closed as part of the job will be opened by the contractor under the supervision of the Inspector.

2.7 TESTING

2.7.1 GENERAL

All newly installed pipe and services that have been backfilled must be tested in accordance with AWWA specification C651.

2.7.2 JUMPER METER ASSEMBLY

All filling, and flushing, must be accomplished through a jumper meter assembly. The jumper meter assembly shall consist of a meter (provided by the City, paid for by the Developer/Contractor), and a double check backflow preventer and galvanized piping (provided by the Contractor). The jumper meter assembly shall be installed by the Contractor under the direct supervision of the Engineering Division. After installation, the Contractor shall have the backflow preventer certified by a backflow technician, and a copy of the test report shall be provided to the Engineering Division.

1. A temporary jumper connection is required at ALL connections between existing active water mains and proposed new water main improvements, per the City of Cocoa Utilities Handbook. The only exception is the installation of a new fire hydrant involving a tap and using an anchoring/swivel nipple. In this case, all fittings and fire hydrant SHALL be swabbed with a 100 ppm chlorine solution prior to installation.

2. The details for filling any water main from existing active water mains and for flushing of new mains up to 8" diameter (2.5 FPS minimum velocity) and for pulling bacteriological samples from any new water main of any size can be found in **Section 2.7.3-Flushing and Swabbing**. The jumper connection shall be maintained until after filling, flushing, testing, and disinfection of the new main has been successfully completed and clearance for use from the Florida Department of Environmental Protection (FDEP) and other pertinent agencies has been received. The jumper connection shall also be used to maintain pressure in the new mains all the time after disinfection and until the FDEP clearance letter is obtained. Adequate thrust blocking and/or restraints shall be provided temporarily, as required. Pipe and fittings used for connecting the new pipe to the existing pipe shall be disinfected prior to installation in accordance with AWWA C651. The tapping sleeve and the exterior of the main to be tapped shall be disinfected by spraying or swabbing per Section II of AWWA C561.

3. Flushing of 10" diameter and larger water mains may be done through the tie-in valve, under the direct supervision of the Engineering Division. The Engineering Division will be notified in writing 48 hours prior to the flushing of said mains.

   The following procedures shall be followed:

   A. The existing tie-in valves shall be operated and pressure tested in the presence of the Engineering Division or Engineer to verify water tightness prior to the proposed tie-in. Valves which are not watertight shall be replaced or a new valve installed immediately adjacent to the leaking valve.

   B. The temporary jumper connection shall be constructed as detailed. The jumper connection shall be used to fill the new water main and for providing water for bacteriological sampling of the new main as required by the FDEP permit.

- Flushing shall not be attempted during peak demand hours of the existing water main.
- All downstream valves in the new system must be open prior to opening the tie-in valve.
- Provide for and monitor the pressure at the tie-in point, the pressure in the existing main must not drop below 35 psi.
- Tie-in valve shall be opened a few turns only, ensuring a pressure drop across the valve is always greater than 10 psi.

4. The contractor shall provide documentation demonstrating that the double check backflow prevention device has been tested and is in good working order at the time of installation. The test shall be performed by a qualified backflow prevention technician.
5. Except as required to flush lines of greater than 8" in diameter, the tie-in valve shall remain closed. The tie-in valve shall remain closed until the new system has been cleared for use by FDEP and all other pertinent agencies.
6. Upon receipt of clearance for use from FDEP and all other pertinent agencies, the contractor shall remove the jumper connection. The corporation stops are to be closed and plugged with 2" brass plugs.
7. All installation and maintenance of the temporary jumper connection and associated backflow prevention device fittings, valve, etc., shall be the responsibility of the contractor.

CITY OF COCOA
Brevard County, Florida
UTILITIES DEPARTMENT

WATER
TECHNICAL PROVISIONS

DRAWN BY:	SCALE:
CHECKED BY:	DATE: APRIL 2020
DRAWING No. :	SHEET: 2 OF 3
ACAD NAME:	

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

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

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

VERTICAL DATUM: NAVD88

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

PROJECT TITLE

CIRRUS

SHEET TITLE

CITY OF COCOA TECHNICAL PROVISIONS

PROJECT NO.

11545

DRAWING NO.

11545_400_017

SHEET

17 of 19

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

2.7.3 FLUSHING AND SWABBING

The City will provide an adequate volume of water for the filling, flushing, and testing of mains. The Contractor will notify the Engineering Division prior to flushing or filling mains. The pressure in the City's system will be monitored during the flushing; at no time should the pressure in the City's system be allowed to drop below 35 psi. Water used during flushing will be billed to the Contractor.

The City of Cocoa Engineering Division requires all new mains regardless of size or material to be pigged/swabbed. In an effort to make sure all footages of a pipeline are pigged, the following procedures are to be used as a guide and in no way to be construed as means and methods.

The following terminology may be used in the discussion or operation of the

pigging procedure. Pigs shall be manufactured of a 2 pounds per cubic foot

density open cell polyurethane foam

body (swab) complete with rear polyurethane drive
seal.

Pig launching station may be a "wye", "tee", or simply inserting the pig at the very beginning of the pipeline. The beginning of the pipeline is defined at the jumper assembly location.

Pig retrieval point or cannon is a "wye", "tee" or open end of pipe at which point the pig will exit the pipeline.

The pipeline will be filled through the jumper assembly the day before of the pigging operation.

The pig will be advanced through the pipeline at a rate of 2 feet per second, 80 gpm for 4"; 180 gpm for 6"; 320 gpm for 8". Flow rates and jumper assemblies for mains 10" and larger will be determined by the Engineer of Record and approved by the City of Cocoa Engineering Division.

The pig retrieval point or cannon will project at least one foot above the surrounding grade. The water from the pig retrieval station discharge and its location to discharge shall be approved by the Engineering Division. The contractor will be responsible for following the National Pollutant Discharge Elimination System (NPDES) requirements to remove chlorine from discharge as well as protect retrieval area from erosion. Retrieval cannons will not be left in place. After pigging and flushing are complete, the cannon will be removed and capped below ground in accordance with Engineer of Record details or City of Cocoa Standard Details.

The contractor may insert the pig into the first section of pipe between the isolation valve and the downstream point of jumper assembly. By inserting the pig between the isolation valve and the downstream jumper assembly point it will allow the pipeline to be filled without moving the pig down the pipeline. If the pig is moved during filling operation another pig will be inserted into the pipeline. The isolation valve may be cracked open for a few seconds under the direction of the Engineering Division to move the pig past the jumper assembly downstream point so the jumper assembly can advance the pig through the pipeline.

When the pig exits the pipeline, the flushing will continue until the water is clear. A simple way to determine if water is running clear is to capture some water in a WHITE cup. If water is clear and no particles in cup then flushing is complete; if not, flushing will continue until water is clear.

2.7.4 HYDROSTATIC TEST

A blow-off or fire hydrant will be installed at the end of the pipeline under test. The line being tested will be slowly filled with water to the specified test pressure. Before applying the specified test pressure, all air will be expelled from the test section including service connections. If fire hydrants or blow-offs are not available at high elevations, taps at points of highest elevation will be made to facilitate air removal and testing. When testing is complete, the service lines installed for air removal must be removed.

The line must hold the 150-psi test pressure for a two-hour test period and must be performed under the direct supervision of the Engineering Division. Sufficient human resources are to be employed to ensure inspection. If the line fails to meet the test, it will be repaired and re-tested until the test requirements are satisfied. Line pressure will be maintained to within 5 psi of the test pressure at all times.

2.7.5 LEAKAGE TEST

A leakage test at 150 psi will be performed on all newly installed sections of pipe in accordance with AWWA C600 or C605 after installation of all service connections. Any leakage observed must be less than the following per thousand feet of pipe:

Size (in)	Allowable Leakage (gal/hour)
2	0.20
4	0.33
6	0.50
8	0.67
10	0.83
12	1.06
14	1.16
16	1.32

$$L = \frac{SD\sqrt{P}}{148000}$$

L = testing allowance (makeup water), in gallons per hour

S = length of pipe in feet

D = nominal diameter of pipe, in inches

P = average test pressure during the hydrostatic test, in pounds per square inch (gauge). P has the square root taken.

On small main extensions where the allowable leakage loss cannot be reasonable measured (.25 gallons or less), NO LOSS OF PRESSURE shall be allowed.

2.8 DISINFECTION AND BACTERIOLOGICAL TESTING

2.8.1 GENERAL

The Contractor must flush potable mains and arrange for complete disinfection by chlorination in coordination with the Engineering Division. Work will conform to applicable provisions of AWWA specification C651-14, "Disinfecting Water Mains". Water with a chlorine concentration of 50 ppm will be evenly distributed throughout the pipe system and allowed to remain in the pipe for twenty-four hours. Transmission mains may be chlorinated using the "slug method". If the slug method is used, a detailed written procedure shall be submitted for approval. The main shall be dechlorinated to zero ppm chlorine before any flushing is performed. The method for dechlorination shall be approved by the Engineer of Record. After flushing, the water shall remain in the pipe for 24 hours before sampling. Service connections and tie-ins made before testing must be disinfected in accordance with AWWA specification C651. Samples will be taken by an Engineering Division approved laboratory. Two consecutive day samples are required for potable water mains. Water mains shall not be flushed between samples. The Contractor will be responsible for ALL bacteriological testing fees. Sample points are determined by the Engineer of Record and approved by FDEP. If samples taken do not demonstrate satisfactory results, re- chlorination and retesting of all sample locations is required at the Contractors expense.

CONTRACTORS WORKING ON EXISTING MAINS

When existing water mains are taken out of service by contractors, and water service to existing customers is interrupted causing a precautionary boil water notice (PBWN), the water main will be taken out of service on Monday or Tuesday. If for some reason the water main cannot be taken out of service on Monday or Tuesday, then the contractor at their expense shall have the laboratory perform bacteriological testing after normal working hours. This procedure is to lessen the time water customers are under a PBWN.

2.9 WET TAP CONNECTIONS TO EXISTING SYSTEM

2.9.1 GENERAL

Tap Being Performed **Parties Allowed to Perform the Tap**
Taps 2" and smaller — Approved tapping and line stop contractor
Contractor approved to tap mains solely for their own project
○ Contractor must perform 5 successful taps under the supervision of the inspection team and demonstrate possession of proper tapping equipment
Taps 2"-16" — Approved tapping and line stop contractor
Taps 16" and greater — Approved tapping and line stop contractor
○ Each tap requires independent review and approval
○ The tap must be performed under direct supervision of the engineering division
Taps on concrete transmission mains — Contractor approved for taps on City of Cocoa transmission mains
○ Tapping plan must be submitted by the contractor prior to the tap

On transmission mains, the approved tapping and line stop contractor will install the tapping saddle and valve. For all connections from 4"-12" the contractor may install tapping saddles under direct supervision of the Engineering Division.

For all water main connections, the Contractor must obtain all required permits, provide a dry pit area, provide pit preparation including shoring and bracing, provide maintenance of traffic, provide all right-of- way restoration, and notify all utilities prior to construction. Connections must be completed under direct supervision of the Engineering Division.
The list of approved contractors may be found on pg. 158.

Tapping saddles and valves supplied by the Contractor will be inspected by the Engineering Division prior to installation. The installed tapping saddle and valve must be tested with water at 100 psi for 15 minutes prior to tapping to ensure a watertight installation. Saddles installed on concrete pressure pipe will be tested 10% over line pressure. The pressure test will be performed by the Contractor and supervised by the Engineering Division. After the pressure test of the saddle has been completed, an Approved Tapping Contractor can tap the main.

2.9.2 TAPPING AND LINESTOP PROCEDURES

ALL TAPS or LINESTOPS on City of Cocoa potable, reclaimed, and wastewater mains will be performed by an **Approved Tapping Contractor**.*

Absolutely NO taps or linestops will be performed on Friday or any day preceding a holiday.

Approved Contractors must disinfect tapping machine with AWWA approved disinfectant.

This will be witnessed by the Inspector.

The Contractor's tapping or linestop machines will be in good working order with appropriate bits and shell cutters for the type of pipe being worked on (i.e. shellcutter for PVC).**

When taps or linestops are installed on Transmission Mains (> 12"), a preconstruction meeting will be held with the tapping contractor prior to ANY work being performed. The meeting may be held at the job site.

Taps and linestops on the Utilities concrete pressure mains will be a two (2) day process and will require a pre-construction meeting. Day one the saddle is installed and grouted, Day two tighten straps, cut pre-stressing wires, install throat and valve. Pressure test on saddle is 10% over line pressure for 30 minutes. After successfully completing pressure test, tap can be made.

Toggle bolts will be required for PCCP taps to assure the entire coupon remains intact. The coupon must be provided to the City.

ALL excavations must conform to current OSHA Trench Safety Act.

The City of Cocoa reserves the right to remove any contractor from the approved list for any work considered substandard.

* Tap or linestop to include: Material, installation, labor, drilling, and testing

** Bit, boring bar, and adaptor

2.10 FINAL CLEAN-UP AND ACCEPTANCE

2.10.1 GENERAL

Upon completion of the work and before acceptance by the Engineering Division, the Contractor will meet all permit conditions, remove all debris, and complete sodding, sprigging, or seeding if required by the plans. The Contractor will leave all areas affected by operations in a neat and presentable condition.

Acceptance of completed work by the City will be contingent on the following work items completed to the satisfaction of the Engineering Division.

Pressure Test

Bacteriological Testing

Restoration

Payment of fees

Approved As-Builts

Easements

Bill of Sale

Fire line DCDA certification, as needed

Final Inspection

2.11 FIRE SERVICE

2.11.1 GENERAL

All Fire Lines shall be installed by a licensed Fire Line Contractor in accordance with Florida Statute Chapter 633 and Rule Chapter: 69A-46. Where wet pipe sprinkler service is used, an RPDA or DCDA will be installed in accordance with the "Backflow Prevention and Cross- Connection Control" Section of the Utilities Handbook and as described in the "City of Cocoa Cross Connection Control Program Manual".

Fire line backflow preventer assemblies shall be installed in non-traffic areas. Four to six bollards may be required.

2.12 CONNECTION OF BUILDINGS OVER FOUR FLOORS

2.12.1 GENERAL

Connection of domestic water supply systems serving buildings over four floors in height to the
City's water distribution system will be subject to the following requirements:

A fixture unit analysis will be performed by the Owner's engineer to determine peak domestic flow requirements. This analysis is to be provided to the Engineering Division.

A water meter and a reduced pressure backflow preventer, sized in accordance with the domestic flow requirements, will be installed above ground at the developer's expense.

Upon written request, the City will provide the site engineer with the minimum expected system pressure. The site engineer will be responsible for providing this information to the architect and building owner. Means for providing an adequate supply of domestic water and fire protection to all parts of the building during periods of minimum pressure will be the responsibility of the building Architect or Engineer of Record.

Repair costs for damage to the water meter caused by flows exceeding its rated capacity will be charged to the customer.

2.13 BACKFLOW PREVENTERS

2.13.1 GENERAL

All connections to the City of Cocoa potable water system shall contain a backflow preventer assembly per the Standard Details in "Appendix B." Backflow preventer requirements for each service type are described in the "City of Cocoa Cross Connection Control Program Manual" and are summarized in Paragraph 2.1.3, "Backflow Preventers" and "Appendix A" of this document.

2.14 RECORD DRAWINGS

2.14.1 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 valves, service lines, fittings, and fire hydrants using at least two ties to permanent points (manholes, curbs, or storm water inlets). An acceptable station and offset system may be used for service lines and fittings only.

Location of mains from property easement lines or edge of pavement at intervals of 300 feet.

Elevations to the top of the water line at intervals of 300 feet and at all drainage and sewer main crossings. Benchmark to be shown on record drawings.

Separation between reclaimed water or force mains and water mains, if they are installed within 10 feet of water mains.

Water main material and distance of mains from buildings or structures within 20 feet of the water main.

Distance from hydrant to hydrant valve.

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 will be accurately shown. After the surveyor or engineer has certified the locations, the engineer will certify on DEP Form 62-555.900(9) 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).

CITY OF COCOA
Brevard County, Florida
UTILITIES DEPARTMENT

WATER
TECHNICAL PROVISIONS

DRAWN BY:	SCALE:
CHECKED BY:	DATE: APRIL 2020
DRAWING No. :	SHEET: 3 OF 3
ACAD NAME:	

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

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

CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

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

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

VERTICAL DATUM: NAVD88

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

PROJECT TITLE

CIRRUS

SHEET TITLE

CITY OF COCOA TECHNICAL PROVISIONS

PROJECT NO.
11545

DRAWING NO.
11545_400_018

SHEET
18 of 19

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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.

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 sulfide 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 coal tar 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 Gruber** 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 the 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 (%)
4	1.141.046	0.660.608
6	0.360.331	00.280.25
120.220.20		

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 jointing 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 upgrade 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 a wye 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 compaction 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)						
4	0.276	0.414	0.552	0.690	1.104	1.656	2.208
6	0.414	0.621	0.828	1.035	1.656	2.484	3.312
8	0.552	0.828	1.104	1.380	2.208	3.312	4.416
10	0.690	1.035	1.380	1.725	2.760	4.140	5.520
12	0.828	1.242	1.656	2.070	3.312	4.968	6.624
15	1.035	1.553	2.070	2.588	4.140	6.210	8.280
18	1.242	1.863	2.484	3.105	4.968	7.452	9.936
21	1.449	2.173	2.898	3.623	5.796	8.694	11.592
24	1.656	2.484	3.312	4.140	6.624	9.936	13.248
27	1.863	2.794	3.726	4.657	7.452	11.178	14.904
30	2.070	3.105	4.140	5.175	8.280	12.420	16.560
33	2.277	3.415	4.554	5.692	9.108	13.662	18.216
36	2.484	3.726	4.968	6.210	9.936	14.904	19.872

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	60
72	75
96	90
120	105

*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 NAVD 88).
- 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 DEP Form 62-604.300(8)(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 Potable & 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 sulfide 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 0.079 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 **Flyght** 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 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 sealing 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 Roto- Float type-S 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 panel and must test less than 25 ohms resistance. Grounding wire will be Cad welded to the ground rod. The door will be equipped with a three-point latching system with hasp and staple for locking. The wiring system will be configured to allow the pumps to operate on floats if the SCADA system is by-passed. A separate by-pass switch will be installed. A **Time Mark** or **Diversified Electronics** phase sequence and loss relay with fault light will be installed for each pump. Line voltage will be monitored with a **Time Mark 257B or A257B**. The control panel will be mounted on aluminum channel or stainless steel unistrut and hardware supported by a minimum of three 4-inch square concrete posts. The post will be a minimum of 10 foot in length and located adjacent to the wet well. When the panel door is open, a minimum of 4-foot separation between the wet well edge and the panel.

A NEMA 4X, 316 stainless steel junction box with back plate, a terminal strip, a power distribution block for each pump, and a ground bar will be installed near the main control panel with a 1 ¼ inch diameter conduit for float wiring and a 2-inch diameter conduit for the pumps. The J-Box will be the minimum specified on the plans and will be located next to and same height as the control panel. The box will be connected to the control panel with a 1 ¼-inch diameter conduit for float wiring and a 2-inch diameter conduit for each pump. The conduits will be equipped with seal-offs between the control panel and the pump J-box to protect electrical equipment from corrosive atmosphere in the wet well. The terminal strip will be mounted on DIN rail and terminals will be Phoenix Contacts with sufficient room to add thirty-five (35) Phoenix Contact terminal blocks. The motor conductors will be one size larger than required by the current National Electric Code. Motor seal failure and over-temperature wiring will be a minimum #14 AWG copper conductors consisting of Black, Red, White, and Green. One set of these four colors will be for each motor. These conductors are to be in the same 2-inch conduit for the motor conductors. Four #12 AWG copper conductors will also be installed in the same 2-inch conduit for future use. These will be Black, Red, White, and Green.

A laminated as-built electrical wiring diagram (minimum 8.5" x 11") will be securely attached to the inside of the control panel door. A separate copy of the as-built wiring diagram will be provided to City of Cocoa Engineering Division. An information plate will also be located inside panel door and will include Cocoa's station number, pump information, and station voltage. An information plate with the address of the lift station will be located on the exterior of the meter can. If a high leg is present, identify the leg with orange color.

A site meeting will be held for each project to determine the exact placement of the panel components.

3.9.8.1 Disconnect Panel

A lightning suppressor shall be installed on the exterior side of the disconnect panel. It will not be permitted on the inside of the control panel. The disconnect panel will be a 200-amp fusible or breaker disconnect housed in a NEMA 4X, 316 stainless steel, 3 poles lockable cabinet rated for 600 volts AC. The disconnect panel is to be located next to the meter housing.

3.9.8.2 SCADA

SCADA equipment will be housed in a separate Eurobex, model number 5412 ESSPCH, lockable, NEMA 4X cabinet with an inner panel for equipment mounting and a separate inner panel on the door for mounting radio. Lift station operation and monitoring will be accomplished via SCADA, utilizing Motorola Moscad-L Remote Terminal Unit (RTU) consisting of one 15X15 chassis-part# FHN6028, frame-part# FHN5890, 3 I/O motherboard-part # FRNS809, a 117 vac transformer- part# FPN5554, power supply module-part# FPN5555, Central Processing Unit (CPU)-part# F6836, external radio interface board-part # FRNS907, three mixed I/O modules-part# FRNS819, battery bracket-part # FHN6058, battery-part# FLN9059, UHF radio 438-470 MHt-part# FUE1067, radio install kit-part# FLN3268, one antenna cable-part# FKN4473, TCP/IP interface to port 1- part# V527, and all associated cables. For more information, refer to the RTU detail sheets in "Appendix B".

The antenna shall be a gold anodized fully welded UHF directional Yagis, model Y4503, as manufactured by Antenex. The antenna shall be mounted on a minimum 20-foot-tall galvanized mast. The mast shall be rigid pipe, two and one half inches in diameter at the base. The upper 5 feet of mast will be rigid pipe, one and one quarter inches in diameter. The bottom of the mast will be set 3 foot below ground level and encased in a column of concrete a minimum of 12 inches in diameter and 3 foot deep. The mast will be located in close proximity to the SCADA/RTU panel. Antenna cable shall be Times Microwave Systems 3/8 inch diameter flexible low loss coaxial cable, part# LMR-400-DB and shall be fed into a 1-inch rigid metal conduit, mounted next to the antenna mast and shall be supported a minimum of three times along the length of the mast. The cable is to be fed into the underside of the SCADA/RTU panel. The mast shall be grounded to separate ground rod. A 20-foot copper-clad ground rod will be driven into the ground adjacent to the mast and must test less than 25 ohms resistance. Grounding wire will be Cad welded to the ground rod. Coordination of SCADA programming will be provided by the City's EOR.

The interface between the control cabinet and the separate SCADA cabinet will be through Phoenix Contact terminals and component plugs and relay bases (catalog # 700-HN121), or approved equals. An isolated 20 Amp circuit will be provided to power SCADA equipment. Pumps will be controlled by SCADA RTU.

SCADA will be our new system and will be provided by the City. Existing antenna will be used. Coaxial cable may need to be replaced at the sole responsibility of the Contractor.

3.9.8.3 Surge Protection

A surge protection unit as manufactured by Ditek, model KX-(applied voltage) shall be installed in a separate cabinet.

3.9.8.4 Emergency Generator

Stand-alone emergency electrical generators may be required for some pumping stations will be determined by the Engineering Division at the time of plan review. Generator location to be determined by the City. Provide a concrete slab with a minimum thickness of 6 inches. Generator will be mounted on approved rubber pads for vibration dampening. Installation must meet NFPA and NEC requirements. Generators shall be manufactured by Kohler or an approved equal and equipped with a John Deere, Cummins, or Caterpillar diesel engine with a minimum 60 kW output. Generator will be equipped with a fuel tank sized to provide a minimum of 32 hours operations under full load conditions with a minimum capacity of 250 gallons. Automatic Transfer Switch (ATS) will be installed in a separate NEMA 4X enclosure. ATS to be sized to the incoming electric service voltage and amp rating.

3.9.9 Site Lighting

Total number of lights will be determined by total area of the lift station site and equipment location. At least one light and pole will be located near the wet well and valve pit. Exact location to be determined by the City. Light pole must be aluminum, square, and bronze in color. Pole must be wind rated for the location. Total pole height, including in-ground base, will not exceed 16 feet above finished grade. Light must be RAB Lighting #ALED3T15O or an approved equal.

3.10 CONDUIT

Exposed electrical conduit will be Rigid Metal Conduit (galvanized rigidRMC) with protective coating where it penetrates concrete. Buried conduit will be Schedule 80 PVC. Conduits will be sized in accordance with NEC or larger with a minimum diameter of 2 inches. PVC conduits for pump and float wiring will be installed through the side of the wet well, below the lid, and above the high-water level.

Each pump power cable will be installed through a separate conduit from the wet well to the control panel junction box. All conduits from wet well to J-Box will be 2-inch Schedule 80 PVC

and consist of double 45-degree bends. Seal failure and over-temperature wiring for the pump will be installed in the same conduit. One (1) conduit will be provided to accommodate float wiring. Conduits for power and float wiring will be installed in close proximity and located to provide the straightest possible run to the junction box. Wiring from the wet well will be terminated in the junction box. Continuous wiring through the box will not be permitted.

A separate 2-inch diameter PVC conduit will be installed through the side of the wet well with the ends capped for future use. This conduit will be located at 90, 180, or 270 degrees from the others. The Engineering Division will determine the exact location during plan review.

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

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

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

VERTICAL DATUM: NAVD88

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

PROJECT TITLE

CIRRUS

SHEET TITLE

CITY OF COCOA TECHNICAL PROVISIONS (WASTEWATER)

PROJECT NO.

11545

DRAWING NO.

11545_400_019

SHEET

19 of 19

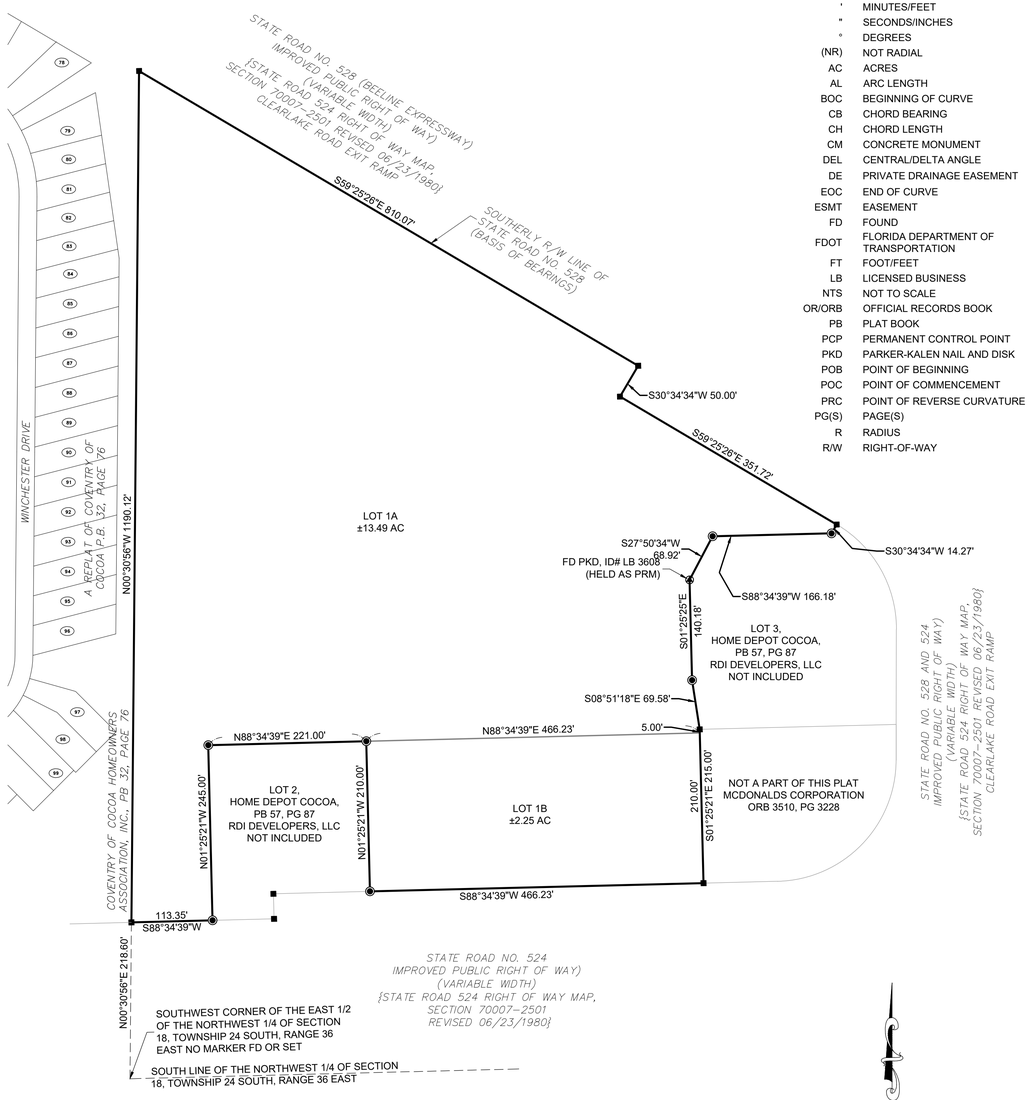
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SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

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



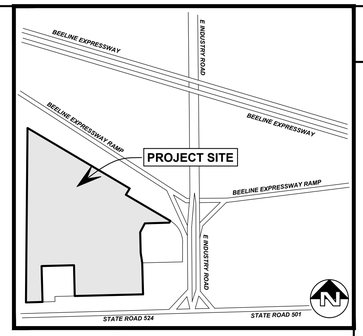
ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
(NR)	NOT RADIAL
AC	ACRES
AL	ARC LENGTH
BOC	BEGINNING OF CURVE
CB	CHORD BEARING
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
DEL	CENTRAL/DELTA ANGLE
DE	PRIVATE DRAINAGE EASEMENT
EOC	END OF CURVE
ESMT	EASEMENT
FD	FOUND
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FT	FOOT/FEET
LB	LICENSED BUSINESS
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
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

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.



LOCATION MAP
NTS

PLAT NOTES:

1. 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.
2. SURVEY MONUMENTATION WITHIN THE SUBDIVISION SHALL BE SET IN ACCORDANCE WITH FLORIDA STATUTES, CHAPTER 177.091(9).
3. 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.
4. 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.
5. 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
6. THE 36' SHARED ACCESS EASEMENT SHOWN ON LOT 1B IS HEREBY DEDICATED TO THE OWNERS OF LOT 1A FOR VEHICULAR AND PEDESTRIAN ACCESS.
7. 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.
8. 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.
9. 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.
10. 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 5583, PAGE 8287.

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.

- THIS PLAT PREPARED BY -

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

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

PLAT BOOK _____, PAGE _____
SHEET 1 OF 4
SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST

DEDICATION

KNOW ALL MEN BY THESE PRESENTS, COCOA RETAIL, LLC, 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.

_____ SEAL
NOTARY PUBLIC
My Comm. Expires _____

CERTIFICATE OF SURVEYOR

KNOW ALL MEN BY THESE PRESENTS, That the undersigned, being a licensed professional surveyor and mapper, does hereby certify that on 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. _____

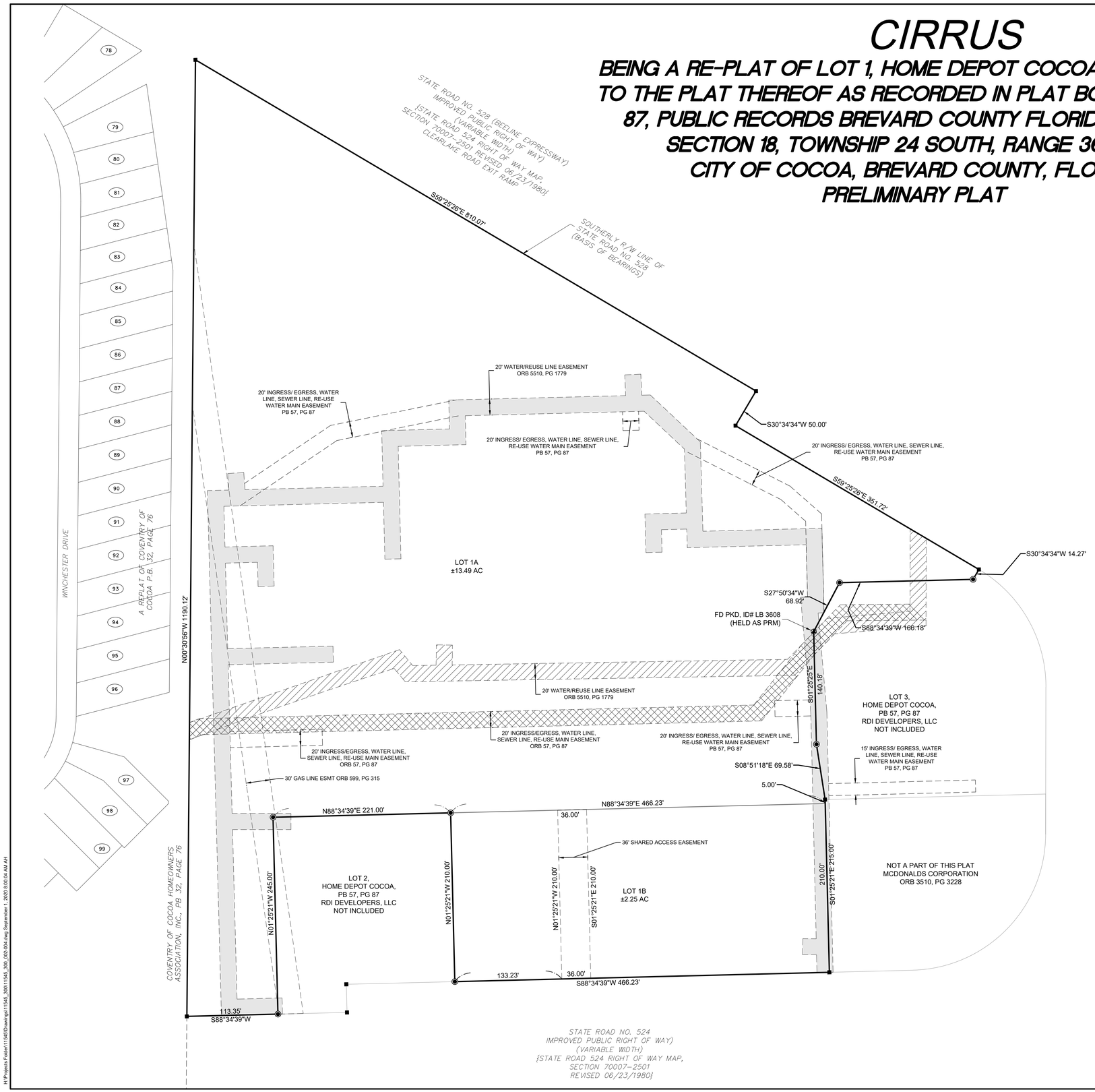
ATTEST: _____
Clerk of the Circuit Court in and for Brevard County, Fla.

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PLAT BOOK _____, PAGE _____
SHEET 2 OF 4
SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST

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

60 0 30 60
1 INCH = 60 FEET

- THIS PLAT PREPARED BY -

B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 725-1150
CERTIFICATE OF BUSINESS AUTHORIZATION: 49925
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

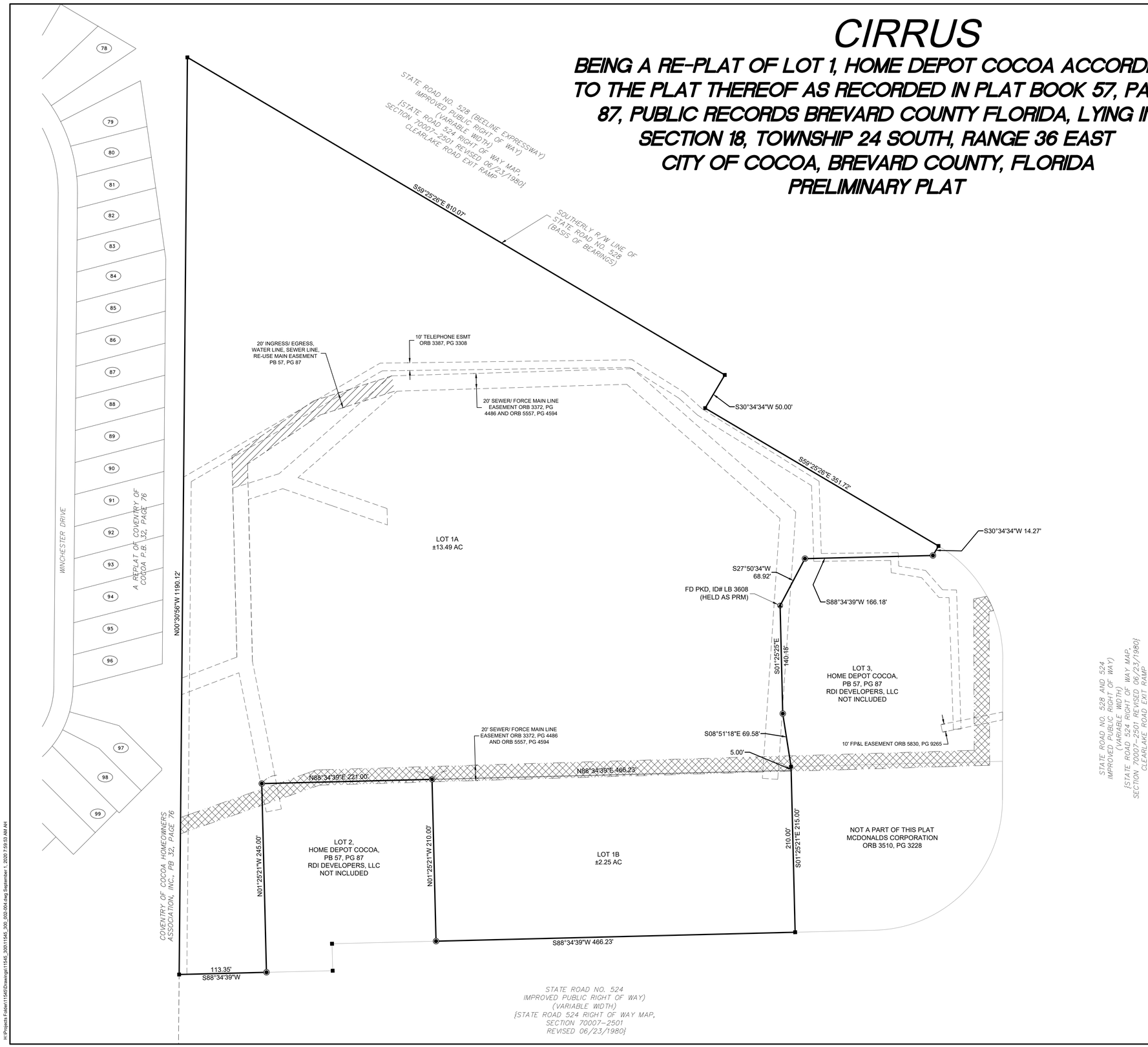
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PROJECT# 11545

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PLAT BOOK _____, PAGE _____
SHEET 3 OF 4
SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST

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

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PG(S)	PAGE(S)
R	RADIUS
R/W	RIGHT-OF-WAY
SEC	SECTION
S	SOUTH
W	WEST

60 0 30 60
1 INCH = 60 FEET

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CONSULTING - ENGINEERING - LAND SURVEYING
372 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 723-1158
CERTIFICATE OF BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

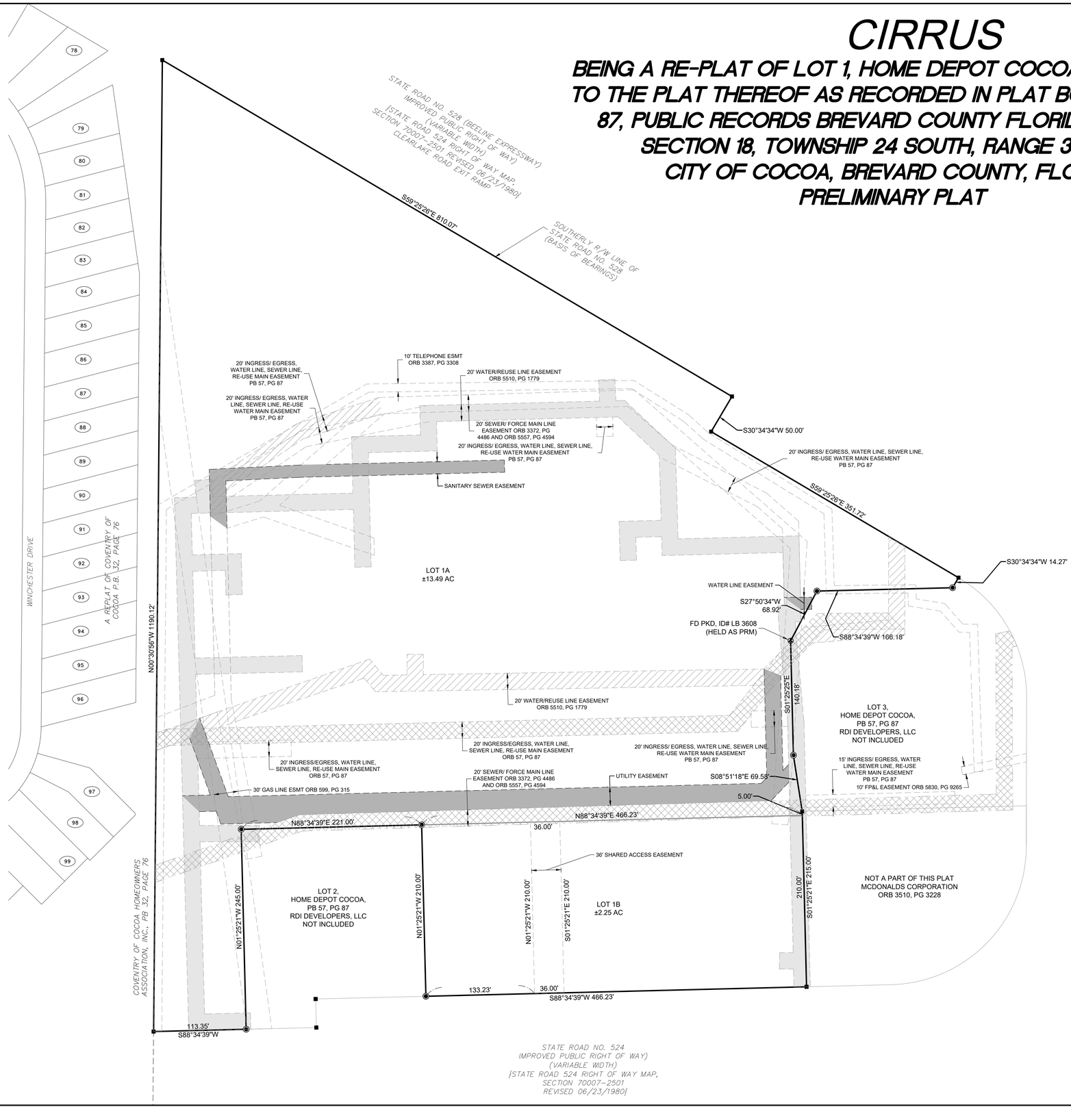
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DRAWING# 11545_300_003
PROJECT# 11545

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PLAT BOOK _____, PAGE _____
SHEET 4 OF 4
SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST

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
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ABBREVIATIONS

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R	RADIUS
R/W	RIGHT-OF-WAY
SEC	SECTION
S	SOUTH
W	WEST

60 0 30 60
1 INCH = 60 FEET

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B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
PHONE: (321) 725-3674 FAX: (321) 723-1150
CERTIFICATE OF BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

DATE: 08/31/20
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DRAWING# 11545_300_004
PROJECT# 11545

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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. 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 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 (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

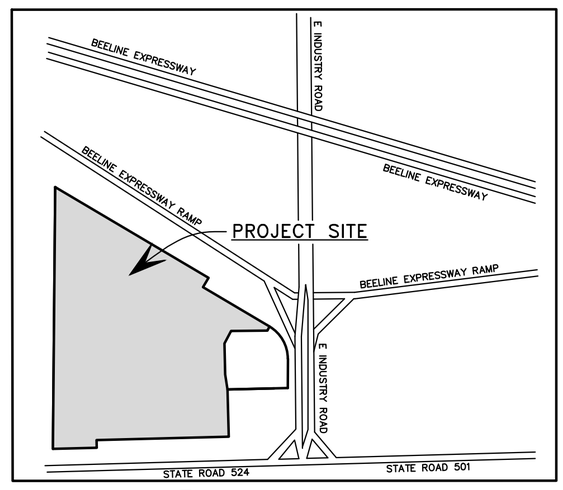
PROPERTY ADDRESS: 2320 HIGHWAY 524 UNIT HOMEDE, COCOA, FLORIDA 32926

DATE OF LAST FIELD WORK: 11/11/19

DESCRIPTION FROM EXHIBIT "A" IN 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:

PARCEL 1 (FEE PARCEL): 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.

PARCEL 2 (EASEMENT PARCEL): TOGETHER WITH THOSE CERTAIN EASEMENTS FOR ACCESS, UTILITIES AND SIGNAGE FOR THE BENEFIT OF PARCEL 1 ABOVE AS MORE FULLY DESCRIBED AND SET FORTH 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, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.



N

LOCATION MAP

NTS

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:

1. *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.
2. *SURVEYOR HAS NO KNOWLEDGE OF* ANY RIGHTS, INTERESTS, OR CLAIMS OF PARTIES IN POSSESSION OF THE LAND NOT SHOWN BY THE PUBLIC RECORDS.
3. *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*.
4. *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.
5. *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.
6. 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*
7. *SURVEYOR HAS NO KNOWLEDGE OF* ANY MINERALS OR MINERAL RIGHTS LEASED, GRANTED OR RETAINED BY CURRENT OR PRIOR OWNERS.
8. 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.
9. 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*
10. 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*
11. 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*
12. 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*
13. 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. *AFFECTS PROPERTY, NOTED AND SHOWN HEREON*
14. 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*
15. 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*
16. 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*
17. 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 5583, PAGE 8287. *NOT A SURVEY MATTER*
18. 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*
19. 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*
20. 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*
21. 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 _____, PAGE _____. *AFFECTS PROPERTY, PLOTTABLE EASEMENTS REFERENCED ON THE ABOVE NAMED PLAT ARE SHOWN AND NOTED HEREON*
22. 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*
23. 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*
24. 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 7783, PAGE 2688. *AFFECTS PROPERTY, NO PLOTTABLE EASEMENTS FOUND IN DOCUMENT*
25. *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).

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 AGES 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.

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 AGES 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 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.

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

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 AGES 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.

NATIONAL FLOOD INSURANCE PROGRAM

1. MAP No. 12009C0320G
2. COMMUNITY No. 120020
3. PANEL No. 0320
4. SUFFIX: G
5. MAP REVISED: MARCH 17, 2014
6. THIS PROPERTY IS LOCATED IN FLOOD ZONE "X UNSHADED" - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

SHEET INDEX	
1	GENERAL NOTES, SITE DATA, DESCRIPITIONS AND CERTIFICATIONS
2	OVERALL BOUNDARY
3	IMPROVEMENTS, ENCHROACHEMENTS AND EASEMENTS
4	TOPOGRAPHY, CONTOURS AND SPOT ELEVATIONS

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
EL/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
N#	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

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
- OHW — EXISTING OVERHEAD WIRE
- WM — EXISTING WATER MAIN
- SS — EXISTING SANITARY SEWER
- RWLM — EXISTING REUSE WATER MAIN
- FM — 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

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.

FIELD BOOK: COCOA BK 2
PAGE(S): 34

7	
6	
5	
4	
3	
2	
1 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) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

LOT 1, HOME DEPOT COCOA

ALTA/NSPS LAND TITLE 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_001

SHEET 1 of 4

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ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CONCRETE BLOCK
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
CA	CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
EL/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
N#	NEIGHBORHOOD IDENTIFICATION
NAD	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PRM	PERMANENT REFERENCE MONUMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
RW	RIGHT-OF-WAY
RCP	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)
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- JUNCTION BOX (JB)
- MITERED END SECTION (MES)
- FLARED END SECTION (FES)
- UTILITY POLE
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- LIGHT POLE
- TELEPHONE MANHOLE
- TELEPHONE RISER
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- PARKING SPACE NUMBERS
- CYPRESS TREE
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- TRAFFIC SIGNAL MAST ARM POLE
- PEDESTRIAN TRAFFIC SIGNAL POLE
- TRAFFIC SIGNAL CONTROL SENSOR BOX
- CONCRETE

STATE ROAD NO. 528 AND 524
(IMPROVED PUBLIC RIGHT OF WAY)
(VARIABLE WIDTH)
{STATE ROAD 524 RIGHT OF WAY MAP, SECTION 70007-2501 REVISED 06/23/1980}
CLEARLAKE ROAD EXIT RAMP
LOT 3
RDI DEVELOPERS, LLC
NOT INCLUDED
NOT INCLUDED
McDONALD'S CORPORATION
O.R.B. 3510, PG 3228
FD 1/2" IRC, ID# LB 4905
S88°34'39"W 166.18'
S30°34'34"W 14.27'
FD 1/2" IRC, ID# LB 3608
S30°34'34"W 69.92'
FD PKD, ID# LB 3608
S1°25'25"E 140.18'
FD 1/2" IRC, ID# LB 3608
69.58'
S8°51'18"E
S01°25'21"E 215.00'
S59°25'26"E 351.72'
S30°34'34"W 50.00'
NORTH R/W LINE OF STATE ROAD 524
466.24'
S88°34'39"W 601.24'
STATE ROAD NO. 528 (BEELINE EXPRESSWAY)
(IMPROVED PUBLIC RIGHT OF WAY)
(VARIABLE WIDTH)
{STATE ROAD 524 RIGHT OF WAY MAP, SECTION 70007-2501 REVISED 06/23/1980}
CLEARLAKE ROAD EXIT RAMP
S59°25'26"E 810.07'
SOUTHERLY R/W LINE OF STATE ROAD 528 (BASIS OF BEARINGS)
LOT 1
15.741 AC
FD 1/2" IRC, ID# LS 3913
N01°25'21"W 210.00'
S88°34'39"W 221.00'
LOT 2
RDI DEVELOPERS, LLC
NOT INCLUDED
135.00'
S01°25'21"E 35.00'
86.00'
S01°25'21"E 245.00'
FD 1/2" IRC, ID# LS 3913
113.35'
S88°34'39"W 199.35'
STATE ROAD NO. 524
(IMPROVED PUBLIC RIGHT OF WAY)
(VARIABLE WIDTH)
{STATE ROAD 524 RIGHT OF WAY MAP, SECTION 70007-2501 REVISED 06/23/1980}
SOUTHWEST CORNER OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST NO MARKER FD OR SET
SOUTH LINE OF THE NORTHWEST 1/4 OF SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST.
N00°30'56"E 218.60'
NW CORNER OF LOT 1 FD CM ID# 2351 11.2' NORTH AND 18.7' WEST OF END OF CHAIN LINK FENCE
WEST LINE OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 18, TOWNSHIP 24, SOUTH, RANGE 36 EAST.
WEST LINE OF LOT 1
N00°30'56"E 1190.12'
COVENTRY OF COCOA HOMEOWNER'S ASSOCIATION, INC., ORB 2725, PG 1087
TRACT "B"
A REPLAT OF COVENTRY OF COCOA PB 32, PAGE 76
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
TRACT "B"
POINT OF BEGINNING
SW CORNER OF LOT 1
FD CM, NO ID# 5.4' WEST OF END OF FENCE
60
30
0
60
(IN FEET)</image>

SURVEY LEGEND

- PERMANENT REFERENCE MONUMENT (PRM): FD 4X4 PRECAST CONCRETE MONUMENT WITH DISK STAMPED PRM LB#4905, 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)
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- PERMANENT CONTROL POINT FOUND (MARKED AS NOTED)

SCOTT M. GLAUBITZ
PROFESSIONAL LAND SURVEYOR
FLORIDA LICENSE NUMBER 4151

LESLIE E. HOWARD
PROFESSIONAL SURVEYOR & MAPPER
FLORIDA LICENSE NUMBER 6611

PROJECT NO.	11545
DRAWING NO.	11545_100_002-004
SHEET	2 of 4

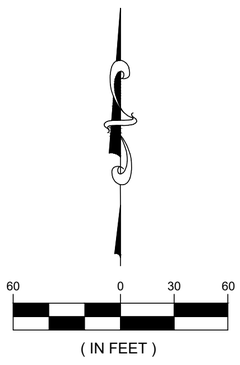
LOT 1, HOME DEPOT COCOA

ALTA/NSPS LAND TITLE SURVEY

B.S.E. CONSULTANTS, INC.
CONSULTING • ENGINEERING • LAND SURVEYING
313 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE (321) 725-3674 FAX (321) 723-1039
CERTIFICATE OF AUTHORIZATION #695
BUSINESS AUTHORIZATION LB0030665

FIELD BOOK: COCOA BK 2
PAGE(S): 34
DESIGN/DRAWN: LEH
DATE: 04/07/2020

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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)

SCHEDULE B–II, FROM 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.

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

TOPOGRAPHIC LEGEND

- EXISTING STORM DRAINAGE PIPE
- OHW — EXISTING OVERHEAD WIRE
- WM — EXISTING WATER MAIN
- SS — EXISTING SANITARY SEWER
- RWLM — EXISTING REUSE WATER MAIN
- FM — EXISTING FORCE MAIN
- SANITARY MANHOLE (SMH)
- SANITARY SEWER CLEANOUT (CO)
- GATE VALVE (GV)
- FIRE HYDRANT (FH)
- BLOWOFF (BO)
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- DRAINAGE STRUCTURE (DS)
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- TRAFFIC SIGNAL CONTROL BOX
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- PEDESTRIAN TRAFFIC SIGNAL POLE
- TRAFFIC SIGNAL CONTROL SENSOR BOX
- CONCRETE

ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
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EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
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NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
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ST	STREET
TYP	TYPICAL

STATE ROAD NO. 528 (BEELINE EXPRESSWAY)
CLEARLAKE ROAD EXIT RAMP
(VARIABLE WIDTH R/W)

STATE ROAD NO. 524 (SR 528 REROUTE)
(IMPROVED PUBLIC RIGHT OF WAY VARIABLE WIDTH)

STATE ROAD NO. 528 & 524
OFF RAMP (275' R/W)

SOUTHERLY R/W LINE OF STATE ROAD No. 528

SOUTHERLY RIGHT OF WAY LINE

NORTH R/W LINE OF STATE ROAD No. 524

SOUTH LINE OF THE NORTHWEST 1/4 OF SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST.

WEST LINE OF THE EAST 1/2F OF THE NORTHWEST 1/4 OF SECTION 18

A REPLAT OF COVENTRY OF COCOA P.B. 32, PAGE 76 ZONED PUD

TRACT "B" COVENTRY OF COCOA HOMEOWNERS ASSOCIATION, INC., ORB 2716, PG 1630

LOT 1
15.741 ACRES
ZONED C–G

LOT 2
NOT INCLUDED

LOT 3
NOT INCLUDED

McDONALDS
NOT INCLUDED

"THE PROPERTY"
13.49 AC. +/–

PROPOSED "SHARED ACCESS EASEMENT" AREA

PROPOSED "RETAINED BY SELLER" AREA

VACANT
#2300
BLDG HGT 39.1
ONE STORY C.B.S
FFE 32.17

TOTAL GROSS SQUARE FOOTAGE OF ENTIRE BUILDING AREA = 85,394

VACANT
BLDG HGT 28.4
ONE STORY C.B.S
FFE 32.35

VACANT
BLDG HGT 27.2
ONE STORY C.B.S.
FFE 32.20

1 STORY METAL "COOLER" BUILDING

BENCHMARK# 1
DS RIM 31.55
INV 18" RCP N 28.39

BENCHMARK# 2
SMH4 RIM 30.32
INV=23.62(E)
INV=23.44(SW)

BENCHMARK# 3
DS RIM 30.15

N00°30'56"E 1190.12'

N88°34'39"E 1166.18'

N30°34'34"E 14.27'

N27°50'34"E 68.92'

N01°25'25"W 140.18'

N08°51'18"W 69.58'

S30°34'34"W 50.00'

S59°25'26"E 810.07'

S59°25'26"E 351.72'

S88°34'39"W 274.56'

S00°07'09"W 132.98'

S00°07'09"W 49.90'

N01°25'21"W 215.00'

S88°34'39"W 103.60'

N88°34'39"E 601.24'

N01°25'21"W 35.00'

N88°34'39"E 199.35'

N00°30'56"E 218.60'

AL=176.34' R=169.69'
Del=59°32'34" Ch=168.52'
CB=S29°39'09"E

AL=261.96'
R=169.68'
Del=88°27'30" Ch=236.71'
CB=S44°20'54"W

724' +/–

78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99

6' WOOD FENCE, 10.3' SOUTH AND 4.7' EAST OF FD C.M.

5.0'± 6' WOOD FENCE

CHAIN LINK FENCE

CHAIN LINK FENCE ALONG RIGHT OF WAY LINE

WETLAND

POND

EDGE OF WATER

8" PVC INV 26.19

8" PVC INV 26.38

DS RIM 30.21 24" RCP INV 27.19

MES 24" RCP INV 27.05

283.39'

121.82'

5.10'

5.31'

±0.96'

CONCRETE FLUME TYP.

36" RCP INV 24.15

GREASE TRAP

CONCRETE

CONCRETE RAMP

CONCRETE DUMPSTER PAD W/ 6' WOOD FENCE

SMH 6 RIM 30.62 INV=22.37(NE) INV=22.23(S)

SMH 5 RIM 30.78 INV=22.69(NE) INV=22.62(SW)

SMH 3 RIM 30.42 INV=24.83(SE) INV=24.61(W)

SMH 2 RIM 31.48 INV=25.95(NW) INV=26.05(S)

SMH 7 RIM 30.59 INV=21.48(N) INV=21.43(S) INV=21.30(SW)

SMH 8 RIM 31.01 INV=26.01(N)

SMH RIM 27.81

SMH 7 RIM 32.33 INV=27.62(N) INV=27.71(SE) 27.72

POWER POLE (TYP.)

GUY WIRE (TYP.)

