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

October 7, 2026
6:00 PM
65 Stone Street, Cocoa, FL 32922

I. Opening Matters:

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

II. Approval of Agenda and Minutes:

1. Agenda: Regular Meeting of October 7, 2026.
2. Minutes: Regular Meeting of September 2, 2026.

III. Old Business:

IV. New Business:

1. PZ 22-00100001 - London Cove - Large-Scale Site Plan and Preliminary Plat
2. Sky Powersports Large-Scale Site Plan

V. Tree Board:

VI. Other Business:

VII. Next Meeting Date: Wednesday, November 4th, 2026, at 6:00 pm at 65 Stone Street in Cocoa, FL.

VIII. Adjournment:

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

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

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

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

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

PLANNING & ZONING AGENDA ITEM

Memo Date:	09/18/2026
Agenda Date:	10/7/2026
Prepared By:	Breanna Earley, Assistant City Clerk
Through:	Stockton Whitten, City Manager
Requested Action:	Request Board approval of the Agenda for the Planning and Zoning October 7, 2026, Regular Meeting, either as written or with amendments.

BACKGROUND:

PRIORITY AREA CONNECTION:

BUDGETARY IMPACT:
N/A

PREVIOUS ACTION:

RECOMMENDED MOTION:
Request Board approval of the Agenda for the Planning and Zoning October 7, 2026, Regular Meeting, either as written or with amendments.

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

October 7th, 2026
6:00 PM
65 Stone Street, Cocoa, FL 32922

I. Opening Matters:

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

II. Approval of Agenda and Minutes:

1. Agenda: Regular Meeting of October 7th, 2026.
2. Minutes: Regular Meeting of September 2nd, 2026.

III. Old Business:

IV. New Business:

1. **PZ 22-00100001 – London Cove – Site Plan and Preliminary Plat**
   Consider a large-scale site plan and preliminary plat for the London Cove subdivision, pursuant to Chapter 18, Subdivisions, of the City of Cocoa Code of Ordinances, subdividing three parcels into six parcels, including two commercial lots, two future development tracts, and associated open-space and stormwater tracts, totaling approximately 22.66 acres. Generally located south of State Road 524 and north of Range Road and identified by Parcel IDs: 24-36-18-00-506, 24-36-18-00-502, and 24-36-18-00-500.1.

2. **PZ 25-00200020 – Sky Powersports – Large-Scale Site Plan**
   Consider the large-scale site plan for Sky Powersports, consisting of a powersports vehicle display, sales, and maintenance facility. Generally located on State Road 524, west of Interstate 95 in Cocoa, Florida, and identified by Parcel ID: 24-35-27-00-16.

V. Tree Board:

VI. Open Discussion:

VII. Other Business:

VIII. Next Meeting Date: Wednesday, November 4th, 2026, at 6:00 pm at 65 Stone Street in Cocoa, FL.

IX. Adjournment:

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

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

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

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

PLANNING & ZONING AGENDA ITEM

Memo Date:	09/18/2026
Agenda Date:	10/7/2026
Prepared By:	Breanna Earley, Assistant City Clerk
Through:	Stockton Whitten, City Manager
Requested Action:	Request Board approval of the Minutes for the Planning and Zoning September 2, 2026, Regular Meeting, either as written or with amendments.

BACKGROUND:

PRIORITY AREA CONNECTION:

BUDGETARY IMPACT:
N/A

PREVIOUS ACTION:

RECOMMENDED MOTION:
Request Board approval of the Minutes for the Planning and Zoning September 2, 2026, Regular Meeting, either as written or with amendments.

MINUTES
CITY OF COCOA
PLANNING & ZONING BOARD/ LOCAL PLANNING AGENCY
REGULAR MEETING
September 2, 2026

A Regular meeting of the Planning & Zoning Board Local Planning Agency was held on September 2, 2026, at City Hall, 65 Stone Street, Cocoa, FL, as publicly noted.

I. CALL TO ORDER:

Vice Chair Wheeler called the meeting to order at 6:00 PM.

ROLL CALL:

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

PRESENT:

Marcus Wheeler	Vice Chairperson
Tamisha Findlay	Board Member
Susan Milhoan	Board Member
Victoria Jones	Board Member
Russell Sengel	Board Member
Todd Anderson	Board Member
Aleck Greenwood	Alternate Board Member
Richard Cravens	Alternate Board Member
Kristin Eick	City Attorney

ABSENT:

Wesley Park	Chairperson
Ron Chabot	Board Member

STAFF PRESENT:

Luci Ribeiro, City Planner; and Breanna Earley, Recording Secretary.

Vice Chair Wheeler led the assembly in the Pledge of Allegiance.

II. Approval of Agenda and Minutes:

1. Agenda: Regular Meeting of September 2, 2026

2. Minutes: Regular Meeting of August 5, 2026

* **MOTION BY BOARD MEMBER JONES; SECONDED BY BOARD MEMBER ANDERSON TO APPROVE THE SEPTEMBER 2, 2026 AGENDA AND THE MINUTES OF AUGUST 5, 2026 AS WRITTEN.**

AYES: Wheeler, Findlay, Jones, Sengel, Anderson, Milhoan, Greenwood, Cravens

MOTION PASSED UNANIMOUSLY (8-0).

III. Old Business:

IV. New Business:

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

2. PZ 25-00900014 Ord No. 06-2026 Zoning Map Amendment 3600 Grissom Parkway (POSTPONED)

* **MOTION BY VICE CHAIR WHEELER; SECONDED BY BOARD MEMBER JONES TO POSTPONE BOTH ITEMS TO A DATE CERTAIN OF OCTOBER 7, 2026, AT 6PM AT 65 STONE STREET, COCOA, FL 32922.**

AYES: Wheeler, Findlay, Jones, Sengel, Anderson, Milhoan, Greenwood, Cravens

MOTION PASSED UNANIMOUSLY (8-0).

1. PZ 26-00200003 Ordinance No. 13-2026, Zoning Text Amendment Sec. 5 – RU-2-15, Multiple-Family Dwelling District.

Ms. Ribeiro provided a presentation for Ordinance No. 13-2026[1].

Board Member Sengel asked if this would create unconforming use.

Ms. Ribeiro clarified that it would not change use.

[1] Exhibit A: PZ 26-00200003 Ordinance No. 13-2026, Zoning Text Amendment Presentation

Board Member Sengel stated that if there is a piece of property that is nonconforming, it should be brought to the Board's attention.

Ms. Ribeiro stated there are properties that have a density issue.

Vice Chair Wheeler asked if there are any current plans being reviewed.

Alternate Member Greenwood inquired about a townhome project on Dixon Blvd.

Board Attorney Eick clarified they are single family homes.

* **MOTION BY BOARD MEMBER ANDERSON; SECONDED BY BOARD MEMBER GREENWOOD TO APPROVE WITH STAFF RECOMMENDATIONS.**

AYES: Wheeler, Findlay, Jones, Sengel, Anderson, Milhoan, Greenwood, Cravens

MOTION PASSED UNANIMOUSLY (8-0).

2. PZ 26-00500004 Ordinance No. 14-2026 – Comp Plan Amendment Amending Figure FLU-1

Ms. Ribeiro provided a presentation for Ordinance 14-2026.[2]

Board member Anderson asked for clarification on the item**.**

Ms. Ribeiro explained this would remove an inconsistency.

Alternate Member Cravens asked about height restrictions in RU-225.

City Attorney Eick noted it was four stories.

Board Member Sengel asked about nonconforming properties being created.

In response, Ms. Ribeiro stated that in her research she found nonconformities with density issues but this would not alleviate or create any more issues.

* **MOTION BY BOARD MEMBER FINDLAY; SECONDED BY ALTERNATE MEMBER GREENWOOD TO APPROVE WITH STAFF RECOMMENDATIONS.**

AYES: Wheeler, Findlay, Jones, Sengel, Anderson, Milhoan, Greenwood, Cravens

[2] Exhibit B: PZ 26-00500004 Ordinance No. 14-2026 – Comp Plan Amendment Presentation

MOTION PASSED UNANIMOUSLY (8-0).

V. Tree Board:

Alternate Member Greenwood asked if there was an update on the trees that were removed.

Ms. Ribeiro explained that she needed to investigate it and that staff was reviewing.

A discussion on the removed trees was held.

Ms. Ribeiro detailed city code and process.

Alternate Member Greenwood asked about a site plan for the property.

Ms. Ribeiro stated that to her knowledge, the trees were on private property.

Board Attorney Eick stated it is the Code Enforcement Board's responsibility to levy fines for violations.

Board Member Jones asked if the owners were aware there was a violation.

Ms. Ribeiro explained that the owners came forward to try and comply.

Board Member Jones asked if information is provided to property owners to ensure they're following city code.

Ms. Ribeiro stated no.

Board Member Milhoan wanted clarification on the process of tree removal.

Board Attorney Eick explained if the trees are mitigated, their permit would be approved.

VI. Next Meeting Date: Wednesday, October 7, 2026, at 6:00pm, at 65 Stone Street, Cocoa, FL 32922.

VII. Adjournment:

* **MOTION BY BOARD MEMBER ANDERSON; SECONDED BY BOARD MEMBER FINDLAY TO ADJOURN THE MEETING.**

AYES: Wheeler, Findlay, Jones, Sengel, Anderson, Milhoan, Greenwood, Cravens

MOTION PASSED UNANIMOUSLY (8-0).

MEETING ADJOURNED AT 6:55 PM.

_____

Wesley Park, Chairperson

Respectfully Submitted By:

_____

Breanna Earley, Recording Secretary

PLANNING & ZONING AGENDA ITEM

Memo Date:	09/21/2026
Agenda Date:	10/7/2026
Prepared By:	Erika Hughes, RVi Planning Consultant
Through:	Stockton Whitten, City Manager
Requested Action:	Consideration of a revised Large-Scale Site Plan, pursuant to Appendix A, Zoning, Article XIII, Sec. 1(D) of the Cocoa City Code, and a Preliminary Plat, pursuant to Chapter 18, Subdivisions, of the Cocoa City Code of Ordinances, for London Cove. The revised Site Plan modifies the Large-Scale Site Plan approved by the Planning & Zoning Board on March 5, 2025, reducing the number of commercial lots from six (6) to two (2). The Preliminary Plat subdivides three parcels into six parcels, including two commercial lots, two future development tracts, and associated open-space and stormwater tracts, totaling approximately 22.66 acres. Generally located south of State Road 524 and north of Range Road and identified by Parcel IDs: 24-36-18-00-506, 24-36-18-00-502, and 24-36-18-00-500.1.

BACKGROUND:

The subject property is generally located along State Road 524, west of the Cocoa Commons Shopping Center and approximately ¼ mile south of State Road 528 in Cocoa, Florida. The property is further described by the Brevard County Property Appraiser as Tax Parcel ID Numbers: 24-36-18-00-506, 24-36-18-00-502 and 24-36-18-00-500.1.

The subject property is within two (2) zoning districts, Neighborhood Commercial (C-N) in the north and Multiple Family Dwelling (RU-2-15) on the remaining parcels in the south. The corresponding future land use (FLU) designations of the property are Neighborhood Commercial on the northern frontage parcel and the remaining parcels are designated Medium Density Residential. Both the FLU and zoning designations allow for a range of commercial and residential uses, subject to the applicable development standards of the City of Cocoa Code of Ordinances and Comprehensive Plan.

On March 5, 2025, the Planning & Zoning Board approved the London Cove Large-Scale Site Plan for the subject property. That approval was for an “infrastructure only” site plan, which authorized site clearing, earthwork, and the construction of internal roadways, utilities, and stormwater management facilities to support future development. It did not authorize vertical construction of buildings, parking, or landscape buffers. The approved site plan established six (6) commercial lots, ranging from 1.0± to 1.98 acres, accessed by London Boulevard. The applicant initially submitted both a Site Plan and a Plat application at that time but elected to proceed with the Site Plan and postpone Plat review to a later date.

The applicant has since revised the site plan to consolidate the six (6) commercial lots into two (2) commercial lots and has now submitted a Preliminary Plat application to

subdivide the property accordingly. Since the lot configuration differs from the 2025 approval, the revised Large-Scale Site Plan is presented for consideration together with the Preliminary Plat. Both maintain the general layout and access established under the 2025 approval and represent the next step in the development process.

PROJECT INFORMATION:

The applicant submitted a Preliminary Plat application in September 2025 for the London Cove project, accompanied by a revised Large-Scale Site Plan reflecting the reduction from six (6) to two (2) commercial lots. The proposed subdivision will create two (2) commercial lots with access provided via the extension of London Boulevard from the north, connecting to State Road 524. Internal access, utilities, stormwater management facilities, and associated infrastructure were reviewed as part of the plan review.

Future Land Use Designation	Neighborhood Commercial (NCOMM) & Medium Density Residential (MDR)
Zoning District	Neighborhood Commercial (C-N) & Multiple Family Dwelling (RU-2-15)
Existing Land Use	Vacant
Council District	District 3 – Council Member Patricia Weeks
Legal Ad Date	September 22, 2026

Overview of Surrounding Area			
	Future Land Use	**Zoning**	**Existing Use**
North	MDR/COMM	PUD/C-N	Residential
South	MDR/LDR	RU-2-15	Municipal
East	NCOMM	C-N	Office/Commercial
West	NCOMM/LDR	C-N	Municipal (Fire Station)

Large-Scale Site Plan and Preliminary Plat Analysis

Consistent with Appendix A, Article XIII, Section 1(D), "All site plans shall be required to meet all current applicable code requirements." Consistent with Chapter 18 Article II Section 18-29, "Approval of the preliminary plat authorizes the subdivider to install all required improvements in accordance with the approved plans and specifications. All work shall be inspected and approved by the city engineer. No improvements, including clearing and grading, shall be undertaken until final engineering drawings or site plan for the subdivision, or unit division thereof, have been submitted to and approved by the city council."

Consistency with Code of the City of Cocoa

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

Site Plan and Preliminary Plat Data

The revised Large-Scale Site Plan modifies the site plan previously approved by consolidating the six (6) previously approved commercial lots into two (2) commercial lots. Access from State Road 524 via London Boulevard and the connection to London Cove Lane remain as established under the 2025 approval. The Preliminary Plat has been prepared to match the revised lot configuration. The “Tract Data Table” below outlines the allocated area and intended use for each named tract.

Tract Data Table

Site Tract Designation Area		
Tract	Use	Area
A	FUTURE DEVELOPMENT	6.43 ac
B	STORMWATER TREATMENT/ RECREATION/COMMON OPEN SPACE (WATER BODY)	3.82 ac
D	WETLAND CONSERVATION	0.82 ac
E	ACCESS ROAD (PRIVATE ROADWAY) & LONDON BOULEVARD (PRIVATE ROADWAY)	1.79 ac
F	WETLAND CONSERVATION	0.09 ac
G	STORMWATER TREATMENT/ RECREATION/COMMON OPEN SPACE (WATER BODY)	0.34 ac

Proposed Buildings

Like the 2025 approval, the revised Large-Scale Site Plan is an “infrastructure only” site plan. It authorizes site clearing, earthwork, and construction of the internal roadways, utilities, and stormwater management only. Vertical construction of buildings, parking, landscape buffers, and other site-specific improvements on either commercial lot or the future development tracts will require separate site plan approval by the City.

Environmental Considerations

Environmental permitting with the St. John River Water Management District (SJRWMD) has been processed and approved on November 7, 2022. The Environmental Report submitted with the initial application denotes one (1) gopher tortoise on the property. The Applicant intends to relocate the tortoise in accordance

with the Florida Fish and Wildlife Commission (FWC) requirements. A condition relating to the required relocation permit is included in Staff's recommendation.

Landscaping and Open Space

The Landscape Plans submitted with this Site Plan application indicate removal of 622 trees to allow for construction of the proposed improvements with onsite mitigation/tree replanting of canopy and palm trees in accordance with Article XIII of the Zoning Ordinance. It is noted that 35% of the required tree plantings can be met through palm tree specimens. As noted previously, no specific vertical development is proposed with his site plan. Therefore, open space calculations, landscape requirements, buffers and screening will be depicted on forthcoming Site Plan submissions and analyzed by staff at that time.

Concurrency Management/Adequate Public Facilities

Open Space

As no vertical development is proposed as part of this Preliminary Plat, detailed open space, landscaping, buffering, and screening requirements are not evaluated at this time. Such requirements will be addressed with future site plan applications for development of the individual lots and reviewed for compliance with the applicable provisions of the City of Cocoa Land Development Code. The Preliminary Plat establishes the overall framework of the site, including areas designated for stormwater management and conservation, which will contribute to the open space requirements to support the development.

Wastewater, Potable Water & Reclaim Water

The site will connect to the City of Cocoa utility services. As shown on the utility plan, the interior water main will be serviced by an 8-inch PVC pipe, while the reclaimed water main will utilize a 4-inch PVC pipe, both of which will be situated along London Boulevard and London Cove Lane. Additionally, stub-out connection points will be provided for future development in the southern portion of the site.

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

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

Stormwater Management

As noted above, the site includes several tracts dedicated to stormwater management. The Level of Service (LOS) for Stormwater Management is as follows:

Design Storm Event"	25-year frequency/24-hour duration event

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

The project, as designed, does meet the LOS requirements of the Comprehensive Plan per Public Works review of the proposed plans and stormwater report.

Solid Waste

Neither the Site Plan nor Preliminary Plat authorizes vertical development; therefore, solid waste demand is not evaluated at this stage. Solid waste generation and service requirements will be assessed with future site plan applications for development of the individual lots. At that time, all proposed developments shall be required to comply with the Level of Service (LOS) standards established in the City of Cocoa Comprehensive Plan.

Transportation

The proposed Preliminary Plat has been reviewed for consistency with the City of Cocoa Comprehensive Plan and previously approved development framework. The plat does not introduce additional development intensity but rather subdivides the property consistent with the revised Large-Scale Site Plan, which reduces the number of commercial lots from six (6) to two (2).

Access to the site is provided via the extension of London Boulevard across State Road 524. This extension ties into the existing signalized intersection at State Road 524. Internal circulation is further supported by London Cove Lane and associated private roadways identified on the plat. The proposed access configuration remains consistent with the site layout approved in 2025.

A cross-access easement is provided confirming cross-access to the adjacent Cocoa Commons Shopping Center to the east, which supports interconnectivity and reduces reliance on the arterial roadway network, consistent with the intent of the Comprehensive Plan and Code.

A Traffic Impact Analysis (TIA), dated April 2023, was previously reviewed as part of the March 5, 2025, Large-Scale Site Plan approval, which evaluated the impacts of the proposed development on the surrounding roadway network. As the revised Site Plan and Preliminary Plat do not modify the previously approved development intensity or access configuration, no additional traffic analysis is required at this stage. Any required transportation improvements identified through prior approvals or future development review shall be addressed at the time of site plan approval.

Consistency with Comprehensive Plan Policies and Objectives

Policy 1.1.2.8*: Neighborhood Commercial (NCOMM). Neighborhood commercial areas are intended to be low-impact in nature and serve the needs of the immediate residential area. The following criteria shall be used for determining appropriate locations for neighborhood commercial land use designations on the future land use map.*

The revised Large Scale Site Plan and Preliminary Plat support this designation by establishing a subdivision framework for future neighborhood service commercial uses in accordance with the underlying future land use and zoning.

Objective 1.1.9: *Sustainability/Energy Efficiency. The City shall aim at achieving a sustainable/energy-efficient environment by minimizing the emission of greenhouse gases and reducing the vehicle miles traveled.*

As noted above and illustrated on the site plan, interconnectivity is provided to adjacent properties. Additionally, the construction of sidewalks located on both sides of London Blvd. and London Cove Lane encourages walkability and street safety for pedestrians.

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

The proposed site plan application includes landscape plans providing compensatory tree plantings in accordance with the Zoning Ordinance.

Proposed Conditions:

Staff recommends approval of the revised Large-Scale Site Plan and Preliminary Plat for London Cove with the following conditions:

1. This approval does not authorize vertical construction of buildings or improvements other than those depicted on the revised Site Plan. Site Plan approval is required prior to vertical construction of any building.

2. Prior to commencement of construction activities, the Applicant must provide the City with the gopher tortoise relocation permit from the Florida Fish and Wildlife Conservation Commission.

3. Prior to commencement of construction activities, the Applicant must provide the City with required permits from the Florida Department of Transportation relating to connection to the SR 524 right-of-way and other associated project impacts.

4. A total of 635 replacement trees must be planted in accordance with the Tree Mitigation Plan prepared by Borrelli + Partners, or as revised to reflect the updated Site Plan. No more than 35% of the replacement trees may be palm specimens.

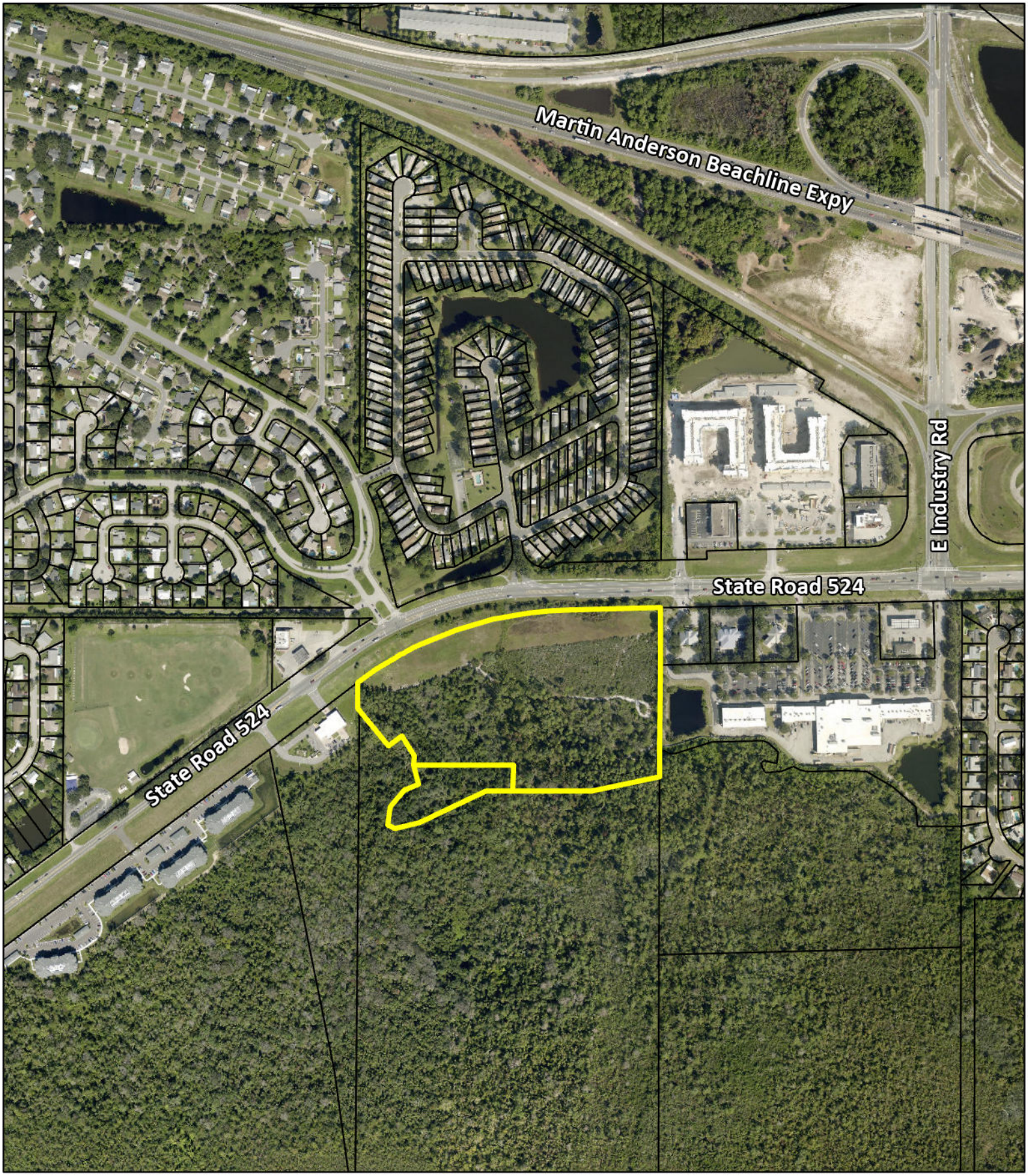
5. All required conservation easement documentation and applicable environmental permits shall be completed prior to Final Plat approval.