CONCRETE DUMPSTER PAD

CHAIN LINK FENCE

4' HIGH DOUBLE GUARD RAIL

ELECTRIC TRANSFORMER PAD

CONCRETE RAMP

WATER METER BOXES

ELECTRIC TRANSFORMER PAD

GREASE TRAP

ASPHALT

CONCRETE DUMPSTER PAD

DS RIM 30.98 INV 18" RCP SE 28.63

DS RIM 30.83 INV 18" RCP NW 28.29 INV 18" RCP S 28.51

DS RIM 30.65 INV 18" RCP N 28.67 INV 14"X23" RCP E 28.62 AND 28.62

MES 14"X23" RCP INV 28.41

MES 14"X23" RCP INV 28.34

MES 14"X23" RCP INV 25.94

MES 14"X23" RCP INV 28.23

MES 18" RCP INV 26.93

MES 24" RCP INV 26.40

MES 24" RCP INV 26.54

MES 24" RCPS INV 26.81

MES 24" RCP INV 27.18

MES 18" ADS E INV 29.37

JB RIM 30.96 18" ADS E INV 28.10 19"X30" W INV 27.78

MES 19"X30" RCP INV 27.66

DS RIM 30.21 18" RCP INV 27.44

DS RIM 27.52 12" CMP E INV 25.02

DS RIM 30.29 36" RCP W INV 26.87 24" RCP E INV 27.48 18" RCP S INV 27.18

DS RIM 30.55 24" RCP W INV 26.87 24" RCP E INV 27.48 18" RCP S INV 27.18

DS RIM 29.45 12" CMP W INV 25.65

GRATE INLET RIM 31.11 8" PVC W INV 29.46

GRATE INLET RIM 31.12

DS RIM 30.15 18" RCP INV 27.08

DS RIM 32.52 18" RCP N INV 27.57

CI RIM 31.30 36" RCP N INV 24.97 36" RCP S INV 24.81

DS RIM 30.15 36" RCP N INV 25.55 18" RCP E INV 25.69 18" RCP S INV 26.94

8" SS PVC

6" WM

18" RM DIP

10" FM PVC

8" FM PVC INV 28.93

6" CURB TYP.

ISLAND (TYP)

LIGHT POLE (TYP.)

SHOPPES OF COCOA NORTH SIGN

36" WM RCP

LOT 1 — 15.741 ACRES — ZONED C–G

LOT 2 — NOT INCLUDED

LOT 3 — NOT INCLUDED

McDONALDS — NOT INCLUDED

25' FRONT SETBACK

25' SIDE SETBACK

FIELD BOOK:	COCOA BK 2
PAGE(S):	34
DESIGN/DRAWN:	LEH
DATE:	04/20/2020

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

LOT 1, HOME DEPOT COCOA

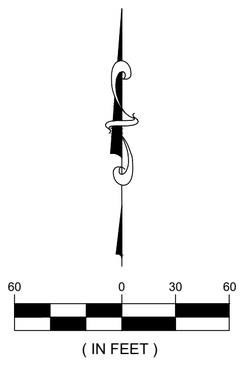
ALTA/NSPS LAND TITLE SURVEY

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_002-004
SHEET	3 of 4

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ABBREVIATIONS

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
EL/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
N#	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

TOPOGRAPHIC LEGEND

- EXISTING STORM DRAINAGE PIPE
- OHW — EXISTING OVERHEAD WIRE
- WM — EXISTING WATER MAIN
- SS — EXISTING SANITARY SEWER
- RWLM — EXISTING REUSE WATER MAIN
- FM — 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)

STATE ROAD NO. 528 (BEELINE EXPRESSWAY)
CLEARLAKE ROAD EXIT RAMP
(VARIABLE WIDTH R/W)

S59°25'26"E 810.07'

SOUTHERLY R/W LINE OF STATE ROAD No. 528

WEST LINE OF THE EAST 1/2F OF THE NORTHWEST 1/4 OF SECTION 18

A REPLAT OF COVENTRY OF COCOA P.B. 32, PAGE 76 ZONED PUD

N00°30'56"E 1190.12'

6' WOOD FENCE, 10.3' SOUTH AND 4.7' EAST OF FD C.M.

TRACT "B" COVENTRY OF COCOA HOMEOWNERS ASSOCIATION, INC., ORB 2716, PG 1630

25' FRONT SETBACK

5.0'±

6' WOOD FENCE

CHAIN LINK FENCE

CHAIN LINK FENCE ALONG RIGHT OF WAY LINE

WETLAND

POND

EDGE OF WATER

8" PVC INV 26.19

8" PVC INV 26.38

DS RIM 30.21 24" RCP INV 27.19

MES 24" RCP INV 27.05

283.39'

BENCHMARK# 2
SMH4 RIM 30.32
INV=23.62(E)
INV=23.44(SW)

SMH 3 RIM 30.42 INV=24.83(SE) INV=24.61(W)

POWER POLE (TYP.)

OHE WIRE (TYP.)

CONCRETE DUMPSTER PAD

121.83'

S30°34'34"W 50.00'

8" SS PVC

6" WM

CONCRETE FLUME TYP.

36" RCP INV 24.15

GREASE TRAP

CONCRETE

4' HIGH DOUBLE GUARD RAIL

ELECTRIC TRANSFORMER PAD

1 STORY METAL "COOLER" BUILDING

CONCRETE RAMP

4' HIGH DOUBLE GUARD RAIL

DS RIM 30.98 INV 18" RCP SE 28.63

ASPHALT

CONCRETE DUMPSTER PAD

SMH 2 RIM 31.46 INV=25.95(NW) INV=26.05(S)

CONCRETE DUMPSTER PAD W/ 6' WOOD FENCE

SMH 6 RIM 30.62 INV=22.37(NE) INV=22.23(S)

SMH 5 RIM 30.78 INV=22.69(NE) INV=22.62(SW)

WATER METER BOXES

ELECTRIC TRANSFORMER PAD

GREASE TRAP

VACANT
#2300
BLDG HGT 39.1
ONE STORY C.B.S
FFE 32.17

TOTAL GROSS SQUARE FOOTAGE OF ENTIRE BUILDING AREA = 85,394

"THE PROPERTY" 13.49 AC. +/-

VACANT
BLDG HGT 28.4
ONE STORY C.B.S
FFE 32.35

VACANT
BLDG HGT 27.2
ONE STORY C.B.S.
FFE 32.20

LOT 1
15.741 ACRES
ZONED C-G

N88°34'39"E 166.18'

N27°50'34"E 68.92'

N30°34'34"E 14.27'

SOUTHERLY RIGHT OF WAY LINE

25' FRONT SETBACK

DS RIM 30.69 INV 18" RCP NW 28.29 INV 18" RCP S 28.51

DS RIM 30.65 INV 18" RCP N 28.67 INV 14"X23" RCP E 28.62 AND 28.62

MES 14"X23" RCP INV 28.41

MES 14"X23" RCP INV 28.41

18" RM DIP

N01°25'25"W 140.18'

LOT 3
NOT INCLUDED

N08°51'18"W 69.58'

S88°34'39"W 274.56'

S00°07'09"W 132.98'

S00°07'09"W 49.90'

STATE ROAD NO. 528 & 524
OFF RAMP (275' R/W)

N01°25'21"W 215.00'

McDONALDS
NOT INCLUDED

BENCHMARK# 1
DS RIM 31.55
INV 18" RCP N 28.39

DS RIM 30.12 18" CP E INV 27.08

DS RIM 32.52 18" RCP N INV 27.57

LIGHT POLE (TYP.)

LOT 2
NOT INCLUDED

TRACT "B" COVENTRY OF COCOA HOMEOWNERS ASSOCIATION, INC., ORB 2716, PG 1630

25' SIDE SETBACK

DS RIM 27.52 12" CMP E INV 25.02

SHOPPES OF COCOA NORTH SIGN

N88°34'39"E 601.24'

N01°25'21"W 35.00'

N88°34'39"E 199.35'

N00°30'56"E 218.60'

NORTH R/W LINE OF STATE ROAD No. 524

S88°34'39"W 103.60'

PROPOSED "SHARED ACCESS EASEMENT" AREA

PROPOSED "RETAINED BY SELLER" AREA

MES 19"X30" RCP INV 27.66

JB RIM 30.90 18" ADS E INV 28.10 19"X30" W INV 27.78

MES 18" ADS INV 29.37

MES 18" RCP INV 26.93

MES 24" RCP INV 26.40

MES 24" RCP INV 26.54

MES 24" RCP INV 26.81

MES 24" RCP INV 27.18

MES 14"X23" RCP INV 26.19

MES 14"X23" RCP INV 27.35

MES 14"X23" RCP INV 28.23

36" WM RCP

DS RIM 30.55 24" RCP W INV 26.87 24" RCP E INV 27.45 18" RCP S INV 27.17

DS RIM 30.29 36" RCP W INV 26.56 24" RCP E INV 26.59 18" RCP S INV 26.94

DS RIM 30.45 24" RCP W INV 27.13 18" RCP S INV 28.10

DS RIM 29.45 12" CMP W INV 25.65

GRATE INLET RIM 31.11 8" PVC W INV 29.46

GRATE INLET RIM 31.12

ISLAND (TYP)

SMH 7 RIM 32.33 INV=27.62(N) INV=27.71(SE)

SMH 8 RIM 31.01 INV=26.01(N)

10" FM PVC

CI RIM 31.30 36" RCP N INV 24.97 36" RCP S INV 24.81

6" CURB TYP.

ASPHALT

SMH 7 RIM 30.59 INV=21.48(N) INV=21.43(S) INV=21.30(SW)

6' WOOD FENCE

SMH RIM 27.81

DS RIM 30.15 36" RCP E INV 25.68 36" RCP N INV 25.55

BENCHMARK# 3
DS RIM 30.15

STATE ROAD NO. 524 (SR 528 REROUTE)

(IMPROVED PUBLIC RIGHT OF WAY VARIABLE WIDTH)

SOUTH LINE OF THE NORTHWEST 1/4 OF SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST.

FIELD BOOK:	COCOA BK 2
PAGE(S):	34
DESIGN/DRAWN:	LEH
DATE:	04/20/2020

B.S.E. CONSULTANTS, INC.
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CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

LOT 1, HOME DEPOT COCOA

ALTA/NSPS LAND TITLE 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_001

SHEET 4 of 4

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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
- OHW — EXISTING OVERHEAD WIRE
- WM — EXISTING WATER MAIN
- SS — EXISTING SANITARY SEWER
- RWLM — EXISTING REUSE WATER MAIN
- FM — 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

A/C	AIR CONDITIONER
AL	ARC LENGTH
AVE	AVENUE
BLVD	BOULEVARD
BM	BENCH MARK
BOC	BEGINNING OF CURVE
C/L	CENTERLINE
CA	CENTRAL ANGLE
CB	CHORD BEARING
CBS	CONCRETE BLOCK STRUCTURE
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CORNER
DEL	DELTA / CENTRAL ANGLE
DRI	DEVELOPMENT OF REGIONAL IMPACT
ELEC	ELECTRIC
EL/ELEV	ELEVATION
EOC	END OF CURVE
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
FD	FOUND
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP&L	FLORIDA POWER AND LIGHT
FT	FEET
HWY	HIGHWAY
ID#	IDENTIFICATION NUMBER
INV	INVERT
IR	IRON ROD
IRC	IRON ROD AND CAP
LB	LICENSED BUSINESS
LWP	LIGHTER WOOD POST
N#	NEIGHBORHOOD IDENTIFICATION
N&D	NAIL AND DISK
NAVD88	NORTH AMERICAN VERTICAL DATUM 1988
NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
NTI	NON-TANGENT INTERSECTION
NTL	NON-TANGENT LINE
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC/ UTILITY
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PG(S)	PAGE(S)
PK	PARKER-KALEN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PP	POWER/UTILITY POLE
PRC	POINT OF REVERSE CURVATURE
PUD	PLANNED UNIT DEVELOPMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
RR	RAILROAD
ST	STREET
TYP	TYPICAL

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 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 (NAVD88)

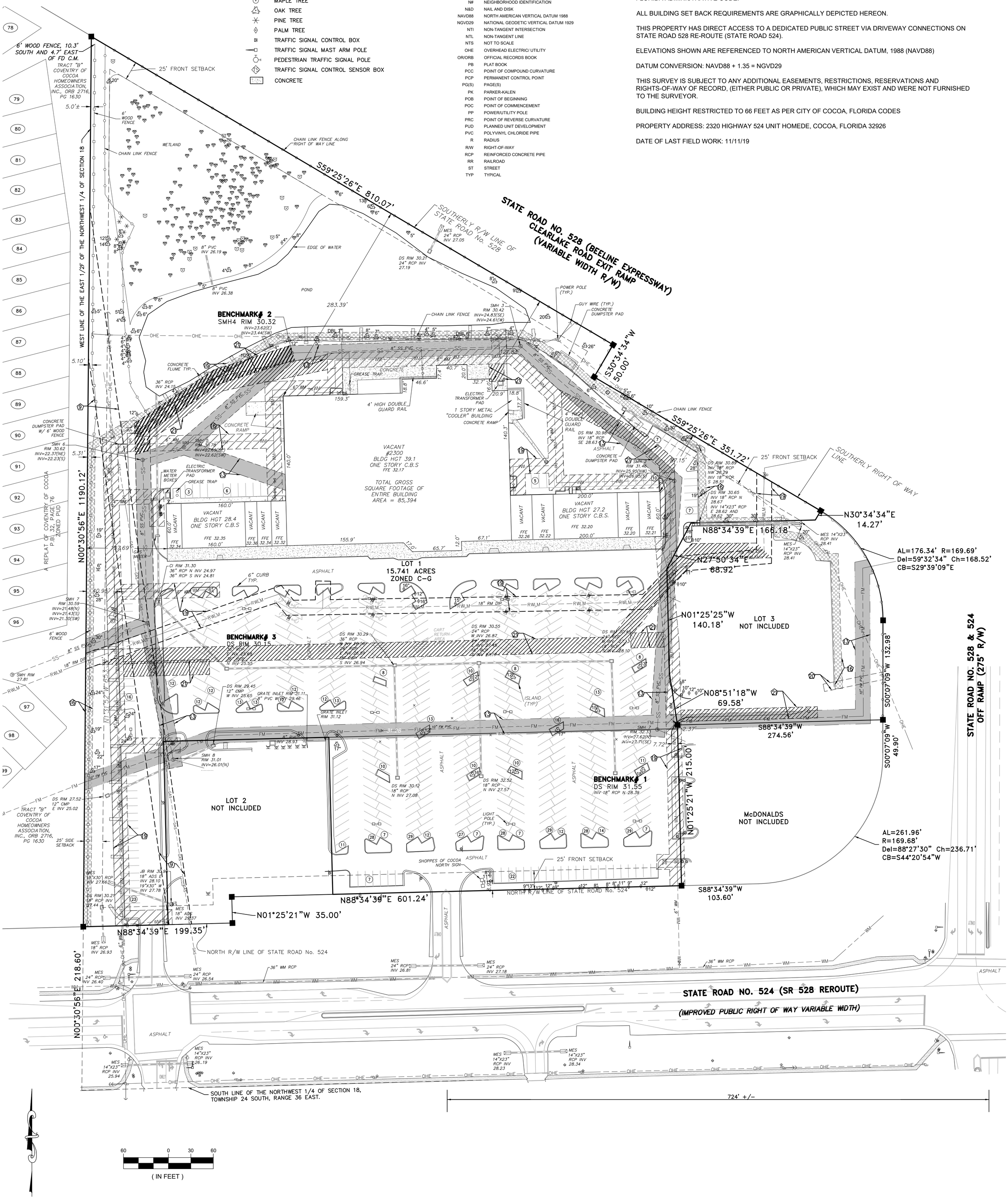
DATUM CONVERSION: NAVD88 + 1.35 = NGVD29

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	
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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) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

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

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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

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

811 Know what's below. Call before you dig.

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
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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 FORMS 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 10X10', FRONT AND BACK W/ CURTAINS AND TIE BACKS,TRELLIS WALLS ON SIDES, METAL FINISH: ASH GREY, BED INCLUDED, COLOR: MINERAL BLUE. MOUNTING: 9'X9' S.S. 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 CABINENTS	DANVER - MODEL OGB3602 2 DOOR, STYLE: HAMPTON. QUOTE #: DT-121865-1
SF-10	2		FIRE BOWL	ELDORADO 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	DWB	DOG WASTE BIN	SENTRY - DOG WASTE STATION, COLOR: GREEN. FOR ORDERING INFORMATION CONTACT (800) 789-2563
SF-16	1	PDF	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, A4200-2687 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 tartoglio.rob@us.sika.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 SURFACE59 727-254-3572
P-10	ARTIFICIAL TURF	SOUTHWEST GREENS OF FLORIDA - GB113, 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 LILY 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/ LA APPROVAL.
-ALL CONCRETE PAVERS ARE TO BE SEALED WITH TECHNISEAL 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	
4	DRS	DURANATUS ERECTUS	DURANATA STANDARD	15 GAL., 4-5' HT., STANDARD	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	JC	JUNIPERUS CONFERTA COMPACTA	DWARF SHORE JUNIPER	1 GAL., 8" HT. X 12" SPD.	YES	YES	
40	JM	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	POM	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	
3	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 #: DASRPMFL23024, 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

NOTE:
LIGHTING SHALL BE DESIGNED, INSTALLED, MAINTAINED AND DIRECTED SO AS TO AVOID GLARE ON ADJOINING PROPERTIES AND RIGHT-OF-WAY THROUGH THE USE OF SEMI- AND FULL-CUTOFF SHIELDS

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.H	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.H	YES	YES	FULL TO BASE
2	LIM	LAGERSTROEMIA INDICA 'MUSKOGEE'	CRAPE 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"	CRAPE 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.H	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	FEIJOA 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 YAUPON 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. 20-24" HT. FULL	NO	YES	
214	RI	RAPHIOLEPIS INDICA 'WHITE'	DWARF INDIAN HAWTHORN	3 GAL., 16" HT. x 18" SPD., DENSE	YES	YES	
143	SAR	SCHEFFLERA ARBORICOLA	DWARF SCHEFFLERA	3 GAL., 24" HT. x 16" SPD., FULL	NO	YES	
80	SAV	SCHEFFLERA ARBORICOLA 'TRINETTE'	VARIEGATED SCHEFFLERA	3 GAL., 24" HT. x 16" SPD., FULL	NO	YES	
290	TJV	TRACHELOSPERMUM JAS. VARIEGATED	VARIEGATED CONFEDERATE JASMINE	1 GAL., 10-12" SPD.	NO	YES	
426	VS	VIBURNUM SUSPENSUM	SANDANKWA VIBURNUM	7 GAL., 26" HT. x 18" SPD., FULL	NO	YES	
45	ZP	ZAMIA PUMILA	COONTIE	3 GAL., 20"-22" HT. X 10" SPD.	YES	YES	

TREE REMOVAL AND REPLACEMENT SCHEDULE

TREE TYPE	D.B.H.	TREE TYPE	D.B.H.	TREE TYPE	D.B.H.
OAK	12"	PALM	12"	OAK	10"
OAK	12"	PALM	16"	HOLLY	7"
OAK	13"	PALM	12"	OAK	10"
OAK	15"	PALM	16"	PALM	15"
HOLLY	6"	PALM REPLACEMENTS NEEDED	4	WITHIN BUILDING FOOTPRINT. NO REPLACEMENT REQUIRED	42"
OAK	19"				
OAK	28"				
OAK	20"	PALM REPLACEMENTS PROVIDED	24		
OAK	30"				
HOLLY	6"				
OAK	4"				
OAK	6"				
OAK	6"				
OAK	5"				
OAK	12"				
OAK	4"				
OAK	8"				
OAK	16"				
OAK	24"				
OAK	24"				
TOTAL DBH REPLACEMENT NEEDED	270"				
TOTAL DBH REPLACED	191"				

LANDSCAPE MATERIAL QUANTITIES

SHREDDED HARDWOOD MULCH, COLOR COCOA BROWN	T.B.D.
POOL DECK MULCH: SOFTSCAPE MULCH, COLOR CHESTNUT	T.B.D.
ST. AUGUSTINE FLORATAM (SOD)	T.B.D.
BAHIA SOD (SOD 2)	T.B.D.
CELEBRATION BERMUDA SOD- (SOD 3)	T.B.D.
SALT AND PEPPER CRUSHED GRANITE	T.B.D.
CRUSHED COQUINA SHELL	T.B.D.

*QUANTITIES ARE PROVIDED AS A COURTESY, CONTRACTOR TO VERIFY ALL QUANTITIES. TREES NOT INCLUDED IN PLANT BEDS TO HAVE A MIN. 4' DIA. MULCH RING

IRRIGATION NOTES

1. ALL CODE REQUIRED LANDSCAPE WILL HAVE 100% HEAD TO HEAD COVERAGE.
2. ALL LANDSCAPE WILL BE IRRIGATED WITH RECLAIMED WATER.

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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

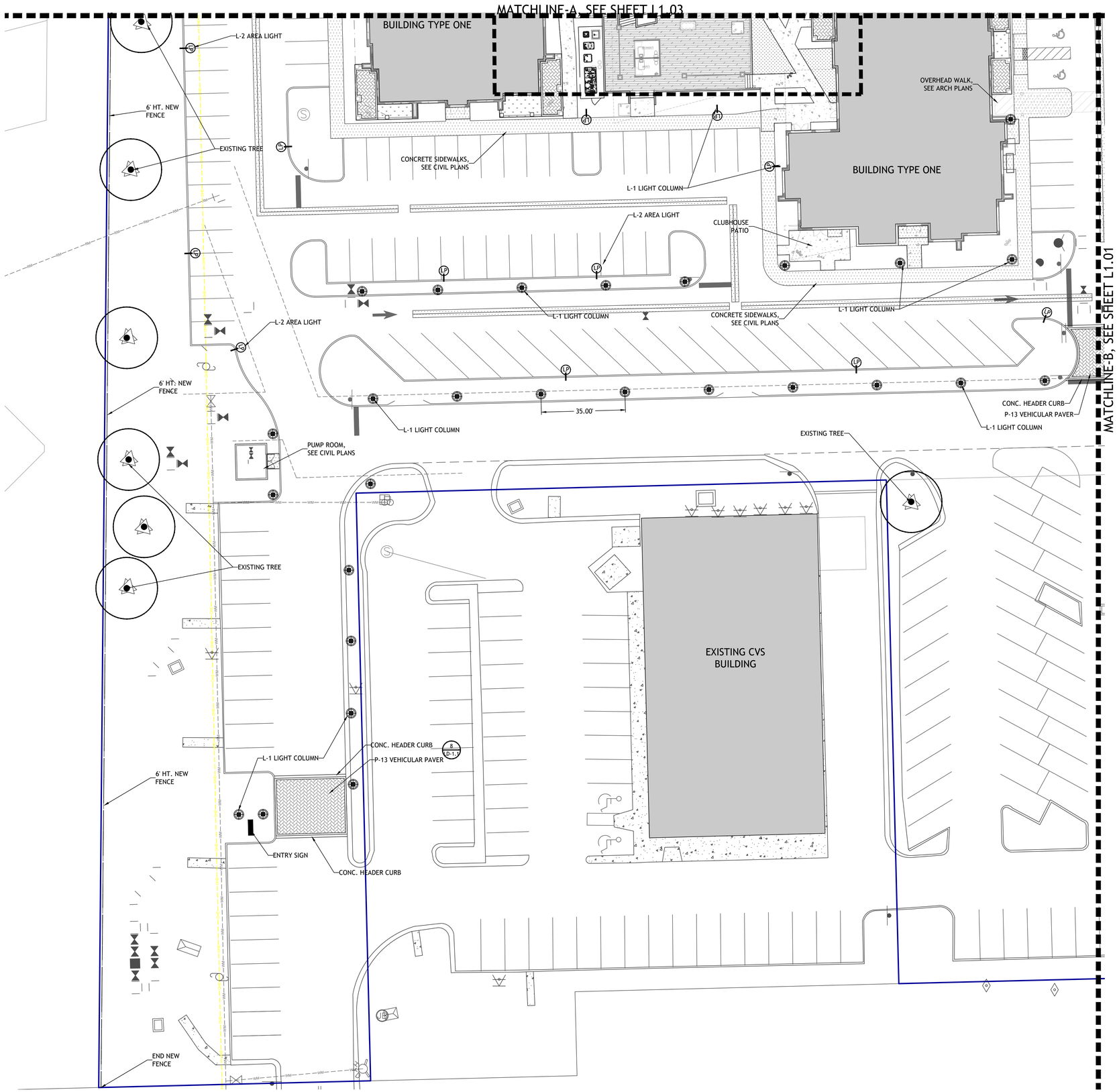
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CHECKED BY	JB/HB

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LANDSCAPE CALCULATIONS

LC 1.00

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

LANDSCAPE SITE PLAN

L1.00

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MATCHLINE-A, SEE SHEET L1.02

MATCHLINE-B, SEE SHEET L1.00

CONCRETE SIDEWALKS, SEE CIVIL PLANS

OVERHEAD WALK, SEE ARCH PLANS

BUILDING TYPE TWO

L-2 AREA LIGHT

EXISTING BUILDING

CONCRETE SIDEWALKS, SEE CIVIL PLANS

CONCRETE SIDEWALKS, SEE CIVIL PLANS

L-2 AREA LIGHT

CONC. HEADER CURB

8 D-1.1

P-13 VEHICULAR PAVER

EXISTING TREE

CONC. HEADER CURB

GARAGE TYPE SIX

GARAGE TYPE FIVE

GARAGE TYPE FOUR

35.00'

8 D-1.1 CONC. HEADER CURB

P-13 VEHICULAR PAVER

L-1 LIGHT COLUMN

L-1 LIGHT COLUMN

EXISTING TREE

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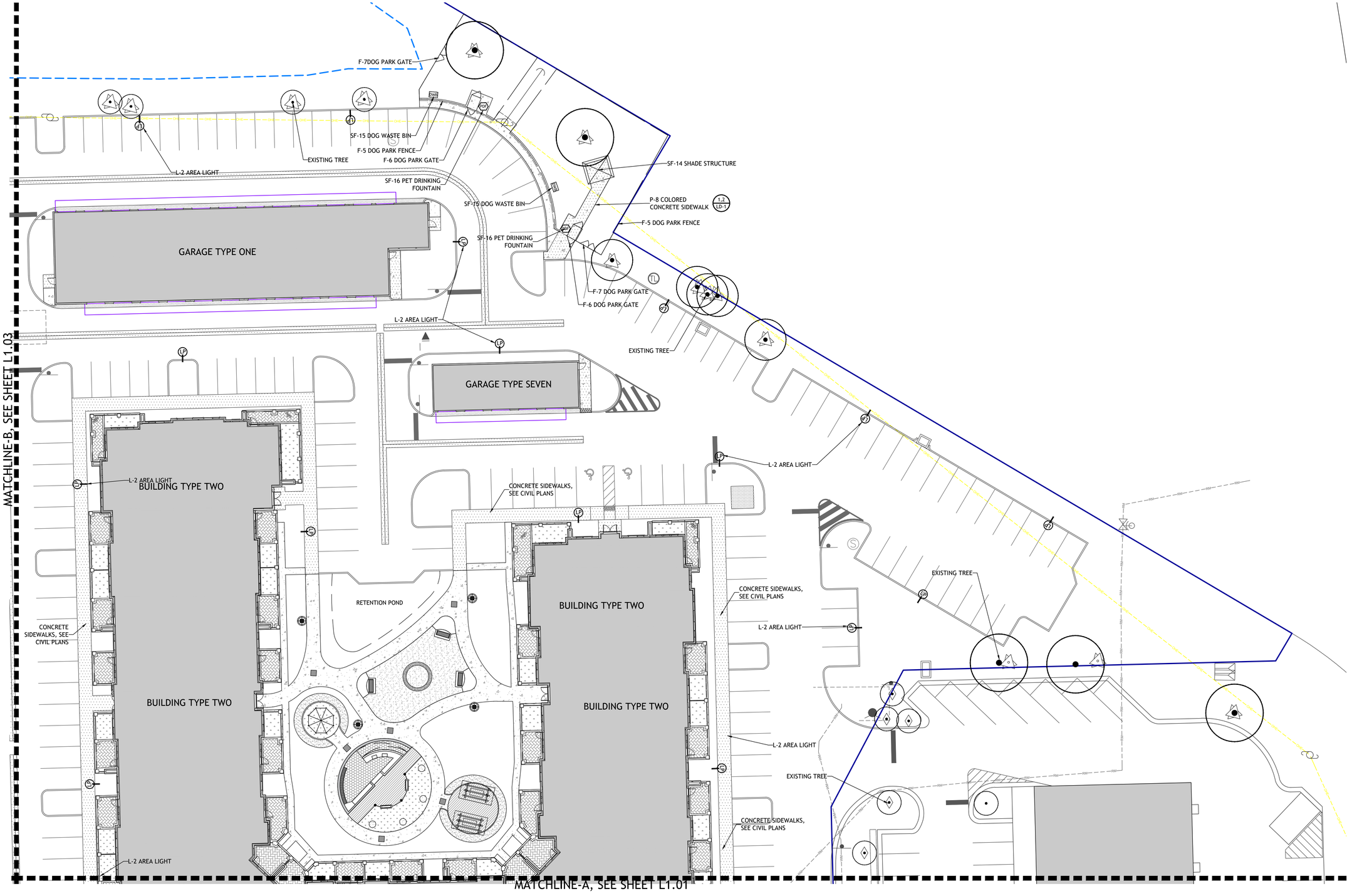
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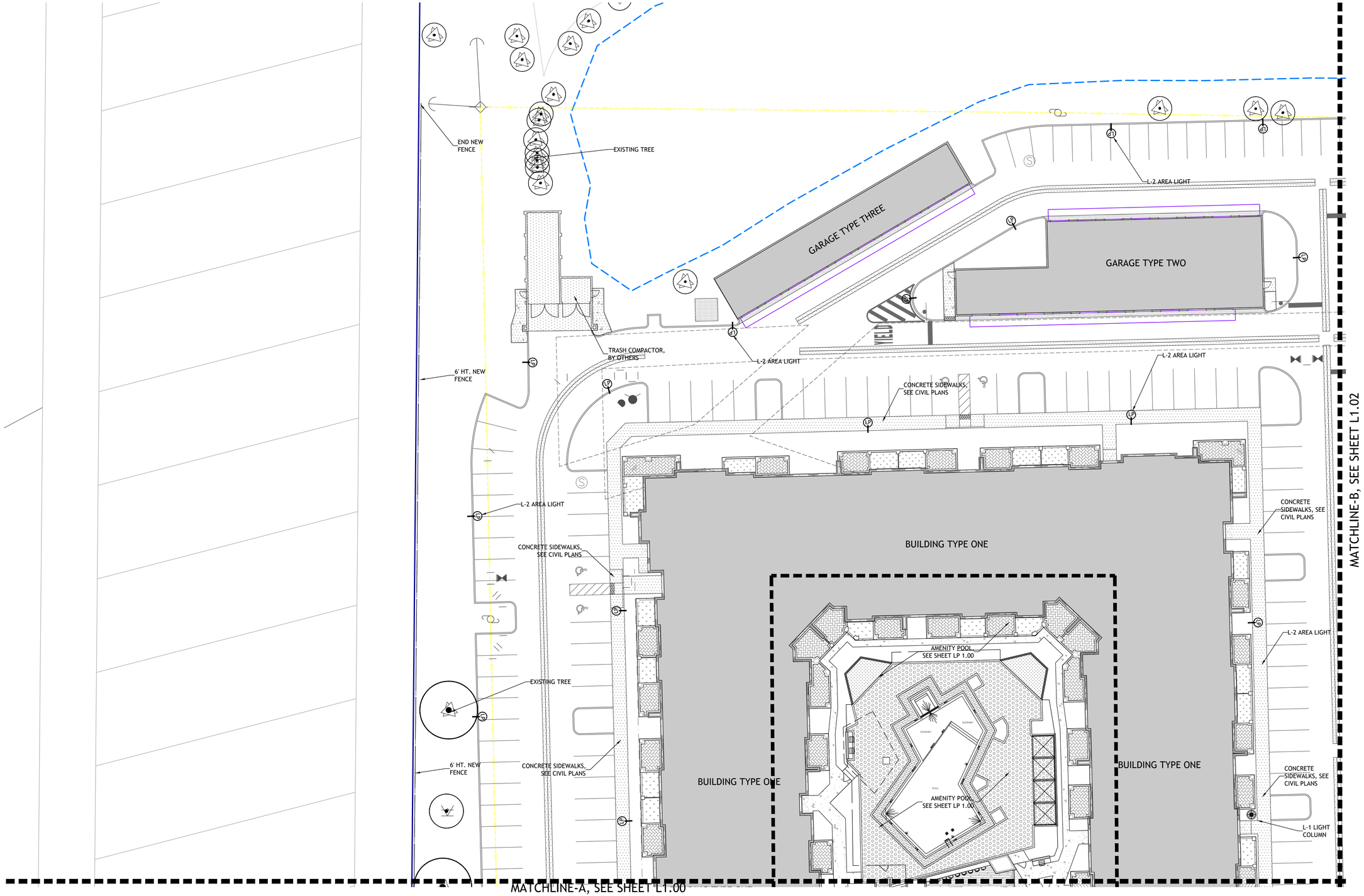
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LANDSCAPE SITE PLAN

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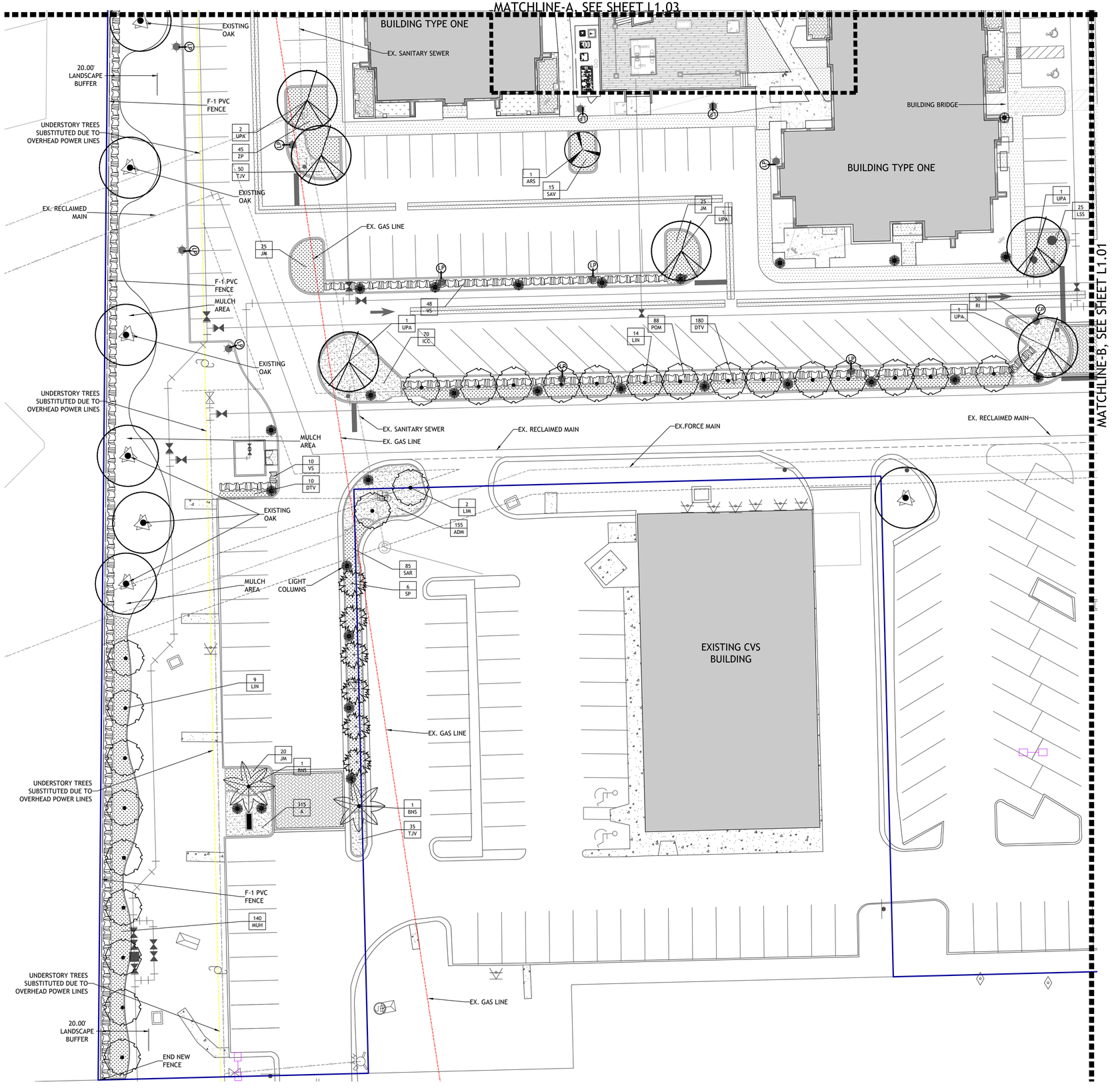
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SCALE: 1"=20'-0"
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LANDSCAPE SITE PLAN

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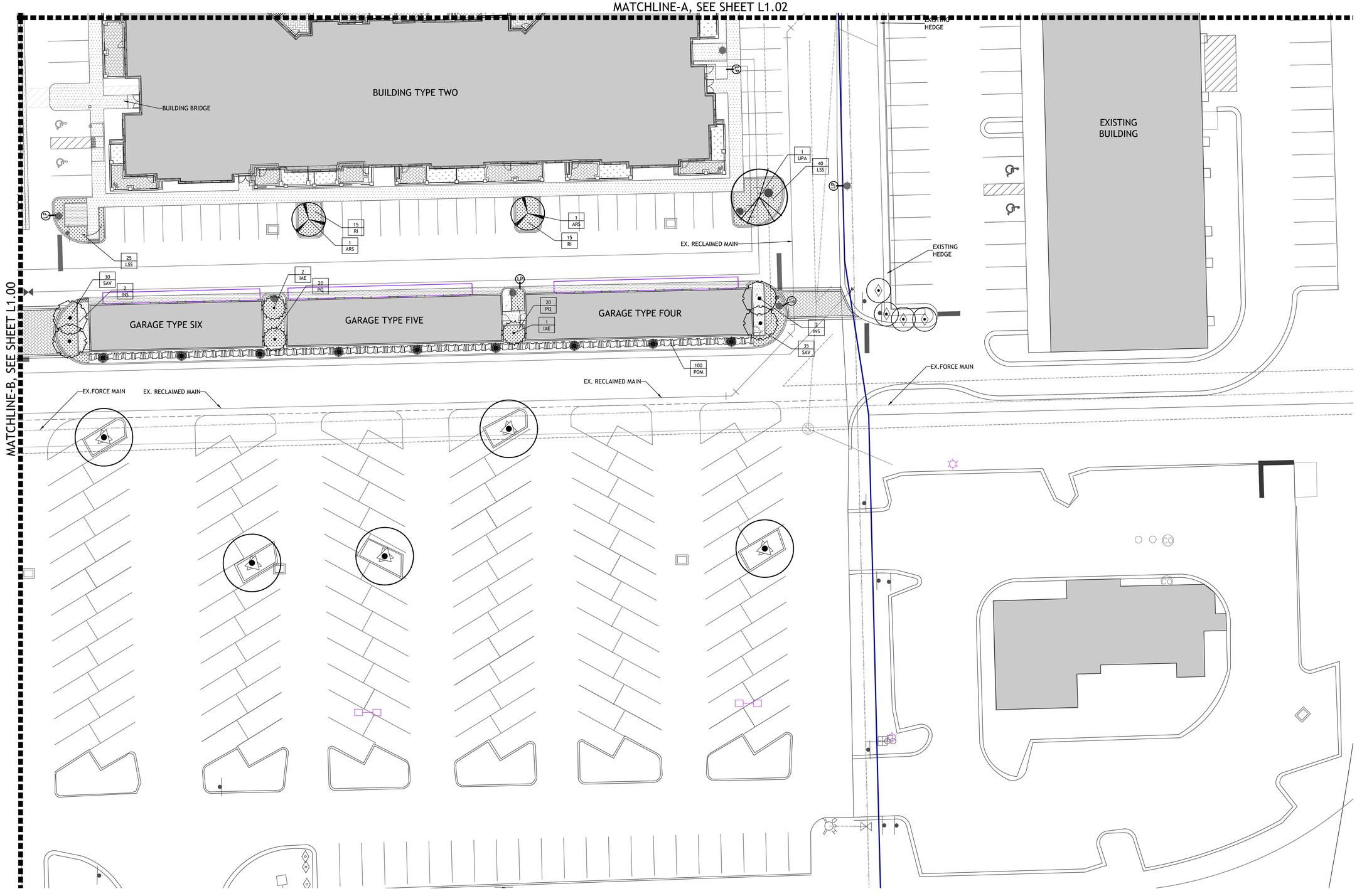
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LANDSCAPE DEVELOPMENT PLAN

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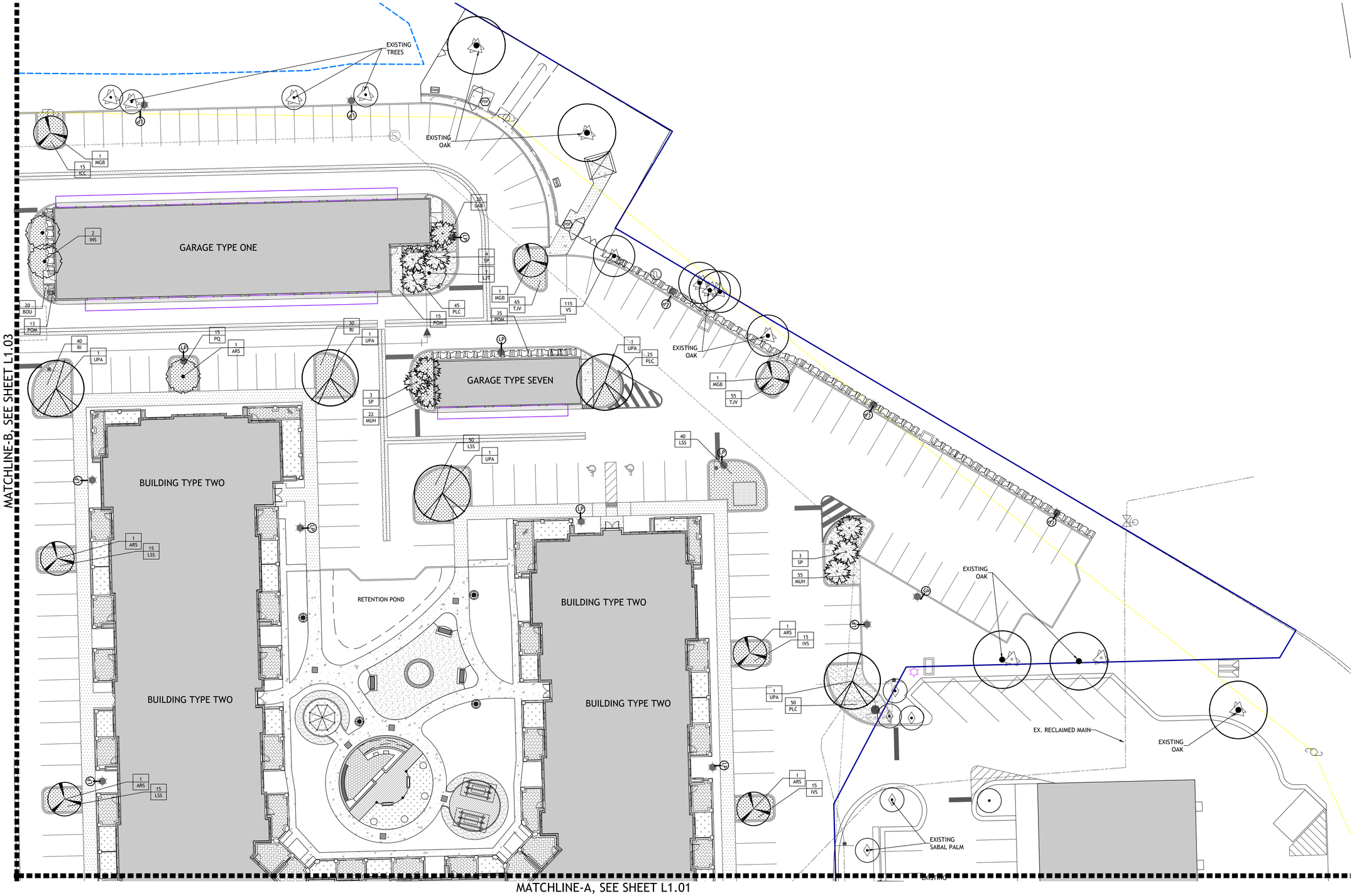
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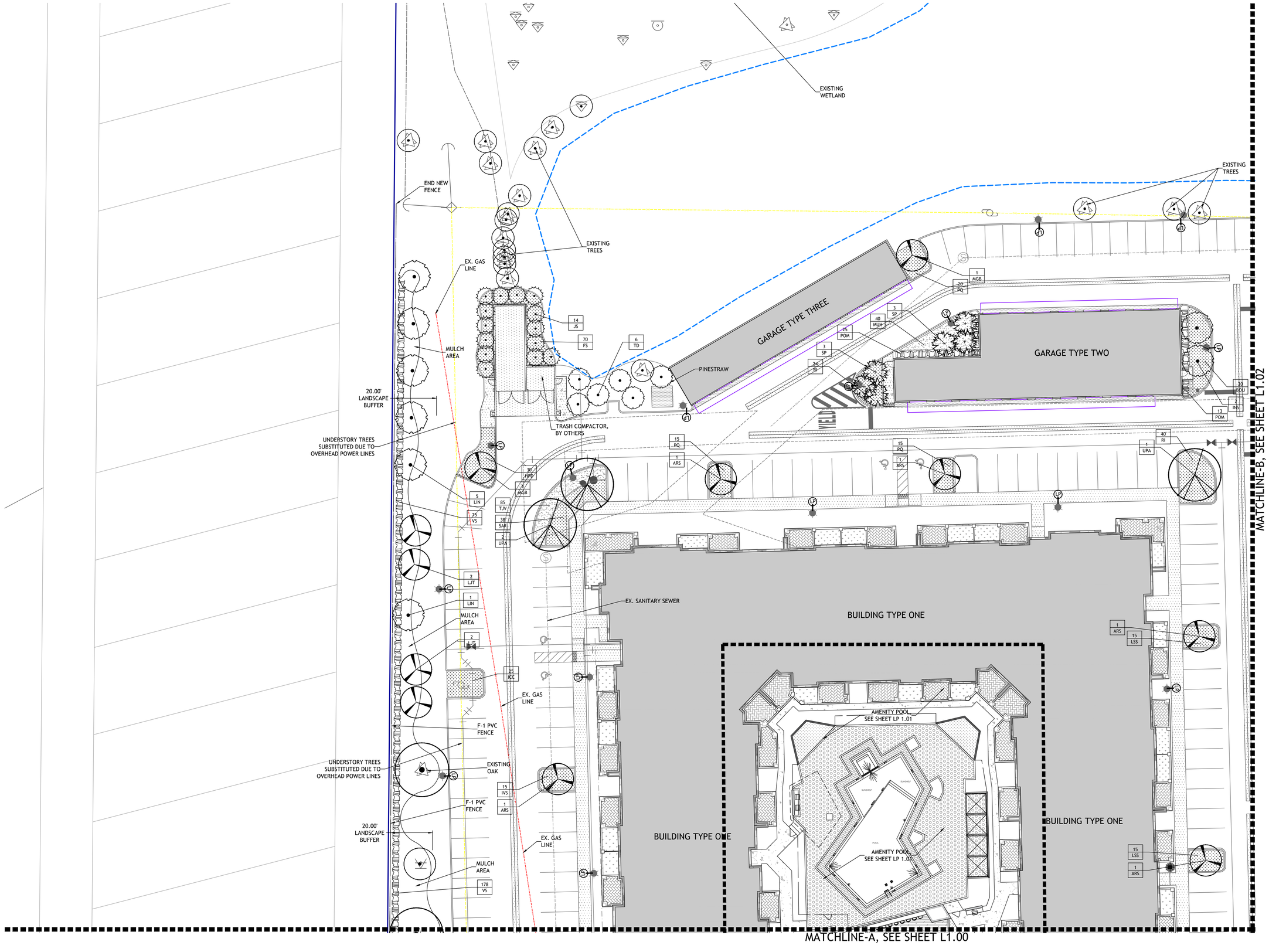
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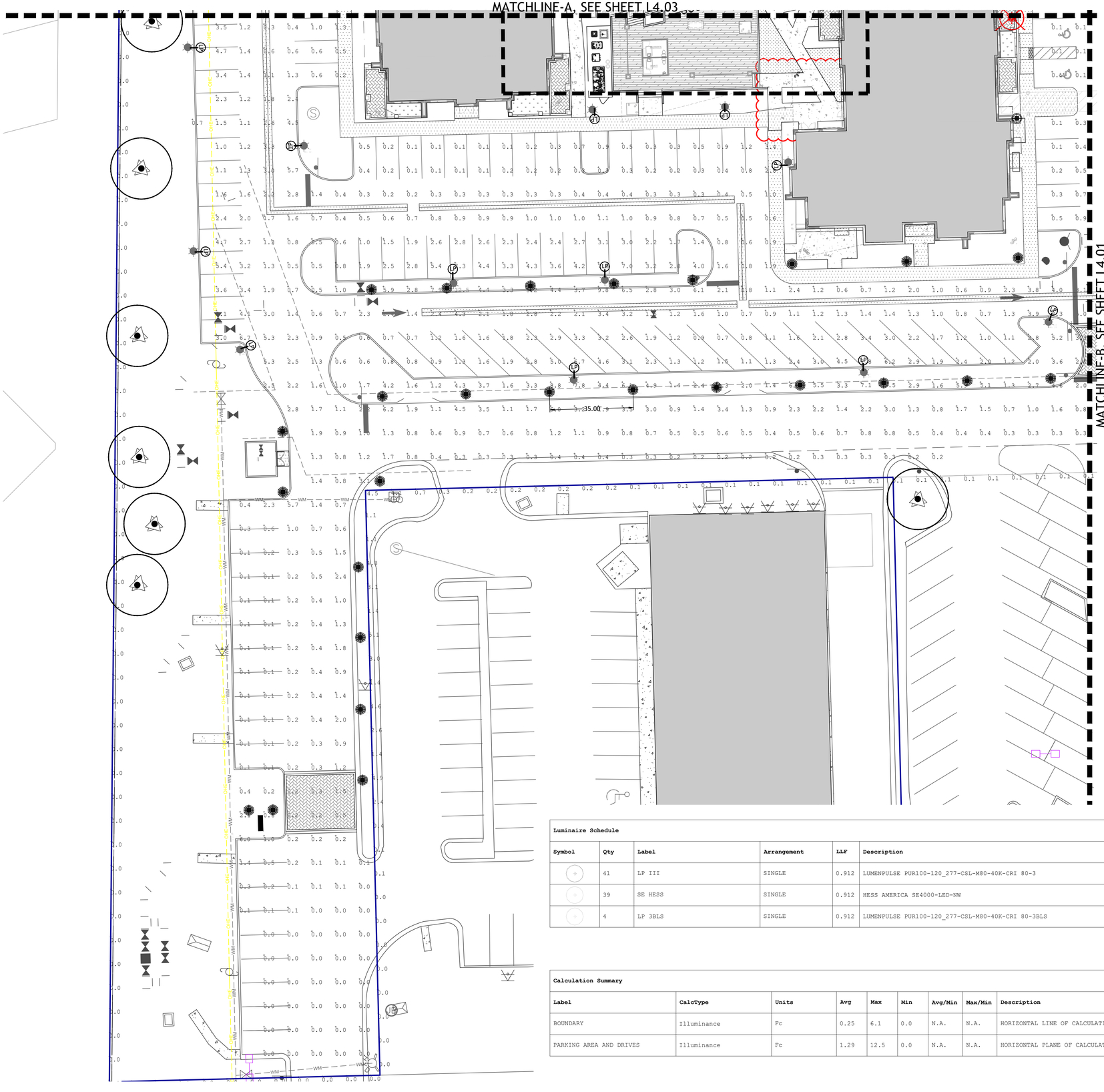
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LANDSCAPE DEVELOPMENT PLAN

L2.03

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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

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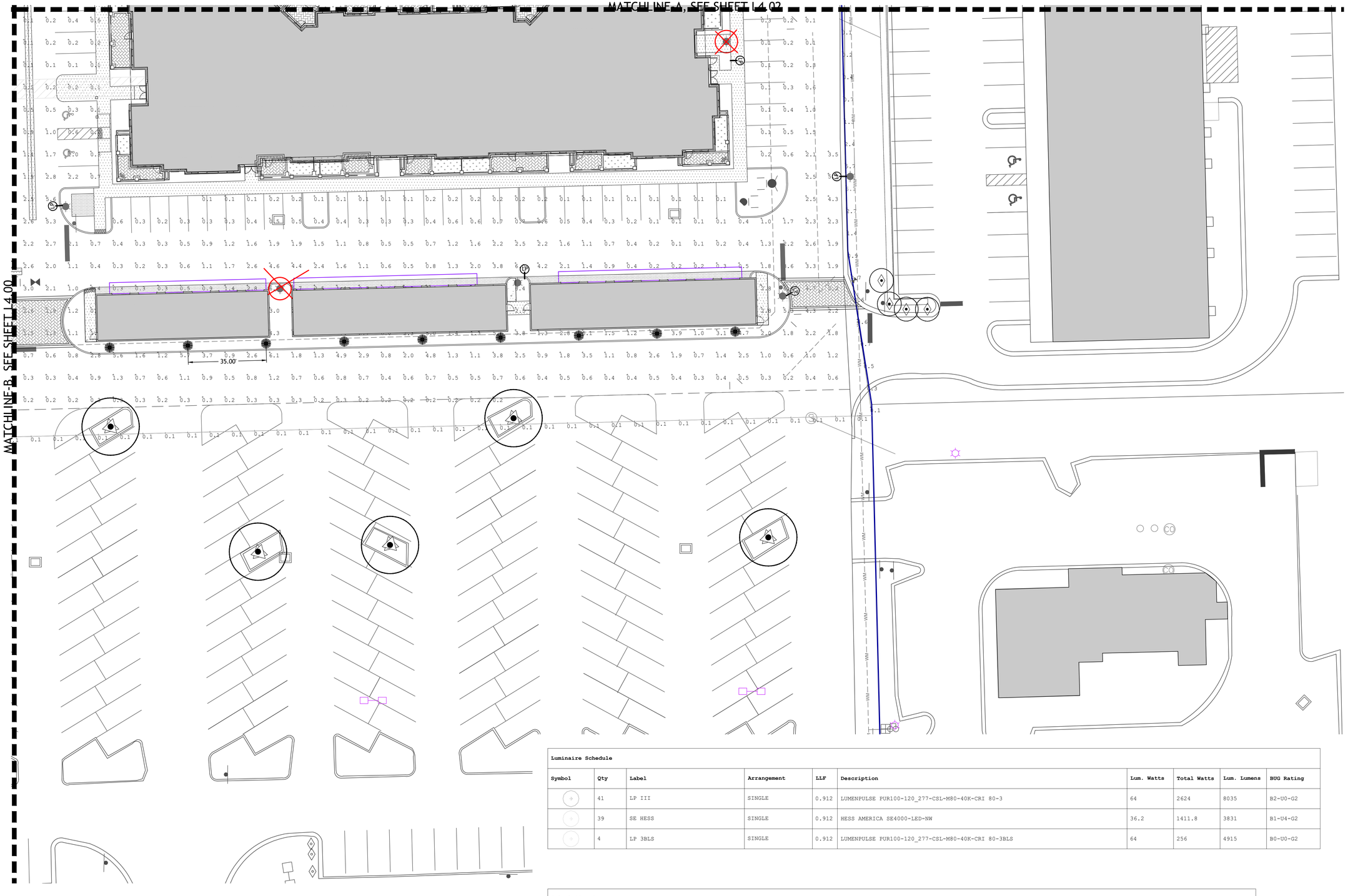
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SITE LANDSCAPE LIGHTING

L4.00

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Luminaire Schedule									
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	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

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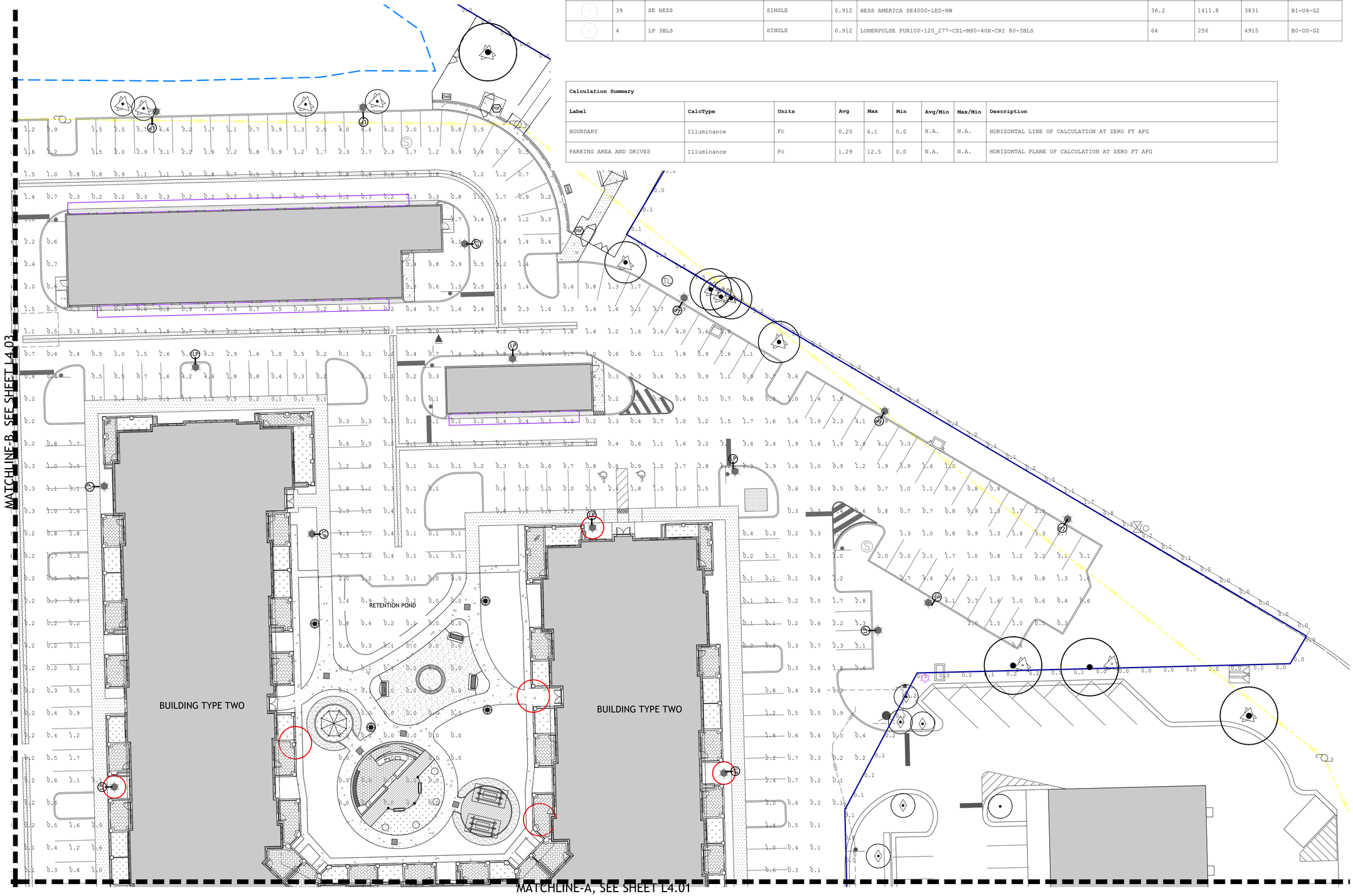
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Luminaire Schedule									
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0 10' 20' 40'