PRIORITY AREA CONNECTION:
Economic and Community Development

BUDGETARY IMPACT:
N/A

PREVIOUS ACTION:
March 5, 2025 – Planning & Zoning Board approved the London Cove Large-Scale Site Plan (six commercial lots, infrastructure only), subject to conditions.

RECOMMENDED MOTION:
Staff recommends that the Planning & Zoning Board recommend **APPROVAL WITH CONDITIONS** to City Council of the revised Large-Scale Site Plan and the Preliminary Plat for London Cove. The revised Site Plan modifies the Large-Scale Site Plan approved by the Planning & Zoning Board on March 5, 2025, reducing the number of commercial lots from six (6) to two (2). The revised Site Plan and Preliminary Plat have been reviewed and are found to meet the minimum requirements of all applicable City Code requirements and are consistent with Appendix A, Article XIII, Section 1(D) and Chapter 18, Article II, Section 18-29 of the Cocoa City Code of Ordinances.



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RVi
111 N. Magnolia Avenue
Suite 1350
Orlando, FL 32801
Tel: 407.680.0650
www.rviplanning.com

LONDON COVE • AERIAL MAP

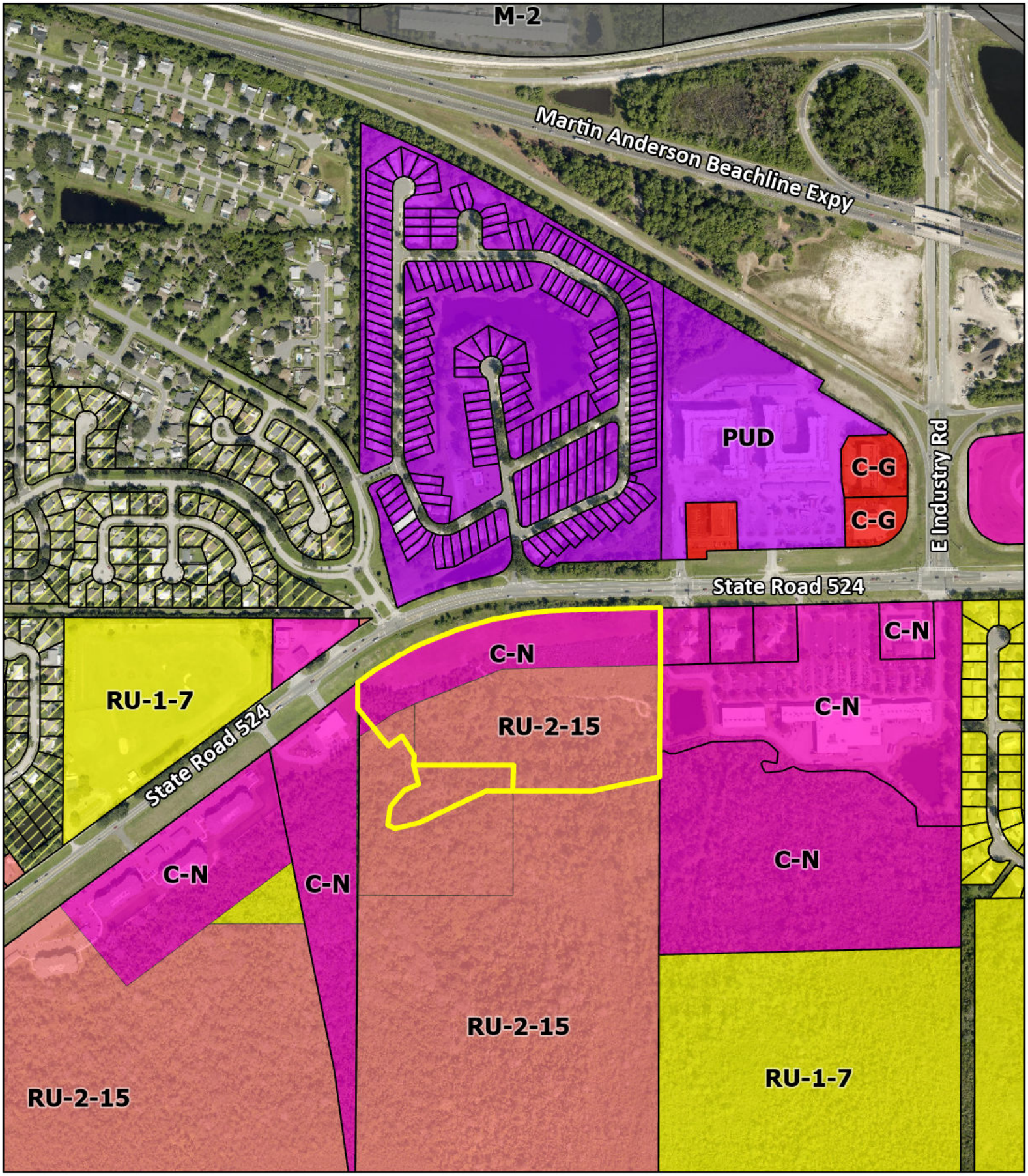
- City of Cocoa, FL
- Date: 2/27/2025
- # 23001867
- London Cove

Subject Parcels
County Parcels

N

0 180 360 720
US Feet

Information furnished regarding this property is from sources deemed reliable. RVi has not made an independent investigation of these sources and no warranty is made as to their accuracy or completeness. This plan is conceptual, subject to change, and does not represent any regulatory approval.



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LONDON COVE • ZONING MAP

- City of Cocoa, FL
- Date: 2/27/2025
- # 23001867
- London Cove

Subject Parcels
County Parcels

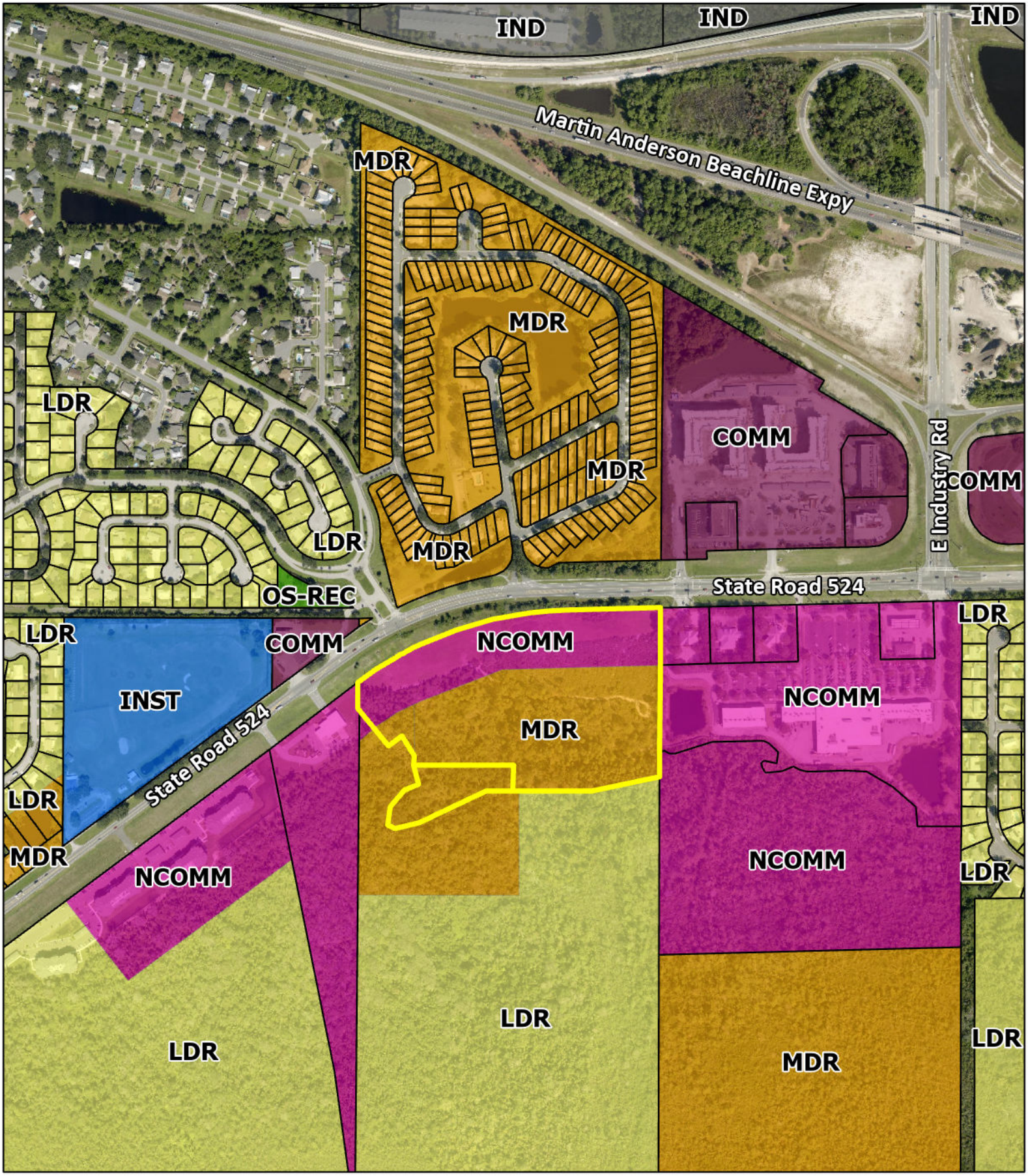
RU-1-7
RU-1-7a
RU-2-15
C-N
C-G
PUD
M-2

N

0 180 360 720
US Feet

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RVi
111 N. Magnolia Avenue
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Orlando, FL 32801
Tel: 407.680.0650
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Default Folder: L:\2023\23001867 - City of Cocoa Planning and Zoning Services\05 APPLICATIONS\WO18 - SR520 and US1 Visioning\Cocoa Visioning GIS Data

RVi
111 N. Magnolia Avenue
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Orlando, FL 32801
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LONDON COVE • FUTURE LAND USE MAP

- City of Cocoa, FL
- Date: 2/27/2025
- # 23001867
- London Cove

- Subject Parcels
- County Parcels
- Low Density Residential
- Medium Density Residential
- Neighborhood Commercial
- Commercial
- Industrial
- Institutional
- Recreation/Open Space

N

0 180 360 720
US Feet

Information furnished regarding this property is from sources deemed reliable. RVi has not made an independent investigation of these sources and no warranty is made as to their accuracy or completeness. This plan is conceptual, subject to change, and does not represent any regulatory approval.

PRELIMINARY PLAT / FINAL INFRASTRUCTURE CONSTRUCTION PLANS

LONDON COVE

CITY OF COCOA

FUTURE DEVELOPMENT LEGAL DESCRIPTION:

A PORTION THE WEST ½ OF THE SOUTHWEST ¼ OF SECTION 18 TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, LYING SOUTH OF THE SOUTH RIGHT OF WAY OF RELOCATED STATE ROAD No. 524. BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE EAST LINE OF THE SAID WEST ½ OF THE SOUTHWEST ¼ OF SAID SECTION 18 AND THE SOUTH RIGHT OF WAY OF SAID STATE ROAD No. 524; THENCE S00°14'26"W, ALONG SAID EAST LINE A DISTANCE OF 300.13 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE S00°14'26"W, ALONG SAID EAST LINE A DISTANCE OF 432.45 FEET; THENCE S78°22'53"W A DISTANCE OF 300.78 FEET; THENCE WEST A DISTANCE OF 456.25 FEET; THENCE S64°32'24"W A DISTANCE OF 320.49 FEET; THENCE S75°20'40"W A DISTANCE OF 106.54 FEET; THENCE N63°26'03"W A DISTANCE OF 37.10 FEET; THENCE N07°10'52"E A DISTANCE OF 78.58 FEET; THENCE N40°22'20"E A DISTANCE OF 92.99 FEET; THENCE N66°36'34"E A DISTANCE OF 68.06 FEET; THENCE N15°16'11"W A DISTANCE OF 87.27 FEET; THENCE N06°42'05"E A DISTANCE OF 39.66 FEET; THENCE N32°34'42"W A DISTANCE OF 102.57 FEET, TO A POINT ON A CIRCULAR CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 1292.58 FEET; SAID RADIUS BEARS S35°55'11"E; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 34°28'29", AN ARC DISTANCE OF 777.74 FEET; THENCE N88°33'18"E, TANGENT TO SAID CURVE, A DISTANCE OF 393.79 FEET TO THE POINT OF BEGINNING. CONTAINING 11.50 ACRES OF LAND MORE OR LESS.