SITE
LANDSCAPE
LIGHTING

L4.02

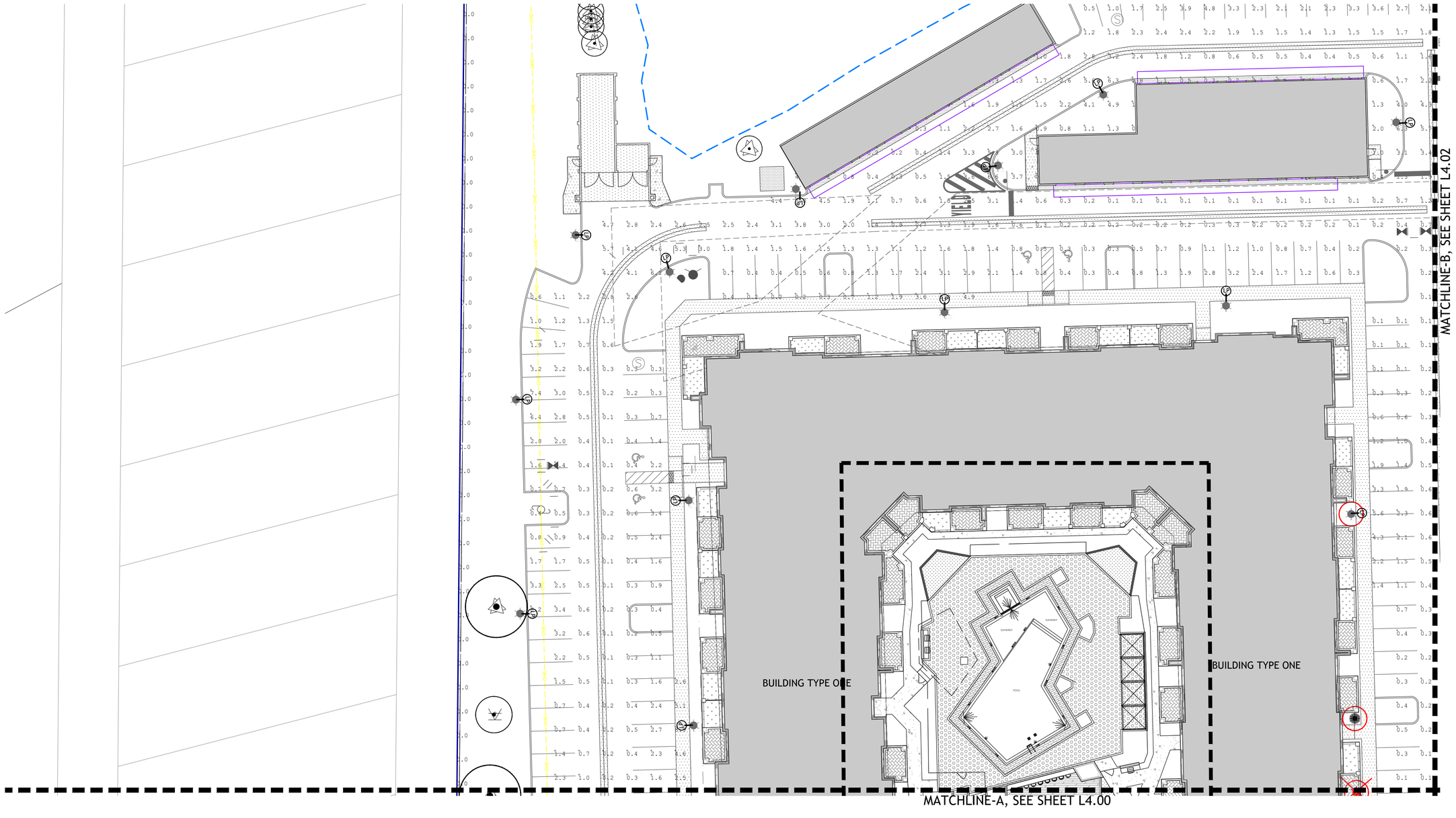
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Luminaire Schedule

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



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SIGNATURE & SEAL

STATE OF FLORIDA · JAMES N BEATTY · LA6667077 · REGISTERED LANDSCAPE ARCHITECT

FL Registration No. LA6667077

PRICING SET

ISSUE DATE

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

REVISIONS

NO.	COMMENTS	DATE

SHEET INFORMATION

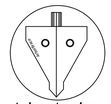
JOB NUMBER	20045
DRAWN BY	JB/JW
CHECKED BY	JB/HB

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

SITE
LANDSCAPE
LIGHTING

L4.03

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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

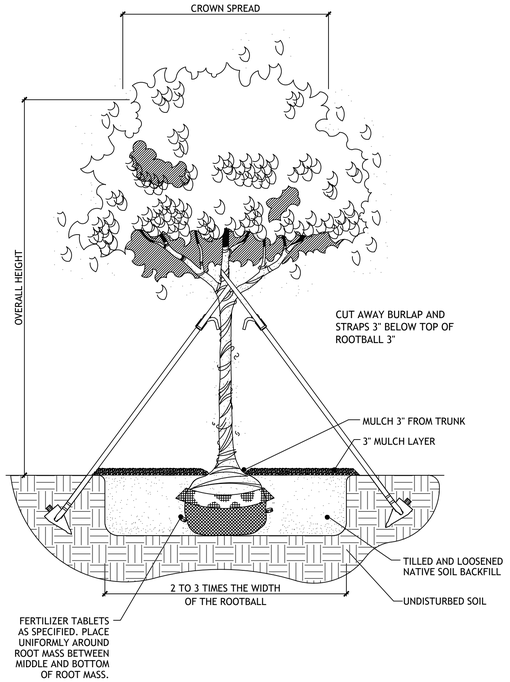
For up to 4" Caliper Trees
(3) Polypropylene guylines 3/4" X 12'=800 lb test, olive drab, UV resistant
(3) Nickel plated spring cam-lock tension clips
(3) Arrowhead Nylon Anchors (4" X 3-3/4") or
(3) Arrowhead Metal Anchors for hard soil (4" X 3-3/4")

Arborbrace Tree Guying Specifications:
ATG-J

For up to 7" Caliper Trees
(3) Polypropoylene/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")

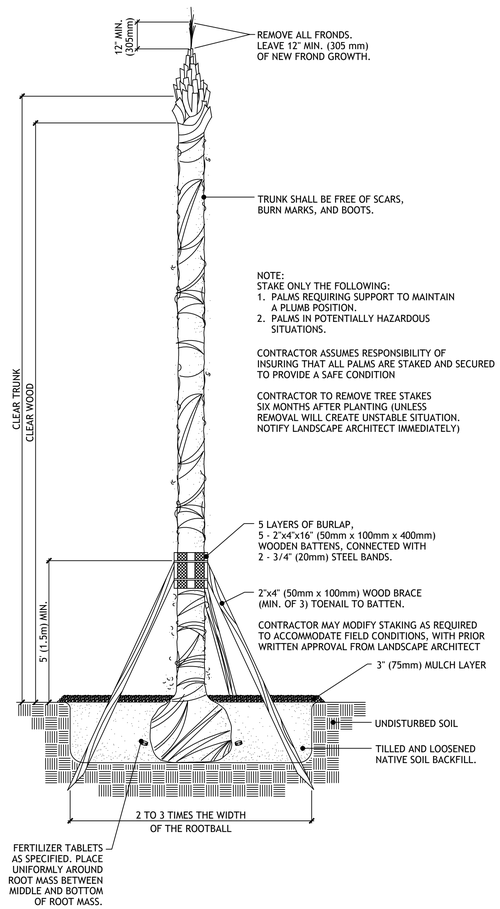
OTHER TREE STAKING SYSTEMS MAY BE ACCEPTABLE IF APPROVED

THIS DETAIL IS A MINIMUM GUIDE. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE BRACING TO MAINTAIN THE TREE IN A SAFE, PLUMB AND UPRIGHT CONDITION FOR A PERIOD OF 1 YEAR. CONTRACTOR MUST ACCOUNT FOR PEDESTRIAN AND PROPERTY HAZARDS WHEN STAKING TREES. CONTRACTOR TO MAINTAIN BRACING FOR THE WARRANTEE PERIOD UNLESS OTHERWISE AGREED UPON.

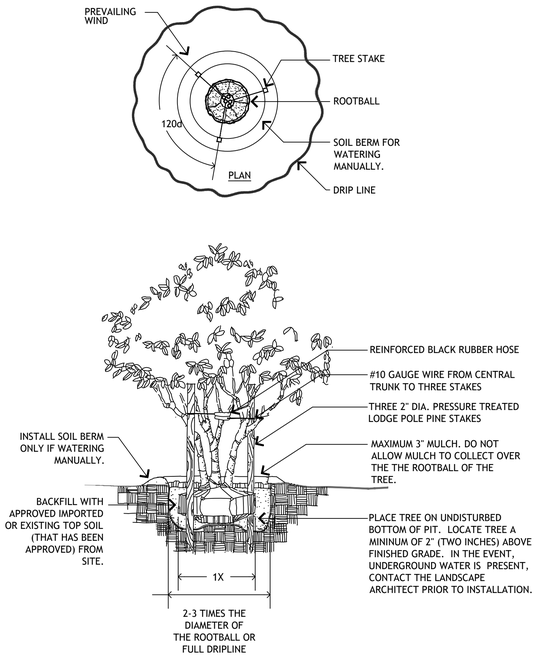


1 LD-2 ARBOR BRACE TREE PLANTING DETAIL

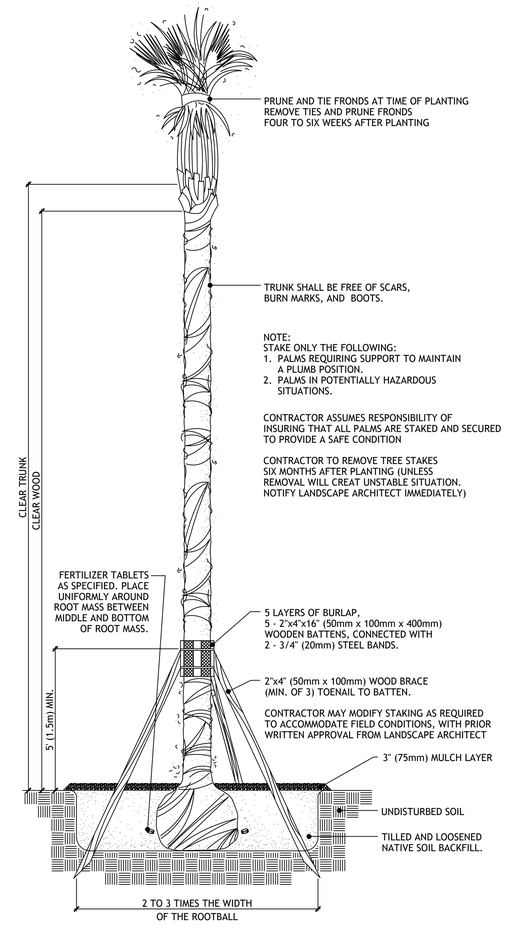
SCALE: N.T.S.



2 LD-2 SABAL PALM PLANTING DETAIL

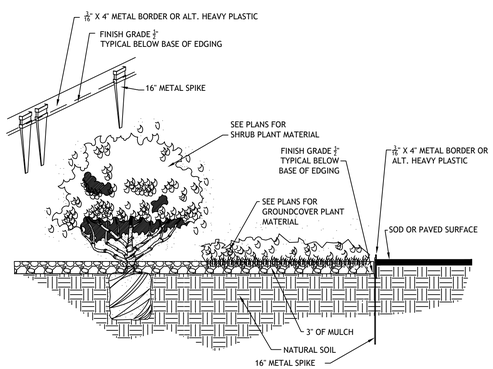


3 LD-2 MULTI-TRUNK TREE PLANTING DETAIL

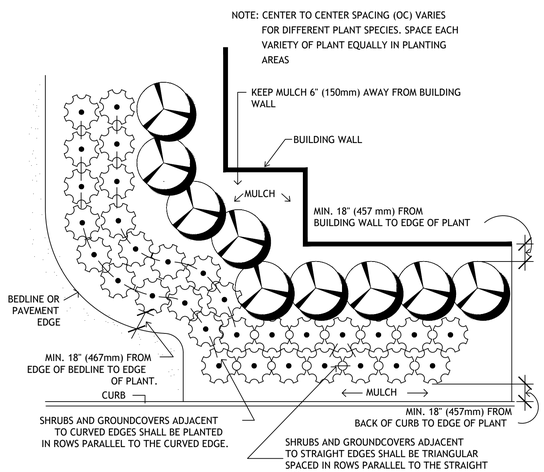


4 LD-2 PALM PLANTING DETAIL (EXCEPT SABAL PALMS)

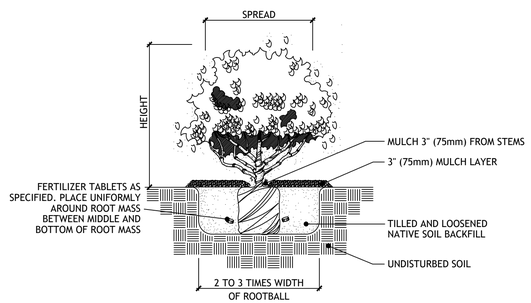
NOTES:
1. ALUMIINUM EDGING SHALL BE USED INSTEAD OF STEEL EDGING.
2. COLOR SHALL NATURAL (SILVER) ALUMINUM.
3. CONTRACTOR SHALL PROVIDE SAMPLE FOR APPROVAL.



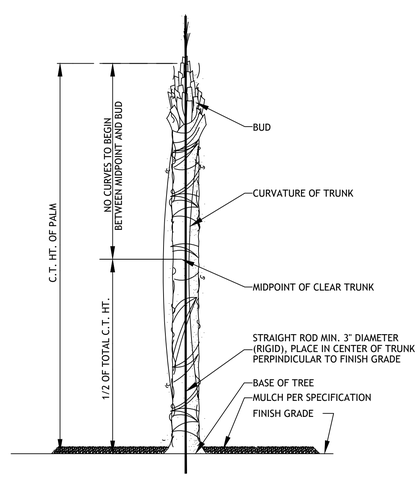
5 LD-2 METAL LANDSCAPE BED EDGING



6 LD-2 SHRUB AND GROUNDCOVER LAYOUT DETAIL



7 LD-2 SHRUB PLANTING DETAIL



8 LD-2 SABAL PALM ACCEPTABLE CURVATURE DETAIL

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NO.	COMMENTS	DATE

SHEET INFORMATION

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

SCALE: N/A

0

LANDSCAPE DETAILS

LD-2

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1.00 GENERAL

1.01 RELATED DOCUMENTS

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 this Section. 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 and/or transplant existing plants if indicated; to furnish, plant, fertilize, guy and brace, water, mulch and prune all new 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 and 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 in turn subcontract no 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 considered the controlling document.

D. During this work, the Contractor shall be responsible for maintaining safety among persons in his employ in accordance with 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. Call "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 entirely 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 HT.: The over-all height of the plant measured from the ground to the natural, untied 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 ground 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 boot, trimmed in a natural manner. For example, on Canary Island Date Palms or similar, the clear wood measurement does not include the "nut" at the base of the fronds.

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

E. ST.TR.: Straight trunk.

F. MIN.: Minimum.

G. GAL.: 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 feet (1.37 meters) above grade.

M. CAL.: Caliper, the outside diameter of up to a four inch (100 millimeters) tree is measured six 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 not be 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 bound 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. Boots shall be removed from trunk unless otherwise specified. 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 stripping. Protect sod against drying and breaking by covering palettes 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 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's, 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. Hand excavate, as required, to minimize possibility of damage to underground utilities. 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 their eggs, 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 leafed. Some plant materials may be collected stock with the approval of the Landscape Architect. 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 not acceptable.

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, a written change order for substituted material will 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 plant material schedule, except that plant material 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 balling & 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 of 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. 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 certification requirements.

D. Mulch:

1. Mulch shall be 100% recycled wood mulch, thoroughly mixed with a pre-emergence 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 approved 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 amounts of elements for the type of use specified herein.

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 pit 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 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. 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 (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 millimeter) x 4 inch (100 millimeter) pressure treated (p.t.) stock, 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. There must be slight acid reaction to the soil with no excess of calcium or carbonate, and it shall be free from excess weeds, clay lumps, stones, stumps, roots and toxic substances or any other materials that might be harmful to plant growth or a hindrance to grading, planting, and maintenance procedures and operations.

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 layer 6 inches (150 millimeters) to 8 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.t.) stock with flagging on horizontal members. Space vertical members 6 feet (1.83 meters) to 8 feet (2.44 meters) on center. The barricade shall be placed so as to protect the critical protection zone area, which is the area surrounding a tree within a circle described by a radius of one foot for each inch (25 millimeter) of the tree's diameter at breast height DBH 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 equal. 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.

2. 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 pudding.

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 the 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 organic layer 6 inches (150 millimeters) 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 sub-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 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 stated is for finished berm with soil at natural compaction.

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 6.5 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 wires, prevent blockage of signage, 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 leaves 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.

C. 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 wet areas) 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. Agriform planting tablets shall be placed uniformly 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)	2 - 21 gram tablet
5 gallon (18.9 liter)	3 - 21 gram tablet
7 gallon (26.5 liter)	4 - 21 gram tablet
Trees	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 tilled and loosened native soil around the sides of the root ball. Remove the top 4 inches (100 millimeters) of burlap, wire, and all tie-down 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. Failure 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 tilled 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 each variety of plant equally in the planting areas. Shrubs and ground covers adjacent to straight or curved edges shall be triangular-spaced in rows parallel to those edges. Plant a minimum of 18 inches (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 to which it 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 just prior to the 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 walks 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 sod moist until rooted to subgrade.

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 surfaces of sodded areas. After the sodding operation has been completed, the edges of the area 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 washing 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 per 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 an 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. Toenail the stakes to batten consisting of 5 layers of burlap and 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 meters) of stake 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. Stake 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 3 inch (75 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) deep band of mulch shall be installed in front of the first row of annuals. Maintain a minimum 6 inches (150 millimeters) of non-mulched clearance 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, dispose 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' work. Patching and replacement of damaged work may be done by others, at the Owner's direction, but the cost of same shall be paid by the Contractor who is responsible for the damage.

J. 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, cultivation, 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 regarding, 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

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 writing.

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 warranty 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

A. 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

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SIGNATURE & SEAL

STATE OF FLORIDA
JAMES N BEATTY
REGISTERED LANDSCAPE ARCHITECT
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FL Registration #LA6667077

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
0

LANDSCAPE SPECIFICATIONS

LD-2-1

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SECTION 02441 – IRRIGATION

PART 1 –GENERAL

1.01 RELATED DOCUMENTS

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

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 willfully 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:

1. Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include the following:
a. Rain Bird Sprinkler Mfg. Corp.
b. Hunter Industries
c. Netafim Irrigation
d. 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, blister, 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 may be a merchant coupling.

3. Under Pavement Lines: All piping under concrete and asphalt vehicle pavement, curbs, unpaved areas subject to other than 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 by purple markings for Reclaimed Waste Water.

I. 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 curl shall be provided within three (3) feet of each wire connection and at least every one hundred (100) feet in length. Expansion curls shall be formed by wrapping at least five (5) turns of wire around a pipe 1" (or more) in diameter, then withdrawing pipe. All splices shall be made with pen_tite 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 WWV 54, Type I, Class A, with all brass or bronze body, non_rising stem, "Kennedy #427" 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 "snaked" 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 valves, shut–off valves, and concrete meter box as required. Coordinate time of connection 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 sump 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. Care 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.

B. 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 same 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

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COCOA | FL

SIGNATURE & SEAL

STATE OF FLORIDA
JAMES N BENTLEY
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REGISTERED LANDSCAPE ARCHITECT
FL Registration

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
0

IRRIGATION SPECIFICATIONS

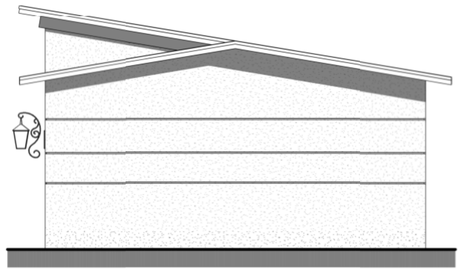
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CVS

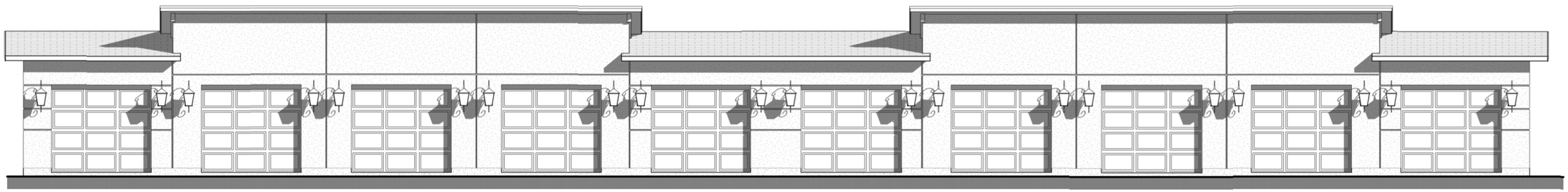






2 GARAGE - SIDE ELEVATION

SCALE: 1/4" = 1'-0"



1 GARAGE - FRONT ELEVATION

SCALE: 1/4" = 1'-0"

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COCOA, FLORIDA

STATE OF FLORIDA — CHARLES BROCK — AR 8219 — REGISTERED ARCHITECT

CHARLES BROCK
AR8219
CHARLAN BROCK ARCHITECTS
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GARAGE ELEVATION

date: **12-17-2020**
job no: **4266.19**
drawn by: **Author**
reviewed by: **Checker**
issue history:
Δ Date

T2.31

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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

Revised
December 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. №: 20400

DATE: December 7, 2020

SIGNATURE:



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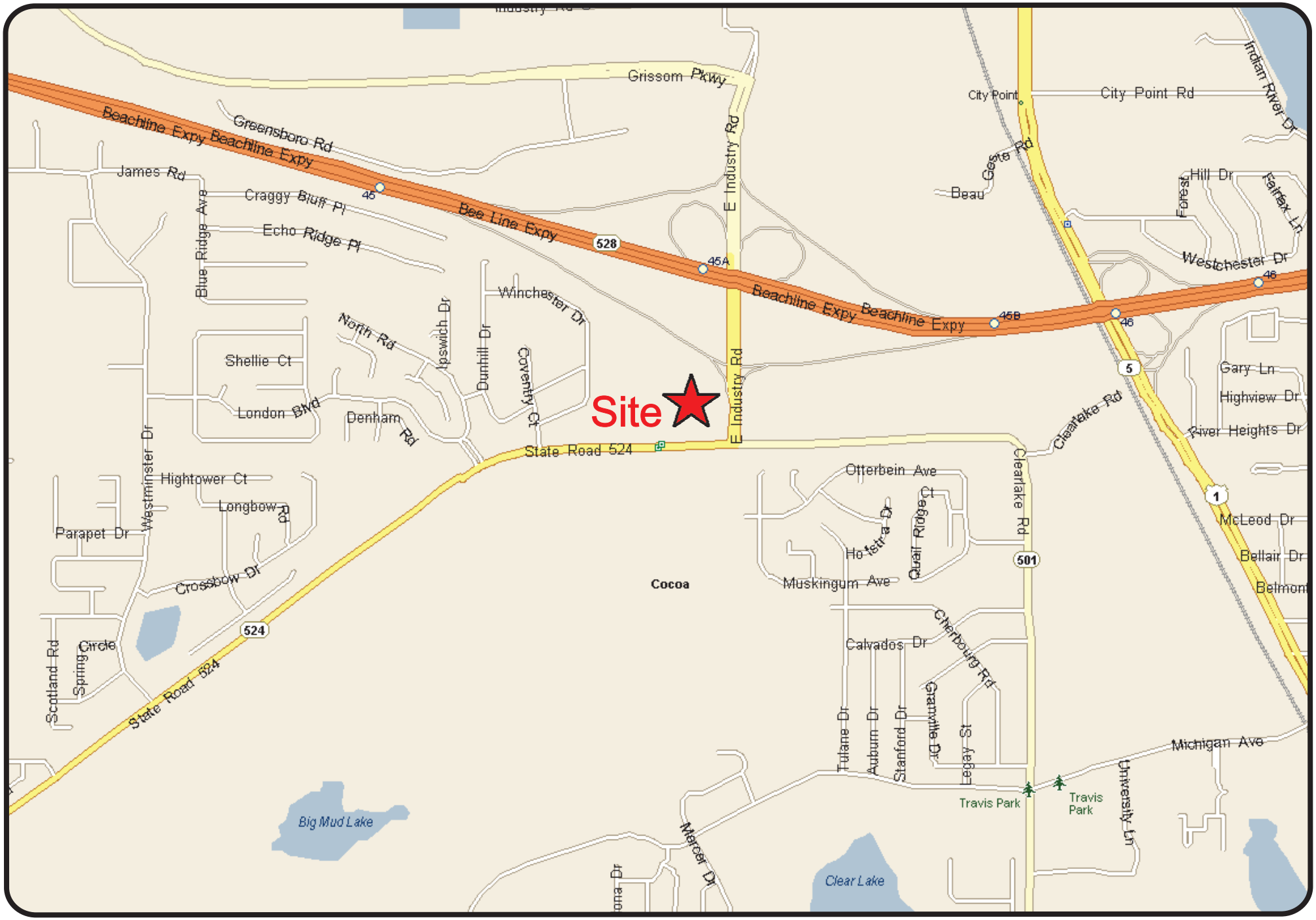
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INTRODUCTION

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.



Cocoa Apartments
Project № 5382
Figure 1

Site Location

N
NTS

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 Daily 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
39	Otterbein Ave to Michigan Ave	4	Urban Minor Arterial	E	39,800	19,530	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.

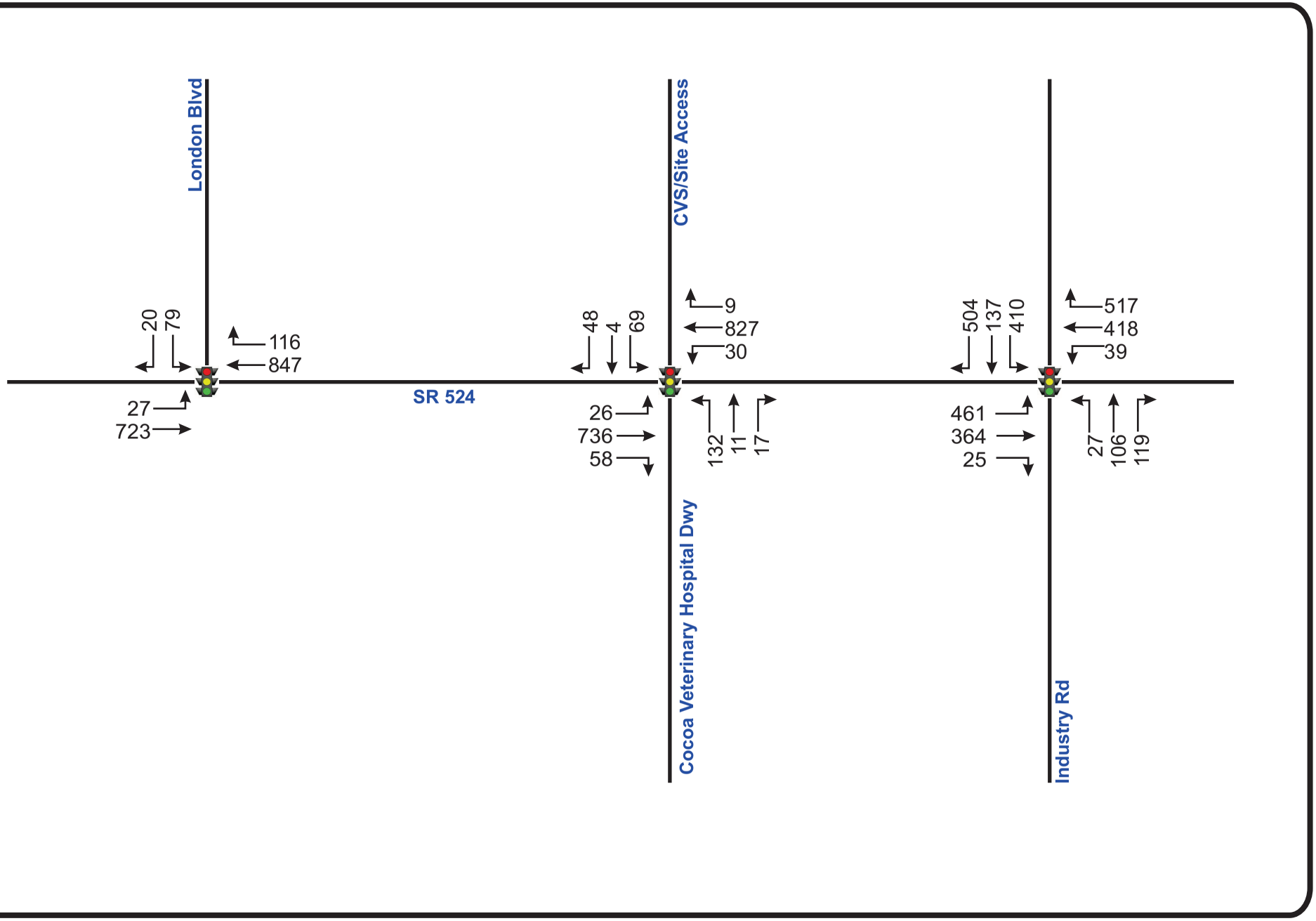
Intersection Analysis

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**.



Cocoa Apartments
Project № 5382
Figure 2

Existing P.M. Peak Hour Traffic Volumes

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

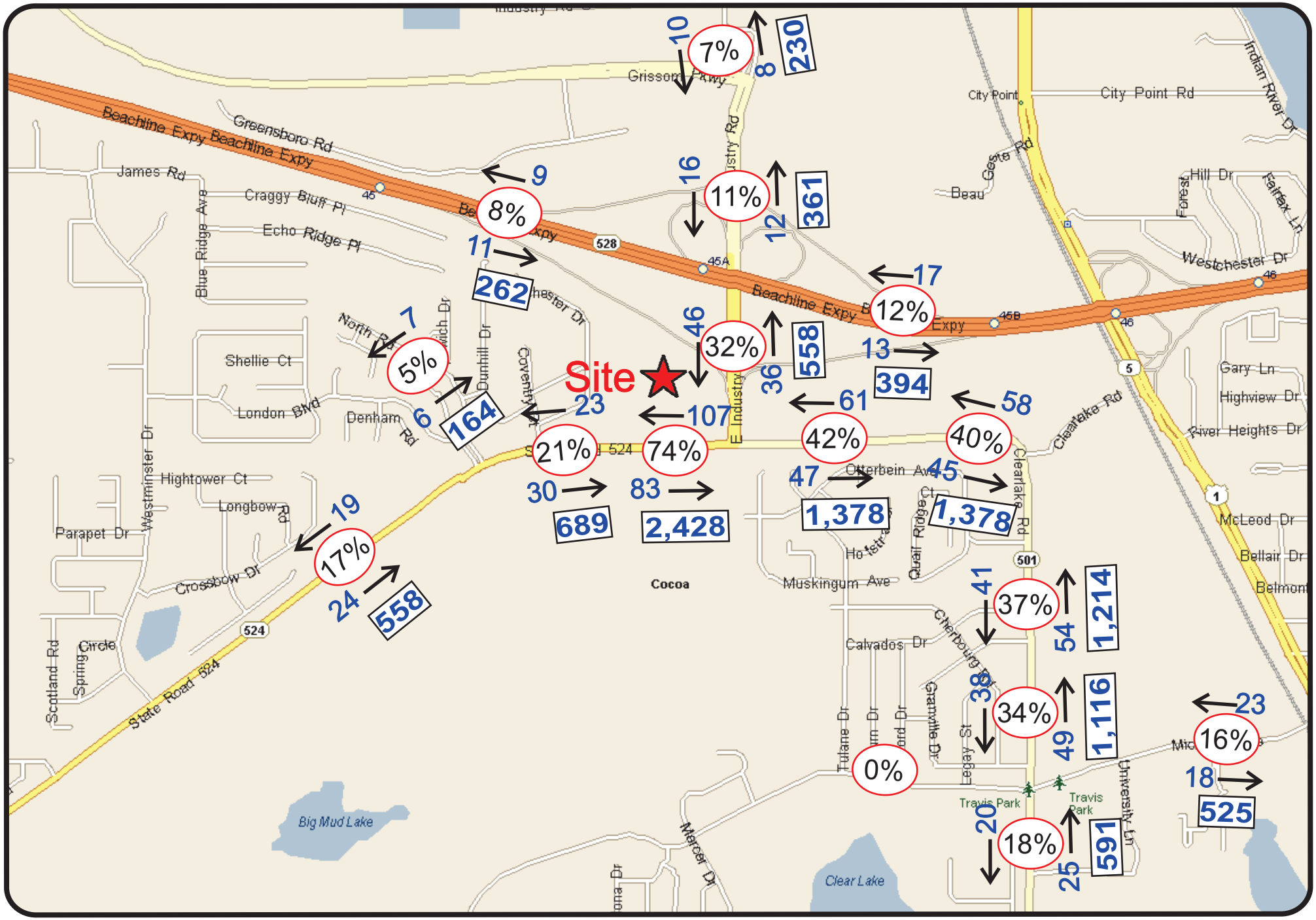
* DU = Dwelling Units, KSF=1,000 square feet
**Average Rate Used, other rates derived from ITE Equations (R^2>0.75)
***Obtained from the 3rd Edition of the ITE Trip Generation Handbook



Cocoa Apartments
Project № 5382
Figure 3

Site Plan

N
NTS



Cocoa Apartments
Project № 5382
Figure 4

Trip Distribution/Assignment

N
NTS

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
39	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 the approved Integra Cocoa trips plus 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*	Integra Cocoa	Project Trips	Total Volume		
SR 524											
75	Cox Rd to London Blvd	2	Urban Minor Arterial	D	19,470	14,183	660	577	15,420	0.79	C
	London Blvd to Site Access	2	Urban Minor Arterial	D	19,470	14,183	696	713	15,592	0.80	C
	Site Access to Industry Rd	2	Urban Minor Arterial	D	19,470	14,183	696	2,512	17,391	0.89	C
Clearlake Road											
	SR 524 to Otterbein Ave	4	Urban Minor Arterial	E	41,790	19,727	298	1,425	21,450	0.51	C
	Otterbein Ave to Michigan Ave	4	Urban Minor Arterial	E	39,800	20,511	278	1,256	22,045	0.55	C
Industry Road											
198	SR 524 to Grissom Pkwy	4	Urban Minor Arterial	E	41,790	21,942	391	1,086	23,419	0.56	C
594	Grissom Pkwy to Cidco Rd	2	Urban Local	E	15,600	4,844	44	238	5,126	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	5.3	A	9.8	A	0.0	A	41.5	D	9.7	A
SR 524 & Industry Rd	Signal	43.7	D	37.4	D	46.6	D	74.1	E	51.6	D
SR 524 & Site Entrance/SC west Entrance	Signal	33.2	C	52.4	D	73.1	E	61.8	E	47.3	D

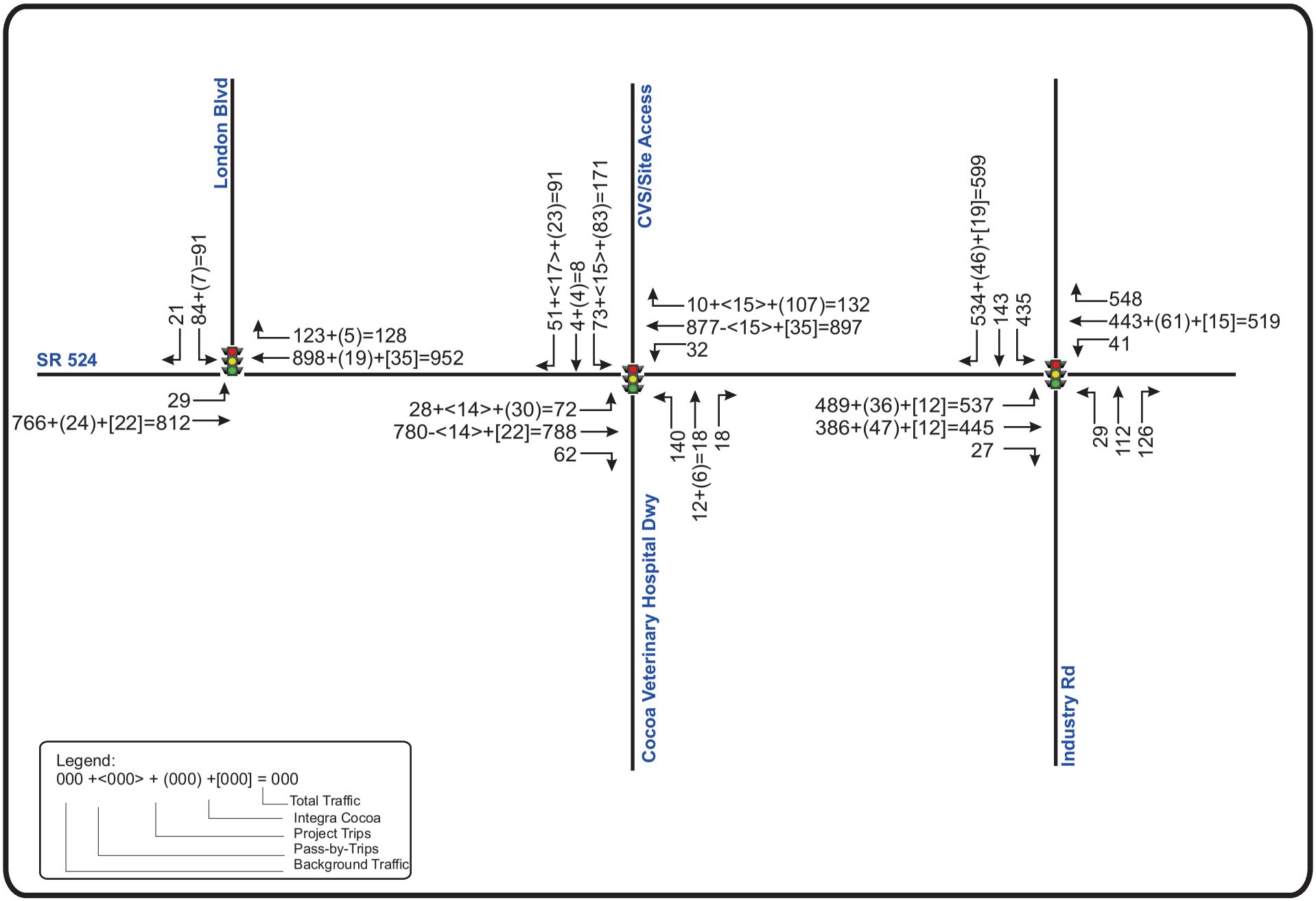
Site Access and Auxiliary Lanes

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 711-001
- Left Turn Lane required = 185 + 126 ft QL from HCS = 311 ft.
- Right Turn Lane Required = 185 + 81 ft QL from HCS = 266 ft

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



Cocoa Apartments (Revised)
Project № 5382
Figure 5

Projected P.M. Peak Hour Traffic Volumes

N
NTS

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

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: NORTH															
206	BARNA	SR 405-SR 50	5,470	5,200	4,770	4,770	4,930	5,160	5,540	5,920	NC	6,400	15,600	12/4/2019	Urban Major Collector
521	CAMP	GRISSOM-US 1	2,800	2,650	2,450	2,290	2,370	2,150	2,670	2,730	2,690	2,430	15,600	11/5/2019	Urban Major Collector
	CANAVERAL GROVES	PINE-US 1	7,310	4,640	7,020	4,365	6,760	4,360	7,290	4,620	7,680	5,260			
522	CITRUS	PINE-LEE	NC	3,710	NC	3,550	NC	3,380	NC	3,830	NC	4,500	15,600	10/30/2019	Urban Major Collector
212	CANAVERAL GROVES	LEE-GRISSOM	7,310	NC	7,020	NC	6,760	NC	7,290	NC	7,680	NC	15,600	11/6/2018	Urban Major Collector
213	CANAVERAL GROVES	GRISSOM-US 1	NC	5,570	NC	5,180	NC	5,340	NC	5,410	NC	6,020	15,600	12/4/2019	Urban Major Collector
	CARPENTER	FOX LAKE-SR 46	4,637	4,687	4,377	4,483	4,390	4,455	4,557	4,437	4,630	4,560			
188	CARPENTER	FOX LAKE-GARDEN	3,740	3,800	3,450	3,560	3,540	3,520	3,480	3,690	3,830	3,560	15,600	11/13/2019	Urban Major Collector
184	CARPENTER	GARDEN-DAIRY	5,220	5,230	4,890	4,970	4,960	5,390	5,390	5,410	5,400	5,450	15,600	11/6/2019	Urban Major Collector
183	CARPENTER	DAIRY-SR 46	4,950	5,030	4,790	4,920	4,670	NC	4,800	4,210	4,660	4,670	15,600	11/6/2019	Urban Major Collector
	DAIRY	CARPENTER-US 1	5,925	5,900	5,850	5,660	5,795	5,475	7,760	6,060	6,130	5,940			
185	DAIRY	CARPENTER-HOLDER	NC	5,300	NC	5,100	NC	4,820	NC	5,030	NC	5,270	15,600	11/5/2019	Urban Major Collector
523	DAIRY	HOLDER-SINGLETON	6,280	NC	6,180	NC	6,070	NC	7,760	NC	6,330	NC	15,600	11/7/2018	Urban Major Collector
186	DAIRY	SINGLETON-OLD DIXIE	NC	6,500	NC	6,220	NC	6,130	NC	6,930	NC	6,610	15,600	11/6/2019	Urban Major Collector
187	DAIRY	OLD DIXIE-US 1	5,570	NC	5,520	NC	5,520	NC	NC	6,220	5,930	NC	15,600	11/27/2018	Urban Major Collector
596	DEERING PARKWAY	I-95-US 1					1,870	1,720	2,090	2,470	2,530	2,720	14,200	11/6/2019	Rural Major Collector
	FAY	GOLFVIEW-GRISSOM	6,543	6,400	8,065	5,800	7,805	5,825	8,765	6,275	7,760	6,200			
549	FAY	GOLFVIEW-HOMESTEAD	2,660	2,740	NC	2,680	NC	2,880	NC	3,160	NC	3,120	15,600	11/5/2019	Urban Major Collector
207	FAY	HOMESTEAD-DEER	7,250	6,990	6,780	NC	6,460	NC	6,640	NC	6,740	NC	15,600	11/27/2018	Urban Major Collector
229	FAY	DEER-GRISSOM	9,720	9,470	9,350	8,920	9,150	8,770	10,890	9,390	8,780	9,280	15,600	11/5/2019	Urban Major Collector
	FAY	GRISSOM-US 1	14,555	14,965	13,975	13,730	13,670	13,590	14,465	14,280	14,380	14,325			
208	FAY	GRISSOM-AREQUIPPA	12,830	NC	12,380	NC	12,830	13,400	13,590	NC	13,090	NC	33,800	11/27/2018	Urban Major Collector
209	FAY	AREQUIPPA-CAROLE	NC	13,410	NC	12,230	NC	12,350	NC	12,860	NC	12,900	33,800	11/5/2019	Urban Major Collector
210	FAY	CAROLE-US 1	16,280	16,520	15,570	15,230	14,510	15,020	15,340	15,700	15,670	15,750	33,800	11/5/2019	Urban Major Collector
235	FOX LAKE	CARPENTER-SOUTH	4,250	NC	3,870	NC	NC	3,920	NC	NC	4,130	NC	17,700	11/27/2018	Urban Major Collector
	GRISSOM	INDUSTRY-PORT ST. JOHN PARKWAY	10,053	10,633	9,930	9,753	10,223	10,213	10,033	10,357	10,077	10,197			
197	GRISSOM	INDUSTRY-CANAVERAL GRVS	11,060	11,820	10,870	10,680	11,540	11,720	11,300	11,160	10,800	10,640	15,600	12/4/2019	Urban Minor Arterial
196	GRISSOM	CANAVERAL GRVS-CAMP	8,940	9,320	8,980	8,960	9,010	9,490	8,660	9,360	9,140	9,470	17,700	11/5/2019	Urban Minor Arterial
195	GRISSOM	CAMP-PORT ST. JOHN PARKWAY	10,160	10,760	9,940	9,620	10,120	9,430	10,140	10,550	10,290	10,480	17,700	11/5/2019	Urban Minor Arterial
	GRISSOM	PORT ST. JOHN PARKWAY-KINGS HWY	11,863	12,123	11,687	11,573	12,220	11,170	14,117	11,890	12,660	12,607			
194	GRISSOM	PORT ST. JOHN PARKWAY-BRIDGE	12,890	13,680	12,670	12,720	13,840	NC	14,940	13,920	14,150	14,550	17,700	11/5/2019	Urban Minor Arterial
193	GRISSOM	BRIDGE-FAY	11,290	11,750	11,380	12,130	12,390	12,740	13,700	12,070	12,670	12,990	17,700	11/5/2019	Urban Minor Arterial
192	GRISSOM	FAY-CURTIS	NC	10,940	NC	9,870	NC	9,600	NC	9,680	NC	10,280	15,600	11/5/2019	Urban Minor Arterial
191	GRISSOM	CURTIS-KINGS HIGHWAY	11,410	NC	11,010	NC	10,430	NC	13,710	NC	11,160	NC	15,600	11/27/2018	Urban Minor Arterial
	GRISSOM	KINGS HIGHWAY-SR 405	9,690	9,655	8,980	8,970	9,310	9,320	8,660	10,080	9,160	10,440			
190	GRISSOM	KINGS HIGHWAY-SHEPARD	10,010	9,890	NC	8,970	NC	9,320	NC	10,080	NC	10,440	30,400	11/5/2019	Rural Minor Arterial
189	GRISSOM	SHEPARD-SR 405	9,370	9,420	8,980	NC	9,310	NC	8,620	NC	9,160	NC	39,800	11/6/2018	Urban Minor Arterial
524	GOLFVIEW	PORT ST. JOHN PKWY-FAY	4,640	NC	4,610	NC	4,830	NC	NC	5,570	5,680	NC	15,600	11/6/2018	Urban Major Collector
526	HOLDER	DAIRY-SR 46	NC	2,720	NC	2,670	NC	NC	NC	2,840	NC	2,730	17,700	11/6/2019	Urban Major Collector
	HOPKINS	SR 50-GRACE			9,670	7,640	8,390	6,770	8,995	7,765	8,995	7,715			
583	HOPKINS	SR 50-KNOX MCRAE				6,970	7,130	NC	7,190	NC	7,420	NC	15,600	11/13/2018	Urban Minor Arterial
584	HOPKINS	KNOX MCREA-COUNTRY CLUB DR				9,640	NC	9,090	NC	10,710	NC	10,380	15,600	11/6/2019	Urban Minor Arterial
577	HOPKINS	COUNTRY CLUB DR-HARRISON			9,670	9,400	9,650	NC	10,800	NC	10,570	NC	15,600	11/13/2018	Urban Minor Arterial
586	HOPKINS	HARRISON-GRACE				4,550	NC	4,450	NC	4,820	NC	5,050	15,600	11/6/2019	Urban Minor Arterial
198	INDUSTRY	SR 524-GRISSOM	15,940	16,170	15,900	16,040	18,530	18,030	18,430	17,560	18,700	20,700	41,790	10/30/2019	Urban Minor Arterial
594	INDUSTRY	GRISSOM-CIDCO RD					4,360	NC	4,700	4,590	4,840	4,570	15,600	10/30/2019	Urban Local
245	KINGS HWY	GRISSOM-US 1	NC	4,710	NC	4,300	NC	4,060	NC	5,060	NC	5,200	15,600	11/5/2019	Urban Major Collector
223	NASA CSWY	US 1-SPACE COMMERCE WAY	13,870	12,060	11,200	10,520	11,110	10,170	12,070	12,260	13,400	14,380	30,400	11/5/2019	Rural 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

Prepared by National Data & Surveying Services

E Industry Rd & SR 524

Peak Hour Turning Movement Count

ID: 20-130167-003
City: Cocoa

Day: Wednesday
Date: 08/26/2020

PEAK HOURS	
AM	NONE
NOON	NONE
PM	04:00 PM - 05:00 PM

COUNT PERIODS	
AM	NONE
NOON	NONE
PM	04:00 PM - 06:00 PM

E Industry Rd — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	369	100	300	1	794	PM

SR 524 — EASTBOUND

AM	NOON	PM	
0	0	695	⇦
0	0	0	↶ 0
0	0	338	↱ 0
0	0	267	→ 0
0	0	18	↴ 0
AM	NOON	PM	

SR 524 — WESTBOUND

PM	NOON	AM	
378	0	0	0 ↰
306	0	0	0 ←
128	0	0	0 ↰
1	0	0	0 ↶
655	0	0	⇨
PM	NOON	AM	

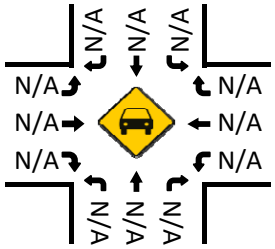
CONTROL: Signalized

	AM	NOON	PM
TEV	0	0	2390
PHF			0.94

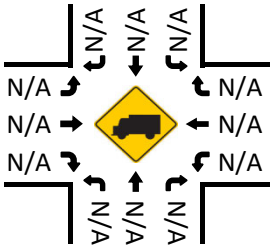
PM	246	0	20	77	87	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

E Industry Rd — NORTHBOUND

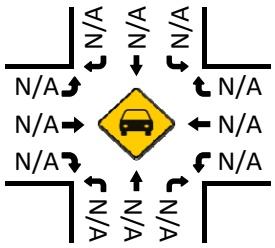
Cars (AM)



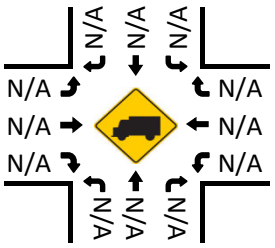
HT (AM)



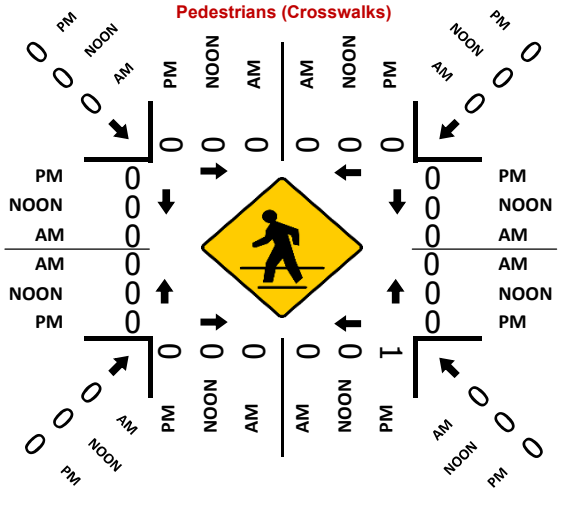
Cars (NOON)



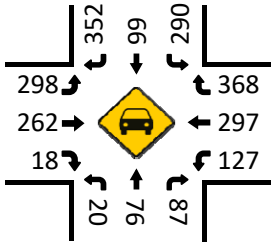
HT (NOON)



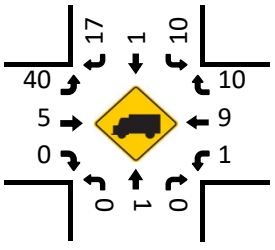
Pedestrians (Crosswalks)



Cars (PM)



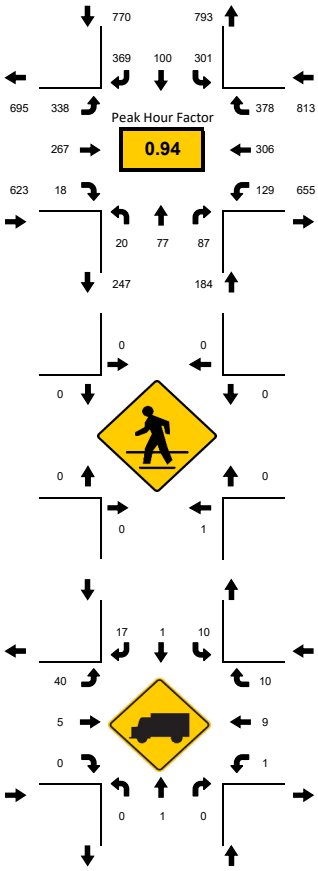
HT (PM)



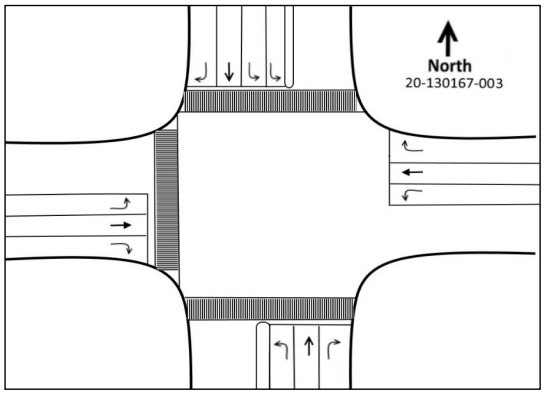
LOCATION: E Industry Rd & SR 524
CITY/STATE: Cocoa, FL

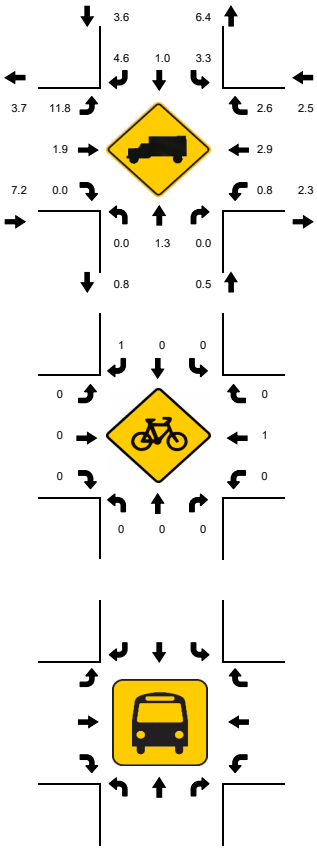
PROJECT ID: 20-130167-003
DATE: 08/26/2020

Peak-Hour: 04:00 PM - 05:00 PM
Peak 15-Minute: 04:15 PM - 04:30 PM



National Data & Surveying Services





15-Min Count Period Beginning At	E Industry Rd Northbound					E Industry Rd Southbound					SR 524 Eastbound					SR 524 Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	3	21	21	0		78	15	108	0		101	78	3	0		37	83	80	0		628	2390
04:15 PM	4	18	18	0		77	35	91	0		92	72	10	0		34	73	115	0		639	2381
04:30 PM	10	16	32	0		64	21	83	1		72	60	3	0		33	91	96	0		582	2340
04:45 PM	3	22	16	0		81	29	87	0		73	57	2	0		24	59	87	1		541	2298
05:00 PM	2	23	23	0		58	24	92	0		112	68	5	0		34	87	91	0		619	2256
05:15 PM	8	26	22	0		81	37	98	0		95	45	9	0		28	61	88	0		598	1637
05:30 PM	10	20	16	0		64	32	75	0		66	61	1	1		39	71	84	0		540	1039
05:45 PM	6	21	28	0		61	26	80	0		54	56	4	0		25	71	67	0		499	499
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	40	88	128	0		324	140	432	4		404	312	40	0		148	364	460	4		**2888**	
Heavy Trucks	0	4	0			20	4	24			60	8	0			4	16	12			**152**	
Pedestrians		4					0					0					0				**4**	
Bicycles	0	0	0			0	0	4			0	0	0			0	4	0			**8**	
Railroad																						
Stopped Buses																						