LONDON COVE COMMERCIAL CENTER LEGAL DESCRIPTION:

THE NORTH 300 FEET OF THE FOLLOWING DESCRIBED LAND:
THE WEST ½ OF THE SOUTHWEST ¼ OF SECTION 18 TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, LYING SOUTH OF THE SOUTH RIGHT OF WAY OF RELOCATED STATE ROAD No. 524. BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE INTERSECTION OF THE EAST LINE OF THE SAID WEST ½ OF THE SOUTHWEST ¼ OF SAID SECTION 18 AND THE SOUTH RIGHT OF WAY OF SAID STATE ROAD No. 524; THENCE S88°33'18"W, ALONG SAID SOUTH RIGHT OF WAY A DISTANCE OF 402.62 FEET TO THE BEGINNING OF A TANGENT CIRCULAR CURVE, CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 1592.58 FEET; THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 34°48'00" AN ARC DISTANCE OF 967.29 FEET TO A POINT ON THE WEST LINE OF SAID SECTION 18; THENCE S00°14'23"E, ALONG SAID WEST LINE, A DISTANCE OF 130.15 FEET; THENCE S39°11'23"E A DISTANCE OF 196.68 FEET, TO A POINT ON A CIRCULAR CURVE, CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 1292.58 FEET; SAID RADIUS BEARS S39°11'23"E; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 37°44'41", AN ARC DISTANCE OF 851.51 FEET; THENCE N88°33'18"E A DISTANCE OF 393.79 FEET, TO SAID EAST LINE OF SAID WEST ½ OF SAID SOUTHWEST ¼ OF SAID SECTION 18; THENCE N00°14'26"E, ALONG SAID EAST LINE A DISTANCE OF 300.13 FEET TO THE POINT OF BEGINNING. CONTAINING 9.19 ACRES OF LAND MORE OR LESS.

DEVELOPER/OWNER:
DEMETREE BUILDERS
941 W. MORSE BLVD SUITE 315
WINTER PARK, FL 32789
PHONE: 407-422-8191
CONTACT: MARY DEMETREE
EMAIL: MDEMETREE@DEMETREEBUILDERS.COM

ENGINEER/PLANNER:
DAVE SCHMITT ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD SUITE 241
ORLANDO, FL 32828
PHONE: 407-207-9088
FAX: 407-207-9089
CONTACT: DAVE SCHMITT
EMAIL: DAVE.SCHMITT@DSEORL.COM

ENVIRONMENTAL ENGINEER:
MORGAN ENVIRONMENTAL CONSULTANTS, INC.
740 FLORIDA CENTRAL PARKWAY SUITE 2004
LONGWOOD, FL 32750
PHONE: 407-260-0448
FAX: 407-260-0446
CONTACT: JIM MORGAN
EMAIL: MECENVIRONMENTAL@AOL.COM

SURVEYOR:
CARNAHAN PROCTOR AND CROSS, INC.
604 COURTLAND STREET, SUITE 101
ORLANDO, FL 32804
PHONE: 321-279-0124
CONTACT: JIM QUARTEL
EMAIL: JQUARTEL@CPC-ENG.COM

01-16-25	DM	REVISIONS PER FDEP COMMENTS
10-21-24	DM	REVISIONS PER CITY COMMENTS
10-08-24	DM	REVISIONS PER CITY COMMENTS
09-19-24	JT	REVISIONS PER CITY COMMENTS
08-16-24	MF	REVISIONS PER CITY COMMENTS
04-24-23	JT	REVISIONS PER CITY COMMENTS
11-29-22	HM	REVISIONS PER CITY COMMENTS
06-08-22	BC	REVISIONS PER CITY COMMENTS
12-06-21	MGM	REVISIONS PER CITY COMMENTS
08-29-21	MGM	REVISIONS PER FDOT COMMENTS
04-09-21	MGM	REVISIONS PER FDOT / CITY COMMENTS
02-10-21	MGM	REVISIONS PER SJRWMD COMMENTS
02-08-21	MGM	REVISIONS PER FDOT COMMENTS
01-25-21	MGM	REVISIONS PER FDOT / CITY COMMENTS
01-12-21	MGM	REVISIONS PER FDOT COMMENTS
12-09-20	MGM	REVISIONS PER FDOT COMMENTS
11-17-20	MGM	REVISIONS PER FDOT COMMENTS
11-06-20	MGM	REVISIONS PER SJRWMD COMMENTS
10-16-20	MGM	REVISIONS PER FDOT COMMENTS
09-04-20	MGM	REVISIONS PER CLIENT COMMENTS
07-01-20	SAM	REVISIONS PER FDOT COMMENTS
05-26-20	SAM	REVISIONS PER FDOT COMMENTS
05-05-20	SAM	REVISIONS PER FDOT COMMENTS
02-18-20	DLS	REVISIONS PER FDOT COMMENTS
10-16-25	JT	REVISIONS PER FDOT COMMENTS
04-25-25	BC	REVISIONS PER SJRWMD COMMENTS
03-28-25	BC / JT	REVISIONS PER FDOT COMMENTS
02-26-25	BC	REVISIONS PER CLIENT COMMENTS
02-14-25	BC	REVISIONS PER CITY COMMENTS
11/14/2025	JTV/BC	REVISIONS PER SHOP DRAWING & PLAT REVIEW

PARCEL ID: 24-36-18-00-501.1.

PARCEL ID: 24-36-18-00-502

WATER / SEWER SERVICE:
CITY OF COCOA
UTILITIES DEPARTMENT
351 SHEARER BLVD.
COCOA, FL 32922

ELECTRIC SERVICE:
FLORIDA POWER & LIGHT
1318 W. AVENUE
BELLE GLADE, FL 33430
PHONE: 561 742-2023

GAS SERVICE:
FLORIDA CITY GAS
4180 US HIGHWAY 1
ROCKLEDGE, FL 32955
PHONE: 321 638-3424

TELEPHONE AND CABLE SERVICE:
COMCAST
940 12TH STREET
VERO BEACH, FL 32960
PHONE: 800 266-2278

NOTE:
EOR UNDERSTANDS THAT THEY WILL BE FULLY RESPONSIBLE TO UPDATE / ADD / REMOVE ANY SIGNS AND PAVEMENT MARKINGS THAT NEED TO BE UPDATED / ADDED / REMOVED IN THE FIELD WITH THE PROPOSED CHANGES, EVEN IF THE FDOT COMMENTS ARE NOT COMPREHENSIVE AND DO NOT COVER EVERY ONE OF THE CHANGES REQUIRED.

PREPARED FOR:

DEMETREE BUILDERS

NOTE:
THIS PROPOSED DEVELOPMENT WILL BE PRIVATELY OWNED AND MAINTAINED BY P.O.A., AS DEMONSTRATED ON SHEET 10 - OVERALL SITE PLAN.

REVISIONS

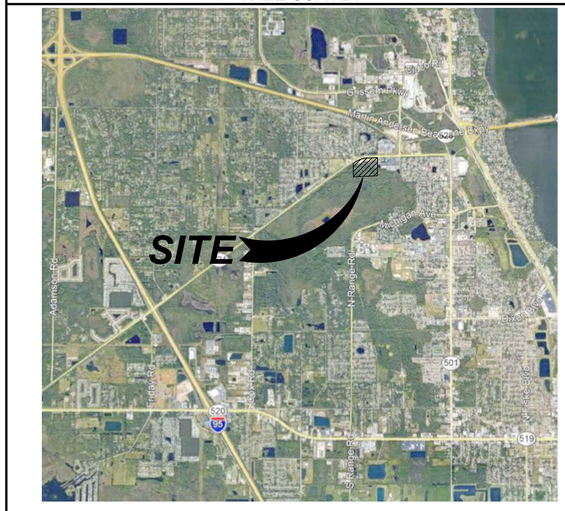
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
02-06-20	DLS	REVISIONS PER FDOT COMMENTS	01-30-19	MGM	REVISIONS PER CITY COMMENTS
10-18-19	JIF	REVISIONS PER FDOT COMMENTS	01-07-19	MGM	REVISIONS PER CITY COMMENTS
05-20-19	MGM	REVISIONS PER FDOT / CITY COMMENTS	12-11-18	MGM	REVISIONS PER FDOT / CITY COMMENTS
03-04-19	MGM	REVISIONS PER CITY COMMENTS	11-12-18	MGM	REVISIONS PER CITY COMMENTS
02-25-19	MGM	REVISIONS PER CITY COMMENTS	10-17-18	MGM	REVISIONS PER FDOT / CITY COMMENTS

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08	ENVIRONMENTAL CONSIDERATIONS PLAN
09	PARENT TRACT PRESERVATION PLAN
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12	GRADING PLAN
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PLANS BY OTHERS

TREE MITIGATION PLANS
LANDSCAPE PLANS
IRRIGATION PLANS
HARDSCAPE PLANS
BOUNDARY, TOPOGRAPHICAL SURVEY, TREE SURVEY



SITE LOCATION

DAVE SCHMITT ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD
SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

Dave M Schmitt
Digitally signed by Dave M Schmitt
DN: cn=Dave M Schmitt, o=DAVE SCHMITT ENGINEERING, INC., ou=ENGINEER, email=DAVE.SCHMITT@DSEORL.COM, c=US
Reason: I am the author of this document
Date: 2025.11.14 08:45:12 -05'00'

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

DATE: AUGUST 2018 JOB NO.: DB-3 SHEET: 1 OF 30

F:\DB3\Final\DB3 01 COVER SHEET.dwg, 11/14/2025 11:58:34 AM

GENERAL NOTES

1. ALL CONSTRUCTION IN THE FDOT RIGHT OF WAY SHALL CONFIRM TO THE LATEST EDITIONS OF THE FDOT DESIGN STANDARD (INDEXES), THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE FDOT UTILITY ACCOMMODATION MANUAL.

2. THE CONTRACTOR SHALL COORDINATE ALL WORK WITHIN EXISTING ROAD RIGHTS-OF-WAY WITH THE FDOT FOR STATE RIGHTS-OF-WAY.

3. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND IN-HAND BEFORE BEGINNING CONSTRUCTION.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL INSPECTION CRITERIA AND SCHEDULES, AND FOR SIGNING SAID INSPECTIONS.

5. ALL EXISTING UTILITIES HAVE BEEN FIELD VERIFIED AT ALL POINTS OF CONNECTION TO AND AT ALL AREAS OF CONFLICT WITH CITY OF COCOA MAINS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, AND FOR NOTIFYING THE VARIOUS UTILITY PROVIDERS TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, TEMPORARY DISRUPTION OF SERVICE, OR CLARIFICATION OF ACTIVITY REGARDING SAID UTILITY. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATED. ALL UTILITIES WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY PROVIDERS AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY PROVIDER DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE BY THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.

7. THE LOCATION OF ALL EXISTING UTILITIES, STORM DRAINAGE SYSTEMS AND TOPOGRAPHIC FEATURES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. SHOULD A DISCREPANCY ARISE BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, WHICH WOULD APPRECIABLY AFFECT THE EXECUTION OF THESE PLANS, THE CONTRACTOR WILL HALT ALL CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY.

8. THE LOCAL TELEPHONE COMPANY WILL INSTALL, REGULATE AND MAINTAIN THE PROPOSED COMMUNICATION DISTRIBUTION SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH SAID PROVIDER TO INSURE PROPER CONSTRUCTION PHASING, ELIMINATE CONFLICTS AND AVOID UNNECESSARY DELAYS.

9. ALL WORK AND MATERIALS FURNISHED SHALL BE IN REASONABLE CONFORMITY WITH THE LINES, GRADES, GRADING SECTIONS, CROSS SECTIONS, DIMENSIONS, MATERIAL REQUIREMENTS, AND TESTING REQUIREMENTS THAT ARE SPECIFIED IN THE CONTRACT, PLANS OR SPECIFICATIONS.