National Data & Surveying Services

N/S Street: **E Industry Rd**	Speed: **45 MPH**

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

Date: **08/26/2020**

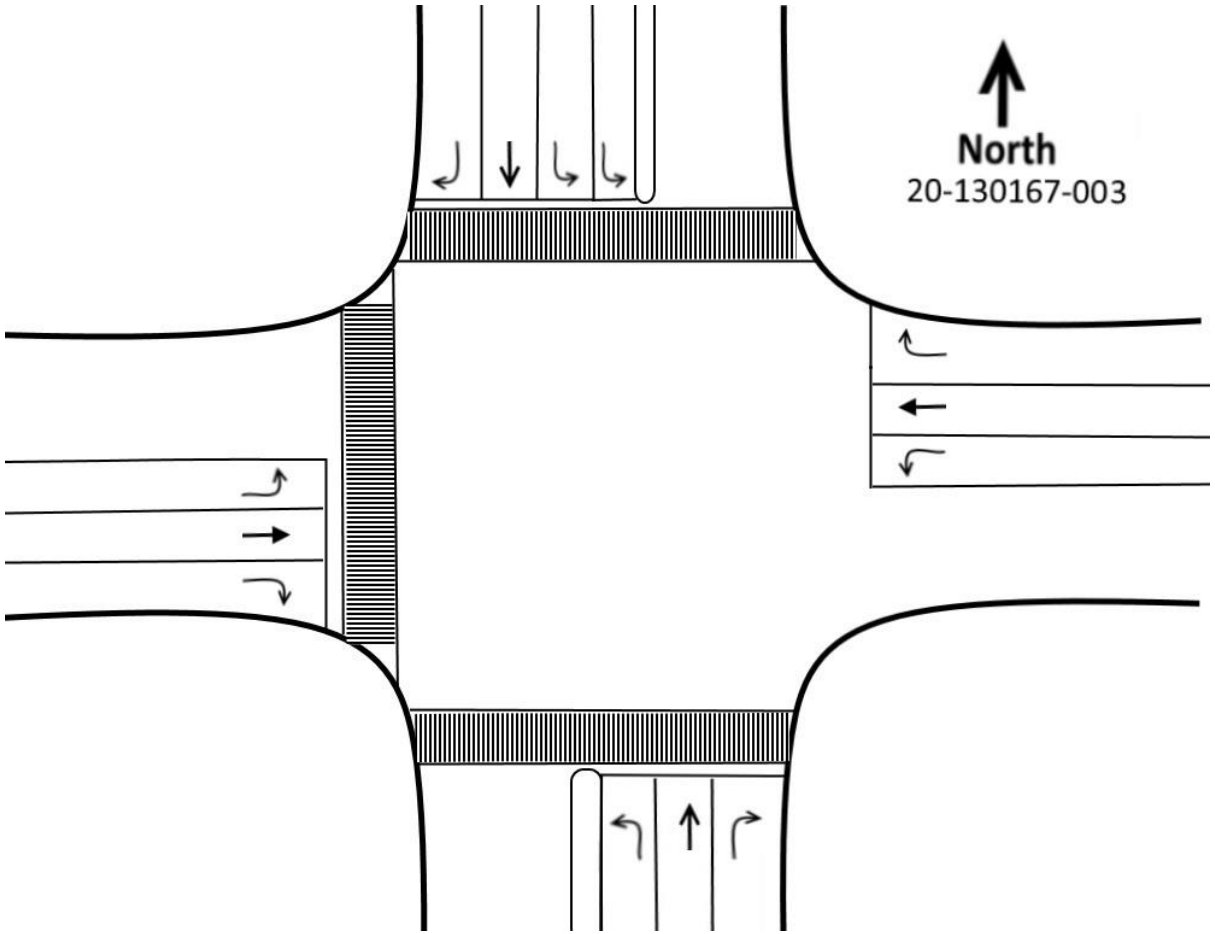
Weather: **Sunny**

City: **Cocoa**

County: **Brevard**

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

Control: **Signalized**



E/W Street: **SR 524**

Speed: **55 MPH**

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

Prepared by National Data & Surveying Services

CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy & SR 524

Peak Hour Turning Movement Count

ID: 20-130167-002
City: Cocoa

Day: Wednesday
Date: 08/26/2020

CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy

SOUTHBOUND

PEAK HOURS		COUNT PERIODS
NONE	AM	NONE
NONE	NOON	NONE
04:15 PM - 05:15 PM	PM	04:00 PM - 06:00 PM

AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	35	3	50	0	33

EASTBOUND

AM	NOON	PM	
0	0	736	⇦
0	0	0	↶ 0
0	0	19	↱ 0
0	0	539	→ 0
0	0	42	↴ 0

WESTBOUND

	PM	NOON	AM
0	6	0	0
0	605	0	0
0	22	0	0
0	1	0	0
⇨	603	0	0

CONTROL: Signalized

	AM	NOON	PM
TEV	0	0	1439
PHF			0.92

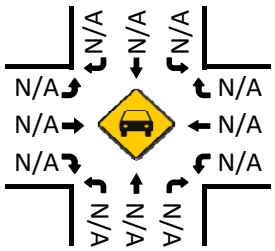
PM	67	0	96	8	13
NOON	0	0	0	0	0
AM	0	0	0	0	0

NORTHBOUND

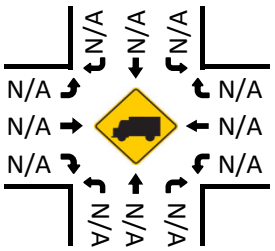
macy Entrance/Cocoa Veterinary Hos

SR 524 (EASTBOUND) | SR 524 (WESTBOUND)

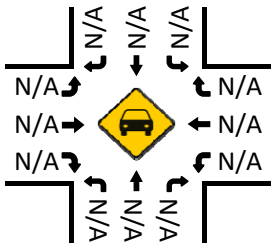
Cars (AM)



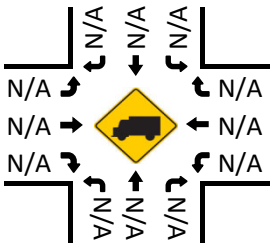
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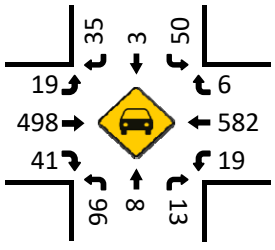
Cars (NOON)



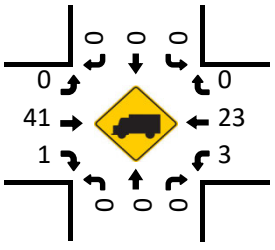
HT (NOON)



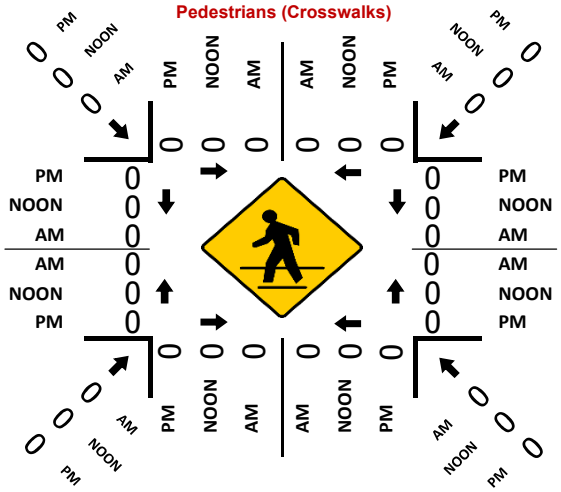
Cars (PM)



HT (PM)



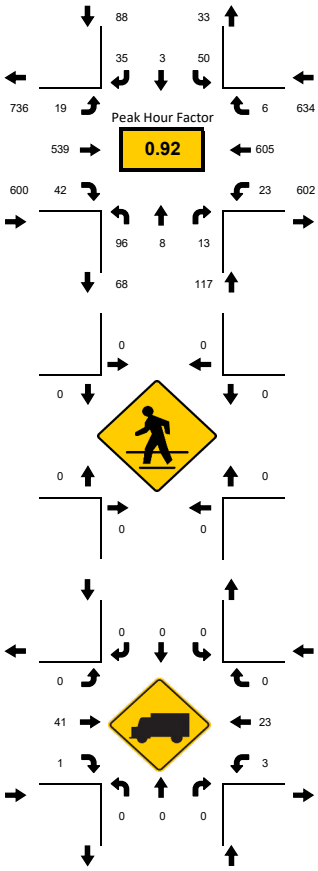
Pedestrians (Crosswalks)



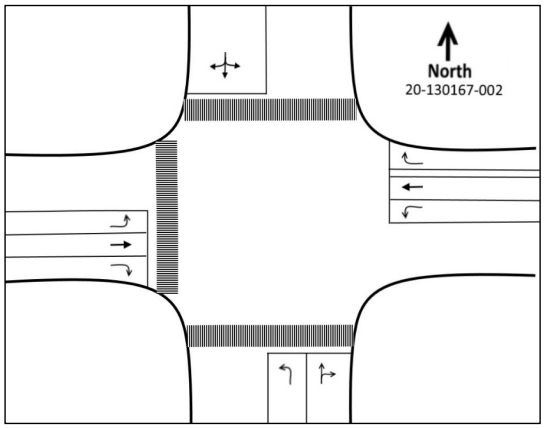
LOCATION: CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy & SR 524
CITY/STATE: Cocoa, FL

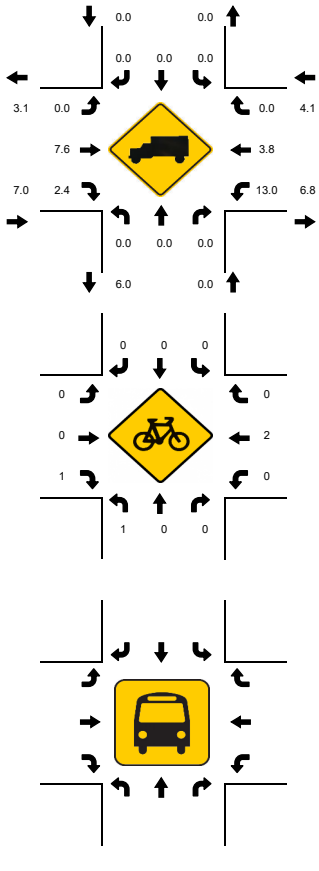
PROJECT ID: 20-130167-002
DATE: 08/26/2020

Peak-Hour: 04:15 PM - 05:15 PM
Peak 15-Minute: 05:00 PM - 05:15 PM



National Data & Surveying Services





15-Min Count Period Beginning At	ıcy Entrance/Cocoa Veterinary H Northbound					ıcy Entrance/Cocoa Veterinary H Southbound					SR 524 Eastbound					SR 524 Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	16	1	3	0		13	1	2	0		5	156	11	0		8	168	0	0		384	1432
04:15 PM	25	1	1	0		9	0	5	0		4	148	12	0		8	153	1	0		367	1439
04:30 PM	25	2	5	0		19	3	9	0		5	106	12	0		6	151	1	0		344	1429
04:45 PM	24	3	3	0		9	0	10	0		6	124	7	0		4	143	3	1		337	1386
05:00 PM	22	2	4	0		13	0	11	0		4	161	11	0		4	158	1	0		391	1354
05:15 PM	25	0	2	0		12	1	4	0		7	122	21	0		7	154	1	1		357	963
05:30 PM	30	0	0	0		9	1	7	0		4	112	7	0		4	127	0	0		301	606
05:45 PM	27	2	3	0		8	2	9	0		3	92	10	0		8	141	0	0		305	305
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	100	12	20	0		76	12	44	0		24	644	48	0		32	632	12	4		**1660**	
Heavy Trucks	0	0	0			0	0	0			0	64	4			4	36	0			**108**	
Pedestrians		0					0					0					0				**0**	
Bicycles	4	0	0			0	0	0			0	0	4			0	4	0			**12**	
Railroad																						
Stopped Buses																						

National Data & Surveying Services

N/S Street: **CVS Pharmacy Entrance/Cocoa Veterinary Hospital Dwy**	Speed: **N/A**

Site Code: **20-130167-002**

Date: **08/26/2020**

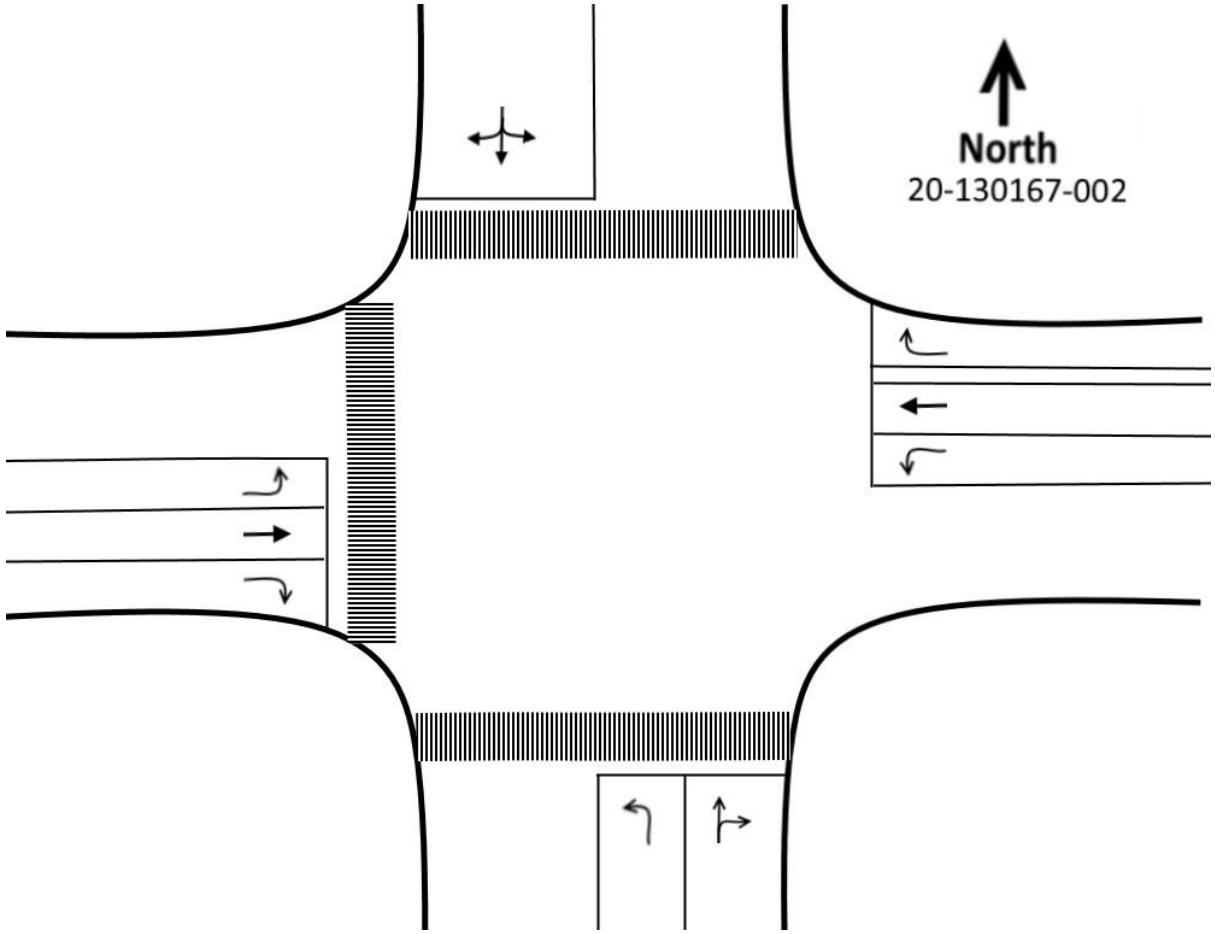
Weather: **Sunny**

City: **Cocoa**

County: **Brevard**

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

Control: **Signalized**



E/W Street: **SR 524**

Speed: **55 MPH**

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

Prepared by National Data & Surveying Services

London Blvd & SR 524

Peak Hour Turning Movement Count

ID: 20-130167-001
City: Cocoa

Day: Wednesday
Date: 08/26/2020

PEAK HOURS	COUNT PERIODS
NONE	NONE
NONE	NONE
04:00 PM - 05:00 PM	04:00 PM - 06:00 PM

London Blvd — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	14	0	58	0	105	PM

EASTBOUND — SR 524

AM	NOON	PM	
0	0	635	⇦
0	0	0	↶ 0
0	0	20	↱ 0
0	0	530	→ 0
0	0	0	↴ 0

WESTBOUND — SR 524

PM	NOON	AM	
85	0	0	0 ↰
621	0	0	0 ←
0	0	0	0 ↰
0	0	0	0 ↶
588	0	0	⇨

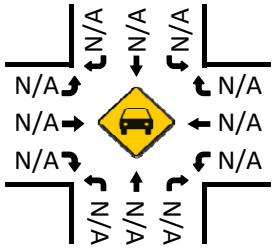
0	0	0	0

CONTROL			
Signalized			
TEV	0 AM	0 NOON	1328 PM
PHF			0.92

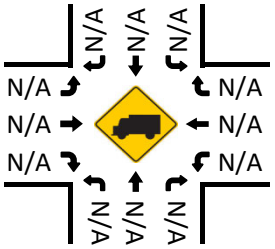
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

NORTHBOUND — London Blvd

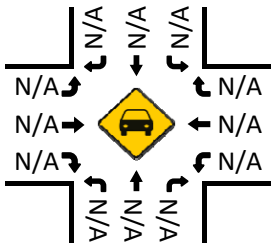
Cars (AM)



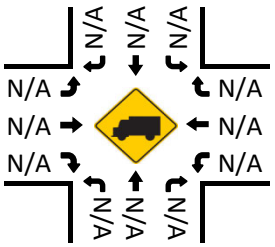
HT (AM)



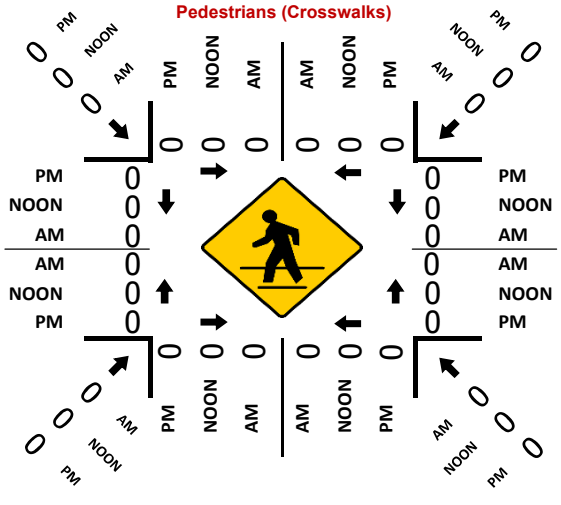
Cars (NOON)



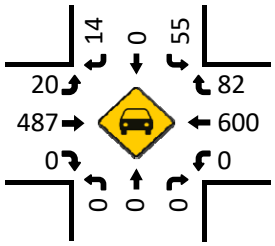
HT (NOON)



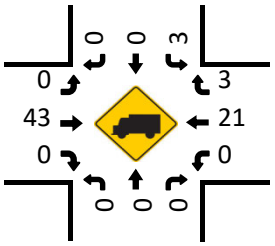
Pedestrians (Crosswalks)



Cars (PM)

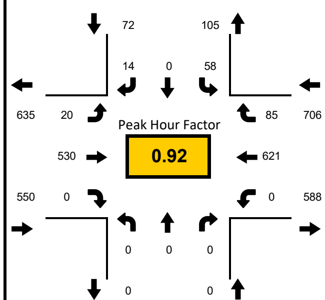


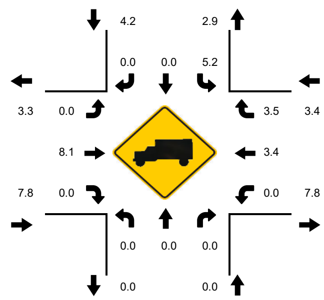
HT (PM)



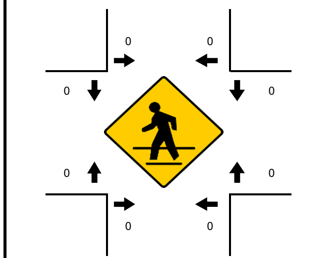
LOCATION: London Blvd & SR 524 **PROJECT ID:** 20-130167-001
CITY/STATE: Cocoa, FL **DATE:** 08/26/2020

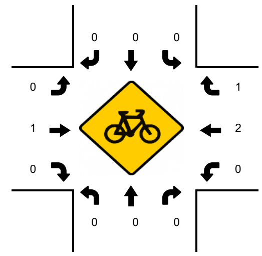
Peak-Hour: 04:00 PM - 05:00 PM
Peak 15-Minute: 04:15 PM - 04:30 PM

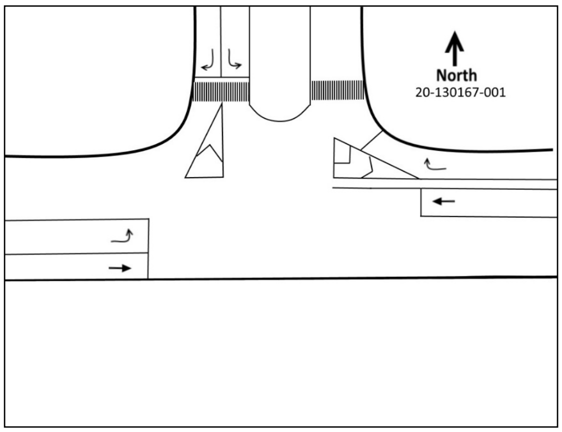


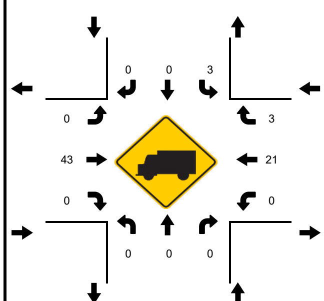


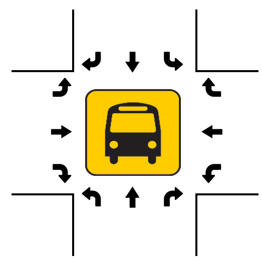
National Data & Surveying Services









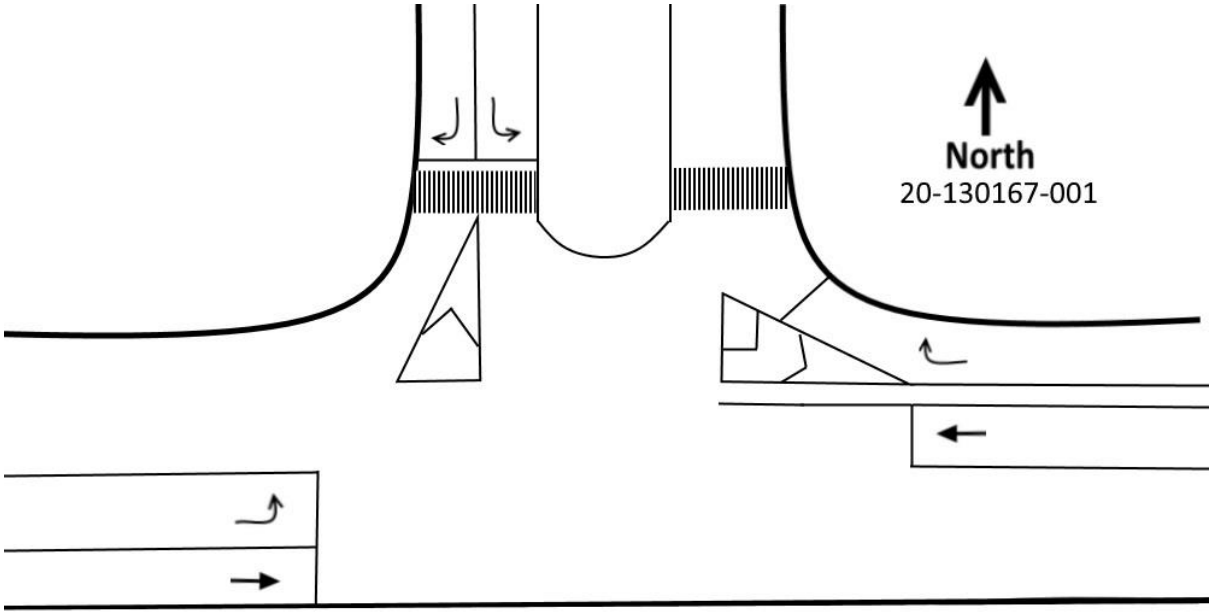


15-Min Count Period Beginning At	London Blvd Northbound					London Blvd Southbound					SR 524 Eastbound					SR 524 Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	0	0	0	0		14	0	6	0		2	152	0	0		0	160	20	0		354	1328
04:15 PM	0	0	0	0		22	0	2	0		6	146	0	0		0	155	28	0		359	1327
04:30 PM	0	0	0	0		12	0	2	0		4	109	0	0		0	153	18	0		298	1316
04:45 PM	0	0	0	0		10	0	4	0		8	123	0	0		0	153	19	0		317	1314
05:00 PM	0	0	0	0		24	0	4	0		5	149	0	0		0	140	31	0		353	1276
05:15 PM	0	0	0	0		17	0	2	0		6	134	0	0		0	167	22	0		348	923
05:30 PM	0	0	0	0		19	0	4	0		10	104	0	0		0	128	31	0		296	575
05:45 PM	0	0	0	0		13	0	1	0		12	96	0	0		0	133	24	0		279	279

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	
All Vehicles	0	0	0	0		88	0	24	0		32	608	0	0		0	640	112	0		**1504**
Heavy Trucks	0	0	0			8	0	0			0	60	0			0	32	4			**104**
Pedestrians		0						0				0					0				**0**
Bicycles	0	0	0			0	0	0			0	4	0			0	4	4			**12**
Railroad																					
Stopped Buses																					

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

MOCF: 0.91

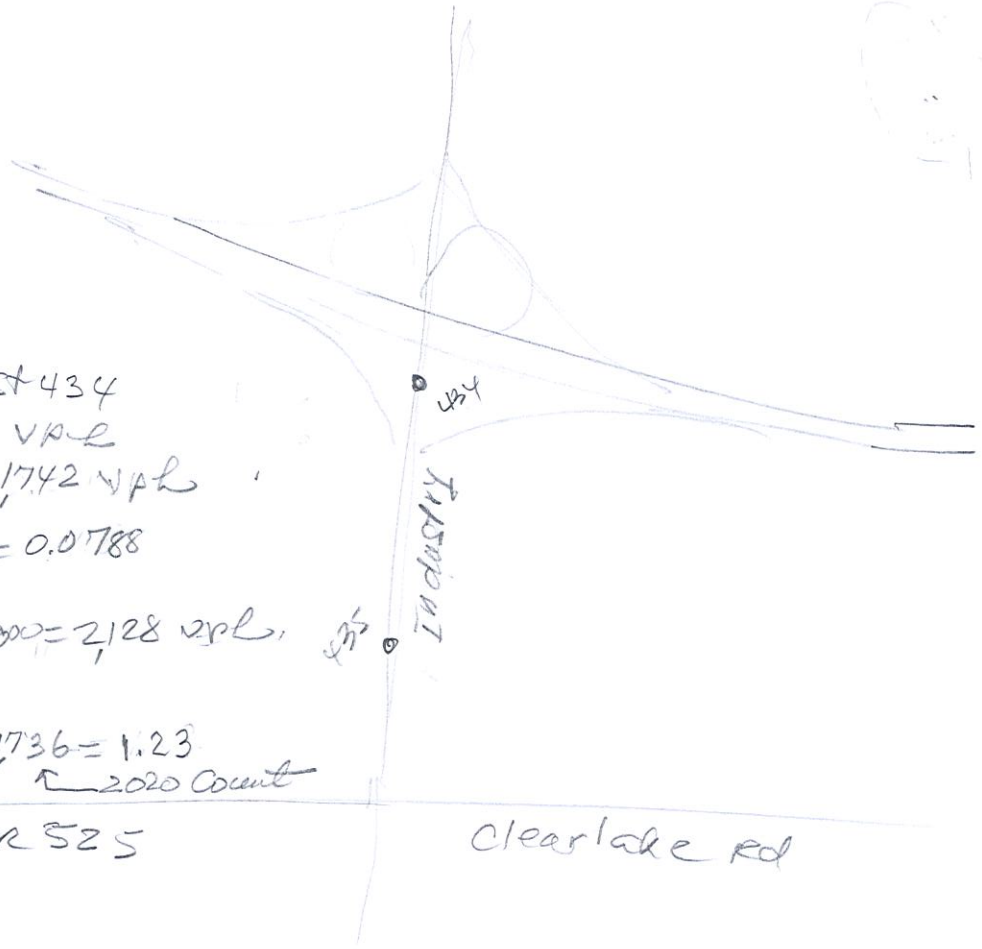
WEEK	DATES	SF	PSCF
1	01/01/2019 - 01/05/2019	1.03	1.13
2	01/06/2019 - 01/12/2019	1.00	1.10
3	01/13/2019 - 01/19/2019	0.97	1.07
4	01/20/2019 - 01/26/2019	0.96	1.05
* 5	01/27/2019 - 02/02/2019	0.94	1.03
* 6	02/03/2019 - 02/09/2019	0.92	1.01
* 7	02/10/2019 - 02/16/2019	0.90	0.99
* 8	02/17/2019 - 02/23/2019	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

Covid Factor

Sta 435 AADT 27,000

Sta 434 AADT 22,100



From Synopsis Report @ St 434
PM Peak Hour = 1,584 vph

SF Factor = 1.10 → 1,584 x 1.10 = 1,742 vph

K = 1,742 / 22,100 = 0.0788

PM Peak Hour Cnt @ St 435: 0.0788 x 27,000 = 2,128 vph

Covid Factor: 2128 / 1736 = 1.23
(1736 ← 2020 Count)

COUNTY: 70
STATION: 0434
DESCRIPTION: ON SR-524, 0.232 MI. N OF SR-501 (UV)
START DATE: 08/21/2019
START TIME: 0000

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
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

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	800	471	715	1055	745	1483
P.M.	1615	635	1630	1008	1630	1623
DAILY	1615	635	715	1055	1630	1623

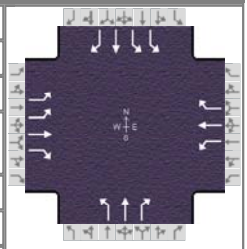
GENERATED BY SPS 5.0.48P

APPENDIX C

Existing HCS Capacity Worksheets

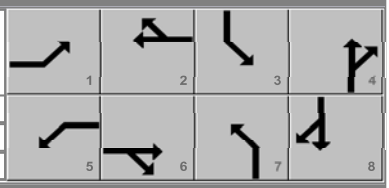
HCS7 Signalized Intersection Results Summary

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 Existing	PHF	0.94
Urban Street	SR 524	Analysis Year	2020	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	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									
Force Mode	Fixed	Simult. Gap N/S	On									
				Green	4.2	6.4	26.0	3.4	8.1	21.9		
				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

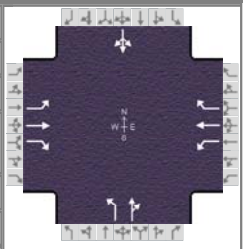
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	490	387	27	41	445	550	29	113	127	436	146	536
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1610	1810	1900		1810	1900	1610	1757	1900	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

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HCS7 Signalized Intersection Results Summary

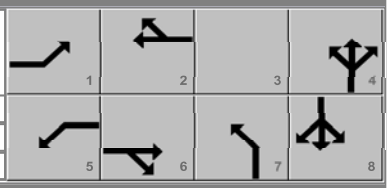
General Information				Intersection Information	
Agency	TPD, Inc.			Duration, h	0.25
Analyst	BH	Analysis Date	8/28/2020	Area Type	Other
Jurisdiction	Brevard County	Time Period	P.M. Peak Existing	PHF	0.92
Urban Street	SR 524	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	SR 524 & CVS Entrance	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	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
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.6	0.3	65.2	11.3	10.7	0.0						
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

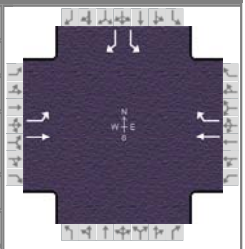
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	28	800	63	33	899	10	143	30			132	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1713			1727	
Queue Service 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

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HCS7 Signalized Intersection Results Summary

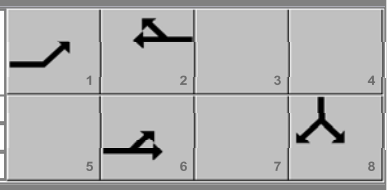
General Information				Intersection Information	
Agency	TPD, Inc.			Duration, h	0.25
Analyst	BH	Analysis Date	8/28/2020	Area Type	Other
Jurisdiction	Brevard County	Time Period	P.M. Peak Existing	PHF	0.92
Urban Street	SR 524	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	SR 524 & London Blvd	File Name	SR 524 & London Blvd.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	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
Force Mode	Fixed	Simult. Gap N/S	On

Green	2.7	47.7	5.3	0.0	0.0	0.0
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	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	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

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APPENDIX D

ITE Trip Generation Sheets

Multifamily Housing (Low-Rise)
(220)

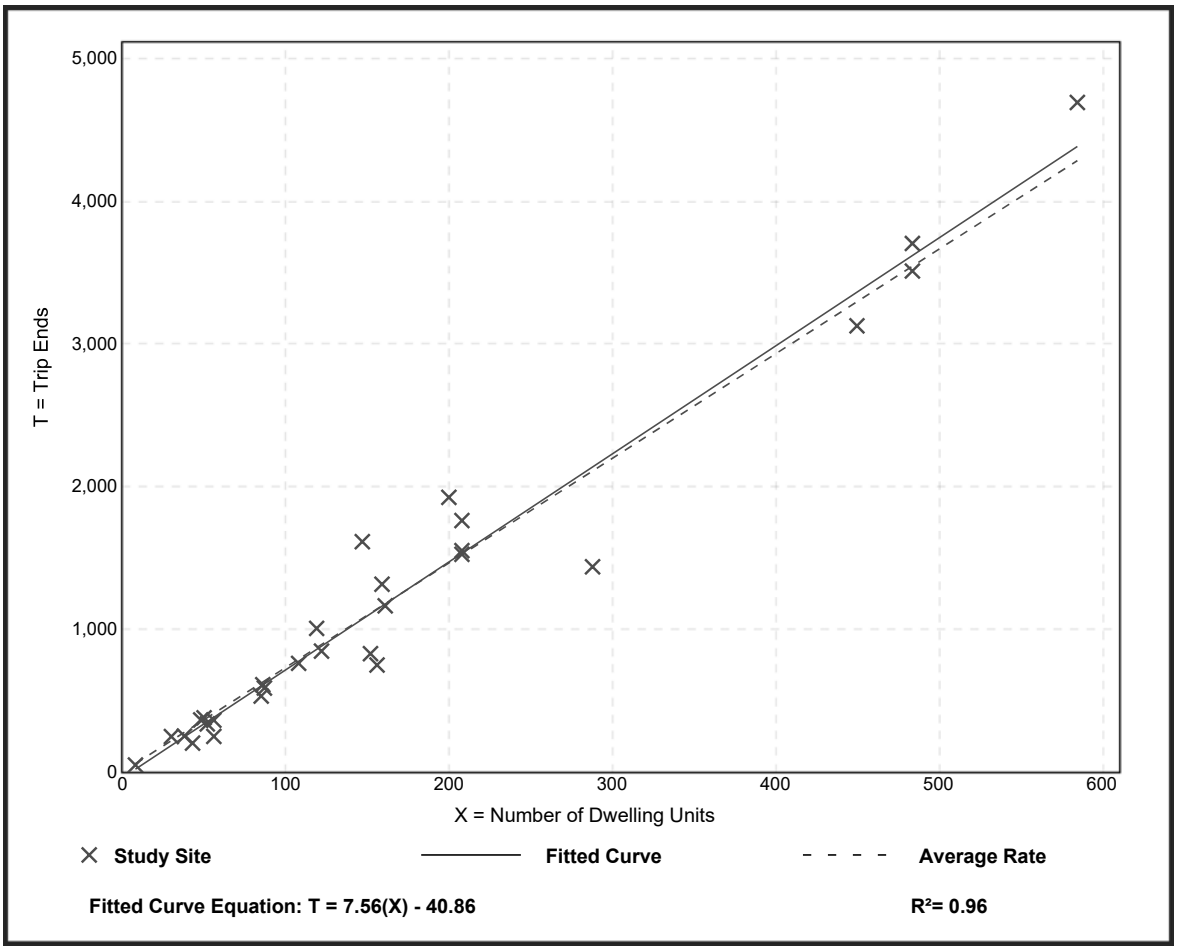
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

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



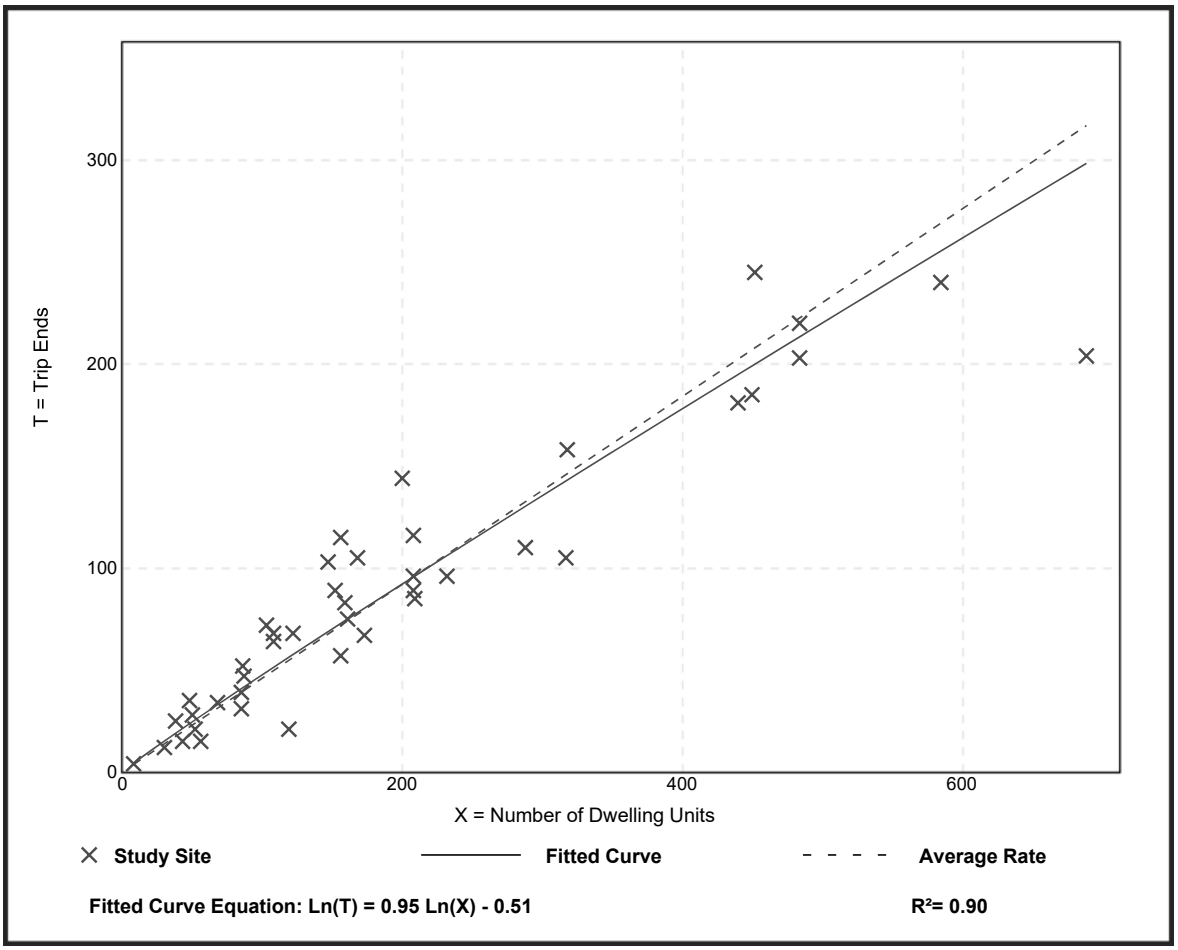
Multifamily Housing (Low-Rise)
(220)

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



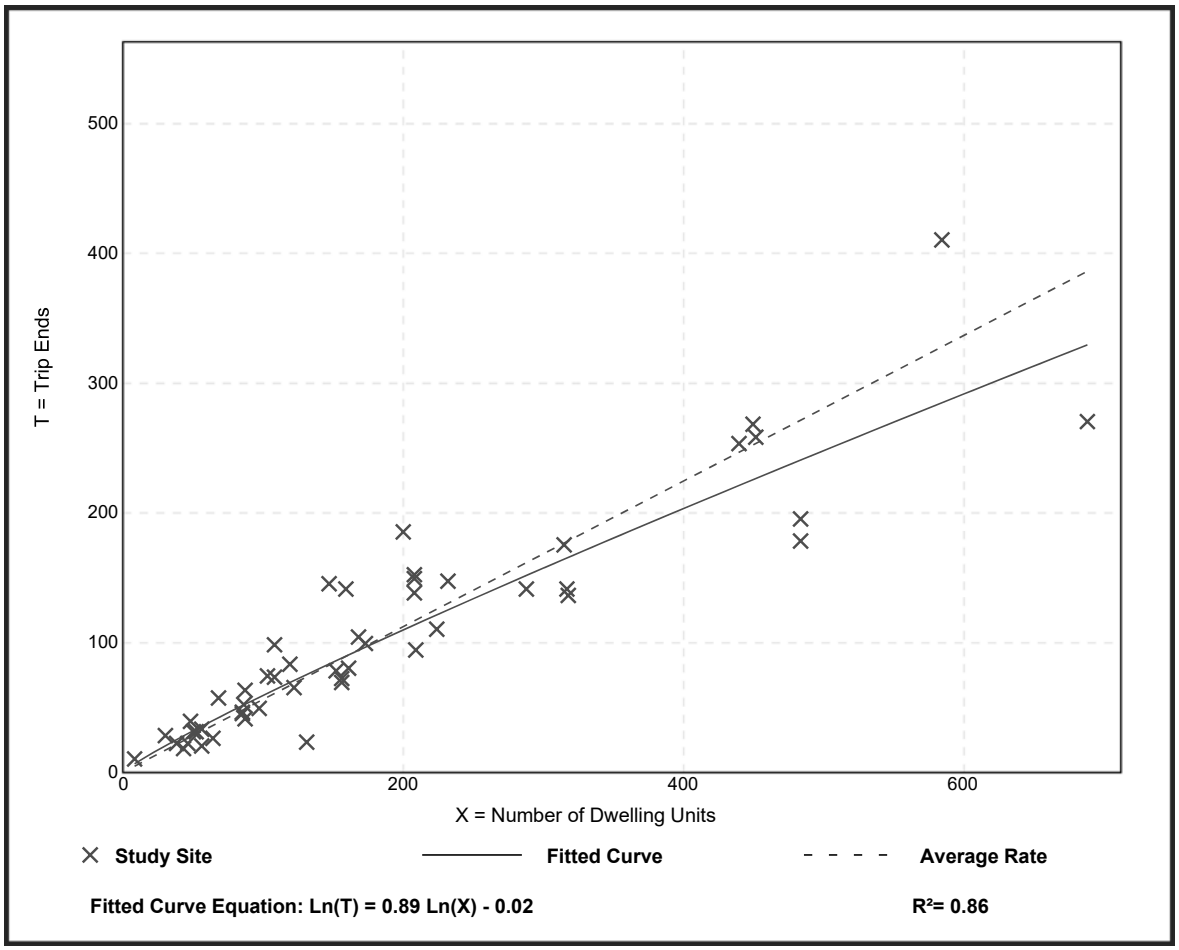
Multifamily Housing (Low-Rise)
(220)

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)

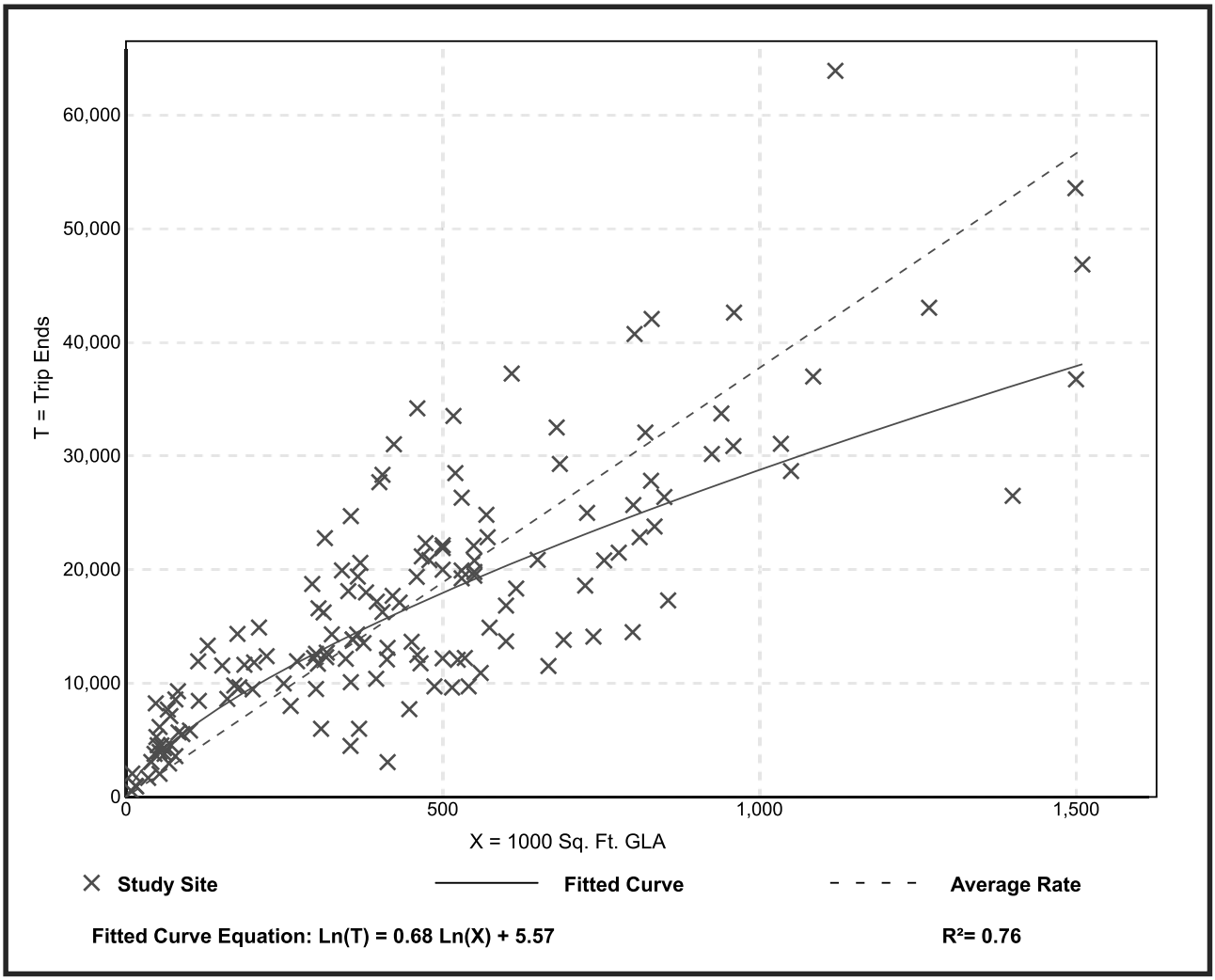
Vehicle Trip Ends vs: **1000 Sq. Ft. GLA**
On a: **Weekday**

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



Fitted Curve Equation: Ln(T) = 0.68 Ln(X) + 5.57

R^2= 0.76

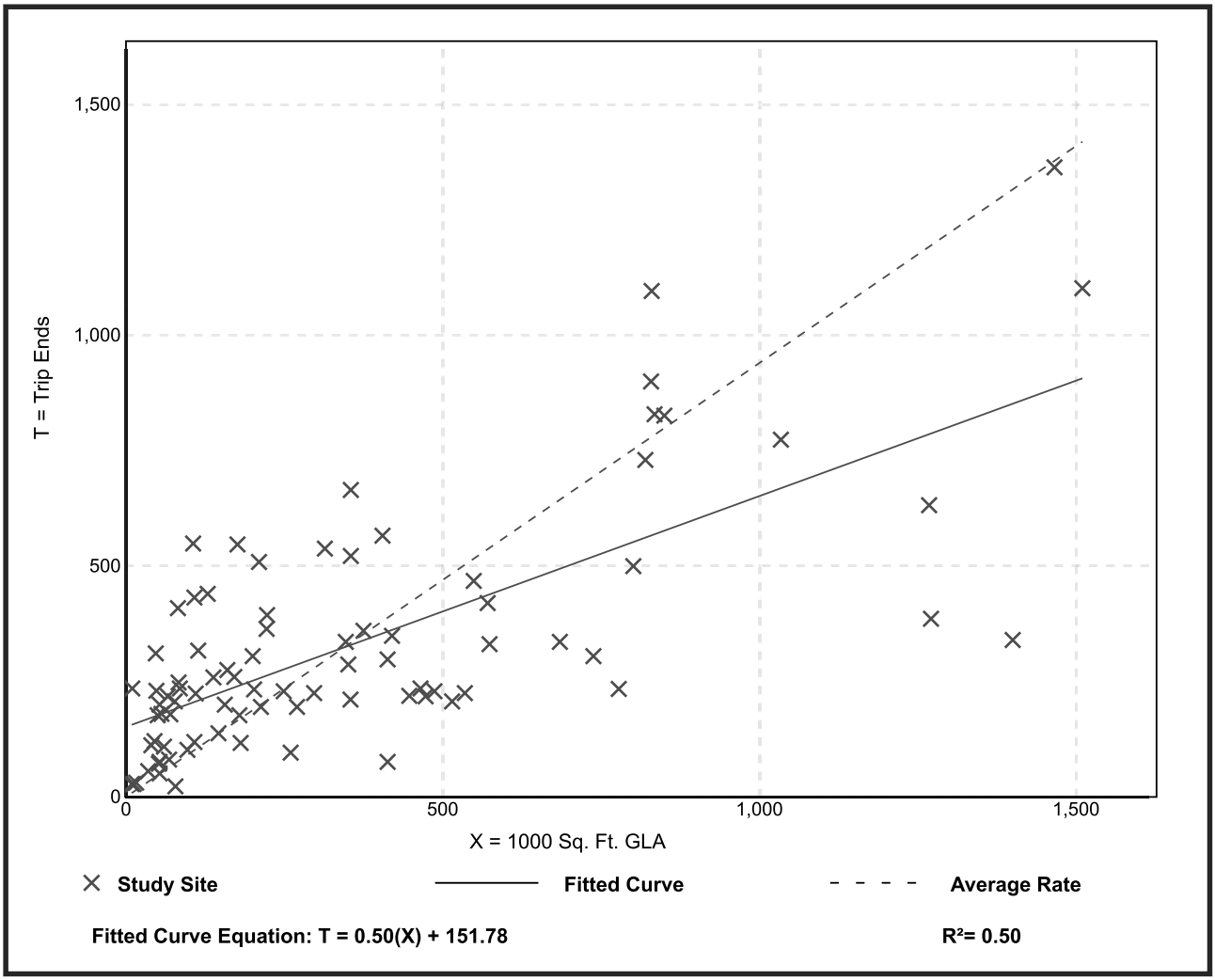
Shopping Center
(820)

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



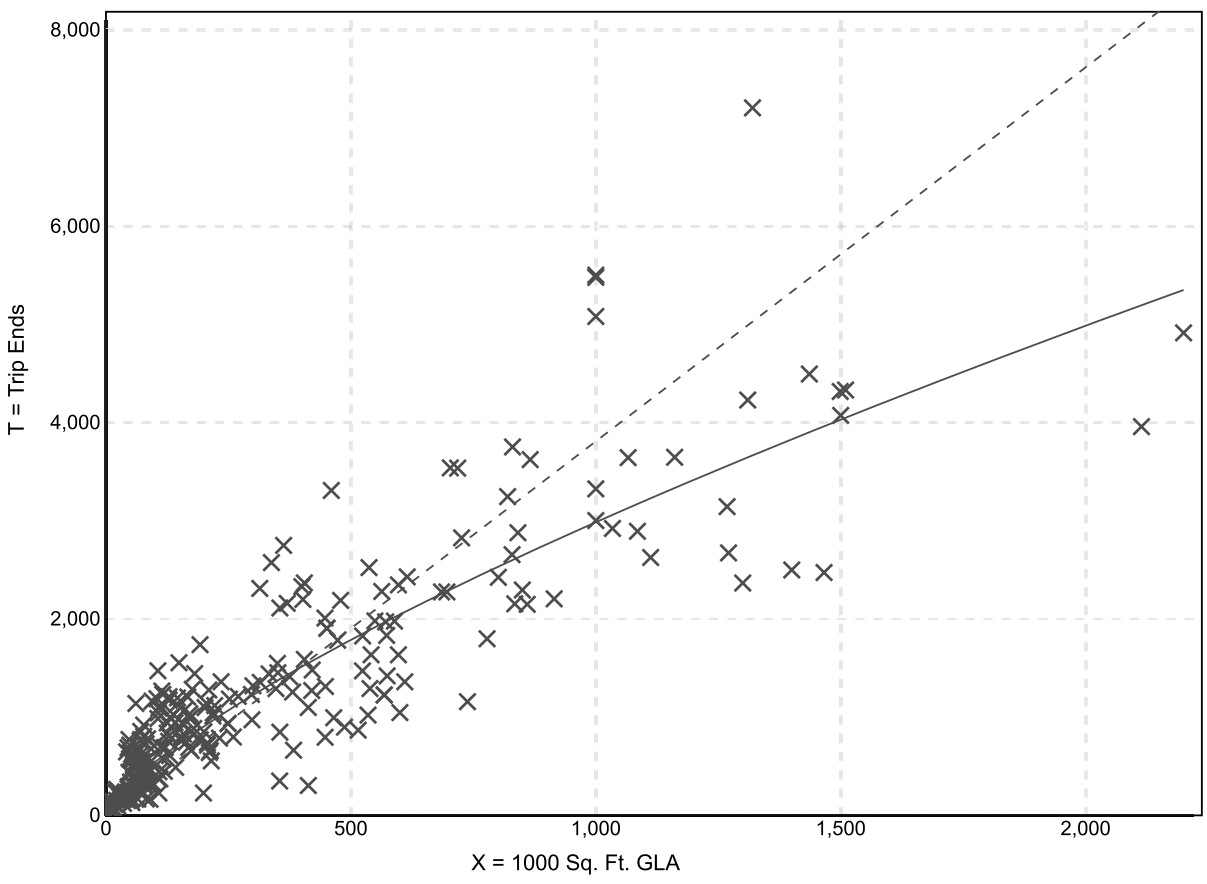
Shopping Center
(820)

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

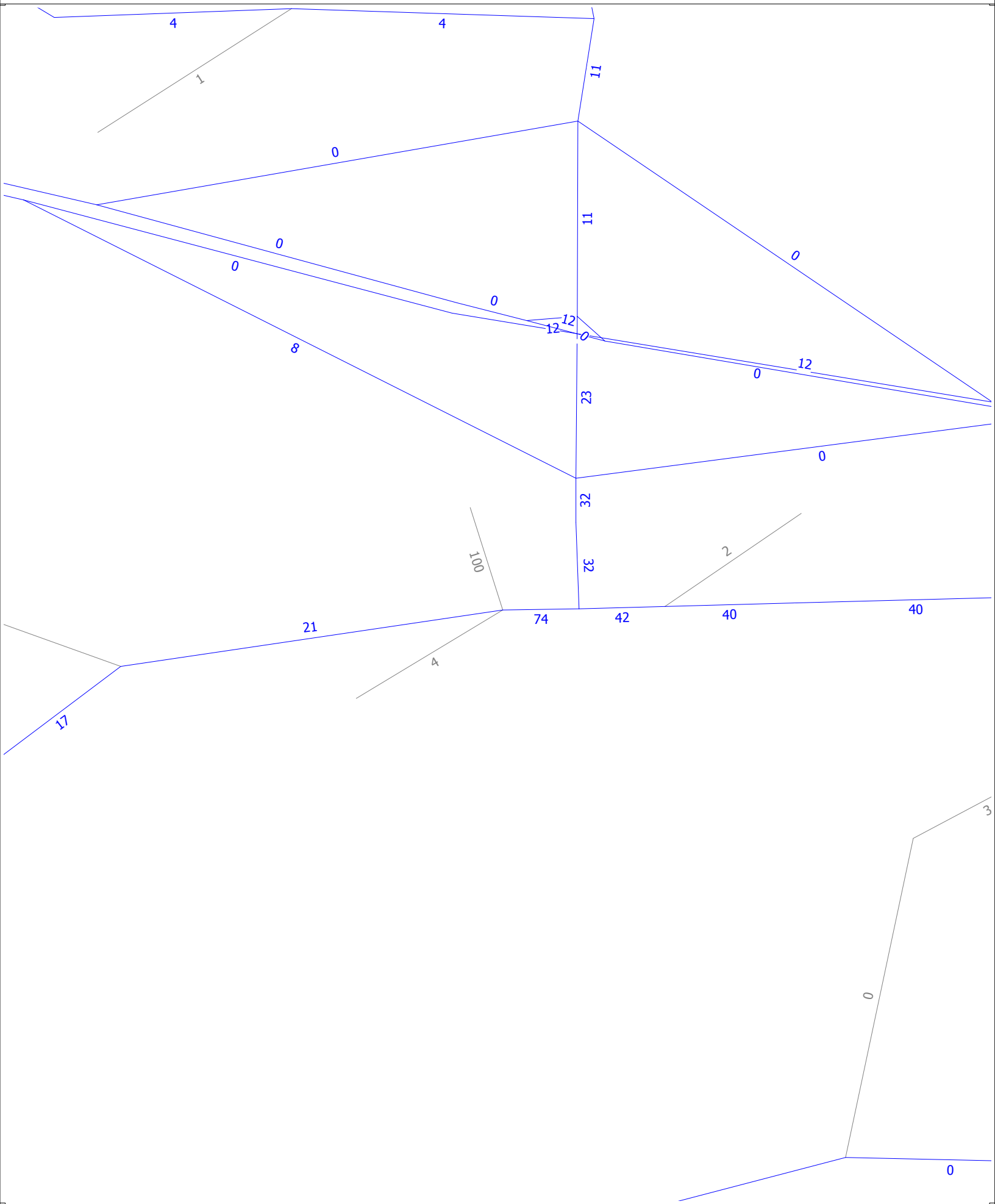


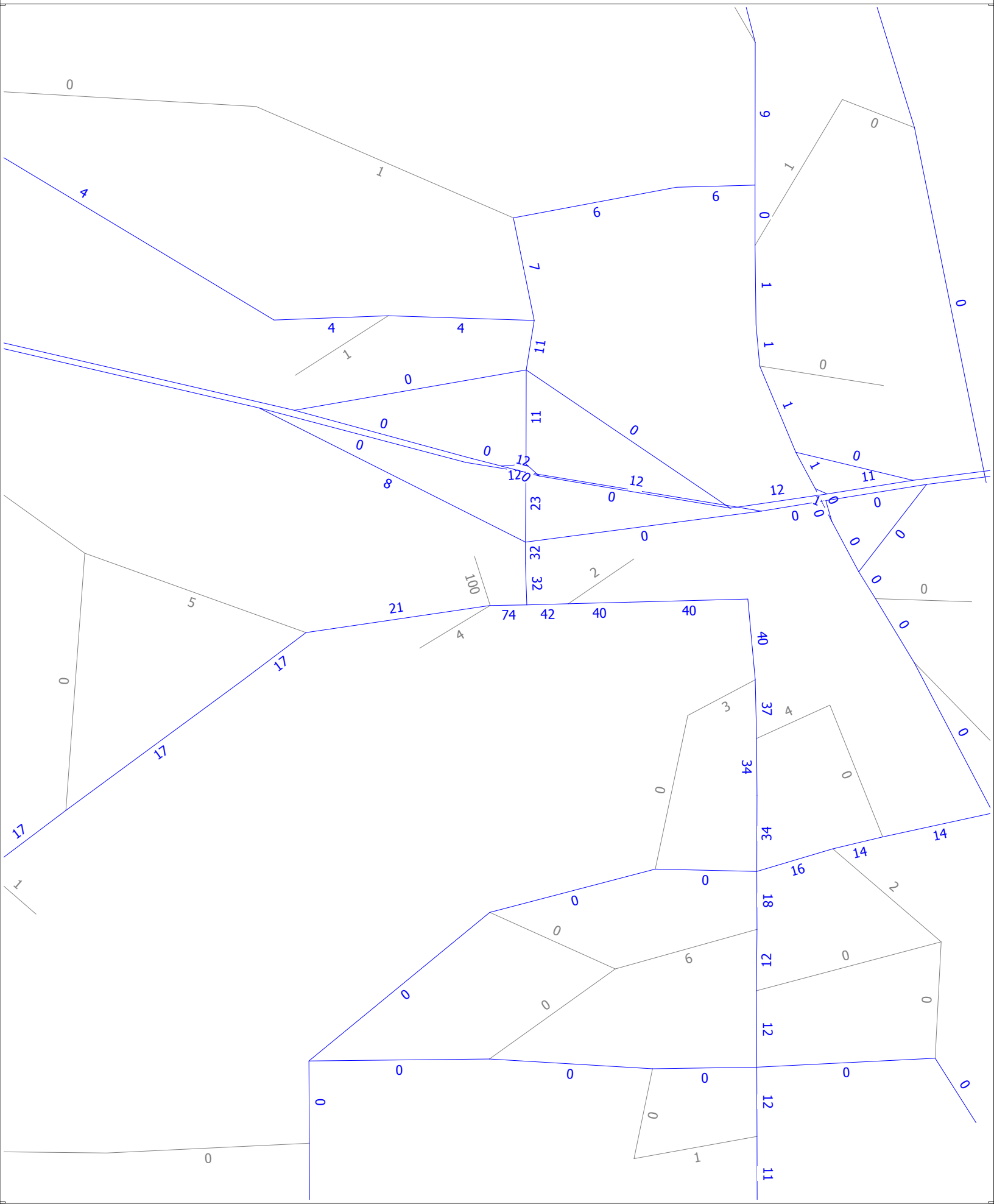
Fitted Curve Equation: Ln(T) = 0.74 Ln(X) + 2.89