4 10. THE CONTRACTOR SHALL CONTROL HIS OPERATIONS AND THOSE OF HIS SUBCONTRACTORS, AND ALL SUPPLIERS TO ASSURE THE LEAST INCONVENIENCE TO THE TRAVELING PUBLIC. THE CONTRACTOR SHALL MAINTAIN FREE AND UNOBSTRUCTED MOVEMENT OF VEHICULAR TRAFFIC AND SHALL LIMIT HIS OPERATIONS FOR THE SAFETY AND CONVENIENCE OF THE TRAVELING PUBLIC. UNDER ALL CIRCUMSTANCES, SAFETY SHALL BE THE MOST IMPORTANT CONSIDERATION.
LANE CLOSURE RESTRICTION TIMES: 7AM-9AM / 3PM-7PM

4 11. PRIOR TO COMMENCING WORK THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL BARRICADES, WARNING SIGNS, AND MARKINGS FOR HAZARDS AND THE CONTROL OF TRAFFIC, IN SPECIFIC CONFORMITY WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS OR AS DIRECTED BY THE FDOT TRAFFIC ENGINEER, SUCH AS TO EFFECTIVELY PREVENT ACCIDENTS IN ALL PLACES WHERE THE WORK CAUSES OBSTRUCTIONS TO THE NORMAL TRAFFIC OR CONSTITUTES IN ANY WAY A HAZARD TO THE PUBLIC.

12. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS CONTROLLING POLLUTION OF THE ENVIRONMENT.

13. THE CONTRACTOR SHALL COMPLY WITH ALL LOAD RESTRICTIONS IN THE HAULING OF MATERIALS IN PUBLIC ROADS BEYOND THE LIMITS OF THE WORK. A SPECIAL PERMIT WILL NOT RELIEVE THE CONTRACTOR OF LIABILITY FOR THE DAMAGE WHICH MAY RESULT FROM THE MOVING OF MATERIAL AND EQUIPMENT.

14. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE POLICIES AND GUIDELINES ESTABLISHED BY CITY OF COCOA FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE PROPERTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE OR INJURY TO PROPERTY OF ANY CHARACTER, DURING THE EXECUTION OF THE WORK, RESULTING FROM ANY OMISSION, NEGLECT, OR MISCONDUCT IN HIS MANNER OR METHOD OF EXECUTING THE WORK, OR AT ANYTIME DUE TO DEFECTIVE WORK OR MATERIALS.

15. THE CONTRACTOR SHALL INSURE THAT PROPER SOIL DENSITIES ARE ACHIEVED FOR PLACEMENT OF ALL HEADWALL/ENDWALL FOOTINGS, RETAINING WALLS, AND IN GENERAL, ANY FOOTING SUPPORT DESCRIBED ON THESE PLANS. IT WILL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT SUFFICIENT SOILS TESTING HAS BEEN PERFORMED PRIOR TO CONSTRUCTION.

16. THE CONTRACTOR SHALL COMPLY WITH CITY OF COCOA STANDARDS AND SPECIFICATIONS FOR STRIPPING, CLEARING, GRUBBING, GRADING, BACKFILLING, AND EMBANKMENT PREPARATION WITHIN ALL DESIGNED ROADWAY RIGHT-OF-WAY SECTIONS.

17. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A COPY OF THE GEOTECHNICAL ENGINEER'S REPORT FOR THIS PROJECT FROM DAVE SCHMITT ENGINEERING. INC. AND MEET THE GEOTECHNICAL ENGINEER'S REQUIREMENTS FOR SOIL PREPARATION ON THE SITE.

18. AFTER THE ROADWAY HAS BEEN CONSTRUCTED TO SUBGRADE, IT SHALL BE PROOF-ROLLED TO ASSURE THAT PROPER COMPACTION HAS BEEN ATTAINED. THE PROOF-ROLLING AND COMPACTION OPERATIONS SHALL BE INSPECTED AND TESTED BY A FLORIDA LICENSED GEOTECHNICAL ENGINEER TO ASSURE THAT THE SPECIFIED COMPACTION IS MAINTAINED AND THAT ALL DELETERIOUS MATERIALS HAVE BEEN REMOVED.

19. COMPACT THE TOP 24 INCHES OF UTILITY TRENCHES WITHIN ROADWAYS TO 98% OF THE MODIFIED PROCTOR DENSITY; WITHIN OTHER AREAS TO 95%.

20. IN OTHER AREAS WHICH REQUIRE FILL MATERIAL THE CONTRACTOR WILL STRIP OR OTHERWISE REMOVE ALL VEGETATION SUCH AS BRUSH, HEAVY SODS, HEAVY GROWTH OF GRASS, DECAYED VEGETABLE MATTER, RUBBISH AND ANY OTHER DELETERIOUS MATERIAL BEFORE EMBANKMENT IS STARTED. IMMEDIATELY PRIOR TO THE PLACEMENT OF FILL MATERIALS, THE ENTIRE AREA UPON WHICH FILL IS TO PLACED, SHALL BE SCARIFIED IN A DIRECTION APPROXIMATELY PARALLEL TO THE AXIS OF FILL. THE GEOTECHNICAL ENGINEER SHALL APPROVE THE AREA PRIOR TO THE PLACEMENT OF FILL.

21. DURING CONSTRUCTION, NO DIRECT DISCHARGE OF WATER TO DOWNSTREAM RECEIVING WATERS WILL BE ALLOWED. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER QUALITY, AND SHALL ROUTE DISCHARGE WATER IN SUCH A MANNER TO ADEQUATELY REMOVE SILT PRIOR TO RUNOFF FROM SITE.

22. RECORD DRAWINGS: AT THE END OF CONSTRUCTION, THE CONTRACTOR WILL PROVIDE ONE SET OF DRAWINGS SHOWING ALL CHANGES MARKED IN WATERPROOF RED WITH THE FOLLOWING CONTRACTOR CERTIFICATION EXECUTED ON EACH SHEET.
THE CONTRACTOR: _____ HEREBY CERTIFIES TO THE OWNER THAT IMPROVEMENTS COVERED BY THIS DRAWING AND ALL RELATED DETAILS HAVE BEEN CONSTRUCTED AS INDICATED OR AS MODIFIED BY THE NOTES AND GRAPHICS SHOWN. ABSENT A NOTE OR GRAPHIC TO THE CONTRARY, THE IMPROVEMENTS HAVE BEEN CONSTRUCTED MEETING INDUSTRY STANDARD TOLERANCES.
SIGNED:_____ DATE:_____
AUTHORIZED CONTRACTOR'S REPRESENTATIVE

23. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.

4 24. ALL SIDEWALKS, RAMPS, AND CROSSWALKS WILL BE BUILT AND INSPECTED TO MEET CURRENT ADA REQUIREMENTS.

25. MISCELLANEOUS ENGINEER NOTIFICATIONS

A. THE CONTRACTOR SHALL PROVIDE THE ENGINEER ONE (1) BUSINESS DAY ADVANCE NOTIFICATION FOR THE FOLLOWING CONSTRUCTION AND OBSERVATION ACTIVITIES.

a. SANITARY SEWER VIDEO INSPECTION.

b. CONNECTIONS TO EXISTING SYSTEMS

c. THRUST BLOCK POURS AND RESTRAINT CONNECTIONS

d. STORM DRAINAGE LAMPING

e. INLET TOP POURS (REINFORCING STEEL CHECK)

f. WATER & FORCE MAIN PRESSURE TESTS

g. BACTERIOLOGICAL SAMPLING

h. BASE OBSERVATION & SOUNDING

i. ASPHALT PLACEMENT

j. PRE-FINAL INSPECTION

k. FINAL INSPECTION

B. THE CONTRACTOR SHALL KEEP DAILY "AS-BUILT" DRAWINGS AND MAKE THEM READILY ACCESSIBLE.

C. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER A PROJECT CONSTRUCTION SCHEDULE (BAR GRAPH) AND UPDATE SAID SCHEDULE ON A MONTHLY BASIS.

D. ALL FUEL STORAGE AREAS SHALL HAVE THE PROPERTY OWNER'S PRIOR APPROVAL AND APPROPRIATE MEASURES SHALL BE TAKEN TO INSURE PROTECTION OF GROUNDWATER AND SOIL RESOURCES.

E. THE CONTRACTOR SHALL COORDINATE ALL BACKFILL OPERATIONS WITH THE PROJECT GEOTECHNICAL ENGINEER AND SUBMIT TEST REPORTS TO THE ENGINEER PRIOR TO BEGINNING WORK ON THE NEXT ITEM OF WORK, I.E. SUBGRADE PRIOR TO CURB.

F. THE ENGINEER RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UNCOVER, RETEST AND OR PERFORM ANY ACTION NECESSARY TO ENSURE THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

2 G. THE ENGINEER OF RECORD TO PROVIDE A FINAL COPY OF THE AS-BUILTS / RECORD DRAWINGS TO THE CITY OF COCOA.

WATER

UTILITY SEPARATION-VERTICAL CLEARANCE

A. WHERE WATER MAINS CROSS A GRAVITY SANITARY SEWER OR STORM SEWER MAIN, A VERTICAL SEPARATION (OUTSIDE TO OUTSIDE) OF AT LEAST SIX INCHES, AND PREFERABLY TWELVE INCHES, ABOVE OR AT LEAST TWELVE INCHES BELOW MUST BE MAINTAINED. WHEREVER POSSIBLE, THE WATER MAIN SHALL BE LAID ABOVE THE OTHER PIPE.

B. WHERE WATER MAINS CROSS A SANITARY FORCE MAIN OR RECLAIMED WATER MAIN, A VERTICAL SEPARATION (OUTSIDE TO OUTSIDE) OF AT LEAST 12 INCHES MUST BE MAINTAINED. WHEREVER POSSIBLE, THE WATER MAIN SHALL BE LAID ABOVE THE OTHER PIPE.

C. ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ON THE OTHER PIPELINE SO THAT THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE JOINTS OF THE OTHER PIPE.

UTILITY SEPARATION-HORIZONTAL SEPARATION

D. WHEN WATER MAINS PARALLEL A GRAVITY SEWER MAIN, SANITARY FORCE MAIN, OR RECLAIMED WATER MAIN NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., A SEPARATION (MEASURED OUTSIDE TO OUTSIDE) OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, MUST BE MAINTAINED. THE MINIMUM SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY SANITARY SEWERS SHALL BE THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SANITARY SEWER PIPE.

E. WHERE WATER MAINS PARALLEL A STORM SEWER PIPE OR RECLAIMED WATER MAIN REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. A MINIMUM OF 3 FEET HORIZONTAL SEPARATION (MEASURED OUTSIDE TO OUTSIDE) MUST BE MAINTAINED.

F. NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY MANHOLE OR STORM SEWER INLET OR MANHOLE.

G. FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM THE A STORM SEWER OR RECLAIMED WATER MAIN REGULATED BY PART III OF CHAPTER 62-610, FAC; AND AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM A GRAVITY SANITARY SEWER, SANITARY FORCE MAIN OR RECLAIMED WATER MAIN NOT REGULATED BY PART III OF CHAPTER 62-610, FAC

H. THE WATER MAIN PIPE SHALL BE LAID SUCH THAT THE JOINTS ARE STAGGERED AS FAR AS POSSIBLE FROM THE JOINTS OF THE OTHER PIPE.

25. ALL FIRE HYDRANTS SHALL BE POSITIONED NO MORE THAN 5 FEET FROM THE CURB.

26. PRESSURE PIPE LENGTHS DO NOT INCLUDE BENDS, AIR RELEASE VALVES OR FIRE HYDRANT ASSEMBLIES.

SEWER

27. THE FOLLOWING UTILITY PROVIDER IS LISTED FOR THE CONVENIENCE TO THE CONTRACTOR.

SEWER:

CITY OF COCOA UTILITIES DEPARTMENT
351 SHEARER BLVD
COCOA, FLORIDA 32922

28. UNDERGROUND GRAVITY SEWER PIPING WHICH IS NOT MANUFACTURED OF METAL OR CONCRETE PIPE SHALL BE COLOR CODED GREEN USING LIGHT STABLE COLORANTS. UNDERGROUND METAL PIPE SHALL BE COLOR CODED OR MARKED USING GREEN AS A PREDOMINANT COLOR.

29. ALL PROPOSED SANITARY LINES (EITHER GRAVITY OR PRESSURES SYSTEMS), FITTINGS, VALVES, RESTRAINTS, COUPLINGS, PIPES, AND IN GENERAL, THOSE MATERIALS REQUIRED FOR INSTALLING THE WASTEWATER DISPOSAL SYSTEM SHALL CONFORM TO CITY OF COCOA UTILITIES WATER AND WASTEWATER DIVISION.

30. ALL GRAVITY SEWER LINES SHALL BE A MINIMUM OF 2' FROM THE CURB AT ALL LOCATIONS.

31. RECLAIMED WATER LINES, IF PROPOSED ON THESE PLANS, MAY BE EITHER PVC C900 DR25 OR DUCTILE IRON CLASS 200.

32. UNDERGROUND RECLAIMED WATER PIPING WHICH IS NOT MANUFACTURED OF METAL OR CONCRETE PIPE SHALL BE COLOR CODED PANTONE PURPLE 522C USING LIGHT STABLE COLORANTS. UNDERGROUND METAL AND CONCRETE PIPE SHALL BE COLOR CODED OR MARKED USING PURPLE AS A PREDOMINANT COLOR.

33. ALL REINFORCED CONCRETE PIPE (RCP) SHALL BE MINIMUM CLASS III.

2 34. ALL PRECAST DRAINAGE STRUCTURES TO HAVE STEEL ANGLE IRON FRAMES. ALL STRUCTURES IN PAVED AREAS TO HAVE STEEL RECTILINEAR GRATES WITH H-20 LOADING.

35. ALL JOINTS OF STORM DRAIN PIPES ARE TO BE WRAPPED PER STANDARD FDOT INDEX 430-001.

36. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL RETENTION AND DETENTION FACILITIES AND ALL LANDSCAPE BUFFERS, THROUGH THE DURATION OF THE PROJECT, AND UNTIL THE WORK IS ACCEPTED BY THE OWNER. ALL
4 DISRUPTED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.

37. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO CITY OF COCOA AND FDOT AND OBTAIN PLAN APPROVAL PRIOR TO CONSTRUCTION.

38. AIR RELEASE VALVES SHALL BE REQUIRED AT ALL HIGH POINTS ON PROPOSED FORCEMAINS, RECLAIMED WATER MAINS AND POTABLE WATER MAINS.

39. CITY OF COCOA UTILITIES EMERGENCY WASTEWATER SPILL AND WATER MAIN BREAK PROCEDURES.

A. TELEPHONE NOTIFICATION

THE CITY OF COCOA DISPATCH OPERATOR SHALL BE NOTIFIED IMMEDIATELY IN THE EVENT OF A FORCEMAIN, GRAVITY SEWER OR WATERMAIN BREAK OR DAMAGE AT 321-433-8400.

B. REPAIR IMMEDIATELY

ALL DAMAGE TO CITY OF COCOA'S MAINS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT THE CONTRACTORS' EXPENSE. IF THE REPAIR IS NOT MADE IN A TIMELY MANNER, AS DETERMINED BY THE CITY OF COCOA UTILITIES INSPECTOR, CITY OF COCOA MAY PERFORM REPAIRS AND THE CONTRACTOR WILL BE CHARGED FOR THOSE REPAIRS.

C. ADVANCE NOTIFICATION OF CONSTRUCTION

WATER DIVISION 321-690-3241

THE CITY OF COCOA UTILITIES DEPARTMENT (321-433-8799) SHALL BE NOTIFIED AT LEAST 7 DAYS PRIOR TO ANY CONSTRUCTION ACTIVITIES.

D. ADVANCE NOTIFICATION OF PENDING CONNECTION

THE CITY OF COCOA WATER DIVISION (321-690-3241) AND THE CITY OF COCOA WASTEWATER DIVISION (321-433-8799) SHALL BE NOTIFIED AT LEAST SEVEN (7) DAYS PRIOR TO SCHEDULED MAIN TIE-INS AND VALVE OPERATIONS TO CITY OF COCOA UTILITIES SYSTEMS.

E. OPERATION OF CITY OF COCOA VALVES

WATER, WASTEWATER, AND REUSE VALVES ARE TO BE OPERATED ONLY BY A CITY OF COCOA UTILITIES INSPECTOR (321-433-8400). ALL VALVES BEING INSTALLED ARE TO REMAIN CLOSED DURING CONSTRUCTION.

F. OPERATION OF CITY OF COCOA PUMP STATIONS

THE CONTRACTOR SHALL COORDINATE ALL PUMP STATION OPERATIONS AND SHUT DOWN CONTROLS WITH A CITY OF COCOA UTILITIES INSPECTOR (321-433-8400).

38. THE CONTRACTOR SHALL NOTIFY THE CITY OF COCOA UTILITIES CONSTRUCTION DEPARTMENT 48 HOURS PRIOR TO AND UTILITIES CONSTRUCTION. TELEPHONE (321-433-8400).

39. THE CONTRACTOR IS RESPONSIBLE FOR MEETING THE REQUIREMENTS OF EPA AND FDEP AS IT RELATES TO THE NPDES NOTES INCLUDING THE POLLUTION DISCHARGE CONTROL.

40. AN EROSION CONTROL PLAN WILL BE APPROVED BY THE CITY ENGINEER PRIOR TO THE PRE-CONSTRUCTION CONFERENCE.

4 2 FDOT NOTES:

1. ALL WORK PERFORMED WITHIN THE FDOT RIGHT-OF -WAY SHALL BE IN ACCORDANCE WITH 2025-26 EDITION OF THE FDOT STANDARDS PLANS FOR ROAD AND BRIDGE CONSTRUCTION, 2024 SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE 2017 UTILITY ACCOMMODATION MANUAL
2. ALL PAVEMENT MARKINGS PERTAINING TO FDOT PROPOSED DRIVEWAY CONNECTION SHALL BE THERMOPLASTIC.
3. ALL RAISED PAVEMENT MARKERS(RPM) INSTALLED WITHIN THE FDOT RIGHT-OF-WAY AND PROPOSED DRIVEWAY CONNECTION SHALL BE IN ACCORDANCE WITH FDOT STANDARD PLANS INDEX #706-001.
4. ALL EXCAVATIONS WITHIN TEN(10) FEET OF THE TRAVEL LANES AND GREATER THAN THREE(3) INCHES DEEP MUST BE FILLED IN OR HAVE A SHOULDER TREATMENT PLACED AT THE DROP-OFF PER INDEX #102-600 OF FDOT 2025-26 STANDARDS PLANS INDEXES AT THE END OF THE WORK DAY.
5. CONTRACTOR SHALL CONTACT FDOT TWO WEEKS IN ADVANCE AND SET UP A PRE-CONSTRUCTION MEETING PRIOR TO STARTING ANY WORK IN FDOT RIGHT OF WAY.
6. ALL TRAFFIC CONTROL DEVICES MUST BE IN PLACE BEFORE WORK CAN START.
7. MAINTENANCE OF TRAFFIC TO BE SUPERVISED BY A FDOT CERTIFIED WORK TRAFFIC SUPERVISOR.
8. IT WILL BE THE RESPONSIBILITY OF THE PERMITTEE TO REPAIR ANY DAMAGE TO FDOT FACILITIES CAUSED BY CONSTRUCTION OF THE PROJECT.
9. PERMITTEE SHALL NOT BEGIN THE WORK WITHIN THE FDOT RIGHT-OF-WAY UNTIL A FDOT INSPECTOR IS PRESENT AT THE JOB SITE AND AGREES THAT PROPER PREPARATIONS HAVE BEEN MADE.
10. SOD ALL UNPAVED AREAS WITHIN FDOT RIGHT OF WAY THAT ARE DISTURBED BY CONSTRUCTION PER FDOT STANDARDS PLANS INDEX #570-010.
11. ALL SODDING AREAS WITHIN THE FDOT ROW SHALL BE MAINTAINED BY WATERING AND GROWING TO BE ACCEPTABLE BY THE FDOT. ALL DEAD SOD IS TO BE REMOVED AND REPLACED FOR FDOT ACCEPTANCE.
12. ALL AFFECTED SIDEWALKS, RAMPS, AND CROSSWALKS, WILL BE BUILT AND INSPECTED TO MEET CURRENT ADA REQUIREMENTS.
13. FDOT ROW GRADE SHALL NOT BE CHANGED.
14. NO DUMPERS, PORTABLE TOILETS, CARS/TRUCKS TO BE PARKED WITHIN THE FDOT RIGHT OF WAY DURING THE CONSTRUCTION.
15. ENGINEER'S CERTIFICATIONS TOGETHER WITH AS-BUILT PLANS ARE REQUIRED TO BE SUBMITTED WITHIN 30 DAYS OF COMPLETION WORK WITHIN FDOT RIGHT-OF-WAY.
16. PERMITTEE SHALL NOT COMMENCE USE OF CONNECTION PRIOR TO FINAL INSPECTION AND FINAL ACCEPTANCE BY DEPARTMENT. FAILURE TO COMPLY WITH PERMIT CONDITION MAY RESULT IN REVOCATION OF THE PERMIT AND CLOSURE OF DRIVEWAY PER FL RULE CHAPTER 14-96.
17. THE PERMITTEE SHALL NOT DISCHARGE ANY UNPERMITTED UNTREATED WATER BEFORE, DURING, OR AFTER CONSTRUCTION WITHIN THE DEPARTMENT'S RIGHT-OF-WAY OR EASEMENT
18. ALL SIDEWALK TO BE REMOVED AND REPLACED FROM JOINT TO JOINT AND HAVE ½" EXPANSION JOINTS (PREFORMED JOINT FILLER) PLACED BETWEEN OLD AND NEW SIDEWALK.

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Certification of Authorization #27471

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			03-28-25	BC/JT	4 2 REVISION PER FDOT COMMENTS
			04-09-21	MGM	4 2 REVISION PER FDOT / CITY COMMENTS
			01-25-21	MGM	4 2 REVISION PER FDOT / CITY COMMENTS
			12-11-18	MGM	4 REVISION PER FDOT / CITY COMMENTS
			10-17-18	MGM	2 REVISION PER FDOT / CITY COMMENTS

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

GENERAL NOTES

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: NONE
SHEET: 02 OF 30

WASTEWATER

SECTION I. SCOPE OF WORK

1.1 GENERAL

REFER TO WATER - POTABLE & RECLAIMED, SECTION 1.1 - SCOPE OF WORK IN THESE TECHNICAL PROVISIONS.

SECTION II. MATERIAL SPECIFICATIONS

2.1 ***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 ON GRAVITY SEWER PIPING AND LATERAL TIE-INS IS NOT PERMITTED.

2.2 ***CONCRETE STRUCTURES***

2.2.1 ***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 MANAGER FOR APPROVAL PRIOR TO CASTING. CHAIRS FOR SUPPORTING REINFORCING STEEL WILL BE NON-CORROSIVE PLASTIC OR STAINLESS STEEL. STANDARD MANHOLES WILL BE 4 FEET IN DIAMETER WITH A WALL THICKNESS OF 5" FOR MANHOLES OF 8 FEET IN DEPTH OR LESS AND 6" FOR MANHOLES DEEPER THAN 8 FEET.*

2.2.2 ***FIBERGLASS MANHOLES****. PREFABRICATED FIBERGLASS MANHOLES MANUFACTURED IN ACCORDANCE WITH ASTM SPECIFICATION D3753 MAY BE ALLOWED IF APPROVED IN ADVANCE.*

2.3 ***PIPE***

2.3.1 ***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 MANAGER. CRITICAL INSTALLATIONS, AS DETERMINED BY THE ENGINEERING DIVISION MANAGER, WILL REQUIRE USE OF POLY-LINED DUCTILE IRON PIPE.*

2.3.2 ***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 LASTOMERIC GASKET JOINT TYPE. COLOR-CODED IDENTIFICATION TAPE WILL BE INSTALLED ON ALL FORCE MAINS.*

2.3.3 ***DUCTILE IRON****. DUCTILE IRON PIPE WILL BE CEMENT-LINED PRESSURE CLASS 350 MINIMUM THICKNESS CONFORMING TO AWWA SPECIFICATION C151 FOR FORCE MAIN INSTALLATION. DUCTILE IRON GRAVITY SEWER WILL BE PRESSURE CLASS 350 POLY-LINED PIPE. EXPOSED PIPING IN WET WELLS AND VALVE PITS WILL BE PRESSURE CLASS 350 WITH COAL TAR EPOXY EXTERIOR COATING AND INTERIOR CEMENT LINING. BURIED DUCTILE IRON PIPE WILL BE WRAPPED IN A COLOR CODED POLYETHYLENE ENCASEMENT IN ACCORDANCE WITH ANSI/AWWA C105-T1.*