R^2= 0.82

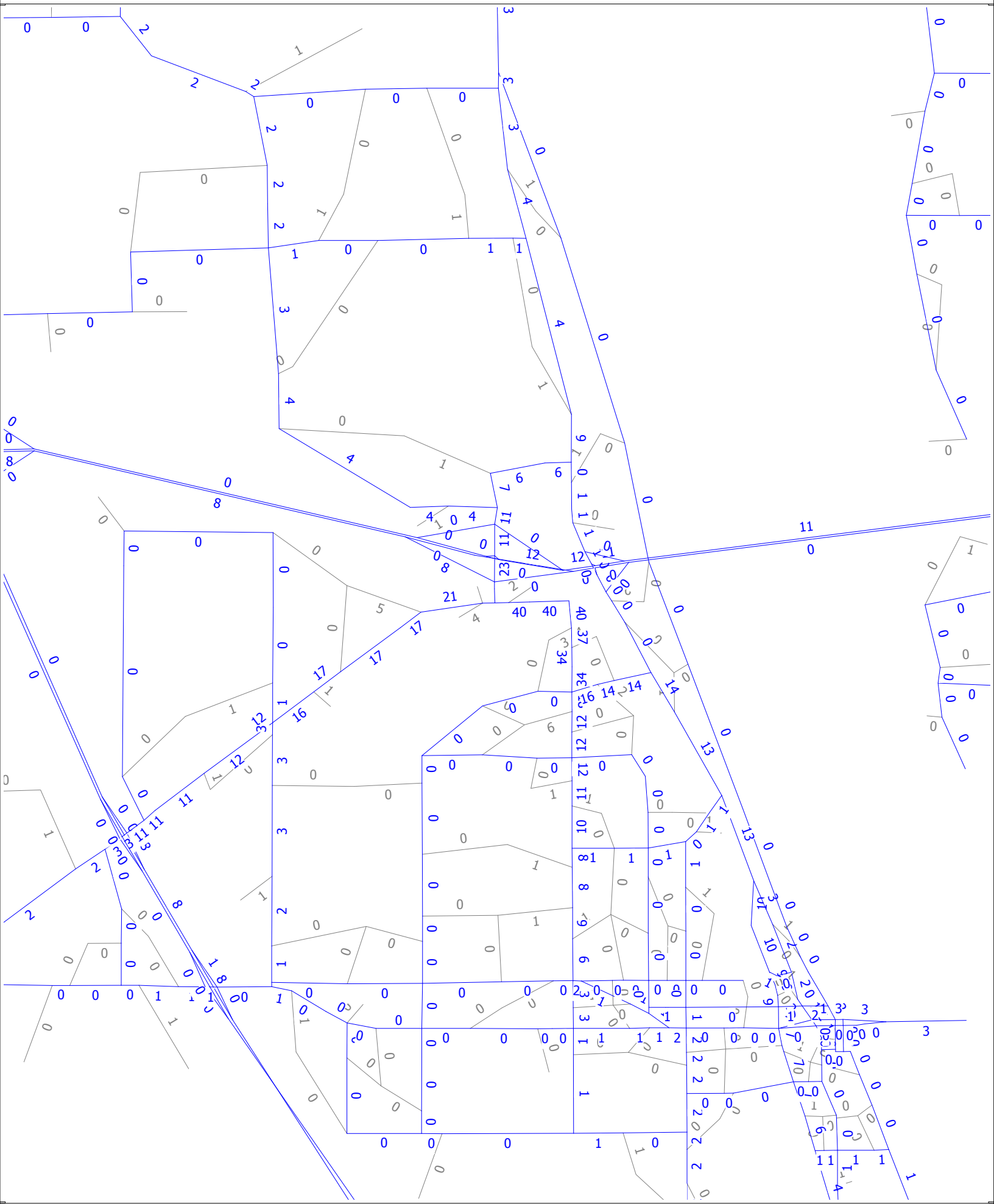
APPENDIX E

Model Distribution Plot


4
4
1
11
0
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0
0
11
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12
12
0
8
12
0
23
0
32
32
100
2
21
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4
17
3
0
0



cube
(Licensed to Traffic Planning and Design)



(Licensed to Traffic Planning and Design)

APPENDIX F

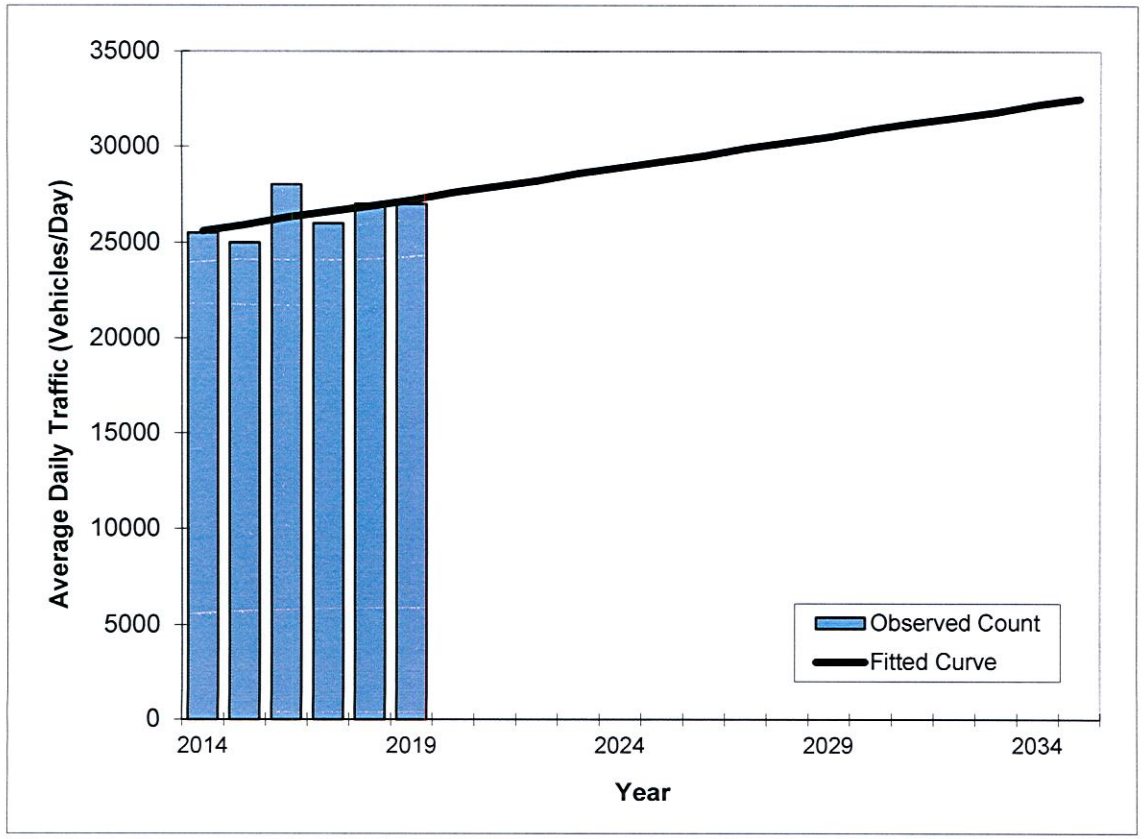
Trends Analysis Worksheets

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



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		

** 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

*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

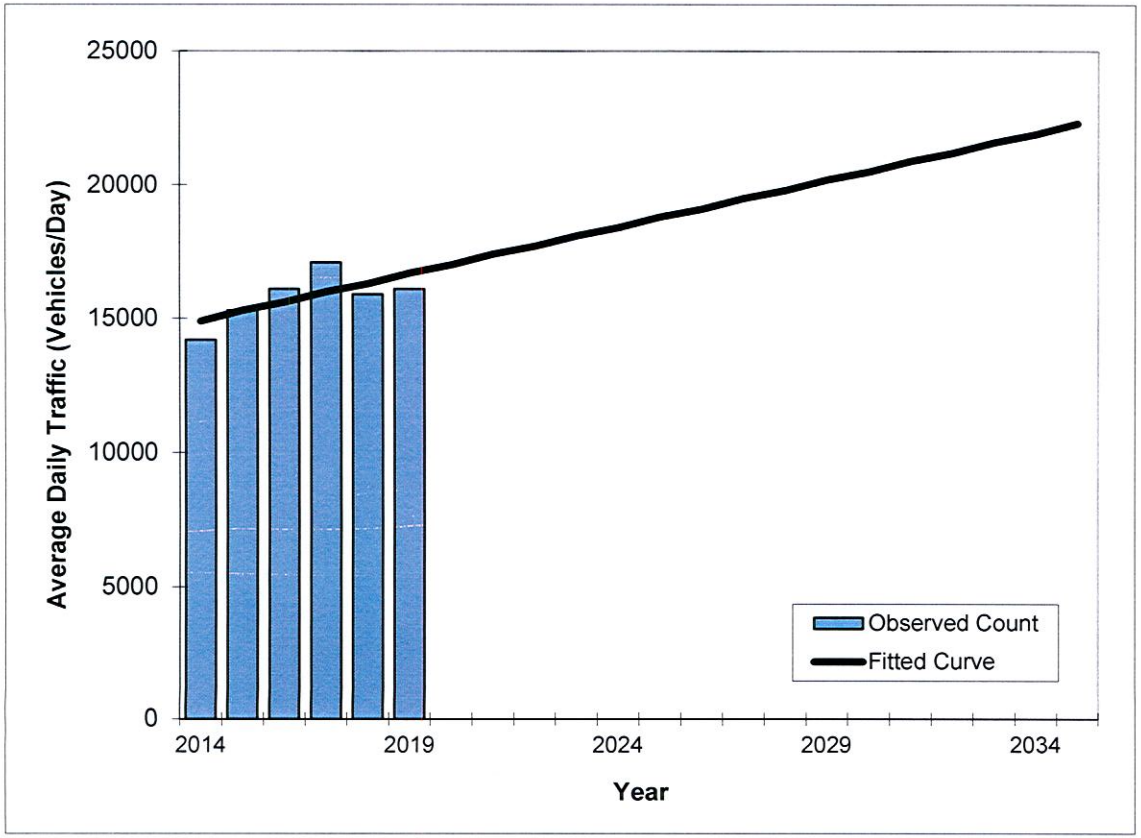
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

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



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

** 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

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

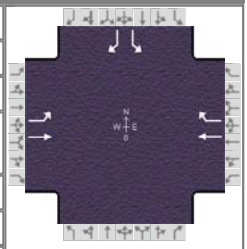
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

APPENDIX G

Projected HCS Capacity Worksheets

HCS7 Signalized Intersection Results Summary

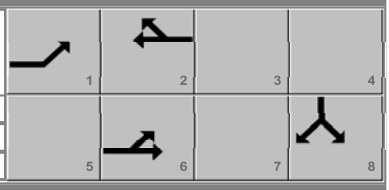
General Information				Intersection Information	
Agency	TPD, Inc.			Duration, h	0.25
Analyst	BH	Analysis Date	8/28/2020	Area Type	Other
Jurisdiction	Brevard County	Time Period	P.M. Peak Projected	PHF	0.92
Urban Street	SR 524	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	SR 524 & London Blvd	File Name	SR 524 & London Blvd.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	29	812			952	128				91		21

Signal Information			
Cycle, s	91.3	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.3	63.1	6.9	0.0	0.0	0.0
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	9.3	78.4		69.1				12.9
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	22.2		35.8				6.9
Green Extension Time (g_e), s	0.0	25.9		27.3				0.3
Phase Call Probability	0.55	1.00		1.00				0.95
Max Out Probability	1.00	0.28		0.22				0.03

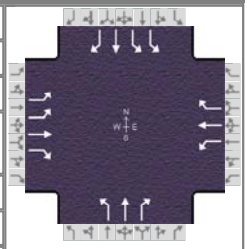
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2	12				3		18
Adjusted Flow Rate (*v*), veh/h	32	883			1035	139				99		23
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1710			1900					1810		
Queue Service Time (g_s), s	0.4	20.2			33.8					4.9		
Cycle Queue Clearance Time (g_c), s	0.4	20.2			33.8					4.9		
Green Ratio (*g/C*)	0.75	0.79			0.69					0.08		
Capacity (*c*), veh/h	323	1356			1313					137		
Volume-to-Capacity Ratio (*X*)	0.098	0.651			0.788					0.723		
Back of Queue (*Q*), ft/ln (95 th percentile)	9.6	121.7			357.6					110.3		
Back of Queue (*Q*), veh/ln (95 th percentile)	0.4	4.9			14.3					4.4		
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00			0.00					0.00		
Uniform Delay (d_1), s/veh	10.3	4.0			9.6					41.3		
Incremental Delay (d_2), s/veh	0.2	1.1			1.5					9.8		
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0					0.0		
Control Delay (*d*), s/veh	10.5	5.1			11.1	0.0				51.1		0.0
Level of Service (LOS)	B	A			B	A				D		A
Approach Delay, s/veh / LOS	5.3	A		9.8	A		0.0			41.5	D	
Intersection Delay, s/veh / LOS	9.7						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	0.63	A	1.86	B	1.96	B	1.96	B
Bicycle LOS Score / LOS	2.00	B	2.42	B				F

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HCS7 Signalized Intersection Results Summary

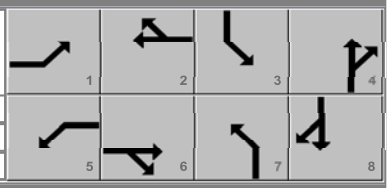
General Information				Intersection Information	
Agency	TPD, Inc.			Duration, h	0.25
Analyst	BH	Analysis Date	8/28/2020	Area Type	Other
Jurisdiction	Brevard County	Time Period	P.M. Peak Projected	PHF	0.94
Urban Street	SR 524	Analysis Year	2023	Analysis Period	1> 7:00
Intersection	SR 524 & Industry Rd	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	537	445	27	41	519	548	29	112	126	435	143	599

Signal Information			
Cycle, s	120.4	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	4.6	10.9	34.0	3.9	9.3	21.7	
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	27.5	56.9	10.6	40.0	9.9	27.7	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	20.0	25.9	4.7	36.0	3.9	8.3	16.4	39.0
Green Extension Time (g_e), s	1.5	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	0.98	1.00	1.00	1.00	1.00	1.00	0.01	1.00

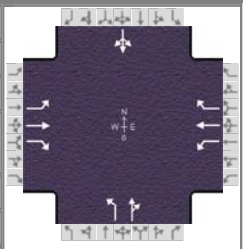
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (*v*), veh/h	571	473	29	44	552	583	31	119	102	463	152	563
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1853	1847	1699	1909	2004		1909	2004	1699	1853	2004	1699
Queue Service Time (g_s), s	18.0	23.9	1.2	2.7	32.9		1.9	6.2	6.3	14.4	6.9	37.0
Cycle Queue Clearance Time (g_c), s	18.0	23.9	1.2	2.7	32.9		1.9	6.2	6.3	14.4	6.9	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	663	781	719	73	566		61	362	306	589	616	522
Volume-to-Capacity Ratio (*X*)	0.861	0.606	0.040	0.597	0.976		0.504	0.329	0.333	0.786	0.247	1.078
Back of Queue (*Q*), ft/ln (95 th percentile)	343.6	415.3	20.5	66.8	695.4		47.8	140.3	120.8	277.9	148.7	840.6
Back of Queue (*Q*), veh/ln (95 th percentile)	13.6	15.3	0.8	2.7	27.6		1.9	5.6	4.8	11.0	5.9	33.4
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	0.00	0.00
Uniform Delay (d_1), s/veh	48.0	26.9	20.4	57.0	42.8		57.3	43.0	43.0	48.7	31.3	41.7
Incremental Delay (d_2), s/veh	9.4	1.6	0.0	10.6	31.6		8.8	0.8	0.9	3.3	0.3	62.1
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	57.4	28.5	20.4	67.6	74.4	0.0	66.2	43.7	43.9	52.0	31.6	103.8
Level of Service (LOS)	E	C	C	E	E	A	E	D	D	D	C	F
Approach Delay, s/veh / LOS	43.7	D		37.4	D		46.6	D		74.1	E	
Intersection Delay, s/veh / LOS	51.6						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	2.26	B	2.43	B	0.90	A	2.43	B

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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				

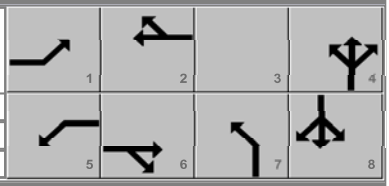


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	72	788	62	32	897	132	140	18	18	171	8	91

Signal Information			
Cycle, s	107.2	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	3.9	42.1	5.7	10.0	15.4	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	2.0	2.0	2.0	2.0	2.0	0.0



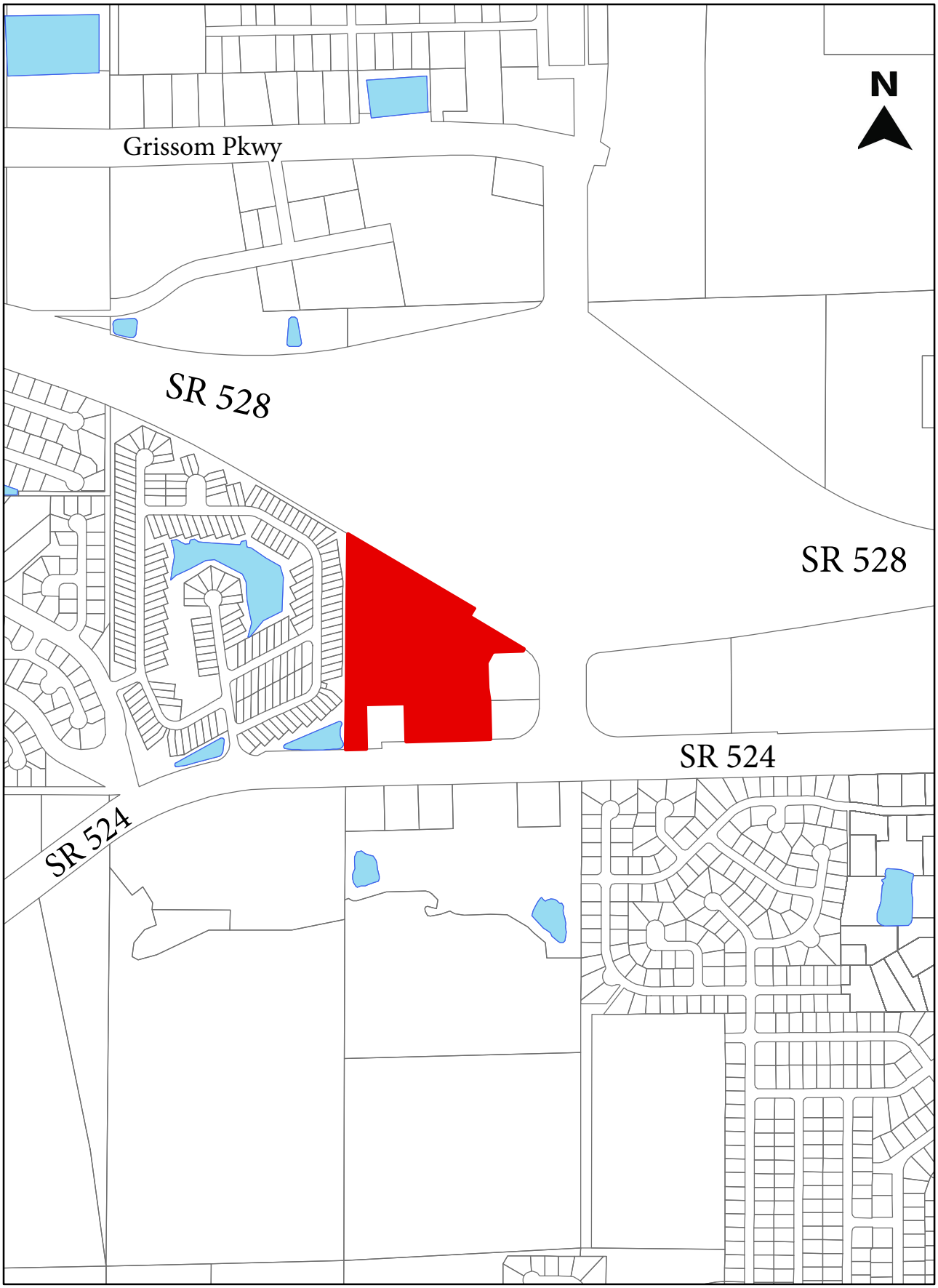
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2		4		8
Case Number	2.0	3.0	2.0	3.0		10.0		12.0
Phase Duration, s	11.7	59.9	9.9	58.0		16.0		21.4
Change Period, ($Y+R_c$), s	6.0	6.0	6.0	6.0		6.0		6.0
Max Allow Headway (*MAH*), s	4.9	4.9	4.9	4.9		5.0		5.0
Queue Clearance Time (g_s), s	6.3	41.9	3.9	54.0		10.3		15.0
Green Extension Time (g_e), s	0.0	0.0	0.0	0.0		0.0		0.5
Phase Call Probability	0.90	1.00	0.64	1.00		1.00		1.00
Max Out Probability	1.00	1.00	0.28	1.00		1.00		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	78	857	67	35	975	143	152	28			234	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1905	2000	1695	1905	2000	1695	1924	1914			1888	
Queue Service Time (g_s), s	4.3	39.9	2.2	1.9	52.0	5.1	8.3	1.5			13.0	
Cycle Queue Clearance Time (g_c), s	4.3	39.9	2.2	1.9	52.0	5.1	8.3	1.5			13.0	
Green Ratio (*g/C*)	0.05	0.50	0.50	0.04	0.49	0.49	0.09	0.09			0.14	
Capacity (*c*), veh/h	102	1005	852	69	970	822	180	179			272	
Volume-to-Capacity Ratio (*X*)	0.769	0.852	0.079	0.506	1.005	0.174	0.848	0.158			0.859	
Back of Queue (*Q*), ft/ln (95 th percentile)	125.6	631.9	34.6	46.1	961.6	81.1	230	31.5			287.8	
Back of Queue (*Q*), veh/ln (95 th percentile)	5.0	25.3	1.4	1.8	38.5	3.2	9.2	1.3			11.5	
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	50.1	23.2	13.8	50.7	27.6	15.5	47.8	44.7			44.8	
Incremental Delay (d_2), s/veh	29.0	7.4	0.1	8.0	30.0	0.1	30.5	0.6			17.0	
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	79.1	30.6	13.9	58.7	57.6	15.7	78.3	45.3			61.8	
Level of Service (LOS)	E	C	B	E	F	B	E	D			E	
Approach Delay, s/veh / LOS	33.2	C		52.4	D		73.1	E		61.8	E	
Intersection Delay, s/veh / LOS	47.3						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.92	B	1.81	B	2.14	B	2.15	B
Bicycle LOS Score / LOS	2.14	B	2.39	B	0.79	A	0.87	A

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Cirrus Mixed-Use PUD



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:

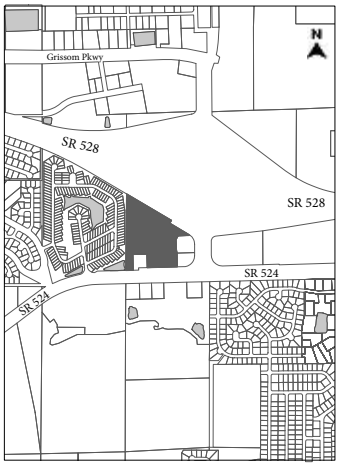
A. APPROVAL OF A DEVELOPMENT AGREEMENT / PRELIMINARY SUBDIVISION / LARGE SCALE SITE PLAN (Cirrus Apartments) consistent with Chapter 18 Subdivisions and Appendix A Zoning of the City Code. The property owner desires to develop a mixed-use planned unit development project containing 280 apartment units 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.

FT-GCI0574405-01

Legislation Details (With Text)

File #:	21-100	**Version:**	1	**Name:**	
Type:	Report			**Status:**	Council Busines
File created:	1/26/2021			**In control:**	City Council
On agenda:	2/9/2021			**Final action:**	
Title:	Approve the current Code Enforcement Lien for the property located at 5555 SR 524, be reduced to $1,306.90 as recommended by the Code Enforcement Board. (Interim Chief of Police)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Lien Reduction Application 5555 SR 524.pdf Cost Affidavit Form -5555 SR 524.pdf Staff Report for Lien Reduction-5555 SR 524.pdf 18-164 NOV 5555 HWY 524 4-3-18.pdf LIEN RECORDED.pdf Brevard County Property Appraiser.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: January 26, 2021
Agenda Date: February 9, 2021
Prepared By: Darla Crowl, (Code Enforcement Coordinator)
Through: John Hankins, (Interim Chief of Police)
Requested Action:
Approve the current Code Enforcement Lien for the property located at 5555 SR 524, be reduced to $1,306.90 as recommended by the Code Enforcement Board.

BACKGROUND:

CASE # 18-164

The Code Enforcement Board held a public hearing on **7/19/2018**, at which time the Board found the owner, **AAO Stores LLC.** in violation of the following:

Corrected Violation:

- **6-1001 (g) Accessory Structures**
- **6-1003 (a) Exterior General Conditions**

The Code Enforcement Board provided the owner sufficient time to correct said violation. Therefore,

consistent with the Code Enforcement Board's Order a lien was recorded against the property effective **9/20/2018** The lien ran at **$50.00** per day from **8/21/2018** until compliance was achieved on **10/27/2020**. Code records show onsite inspections were conducted by Officer Murdick. The current owner, **AAO Stores LLC**, is requesting that the lien be reduced to **$1306.90**.

Staff utilized the following factors in making its recommendation to reduce the lien:

- Whether the current owner owned the property at the time the violation(s) occurred; **Yes**
- The number of violations related to the subject lien; **Two**
- Number of Inspections performed: **9**
- The length of time the property was in violation
- Was There Previous Code Violations: **Yes**
- Property Taxes: **2020 are current, No outstanding Tax Bills**
- Other Liens: **Records show no outstanding liens on the property. No Water Liens**
- Property Inspection: **01/19/20 and was incompliance before Code Board Hearing. An inspection will occur prior to the Council Meeting**

The current market value of the subject property; the current market value is **$133,730.00** according the Brevard County Property Appraiser.

Staff submits their cost sheet for the cases **18-164** at **$1,306.90**

Staff's recommendation is based on the city's cost in prosecuting the case, gravity of the violations, and the length of time it took the property to come into compliance.

Per the City Code, this is only a recommendation to the City Council. If the Council reduces the amount owed, payment of the reduced amount is required within thirty (30) days of the Council's decision or the lien amount reverts back to the original amount owed, and a subsequent lien reduction request cannot be made for a one-year period of time.

STRATEGIC PLAN CONNECTION:

Crime, Image and Community Development

BUDGETARY IMPACT:

None

PREVIOUS ACTION:

The Code Enforcement Board, at its regular meeting January 21, 2021, recommended that the lien be reduced to $1,306.90

RECOMMENDED MOTION:

Approve the current Code Enforcement Lien for the property located at 5555 SR 524, be reduced to $1,306.90 as recommended by the Code Enforcement Board.

Application # **CE** - 18 - 164

LIEN REDUCTION APPLICATION

Cocoa Police Department
Code Enforcement Division
1226 W King Street
Cocoa, Florida 32922
Phone; (321) 433-8508

This application must be completed entirely. The property must be in compliance per the City Code Section 6-707(d), if the property does not meet the guidelines of the City Code the Lien Reduction Application and pass a full inspection it will not be scheduled for a hearing before the Code Enforcement Board.

This form is divided into steps which will help you prepare your request, provide the necessary information, and prepare for the Code Enforcement Board and City Council hearing.

For Office Use Only - Date Received
RECEIVED
NOV 12 2020
BY:
Stamp Only When Application is Fully Complete

Please TYPE or PRINT this application neatly.

1. **Date:** October 28, 2020

2. **Applicant Information:** ** NOTE: Applicant is the main contact, who must attend the meeting.*

Company (if applicable): AAO STORES, LLC

Name: Summit Shah

Mailing Address: 402 High Point Drive, STE. 101

City: Cocoa State: FL Zip Code: 32926

Phone #: (321) 631-0245 Fax #: (321) 633-0467

Mobile #: _____ E-mail: summit@southeastpetro.com

3. **Property Owner Information:** ** Check here if same as Applicant* → ☒
** If more than one owner, attach additional sheet with names and addresses.*

Company (if applicable): _____

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone #: _____ Fax #: _____

Mobile #: _____ E-mail: _____

4. **Information for property on which lien occurs:**

Street Address and Location: 5555 SR 524 COCOA FL 32926

Parcel ID:

2 4 - 3 5 - 2 7 - 0 0 - 4 _ _ _ _ _ _ -

_ _ _ _ _ _ _

Tax Account Number:

2 4 0 8 0 5 8

Existing Use(s) on Property: Inactive

Proposed Use(s) on Property: Convenience store with gas

(If residential – (circle one) **owner occupied** or **rental**), if rental does property owner anticipate accepting any state or federal rental subsidies?

Nature of Violation(s): Exterior General Condition and Accessory Structures

Date Fine or Lien Imposed: September 20, 2018 Amount of Fine: $39,910 per day

Have the violation(s) on the subject property been corrected: (Yes) No (Circle one)

Date upon which the subject property was brought into compliance: October 27, 2020

5. **Please provide the following information:**

Code enforcement case number: 18-164

Were you the property owner at the time the lien was imposed? (Yes) No (Circle one) If so, how many days did it take from the board order to the date compliance was achieved? 798

If you were not the property at the time the violation occurred, were you aware of the lien when you purchased the property? Yes / No / NA (Circle one) If the property was not in compliance at the time you purchased the property how many days from the time of purchase did it take for you to come into compliance? _____

Did you receive the Notice of Violation issued by the Code Enforcement Division: (Yes) / No (Circle one)

Did you receive the Finding of Facts issued by the Code Enforcement Board: (Yes) / No (Circle one)

The factual basis upon which the application for reduction of the lien should be granted:

Multiple contractors: Initial contractor did faulty construction. We were unsuccessful after quite some time to get it done correctly. A second contractor was hired to do the work, but there was a waiting period to get everything completed.

The reasons, if any, compliance was not obtained prior to the order of penalty or fine being recorded:

The decision to demolish the building or bring it into Code Violation compliance took an extended amount of time due to researching both options for future development.

Amount you are requesting that the lien be reduced to: $1,306.90

Please provide any other information deemed pertinent to this request, including but not limited to the circumstances that exist which would warrant the reduction or forgiveness of the penalty or fine. Include documentation of any financial investment made to physically improve the property:

Are there any other properties within the jurisdictional limits of the City of Cocoa owned by the applicant and/or owners of the subject property on which code violations have been alleged, of which the case is still active, or a Finding of Facts has been entered by the Code Enforcement Board, if so please provide the address, the nature of violation and the status of such: No

6. **Please submit the following items in order complete the application:**

   a. ☒ **Notarized application.**

   b. ☒ **Reimbursement to City for recording costs at time of application.** Pursuant to Section 6-707(c), Code of the City of Cocoa, at the time of application, payment to the city in the amount necessary to reimburse the City for its costs associated with processing and recording the order imposing a penalty or fine and the requested satisfaction or release of lien. Please make checks payable to the 'City of Cocoa' and submit payment ONLY to the Community Services Department. Please note that these costs are non-refundable without regard for the final disposition of the application for satisfaction or release of lien. **The application fee is $20.00 and will need to be paid at the time the application is submitted.**

   c. ☐ **Letter of authorization.** If the applicant is not the property owner, a notarized letter of authorization or agent affidavit is required, unless the applicant is the Attorney of the owner. Each property owner must complete a separate authorization form or other suitable documentation to allow the agent to act upon his/her behalf.

   d. ☐ **Corporate documents.** If the applicant/owner is representing a company, articles of incorporation which show the applicant/owner is authorized to represent the company is required. A data record printout from the Florida Department of State, Division of Corporations website may also be provided (http://www.sunbiz.org/corpweb/inquiry/search.html).

   e. ☐ **Additional information (optional).** Submit any information that may be helpful in understanding the request. This may include photos, sketches, elevations, or letters from adjoining property owners.

7. **Application Filing Procedure.** This application, together with all required exhibits and attachments, shall be completed and filed with the Code Enforcement Division by the third Friday of each month at 5:00 pm in order to be scheduled for public hearing for the following month.

8. **Procedure per City Code.** Section 6-707 states the City Lien Reduction rules and procedures for applying for a reduction. It is the applicant's responsibility to read and understand the rules and procedures that are located on page 6 of the Lien Reduction Application

9. **Board Action.** An Inspection of the property must be performed to be scheduled at the Code Board. Following a presentation by staff and testimony offered by the applicant, the Code Enforcement Board will formulate a recommendation to City Council.

10. **City Council Action.** An Inspection of the property must be performed to be scheduled before council. Following the Code Enforcement Board making a recommendation to the City Council, staff will schedule the item for the next available City Council regular meeting.

11. **Inspections.** I agree to allow Code Enforcement to inspect my property and give consent to walk the property before proceeding with this reduction ☒ YES ☐ NO

Signature below will also show that consent to inspect was given by the property owner or representitive.

12. Signatures and Notarization.

STATE OF Florida COUNTY OF Brevard. I, Summit Shah being first duly sworn, depose and say that:

☒ I am the applicant, or if corporation, I am the officer of the corporation authorized to act on this request.

☐ I am the legal representative of the applicant of this application and a notarized Letter of Authorization form or agent affidavit accompanies this application giving written, unless the applicant is the Attorney representing the owner.

I hereby certify that I have read, completed and understand this Application and understand that if my application and all associated attachments are not complete and accurate in all respects, the application will not be scheduled for a public hearing. I further understand that this application must be complete and accurate prior to the advertising of a public hearing.

ORIGINAL

(APPLICANT SIGNATURE)

L SMEDLEY
(Print, Type, or Stamp Commissioned Name of Notary Public)

Personally Known ☒ OR Produced Identification ☐

Before me by means of physical presence this twelfth day of November

Type of I.D. Produced Personally known

(NOTARY PUBLIC SIGNATURE)

STATE OF FLORIDA, COUNTY OF BREVARD

Sworn and subscribed to before me this twelfth day of November, 20 20

Cocoa Police Department
Code Enforcement Division
Affidavit for Cost Reimbursement of Code Enforcement Case

Case#: CE-14-285 **Date: 12/29/20**

AAO STORES LLC

Site Address: 5555 SR 524

Cocoa Code Enforcement has incurred actual costs, as defined in F.S.S 162.09 for cost by the City in Prosecuting this case.

A. Salaries of Code Enforcement staff. (Hourly rate: Officer-$25.16, Coordinator-$26.16, Manager-$38.64, Chief-$59.81 & City Attorney-$150.00)

	Officer/Manager	# of Inspections	Hours	Rate	Total
1	Code Officer	9	0.5	$25.16	$113.22
2	Code Manager	2	0.5	$38.64	$38.64
3					
				Total A1	$151.86

	Officer/Manager	Office Duties	Hours	Rate	Total
1	Code Officer	9	0.5	25.16	$226.44
2	Code Manager	2	0.5	38.64	$77.28
3					
				Total A2	$303.72

	Supporting Staff	Duty	Hours	Rate	Total
1	Code Coordinator	Case Duties	11	$26.16	$287.76
2	City Attorney	Case Duties	2	$150.00	$300.00
3	Chief	Board Hearings	0	$59.81	$0.00
4					
5					
				Total A3	$587.76

B. Expenditures - Actual expenses incurred during the process of the Code Case.

	Item	Quantity	Amount	Total
1	Documents per Sheet	485	$0.35	$169.75
2	Large Envelope	33	$0.64	$21.12
3	Standard Envelope	9	$0.10	$0.90
4	Color Photo Prints	40	$0.45	$18.00
5	Standard Mail	5	$0.55	$2.75
6	Certified Mail	4	$5.26	$21.04
7	Recording Fees	3	$10.00	$30.00
8				
9				
			Total B	$263.56

C. Total Amount of Cost (A1+A2+A3+B): $1,306.90

CITY OF COCOA
CODE ENFORCEMENT
STAFF REPORT
1/19/2020

LIEN REDUCTION REQUEST FOR
5555 HWY 524

CASE # 18-164

The Code Enforcement Board held a public hearing on **7/19/2018**, at which time the Board found the owner, **AAO Stores LLC.** in violation of the following:

Corrected Violation:

- **6-1001 (g) Accessory Structures**
- **6-1003 (a) Exterior General Conditions**

The Code Enforcement Board provided the owner sufficient time to correct said violation. Therefore, consistent with the Code Enforcement Board's Order a lien was recorded against the property effective **9/20/2018** The lien ran at **$50.00** per day from **8/21/2018** until compliance was achieved on **10/27/2020**. Code records show onsite inspections were conducted by Officer Murdick. The current owner, **AAO Stores LLC**, is requesting that the lien be reduced to **$1306.90**,

Staff utilized the following factors in making its recommendation to reduce the lien:

- Whether the current owner owned the property at the time the violation(s) occurred; **Yes**
- The number of violations related to the subject lien; **Two**
- Number of Inspections performed: **9**
- The length of time the property was in violation
- Was There Previous Code Violations: **Yes**
- Property Taxes: **2020 are current, No outstanding Tax Bills**
- Other Liens: **Records show no outstanding liens on the property. No Water Liens**
- Property Inspection: **01/19/20 and was incompliance before Code Board Hearing. An inspection will occur prior to the Council Meeting**

The current market value of the subject property; the current market value is **$133,730.00** according the Brevard County Property Appraiser.

Staff submits their cost sheet for the cases **18-164** at **$1,306.90**

Staff's recommendation is based on the city's cost in prosecuting the case, gravity of the violations, and the length of time it took the property to come into compliance.

Cocoa Police Department
Code Enforcement Division
1226 W. KING ST
COCOA, FL 32922

DATE: 4/3/2018
CASE: 18-164

To: **Aao Stores Llc**
402 A Highpoint Dr
Cocoa FL 32926

Notice of Violation

Address of Violation: 5555 Highway 524 Cocoa FL 32926
Parcel Control No.: 24-35-27-00-4
Legal Description: Part Of NE 1/4 Of Ne 1/4 S Of St Rd 528 As Des In Orb 691 Pg 561 & Part Of Vacated Friday Rd On E Ex Orb 1182 Pg 791

PURSUANT to Section 162.06, *Florida Statutes*, and Chapter 6, of the City of Cocoa Code of Ordinances, the undersigned Code Enforcement Officer hereby gives notice of violation(s) of the City Of Cocoa Code of Ordinances, as more specifically described below. Respondent(s) is/are hereby Notified that corrective action(s) to cure the Violation(s) must be taken. The following must be corrected within 30 days*.*

City of Cocoa Code Violation(s):

IX.Exterior General Condition Ch 6 Sec. 6-1003 (a)	*I.Accessory Structures Ch 6 Sec. 6-1001 (g)*
Select Code Violation	*

Corrective Action*:*

IX-Please keep the exterior of a structure maintained in good repair, structurally sound and sanitary.	*I-Please repair & maintain or remove any and all accessory structures (fences, walls, sheds, etc.)*
Select Corrective Action	*

In the event that the violation is/are not corrected within the time, set forth above a Notice to Appear will be sent scheduling this matter to the City of Cocoa Code Enforcement Board For further action. The Code Enforcement Board may enter an order requiring the Respondent(s) to correct the violation(s) and penalties may be assessed up to $250 per day for first time violations described in this notice until the violation(s) has/have been corrected. If the violation(s) is/are corrected within the time required, the Respondent(s) must immediately notify the Code Enforcement Officer and request an inspection. If the respondent requires additional time, it is the respondent's duty to notify the code enforcement officer to determine reasonable time.

If you have any questions regarding this Notice of Violation or the recommendations contained herein, do not hesitate to contact the below signed Code Enforcement Officer.

_____
Steve Murdick
Code Enforcement Officer

321-474-0809, smurdick@cocoafl.org

CODE ENFORCEMENT BOARD
CITY OF COCOA, FLORIDA
CASE NO. 18-164
9/20/2018

CFN 2018231483, OR BK 8286 PAGE 1461,
Recorded 10/16/2018 at 01:34 PM, Scott Ellis, Clerk of Courts, Brevard County
Pgs:1

THE CITY OF COCOA
A Florida Municipal Corporation

Complainant,

vs.

Aao Stores Llc
Owners of the Property located at:
5555 Highway 524
Cocoa FL 32926

Parcel ID: 24-35-27-00-4

Respondent,

ORDER IMPOSING ADMINISTRATIVE FINE/LIEN

THIS CAUSE, having come for consideration, after being duly noticed, before the Code Enforcement Board of the City of Cocoa, Florida, on 9/20/2018 to determine whether any violations of the City of Cocoa Code of Ordinances existed on the property. The Board, having heard the arguments of the parties and the evidence presented and having reviewed the record and being otherwise fully advised, issued the Findings of Fact, Conclusions of Law and Order. The Order required the Respondent to come into compliance by 8/21/2018

At a duly noticed Compliance Hearing of Code Enforcement Board the Respondent was found in non-compliance of the Board Order. It is hereby Ordered that the City of Cocoa shall impose a fine in the amount of $50.00 per day until the violation is corrected and full compliance is confirmed by the Code Enforcement Officer.

This Order shall be recorded in the public records for Brevard County, Florida, which shall serve as a lien against and upon any real or personal property owned by the Respondent pursuant to Section 162.08 and 162.09, Florida Statutes.

DONE AND ORDERED at Cocoa, Florida, this 20th , day of September, 2018

CODE ENFORCEMENT BOARD OF THE CITY OF COCOA, FLORIDA

Jim Gifford, Chairman

CERTIFICATION:
State of Florida, County of Brevard

I hereby certify that this is an Original Copy of the Order of the Code Enforcement Board that was acknowledged before me this 23 day of September 2018, by Jim Gifford, Chairman of the City of Cocoa Code Enforcement Board.

Darla D. Crowl
Notary Public Signature

DARLA D. CROWL
Commission # GG 232414
Expires November 11, 2018
Bonded Thru Budget Notary Services

Brevard County Property Appraiser

Titusville • Viera • Melbourne • Palm Bay

PROPERTY DETAILS

Phone: (321) 264-6700
https://www.bcpao.us

Account	2408058
Owners	AAO STORES LLC
Mailing Address	402 A HIGHPOINT DR COCOA FL 32926
Site Address	5555 HIGHWAY 524 COCOA FL 32926
Parcel ID	24-35-27-00-4
Property Use	1100 - RETAIL STORE - 1 UNIT
Exemptions	None
Taxing District	13D0 - COCOA
Total Acres	0.68
Subdivision	--
Site Code	0309 - STATE ROAD 524
Plat Book/Page	0000/0000
Land Description	PART OF NE 1/4 OF NE 1/4 S OF ST RD 528 AS DES IN ORB 691 PG 561 & PART OF VACATED FRIDAY RD ON E EX ORB 1182 PG 791

VALUE SUMMARY

Category	2020	2019	2018
Market Value	$133,730	$99,720	$89,910
Agricultural Land Value	$0	$0	$0
Assessed Value Non-School	$108,790	$98,900	$89,910
Assessed Value School	$133,730	$99,720	$89,910
Homestead Exemption	$0	$0	$0
Additional Homestead	$0	$0	$0
Other Exemptions	$0	$0	$0
Taxable Value Non-School	$108,790	$98,900	$89,910
Taxable Value School	$133,730	$99,720	$89,910

SALES/TRANSFERS

Date	Price	Type	Deed
01/01/2012	--	WD	6670/1770
12/30/1998	$175,000	WD	3966/0558
03/15/1989	$285,000	WD	2996/3540
01/09/1985	$270,600	PT	2574/2787
05/20/1964	$75,000	WD	0691/0561

BUILDINGS

PROPERTY DATA CARD #1

Building Use: 1100 - RETAIL STORE - 1 UNIT

Materials		Details	
Exterior Wall:	PAINTED EXTERIOR , BRICK	Year Built	1966
Frame:	WOOD FRAME , MASNRYCONC	Story Height	12
Roof:	BU-TG/MMBRN	Floors	1
Roof Structure:	STEEL TRUSS RIGID	Residential Units	1
		Commercial Units	0

Sub-Areas		Extra Features	
Base Area (1st)	1,402	Paving - Concrete	4,519
Total Base Area	1,402	Fence - Wood 6'	45
Total Sub Area	1,402	Paving - Asphalt	12,612

Generated on 1/26/2021 12:36:48 PM

Legislation Details (With Text)

File #:	21-101	**Version:**	1	**Name:**	
Type:	Report			**Status:**	Council Busines
File created:	1/26/2021			**In control:**	City Council
On agenda:	2/9/2021			**Final action:**	
Title:	Approve the current Code Enforcement Lien for the property located at 2610 N Cocoa Blvd., be reduced to $2,000.00 as recommended by the Code Enforcement Board. (Interim Chief of Police)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Lien Reduction Application.pdf Cost Affidavit Form 2610 cocoaxlsx.pdf Staff Report for Lien Reduction-2610.pdf 17-594 NOV 2610 N Cocoa Blvd 7-25-17.pdf CE-17-594 Order Imposing Lien.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: January 26, 2021
Agenda Date: February 9, 2021
Prepared By: Darla Crowl, (Code Enforcement Coordinator)
Through: John Hankins, (Interim Police Chief)
Requested Action:
Approve the current Code Enforcement Lien for the property located at 2610 N Cocoa Blvd., be reduced to $2,000.00 as recommended by the Code Enforcement Board.

BACKGROUND:

CASE # 17-594

The Code Enforcement Board held a public hearing on **5/17/2018**, at which time the Board found the owner, **Larry Curvin** in violation of the following:

Corrected Violation:

- **6-1001 (d) Weeds**
- **6-1003 (b) Protective Treatment**
- **6-1003 (g) Roofs and Drainage**
-

The Code Enforcement Board provided the owner sufficient time to correct said violation. Therefore, consistent with the Code Enforcement Board's Order a lien was recorded against the property effective **11/15/2018** The lien ran at **$100.00** per day from **7/16/2018** until compliance was achieved on **4/19/2019**. Code records show onsite inspections were conducted by Officer Murdick. The current owner, **Larry Curvin**, is requesting that the lien be reduced to **$1500 or Less**, due to the fact that he is selling the property.

Staff utilized the following factors in making its recommendation to reduce the lien:

- Whether the current owner owned the property at the time the violation(s) occurred; **Yes**
- The number of violations related to the subject lien; **Three**
- Number of Inspections performed: **20**
- The length of time the property was in violation was **277 days**
- Was There Previous Code Violations: **Yes**
- Property Taxes: **2020 are current, No outstanding Tax Bills**
- Other Liens: **Records show no outstanding liens on the property. No Water Liens**
- Property Inspection: **01/19/20 and was incompliance before Code Board Hearing. An inspection will occur prior to the Council Meeting**

The current market value of the subject property; the current market value is **$96,770** according the Brevard County Property Appraiser.

Staff submits their cost sheet for the cases **17-594** at **$2,627.78**

Staff's recommendation is based on the city's cost in prosecuting the case, gravity of the violations, and the length of time it took the property to come into compliance.

Per the City Code, this is only a recommendation to the City Council. If the Council reduces the amount owed, payment of the reduced amount is required within thirty (30) days of the Council's decision or the lien amount reverts back to the original amount owed, and a subsequent lien reduction request cannot be made for a one-year period of time.

STRATEGIC PLAN CONNECTION:

Crime, Image and Community Development

BUDGETARY IMPACT:

None

PREVIOUS ACTION:

The Code Enforcement Board, at its regular meeting January 21. 2021, recommended that the lien be reduced to $2,000.00.

RECOMMENDED MOTION:

Approve the current Code Enforcement Lien for the property located at 2610 N Cocoa Blvd., be reduced to $2,000.00 as recommended by the Code Enforcement Board

Application # **CE** - 17 - 594

LIEN REDUCTION APPLICATION

Cocoa Police Department
Code Enforcement Division
1226 W King Street
Cocoa, Florida 32922
Phone; (321) 433-8508

This application must be completed entirely. The property must be in compliance per the City Code Section 6-707(d), if the property does not meet the guidelines of the City Code the Lien Reduction Application and pass a full inspection it will not be scheduled for a hearing before the Code Enforcement Board.

This form is divided into steps which will help you prepare your request, provide the necessary information, and prepare for the Code Enforcement Board and City Council hearing.

For Office Use Only - Date Received

RECEIVED
DEC 31 2020
BY:

Stamp Only When Application is Fully Complete

Please TYPE or PRINT this application neatly.

1. **Date:** 12/23/2020

2. **Applicant Information:** ** NOTE: Applicant is the main contact, who must attend the meeting.*

Company (if applicable): _____

Name: LARRY CURVIN

Mailing Address: 409 CENTER STREET

City: COCOA State: FL Zip Code: 32922

Phone #: 321-632-0276 Fax #: 321-632-2638

Mobile #: 321-403-2024 E-mail: larry.curvin@atlanticac.com

3. **Property Owner Information:** ** Check here if same as Applicant* → √
** If more than one owner, attach additional sheet with names and addresses.*

Company (if applicable): _____

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone #: _____ Fax #: _____

Mobile #: _____ E-mail: _____

4. Information for property on which lien occurs:

Street Address and Location: 2610 N Cocoa Blvd. Cocoa Fl. 32922

Parcel ID:

24-36-17-55-20-5

Tax Account Number:

2414010

Existing Use(s) on Property: VACANT NO CURRENT USEAGE

Proposed Use(s) on Property: PROPERTY UNDER CONTRACT

(If residential – (circle one) **owner occupied** or **rental**), if rental does property owner anticipate accepting any state or federal rental subsidies? NO

Nature of Violation(s): PAINT BLDG, WEEDS, ROOF AND DRAINAGE, GRAFFITI

Date Fine or Lien Imposed: 07/16/2018 Amount of Fine: $100 per day

Have the violation(s) on the subject property been corrected: Yes / No (Circle one)

Date upon which the subject property was brought into compliance: 04/19/2019

5. Please provide the following information:

Code enforcement case number: 17-594

Were you the property owner at the time the lien was imposed? Yes / No (Circle one) If so, how many days did it take from the board order to the date compliance was achieved? 277 days ?

If you were not the property at the time the violation occurred, were you aware of the lien when you purchased the property? Yes / No / NA (Circle one) If the property was not in compliance at the time you purchased the property how many days from the time of purchase did it take for you to come into compliance? _____

Did you receive the Notice of Violation issued by the Code Enforcement Division: Yes / No (Circle one)

Did you receive the Finding of Facts issued by the Code Enforcement Board: Yes / No (Circle one)

The factual basis upon which the application for reduction of the lien should be granted:

I have a hearing issue I was born with known medically as a hearing drop that kept me from serving in the United States Military. Hearing aids do not help my situation so I will confess that I did not hear or understand much of what was said at the Code Enforcement Hearing. Assuming that the board would follow the law and be fair, I did not believe that I would need an attorney to accompany me at the hearing for me to agree to simply cut the grass and clean up the items on the violation at the property.

I had fully intended to comply with the violations and take care of the issues. What I should have realized was that, due to the low sound level in the Chamber, I should have taken someone who could keep me informed as to what was being said and was being put into the records.

I do know that I tried to find contractors who would comply with the stringent requirements of Mr. Scott Davis on repair the soffits. He stated that we needed a permit to cover the soffits to which later we found out that we did not need a permit. However, that process caused a waste of valuable time.

Eleven days on July 05, 2018, before the start of the date for the fee (07/16/2018), I wrote a letter to Mr. Steven Murdick (copy attached) explaining the hardship I was having in getting contractors who would comply with Mr. Davis requirements. I also included pictures of the property showing the improvements that had been made. Eventually, I received approval to use aluminum fascia to cover the soffits to which we applied immediately. Therefore, I was under the impression that we were in compliance.

After many years of trying to sell the place, I finally have a buyer and was shocked to find there was a $27,700 lien on the property. One would certainly have to believe that I did not know of the lien. It does not seem logical that I would do all of that work and ignore the fact that I still did not satisfy the violations.

Therefore, as a businessman of 50 years in the City of Cocoa, I respectfully request that the Board free my property of this lien and let me sell the property and move on.

Thank You

The reasons, if any, compliance was not obtained prior to the order of penalty or fine being recorded:

To the best of my knowledge, I thought that I had brought the property into compliance I did not know the fine had been running for 277 days at $100 per day or I can assure the Board that I would have done whatever it took to alleviate the fine.

Amount you are requesting that the lien be reduced to: $1500.00 OR LESS RESPECTFULLY
Please provide any other information deemed pertinent to this request, including but not limited to the circumstances that exist which would warrant the reduction or forgiveness of the penalty or fine. Include documentation of any financial investment made to physically improve the property:

The repairs to the property were considered minor. I could not find a contractor interested in doing the work so, since I am a sheet metal contractor, I done the work repairing the soffits myself with my own manpower. I have hired a lawn cutter to keep the grass mowed and hired a painter to paint the building and paint over the graffiti. I did not keep accurate documentation of the financial investment to complete the work.

I have spent around $4,800.00 for the soffit material to go around the structure. There is free paint at the Brevard County Waste Site. I paid a few hundred dollars to the painter and grass cutter.to keep the grass mowed.

Are there any other properties within the jurisdictional limits of the City of Cocoa owned by the applicant and/or owners of the subject property on which code violations have been alleged, of which the case is still active, or a Finding of Facts has been entered by the Code Enforcement Board, if so please provide the address, the nature of violation and the status of such:

6. Please submit the following items in order complete the application:

a. √ **Notarized application.**

b. √ **Reimbursement to City for recording costs at time of application.** Pursuant to Section 6-707(c), Code of the City of Cocoa, at the time of application, payment to the city in the amount necessary to reimburse the City for its costs associated with processing and recording the order imposing a penalty or fine and the requested satisfaction or release of lien. Please make checks payable to the 'City of Cocoa' and submit payment ONLY to the Community Services Department. Please note that these costs are non-refundable without regard for the final disposition of the application for satisfaction or release of lien. **The application fee is $20.00 and will need to be paid at the time the application is submitted.**

c. ☐ **Letter of authorization.** If the applicant is not the property owner, a notarized letter of authorization or agent affidavit is required, unless the applicant is the Attorney of the owner. Each property owner must complete a separate authorization form or other suitable documentation to allow the agent to act upon his/her behalf.

d. ☐ **Corporate documents.** If the applicant/owner is representing a company, articles of incorporation which show the applicant/owner is authorized to represent the company is required. A data record printout from the Florida Department of State, Division of Corporations website may also be provided (http://www.sunbiz.org/corpweb/inquiry/search.html).

e. ☐ **Additional information (optional).** Submit any information that may be helpful in understanding the request. This may include photos, sketches, elevations, or letters from adjoining property owners.

7. **Application Filing Procedure.** This application, together with all required exhibits and attachments, shall be completed and filed with the Code Enforcement Division by the third Friday of each month at 5:00 pm in order to be scheduled for public hearing for the following month.

8. **Procedure per City Code.** Section 6-707 states the City Lien Reduction rules and procedures for applying for a reduction. It is the applicant's responsibility to read and understand the rules and procedures that are located on page 6 of the Lien Reduction Application

9. **Board Action**. An Inspection of the property must be performed to be scheduled at the Code Board. Following a presentation by staff and testimony offered by the applicant, the Code Enforcement Board will formulate a recommendation to City Council.

10. **City Council Action.** An Inspection of the property must be performed to be scheduled before council. Following the Code Enforcement Board making a recommendation to the City Council, staff will schedule the item for the next available City Council regular meeting.