2.4 ***MANHOLE ACCESS COVERS***

2.4.1 ***CAST IRON****. CAST IRON MANHOLE COVERS AND RINGS MUST BE TRAFFIC LOAD BEARING SIMILAR TO USF NO. 225-AS-ORS HAVING AN O-RING SEAL. BEARING SURFACES WILL BE MACHINED TO PRODUCE A TIGHT, EVEN SEATING SURFACE WITHOUT ROCKING. MINIMUM CLEAR OPENING WILL BE 24". THE WORD(S) "SEWER" OR "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.*

2.4.2 ***ALUMINUM****. ALUMINUM ACCESS COVERS WILL BE DESIGNED FOR 150 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.*

2.5 ***COATINGS***

2.5.1 ***EPOXY****. INTERIOR SURFACES OF MANHOLES WILL BE COATED WITH A THREE-COAT EPOXY SYSTEM. EACH COAT WILL BE OF CONTRASTING COLORS WITH THE FINAL COAT TO BE APPLIED IN THE FIELD TO ALL SURFACES.*

2.5.2 ***HDPE SHEET LINING****. T-LOK LINER . WHERE A T-LOK HDPE LINER IS SPECIFIED, THE ENTIRE WALL SURFACE OF THE MANHOLE WILL BE PROTECTED WITH A POLYVINYL CHLORIDE HIGH DENSITY POLYETHYLENE LINER CAST INTO THE CONCRETE. THIS LINER MUST BE MANUFACTURED BY AMERON, INC. AGRU SURE GRIP AS MANUFACTURED BY ALOIS GRUBER, OR APPROVED EQUAL. ALL JOINTS WILL BE HEAT FUSION WELDED TO CREATE A WATER-TIGHT LINING. SUCH LINING MUST BE WARRANTED AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF FIVE YEARS FROM DATE OF INSTALLATION.*

2.5.3 ***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 9378 OR APPROVED EQUAL. EQUIPMENT AND PUMP INFORMATION TAGS WILL NOT BE PAINTED. PUMP DISCHARGE PIPING IN LIFT STATION WET WELLS WILL BE STAINLESS STEEL, REFER TO SECTION 9.3.2*

2.6 ***MISCELLANEOUS MATERIALS***

2.6.1 ***MANHOLE STEPS****. MANHOLE STEPS ARE NOT PERMITTED. REQUIRED EXCEPT WHERE SPECIFIED ON THE PLANS. IF USED, MANHOLE STEPS MUST BE FIBERGLASS AND CAST INTO THE MANHOLE WALL. STEPS MUST BE 18" WIDE AND CAPABLE OF SUPPORTING A 350-POUND LOAD CONCENTRATED AT THE CENTER.*

2.6.2 ***HARDWARE****. ALL NUTS, BOLTS, WASHERS, ANCHORS AND BRACKETS INSIDE THE WET WELL OR MANHOLE MUST BE MANUFACTURED FROM GRADE 416 STAINLESS STEEL. BOLTS FOR FASTENING FLANGED FITTINGS INSIDE THE VALVE PIT MAY BE STEEL, COATED WITH THE SPECIFIED PIPING COATING SYSTEM.*

SECTION III. CONSTRUCTION

3.1 ***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.

3.2 ***MATERIAL HANDLING***

3.2.1 ***PRECAUTIONS****. 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, OR DRAGGED.*

3.2.2 ***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.*

3.2.3 ***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.*

3.3 ***TRENCH EXCAVATION, SHORING, AND SHEETING***

3.3.1 ***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 I MMEDIATELY AFTER JOINTING THE PIPE TO PREVENT MOVEMENT.*

3.3.2 ***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 SAFETY REQUIREMENTS OF THE FEDERAL, STATE, OR LOCAL PUBLIC AGENCY HAVING JURISDICTION. THE MOST STRINGENT OF THESE REQUIREMENTS WILL APPLY.*

3.4 ***CONTROL OF WATER***

3.4.1 ***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 INJURY 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.*

3.4.2 ***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 SO AS TO PREVENT THE REMOVAL OF THE NATURAL SOILS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING DE-WATERING PERMITS.*

3.4.3 ***STATIC WATER****. THE STATIC WATER LEVEL WILL BE DRAWN DOWN BELOW THE BOTTOM OF THE EXCAVATION SO AS 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.*

3.5 ***PIPE PLACEMENT AND JOINTING***

PIPE PLACEMENT WILL PROCEED 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 PIPE WILL BE JOINTED 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.

3.6 ***MATERIAL FOR BEDDING AND BACKFILLING***

3.6.1 ***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 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.*

3.6.2 ***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 OMPACTED TO THE REQUIRED DENSITY PRIOR TO PLACING THE NEXT LAYER. THE UTILITIES DEPARTMENT MAY REQUIRE THE DENSITY TO BE CHECKED BY A LICENSED LABORATORY AT EACH MANHOLE AND AT TWO POINTS BETWEEN MANHOLES AS SELECTED BY THE INSPECTOR, AT NO COST TO THE CITY.*

3.7 ***MANHOLE INSTALLATION***

3.7.1 ***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. IN WET CONDITIONS THE BED WILL CONSIST OF ¾" TO 1" ROCK.*

3.7.2 ***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. CHANGE 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 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 IN MANHOLES FROM INLET INVERT TO TOP OF FLOOR OUTSIDE THE CHANNELS WILL NOT EXCEED TWO FEET. STANDARD DROP MANHOLES WILL BE CONSTRUCTED WHEREVER FREE DROP EXCEEDS TWO FEET.*

3.7.3 ***JOINTS****. PRECAST MANHOLE JOINTS MUST BE WATER TIGHT 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.*

3.7.4 ***NON-SHRINK GROUT****. THE ANNULAR SPACE BETWEEN THE SEWER PIPE AND THE OPENING IN THE MANHOLE WILL BE GROUTED WITH NON-SHRINK GROUT TO INSURE A WATER-TIGHT JOINT.*

SECTION IV. WATER MAIN CROSSINGS

4.1 ***GENERAL***

IN ALL CASES WHERE SEWER MAINS CROSS WATER MAINS WITH A MINIMUM CLEAR DISTANCE BETWEEN THE TOP OF THE SEWER AND THE BOTTOM OF THE WATER MAIN LESS THAN 12", THE SEWER MAIN WILL BE CONSTRUCTED OF DUCTILE IRON PIPE FOR A DISTANCE OF TEN FEET ON EITHER SIDE OF THE POINT OF CROSSING. FDEP APPROVAL IS REQUIRED FOR ANY PROPOSED MITIGATION TO REDUCE SEPARATION.

SECTION V. SERVICE CONNECTIONS

5.1 ***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 UTILITIES DEPARTMENT.

5.1.1 ***CONNECTING TO MANHOLES***

5.1.1 SERVICE CONNECTIONS MADE DIRECTLY TO A MANHOLE SHALL BE CORE DRILLED AND FITTED WITH A FERNCO COUPLING TO PROVIDE SEAL AROUND PIPE. PIPE WILL BE A MINIMUM OF 6 INCHES IN DIAMETER AND SHALL INCLUDE A WYE AND CLEAN-OUT LOCATED ON THE CUSTOMER SIDE OF THE RIGHT-OF-WAY OR EASEMENT. CONNECTIONS REQUIRING A DROP WILL BE PIPED TO THE BOTTOM OF THE MANHOLE. PRIVATE LIFT STATIONS REQUIRING A DROP WILL BE PIPED TO THE BOTTOM AND FITTED WITH A 45 DEGREE BEND DIRECTED TOWARD THE INVERT OF THE GRAVITY MAIN TO REDUCE SPLASHING.

SECTION VI. FIELD TESTING OF SEWERS

6.1 ***GENERAL***

ALL SEWER LINES WILL BE SUBJECT TO A LEAKAGE TEST AT THE DISCRETION OF THE CITY. THE TEST MAY BE EITHER AN INFILTRATION, EXFILTRATION, OR AIR PRESSURE TEST AS DETERMINED BY THE CITY. THE TEST WILL BE CONDUCTED BY AND AT THE EXPENSE OF THE CONTRACTOR IN THE PRESENCE OF A CITY 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 OR BY PRESSURE GROUTING BY AN EXPERIENCED CONTRACTOR.

ALL DR 35 PVC SEWER LINES WILL ALSO BE SUBJECT TO DEFLECTION TESTING. DEFLECTION TESTING WILL BE PERFORMED A MINIMUM OF 30 DAYS AFTER BACKFILLING AND COMPACTION IS COMPLETED. PRIOR TO PLACING BASE MATERIAL, THE CITY WILL SUPPLY TO THE CONTRACTOR A MANDREL ALOWING A MAXIMUM DEFLECTION OF 7.5%. THE CONTRACTOR MUST SUPPLY ROPE AND WILL PASS THE MANDREL THROUGH ALL SECTIONS OF PIPE IN THE PRESENCE OF A CITY INSPECTOR. IF THE MANDREL DOES NOT PASS THROUGH A SECTION OF PIPE, DEFLECTION WILL BE CORRECTED AND THE LINE WILL BE RE-TESTED AFTER BACKFILLING AND COMPACTION. THE MANDREL WILL BE RETURNED TO THE UTILITIES DEPARTMENT UPON COMPLETION OF DEFLECTION TESTING.

6.1.1 ***VISIBLE LEAKS****. ALL VISIBLE LEAKS IN STRUCTURES WILL BE ELIMINATED REGARDLESS OF THE AMOUNT OF FLOW.*

6.1.2 ***TELEVISED INSPECTION****. TELEVISION INSPECTION MUST BE PROVIDED BY THE CONTRACTOR. AND WILL BE PERFORMED AFTER FINAL COMPACTION OF THE JOB SITE OR ROADWAY. A VHS VIDEO CASSETTE 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. A LEAKAGE TEST WILL NOT BE REQUIRED ON RUNS WHICH HAVE BEEN TELEVISED AND SHOW NO DEFECTS.*

6.1.3 ***PRESSURE TESTING****. FORCE MAINS AND RECLAIMED WATER MAINS WILL BE HYDROSTATICALLY TESTED AT A PRESSURE OF 150 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 ON THE FOLLOWING TABLE:*

SIZE	*ALLOWABLE LEAKAGE*
4"	*0.37 GALLONS/HOUR*
6"	*0.55 GALLONS/HOUR*
8"	*0.74 GALLONS/HOUR*
10"	*0.92 GALLONS/HOUR*
12"	*1.10 GALLONS/HOUR*
20"	*1.84 GALLONS/HOUR*

SECTION VII. AS-BUILT DRAWINGS

7.1 ***GENERAL*** *CONTINUED*

CERTIFICATION MUST BE MADE BY THE FLORIDA-REGISTERED SURVEYOR OR ENGINEER ACCEPTING RESPONSIBILITY FOR ACCURACY OF INFORMATION SUPPLIED ON THE AS-BUILT DRAWINGS ALONG WITH A STATEMENT ON F.D.E.P. FORM 17-604.900(2) CERTIFYING THAT THE SYSTEM DEPICTED ON THE AS-BUILT DRAWING WAS CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH APPROVED PLANS AND WILL FUNCTION AS INTENDED.

AS-BUILTS WILL BE DRAWN AT A SCALE OF NOT LESS THAN 1 INCH = 100 FEET. AREAS REQUIRING ADDITIONAL DETAIL MAY BE ENLARGED AS NECESSARY. RIGHTS-OF-WAY, EASEMENTS, AND LOT LINES WILL BE ACCURATELY SHOWN. LOTS, BLOCK NUMBERS, AND STREET NAMES WILL BE INCLUDED.

SECTION VIII. FORCE MAIN VALVES

8.1 ***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. AIR RELEASE VALVES WILL BE MODEL NO. 2-SAR-3 AS MANUFACTURED BY EMPIRE SPECIALTY COMPANY OR APPROVED EQUAL. AIR RELEASE VALVES WILL BE INSTALLED IN A CONCRETE PIT AT HIGH POINTS IN THE MAIN. REQUIREMENTS STATED IN POTABLE & RECLAIMED WATER SECTION 2.2 -VALVES AND VALVE BOXES (SUBSECTIONS 2.2.1 AND 2.2.4) AND SECTION 5.5 - VALVES AND FITTINGS SHALL ALSO BE MET FOR FORCE MAIN VALVES.