11. **Inspections**. I agree to allow Code Enforcement to inspect my property and give consent to walk the property before proceeding with this reduction [x] YES ☐ NO

Signature below will also show that consent to inspect was given by the property owner or representitive.

12. Signatures and Notarization.

STATE OF Florida COUNTY OF Brevard. I, Larry Curvin being first duly sworn, depose and say that:

√ I am the applicant, or if corporation, I am the officer of the corporation authorized to act on this request.

☐ I am the legal representative of the applicant of this application and a notarized Letter of Authorization form or agent affidavit accompanies this application giving written, unless the applicant is the Attorney representing the owner.

I hereby certify that I have read, completed and understand this Application and understand that if my application and all associated attachments are not complete and accurate in all respects, the application will not be scheduled for a public hearing. I further understand that this application must be complete and accurate prior to the advertising of a public hearing.

Larry Curvin
(APPLICANT SIGNATURE)

Notary Public State of Florida
Darla D Crowl
My Commission GG 266694
Expires 11/11/2022

(Print, Type, or Stamp Commissioned Name of Notary Public)

Personally Known ☒ OR Produced Identification ☐

Type of I.D. Produced DRIVERS LICENSE

Darla D. Crowl
(NOTARY PUBLIC SIGNATURE)

STATE OF FLORIDA, COUNTY OF BREVARD

Sworn and subscribed to before me this 30 day of December, 20 20

Cocoa Police Department
Code Enforcement Division
Affidavit for Cost Reimbursement of Code Enforcement Case

Case#: CE-17-594 **Date: 12/30/20**

CURVIN, LARRY

Site Address: 2610 N Cocoa Blvd

Cocoa Code Enforcement has incurred actual costs, as defined in F.S.S 162.09 for cost by the City in Prosecuting this case.

A. Salaries of Code Enforcement staff. (Hourly rate: Officer-$25.16, Coordinator-$26.16, Manager-$38.64, Chief-$59.81 & City Attorney-$150.00)

	Officer/Manager	# of Inspections	Hours	Rate	Total
1	Code Officer	15	0.5	$25.16	$188.70
2	Code Manager	5	0.5	$38.64	$96.60
3					
				Total A1	$285.30

	Officer/Manager	Office Duties	Hours	Rate	Total
1	Code Officer	19	0.5	25.16	$478.04
2	Code Manager	11	0.5	38.64	$425.04
3					
				Total A2	$903.08

	Supporting Staff	Duty	Hours	Rate	Total
1	Code Coordinator	Case Duties	17	$26.16	$444.72
2	City Attorney	Case Duties	4	$150.00	$600.00
3	Chief	Board Hearings	2	$59.81	$119.62
4					
5					
				Total A3	$1,164.34

B. Expenditures - Actual expenses incurred during the process of the Code Case.

	Item	Quantity	Amount	Total
1	Documents per Sheet	487	$0.35	$170.45
2	Large Envelope	33	$0.64	$21.12
3	Standard Envelope	9	$0.10	$0.90
4	Color Photo Prints	64	$0.45	$28.80
5	Standard Mail	5	$0.55	$2.75
6	Certified Mail	4	$5.26	$21.04
7	Recording Fees	3	$10.00	$30.00
8				
9				
			Total B	$275.06

C. Total Amount of Cost (A1+A2+A3+B): **$2,627.78**

CITY OF COCOA
CODE ENFORCEMENT
STAFF REPORT
1/19/2020

LIEN REDUCTION REQUEST FOR
2610 N Cocoa Blvd

CASE # 17-594

The Code Enforcement Board held a public hearing on **5/17/2018**, at which time the Board found the owner, **Larry Curvin** in violation of the following:

Corrected Violation:

- **6-1001 (d) Weeds**
- **6-1003 (b) Protective Treatment**
- **6-1003 (g) Roofs and Drainage**
-

The Code Enforcement Board provided the owner sufficient time to correct said violation. Therefore, consistent with the Code Enforcement Board's Order a lien was recorded against the property effective **11/15/2018** The lien ran at **$100.00** per day from **7/16/2018** until compliance was achieved on **4/19/2019**. Code records show onsite inspections were conducted by Officer Murdick. The current owner, **Larry Curvin**, is requesting that the lien be reduced to **$1500 or Less**, due to the fact that he is selling the property.

Staff utilized the following factors in making its recommendation to reduce the lien:

- Whether the current owner owned the property at the time the violation(s) occurred; **Yes**
- The number of violations related to the subject lien; **Three**
- Number of Inspections performed: **20**
- The length of time the property was in violation was **277 days**
- Was There Previous Code Violations: **Yes**
- Property Taxes: **2020 are current, No outstanding Tax Bills**
- Other Liens: **Records show no outstanding liens on the property. No Water Liens**
- Property Inspection: **01/19/20 and was incompliance before Code Board Hearing. An inspection will occur prior to the Council Meeting**

The current market value of the subject property; the current market value is **$96,770** according the Brevard County Property Appraiser.

Staff submits their cost sheet for the cases **17-594** at **$2,627.78**

Staff's recommendation is based on the city's cost in prosecuting the case, gravity of the violations, and the length of time it took the property to come into compliance.

Cocoa Police Department
Code Enforcement Division
1226 W. KING ST
COCOA, FL 32922

DATE: 7/25/2017
CASE: 17-594

To: **Larry Curvin,**
409 Center St
Cocoa FL 32922

Notice of Violation

Address of Violation: 2610 N Cocoa Blvd Cocoa FL 32922
Parcel Control No.: 24-36-17-55-20-5
Legal Description: Carlton Terrace Addn Lots 5 To 9 Ex Hwy R/w Blk 20

PURSUANT to Section 162.06, *Florida Statutes*, and Chapter 6, of the City of Cocoa Code of Ordinances, the undersigned Code Enforcement Officer hereby gives notice of violation(s) of the City Of Cocoa Code of Ordinances, as more specifically described below. Respondent(s) is/are hereby Notified that corrective action(s) to cure the Violation(s) must be taken. The following must be corrected within 30 days*.*

City of Cocoa Code Violation(s):

XXVIII.Roofs & Drainage, Ch 6 Sec. 6-1003 (g)

XXVI.Protective Treatment, Ch 6 Sec. 6-1003 (b)

XXXV.Weeds, Ch 6 Sec. 6-1001(d)

Defacement of property, graffiti, Ch 6 Sec. 6-1001(i)

Corrective Action*:*

XXVIII-Please repair, replace, or clean all roof and drainage systems.
XXVI-Please clean or paint the structure.

XXXV-Please Mow, remove, and Maintain all areas of the property.
*Please remove all graffiti from the structure

In the event that the violation is/are not corrected within the time, set forth above a Notice to Appear will be sent scheduling this matter to the City of Cocoa Code Enforcement Board For further action. The Code Enforcement Board may enter an order requiring the Respondent(s) to correct the violation(s) and penalties may be assessed up to $250 per day for first time violations described in this notice until the violation(s) has/have been corrected. If the violation(s) is/are corrected within the time required, the Respondent(s) must immediately notify the Code Enforcement Officer and request an inspection. If the respondent requires additional time, it is the respondent's duty to notify the code enforcement officer to determine reasonable time.

If you have any questions regarding this Notice of Violation or the recommendations contained herein, do not hesitate to contact the below signed Code Enforcement Officer.

_____

Steve Murdick
Code Enforcement Officer
321-474-0809, smurdick@cocoafl.org

CODE ENFORCEMENT BOARD
CITY OF COCOA, FLORIDA
CASE NO. 17-594
8/16/2018

THE CITY OF COCOA
A Florida Municipal Corporation

CFN 2018209962, OR BK 8264 PAGE 2644,
Recorded 09/18/2018 at 04:18 PM, Scott Ellis, Clerk of Courts, Brevard County
Pgs:1

Complainant,

vs.

Curvin, Larry
Owners of the Property located at:
2610 N Cocoa Blvd
Cocoa FL 32922

Parcel ID: 24-36-17-55-20-5

Respondent,
_____/

ORDER IMPOSING ADMINISTRATIVE FINE/LIEN

THIS CAUSE, having come for consideration, after being duly noticed, before the Code Enforcement Board of the City of Cocoa, Florida, on 8/16/2018 to determine whether any violations of the City of Cocoa Code of Ordinances existed on the property. The Board, having heard the arguments of the parties and the evidence presented and having reviewed the record and being otherwise fully advised, issued the Findings of Fact, Conclusions of Law and Order. The Order required the Respondent to come into compliance by 7/16/2018

At a duly noticed Compliance Hearing of Code Enforcement Board the Respondent was found in non-compliance of the Board Order. It is hereby Ordered that the City of Cocoa shall impose a fine in the amount of $100.00 per day until the violation is corrected and full compliance is confirmed by the Code Enforcement Officer.

This Order shall be recorded in the public records for Brevard County, Florida, which shall serve as a lien against and upon any real or personal property owned by the Respondent pursuant to Section 162.08 and 162.09, Florida Statutes.

DONE AND ORDERED at Cocoa, Florida, this 16th , day of August, 2018

CODE ENFORCEMENT BOARD OF THE CITY OF COCOA, FLORIDA

_____
Jim Gifford, Chairman

CERTIFICATION:
State of Florida, County of Brevard

I hereby certify that this is an Original Copy of the Order of the Code Enforcement Board that was acknowledged before me this 21 day of August, 2018, by Jim Gifford, Chairman of the City of Cocoa Code Enforcement Board.

_____
Notary Public Signature

NOTARY PUBLIC STATE OF FLORIDA

DARLA D. CROWL
Commission # GG 232414
Expires November 11, 2018
Bonded Thru Budget Notary Services

Legislation Details (With Text)

File #:	21-81	**Version:**	1	**Name:**	
Type:	Report			**Status:**	Council Busines
File created:	1/12/2021			**In control:**	City Council
On agenda:	2/9/2021			**Final action:**	
Title:	Approve a Partial release for 1053 Hickory Ln. from the properties located at 1045 Olive St. & 1115 Broadmoor Dr., be reduced to administrative cost of $100.00 as recommended by the Code Enforcement Board. (Interim Chief of Police)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Staff Report forpartial release-1053 Hickorydocx.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: January 12, 2021
Agenda Date: February 9, 2021
Prepared By: Darla Crowl, (Code Enforcement Coordinator)
Through: John Hankins, (Interim Police Chief)
Requested Action:
To approve a Partial release for 1053 Hickory Ln from the properties located at 1045 Olive St & 1115 Broadmoor Dr, be reduced to administrative cost of $100.00 as recommended by the Code Enforcement Board.

BACKGROUND:

1045 Olive St. & 1115 Broadmoor Dr.

CASE # 12-958 -1045 Olive St:
The Code Enforcement Board held a public hearing on **10/18/2012,** at which time the Board found the owner, **Kenneth & Susan Davenport** in Non-Compliance and ordered a fine of $25 per day be issued until compliance was achieve. The fine ran until compliance was achieved on **8/1/2013.** The outstanding amount of the lien is $6,674.96.

This property is no longer owned by Kenneth & Susan Davenport. The new owner is **HART CONTRACTORS INC.** This lien attached to any and all Real Property owned by Kenneth & Susan Davenport which included 1053 Hickory. The applicant is the owner of 1053 Hickory and is requesting that a partial release be given to INNOVA INVESTMENT GROUP LLC; VIA LAM LLC releasing the lien from this address.

CASE # 09-393 - 1115 Broadmoor Dr.

The Code Enforcement Board held a public hearing on **7/21/2010,** at which time the Board found the owner, **Kenneth**

& Susan Davenport in Non-Compliance and ordered a fine of $250 per day be issued until compliance was achieve. The fine ran until compliance was achieved on **11/21/2011.** The outstanding amount of the lien is $163,233.95.

This property is no longer owned by Kenneth & Susan Davenport. The new owner is **BROADMOOR ACRES COMMUNITY RESTORATION** &
PRESERVATION INC. This lien attached to any and all Real Property owned by Kenneth & Susan Davenport which included 1053 Hickory as real property. The applicant is the owner of 1053 Hickory and is requesting that a partial release be given to INNOVA INVESTMENT GROUP LLC; VIA LAM LLC releasing the lien from this address.

Staff utilized the following factors in making its recommendation to reduce the lien:

- Both properties remain incompliance

- Property Taxes: **2019 are paid, No outstanding Tax Bills**

- Other Liens: **Records show no outstanding liens on the property. No Water Liens**

- Property Inspection: **01/19/20 and was incompliance before Code Board Hearing. An inspection will occur prior to the Council Meeting**

Staff submits their recommendation to issue a.partial release and the applicant will pay administrative costs of $100.

Staff's recommendation is based on the factors that INNOVA INVESTMENT GROUP LLC; VIA LAM LLC has no vested interested in either property but is affected by the liens filed against them

Per the City Code, this is only a recommendation to the City Council. If the Council reduces the amount owed, payment of the reduced amount is required within thirty (30) days of the Council's decision or the lien amount reverts back to the original amount owed, and a subsequent lien reduction request cannot be made for a one year period of time.

STRATEGIC PLAN CONNECTION:

Crime, Image and Community Development

BUDGETARY IMPACT:

None

PREVIOUS ACTION:

The Code Enforcement Board at its regular meeting on January 21, 2021, recommended that there be a partial release for the administrative cost of $100.00

RECOMMENDED MOTION:

To approve a Partial release for 1053 Hickory Ln from the properties located at 1045 Olive St & 1115

Broadmoor Dr, be reduced to administrative cost of $100.00 as recommended by the Code Enforcement Board.

CITY OF COCOA
CODE ENFORCEMENT
STAFF REPORT
10/12/2020

LIEN REDUCTION REQUEST FOR
1045 Olive St. & 1115 Broadmoor Dr.

CASE # 12-958 -1045 Olive St:
The Code Enforcement Board held a public hearing on **10/18/2012**, at which time the Board found the owner, **Kenneth & Susan Davenport** in Non-Compliance and ordered a fine of $25 per day be issued until compliance was achieve. The fine ran until compliance was achieved on **8/1/2013.** The outstanding amount of the lien is $6,674.96.

This property is no longer owned by Kenneth & Susan Davenport. The new owner is **HART CONTRACTORS INC.** This lien attached to any and all Real Property owned by Kenneth & Susan Davenport which included 1053 Hickory. The applicant is the owner of 1053 Hickory and is requesting that a partial release be given to INNOVA INVESTMENT GROUP LLC; VIA LAM LLC releasing the lien from this address.

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This property is no longer owned by Kenneth & Susan Davenport. The new owner is **BROADMOOR ACRES COMMUNITY RESTORATION & PRESERVATION INC.** This lien attached to any and all Real Property owned by Kenneth & Susan Davenport which included 1053 Hickory as real property. The applicant is the owner of 1053 Hickory and is requesting that a partial release be given to INNOVA INVESTMENT GROUP LLC; VIA LAM LLC releasing the lien from this address.

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- Other Liens: **Records show no outstanding liens on the property. No Water Liens**

- Property Inspection: **01/19/20 and was incompliance before Code Board Hearing. An inspection will occur prior to the Council Meeting**

Staff submits their recommendation to issue a partial release and the applicant will pay administrative costs of $100.

Staff's recommendation is based on the factors that INNOVA INVESTMENT GROUP LLC; VIA LAM LLC has no vested interested in either property but is affected by the liens filed against them

Per the City Code, this is only a recommendation to the City Council. If the Council reduces the amount owed, payment of the reduced amount is required within thirty (30) days of the Council's decision or the lien amount reverts back to the original amount owed, and a subsequent lien reduction request cannot be made for a one-year period of time.

Legislation Details (With Text)

File #:	21-94	**Version:**	1	**Name:**	
Type:	Contract			**Status:**	Multi-Year Contract
File created:	1/21/2021			**In control:**	City Council
On agenda:	2/9/2021			**Final action:**	
Title:	Approve Participation in a Cooperative Purchase Agreement with Insituform Technologies, LLC, for Cured in Place Pipe (CIPP) Rehabilitation Services and Sanitary Sewer Cleaning & CCTV Inspections of Main Line Sewers Utilizing the City of Daytona Beach Contract No. 0118-2600, effective February 6, 2019 through February 5, 2020, Renewal February 6, 2020 through February 5, 2022				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Insituform Proposal - City of Cocoa FY2021 Lining Project.pdf Standard Form for New Piggyback Contract No. 0118-2600 (Insituform).pdf City of Daytona Authorization.pdf City of Daytona Beach Insituform Contract #0118-2600 Effective 2-6-19 to 2-5-20.pdf City of Daytona Beach Insituform Contract #0118-2600 Renewal 2-6-20 to 2-5-21.pdf City of Daytona Beach Insituform Contract #0118-2600 Renewal 2-6-21 to 2-5-22.pdf City of Daytona Beach Insituform Contract Pricing #0118-2600.pdf E-Verify Contractor Affidavit_Contract No. 0118-2600 _(Insituform).pdf Insituform COI Exp 7-1-21.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: January 21, 2021
Agenda Date: February 9, 2021
Prepared By: Melinda M. Keesee, Field Operations Technician
Through: Chris M. Collier, Assistant Utilities Director
Through: John A. Walsh, P.E., Utilities Director
Requested Action:

To Approve Participation in a Cooperative Purchase Agreement with Insituform Technologies, LLC, for Cured in Place Pipe (CIPP) Rehabilitation Services and Sanitary Sewer Cleaning & CCTV Inspections of Main Line Sewers Utilizing the City of Daytona Beach Contract No. 0118-2600, effective February 6, 2019 through February 5, 2020, Renewal February 6, 2020 through February 5, 2022

BACKGROUND:

In FY2015 CDM Smith completed a thorough analysis of the assessment data obtained during the FY2014 RedZone Robotics, Inc. CCTV inspection process. As part of this analysis, a detailed plan was developed to systematically address broken sewer piping over a six-year period beginning in

FY2016. Rehabilitation and replacement was recommended for individual pipe segments based on structural operation and maintenance (O&M) concerns. These recommendations were formed based on the severity of defects, potential for defect progression, and consequence of failure. Rehabilitation and replacement recommendations were then prioritized and grouped to develop various projects. An implementation plan was formed to clean and repair sewer lines based on consequence of failure, risk of failure, available funding, and pipe segment geographic location.

To maintain the integrity of the sanitary sewer system with minimal construction and disturbances, sewer mains are able to be rehabilitated through a trenchless “cured-in-place-pipe” (CIPP) method installed through existing manholes. This installation process lines the selected sewer mains with a flexible liner which when heated, forms into a hardened fiberglass “pipe” that replaces the broken pipe from the inside of the pipe. As a result of this process, the carrying capacity of the sewer main is reestablished, and the sewer treatment plant no longer incurs the cost of treating extra water (ground water).

The first phase of the CIPP lining program was successfully completed in FY2016. Subsequently, City Council has approved the continuation of work with Insituform annually since FY2017. The sixth phase of CIPP lining is scheduled to be completed in FY2021.

At this time, we are requesting approval to use the City of Daytona Beach Contract No. 0118-2600. This contract has been reviewed by the City and has been determined to be applicable to the services required by Sewer Field Operations. Therefore, staff recommends approval to use the City of Daytona Beach contract with Insituform Technologies, LLC to perform Cured in Place Pipe (CIPP) Rehabilitation Services and Cleaning & CCTV Inspections of Main Line Sewers, and to authorize a budgeted expenditure for these services not to exceed $395,568.60.

STRATEGIC PLAN CONNECTION:

N/A

BUDGETARY IMPACT:

Budgeted	Yes
If not budgeted, is amendment/transfer attached?	N/A
Amount Requested:	$395,568.60
Account Number:	424-4125-536.63-00, WS0904
Account Name:	Repairs & Maintenance
Source of Funds:	Operating Revenue

PREVIOUS ACTION:

On December 8, 2015, City Council approved the participation in a cooperative purchase agreement with Insituform Technologies, LLC for Cured in Place (CIPP) Pipe Rehabilitation Services utilizing the City of Daytona Beach Contract No. 0113-1010, effective July 8, 2015 through July 7, 2016.

On January 10, 2017, City Council approved the participation in a cooperative purchase agreement with Insituform Technologies, LLC for Cured in Place (CIPP) Pipe Rehabilitation Services utilizing

the City of Daytona Beach Contract No. 0113-1010, effective July 8, 2016 through July 7, 2017.

On February 28, 2017, City Council approved the participation in a cooperative purchase agreement with Insituform Technologies, LLC for Cleaning & CCTV Inspections of Main Line Sewers utilizing the City of Daytona Beach Contract No. 0113-1010, effective July 8, 2016 through July 7, 2017.

On January 9, 2018, City Council approved the participation in a cooperative purchase agreement with Insituform Technologies, LLC for Cleaning & CCTV Inspections of Main Line Sewers utilizing the City of Daytona Beach Contract No. 0113-1010, effective July 8, 2017 through July 7, 2018.

On March 13, 2019, City Council approved the participation in a cooperative purchase agreement with Insituform Technologies, LLC for Cured in Place Pipe (CIPP) Rehabilitation Services and Sanitary Sewer Mid-Term Cleaning & CCTV Inspections of Main Line Sewers utilizing the City of Daytona Beach Contract No. 0118-2600, effective February 6, 2019 through February 5, 2020.

On February 26, 2020, City Council approved the participation in a cooperative purchase agreement with Insituform Technologies, LLC for Cured in Place Pipe (CIPP) Rehabilitation Services and Sanitary Sewer Mid-Term Cleaning & CCTV Inspections of Main Line Sewers utilizing the City of Daytona Beach Contract No. 0118-2600, effective February 6, 2019 through February 5, 2020, renewal February 6, 2020 through February 5, 2021.

RECOMMENDED MOTION:

To Approve Participation in a Cooperative Purchase Agreement with Insituform Technologies, LLC for Cured in Place Pipe (CIPP) Rehabilitation Services and Sanitary Sewer Mid-Term Cleaning & CCTV Inspections of Main Line Sewers Utilizing City of Daytona Beach Contract No. 0118-2600, effective February 6, 2019 through February 5, 2020, Renewal February 6, 2020 through February 5, 2022.

Insituform Technologies, LLC is a subsidiary of Aegion Corporation

Insituform Technologies, LLC

6966 Business Park Blvd.
Jacksonville, Fl. 32256
www.insituform.com

Dave Raymond
Business Development Manager

Phone: (904)465-3267
Fax: (904)292-3198
Email: draymond@aegion.com

1-14-21

Chris Collier
Assistant Utilities Director
City of Cocoa
Cocoa, FL 32922
ccollier@cocoafl.org

Re: City of Cocoa FY2021 Sewer Lining

Chris,

Insituform Technologies, LLC, ("ITLLC") is pleased to provide the following proposal to the **City of Cocoa**, hereinafter referred to as "Customer", for the scope of work detailed below for the above-referenced Project. This proposal is based off the City of Daytona Beach Contract 0118-2600.

PROPOSAL PRICING

ITLLC proposes the following pricing for the scope of services described herein:

Item	Description	Unit	Qty	Unit Price	Total
A-1	CIPP 8" Diameter 6.0 mm thickness	LF	12,497	$23.10	$288,680.70
L-1	Light Clean & TV 8"-12" Diameter	LF	12,497	$2.50	$31,242.50
O-1	Root Removal 8" – 12" Diameter	LF	800	$1.60	$1,280.00
QQ-1	By-Pass Pumping 8" Diameter	LS	40	$317.40	$12,696.00
RR	Standard Service Reconnection	Each	208	$195.00	$40,560.00
TT-1	Traffic Control City ROW Flagman	Setup	10	$655.90	$6,559.00
TT-3	Traffic Control City ROW Barricades	Setup	25	$264.50	$6,612.50
TT-4	Traffic Control City ROW Lane Dividers	Setup	25	$15.90	$397.50
UU-2	Traffic Control County ROW Arrow Board	Setup	7	$190.40	$1,332.80

UU-3	Traffic Control County ROW Barricades	Setup	7	$359.70	$2,517.90
UU-4	Traffic Control County ROW Lane Dividers	Setup	7	$15.90	$111.30
AAA	Mobilization	Setup	1	$3,578.40	$3,578.40
	TOTAL				$395,568.60

INSITUFORM SCOPE OF WORK / RESPONSIBILITIES

ITLLC will provide the following:

1. Mobilization and demobilization of personnel, equipment, and materials to and from the Project site. The price presented is based upon one (1) instance of mobilization and demobilization.
2. Install **polyester** resin impregnated CIPP liner in accordance with ASTM F1216 or F1743 using either water or air/pull-in/steam, at the discretion of ITLLC. We have not included any costs associated with the disposal of inversion water.
3. Internal reinstatement of all service connections as directed by the Customer or their representative.
4. CCTV inspection of the pipe before and after the lining is complete.
5. Standard ITLLC one-year warranty from date of installation, excluding any required warranty TV inspection and/or testing.
6. Standard insurance coverage with the following limits:
   General Liability: $2,000,000 per occurrence/$4,000,000 aggregate
   Auto: $2,000,000 Combined Single Limit
   Workers Compensation: Statutory with $1,000,000 Employer's Liability
   The above insurance shall not include Primary and Non-Contributory Coverage and ITLLC shall not provide a Waiver of Subrogation endorsement.

NOTE: Modifications to the Scope of Work/Responsibilities of ITLLC may result in a change in price and/or duration.

ASSUMPTIONS AND QUALIFICATIONS

ITLLC's Proposal Pricing is based upon the following assumptions and clarifications:

1. ITLLC assumes the work will be completed during dry weather conditions.
2. Quantities are estimated. Customer shall be invoiced for actual quantities at the above unit prices.
3. ITLLC is an open-shop company and shall not be subject to any union requirements or agreements and will not enter into any Project Labor Agreement or any such similar agreement for this Project. Where required by the Contract Documents, ITLLC will pay the Prevailing Wages then in effect for the Project and will submit Certified Payroll Reports in a timely manner.

EXCLUSIONS:

The following items are excluded from ITLLC's above Pricing and Scope of Services / Responsibilities stated in this Proposal. These items, if necessary, applicable or otherwise required, shall be furnished by Customer,

at Customer's direction and at no cost to ITLLC or may, upon mutual agreement in writing between ITLLC and Customer, be provided by ITLLC at an additional cost:

1. Permits, licenses and construction easements.
2. Manual operation of any pumping and/or metering stations.
3. Environmental/erosion controls (i.e., hay bales, silt fence etc.) that may be required adjacent to manholes, access points and/or water supply hose.
4. Access to and use of fire hydrants and/or sufficient water supply (within 500 ft. of the installation site) to complete flushing and CIPP installation.
5. Burial and/or ramping of discharge or bypass hose/pipe.
6. External service reconnections.
7. Traffic control, including without limitation, police details, flagmen and special traffic control setups.
8. Obstruction removal (calcium, concrete, mineral deposits, roots, etc.) and/or protruding tap removal.
9. Point repairs.
10. Bypassing of services or laterals.
11. Repair of pipe damaged during any industry standard high-pressure jet cleaning operations, preparation or lining and any subsequent cleaning necessary to remove debris that has fallen into the pipe as a result of any such collapse or repair.
12. Directives setting forth which service connections must be reinstated prior to final CCTV inspection.
13. Locations of and access (of ITLLC equipment and/or personnel) to all manholes associated with the project and as required by ITLLC's work plan.
14. Equivalent pipe diameter access from the invert to the street level. This may include removal of the frame, cover and/or cone section of the liner installation manhole(s) such that the opening at the street level is no less than equivalent to the pipe diameter.
15. Payment and Performance bonds. If payment and performance bonds are required, add 2.5% to the total Project cost.
16. Removal and disposal of any hazardous or toxic materials encountered during the Project.
17. Holiday work, rush delivery or adverse weather work (as defined by ITLLC).
18. Complete independent testing of liner samples from each installation. Will be provided if required per specifications.
19. Certified Professional Engineer stamped designs. Will be provided if required in specifications.
20. State and local sales and/or use taxes.
21. Additional premiums for special insurance coverage(s) specific to this project.

GENERAL TERMS AND CONDITIONS:

1. ITLLC's Proposal is conditioned and shall adhere to the General Terms and Conditions written in the City of Daytona Beach Contract.

The information contained in this letter is proprietary to Insituform Technologies, LLC. and shall be retained by the recipient in confidence and shall not be published or otherwise disclosed to third parties without the express written consent of Insituform Technologies, LLC. The foregoing shall not preclude the use of any data which (i) was in its possession without restriction as to use prior to receipt as proprietary of the same or similar data from Insituform Technologies, LLC., (ii) is or becomes available from a public source on or after such receipt from Insituform Technologies, LLC. or (iii) is obtained by the recipient from a third party not under obligation of confidentiality or other restriction with respect to use.

Please do not hesitate to contact me with any further questions.

Very truly yours,

Insituform Technologies, LLC.

Dave Raymond

Dave Raymond
Business Development Manager

Accepted By:_____ Date: _____
(signed)

_____ Title: _____
(print name)

STANDARD FORM FOR NEW PIGGYBACK CONTRACT

The **City of Cocoa,** a Florida Municipal Corporation ("City") enters this "Piggyback" Contract with **Insituform Technologies LLC., 17988 Edison Ave, Chesterfield, MO 63005** (hereinafter referred to as the "Vendor "), under the terms and conditions hereinafter provided. The City and the Vendor agree as follows:

The Financial Operations Manual (FOM) for the City of Cocoa allows for "piggybacking " contracts. Pursuant to this procedure, the City is allowed to piggyback an existing government contract, and there is no need to obtain formal or informal quotations, proposals or bids. The parties agree that the Vendor has entered a contract with City of Daytona Beach - FL, said contract being identified as: Contract No. 0118-2600; Cured In-Place (CIPP) (referred to as the "original government contract"). Work assigned under this contract may include, but is not limited to, the following types of projects:

a) Stormwater main and sanitary sewer main cleaning
b) Stormwater main and sanitary sewer main pre- and post- work video inspections
c) Easement access
d) Maintenance of Traffic (MOT)
e) Isolation and by-pass pumping
f) Cured-In Place Pipe reconstruction
g) Chemical and physical product testing
h) Hydraulic capacity testing
i) Reinstatement of services and pressure grouting
j) Erosion and sediment control
k) Site restoration

1. The original government contract is incorporated herein by reference and is attached as **Exhibit A** to this Contract. All of the terms and conditions set out in the original government contract (Exhibit "A") are fully binding on the parties and said terms and conditions are incorporated herein.

2. Notwithstanding the requirement that the original government contract is fully binding on the parties, the parties have agreed to modify certain technical provisions of the original government contract as applied to this Contract between the Vendor and the City of Cocoa, as follows:

Time Period ("Term") of the Agreement:

The effective date of this agreement shall be the latest date mutual parties sign by and between the City of Cocoa, FL and Insituform Technologies LLC. The term of said agreement shall be for the period effective date of signature through 9/30/2021.

The City of Cocoa intends to utilize said agreement for Fiscal Year 2021 and shall not exceed the budgeted amount of $400,000, any change orders to this amount must be approved by City Council.

a. Insurance Requirements (As Applicable):

Liability Insurance

COMMERCIAL GENERAL LIABILITY INSURANCE MINIMUM REQUIREMENTS FOR CONTRACTS VALUED AT LESS THAN $15,000:

It is required that individuals and firms contracting with the City of Cocoa, where the total contract or job value is LESS than $15,000, maintain Commercial General Liability insurance with a minimum per occurrence limit of not less than $200,000 per person and $300,000 each occurrence, and property damage insurance of at least $200,000 each occurrence and with a deductible amount not greater than $1,000. It is further required that the City of Cocoa, be named as an additional insured to the contractor's CGL policy, and that proof of same in the form of a certificate of insurance be submitted before work is begun.

COMMERCIAL GENERAL LIABILITY INSURANCE MINIMUM REQUIREMENTS FOR CONTRACTS VALUED AT $15,000 OR MORE:

It is required that individuals and firms contracting with the City of Cocoa, where the total contract or job value is $15,000 or MORE, maintain Commercial General Liability insurance with a minimum per occurrence limit of not less than $2,000,000 as the combined single limit for each occurrence and with a deductible not greater than $5,000 or as otherwise approved in writing by the City Manager. It is further required that the City of Cocoa and FDOT, be named as an additional insured to the Contractor's CGL policy, and that proof of same in the form of a certificate of insurance be submitted before work is begun.

AUTOMOBILE LIABILITY INSURANCE MINIMUM REQUIREMENTS FOR ALL CONTRACTS:

The Contractor shall maintain comprehensive automobile liability insurance in the minimum amount of $1,000,000 combined single limit bodily injury and minimum $1,000,000 property damage as the combined single limit for each occurrence to protect the Contractor from claims for damages for bodily injury, including wrongful death, as well as from claims from property damage, which may arise from the ownership, use, or maintenance of owned and non-owned automobiles, including rented automobiles whether such operations be by the Contractor or by anyone directly or indirectly employed by the Contractor.

PROFESSIONAL LIABILITY INSURANCE MINIMUM REQUIREMENTS FOR ALL PROFESSIONALS AS DEFINED BY FLORIDA STATUTE:

Professionals and professional corporations, associations, and firms who contract with the City of Cocoa to provide professional services are required to maintain Professional Liability Insurance and submit proof of same in the form of a certificate of insurance before work is begun.

ENVIRONMENTAL IMPAIRMENT INSURANCE MINIMUM REQUIREMENTS:

Individuals or firms who contract with the City of Cocoa to provide excavation or construction type services and who will be locating portable fuel or lubricant storage tanks at the job site or who will be storing or using hazardous chemicals on the job site are required to maintain Environmental Impairment Insurance of "Pollution Insurance" with a limit of not less than $1,000,000 per occurrence and submit proof of same in the form of a certificate of insurance or an endorsement to their General Liability policy showing a pollution exclusion exception for each specific work product or storage container before work is begun. Contracts with such firms shall include a provision that they work in compliance with the OSHA Hazardous Communication Standard and Florida Department of Environmental Protection guidelines and supply all information about hazardous chemical being brought onto City property as required by the City's Safety and Loss Control Program.

WORKERS' COMPENSATION INSURANCE MINIMUM REQUIREMENTS:

It is required that firms employing four or more people who contract with the City of Cocoa maintain Workers' Compensation Insurance at the statutory limits and employer liability insurance and submit proof of same in the form of a certificate of insurance before work is begun.

It is required that firms employing less than four people who contract with the City of Cocoa comply with the exemption and notice provisions of F.S. 440 and maintain employer liability insurance and submit proof of same in the form of a certificate of insurance before work is begun.

However, if you are a corporate officer of a corporation that is actively engaged in the construction industry, or a sole proprietor or partner who is actively engaged in the construction industry, then your exemption will not apply to any work performed at a commercial building project valued at $250,000 or greater and you must secure workers' compensation coverage in accordance with F.S. 440.38 and these general conditions and submit proof of same in the form of a certificate of insurance before work is begun.

COMPREHENSIVE BUILDER RISK INSURANCE

The Contractor shall maintain comprehensive builder risk insurance, which shall cover Contractor's labor, and any materials and equipment to be used for completion of the Work performed under this Agreement, against all risks of direct physical loss, excluding earthquake and flood, for a minimum amount of $2,000,000. Contractor shall maintain the builder risk insurance required by this subsection until the date a certificate of occupancy is issued issuance of a certificate of occupancy for the Work.

DURATION OF CONTRACTS-NAMED INSUREDS-LIABILITY INSURANCE:

For contracts exceeding time periods of 30 days, it is required that the vendor name the City of Cocoa as an additional insured on their Liability Insurance policies and submit proof of same in the form of a certificate of insurance before work is begun. A copy of a current Certificate of Insurance shall be provided to the City by Contractor upon the Effective Date of this Agreement which satisfied the insurance requirements of this Article. Renewal certificates shall be sent to the City 30 days prior to any expiration date. The certificates and policies shall provide that in the event of any material change in or cancellation of the policies reflecting the required coverage, thirty days advance notice shall be given to the City and the State of Florida, Department of Transportation, or as provided in accordance with Florida law.

a. Any other provisions that will be modified:

The CONTRACTOR must provide proof of Employment Eligibility by completing the E-Verify Contractor Affidavit **(Exhibit B)** in accordance with Florida Statute § 448.95; via E-Verify (https://www.e-verify.gov), which is an internet-based system operated by the United States Department of Homeland Security that allows participating employers to electronically verify the employment eligibility of newly hired employees. This must be completed prior to the CITY issuing any Purchase Orders or requesting services.

b. Address change for the City of Cocoa:

Notwithstanding the address and contact information for the government entity as set out in Exhibit "A," the Vendor agrees that he/she/it will send notices, invoices and will conduct all business with the City of Cocoa, attention of Accounts Payable, at 65 Stone Street, Cocoa Florida 32922, telephone number (321) 433-8633, facsimile number: (321) 433-8608 and email accountspayable@cocoafl.org.

c. Notwithstanding anything in Exhibit "A" to the contrary, the venue of any dispute will be in Brevard County, Florida. Litigation between the parties arising out of this contract must be in Brevard County, Florida in the Court of appropriate jurisdiction. The law of Florida will control any dispute between the parties arising out of or related to this Piggyback Contract, the performance thereof or any products or services delivered pursuant to such contract.

d. Notwithstanding any other provision in Exhibit "A" to the contrary, there shall be no arbitration with respect to any dispute between the parties arising out of this Contract. Dispute resolution shall be through voluntary and non-binding mediation, negotiation or litigation in the Court of appropriate jurisdiction in Brevard County, Florida, with the parties bearing the costs of their own legal fees and related costs with respect to any dispute resolution, including litigation.

e. All other provisions in the original government contract (Exhibit "A") are fully binding on the parties and will represent the agreement between the City of Cocoa and the Vendor.

f. This contract is not a requirements agreement nor is it an exclusive agreement. Accordingly, the City of Cocoa reserves the right to purchase the goods or services that are the subject hereof from any alternative vendor during the contract term, regardless of contrary language in the underlying contract that is being piggybacked.

Insituform Technologies, LLC

Entered this _____ day of _____

Diane Partridge, Contracting and Attesting Officer

(Print Name / Title)

Diane Partridge

(Signature)

1/13/2021

(Date)

CITY OF COCOA

By: _____, City Manager (For purchases up to the limit of the City Manager's purchase order authority, this signature alone as attested will be sufficient).

By: _____, Mayor (For purchases in excess of the City Manager's purchase order authority).

_____

Attested By: -- City Clerk

INSITUFORM TECHNOLOGIES, LLC

PRESIDENT APPOINTMENT OF
CONTRACTING AND ATTESTING OFFICERS

The undersigned, being the President of Insituform Technologies, LLC, a Delaware Limited Liability Company (the "Company"), and pursuant to the authority set forth in the Limited Liability Company Operating Agreement of the Company, hereby determines that:

1. Christlanda Adkins, Gina Gurrieri, Janet Hass, Jana Lause, Diane Partridge, Whittney Schulte, and Ursula Youngblood are appointed as Contracting and Attesting Officers of the Company, each with the authority, individually and in the absence of the others, subject to the control of the Board of Managers of the Company, to: (i) certify and attest to the signature of any officer of the Company; (ii) enter into and bind the Company to perform pipeline rehabilitation activities of the Company and all matters related thereto, including the maintenance of one or more offices and facilities of the Company; (iii) execute and to deliver documents on behalf of the Company; and (iv) take such other action as is or may be necessary and appropriate to carry out the project, activities and work of the Company.

2. Any person previously appointed or serving as a Contracting and Attesting Officer of the Company prior to the date hereof and who is not named above is hereby removed from any such appointment.

Dated: March 6, 2020

Ralph E. Western
President

Melinda Keesee

From: Flick, Joanne <FlickJoanne@CODB.US>
Sent: Wednesday, December 16, 2020 9:18 AM
To: Heath Hancher
Subject: Insituform CIPP contract 0118-2600

EXTERNAL MESSAGE - USE CAUTION WITH LINKS AND ATTACHMENTS!

The City of Cocoa is authorized to piggyback the referenced contract for Cured In Place Pipe rehabilitation. The current expiration date is 2/5/2022.
The contact person at Insituform is Diane Partridge, 636-530-8000, DPartridge@aegion.com.

Sincerely
Joanne Flick, CPPO
Purchasing Agent
City of Daytona Beach, FL

Under Florida law, e-mail addresses are public records. If you do not want your e-mail address released in response to a public-records request, do not send electronic mail to this entity. Instead, contact this office by phone or in writing.

19-22

GENERAL SERVICES CONTRACT
CONTRACT NO. 0118-2600

THE PARTIES TO THIS CONTRACT are the City of Daytona Beach, a Florida municipal corporation (the "City"), and Insituform Technologies, LLC, a foreign limited liability company ("Contractor").

In consideration of the mutual covenants herein contained, the Parties agree as follows:

Section 1. Scope of Services. Contractor will provide Cured in Place Pipe Lining and associated services as further described in **Exhibit A**, attached hereto and incorporated herein, to the City from time to time at the direction of the City during the Term of this Contract.

Section 2. Services Must Be Authorized in Writing. This Contract, in and of itself, does not require the Contractor to perform any services or obligate the City to pay for any services rendered. No services will be provided under this Contract, and no payment obligation will arise for performance of services, except when specifically authorized by work authorization issued in accordance with the City's procurement policies. A work authorization may consist of a contract document signed by both the City and Contractor; or it may consist of Contractor's written quotation/proposal, identifying the work to be performed and the Fees for such work as established below; and the City's purchase order issued in response to and accepting the proposal. No work authorization may alter the terms and conditions of this Contract. In case of a conflict with a work authorization this Contract will govern. The work authorization may provide more detailed parameters for the services to be provided, such as deliverables, deadlines, and required conditions for payment of Fees, consistent with the provisions of this Contract.

Section 3. Fee(s). For the services provided under this Contract, City will pay Contractor Fees based upon the Fee/Rate Schedule attached hereto as **Exhibit B**.

The Fees described in **Exhibit B** will be Contractor's sole compensation for the services to be provided. Except for any reimbursable expenses specifically authorized by Exhibit, Contractor will be solely responsible for all of costs Contractor incurs in meeting its obligations herein.

Section 4. Billing; Manner of Payment. In addition to requirements for payment established by applicable federal, state, or local law including the City Code, payment terms are as follows:

(a) Unless provided otherwise herein, the City will pay 30 days after receipt of a valid invoice or receipt of goods or services, whichever is later.

(b) In order to be considered to be valid, an invoice must include all information that the City needs to verify the accuracy of the invoice and the amount of payment due based on the specific requirements of this Contract, such as where partial payments are due upon completion of specific tasks, or where payments are based on hourly rates. In

addition, where payment of reimbursable expenses is specifically provided for, an invoice for such expenses will not be valid unless sufficient documentation is provided to verify that such expenses were incurred and that other conditions have been met. In addition, where any portion of the work was performed by subcontractors, Contractor must provide proof of payment/release of subcontractors' liens except as provided in Section 12A.

(c) If an invoice submitted by Contractor is not valid, within 30 days after receipt the City will provide notice to the Contractor identifying the deficiencies.

Section 5. Standard of Performance. Contractor's services will at a minimum meet the level care and skill ordinarily used by members of Contractor's profession performing the type of services provided herein within the State of Florida.

Section 6. Relationship between Parties. This Contract does not create an employee-employer relationship between the City and Contractor. Contractor is an independent contractor of the City and will be in control of the means and the method in which the requested work is performed. As an independent contractor, Contractor will be solely responsible for payment of all federal, state and local income tax, and self-employment taxes, arising from this Contract; and Contractor agrees to indemnify and hold harmless the City from any obligations relating to such taxes. The City will not make deductions from payments due, for such taxes, or for social security, unemployment insurance, worker's compensation, or other employment or payroll taxes.

Section 7. Documents and Records.

(a) All reports, estimates, logs, original drawings, and other materials furnished, prepared or executed by Contractor during the term of and in accordance with the provisions of this Contract will be the property of the City and delivered to the City upon demand or, if no demand has previously been made, upon completion of the particular task for which such materials were prepared, executed, or otherwise required.

(b) To the extent applicable, Contractor will comply with the requirements of Florida Statutes Chapter 119, which may include the following:

(1) Keeping and maintaining public records that ordinarily and necessarily would be required by the public agency in order to perform the service provided herein.

(2) Upon the request of the City Clerk of the City (i) providing the City Clerk with a copy of requested public records, or (ii) allowing inspection or copying of public records, within a reasonable tim after receipt of the City Clerk's request, at a cost that does not exceed the cost provided in Ch. 119, Florida Statutes, or as otherwise provided by law.

(3) Ensuring that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by

law until completion of the work required by a work authorization, and following such completion if Contractor fails to transfer such records to the City.

(4) Upon completion of the work required by a work authorization, keep and maintain public records required by the City to perform the service. Contractor will meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City upon the request of the City Clerk, in a format that is compatible with the City's information technology systems.

IF CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTRACTOR MUST CONTACT THE CITY CLERK, WHOSE CONTACT INFORMATION IS AS FOLLOWS:

(Phone)	386 671-8023
(Email)	clerk@codb.us
(Address)	301 S. Ridgewood Avenue Daytona Beach, FL 32114

Section 8. Effective Date and Term. The Effective Date of this Contract is the date on which the last Party signs it. The Term of this Contract is one year, commencing on the Effective Date. The City will have the option to renew this Contract for up to 4 Terms of one-year each, by providing Contractor written notice. Such notice must be provided at least 60 days before the end of the current Term unless waive by Contractor.

If this Contract specifically provides that some or all of Contractor's services will be required only after issuance of a City work authorization, any work authorizations previously issued by the City will remain in effect after the expiration of this Contract unless the City terminates this Contract dues to Contractor's material breach after notifying Contractor to suspend such services as provided below.

Section 9. Termination.

(a) The City may by written notice to Contractor terminate this Contract, in whole or in part, at any time, either for the City's convenience or because of the failure of the Contractor to fulfill its contractual obligations.

(1) Before terminating for convenience, City must provide Contractor at least 30 day's advance notice of termination. This Contract will terminate automatically and without need for further notice upon the expiration of the notice period.

(2) Except as provided in Section 10(a)(3), before terminating due to Contractor's material breach of its contractual obligations, City must provide Contractor prior written notice, specifying the breach and demanding Contractor remedy the breach

within 10 days of the notice, or within such longer period as may be reasonably required if the nature of the breach is that it cannot be remedied within 10 days of notice. This Contract will terminate automatically and without need for further notice if Contractor fails to remedy the material breach within the period described in the City's notice of breach.

(3) The City may terminate this Contract upon Contractor's breach without providing Contractor an opportunity to remedy the breach as referenced immediately above, if Contractor or any of Contractor's personnel, in connection with the services or rights provided herein, commit a criminal act or engage in activity that poses a material risk of injury to persons or damage to property. Such termination will be effective immediately upon providing Contractor written notice.

(b) If the termination is for convenience, Contractor will be paid compensation for authorized services performed to the date of termination. If termination is due to Contractor's material breach, the City reserves all rights and remedies it may have under law due to such breach. Among other things, the City may take over the work and prosecute the same to completion by other agreements or otherwise; and in such case, the Contractor will be liable to the City for all reasonable additional costs occasioned to the City thereby.

(c) If after notice of termination for the Contractor's failure to fulfill contractual obligations it is judicially determined by a court of law that the Contractor had not so failed, the termination will be conclusively deemed to have been effected for the City's convenience. In such event, adjustment in payment to Contractor will be made as provided in subsection (b) of this Section for a termination for convenience.

(d) The rights and remedies of City provided for in this Section are in addition and supplemental to any and all other rights and remedies provided by law or under this Contract.

Section 10. Suspension of Services. The City may suspend Contractor's services if the notice of material breach provided pursuant to Section 10(a)(2) so directs. The City may also suspend Contractor's services in lieu of termination, under the conditions set forth in Section 10(a)(3), by providing Contractor written notice of suspension. Contractor will suspend activities immediately upon receipt thereof; and in such instance Contractor's rights to provide services referenced herein will also automatically be suspended for the period of such suspension.

Section 11. Indemnification. Contractor will indemnify and hold harmless the City, including the City's officers, employees, and agents, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of Contractor, or Contractor's officers, employees, or agents, including subcontractors and other persons employed or use by Contractor in the performance of this Contract. This indemnification agreement is separate and apart from, and in no way limited by, any insurance provided pursuant to this agreement or otherwise.

Section 12. Insurance. Contractor will provide and maintain at Contractor's own expense, insurance of the kinds of coverage and in the amounts set forth in this Section. All such insurance will be primary and non-contributory with the City's own insurance. In the event any request for the performance of services presents exposures to the City not covered by the requirements set forth below, the City reserves the right to add insurance requirements that will cover such an exposure.

(a) Coverage and Amounts.

(1) Workers Compensation Insurance as required by Florida Statutes, Chapter 440, Workers' Compensation Insurance, for all employees of Contractor, employed at the site of the service or in any way connected with the work, which is the subject of this service. The insurance required by this provision will comply fully with the Florida Workers' Compensation Law and include Employers' Liability Insurance with limits of not less than $500,000 per occurrence. Any associated or subsidiary company involved in the service must be named in the Workers' Compensation coverage. If Contractor wishes to claim an exemption from worker's compensation insurance requirements, Contractor will notify the Risk Manager in writing on Contractor's official letterhead.

(2) Liability Insurance, including (i) **Commercial general liability coverage** for operations, independent contractors, products-completed operations, broad form property damage, and personal injury on an "occurrence" basis insuring Contractor and any other interests, including but not limited to any associated or subsidiary companies involved in the work; and (ii) **Automobile Liability Insurance**, which will insure claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle used by the Contractor in the performance of this Contract.

THE COMMERCIAL GENERAL LIABILITY INSURANCE POLICY WILL NAME THE CITY AS AN ADDITIONAL INSURED. Contractor's Commercial General Liability insurance policy shall provide coverage to Contractor, and City when required to be named as an additional insured either by endorsement or pursuant to a blanket additional insured endorsement, for those sources of liability which would be covered by the latest edition of the standard Commercial General Liability Coverage Form (ISO Form CG 00 01) without the attachment of any endorsements excluding or limiting coverage for Products/Completed Operations, Independent Contractors, Property of City in Contractor's Care, Custody or Control or Property of City on which contracted operations are being performed, Explosion, Collapse or Underground hazards (XCU Coverage, Contractual Liability or Separation of Insureds). When City is added as additional insured by endorsement, ISO Endorsements CG 20 10 and CG 20 37 or their equivalent shall be used to provide such Additional Insured status.

The limit of liability for each policy will be a combined single limit for bodily injury and property damage of no less than $1,000,000 per occurrence. If insurance is provided

with a general aggregate, then the aggregate will be in an amount of no less than $2,000,000. The Risk Manager may authorize lower liability limits for the automobile policy only, at the Risk Manager's sole discretion.

Unless specifically waived hereafter in writing by the Risk Manager, Contractor agrees that the insurer shall waive its rights of subrogation, if any, against the City on each of the above listed insurance coverages.

(b) Proof of Insurance. Contractor will furnish proof of insurance acceptable to the City prior to or at the time of execution of this Contract. Contractor will not commence work until all proof of such insurance has been filed with and approved by the City. Contractor will furnish evidence of all required insurance in the form of certificates of insurance which will clearly outline all hazards covered as itemized above, the amounts of insurance applicable to each hazard, the expiration dates. The certificates will also contain the following language as to cancellation:

> "In the event of cancellation of this policy by the insurer or any insured, this Company will give not less than 30 days advance written notice to:
>
> Risk Manager
> The City of Daytona Beach
> P.O. Box 2451
> Daytona Beach, Florida 32115-2451"

If requested by the City, Contractor will furnish copies of the insurance contracts to support the certificates of insurance and the copies of said insurance must be acceptable to the City.

(c) Subcontractors' Insurance. Each of Contractor's subcontractors will be required to provide insurance in substantially similar form to the insurance required of Contractor above based on services provided.

(d) Cancellation; Replacement Required. Contractor will file replacement certificates 30 days prior to expiration or termination of the required insurance occurring prior to the acceptance of the work by the City. If a required policy is canceled without Contractor's prior knowledge Contractor will immediately notify the City immediately upon becoming aware that a required insurance coverage has been canceled for any reason, and promptly replace the canceled policy. The City expressly reserves the right or replace the canceled policy at Contractor's expense of Contractor fails to do so.

(e) Termination of Insurance. Contractor may not cancel the insurance required by this Contract until the work is completed, accepted by the City and Contractor has received written notification from the Risk Management Division of the City that Contractor may cancel the insurance required by this Contract and the date upon which the insurance may be canceled. The Risk Management Division of the City will provide such written notification at the request of Contractor if the request is made no earlier than two weeks before the work is to be completed.

(f) Liabilities Unaffected. Contractor's liabilities under this Contract will survive and not be terminated, reduced or otherwise limited by any expiration or termination of insurance coverages. Similarly, Contractor's liabilities under this Contract will not be limited to the extent of by the existence of any exclusions or limitations in insurance coverages, or by Contractor's failure to obtain insurance coverage.

Contractor will not be relieved from responsibility to provide required insurance by any failure of the City to demand such coverage, or by City's approval of a policy submitted by Contractor that does not meet the requirements of this Contract.

Section 12A. Bonds. Contractor will be required to provide payment and performance bonds on a per project basis, which will each be equal to 100% of the value of any Work Authorization issued exceeding $100,000.00 prior to commencing the referenced work.

The surety company executing the bonds must be authorized to do business in the State of Florida and must be listed by the United States Treasury Department as being approved for writing bonds for federal projects on its current list in an amount not less than the required bond amount. The form of the bond must be approved by the City and must be accompanied by sufficient evidence of the authority of the issuing agent. The bonds must otherwise comply with the requirements of F.S. § 255.05.

In lieu of the required bonds, Contractor may provide an alternative form of security as specified in F.S. § 255.05(7) upon the City's approval. Any bonds used to comply with this Section must be in the form provided by the City; and Contractor must record the executed bonds and provide the City certified copies of the recorded documents before commencing work. Upon Contractor's (i) execution and recordation of payment and performance bonds complying with the foregoing provisions; and (ii) furnishing to the City a certified copy of the recorded bonds, proof of payment of Contractor's subcontractors and suppliers will not be required as a condition of making a required payment to Contractor; and to the extent that the General Conditions provide otherwise the General Conditions are superseded.

Section 13. Notice. Unless otherwise expressly agreed herein, all notices, requests, and demands to or upon the Parties will be delivered by hand, delivered by a courier service, provided to a nationally recognized delivery service for overnight delivery, transmitted to a receiving fax machine followed by hard copy within two days, or by U.S. mail, postage prepaid by registered or certified mail, return receipt requested, to the addresses set forth herein:

To the City:
Eric Smith, Engineer II
Daytona Beach Utilities
125 Basin St., Suite 100
Daytona Beach, FL 32114
Fax: 386-671-8502

To Contractor:
Insituform Technologies, LLC
Attn: Diane Partridge, Contracting and Attesting Officer
17988 Edison Avenue
Chesterfield, MO 63005
Fax: (636) 530-8701

provided, however, that either Party may change the person or address designated for receipt of the Party's notices, by providing written notice to the other Party.

Section 14. Personnel. In order to induce the City into entering this Contract, Contractor represents that Brandt Curvel, Project Manager; Al Yeomans, General Superintendent; and Jason Burnell, Field Superintendent will generally perform or directly supervise the tasks assigned to Contractor herein, and that Contractor will not replace the named individuals without the City's prior written approval. Contractor represents that Contractor has or will secure at Contractor's own expense, all personnel required in performing the services under this Contract. Such personnel will not be employees of or have any contractual relationship with the City.

All personnel engaged in the work will be fully qualified and will be authorized under state and local law to perform such services.

Section 15. City's Responsibilities. The City agrees to make available for review and use by the Contractor, reports, studies, and data relating to the services required. The City will establish a project manager to meet periodically with the Contractor to facilitate coordination and ensure expeditious review of work product.

Section 16. Limitation on Waivers. Neither the City's review, approval, or acceptance of, or payment for, any of the services provided by Contractor, will be construed to operate as a waiver of the City's rights under this Contract. Contractor will be and always remain liable to the City in accordance with applicable law for any and all damages to the City caused by the Contractor's negligent or wrongful provision of any of the services furnished under this Contract.

Failure of the City to exercise any right or option arising out of a breach of this Contract will not be deemed a waiver of any right or option with respect to any subsequent or different breach, or the continuance of any existing breach. Furthermore, the failure of the City at any time to insist upon strict performance of any condition, promise, agreement or understanding set forth herein will not be construed as a waiver or relinquishment of the City's right to insist upon strict performance of the same condition, promise, agreement or understanding at a future time.

Section 17. Dispute Resolution.

If a dispute exists concerning this Contract, the Parties agree to use the following procedure prior to pursuing any judicial remedies.

(a) Negotiations. A Party will request in writing that a meeting be held between representatives of each Party within 14 calendar days of the request or such later date that the Parties may agree to. Each Party will attend and will include, at a minimum, a senior level decision maker (an owner, officer, or employee of each organization) empowered to negotiate on behalf of their organization. The purpose of this meeting is to negotiate in the matters constituting the dispute in good faith. The Parties may mutually agree in writing to waive this step and proceed directly to mediation as described below.

(b) Non-Binding Mediation. Mediation is a forum in which an impartial person, the mediator, facilitates communication between parties to promote reconciliation, settlement, or understanding among them. Within 30 days after the procedure described in Subsection (a) proves unsuccessful or the Parties mutually waive the subsection (a) procedure, the Parties will submit to a non-binding mediation. The mediation, at a minimum, will provide for (i) conducting an on-site investigation, if appropriate, by the mediator for fact gathering purposes, (ii) a meeting of all Parties for the exchange of points of view and (iii) separate meetings between the mediator and each Party to the dispute for the formulation of resolution alternatives. The Parties will select a mediator trained in mediation skills and certified to mediate by the Florida Bar, to assist with resolution of the dispute. The Parties will act in good faith in the selection of the mediator and give consideration to qualified individuals nominated to act as mediator. Nothing in this Contract prevents the Parties from relying on the skills of a person who also is trained in the subject matter of the dispute or a contract interpretation expert. Each Party will attend and will include, at a minimum, a senior level decision maker (an owner, officer, or employee of each organization) empowered to negotiate on behalf of their organization.

If the Parties fail to reach a resolution of the dispute through mediation, then the Parties are released to pursue any judicial remedies available to them.

Section 18. General Terms and Conditions.

(a) Amendments. Except as otherwise provided herein, no change or modification of this Contract will be valid unless the same is in writing and signed by both Parties.

(b) Assignments and Subcontracting. No assignment or subcontracting will be permitted without the City's written approval.

(c) Compliance with Laws and Regulations. In providing all services pursuant to this Contract, Contractor will abide by all federal, state, and local statutes, ordinances, rules, and regulations pertaining to, or regulating the provisions of, such services including those now in effect and hereafter adopted; including, but not limited to, Occupational Safety and Health Administration's (OSHA) Excavation Safety Standard, 29 C.F.R.s 1926.650 Sub Part P, and the Trench Safety Act, Florida Statutes Section 553.60 *et seq.*

For purposes herein, the aforementioned laws and regulations include the current stormwater permit issued to the City pursuant to the National Pollutant Discharge Elimination System (NPDES) program, a copy of which will be made available upon request.

Any violation of said statutes, ordinances, rules, or regulations will constitute a material breach of this Contract and will entitle the City to terminate this Contract immediately upon delivery of written notice of termination to the Contractor.

(d) Truth in Negotiations Certificate. Contractor hereby certifies that the wages and other factual unit costs supporting the compensation herein are accurate, complete, and current at the time of this Contract.

(e) No Third Party Beneficiaries. There are no third party beneficiaries of Contractor's services under this Contract.

(f) Contingency Fee. Contractor warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this Contract and that it has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for Contractor, any fee, commission, percentage, gift, or any other consideration, contingent upon or resulting from the award or making of this Contract.

(g) Nondiscrimination. Contractor will not discriminate against any employee or applicant for employment because of race, color, sex, or national origin. Contractor will take affirmative action to ensure that applicants are employed and the employees are treated during employment without regard to their sex, race, creed, color, or national origin. Further, Contractor agrees to comply with all local, state, and federal laws and ordinances regarding discrimination in employment against any individual on the basis of race, color, religion, sex, national origin, physical or mental impairment, or age. In particular, Contractor agrees to comply with the provisions of Title 7 of the Civil Rights Act of 1964, as amended, and applicable executive orders including, but not limited to, Executive Order No. 11246.

(h) Principles in Construing Contract. This Contract will be governed by and construed in accordance with the laws of the State of Florida. Captions and paragraph headings used herein are for convenience only, are not a part of this Contract and will not be deemed to limit or alter any provisions hereof or to be relevant in construing this Contract. The use of any gender herein will be deemed to be or include the other genders, and the use of the singular herein will be deemed to be or include the plural (and vice versa), wherever appropriate. If any word, phrase, clause, sentence or provision of the Contract, or the application of same to any person or set of circumstances is for any reason held to be unconstitutional, invalid or unenforceable, that finding will only effect such word, phrase, clause, sentence or provision, and such finding will not affect the remaining portions of this Contract; this being the intent of the Parties in entering into the Contract; and all provisions of the Contract are declared to be severable for this purpose.

(i) Venue. The exclusive venue for any litigation arising out of this Contract will be Volusia County, Florida if in state court, or the U.S. District Court, Middle District of Florida if in federal court.

(j) Litigation Costs. Except where specifically provided herein, in case of litigation between the Parties concerning this Contract, each party will bear all of its litigation costs, including attorney's fees.

(k) Force Majeure. A force majeure event is an act of God or of the public enemy, riots, civil commotion, war, acts of government or government immobility (whether federal, state, or local) fire, flood, epidemic, quarantine restriction, strike, freight embargo, or unusually severe weather; provided, however, that no event or occurrence will be deemed to be a force majeure event unless the failure to perform is beyond the control and without any fault or negligence of the Party charged with performing or that Party's officers, employees, or agents. Whenever this Contract imposes a deadline for performing upon a Party, the deadline will be extended by one day for each day that a Force Majeure event prevents the Party from performing; provided, however, that the Party charged with performing and claiming delay due to a Force Majeure event will promptly notify the other Party of the Event and will use its best efforts to minimize any resulting delay.

(l) Jury Trial Waived. THE PARTIES HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS CONTRACT, OR ANY DEALINGS BETWEEN THE PARTIES. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL ENCOMPASSING OF ANY DISPUTES BETWEEN THE PARTIES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER, INCLUDING WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS, BREACH OF DUTY CLAIMS AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS.

(m) Authority to Bind Contractor. The undersigned representative of Contractor represents and warrants the he or she is fully authorized to bind Contractor to the terms and conditions of this Contract.

(n) Incorporation of RFP and Proposal. The City's Request for Proposals 0118-2600, and the Contractor's responsive proposal are incorporated herein by reference as **Composite Exhibit C** and will remain on file in the Office of the Purchasing Agent. In case of conflicts between the RFP and Proposal, the RFP will govern. In case of conflicts between **Composite Exhibit C** and other provisions of this Contract, including **Exhibits A** and **B**, this Contract will govern.

(o) Integration. This Contract represents the entire agreement of the parties with respect to the subject matter hereof. No representations, warranties, inducements or oral agreements have been made by either Party except as expressly set forth herein, or in other contemporaneous written agreements.

IN WITNESS WHEREOF, the Parties through their undersigned representatives have caused this Contract to be executed in duplicate original.

THE CITY

By: _____
Derrick L. Henry, Mayor

Date: 2-6-19

CONTRACTOR

By: _____
Printed Name: Diane Partridge
Title: Contracting and Attesting Officer
Date: January 3, 2019

Attest: _____
Letitia LaMagna, City Clerk

Approved as to legal form:

By: _____
Robert Jagger, City Attorney

INSITUFORM TECHNOLOGIES, LLC

PRESIDENT APPOINTMENT OF
CONTRACTING AND ATTESTING OFFICERS

The undersigned, being the President of Insituform Technologies, LLC, a Delaware Limited Liability Company (the "Company"), and pursuant to the authority set forth in the Limited Liability Company Operating Agreement of the Company, hereby determines that:

1. Christlanda Adkins, Laura M. Andreski, Janet Hass, Jana Lause, Diane Partridge, Whittney Schulte, and Ursula Youngblood are appointed as Contracting and Attesting Officers of the Company, each with the authority, individually and in the absence of the others, subject to the control of the Board of Managers of the Company, to: (i) certify and attest to the signature of any officer of the Company; (ii) enter into and bind the Company to perform pipeline rehabilitation activities of the Company and all matters related thereto, including the maintenance of one or more offices and facilities of the Company; (iii) execute and to deliver documents on behalf of the Company; and (iv) take such other action as is or may be necessary and appropriate to carry out the project, activities and work of the Company.

2. Any person previously appointed or serving as a Contracting and Attesting Officer of the Company prior to the date hereof and who is not named above is hereby removed from any such appointment.

Dated: December 1, 2018

Charles R. Gordon
President

EXHIBIT A
SCOPE OF WORK

I. General

The CITY requires professional Cured In Place Pipe (CIPP) rehabilitation services for sanitary sewer gravity mains and oval and round stormwater mains (8" – 72" diameter) on a continuing annual contract basis. Quantities listed are estimated for proposal purposes based on work projections and are subject to change. The term of the agreement will be for a period of one (1) year with an option to extend the agreement for four (4) additional one-year terms upon mutual agreement for the same prices and at the same terms and conditions. The contract shall not exceed five (5) years.

II. Summary of Work

The CONTRACTOR shall provide all work required for a completed project including but not necessarily limited to labor, supervision, traffic control, materials, equipment, installation, onsite material test samples showing compliance with manufacturer's recommended material, handling and incidentals required for the rehabilitation of various sized sanitary sewer gravity mains and oval and round stormwater mains with resin impregnated cured-in-place pipe (CIPP) in accordance with American Society for Testing and Materials (ASTM) ~~standard F 1216-09~~ Designation F1216-16 and all applicable CITY, manufacturer and industry preferred standards. The CONTRACTOR shall provide professional advice to CITY on the most cost-effective and efficient approach to resolve all challenges encountered during the performance of the work. Work assigned under this contract may include, but is not limited to, the following types of projects:

- Stormwater main and sanitary sewer main cleaning
- Stormwater main and sanitary sewer main pre- and post- work video inspections
- Easement access
- Maintenance of Traffic (MOT)
- Isolation and by-pass pumping
- Cured-In Place Pipe reconstruction
- Chemical and physical product testing
- Hydraulic capacity testing
- Reinstatement of services and pressure grouting
- Erosion and sediment control
- Site restoration

III. Product Performance

A. Lining

Standard lining products meeting product specifications outline in ASTM Designation: F1216-16 (Attachment A) are intended to have a 50-year design life and in order to minimize CITY's risk. Only proven products with substantial successful long-term track records will be approved. All thicknesses expressed on the Bid Item Schedule are the *finished thicknesses* of the liner after curing.

B. Equipment/Vehicles

All CONTRACTOR/sub-contractor equipment shall be sufficient in size and number for work to be performed in a timely manner under this contract. All CONTRACTOR/sub-contractor equipment shall be maintained in good operating condition. The CITY reserves the right to reject any equipment deemed unsafe or insufficient in size and/or number to perform work under this contract. It shall be the sole responsibility of the CONTRACTOR/sub-contractor to replace rejected equipment in a timely manner and at no cost to the CITY. All equipment shall be equipped at a minimum with manufacturer's recommended sound muffling devices that will reduce noise levels to the State or Federal acceptable limit for residential neighborhoods.

IV. Materials

A. All materials specified by name, brand or manufacturer shall be delivered to the job site in original containers. CONTRACTOR shall obtain printed instruction and special bulletins for the manufacturer-recommended safety precautions. CONTRACTOR/sub-contractor personnel will have copies of the manufacturer-recommended safety precautions available at the work site to ensure all work is performed in a safe manner.

B. The CONTRACTOR shall use potable water from the CITY for the project. The CONTRACTOR must obtain a construction hydrant water meter and all appropriate fees paid prior to the start of work. The CONTRACTOR will be responsible for paying for all potable water used at standard CITY rates.

VII. Contractor Responsibilities

A. Backflow Prevention: The CONTRACTOR will properly install an approved backflow prevention device in-line to the fresh water fill line of all jetting and/or vacuum equipment

B. Staffing: The CONTRACTOR shall employ adequate staff to perform the services required, including but not limited to Project Representative, Project Manager, Field Supervisor and Senior Foreman. CONTRACTOR shall provide staff who are proficient and experienced in all phases of services required.

C. Site Assessment: The CONTRACTOR shall visit each site to assess site conditions including confirmation of the actual footage, material type and diameters and incorporate those findings in their initial cost and work proposal.

D. Vehicle Identification: The CONTRACTOR shall ensure that employee's vehicles display company logo on the side doors and company phone numbers. The CONTRACTOR will not permit personal vehicles to be parked at the job site.

E. License and Confined Space: The CONTRACTOR shall be a licensed CONTRACTOR for the provision of these services in the State of Florida with full service

offices in the State of Florida for the provision these services.

F. Cleaning of Stormwater Main and Sewer Lines: The CONTRACTOR shall remove and properly dispose of all debris from the inside of manholes, stormwater mains and/or sewer lines and provide a sufficiently dry interior environment that will not interfere with the installation's expected working life of a durable CIPP liner per the manufacturer's requirements.

G. Bypassing Stormwater and Sewage: The CONTRACTOR shall provide for the flow of stormwater and sewage around the sections of pipe designated for reconstruction. The CONTRACTOR shall make the bypass by plugging the line at an existing upstream manhole and pumping the flow into a downstream manhole by way of restrained watertight pipe. The CONTRACTOR will provide pump(s) and bypass lines of adequate capacity and size to handle the average daily flow. The CONTRACTOR'S backup bypass pump(s) will be adequately sized and with full operational capabilities and will be on site at all times of by-pass pumping. The CONTRACTOR shall be responsible for all traffic control during operations and bypass pumping.

H. TV & Inspection of Pipelines: The CONTRACTOR will inspect pipelines using experienced personnel trained in locating breaks, obstacles and service connections by closed circuit television. The CONTRACTOR will carefully inspect the interior of the pipeline to determine the location of any conditions which may prevent proper installation of CIPP into the pipeline; the CONTRACTOR will notify the City so that these conditions can be corrected. The CONTRACTOR shall review all questionable host pipe areas with the CITY and provide advice on remedies to correct them. The CONTRACTOR will maintain a video and suitable log for later reference by the CITY. The CONTRACTOR will perform the post-construction inspection and will provide a video DVD and log to the CITY. The CONTRACTOR will ensure that all video inspection are witnessed by a CITY representative as it is being performed. The CONTRACTOR will include the cost of video inspection in the contract line items.

I. Manhole/Liner Interface: The CONTRACTOR shall make a watertight seal at the interface where the liner/host pipe meets the manhole or other attachment point. The CONTRACTOR'S removal of CIPP liner from areas where line placement was elected in lieu of resetting equipment shall be incidental to the placement of the CIPP.

J. Service Reconnection: Service reconnection refers to the reinstatement of the house service connection at the sewer main after the installation of trenchless pipe reconnection system. The CONTRACTOR will accomplish this from within the sewer main via a remote controlled cutting device.

K. Service with Pressure Grouting: The CONTRACTOR will pressure grout the service wye after mainline has been rehabilitated and service line re-instated. The CONTRACTOR will use a non-shrinking chemical grout (Avanti 118/101 or Cues Quickseal 105 are acceptable). The CONTRACTOR shall provide trenchless reconstruction of service laterals and main line sewers. The CONTRACTOR shall perform services including but not limited to televised inspection, data collection, system flow analysis and pipeline reconstruction in accordance with ASTM Designation F2454-05, attached as Attachment B.

L. Safety and Worksite Control: The CONTRACTOR will provide services that include safety measures for both their workers and the public. The CONTRACTOR is completely responsible for the control of the environment of the work site during on-site operations including implementation, operation, maintenance and tear down of traffic control systems. The CONTRACTOR will take all precautions to protect the workers, public the CITY staff from the exposure to harmful or hazardous situations and substances within the stormwater and sewer systems.

M. Waste Materials: The CONTRACTOR will dispose all waste materials and shall transport waste materials to the nearest CITY Wastewater Treatment Plant for processing. The CONTRACTOR will obtain CITY approval of all waste material disposal schedules. The CONTRACTOR shall clean up all waste material spills and clean-up required due to the loading, hauling and unloading of the CONTRACTOR's equipment.

The CONTRACTOR shall conform to any and all requirements regarding hauling and disposal of waste from each work site in accordance with OSHA regulations and those that may be mandated by federal, state or local governments. The CONTRACTOR shall ensure that all waste material transporters possess all required federal, state and local regulations, including but without limitation, 40 CFR Part 263, "Standards Applicable to Transporters of Hazardous Waste" and Chapter 17-730, Part 3, Florida Administrative Code, as may be amended from time to time.

N. Curing Water: The CONTRACTOR will pay for all costs associated with disposal of curing water in accordance with CITY, State and Federal regulations.

O. TV Inspection Report: The CONTRACTOR will prepare and submit a report of each TV inspection and analysis to the CITY for review. The CITY shall consult with the CONTRACTOR and finalize the scope of work.

P. Schedule Coordination: The CONTRACTOR shall inform the CITY of its planned work schedules two weeks in advance of performing the work and provide the CITY reasonable opportunity to observe and inspect the work. The CONTRACTOR will advise the CITY of all schedule changes and notified when a work site is to be left for a 24-hour period when work is not complete.

Q. Rights of Various Interests: Wherever work being done by the City's forces or by other contractors is contiguous to Work covered by this Contract, the respective rights of the various interests involved shall be established by the City to secure the completion of the various portions of the work in general harmony.

R. Separate Contracts: The City reserves the right to let other contracts in connection with this work. Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate Contractor's work with theirs.

S. Patent Fees and Royalties: CONTRACTOR will be responsible at all times for compliance with applicable patents and copyrights encompassing, in whole or in part, any design, device, material, or process utilized, directly or indirectly, in the performance of the work or the formulation or presentation of its bid. CONTRACTOR will

pay all royalties and license fees and will provide, prior to commencement of a Project hereunder and at all times during the performance of same, for lawful use of any design, device, material or process covered by letters, patent or copyright by suitable legal agreement with the patentee, copyright holder, or their duly authorized representative whether or not the OWNER specifies a particular design, device, material, or process. CONTRACTOR will defend all suits or claims for infringement of any patent or copyright and will save the OWNER harmless from any loss or liability, direct or indirect, arising with respect to CONTRACTOR's process in the formulation of its Bid or the performance of the Work or otherwise arising in connection therewith. The OWNER will have the right to stop the Work or terminate this Contract at any time if CONTRACTOR fails to disclose to the OWNER that CONTRACTOR's work methodology includes the use of any infringing design, device, material, or process.

VIII. Contractor / Sub-contractor Employee Conduct and Appearance

A. Conduct:

1. CONTRACTOR and sub-contractors shall follow all applicable industry standards, federal, state, and local laws/ordinances as related to described work.

2. CONTRACTOR'S on-site employees shall all have current confined space entry certification.

3. The CONTRACTOR will remove any employee or sub-contractor employee reporting to a work site under the influence and/or smelling of alcohol from the work site. CONTRACTOR will immediately replace the employee in a timely manner and at no cost to the CITY.

4. The CONTRACTOR will provide trained supervision at the work site to ensure work is performed in a safe manner.

5. The CONTRACTOR shall correct any damage resulting from the negligence of CONTRACTOR or sub-contractor employee(s) to CITY property or equipment in a timely manner, to the CITY's satisfaction and at the CONTRACTOR's sole expense.

B. Appearance:

1. CONTRACTOR and sub-contractor employees assigned to work under this contract will maintain a neat, clean, and professional appearance.

2. CONTRACTOR and sub-contractor employees shall wear uniforms consisting of, at minimum, wear a work shirt identifying their company name.

3. Licenses/Permits: The CONTRACTOR will obtain all necessary municipal and other governmental licenses/permits and approvals or consent from utilities or carriers such as communications companies, electric utilities, gas utilities and/or other persons/organizations upon whose property or authority performance of work under the contract might impinge.

IX. Scope of Work General Stormwater and Sanitary Sewer Main Lining

The CONTRACTOR will be compensated for oval stormwater mains at the unit cost for the round pipe diameter that meets or exceeds the oval pipe's square feet of flow-way

area opening. Individual item quantities may be adjusted at the sole discretion of the City if necessary to compensate for unique project and site conditions.

A. Stormwater Main and Sanitary Sewer Cleaning

Scope: Work performed under this section includes removal and disposal of all dirt, roots, grease, solids, or semi-solids from stormwater mains, sanitary sewer mains and manholes as indicated on the drawings and as specified herein to the extent that video inspection, flow isolation, and manhole inspection can be performed.

1. Quality Assurance: The CONTRACTOR shall conduct cleaning operations using experienced personnel who have previously been engaged in cleaning operations of similar size and complexity to the work described herein.

2. Submittals:

a. The CONTRACTOR shall submit a Cleaning Log in a format acceptable to the CITY for the purposes of recording pertinent information relative to the stormwater main and sanitary sewer structures being cleaned. The CONTRACTOR will provide the Cleaning Log no later than 14 calendar days after the conclusion of the cleaning.

b. The CONTRACTOR will submit Material Safety Data Sheets (MSDS) for all chemical cleaning agents proposed for use under this contract no later than 14 days after the effective date of the Contract.

B. Products: The CONTRACTOR shall utilizes cleaning equipment capable of removing all accumulated dirt, sand, grease, rocks and other deleterious materials and obstructions from the sanitary sewer mains and the oval and round stormwater mains. The CONTRACTOR will ensure that all equipment used for cleaning operations is designed and intended to do the type of work which is specified. The CONTRACTOR will utilize equipment which is self-contained to handle all operations, when possible. The CONTRACTOR will use equipment manufacturer that is actively engaged in the research, development and manufacturing of said equipment. The CONTRACTOR may be directed to remove equipment deemed sub-standard by the City and may be directed to replace the equipment with equipment meeting these specifications, at no additional cost to the CITY.

1. High Velocity Cleaning Equipment: The CONTRACTOR will supply all high velocity hydraulic sewer cleaning equipment mounted on trucks. The CONTRACTOR supplied equipment shall have a minimum of 500 feet of ¾ inch I.D. high pressure hose with a selection of two or more high velocity nozzles. The nozzles shall have a capacity of 30 GPM at a minimum working pressure of 1000 psi. The nozzles shall be capable of producing a scouring action from 15° to 45° in the direction of cleaning and perpendicular to the sewer axis in all size lines designated to be cleaned. The CONTRACTOR will supply a high velocity gun for washing and scouring manhole walls and floor. The gun capacity shall equal 3.5 to 27 GPM at between 200 and 800 psi. The gun shall be capable of producing flows from a fine spray to a long distance solid stream. The equipment shall carry its own 1200 gallon (minimum) water tank capable of holding corrosive or caustic cleaning, sanitizing or degreasing chemicals if required by the CITY, auxiliary engines and pumps, and hydraulically driving hose reel. All controls shall be located so that the equipment can be operated aboveground.

2. Hydraulically Propelled Cleaning Equipment: The CONTRACTOR will supply hydraulically propelled cleaning equipment of the movable dam type and be constructed in such a way that a portion of the dam may be collapsed at any time during the cleaning operation to protect against flooding of the storm or sewer systems. Storm/Sewer cleaning balls or other such equipment which cannot be collapsed instantly to provide an immediate unobstructed flow-way during emergency conditions will not be considered as acceptable cleaning equipment. The movable dam shall be of equal diameter as the pipe being cleaned and shall provide a flexible scraper around the outer periphery to ensure total removal of the grease or obstruction.

3. Mechanical Cleaning Equipment: The CONTRACTOR will provide bucket machines in pairs with each machine powered by a minimum of a 16 horsepower engine to ensure sufficient pulling power. Each machine shall be equipped with a two speed transmission and shall be able to pull at rates of 175 feet per minute in high speed. The belt clutch gear reduction shall be a combination of approximately 83 to 1 reduction in low speed and 55 to 1 in high speed. The power rodding machine shall be of a "continuous rod" type capable of holding a minimum of 750 feet of rod. The machine and rod shall be specially treated steel, designed for the purpose intended. The machine shall have a positive rod drive and produce a 2,000 pound rod pull. To ensure safe operation, the machine shall have a fully enclosed body and an automatic safety throw-out clutch or relief valve. The final pass shall be with a brush large enough to ensure that the line has been cleaned sufficiently. This brush shall be mechanically driven, with the power mechanism properly sized. The CONTRACTOR will arrange all electrical drops required by the CONTRACTOR.

4. Capture and Removal of Debris: The CONTRACTOR shall furnish equipment, either specialized or standard in the industry, for the purpose of preventing debris from being washed past the manhole downstream of the line segment being cleaned, and for removing the debris from the manhole before any damage is caused to the system performance and or system equipment such as pump/lift stations, check valves, flow-ways, etc. The CONTRACTOR will bear the cost of all system down-time and repairs to restore operational status resulting from construction debris damage that in the CITY's opinion was reasonably preventable.

5. Water Metering Requirements: The CONTRACTOR will access CITY water via fire hydrants equipped with hydrant meters for cleaning, inversion and other work items requiring water. All costs incurred in obtaining and delivering the potable water shall be borne by the CONTRACTOR. The CONTRACTOR will use only potable water for this work.

C. Execution:

1. General: These specifications provide a basis by which a stormwater main or sanitary sewer line can be cleaned of all debris so that further work can be carried out. The CONTRACTOR will clean the designated stormwater main and/or sanitary sewer lines using high velocity, hydraulically propelled or mechanically powered sewer cleaning equipment as specified. The CONTRACTOR'S selection of the equipment used shall be based on the condition of the lines at the time the work commences. The CONTRACTOR will select equipment and methods that are satisfactory to the CITY. The CONTRACTOR will accomplish the cleaning of stormwater main or sewer lines by trapping and collecting all sand, debris, grease and other materials at the next manhole downstream of the line being cleaned,

and removal and proper disposal of said materials. The CONTRACTOR'S cleaning operations may also provide a means by which the stormwater main or sewer line can be threaded, i.e., a cable inserted in the line so that the television camera may be pulled through. The CONTRACTOR will not clean upstream sections of pipe once that section of pipe has been televised and accepted as complete.

2. Site Visit: The CONTRACTOR will conduct a physical reconnaissance of the area to be cleaned in order to verify the location of known and/or accepted manholes.

3. The CONTRACTOR shall utilize a magnetic locator to attempt to identify the location of buried manhole covers and notify the CITY representative so that CITY personnel can excavate and bring the manhole up to grade prior to cleaning. Under no circumstances shall the CONTRACTOR excavate buried manholes without prior written authorization from the CITY.

D. Hydraulic Cleaning Methodology:

1. High Velocity Cleaning Methodology: High velocity hydro-cleaning shall consist of cleaning and flushing of the stormwater main or sewer line by means of water pumped into the line at a high velocity. The CONTRACTOR shall accomplish cleaning using approved equipment to deliver water to a self-propelled nozzle to do the necessary cleaning and flushing. The CONTRACTOR will make as many passes as necessary to sufficiently clean the stormwater main or sewer line. The CONTRACTOR will take all precautions to protect the stormwater main or sewer line from damage that might be inflicted by the improper use of cleaning equipment.

2. Hydraulically Propelled Methodology: The CONTRACTOR will take precautions to ensure that the water does not cause damage of flooding to the public or private property being served by the manhole section involved whenever hydraulically propelled cleaning tools, which depend on water pressure to provide their cleaning force, or any tools which retard the flow of water in the stormwater main or sewer line are used.

3. Capture and Removal of Debris: The CONTRACTOR will construct a suitable weir or dam in the downstream manhole in such a manner that both the solids and water shall be trapped when hydraulic cleaning equipment is used, shall be constructed. The CONTRACTOR will pump this trapped solution using a method approved by the CITY, from the manhole into a retention chamber aboveground. The retention chamber shall contain not less than two baffles to ensure complete settlement of the solids before returning the liquid to the stormwater main or sewer line.

E. Mechanical Cleaning Methodology:

1. Rodding: The CONTRACTOR will perform cleaning by rodding with a power-driven continuous steel rod of sufficient length and gauge with the proper cleaning heads or augers, so as to loosen all solids or other materials. It shall also provide a means to thread a cable for the power winch.

2. Bucket Machine: The CONTRACTOR will remove all solids, materials and other debris by means of a clam-shell type bucket and/or other appliances dragged through the stormwater main or sewer line with power winches of suitable size and horsepower.

3. Supplemental Cleaning: The CONTRACTOR will perform a minimum of one pass using hydraulic cleaning methods after all material has been removed by mechanical cleaning, to ensure complete removal of material from the walls of the pipe. The CONTRACTOR will repair any damage to pipes.

4. Capture and Removal of Debris: The CONTRACTOR will capture debris in the downstream manhole in a manner approved in writing by the CITY, or as described above when mechanical cleaning equipment is used. .

F. Special Cleaning Requirements for Cast Iron Pipe: The CONTRACTOR will clean pipes of tuberculation, including rust build-up and mineral deposits after cleaning pipe of normal sewage deposits such as sand and grease by methods above. The CONTRACTOR may choose any equipment necessary to remove the tuberculation for pipe diameters greater than 24-inch, such as a "pig" or rodder; however, no equipment shall be used which may damage the pipe, manholes, street or downstream pump stations. The CONTRACTOR will remove all tuberculations for pipe diameters less than or equal to 24-inch, using a high pressure water blaster capable of delivering a minimum of 40 gallons per minute at a pressure of 10,000 psi. Where practical, the line shall be proofed by pulling a slip lining pulling head for the size of the pipe involved through the pipe to insure that no restrictions remain. The CONTRACTOR may choose a similar proofing device if deemed acceptable, in writing, by CITY.

G. Sanitary Sewer Manhole Modifications: The CONTRACTOR will make any modifications to manholes to facilitate cleaning which will be subject to prior written approval by the CITY. CONTRACTOR shall salvage and reuse all manhole covers and rings that are removed during sewer line and manhole rehabilitation.

H. Material Removal and Cleanup:

1. Material Removal: The CONTRACTOR will remove all sludge, dirt, sand, rocks, grease and other solid or semi-solid material resulting from the cleaning operation at the downstream manhole of the section being cleaned. Passing material from manhole section to manhole section will not be permitted. Under no circumstances will the CONTRACTOR be allowed to accumulate debris, sand, etc., on the site of work beyond the time limit approved by the CITY, except in totally enclosed containers, and only with the prior written approval of the CITY. The CONTRACTOR will remove all solids or semi-solids resulting from the cleaning operations from the site and disposed of at a location approved by the CITY.

2. Root Removal: The CONTRACTOR will remove all roots. The CONTRACTOR will give special attention during the cleaning operation to assure complete removal of roots from joints in lines and manholes. The CONTRACTOR may use chemical root treatment at the option of the CONTRACTOR.

When the CONTRACTOR uses chemicals to aid in removal of roots, the chemical shall be EPA registered and labeled for use in sewer lines and manholes and in compliance with all applicable CITY, State and Federal regulations. All material and mixing/application procedures for chemical root treatment shall be consistent with the latest standards, requirements and recommendations of the manufacturer of the chemical root

treatment material used. The CONTRACTOR shall protect waterways, ponds and other water bodies from chemical contamination.

I. Degree of Cleaning: The CONTRACTOR will remove all dirt, debris, roots and other solid and liquid materials from the sections of stormwater system or sewer system being cleaned to the extent that closed circuit television inspection can be performed. The CONTRACTOR will only perform light cleaning on all stormwater main and sanitary sewer main. A CITY representative shall define the extent of the cleaning to be performed on existing pipes included within a given work order. The level of cleaning is defined as follows:

1. Light Cleaning: The removal of ¼ pipe diameter depth or less of sand and/or debris from a section of pipe. The removal of roots and/or tuberculation will be paid under a separate line item.

2. Medium Cleaning: The removal of greater than ¼ and up to and including ½ pipe diameter depth of sand and/or debris from a section of pipe. The removal of roots and/or tuberculation will be paid under a separate line item.

3. Heavy Cleaning: The removal of greater than ½ pipe diameter depth of sand and/or debris from a section of pipe. The removal of roots and/or tuberculation will be paid under a separate line item

J. Dewatering: When by CITY and CONTRACTOR prior inspection and agreement it is determined that the pipe cannot be cleaned due to infiltration of groundwater, and the CONTRACTOR is required to temporarily halt the infiltration of groundwater by de-watering system means, the cost shall be included in the unit prices for cleaning as an incidental cost..

K. Manhole Clean-up: Clean-up operations shall consist of cleaning all debris out of the manhole and off the ground around the manhole. The CONTRACTOR will remove all debris from the stormwater system and sanitary sewer system and shall disposed of such debris properly off site in areas provided by the CONTRACTOR at the CONTRACTOR'S expense. The CONTRACTOR will provide transportation of debris or other material by the CONTRACTOR in vehicles or equipment which contain the debris or other material in such a manner to minimize objectionable odor and avoid the possibility of dripping, spilling, scattering, leaking or blowing. , The CONTRACTOR will clean up any debris or other material to the satisfaction of the CITY or other authorities having jurisdiction should spillage of debris resulting from overloading of trucks or for any other reason. The CONTRACTOR will ensure that all vehicles transporting debris or other material do not exceed the maximum allowable load limits of any road being used.

L. Restoration: The CONTRACTOR will repair all damage to public and/or private property which occurs as a direct result of the cleaning operations. The cost of restoring any damaged area to conditions prior to cleaning shall be borne by the CONTRACTOR.

M. Additional Cleaning: The CONTRACTOR will re-clean the line at no additional expense to the CITY should subsequent video inspection of cleaned stormwater main or sewers reveal that additional cleaning is required. The CONTRACTOR will provide any additional video inspection or re-setup of video equipment required due to re-cleaning at no additional expense to the CITY.

N. Pre- and Post-Work Inspections

The CONTRACTOR will video tape the stormwater main or sewer lines under the direct supervision of a CITY representative, prior to commencement of any proposed CIPP work and prior to acceptance of any completed CIPP work,. A CITY representative must be on site during the entire inspection procedure period. In the event the CONTRACTOR performs video inspection without a CITY representative present, the video will not be accepted by the CITY and must be re-done in the presence of a CITY representative. The CONTRACTOR will provide one (1) copy of the DVD video and associated video logs to the CITY prior to scheduling the post-cleaning and final inspections. CONTRACTOR shall meet with CITY staff to determine the acceptable method of repair if defects or problems are observed on the video. The CONTRACTOR will make all necessary repairs or correct the noted deficiencies at no cost to the CITY.

The CONTRACTOR will provide mandatory television inspection on all stormwater main and sewer mains that CIPP work has been performed under this contract. Only pan and tilt type cameras will be allowed. The CONTRACTOR will provide two (2) copies each of the written report and DVD video record of the inspection with audible description of run, direction, location and description of any defect or abnormality to the CITY at the time of the inspection. The video will be in color with good clarity. No black and white or poor quality videos will be accepted. The CONTRACTOR will schedule television inspection a minimum of seventy-two (72) hours in advance and a CITY representative is required to be on-site during entire length of each television inspection; otherwise the television inspection will be deemed invalid. The CONTRACTOR will clean all lines prior to videoing in accordance with Technical Specifications.

O. Maintenance of Traffic (MOT)

CONTRACTOR shall furnish all traffic control in accordance with the Florida Department of Transportation (FDOT) specifications as outlined in the "Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System" (latest edition) and the United States Department of Transportation/Federal Highway Administration (USDOT/FHWA) "Manual on Uniform Traffic Control Devices" (latest edition) for all aspects of assigned work.

CONTRACTOR shall perform all construction activity so that access to businesses can be maintained at all times and access to occupied homes can be maintained during non-working hours. The CONTRACTOR will provide written notice prior to access blockage to the blocked business/resident a minimum of forty-eight (48) hours in advance, either mailed or hand-delivered with a copy of each furnished to the CITY.

The CONTRACTOR shall maintain at least one lane of vehicular traffic at all times. The CONTRACTOR shall also provide safety barricades, business entrance signage and flag persons as required to properly maintain traffic flow. The CONTRACTOR shall prepare and submit a traffic maintenance plan for approval by the CITY prior to the start of work if directed by the CITY. The CONTRACTOR will include the cost of all work, materials and costs required for completed traffic control in the unit cost of the traffic control pay items in the pricing sheet.

P. Locates CONTRACTOR is responsible for all utility locates.

Q. Isolation and Bypass Operations

1. CONTRACTOR shall provide all isolation and bypass operations: The CONTRACTOR's objective of flow bypass and/or diversion pumping is to maintain an efficient and uninterrupted level of service to wastewater collection system and stormwater main users while maintenance or construction operations (including rehabilitation, repair or replacement) are being performed on the segment(s) being bypassed and/or from which flow is being diverted by:

a. Ensuring that bypass and diversion pumps are adequately fueled, lubricated and maintained.

b. Ensuring backup spare parts are expeditiously applied to the flow bypass and/or diversion pumping system in the event of component breakdown.

c. Ensure an emergency backup plan is smoothly implemented in the event of system failure.

d. Preventing backup, spillage, flooding or overflow onto streets, yards and unpaved areas or into building, adjacent ditches, stormwater mains and waterways while flow bypass or diversion pumping takes place, and

e. Ensuring that installation, startup and subsequent disassembly of the flow bypass and diversion pumping system is smoothly transitioned.

2. The CONTRACTOR will provide flow bypass and diversion pumping in such a manner so as not to damage private or public property, or create a nuisance or public menace. The CONTRACTOR will enclose the pumped sewage in a hose or pipe that is adequately protected from traffic and shall be redirected into the wastewater collection system. The CONTRACTOR will return flow to the sewer and will remove all temporary equipment after the work is completed. The CONTRACTOR will enclose the pumped storm water in an enclosed hose or pipe that is adequately protected from traffic and shall be redirected into the stormwater system. The CONTRACTOR shall return flow to the stormwater mains and all temporary equipment removed after the work is completed.

3. The CONTRACTOR will provide an experienced bypass/diversion pump maintenance operator/mechanic and/or deputy on site continuously to monitor the operation of the entire bypass/diversion system when pumps are operating. The operator/mechanic shall comprehensively, methodically and continuously:

a. Adjust pump speed as appropriate so as not to adversely impact upstream or downstream flow condition levels

b. Check that the effectiveness and security of bulkheads, dams, diaphragms, plugs, valves, weirs and all other flow control devices are working effectively and according to plan.

c. Check the integrity of hoses and couplings along the entire bypass/diversion system.

d. Monitor lubrication levels and top off as necessary

e. Facilitate minor repairs as required

f. Report to CITY on problems arising.

4. The CONTRACTOR shall plan and execute sewer flow control, bypass and diversion pumping operations. The CONTRACTOR shall be entirely liable for damages to private or public property that may result from his/her operations and for all cleanup, disinfection, damages, and resultant fines in the event of spillage, flooding or overflow.

5. The CONTRACTOR shall immediately stop the overflow and take action to clean up and disinfect the spillage in the event of accidental overflow or spillage. The CONTRACTOR shall notify the CITY immediately and in any event not less than twenty-four (24) hours following the occurrence.

The CONTRACTOR is deemed to be entirely responsible should fines be subsequently imposed as a direct result of the overflow or spillage and the CONTRACTOR shall pay such fines as are imposed by the authorities. The CITY shall pay no fine(s) where it is shown the CONTRACTOR was entirely responsible for any overflow or spillage.

6. The CONTRACTOR shall complete work as efficiently as possible without interruption once by-pass pumping is underway at any given site.

7. The CONTRACTOR will ensure the level of noise emitted from pumps is within local regulations/ordinance parameters.

R. Work Integration

1. Hours of Operation: The CONTRACTOR will conduct all work during CITY acceptable work hours (typically 7:30 a.m. to 6:00 p.m.), Monday through Friday with the exception of CITY-observed events or holidays, unless circumstances prevent such scheduling. Such circumstances may include, but are not limited to, structures with high peak flows, significant negative impact on business or schools or excessive pedestrian and vehicular traffic flow if structure is located in vehicular or pedestrian thoroughfare. In such circumstances, "off hours" work will be required. This work may include late night and/or early morning hours and weekends. Such scheduling shall be agreed upon by both the CONTRACTOR and the CITY prior to the start of work. CONTRACTOR overtime and other CONTRACTOR-related costs shall be borne by the CONTRACTOR.

2. Work Coordination: The CONTRACTOR shall coordinate all work between a single point of contact for the CONTRACTOR and the CITY designated project manager. The CONTRACTOR will conduct discussion of structure conditions before work starts and final payment based on conditions agreed to at time of commencement of work or in subsequently approved change orders.

3. The CONTRACTOR will notify the CITY a minimum of seventy-two (72) hours prior to the commencement of work in order for CITY personnel to be available for onsite activities.

S. Work Product Submittals

1. Bypass Pumping: The CONTRACTOR will provide submittals for the by-pass pumping plan and those plans approved no less than two weeks prior to execution of the work. The CONTRACTOR will not mobilize prior to approval of the pumping plan.

2. Videotaping: CONTRACTOR will submit one copy of each of two video inspections; one prior to the start of work and one after CIPP lining is completed for each

project. The video shall be of *high visual quality with complete and clear annotation on screen* to trace the route of camera travel and accurately determine the pipe condition in compatibility with the route and inspection information in the condition assessment log.

T. Site Restoration

The CONTRACTOR shall restore the work site(s) on a daily basis where practical. The CONTRACTOR will clear all obstructions from roadways, sidewalks, bike paths and other public thoroughfares daily, to the largest extent possible. The CONTRACTOR will not create a public nuisance during restoration activities. The CONTRACTOR will complete all restoration activities within a minimum of fourteen (14) calendar days of work being finished in a work area. Site restoration is ancillary item for the CIPP reconstruction and shall be included in the LF cost.

U. Ordering and Payment

1. Work will be ordered by the City through delivery of a work order request e-mail that includes a due date for the work order proposal to be submitted, a brief description of the work to be done and an aerial map with a schematic detail of the pipe system. The work order request will include a request for a fee and a time for completion. The City's work order request to the Contractor is based on an annual prioritized list of projects or a request from the Field Operations staff. It may or may not include the need for special conditions such as a compressed timeframe for response and the work schedule based upon the urgency/conditions such as an impending or partial road collapse. Acceptance of the work order proposal shall be documented by issuance of a City Purchase Order. Work shall not commence until issuance of an electronic Notice to Proceed (i.e., an email) for the work order.

2. The CONTRACTOR will submit monthly invoices to the CITY inspector for review and agreement prior to submitting to the CITY project manager for final acceptance and processing of payment.

V. Mobilization Mobilization charges shall include movement of equipment and material to and from the site and other costs not included as a separate line item to commence work on a work authorization.

W. Line Reconstruction

1. Sanitary: Includes open cut and installation of SDR-26 PVC Sanitary Sewer. Furnished and Installed. Open cut and Construct Sanitary Sewer line includes all labor, materials, and equipment necessary for dewatering, excavation, sheeting, shoring bracing installation of SDR26 PVC sanitary sewer, rigid fernco connections or manhole boots as required, pipeline identification and warning tape, disposal of excess material and old pipe, suitable backfill, replacement of existing improvements, pavement repair, testing, sodding and cleanup.

2. Sanitary: Incudes open cut installation of C900 Sanitary sewer. Furnished and Installed. Open cut and Construct Sanitary Sewer line includes all labor, materials, and equipment necessary for dewatering, excavation, sheeting, shoring bracing installation of C900 sanitary sewer, rigid fernco connections or manhole boots as required,

pipeline identification and warning tape, disposal of excess material and old pipe, suitable backfill, replacement of existing improvements such as connections, testing, sodding and cleanup.

3. Stormwater: Incudes open cut installation of RCP stormwater pipeline. Furnished and Installed. Open cut and Construct stormwater line, includes all labor, materials, and equipment necessary for dewatering, excavation, sheeting, shoring, bracing installation of RCP stormwater pipeline identification and warning tape, disposal of excess material and old pipe, suitable backfill, replacement of existing improvements such as connections, testing, sodding, pavement repair, brick and mortar installation and any connection to a structure and cleanup. **FDOT** Concrete collars are required on RCP to connect pipe and incidental to installation of the stormwater PVC line.

4. Stormwater: Incudes open cut installation of HDPE stormwater pipeline. Furnished and Installed. Open cut and Construct stormwater line includes all labor, materials, and equipment necessary for dewatering, excavation, sheeting, shoring, bracing installation of HDPE stormwater pipeline identification and warning tape, disposal of excess material and old pipe, suitable backfill, replacement of existing improvements such as connections, testing, sodding, pavement repair, brick and mortar installation and any connection to a structure and cleanup. HDPE collars are incidental to installation of the stormwater HDPE line.

X. Grout Fill Abandoned Lines Grout fill will be required where the City determines it best to replace the entire line in a different alignment. The unit price will be paid by the cubic yard. Payment will be for the furnishing and placement of the grout mixture and will include all necessary excavation, connections, restoration and all other accommodations to properly perform the work.

Y. Manhole Cleaning the CONTRACTOR will remove all dirt, debris, roots and other solid and liquid materials from the sections of stormwater or sewer manhole being cleaned to the extent that closed circuit television inspection can be performed.

EXHIBIT B

	CIPP REHABILITATION - SANITARY SEWER MAINS				
ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT OF MEASURE	UNIT PRICE	EXTENDED PRICE
A	**8" diameter**				
A-1	6.0 mm normal thickness (.236")	10,000	LF	$ 23.10	$ 231,000.00
A-2	7.5 mm normal thickness (.295")	10,000	LF	$ 25.20	$ 252,000.00
A-3	9.0 mm normal thickness (.354")	5,000	LF	$ 26.00	$ 130,000.00
				TOTAL "A"	$ 613,000.00
B	**10" diameter**				
B-1	6.0 mm normal thickness (.236")	400	LF	$ 27.30	$ 10,920.00
B-2	7.5 mm normal thickness (.295")	400	LF	$ 29.70	$ 11,880.00
B-3	9.0 mm normal thickness (.354")	400	LF	$ 31.00	$ 12,400.00
				TOTAL "B"	$ 35,200.00
C	**12" diameter**				
C-1	6.0 mm normal thickness (.236")	400	LF	$ 30.40	$ 12,160.00
C-2	7.5 mm normal thickness (.295")	400	LF	$ 32.90	$ 13,160.00
C-3	9.0 mm normal thickness (.354")	600	LF	$ 39.30	$ 23,580.00
				TOTAL "C"	$ 48,900.00
D	**15" diameter**				
D-1	6.0 mm normal thickness (.236")	400	LF	$ 38.00	$ 15,200.00
D-2	7.5 mm normal thickness (.295")	400	LF	$ 42.10	$ 16,840.00
D-3	9.0 mm normal thickness (.354")	600	LF	$ 49.10	$ 29,460.00
				TOTAL "D"	$ 61,500.00
E	**18" diameter**				
E-1	6.0 mm normal thickness (.236")	300	LF	$ 37.90	$ 11,370.00
E-2	7.5 mm normal thickness (.0295")	300	LF	$ 45.00	$ 13,500.00
E-3	9.0 mm normal thickness (.354")	300	LF	$ 57.70	$ 17,310.00
E-4	10.5 mm normal thickness (.413")	200	LF	$ 61.20	$ 12,240.00
				TOTAL "E"	$ 54,420.00
F	**21" diameter**				
F-1	6.0 mm normal thickness (.236")	300	LF	$ 44.00	$ 13,200.00
F-2	7.5 mm normal thickness (.295")	300	LF	$ 48.00	$ 14,400.00
F-3	9.0 mm normal thickness (.354")	300	LF	$ 67.50	$ 20,250.00
F-4	10.5 mm normal thickness (.413")	300	LF	$ 73.30	$ 21,990.00
F-5	12.0 mm normal thickness (.472")	200	LF	$ 78.90	$ 15,780.00
F-6	Charge for each 1.5 mm thickness increase per LF exceeding 12.0 mm	100	LF	$ 4.20	$ 420.00
				TOTAL "F"	$ 86,040.00

	CIPP REHABILITATION - SANITARY SEWER MAINS				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
G	**24" diameter**				
G-1	9.0 mm normal thickness (.354")	300	LF	$ 70.00	$ 21,000.00
G-2	10.5 mm normal thickness (.413")	300	LF	$ 82.50	$ 24,750.00
G-3	12.0 mm normal thickness (.472")	300	LF	$ 89.90	$ 26,970.00
G-4	13.5 mm normal thickness (.531")	300	LF	$ 94.90	$ 28,470.00
G-5	15.0 mm normal thickness (.591")	200	LF	$ 100.20	$ 20,040.00
G-6	Charge for each 1.5 mm thickness increase per LF exceeding 15.0 mm	100	LF	$ 4.30	$ 430.00
				TOTAL "G"	$ 121,660.00
H	**27" diameter**				
H-1	9.0 mm normal thickness (.354")	100	LF	$ 74.00	$ 7,400.00
H-2	10.5 mm normal thickness (.413")	100	LF	$ 89.70	$ 8,970.00
H-3	12.0 mm normal thickness(.472")	100	LF	$ 97.90	$ 9,790.00
H-4	13.5 mm normal thickness (.531")	50	LF	$ 104.20	$ 5,210.00
H-5	15.0 mm normal thickness (.591")	50	LF	$ 110.30	$ 5,515.00
H-6	Charge for each 1.5 mm thickness increase per LF exceeding 15.0 mm	100	LF	$ 3.90	$ 390.00
				TOTAL "H"	$ 37,275.00
I	**30" diameter**				
I-1	9.0 mm normal thickness (.354")	100	LF	$ 76.00	$ 7,600.00
I-2	10.5 mm normal thickness (.413")	100	LF	$ 101.10	$ 10,110.00
I-3	12.0 mm normal thickness (.472")	100	LF	$ 109.50	$ 10,950.00
I-4	13.5 mm normal thickness (.531")	100	LF	$ 115.90	$ 11,590.00
I-5	15.0 mm normal thickness (.591")	100	LF	$ 121.80	$ 12,180.00
I-6	Charge for each 1.5 mm thickness increase per LF exceeding 15.0 mm	100	LF	$ 5.50	$ 550.00
				TOTAL "I"	$ 52,980.00
J	**36" diameter**				
J-1	10.5 mm normal thickness (.413")	100	LF	$ 90.00	$ 9,000.00
J-2	12.0 mm normal thickness (.472")	100	LF	$ 134.50	$ 13,450.00
J-3	13.5 mm normal thickness (.531")	100	LF	$ 142.80	$ 14,280.00
J-4	15.0 mm normal thickness (.591")	100	LF	$ 150.70	$ 15,070.00
J-5	16.5 mm normal thickness (.650")	100	LF	$ 157.40	$ 15,740.00
J-6	18.0 mm normal thickness (.709")	100	LF	$ 166.10	$ 16,610.00
J-7	Charge for each 1.5 mm thickness increase per LF exceeding 18.0 mm	100	LF	$ 5.60	$ 560.00
				TOTAL "J"	$ 84,710.00

	CIPP REHABILITATION - SANITARY SEWER MAINS				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
K	**42" diameter**				
K-1	10.5 mm normal thickness (.413")	100	LF	$ 119.80	$ 11,980.00
K-2	12.0 mm normal thickness (.472")	100	LF	$ 158.80	$ 15,880.00
K-3	13.5 mm normal thickness (.531")	100	LF	$ 167.60	$ 16,760.00
K-4	15.0 mm normal thickness (.591")	100	LF	$ 176.40	$ 17,640.00
K-5	16.5 mm normal thickness (.650")	50	LF	$ 185.20	$ 9,260.00
K-6	18.0 mm normal thickness (.709")	50	LF	$ 192.80	$ 9,640.00
K-7	Charge for each 1.5 mm thickness increase per LF exceeding 18.0 mm	100	LF	$ 7.10	$ 710.00
				TOTAL "K"	$ 81,870.00
	TOTAL "A" THRU "K"				$ 1,277,555.00
	CLEAN & INSPECTION - SANITARY SEWER MAINS				
L	**Light Cleaning and Inspection**				
L-1	8" – 12" diameter	6,000	LF	$ 2.50	$ 15,000.00
L-2	14" – 18" diameter	6,000	LF	$ 5.00	$ 30,000.00
L-3	20" – 24" diameter	6,000	LF	$ 7.00	$ 42,000.00
L-4	27" – 42" diameter	6,000	LF	$ 10.00	$ 60,000.00
L-5	48" – 72" diameter	6,000	LF	$ 12.10	$ 72,600.00
				TOTAL "L"	$ 219,600.00
M	**Medium Cleaning**				
M-1	8" – 12" diameter	6,000	LF	$ 3.70	$ 22,200.00
M-2	14" – 18" diameter	6,000	LF	$ 7.00	$ 42,000.00
M-3	20" – 24" diameter	6,000	LF	$ 10.00	$ 60,000.00
M-4	27" – 42" diameter	6,000	LF	$ 13.10	$ 78,600.00
M-5	48" – 72" diameter	6,000	LF	$ 15.10	$ 90,600.00
				TOTAL "M"	$ 293,400.00
N	**Heavy Cleaning**				
N-1	8" – 12" diameter	6,000	LF	$ 3.30	$ 19,800.00
N-2	14" – 18" diameter	6,000	LF	$ 8.00	$ 48,000.00
N-3	20" – 24" diameter	6,000	LF	$ 12.10	$ 72,600.00
N-4	27" – 42" diameter	6,000	LF	$ 16.10	$ 96,600.00
N-5	48" – 72" diameter	6,000	LF	$ 18.10	$ 108,600.00
		6,000	LF		$ -
				TOTAL "N"	$ 345,600.00
O	**Root Removal**				
O-1	8" – 12" diameter	6,000	LF	$ 1.60	$ 9,600.00
O-2	14" – 18" diameter	6,000	LF	$ 2.60	$ 15,600.00
O-3	20" – 24" diameter	6,000	LF	$ 4.80	$ 28,800.00
O-4	27" – 42" diameter	6,000	LF	$ 5.30	$ 31,800.00
O-5	48" – 72" diameter	6,000	LF	$ 6.30	$ 37,800.00
				TOTAL "O"	$ 123,600.00

	CLEAN & INSPECTION - SANITARY SEWER MAINS				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
P	**Tuberculation Cleaning**				
P-1	8" – 12" diameter	6,000	LF	$ 19.00	$ 114,000.00
P-2	14" – 18" diameter	6,000	LF	$ 21.70	$ 130,200.00
P-3	20" – 24" diameter	6,000	LF	$ 22.70	$ 136,200.00
P-4	27" – 42" diameter	6,000	LF	$ 23.30	$ 139,800.00
P-5	48" – 72" diameter	6,000	LF	$ 25.90	$ 155,400.00
				TOTAL "P"	$ 675,600.00
	TOTAL "L" THRU "P"				$ 1,657,800.00
	SANITARY SEWER				
	LATERAL CIPP LINING-TOP HAT/FULL WRAP - UP TO 36"				
Q					
Q-1	Four (4) inch lateral connection per ASTM F1216-16	20	EA	$ 2,009.90	$ 40,198.00
Q-2	Six (6) inch lateral connection per ASTM F1216-16	20	EA	$ 2,009.90	$ 40,198.00
Q-3	Eight (8) inch lateral connection per ASTM F1216-16	20	EA	$ 2,009.90	$ 40,198.00
Q-4	Lateral lining 0 to 30' per ASTM F1216-16	100	LF	$ 79.30	$ 7,930.00
Q-5	Additional Lateral Lining > 30' per ASTM F1216-16	100	LF	$ 37.00	$ 3,700.00
Q-6	Lateral Cutout	20	EA	$ 195.00	$ 3,900.00
Q-4	Lateral Grout	20	EA	$ 390.20	$ 7,804.00
	TOTAL "Q"				$ 143,928.00
	SANITARY SEWER				
	MANHOLE/LIFT STATION REFURBISHMENT				
R					
R-1	Interior Manhole Application (Precast)	2,000	SF	$ 19.00	$ 38,000.00
R-2	Interior Manhole Application (Brick)	2,000	SF	$ 23.30	$ 46,600.00
R-3	Interior Lift Station Application (Precast)	2,000	SF	$ 21.20	$ 42,400.00
R-4	Interior Lift Station Application (Brick)	2,000	SF	$ 26.40	$ 52,800.00
R-5	Bench/Invert Repair	200	EA	$ 528.90	$ 105,780.00
	TOTAL "R"				$ 285,580.00
	SANITARY SEWER				
	CLEANOUT INSTALLATION				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
S					
S-1	Four (4) inch cleanout	20	EA	$ 528.90	$ 10,578.00
S-2	Six (6) inch cleanout	20	EA	$ 634.70	$ 12,694.00
S-3	Eight (8) inch cleanout	20	EA	$ 793.40	$ 15,868.00
	TOTAL "S"				$ 39,140.00

	MANHOLE CLEANING				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
T	Manhole cleaning	2,000	SF	$ 5.30	$ 10,600.00
	TOTAL "T"				$ 10,600.00
	TOTAL "Q" THRU "T"				$ 479,248.00
	CIPP REHABILITATION - STORMWATER MAINS				
U	**8" diameter**				
U-1	6.0 mm normal thickness (.236")	500	LF	$ 39.50	$ 19,750.00
				TOTAL "U"	$ 19,750.00
V	**10" diameter**				
V-1	6.0 mm normal thickness (.236")	400	LF	$ 45.50	$ 18,200.00
V-2	7.5 mm normal thickness (.295")	400	LF	$ 48.00	$ 19,200.00
				TOTAL "V"	$ 37,400.00
W	**12" diameter**				
W-1	6.0 mm normal thickness (.236")	750	LF	$ 48.80	$ 36,600.00
W-2	7.5 mm normal thickness (.295")	750	LF	$ 51.50	$ 38,625.00
				TOTAL "W"	$ 75,225.00
X	**15" diameter**				
X-1	6.0 mm normal thickness (.236")	1,000	LF	$ 55.00	$ 55,000.00
X-2	7.5 mm normal thickness (.295")	1,500	LF	$ 64.50	$ 96,750.00
X-3	9.0 mm normal thickness (.354")	1,000	LF	$ 76.90	$ 76,900.00
X-4	Charge for each 1.5 mm thickness increase per LF exceeding 9.0 mm	100	LF	$ 2.10	$ 210.00
				TOTAL "X"	$ 228,860.00
Y	**18" diameter**				
Y-1	6.0 mm normal thickness (.236")	1,250	LF	$ 52.20	$ 65,250.00
Y-2	7.5 mm normal thickness (.295")	1,250	LF	$ 67.60	$ 84,500.00
Y-3	9.0 mm normal thickness (.354")	1,250	LF	$ 79.40	$ 99,250.00
Y-4	10.5 mm normal thickness (.413")	1,250	LF	$ 82.90	$ 103,625.00
Y-5	Charge for each 1.5 mm thickness increase per LF exceeding10.5 mm	100	LF	$ 4.20	$ 420.00
				TOTAL "Y"	$ 353,045.00
Z	**21" diameter**				
Z-1	6.0 mm normal thickness (.236")	220	LF	$ 59.70	$ 13,134.00
Z-2	7.5 mm normal thickness (.295")	220	LF	$ 63.50	$ 13,970.00
Z-3	9.0 mm normal thickness (.354")	220	LF	$ 90.10	$ 19,822.00
Z-4	10.5 mm normal thickness (.413")	220	LF	$ 96.10	$ 21,142.00
Z-5	12.0 mm normal thickness (.472")	200	LF	$ 104.40	$ 20,880.00
Z-6	Charge for each 1.5 mm thickness increase per LF exceeding 12.0 mm	100	LF	$ 4.20	$ 420.00
				TOTAL "Z"	$ 89,368.00

	CIPP REHABILITATION - STORMWATER MAINS				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
AA	**24" diameter**				
AA-1	9.0 mm normal thickness (.354")	700	LF	$ 95.00	$ 66,500.00
AA-2	10.5 mm normal thickness (.413")	700	LF	$ 106.70	$ 74,690.00
AA-3	12.0 mm normal thickness (.472")	700	LF	$ 116.80	$ 81,760.00
AA-4	13.5 mm normal thickness (.531")	700	LF	$ 122.00	$ 85,400.00
AA-5	15.0 mm normal thickness (.591")	700	LF	$ 127.50	$ 89,250.00
AA-6	Charge for each 1.5 mm thickness increase per LF exceeding 15.0 mm	100	LF	$ 4.30	$ 430.00
				TOTAL "AA"	$ 398,030.00
BB	**27" diameter**				
BB-1	9.0 mm normal thickness (.354")	220	LF	$ 100.00	$ 22,000.00
BB-2	10.5 mm normal thickness (.413")	220	LF	$ 113.70	$ 25,014.00
BB-3	12.0 mm normal thickness (.472")	220	LF	$ 124.60	$ 27,412.00
BB-4	13.5 mm normal thickness (.531")	220	LF	$ 131.20	$ 28,864.00
BB-5	15.0 mm normal thickness (.591")	220	LF	$ 137.60	$ 30,272.00
BB-6	Charge for each 1.5 mm thickness increase per LF exceeding 15.0 mm	100	LF	$ 4.50	$ 450.00
				TOTAL "BB"	$ 134,012.00
CC	**30" diameter**				
CC-1	9.0 mm normal thickness (.354")	600	LF	$ 100.00	$ 60,000.00
CC-2	10.5 mm normal thickness (.413")	600	LF	$ 113.70	$ 68,220.00
CC-3	12.0 mm normal thickness (.472")	600	LF	$ 123.30	$ 73,980.00
CC-4	13.5 mm normal thickness (.531")	600	LF	$ 129.90	$ 77,940.00
CC-5	15.0 mm normal thickness (.591")	600	LF	$ 135.90	$ 81,540.00
CC-6	Charge for each 1.5 mm thickness increase per LF exceeding 15.0 mm	100	LF	$ 5.50	$ 550.00
				TOTAL "CC"	$ 362,230.00
DD	**36" diameter**				
DD-1	10.5 mm normal thickness (.413")	500	LF	$ 108.00	$ 54,000.00
DD-2	12.0 mm normal thickness (.472")	500	LF	$ 151.70	$ 75,850.00
DD-3	13.5 mm normal thickness (.531")	500	LF	$ 160.30	$ 80,150.00
DD-4	15.0 mm normal thickness (.591")	500	LF	$ 168.30	$ 84,150.00
DD-5	16.5 mm normal thickness (.650")	250	LF	$ 175.10	$ 43,775.00
DD-6	18.0 mm normal thickness (.709")	250	LF	$ 184.00	$ 46,000.00
DD-7	Charge for each 1.5 mm thickness increase per LF exceeding 18.0 mm	100	LF	$ 5.60	$ 560.00
				TOTAL "DD"	$ 384,485.00

	CIPP REHABILITATION - STORMWATER MAINS				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
EE	**42" diameter**				
EE-1	10.5 mm normal thickness (.413")	250	LF	$ 120.00	$ 30,000.00
EE-2	12.0 mm normal thickness (.472")	250	LF	$ 140.00	$ 35,000.00
EE-3	13.5 mm normal thickness (.531")	250	LF	$ 185.80	$ 46,450.00
EE-4	15.0 mm normal thickness (.591")	250	LF	$ 194.80	$ 48,700.00
EE-5	16.5 mm normal thickness (.650")	250	LF	$ 203.80	$ 50,950.00
EE-6	18.0 mm normal thickness (.709")	250	LF	$ 211.50	$ 52,875.00
EE-7	Charge for each 1.5 mm thickness increase per LF exceeding 18.0 mm	100	LF	$ 7.10	$ 710.00
				TOTAL "EE"	$ 264,685.00
FF	**48" diameter**				
FF-1	12.0 mm normal thickness (.472")	200	LF	$ 150.00	$ 30,000.00
FF-2	13.5 mm normal thickness (.531")	200	LF	$ 160.00	$ 32,000.00
FF-3	15.0 mm normal thickness (.591")	200	LF	$ 225.30	$ 45,060.00
FF-4	16.5 mm normal thickness (.650")	200	LF	$ 235.60	$ 47,120.00
FF-5	18.0 mm normal thickness (.709")	200	LF	$ 244.60	$ 48,920.00
FF-6	19.5 mm normal thickness (.768")	100	LF	$ 262.20	$ 26,220.00
FF-7	21.0 mm normal thickness (.827")	100	LF	$ 270.90	$ 27,090.00
FF-8	Charge for each 1.5 mm thickness increase per LF exceeding 21.0 mm	100	LF	$ 8.00	$ 800.00
				TOTAL "FF"	$ 257,210.00
GG	**52" diameter**				
GG-1	10.5 mm normal thickness (.413")	25	LF	$ 145.00	$ 3,625.00
GG-2	12.0 mm normal thickness (.472")	25	LF	$ 155.00	$ 3,875.00
GG-3	13.5 mm normal thickness (.531")	25	LF	$ 165.00	$ 4,125.00
GG-4	15.0 mm normal thickness (.591")	25	LF	$ 196.50	$ 4,912.50
GG-5	16.5 mm normal thickness (.650")	25	LF	$ 204.20	$ 5,105.00
GG-6	18.0 mm normal thickness (.709")	25	LF	$ 262.20	$ 6,555.00
GG-7	19.5 mm normal thickness (.768")	25	LF	$ 279.30	$ 6,982.50
GG-8	21.0 mm normal thickness (.827")	25	LF	$ 290.40	$ 7,260.00
GG-9	22.5 mm normal thickness (.886")	100	LF	$ 302.60	$ 30,260.00
GG-10	Charge for each 1.5 mm thickness increase per LF exceeding 22.5 mm	100	LF	$ 9.60	$ 960.00
				TOTAL "GG"	$ 73,660.00

	CIPP REHABILITATION - STORMWATER MAINS				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
HH	**54" diameter**				
HH-1	10.5 mm normal thickness (.413")	25	LF	$ 150.00	$ 3,750.00
HH-2	12.0 mm normal thickness (.472")	25	LF	$ 160.00	$ 4,000.00
HH-3	13.5 mm normal thickness (.531")	25	LF	$ 170.00	$ 4,250.00
HH-4	15.0 mm normal thickness (.591")	25	LF	$ 210.00	$ 5,250.00
HH-5	16.5 mm normal thickness (.650")	25	LF	$ 215.00	$ 5,375.00
HH-6	18.0 mm normal thickness (.709")	25	LF	$ 288.90	$ 7,222.50
HH-7	19.5 mm normal thickness (.768")	25	LF	$ 305.50	$ 7,637.50
HH-8	21.0 mm normal thickness (.827")	25	LF	$ 406.10	$ 10,152.50
HH-9	22.5 mm normal thickness (.886")	100	LF	$ 419.70	$ 41,970.00
HH-10	Charge for each 1.5 mm thickness increase per LF exceeding 22.5 mm	100	LF	$ 9.80	$ 980.00
				TOTAL "HH"	$ 90,587.50
II	**60" diameter**				
II-1	10.5 mm normal thickness (.413")	25	LF	$ 302.40	$ 7,560.00
II-2	12.0 mm normal thickness (.472")	25	LF	$ 319.00	$ 7,975.00
II-3	13.5 mm normal thickness (.531")	25	LF	$ 330.20	$ 8,255.00
II-4	15.0 mm normal thickness (.591")	25	LF	$ 341.20	$ 8,530.00
II-5	16.5 mm normal thickness (.650")	25	LF	$ 350.40	$ 8,760.00
II-6	18.0 mm normal thickness (.709")	25	LF	$ 445.50	$ 11,137.50
II-7	19.5 mm normal thickness (.768")	25	LF	$ 468.90	$ 11,722.50
II-8	21.0 mm normal thickness (.827")	25	LF	$ 483.90	$ 12,097.50
II-9	22.5 mm normal thickness (.886")	100	LF	$ 499.10	$ 49,910.00
II-10	Charge for each 1.5 mm thickness increase per LF exceeding 22.5 mm	100	LF	$ 13.50	$ 1,350.00
				TOTAL "II"	$ 127,297.50
JJ	**72" diameter**				
JJ-1	10.5 mm normal thickness (.413")	25	LF	$ 500.10	$ 12,502.50
JJ-2	12.0 mm normal thickness (.472")	25	LF	$ 506.20	$ 12,655.00
JJ-3	13.5 mm normal thickness (.531")	25	LF	$ 519.70	$ 12,992.50
JJ-4	15.0 mm normal thickness (.591")	25	LF	$ 532.80	$ 13,320.00
JJ-5	16.5 mm normal thickness (.650")	25	LF	$ 546.60	$ 13,665.00
JJ-6	18.0 mm normal thickness (.709")	25	LF	$ 680.50	$ 17,012.50
JJ-7	19.5 mm normal thickness (.768")	25	LF	$ 763.20	$ 19,080.00
JJ-8	21.0 mm normal thickness (.827")	25	LF	$ 781.80	$ 19,545.00
JJ-9	22.5 mm normal thickness (.886")	100	LF	$ 796.30	$ 79,630.00
JJ-10	Charge for each 1.5 mm thickness increase per LF exceeding 22.5 mm	100	LF	$ 14.70	$ 1,470.00
				TOTAL "JJ"	$ 201,872.50
	Total CIPP Rehabilitiation - Stormwater Mains ("U" THRU "JJ")				$ 3,097,717.50

	CLEAN & INSPECTION - STORMWATER MAINS				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
KK	**Light Cleaning and inspection**				
KK-1	8"- 12" diameter	6,000	LF	$ 6.00	$ 36,000.00
KK-2	14" - 18" diameter	6,000	LF	$ 8.00	$ 48,000.00
KK-3	20" - 24" diameter	6,000	LF	$ 9.00	$ 54,000.00
KK-4	27" - 42" diameter	6,000	LF	$ 12.10	$ 72,600.00
KK-5	48" - 72" diameter	6,000	LF	$ 16.10	$ 96,600.00
				TOTAL "KK"	$ 307,200.00
LL	**Medium Cleaning**				
LL-1	8" - 12" diameter	6,000	LF	$ 9.00	$ 54,000.00
LL-2	14"- 18" diameter	6,000	LF	$ 11.10	$ 66,600.00
LL-3	20" - 24" diameter	6,000	LF	$ 14.10	$ 84,600.00
LL-4	27" - 42" diameter	6,000	LF	$ 17.10	$ 102,600.00
LL-5	48"- 72" diameter	6,000	LF	$ 20.10	$ 120,600.00
				TOTAL "LL"	$ 428,400.00
MM	**Heavy Cleaning**				
MM-1	8" - 12" diameter	6,000	LF	$ 11.10	$ 66,600.00
MM-2	14" - 18" diameter	6,000	LF	$ 16.10	$ 96,600.00
MM-3	20" - 24" diameter	6,000	LF	$ 20.10	$ 120,600.00
MM-4	27"- 42" diameter	6,000	LF	$ 26.10	$ 156,600.00
MM-5	48"- 72" diameter	6,000	LF	$ 32.20	$ 193,200.00
				TOTAL "MM"	$ 633,600.00
NN	**Root Removal**				
NN-1	8" - 12" diameter	6,000	LF	$ 1.60	$ 9,600.00
NN-2	14" - 18" diameter	6,000	LF	$ 2.60	$ 15,600.00
NN-3	20" - 24" diameter	6,000	LF	$ 4.80	$ 28,800.00
NN-4	27" - 42" diameter	6,000	LF	$ 5.30	$ 31,800.00
NN-5	48"- 72" diameter	6,000	LF	$ 6.30	$ 37,800.00
				TOTAL "NN"	$ 123,600.00
OO	**Tuberculation Cleaning**				
OO-1	8" - 12" diameter	6,000	LF	$ 19.00	$ 114,000.00
OO-2	14" - 18" diameter	6,000	LF	$ 21.70	$ 130,200.00
OO-3	20" - 24" diameter	6,000	LF	$ 22.70	$ 136,200.00
OO-4	27"- 42" diameter	6,000	LF	$ 23.30	$ 139,800.00
OO-5	8" - 72" diameter	6,000	LF	$ 25.90	$ 155,400.00
				TOTAL "OO"	$ 675,600.00
PP	**Stormwater Manhole Cleaining**	2,800	SF	$ 5.30	$ 14,840.00
				TOTAL "PP"	$ 14,840.00
	TOTAL "KK" THRU "PP"				$ 2,183,240.00

	ANCILLARY GENERAL SERVICES				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
QQ	**By-Pass Pumping**				
QQ-1	8" diameter	5	LS	$ 317.40	$ 1,587.00
QQ-2	10" diameter	5	LS	$ 317.40	$ 1,587.00
QQ-3	12" diameter	5	LS	$ 1,586.80	$ 7,934.00
QQ-4	15" diameter	5	LS	$ 6,347.00	$ 31,735.00
QQ-5	18" diameter	5	LS	$ 11,107.30	$ 55,536.50
QQ-6	21" diameter	5	LS	$ 12,694.10	$ 63,470.50
QQ-7	24" diameter	5	LS	$ 14,280.80	$ 71,404.00
QQ-8	27" diameter	5	LS	$ 15,867.60	$ 79,338.00
QQ-9	30" diameter	5	LS	$ 17,454.30	$ 87,271.50
QQ-10	36" diameter	5	LS	$ 19,041.10	$ 95,205.50
				TOTAL "QQ"	$ 495,069.00
RR	**Standard Service Reconnection**	**25**	Each	$ 195.00	$ 4,875.00
				TOTAL "RR"	$ 4,875.00
SS	**Traffic Control - FDOT Right of Way**				
SS-1	Flagman	10	Setup	$ 655.90	$ 6,559.00
SS-2	Arrow Board	10	Setup	$ 190.40	$ 1,904.00
SS-3	Barricades	10	Setup	$ 359.70	$ 3,597.00
SS-4	Lane Dividers	10	Setup	$ 15.90	$ 159.00
				TOTAL "SS"	$ 12,219.00
TT	**Traffic Control - City Right of Way**				
TT-1	Flagman	10	Setup	$ 655.90	$ 6,559.00
TT-2	Arrow Board	10	Setup	$ 190.40	$ 1,904.00
TT-3	Barricades	10	Setup	$ 264.50	$ 2,645.00
TT-4	Lane Dividers	10	Setup	$ 15.90	$ 159.00
				TOTAL "TT"	$ 11,267.00
UU	**Traffic Control - County Right of Way**				
UU-1	Flagman	10	Setup	$ 655.90	$ 6,559.00
UU-2	Arrow Board	10	Setup	$ 190.40	$ 1,904.00
UU-3	Barricades	10	Setup	$ 359.70	$ 3,597.00
UU-4	Lane Dividers	10	Setup	$ 15.90	$ 159.00
				TOTAL "UU"	$ 12,219.00

	ANCILLARY GENERAL SERVICES				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
VV	**Easement Access**				
VV-1	6" to 12" diameter	100	LF	$ 3.70	$ 370.00
VV-2	14" to 18" diameter	100	LF	$ 4.80	$ 480.00
VV-3	20" to 24" diameter	100	LF	$ 6.10	$ 610.00
VV-4	27" to 30" diameter	100	LF	$ 9.80	$ 980.00
VV-5	36" to 42" diameter	100	LF	$ 10.80	$ 1,080.00
VV-6	48" to 54" diameter	100	LF	$ 16.10	$ 1,610.00
				TOTAL "VV"	$ 5,130.00
WW	**Manhole Cleaning**	2,800	SF	$ 5.30	$ 14,840.00
				TOTAL "WW"	$ 14,840.00
XX	**Grout fill abandoned pipe**	1,000	CY	$ 158.70	$ 158,700.00
				TOTAL "XX"	$ 158,700.00
YY	**Chemical and physical product testing**	10	EA	$ 264.50	$ 2,645.00
				TOTAL "YY"	$ 2,645.00
ZZ	**Erosion and sediment control**				
ZZ-1	Silt Fencing	200	LF	$ 4.20	$ 840.00
ZZ-2	Floating Turbidity Barrier	200	LF	$ 15.90	$ 3,180.00
ZZ-3	Gutter Buddy	100	EA	$ 52.90	$ 5,290.00
				TOTAL "ZZ"	$ 9,310.00
AAA	**Mobilization**	20	Setup	$ 3,578.40	$ 71,568.00
				TOTAL "AAA"	$ 71,568.00
BBB	**Bonds**	100,000	Percentage	$ 0.03	$ 3,000.00
				TOTAL "BBB"	$ 3,000.00
	TOTAL "QQ" THRU "BBB"				$ 800,842.00
	TOTAL ESTIMATED BID AMOUNT				$ 9,496,402.50

	ADDITIVE ALTERNATE No. 1				
	SANITARY SEWER				
	LINE RECONSTRUCTION SDR 26 LESS THAN 10' DEPTH				
CCC					
CCC-1	15"	100	LF	$ 272.00	$ 27,200.00
CCC-2	18"	100	LF	$ 292.20	$ 29,220.00
CCC-3	24"	100	LF	$ 385.60	$ 38,560.00
CCC-4	30"	100	LF	$ 464.10	$ 46,410.00
CCC-5	36"	100	LF	$ 582.90	$ 58,290.00
CCC-6	42"	100	LF	$ 594.10	$ 59,410.00
CCC-7	48"	100	LF	$ 1,193.20	$ 119,320.00
CCC-8	54"	100	LF	$ 1,500.00	$ 150,000.00
CCC-9	60"	100	LF	$ 2,000.00	$ 200,000.00
CCC-10	66"	50	LF	$ 2,500.00	$ 125,000.00
CCC-11	72"	50	LF	$ 3,000.00	$ 150,000.00
				TOTAL "CCC"	$ 1,003,410.00
	SANITARY SEWER				
	LINE RECONSTRUCTION C900 GREATER THAN 10' DEPTH				
DDD					
DDD-1	15"	100	LF	$ 333.30	$ 33,330.00
DDD-2	18"	100	LF	$ 358.30	$ 35,830.00
DDD-3	24"	100	LF	$ 469.00	$ 46,900.00
DDD-4	30"	100	LF	$ 578.50	$ 57,850.00
DDD-5	36"	100	LF	$ 745.00	$ 74,500.00
DDD-6	42"	100	LF	$ 1,391.10	$ 139,110.00
DDD-7	48"	100	LF	$ 1,500.00	$ 150,000.00
DDD-8	54"	100	LF	$ 2,000.00	$ 200,000.00
DDD-9	60"	100	LF	$ 2,500.00	$ 250,000.00
DDD-10	66"	50	LF	$ 3,000.00	$ 150,000.00
DDD-11	72"	50	LF	$ 3,500.00	$ 175,000.00
				TOTAL "DDD"	$ 1,312,520.00

	STORMWATER MAINS				
EEE	**Line Reconstruction (concrete collars are incidental) greater than 8' depth and under roadways**				
EEE-1	15" RCP	250	LF	$ 161.30	$ 40,325.00
EEE-2	18" RCP	250	LF	$ 171.10	$ 42,775.00
EEE-3	24" RCP	250	LF	$ 188.60	$ 47,150.00
EEE-4	30" RCP	250	LF	$ 227.30	$ 56,825.00
EEE-5	36 'RCP	250	LF	$ 256.20	$ 64,050.00
EEE-6	48" RCP	250	LF	$ 324.20	$ 81,050.00
EEE-7	54" RCP	250	LF	$ 386.40	$ 96,600.00
EEE-8	60" RCP	250	LF	$ 424.70	$ 106,175.00
EEE-9	72" RCP	500	LF	$ 548.60	$ 274,300.00
				TOTAL "EEE"	$ 809,250.00
FFF	**HDPE Line Reconstruction less than 8'**				
FFF-1	15" HDPE	250	LF	$ 133.60	$ 33,400.00
FFF-2	18" HDPE	250	LF	$ 142.20	$ 35,550.00
FFF-3	24" HDPE	250	LF	$ 160.60	$ 40,150.00
FFF-4	30" HDPE	250	LF	$ 203.10	$ 50,775.00
FFF-5	36" HDPE	250	LF	$ 209.80	$ 52,450.00
FFF-6	42" HDPE	250	LF	$ 231.70	$ 57,925.00
FFF-7	48" HDPE	250	LF	$ 279.80	$ 69,950.00
FFF-8	54" HDPE	250	LF	$ 310.00	$ 77,500.00
FFF-9	60" HDPE	250	LF	$ 353.50	$ 88,375.00
FFF-10	70" HDPE	500	LF	$ 390.00	$ 195,000.00
				TOTAL "FFF"	$ 701,075.00
	TOTAL "CCC" THRU "FFF"				$ 3,826,255.00

(COMPOSITE EXHIBIT C is not attached but will remain on file in in the Office of the Purchasing Agent and will be available upon request)

THE CITY OF DAYTONA BEACH
OFFICE OF THE PURCHASING AGENT

Post Office Box 2451
Daytona Beach, Florida 32115-2451

Phone (386) 671-8080
Fax (386) 671-8085

RENEWAL OF CONTRACT

June 25, 2020

EMAIL
dpartridge@aegion.com

Insituform Technologies, LLC
Diane Partridge
17988 Edison Avenue

Re: Renewal of 0118-2600
Cured-In-Place Pipe (CIPP)

Dear Diane Partridge:

Insituform Technologies, LLC is currently providing Cured-In-Place Pipe (CIPP) to the City of Daytona Beach under an agreement entered into by the two parties by the above referenced bid. Section 8 of the contract allows the City the option to renew for up to 4 additional one year terms by providing the Contractor written notice at least 60 days before the end of the current term.

The City of Daytona Beach desires to exercise the first renewal option to have this service continued by Insituform Technologies, LLC for the period effective 2/6/2020 through 2/5/2021 under the same terms and conditions.

THE CITY OF DAYTONA BEACH

James V. Chisholm, City Manager

7-1-20
Date

900/1

THE CITY OF DAYTONA BEACH
OFFICE OF THE PURCHASING AGENT

Post Office Box 2451
Daytona Beach, Florida 32115-2451

Phone (386) 671-8080
Fax (386) 671-8085

RENEWAL OF CONTRACT

November 12, 2020

EMAIL
dpartridge@aegion.com

Insituform Technologies, LLC
Diane Partridge
17988 Edison Avenue
Chesterfield, MO 63005

Re: Renewal of 0118-2600
Cured-In-Place Pipe (CIPP)

Dear Diane Partridge:

Insituform Technologies, LLC is currently providing Cured-In-Place Pipe (CIPP) to the City of Daytona Beach under an agreement entered into by the two parties by the above referenced bid. Section 8 of the contract allows the City the option to renew for up to 4 additional one year terms by providing the Contractor written notice at least 60 days before the end of the current term.

The City of Daytona Beach desires to exercise the second of four renewal options to have this service continued by Insituform Technologies, LLC for the period effective 2/6/2021 through 2/5/2022 under the same terms and conditions.

THE CITY OF DAYTONA BEACH

James V. Chisholm, City Manager

11/20/20
Date

9226/10

	CIPP REHABILITATION - SANITARY SEWER MAINS				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
A	**8" diameter**				
A-1	6.0 mm normal thickness (.236")	10,000	LF	$ 23.10	$ 231,000.00
A-2	7.5 mm normal thickness (.295")	10,000	LF	$ 25.20	$ 252,000.00
A-3	9.0 mm normal thickness (.354")	5,000	LF	$ 26.00	$ 130,000.00
				TOTAL "A"	$ 613,000.00
B	**10" diameter**				
B-1	6.0 mm normal thickness (.236")	400	LF	$ 27.30	$ 10,920.00
B-2	7.5 mm normal thickness (.295")	400	LF	$ 29.70	$ 11,880.00
B-3	9.0 mm normal thickness (.354")	400	LF	$ 31.00	$ 12,400.00
				TOTAL "B"	$ 35,200.00
C	**12" diameter**				
C-1	6.0 mm normal thickness (.236")	400	LF	$ 30.40	$ 12,160.00
C-2	7.5 mm normal thickness (.295")	400	LF	$ 32.90	$ 13,160.00
C-3	9.0 mm normal thickness (.354")	600	LF	$ 39.30	$ 23,580.00
				TOTAL "C"	$ 48,900.00
D	**15" diameter**				
D-1	6.0 mm normal thickness (.236")	400	LF	$ 38.00	$ 15,200.00
D-2	7.5 mm normal thickness (.295")	400	LF	$ 42.10	$ 16,840.00
D-3	9.0 mm normal thickness (.354")	600	LF	$ 49.10	$ 29,460.00
				TOTAL "D"	$ 61,500.00
E	**18" diameter**				
E-1	6.0 mm normal thickness (.236")	300	LF	$ 37.90	$ 11,370.00
E-2	7.5 mm normal thickness (.0295")	300	LF	$ 45.00	$ 13,500.00
E-3	9.0 mm normal thickness (.354")	300	LF	$ 57.70	$ 17,310.00
E-4	10.5 mm normal thickness (.413")	200	LF	$ 61.20	$ 12,240.00
				TOTAL "E"	$ 54,420.00
F	**21" diameter**				
F-1	6.0 mm normal thickness (.236")	300	LF	$ 44.00	$ 13,200.00
F-2	7.5 mm normal thickness (.295")	300	LF	$ 48.00	$ 14,400.00
F-3	9.0 mm normal thickness (.354")	300	LF	$ 67.50	$ 20,250.00
F-4	10.5 mm normal thickness (.413")	300	LF	$ 73.30	$ 21,990.00
F-5	12.0 mm normal thickness (.472")	200	LF	$ 78.90	$ 15,780.00
F-6	Charge for each 1.5 mm thickness increase per LF exceeding 12.0 mm	100	LF	$ 4.20	$ 420.00
				TOTAL "F"	$ 86,040.00

	CIPP REHABILITATION - SANITARY SEWER MAINS				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
G	**24" diameter**				
G-1	9.0 mm normal thickness (.354")	300	LF	$ 70.00	$ 21,000.00
G-2	10.5 mm normal thickness (.413")	300	LF	$ 82.50	$ 24,750.00
G-3	12.0 mm normal thickness (.472")	300	LF	$ 89.90	$ 26,970.00
G-4	13.5 mm normal thickness (.531")	300	LF	$ 94.90	$ 28,470.00
G-5	15.0 mm normal thickness (.591")	200	LF	$ 100.20	$ 20,040.00
G-6	Charge for each 1.5 mm thickness increase per LF exceeding 15.0 mm	100	LF	$ 4.30	$ 430.00
				TOTAL "G"	$ 121,660.00
H	**27" diameter**				
H-1	9.0 mm normal thickness (.354")	100	LF	$ 74.00	$ 7,400.00
H-2	10.5 mm normal thickness (.413")	100	LF	$ 89.70	$ 8,970.00
H-3	12.0 mm normal thickness(.472")	100	LF	$ 97.90	$ 9,790.00
H-4	13.5 mm normal thickness (.531")	50	LF	$ 104.20	$ 5,210.00
H-5	15.0 mm normal thickness (.591")	50	LF	$ 110.30	$ 5,515.00
H-6	Charge for each 1.5 mm thickness increase per LF exceeding 15.0 mm	100	LF	$ 3.90	$ 390.00
				TOTAL "H"	$ 37,275.00
I	**30" diameter**				
I-1	9.0 mm normal thickness (.354")	100	LF	$ 76.00	$ 7,600.00
I-2	10.5 mm normal thickness (.413")	100	LF	$ 101.10	$ 10,110.00
I-3	12.0 mm normal thickness (.472")	100	LF	$ 109.50	$ 10,950.00
I-4	13.5 mm normal thickness (.531")	100	LF	$ 115.90	$ 11,590.00
I-5	15.0 mm normal thickness (.591")	100	LF	$ 121.80	$ 12,180.00
I-6	Charge for each 1.5 mm thickness increase per LF exceeding 15.0 mm	100	LF	$ 5.50	$ 550.00
				TOTAL "I"	$ 52,980.00
J	**36" diameter**				
J-1	10.5 mm normal thickness (.413")	100	LF	$ 90.00	$ 9,000.00
J-2	12.0 mm normal thickness (.472")	100	LF	$ 134.50	$ 13,450.00
J-3	13.5 mm normal thickness (.531")	100	LF	$ 142.80	$ 14,280.00
J-4	15.0 mm normal thickness (.591")	100	LF	$ 150.70	$ 15,070.00
J-5	16.5 mm normal thickness (.650")	100	LF	$ 157.40	$ 15,740.00
J-6	18.0 mm normal thickness (.709")	100	LF	$ 166.10	$ 16,610.00
J-7	Charge for each 1.5 mm thickness increase per LF exceeding 18.0 mm	100	LF	$ 5.60	$ 560.00
				TOTAL "J"	$ 84,710.00

	CIPP REHABILITATION - SANITARY SEWER MAINS				
ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT OF MEASURE	UNIT PRICE	EXTENDED PRICE
K	**42" diameter**				
K-1	10.5 mm normal thickness (.413")	100	LF	$ 119.80	$ 11,980.00
K-2	12.0 mm normal thickness (.472")	100	LF	$ 158.80	$ 15,880.00
K-3	13.5 mm normal thickness (.531")	100	LF	$ 167.60	$ 16,760.00
K-4	15.0 mm normal thickness (.591")	100	LF	$ 176.40	$ 17,640.00
K-5	16.5 mm normal thickness (.650")	50	LF	$ 185.20	$ 9,260.00
K-6	18.0 mm normal thickness (.709")	50	LF	$ 192.80	$ 9,640.00
K-7	Charge for each 1.5 mm thickness increase per LF exceeding 18.0 mm	100	LF	$ 7.10	$ 710.00
				TOTAL "K"	$ 81,870.00
	TOTAL "A" THRU "K"				$ 1,277,555.00
	CLEAN & INSPECTION - SANITARY SEWER MAINS				
L	**Light Cleaning and Inspection**				
L-1	8" – 12" diameter	6,000	LF	$ 2.50	$ 15,000.00
L-2	14" – 18" diameter	6,000	LF	$ 5.00	$ 30,000.00
L-3	20" – 24" diameter	6,000	LF	$ 7.00	$ 42,000.00
L-4	27" – 42" diameter	6,000	LF	$ 10.00	$ 60,000.00
L-5	48" – 72" diameter	6,000	LF	$ 12.10	$ 72,600.00
				TOTAL "L"	$ 219,600.00
M	**Medium Cleaning**				
M-1	8" – 12" diameter	6,000	LF	$ 3.70	$ 22,200.00
M-2	14" – 18" diameter	6,000	LF	$ 7.00	$ 42,000.00
M-3	20" – 24" diameter	6,000	LF	$ 10.00	$ 60,000.00
M-4	27" – 42" diameter	6,000	LF	$ 13.10	$ 78,600.00
M-5	48" – 72" diameter	6,000	LF	$ 15.10	$ 90,600.00
				TOTAL "M"	$ 293,400.00
N	**Heavy Cleaning**				
N-1	8" – 12" diameter	6,000	LF	$ 3.30	$ 19,800.00
N-2	14" – 18" diameter	6,000	LF	$ 8.00	$ 48,000.00
N-3	20" – 24" diameter	6,000	LF	$ 12.10	$ 72,600.00
N-4	27" – 42" diameter	6,000	LF	$ 16.10	$ 96,600.00
N-5	48" – 72" diameter	6,000	LF	$ 18.10	$ 108,600.00
		6,000	LF		$ -
				TOTAL "N"	$ 345,600.00
O	**Root Removal**				
O-1	8" – 12" diameter	6,000	LF	$ 1.60	$ 9,600.00
O-2	14" – 18" diameter	6,000	LF	$ 2.60	$ 15,600.00
O-3	20" – 24" diameter	6,000	LF	$ 4.80	$ 28,800.00
O-4	27" – 42" diameter	6,000	LF	$ 5.30	$ 31,800.00
O-5	48" – 72" diameter	6,000	LF	$ 6.30	$ 37,800.00
				TOTAL "O"	$ 123,600.00

	CLEAN & INSPECTION - SANITARY SEWER MAINS				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
P	**Tuberculation Cleaning**				
P-1	8" – 12" diameter	6,000	LF	$ 19.00	$ 114,000.00
P-2	14" – 18" diameter	6,000	LF	$ 21.70	$ 130,200.00
P-3	20" – 24" diameter	6,000	LF	$ 22.70	$ 136,200.00
P-4	27" – 42" diameter	6,000	LF	$ 23.30	$ 139,800.00
P-5	48" – 72" diameter	6,000	LF	$ 25.90	$ 155,400.00
				TOTAL "P"	$ 675,600.00
	TOTAL "L" THRU "P"				$ 1,657,800.00
	SANITARY SEWER				
	LATERAL CIPP LINING-TOP HAT/FULL WRAP - UP TO 36"				
Q					
Q-1	Four (4) inch lateral connection per ASTM F1216-16	20	EA	$ 2,009.90	$ 40,198.00
Q-2	Six (6) inch lateral connection per ASTM F1216-16	20	EA	$ 2,009.90	$ 40,198.00
Q-3	Eight (8) inch lateral connection per ASTM F1216-16	20	EA	$ 2,009.90	$ 40,198.00
Q-4	Lateral lining 0 to 30' per ASTM F1216-16	100	LF	$ 79.30	$ 7,930.00
Q-5	Additional Lateral Lining > 30' per ASTM F1216-16	100	LF	$ 37.00	$ 3,700.00
Q-6	Lateral Cutout	20	EA	$ 195.00	$ 3,900.00
Q-4	Lateral Grout	20	EA	$ 390.20	$ 7,804.00
	TOTAL "Q"				$ 143,928.00
	SANITARY SEWER				
	MANHOLE/LIFT STATION REFURBISHMENT				
R					
R-1	Interior Manhole Application (Precast)	2,000	SF	$ 19.00	$ 38,000.00
R-2	Interior Manhole Application (Brick)	2,000	SF	$ 23.30	$ 46,600.00
R-3	Interior Lift Station Application (Precast)	2,000	SF	$ 21.20	$ 42,400.00
R-4	Interior Lift Station Application (Brick)	2,000	SF	$ 26.40	$ 52,800.00
R-5	Bench/Invert Repair	200	EA	$ 528.90	$ 105,780.00
	TOTAL "R"				$ 285,580.00
	SANITARY SEWER				
	CLEANOUT INSTALLATION				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
S					
S-1	Four (4) inch cleanout	20	EA	$ 528.90	$ 10,578.00
S-2	Six (6) inch cleanout	20	EA	$ 634.70	$ 12,694.00
S-3	Eight (8) inch cleanout	20	EA	$ 793.40	$ 15,868.00
	TOTAL "S"				$ 39,140.00

	MANHOLE CLEANING				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
T	Manhole cleaning	2,000	SF	$ 5.30	$ 10,600.00
	TOTAL "T"				$ 10,600.00
	TOTAL "Q" THRU "T"				$ 479,248.00
	CIPP REHABILITATION - STORMWATER MAINS				
U	**8" diameter**				
U-1	6.0 mm normal thickness (.236")	500	LF	$ 39.50	$ 19,750.00
				TOTAL "U"	$ 19,750.00
V	**10" diameter**				
V-1	6.0 mm normal thickness (.236")	400	LF	$ 45.50	$ 18,200.00
V-2	7.5 mm normal thickness (.295")	400	LF	$ 48.00	$ 19,200.00
				TOTAL "V"	$ 37,400.00
W	**12" diameter**				
W-1	6.0 mm normal thickness (.236")	750	LF	$ 48.80	$ 36,600.00
W-2	7.5 mm normal thickness (.295")	750	LF	$ 51.50	$ 38,625.00
				TOTAL "W"	$ 75,225.00
X	**15" diameter**				
X-1	6.0 mm normal thickness (.236")	1,000	LF	$ 55.00	$ 55,000.00
X-2	7.5 mm normal thickness (.295")	1,500	LF	$ 64.50	$ 96,750.00
X-3	9.0 mm normal thickness (.354")	1,000	LF	$ 76.90	$ 76,900.00
X-4	Charge for each 1.5 mm thickness increase per LF exceeding 9.0 mm	100	LF	$ 2.10	$ 210.00
				TOTAL "X"	$ 228,860.00
Y	**18" diameter**				
Y-1	6.0 mm normal thickness (.236")	1,250	LF	$ 52.20	$ 65,250.00
Y-2	7.5 mm normal thickness (.295")	1,250	LF	$ 67.60	$ 84,500.00
Y-3	9.0 mm normal thickness (.354")	1,250	LF	$ 79.40	$ 99,250.00
Y-4	10.5 mm normal thickness (.413")	1,250	LF	$ 82.90	$ 103,625.00
Y-5	Charge for each 1.5 mm thickness increase per LF exceeding10.5 mm	100	LF	$ 4.20	$ 420.00
				TOTAL "Y"	$ 353,045.00
Z	**21" diameter**				
Z-1	6.0 mm normal thickness (.236")	220	LF	$ 59.70	$ 13,134.00
Z-2	7.5 mm normal thickness (.295")	220	LF	$ 63.50	$ 13,970.00
Z-3	9.0 mm normal thickness (.354")	220	LF	$ 90.10	$ 19,822.00
Z-4	10.5 mm normal thickness (.413")	220	LF	$ 96.10	$ 21,142.00
Z-5	12.0 mm normal thickness (.472")	200	LF	$ 104.40	$ 20,880.00
Z-6	Charge for each 1.5 mm thickness increase per LF exceeding 12.0 mm	100	LF	$ 4.20	$ 420.00
				TOTAL "Z"	$ 89,368.00

	CIPP REHABILITATION - STORMWATER MAINS				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
AA	**24" diameter**				
AA-1	9.0 mm normal thickness (.354")	700	LF	$ 95.00	$ 66,500.00
AA-2	10.5 mm normal thickness (.413")	700	LF	$ 106.70	$ 74,690.00
AA-3	12.0 mm normal thickness (.472")	700	LF	$ 116.80	$ 81,760.00
AA-4	13.5 mm normal thickness (.531")	700	LF	$ 122.00	$ 85,400.00
AA-5	15.0 mm normal thickness (.591")	700	LF	$ 127.50	$ 89,250.00
AA-6	Charge for each 1.5 mm thickness increase per LF exceeding 15.0 mm	100	LF	$ 4.30	$ 430.00
				TOTAL "AA"	$ 398,030.00
BB	**27" diameter**				
BB-1	9.0 mm normal thickness (.354")	220	LF	$ 100.00	$ 22,000.00
BB-2	10.5 mm normal thickness (.413")	220	LF	$ 113.70	$ 25,014.00
BB-3	12.0 mm normal thickness (.472")	220	LF	$ 124.60	$ 27,412.00
BB-4	13.5 mm normal thickness (.531")	220	LF	$ 131.20	$ 28,864.00
BB-5	15.0 mm normal thickness (.591")	220	LF	$ 137.60	$ 30,272.00
BB-6	Charge for each 1.5 mm thickness increase per LF exceeding 15.0 mm	100	LF	$ 4.50	$ 450.00
				TOTAL "BB"	$ 134,012.00
CC	**30" diameter**				
CC-1	9.0 mm normal thickness (.354")	600	LF	$ 100.00	$ 60,000.00
CC-2	10.5 mm normal thickness (.413")	600	LF	$ 113.70	$ 68,220.00
CC-3	12.0 mm normal thickness (.472")	600	LF	$ 123.30	$ 73,980.00
CC-4	13.5 mm normal thickness (.531")	600	LF	$ 129.90	$ 77,940.00
CC-5	15.0 mm normal thickness (.591")	600	LF	$ 135.90	$ 81,540.00
CC-6	Charge for each 1.5 mm thickness increase per LF exceeding 15.0 mm	100	LF	$ 5.50	$ 550.00
				TOTAL "CC"	$ 362,230.00
DD	**36" diameter**				
DD-1	10.5 mm normal thickness (.413")	500	LF	$ 108.00	$ 54,000.00
DD-2	12.0 mm normal thickness (.472")	500	LF	$ 151.70	$ 75,850.00
DD-3	13.5 mm normal thickness (.531")	500	LF	$ 160.30	$ 80,150.00
DD-4	15.0 mm normal thickness (.591")	500	LF	$ 168.30	$ 84,150.00
DD-5	16.5 mm normal thickness (.650")	250	LF	$ 175.10	$ 43,775.00
DD-6	18.0 mm normal thickness (.709")	250	LF	$ 184.00	$ 46,000.00
DD-7	Charge for each 1.5 mm thickness increase per LF exceeding 18.0 mm	100	LF	$ 5.60	$ 560.00
				TOTAL "DD"	$ 384,485.00

	CIPP REHABILITATION - STORMWATER MAINS				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
EE	**42" diameter**				
EE-1	10.5 mm normal thickness (.413")	250	LF	$ 120.00	$ 30,000.00
EE-2	12.0 mm normal thickness (.472")	250	LF	$ 140.00	$ 35,000.00
EE-3	13.5 mm normal thickness (.531")	250	LF	$ 185.80	$ 46,450.00
EE-4	15.0 mm normal thickness (.591")	250	LF	$ 194.80	$ 48,700.00
EE-5	16.5 mm normal thickness (.650")	250	LF	$ 203.80	$ 50,950.00
EE-6	18.0 mm normal thickness (.709")	250	LF	$ 211.50	$ 52,875.00
EE-7	Charge for each 1.5 mm thickness increase per LF exceeding 18.0 mm	100	LF	$ 7.10	$ 710.00
				TOTAL "EE"	$ 264,685.00
FF	**48" diameter**				
FF-1	12.0 mm normal thickness (.472")	200	LF	$ 150.00	$ 30,000.00
FF-2	13.5 mm normal thickness (.531")	200	LF	$ 160.00	$ 32,000.00
FF-3	15.0 mm normal thickness (.591")	200	LF	$ 225.30	$ 45,060.00
FF-4	16.5 mm normal thickness (.650")	200	LF	$ 235.60	$ 47,120.00
FF-5	18.0 mm normal thickness (.709")	200	LF	$ 244.60	$ 48,920.00
FF-6	19.5 mm normal thickness (.768")	100	LF	$ 262.20	$ 26,220.00
FF-7	21.0 mm normal thickness (.827")	100	LF	$ 270.90	$ 27,090.00
FF-8	Charge for each 1.5 mm thickness increase per LF exceeding 21.0 mm	100	LF	$ 8.00	$ 800.00
				TOTAL "FF"	$ 257,210.00
GG	**52" diameter**				
GG-1	10.5 mm normal thickness (.413")	25	LF	$ 145.00	$ 3,625.00
GG-2	12.0 mm normal thickness (.472")	25	LF	$ 155.00	$ 3,875.00
GG-3	13.5 mm normal thickness (.531")	25	LF	$ 165.00	$ 4,125.00
GG-4	15.0 mm normal thickness (.591")	25	LF	$ 196.50	$ 4,912.50
GG-5	16.5 mm normal thickness (.650")	25	LF	$ 204.20	$ 5,105.00
GG-6	18.0 mm normal thickness (.709")	25	LF	$ 262.20	$ 6,555.00
GG-7	19.5 mm normal thickness (.768")	25	LF	$ 279.30	$ 6,982.50
GG-8	21.0 mm normal thickness (.827")	25	LF	$ 290.40	$ 7,260.00
GG-9	22.5 mm normal thickness (.886")	100	LF	$ 302.60	$ 30,260.00
GG-10	Charge for each 1.5 mm thickness increase per LF exceeding 22.5 mm	100	LF	$ 9.60	$ 960.00
				TOTAL "GG"	$ 73,660.00

	CIPP REHABILITATION - STORMWATER MAINS				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
HH	**54" diameter**				
HH-1	10.5 mm normal thickness (.413")	25	LF	$ 150.00	$ 3,750.00
HH-2	12.0 mm normal thickness (.472")	25	LF	$ 160.00	$ 4,000.00
HH-3	13.5 mm normal thickness (.531")	25	LF	$ 170.00	$ 4,250.00
HH-4	15.0 mm normal thickness (.591")	25	LF	$ 210.00	$ 5,250.00
HH-5	16.5 mm normal thickness (.650")	25	LF	$ 215.00	$ 5,375.00
HH-6	18.0 mm normal thickness (.709")	25	LF	$ 288.90	$ 7,222.50
HH-7	19.5 mm normal thickness (.768")	25	LF	$ 305.50	$ 7,637.50
HH-8	21.0 mm normal thickness (.827")	25	LF	$ 406.10	$ 10,152.50
HH-9	22.5 mm normal thickness (.886")	100	LF	$ 419.70	$ 41,970.00
HH-10	Charge for each 1.5 mm thickness increase per LF exceeding 22.5 mm	100	LF	$ 9.80	$ 980.00
				TOTAL "HH"	$ 90,587.50
II	**60" diameter**				
II-1	10.5 mm normal thickness (.413")	25	LF	$ 302.40	$ 7,560.00
II-2	12.0 mm normal thickness (.472")	25	LF	$ 319.00	$ 7,975.00
II-3	13.5 mm normal thickness (.531")	25	LF	$ 330.20	$ 8,255.00
II-4	15.0 mm normal thickness (.591")	25	LF	$ 341.20	$ 8,530.00
II-5	16.5 mm normal thickness (.650")	25	LF	$ 350.40	$ 8,760.00
II-6	18.0 mm normal thickness (.709")	25	LF	$ 445.50	$ 11,137.50
II-7	19.5 mm normal thickness (.768")	25	LF	$ 468.90	$ 11,722.50
II-8	21.0 mm normal thickness (.827")	25	LF	$ 483.90	$ 12,097.50
II-9	22.5 mm normal thickness (.886")	100	LF	$ 499.10	$ 49,910.00
II-10	Charge for each 1.5 mm thickness increase per LF exceeding 22.5 mm	100	LF	$ 13.50	$ 1,350.00
				TOTAL "II"	$ 127,297.50
JJ	**72" diameter**				
JJ-1	10.5 mm normal thickness (.413")	25	LF	$ 500.10	$ 12,502.50
JJ-2	12.0 mm normal thickness (.472")	25	LF	$ 506.20	$ 12,655.00
JJ-3	13.5 mm normal thickness (.531")	25	LF	$ 519.70	$ 12,992.50
JJ-4	15.0 mm normal thickness (.591")	25	LF	$ 532.80	$ 13,320.00
JJ-5	16.5 mm normal thickness (.650")	25	LF	$ 546.60	$ 13,665.00
JJ-6	18.0 mm normal thickness (.709")	25	LF	$ 680.50	$ 17,012.50
JJ-7	19.5 mm normal thickness (.768")	25	LF	$ 763.20	$ 19,080.00
JJ-8	21.0 mm normal thickness (.827")	25	LF	$ 781.80	$ 19,545.00
JJ-9	22.5 mm normal thickness (.886")	100	LF	$ 796.30	$ 79,630.00
JJ-10	Charge for each 1.5 mm thickness increase per LF exceeding 22.5 mm	100	LF	$ 14.70	$ 1,470.00
				TOTAL "JJ"	$ 201,872.50
	Total CIPP Rehabilitiation - Stormwater Mains ("U" THRU "JJ")				$ 3,097,717.50

	CLEAN & INSPECTION - STORMWATER MAINS				
ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT OF MEASURE**	**UNIT PRICE**	**EXTENDED PRICE**
KK	**Light Cleaning and inspection**				
KK-1	8"- 12" diameter	6,000	LF	$ 6.00	$ 36,000.00
KK-2	14" - 18" diameter	6,000	LF	$ 8.00	$ 48,000.00
KK-3	20" - 24" diameter	6,000	LF	$ 9.00	$ 54,000.00
KK-4	27" - 42" diameter	6,000	LF	$ 12.10	$ 72,600.00
KK-5	48" - 72" diameter	6,000	LF	$ 16.10	$ 96,600.00
				TOTAL "KK"	$ 307,200.00
LL	**Medium Cleaning**				
LL-1	8" - 12" diameter	6,000	LF	$ 9.00	$ 54,000.00
LL-2	14"- 18" diameter	6,000	LF	$ 11.10	$ 66,600.00
LL-3	20" - 24" diameter	6,000	LF	$ 14.10	$ 84,600.00
LL-4	27" - 42" diameter	6,000	LF	$ 17.10	$ 102,600.00
LL-5	48"- 72" diameter	6,000	LF	$ 20.10	$ 120,600.00
				TOTAL "LL"	$ 428,400.00
MM	**Heavy Cleaning**				
MM-1	8" - 12" diameter	6,000	LF	$ 11.10	$ 66,600.00
MM-2	14" - 18" diameter	6,000	LF	$ 16.10	$ 96,600.00
MM-3	20" - 24" diameter	6,000	LF	$ 20.10	$ 120,600.00
MM-4	27"- 42" diameter	6,000	LF	$ 26.10	$ 156,600.00
MM-5	48"- 72" diameter	6,000	LF	$ 32.20	$ 193,200.00
				TOTAL "MM"	$ 633,600.00
NN	**Root Removal**				
NN-1	8" - 12" diameter	6,000	LF	$ 1.60	$ 9,600.00
NN-2	14" - 18" diameter	6,000	LF	$ 2.60	$ 15,600.00
NN-3	20" - 24" diameter	6,000	LF	$ 4.80	$ 28,800.00
NN-4	27" - 42" diameter	6,000	LF	$ 5.30	$ 31,800.00
NN-5	48"- 72" diameter	6,000	LF	$ 6.30	$ 37,800.00
				TOTAL "NN"	$ 123,600.00
OO	**Tuberculation Cleaning**				
OO-1	8" - 12" diameter	6,000	LF	$ 19.00	$ 114,000.00
OO-2	14" - 18" diameter	6,000	LF	$ 21.70	$ 130,200.00
OO-3	20" - 24" diameter	6,000	LF	$ 22.70	$ 136,200.00
OO-4	27"- 42" diameter	6,000	LF	$ 23.30	$ 139,800.00
OO-5	8" - 72" diameter	6,000	LF	$ 25.90	$ 155,400.00
				TOTAL "OO"	$ 675,600.00
PP	**Stormwater Manhole Cleaining**	2,800	SF	$ 5.30	$ 14,840.00
				TOTAL "PP"	$ 14,840.00
	TOTAL "KK" THRU "PP"				$ 2,183,240.00

	ANCILLARY GENERAL SERVICES				
ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT OF MEASURE	UNIT PRICE	EXTENDED PRICE
QQ	By-Pass Pumping				
QQ-1	8" diameter	5	LS	$ 317.40	$ 1,587.00
QQ-2	10" diameter	5	LS	$ 317.40	$ 1,587.00
QQ-3	12" diameter	5	LS	$ 1,586.80	$ 7,934.00
QQ-4	15" diameter	5	LS	$ 6,347.00	$ 31,735.00
QQ-5	18" diameter	5	LS	$ 11,107.30	$ 55,536.50
QQ-6	21" diameter	5	LS	$ 12,694.10	$ 63,470.50
QQ-7	24" diameter	5	LS	$ 14,280.80	$ 71,404.00
QQ-8	27" diameter	5	LS	$ 15,867.60	$ 79,338.00
QQ-9	30" diameter	5	LS	$ 17,454.30	$ 87,271.50
QQ-10	36" diameter	5	LS	$ 19,041.10	$ 95,205.50
				TOTAL "QQ"	$ 495,069.00
RR	Standard Service Reconnection	25	Each	$ 195.00	$ 4,875.00
				TOTAL "RR"	$ 4,875.00
SS	Traffic Control - FDOT Right of Way				
SS-1	Flagman	10	Setup	$ 655.90	$ 6,559.00
SS-2	Arrow Board	10	Setup	$ 190.40	$ 1,904.00
SS-3	Barricades	10	Setup	$ 359.70	$ 3,597.00
SS-4	Lane Dividers	10	Setup	$ 15.90	$ 159.00
				TOTAL "SS"	$ 12,219.00
TT	Traffic Control - City Right of Way				
TT-1	Flagman	10	Setup	$ 655.90	$ 6,559.00
TT-2	Arrow Board	10	Setup	$ 190.40	$ 1,904.00
TT-3	Barricades	10	Setup	$ 264.50	$ 2,645.00
TT-4	Lane Dividers	10	Setup	$ 15.90	$ 159.00
				TOTAL "TT"	$ 11,267.00
UU	Traffic Control - County Right of Way				
UU-1	Flagman	10	Setup	$ 655.90	$ 6,559.00
UU-2	Arrow Board	10	Setup	$ 190.40	$ 1,904.00
UU-3	Barricades	10	Setup	$ 359.70	$ 3,597.00
UU-4	Lane Dividers	10	Setup	$ 15.90	$ 159.00
				TOTAL "UU"	$ 12,219.00

	ANCILLARY GENERAL SERVICES				
ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT OF MEASURE	UNIT PRICE	EXTENDED PRICE
VV	**Easement Access**				
VV-1	6" to 12" diameter	100	LF	$ 3.70	$ 370.00
VV-2	14" to 18" diameter	100	LF	$ 4.80	$ 480.00
VV-3	20" to 24" diameter	100	LF	$ 6.10	$ 610.00
VV-4	27" to 30" diameter	100	LF	$ 9.80	$ 980.00
VV-5	36" to 42" diameter	100	LF	$ 10.80	$ 1,080.00
VV-6	48" to 54" diameter	100	LF	$ 16.10	$ 1,610.00
				TOTAL "VV"	$ 5,130.00
WW	**Manhole Cleaning**	2,800	SF	$ 5.30	$ 14,840.00
				TOTAL "WW"	$ 14,840.00
XX	**Grout fill abandoned pipe**	1,000	CY	$ 158.70	$ 158,700.00
				TOTAL "XX"	$ 158,700.00
YY	**Chemical and physical product testing**	10	EA	$ 264.50	$ 2,645.00
				TOTAL "YY"	$ 2,645.00
ZZ	**Erosion and sediment control**				
ZZ-1	Silt Fencing	200	LF	$ 4.20	$ 840.00
ZZ-2	Floating Turbidity Barrier	200	LF	$ 15.90	$ 3,180.00
ZZ-3	Gutter Buddy	100	EA	$ 52.90	$ 5,290.00
				TOTAL "ZZ"	$ 9,310.00
AAA	**Mobilization**	20	Setup	$ 3,578.40	$ 71,568.00
				TOTAL "AAA"	$ 71,568.00
BBB	**Bonds**	100,000	Percentage	$ 0.03	$ 3,000.00
				TOTAL "BBB"	$ 3,000.00
	TOTAL "QQ" THRU "BBB"				$ 800,842.00
	TOTAL ESTIMATED BID AMOUNT				$ 9,496,402.50

	ADDITIVE ALTERNATE No. 1				
	SANITARY SEWER				
	LINE RECONSTRUCTION SDR 26 LESS THAN 10' DEPTH				
CCC					
CCC-1	15"	100	LF	$ 272.00	$ 27,200.00
CCC-2	18"	100	LF	$ 292.20	$ 29,220.00
CCC-3	24"	100	LF	$ 385.60	$ 38,560.00
CCC-4	30"	100	LF	$ 464.10	$ 46,410.00
CCC-5	36"	100	LF	$ 582.90	$ 58,290.00
CCC-6	42"	100	LF	$ 594.10	$ 59,410.00
CCC-7	48"	100	LF	$ 1,193.20	$ 119,320.00
CCC-8	54"	100	LF	$ 1,500.00	$ 150,000.00
CCC-9	60"	100	LF	$ 2,000.00	$ 200,000.00
CCC-10	66"	50	LF	$ 2,500.00	$ 125,000.00
CCC-11	72"	50	LF	$ 3,000.00	$ 150,000.00
				TOTAL "CCC"	$ 1,003,410.00
	SANITARY SEWER				
	LINE RECONSTRUCTION C900 GREATER THAN 10' DEPTH				
DDD					
DDD-1	15"	100	LF	$ 333.30	$ 33,330.00
DDD-2	18"	100	LF	$ 358.30	$ 35,830.00
DDD-3	24"	100	LF	$ 469.00	$ 46,900.00
DDD-4	30"	100	LF	$ 578.50	$ 57,850.00
DDD-5	36"	100	LF	$ 745.00	$ 74,500.00
DDD-6	42"	100	LF	$ 1,391.10	$ 139,110.00
DDD-7	48"	100	LF	$ 1,500.00	$ 150,000.00
DDD-8	54"	100	LF	$ 2,000.00	$ 200,000.00
DDD-9	60"	100	LF	$ 2,500.00	$ 250,000.00
DDD-10	66"	50	LF	$ 3,000.00	$ 150,000.00
DDD-11	72"	50	LF	$ 3,500.00	$ 175,000.00
				TOTAL "DDD"	$ 1,312,520.00

	STORMWATER MAINS				
EEE	**Line Reconstruction (concrete collars are incidental) greater than 8' depth and under roadways**				
EEE-1	15" RCP	250	LF	$ 161.30	$ 40,325.00
EEE-2	18" RCP	250	LF	$ 171.10	$ 42,775.00
EEE-3	24" RCP	250	LF	$ 188.60	$ 47,150.00
EEE-4	30" RCP	250	LF	$ 227.30	$ 56,825.00
EEE-5	36 'RCP	250	LF	$ 256.20	$ 64,050.00
EEE-6	48" RCP	250	LF	$ 324.20	$ 81,050.00
EEE-7	54" RCP	250	LF	$ 386.40	$ 96,600.00
EEE-8	60" RCP	250	LF	$ 424.70	$ 106,175.00
EEE-9	72" RCP	500	LF	$ 548.60	$ 274,300.00
				TOTAL "EEE"	$ 809,250.00
FFF	**HDPE Line Reconstruction less than 8'**				
FFF-1	15" HDPE	250	LF	$ 133.60	$ 33,400.00
FFF-2	18" HDPE	250	LF	$ 142.20	$ 35,550.00
FFF-3	24" HDPE	250	LF	$ 160.60	$ 40,150.00
FFF-4	30" HDPE	250	LF	$ 203.10	$ 50,775.00
FFF-5	36" HDPE	250	LF	$ 209.80	$ 52,450.00
FFF-6	42" HDPE	250	LF	$ 231.70	$ 57,925.00
FFF-7	48" HDPE	250	LF	$ 279.80	$ 69,950.00
FFF-8	54" HDPE	250	LF	$ 310.00	$ 77,500.00
FFF-9	60" HDPE	250	LF	$ 353.50	$ 88,375.00
FFF-10	70" HDPE	500	LF	$ 390.00	$ 195,000.00
				TOTAL "FFF"	$ 701,075.00
	TOTAL "CCC" THRU "FFF"				$ 3,826,255.00

EXHIBIT B

CONTRACTOR E-VERIFY AFFIDAVIT

I hereby certify that Insituform Technologies LLC does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with, section 448.095, Florida Statutes.

All employees hired on or after January 1, 2021 have had their work authorization status verified through the E-Verify system.

A true and correct copy of Insituform Technologies LLC proof of registration in the E-Verify system is attached to this Affidavit.

Diane Partridge

Print Name: Diane Partridge
Contracting and Attesting Officer

Date: 1/13/2021

STATE OF ~~FLORIDA~~ MISSOURI

COUNTY OF ST. LOUIS

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization, this 1/13/2021 (date) by Diane Partridge ~~Contracting and Attesting Officer~~ (name of officer or agent, title of officer or agent) of Insituform Technologies, LLC (name of corporation acknowledging), a Delaware (state or place of incorporation) corporation, on behalf of the corporation. He/she is personally known to me or has produced personally known (type of identification) as identification.

[Notary Seal] Notary Public

JANA LAUSE
My Commission Expires
~~December 5, 2021~~
St. Louis County
Commission # 13805615

Name typed, printed or stamped

My Commission Expires: 12/5/2021

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