SECTION IX. LIFT STATIONS

9.1 ***PRECAST WET WELLS***

PRECAST WET WELLS 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 MANAGER FOR APPROVAL PRIOR TO CASTING. CHAIRS FOR SUPPORTING REINFORCING STEEL WILL BE NON-CORROSIVE PLASTIC OR 416 STAINLESS STEEL.

9.2 ***WET WELL ACCESS COVERS***

ALUMINUM ACCESS COVERS WILL BE DESIGNED FOR 300 PSF LIVE LOAD WITH A SAFETY FACTOR TIMES 3. THE SINGLE SWING CCOVERS WILL BE EQUIPPED WITH 416 STAINLESS STEEL HINGES AND 416 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 3/4"-WIDE LIP AROUND THE INSIDE OF THE FRAME. THE HATCH WILL BE A BILCO OR HALLIDAY PRODUCT. THE HATCH SIZE OF THE COVER WILL BE DETERMINED BY THE WET WELL SIZE AND PUMP SIZE OF THE PROJECT. TO PROVIDE AT LEAST 12 INCHES OF CLEARANCE ON ALL SIDES OF THE PUMP WITH A MINIMUM HATCH DIMENSION OF 36 X 48 INCHES.

9.3 ***COATINGS***

9.3.1 ***HDPE SHEET LINING****. THE ENTIRE INTERIOR WALL AND TOP SURFACE OF THE WET WELL WILL BE PROTECTED WITH A HIGH DENSITY POLYETHYLENE (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 MANUFACTURED BY AGRU SURE GRIP AS MANUFACTURED BY ALOIS GRUBER 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 WATER-TIGHT LINING.*

T-LOK LINER*. THE ENTIRE INTERIOR WALL AND TOP SURFACE OF THE WET WELL WILL BE PROTECTED WITH A POLYVINYL CHLORIDE LINER CAST INTO THE CONCRETE. THIS LINER MUST BE MANUFACTURED BY AMERON, INC., OR APPROVED EQUAL. ALL JOINTS WILL BE HEAT FUSION WELDED TO CREATE A WATER-TIGHT LINING. SUCH LINING SHALL BE WARRANTED*

AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF FIVE YEARS FROM DATE OF INSTALLATION.

9.3.2 ***EXPOSED PIPING****. PUMP DISCHARGE RISER PIPES AND FITTINGS INSIDE THE WET WELL WILL BE 316 10S STAINLESS STEEL WITH FLANGED FITTINGS. EXPOSED PIPING, PUMPS, AND EQUIPMENT EXPOSED TO RAW SEWAGE IN 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.*

9.4 ***SUBMERSIBLE LIFT PUMPS***

LIFT STATION SUBMERSIBLE PUMPS WILL BE HYDROMATIC, ABS, OR FLYGHT WITH THREE-PHASE POWER WITH 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 416 STAINLESS STEEL. EQUIPPED WITH TANDEM SEALS WITH SEPARATE CHAMBERS FOR EACH SEAL. SEALS WILL HAVE TUNGSTEN CARBIDE FACES WITH 416 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 416 STAINLESS STEEL FASTENERS. FLANGES WILL BE MACHINE THREADED. (COMPRESSION-TYPE FLANGES WILL NOT BE ALLOWED.) FLANGE BOLTS, WASHERS, AND NUTS WILL BE 416 STAINLESS STEEL. ALL PIPES ENTERING OR EXITING THE WET WELL WILL BE SEALED IN A MANNER THAT WILL PREVENT WATER LEAKS AROUND PIPES.

9.5 ***VALVE PIT***

A SEPARATE VALVE PIT SHALL BE CONSTRUCTED ADJACENT 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 COVER. THE VALVE BOX IS TO BE MADE OF PRECAST OR CAST-IN-PLACE CONCRETE WITH A CAST CONCRETE COVER EQUIPPED WITH AN ALUMINUM ACCESS HATCH COVER CAST IN THE CONCRETE. 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 36 X 48 INCHES. A 0-100 PSI GLYCERIN FILLED PRESSURE GAUGE WILL BE INSTALLED IN TAPPED CROSS BOSS WITH A BRASS GATE VALVE.

9.6 ***CHECK VALVES***

CHECK VALVES WILL BE FLANGED, WITH OUTSIDE WEIGHT AND LEVER, CAST IRON HOUSING, 416 STAINLESS STEEL SEAT RING, CLAPPER WITH NEOPRENE SEALING SURFACE, O-RING-SEALED STUFFING BOX (MINIMUM SIZE 4"). BOLTS, WASHERS, AND NUTS WILL BE 416 STAINLESS STEEL. CHECK VALVES SHALL MEET AWWA SPECIFICATION C508. FLANGED END DIMENSIONS WILL BE DRILLED TO ANSI STANDARD B16.1 CLASS 125.

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 416 STAINLESS STEEL FASTENERS. GATE VALVES WILL MEET AWWA SPECIFICATION C509. FLANGED END DIMENSIONS WILL BE DRILLED TO ANSI STANDARD B16.1 CLASS 125.

9.8 ***CONTROL PANEL***

THE CONTROL PANEL WILL BE ISOLATED WITH A 200 AMP NON-FUSEABLE DISCONNECT HOUSED IN A NEMA 4X STAINLESS STEEL LOCKABLE CABINET.

*THE CONTROL PANEL ENCLOSURE WILL BE 316 STAINLESS STEEL, NEMA 4X

WATER – POTABLE & RECLAIMED

SECTION I. SCOPE OF WORK

1.1 GENERAL
All potable water, reclaimed water, and sewer mains and appurtenances must be installed in accordance with the City of Cocoa Utilities Department's Technical Provisions for the Construction of the Water Distribution System, the Water Reclamation System, and the Wastewater Collection System, the City of Cocoa Utilities Department Utilities Handbook, the approved plans, and the Standard Detail Sheet. 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 Division. It is recommended that the pre- construction meeting be scheduled prior to ordering materials.
- Scheduling materials inspection, open ditch inspection, pressure/leakage test, and final inspection.

Any deviation from these requirements must be approved in writing by the Engineering Division Manager 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 600 School Street, Cocoa, Florida, 32922. The Dispatch telephone number is (407) 639-7671; facsimile number is (407) 639-7663.

1.2 DEFINITIONS
The term "approved equal" is used to mean a part or item that has been approved in writing by the Engineering Division Manager, the Transmission/Distribution Superintendent, 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.

Whenever a specification from a specific source is cited, the most current revision of that specification will be used.

Unless otherwise specified, "City" means City of Cocoa; "Utilities Department" means City of Cocoa Utilities Department; "Engineering Division" means City of Cocoa Utilities Department, Engineering Division.

SECTION II. MATERIAL SPECIFICATIONS

2.1 PIPE (see also Section 5.3 – Wire for locator wire specifications)
2.1.1 Polyvinyl Chloride Pressure Pipe, 2". Polyvinyl chloride (PVC) pressure pipe (size 2") will be Class 200 (DR 21) and will be blue or white in color. Pipe will be supplied 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. No solvent-cement joints will be accepted. All PVC pipe and couplings will bear the U.L. label and NSF approval for potable water.

2.1.2 Polyvinyl Chloride Pressure Pipe, 4"–12". Polyvinyl chloride pressure pipe (sizes 4" through 12") will be cast iron pipe equivalent outside diameter Class 150 (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 U.L. label and NSF approval for potable water.

2.1.3 Polyvinyl Chloride Pressure Pipe, 16". Polyvinyl chloride pressure pipe (size 16") will be cast iron pipe equivalent outside diameter and a pressure rating of 235 p.s.i. (DR 18) conforming to AWWA specification C905 and will be blue or white in color. All joints will be of the elastomeric-gasket type with thickened, integral solid- wall bell or coupling with the wall the same DR as the barrel. All PVC pipe and couplings will bear the U.L. label and NSF approval for potable water.

2.1.4 Ductile Iron. Ductile iron pipe will be cement lined pressure Class 350 conforming to AWWA specification C151. Water main and storm drain crossing conflicts will be properly designed by the project engineer and approved by the Utilities Department prior to installation. Water mains that are less than 10 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 encasement conforming to AWWA specification C105 will be provided for all installations. The polyethylene will be sealed with tape.

2.1.5 Reclaimed Water. PVC pipe installed in reclaimed water systems will be Class 150 (DR 18) conforming to AWWA specification C900 and will be purple in color. All PVC or ductile iron pipe will be installed with a 5"–wide purple adhesive identification tape affixed to the top of the pipe. Script in 1–1/2" black lettering will identify the main as "REUSE MAIN". Ductile iron pipe installed in the reclaimed water system will be pressure Class 350 for 12" and smaller and pressure Class 250 for 14" and larger, provided 3 feet of cover can be maintained. Where cover is less than 3 feet, pressure Class 350 is required. Ductile iron pipe with identification tape will be installed where horizontal separation of less than 5 feet or vertical separation of less than 18" from potable water mains or sewer mains exists.

2.2 VALVES AND VALVE BOXES
2.2.1 Resilient Seat Gate Valves, 4"–16". Resilient seat gate valves will have mechanical joint ends as manufactured by American Flow Controls, Model AFC–2500, U.S. Metroseal; Clow Corporation; or an approved equal. The resilient seat gate valves must conform to AWWA specification C509 and be manufactured in the U.S.A. Resilient seats will be of natural or synthetic rubber and be bonded or mechanically attached to the gate using stainless steel hardware and will be rated at a working pressure of 200 psi. 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. 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 Transmission/Distribution Superintendent or his designee. See Exhibit 1.

2.2.2 Butterfly Valves, 12" and larger. Butterfly valves with mechanical joint ends will be rubber seated, 90° tight closing type, short body. The interior and exterior will be fusion bonded epoxy coated in accordance with AWWA specification C550. The valve shaft will be of 18–8 type 304 stainless steel or type 316 stainless steel. Body dimensions and minimum shaft diameter will be in accordance with Tables 3 and 4 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. Buried valves will be for submerged service and will be equipped with totally enclosed gear operators, permanently lubricated and equipped with adjustable stops for open and closed positions. 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. Each buried valve will have a standard 2"–square operating nut. The valve will open when the operator nut is turned counterclockwise. 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 Transmission/Distribution Superintendent or his designee. See Exhibit 1.

2.2.3 Valves, 2". Two–inch valves for use with 2" PVC distribution mains will be of the ball valve design, as manufactured by Ford Meter Box Company, Inc., Model #B11–777, or an approved equal. They will be equipped with a 2"–square operator, as manufactured by Ford Meter Box Company, Inc., Model #G167, or an approved equal, for buried use. Ball valves will be adapted to other pipe line materials by use of brass nipples or PVC, converted hub adapters. The 2" blowoff gate valves will be rated at 125 SWP or 200 WOG. All 2" gate valves must meet all E.P.A. and F.D.E.P. requirements regarding lead and zinc contents. Galvanized fittings and 2" brass wheel valves are acceptable only on blowoffs and will not be accepted at other locations. All valves must be manufactured in the U.S.A.

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 Trumbull 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 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.

2.2.5 Check Valves. Check valves for fireline systems will be the double detector check valve as manufactured by Febco, Model No. 806DDC; Watts, Model No. 709DDC; Ames, Silver Bullet; or an approved equal, in accordance with AWWA specification C508. Double detector check valves will be accepted as a complete approved assembly in accordance with the section on "Cross–Connection Control and Backflow Prevention" in the Utilities Handbook. Check valves must be installed horizontally above ground in an grassed area and painted with Rust–O–Thane No. 9405–1611 Red. Paint must be applied in accordance with the manufacturer's recommendations. The check valve will be installed with 12" minimum and 24" maximum clearance from finished grade. The Utilities Department will inspect the interior of the double detector check valve prior to installation.

2.3 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, such as "Field Lok" as manufactured by U.S. Pipe or an approved equal. All fittings must be manufactured in the U.S.A.

2.3.1 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).

2.3.2 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 mils polyethylene (sealed with tape).

2.3.3 Bolts. All mechanical joint bolts must be CORTEN Steel.

2.3.4 Tapping Saddles. Tapping saddles on mains 4" to 12" in diameter will be cast iron body mechanical joint type. Saddles on mains 16" to 48" in diameter will be fabricated steel with O–ring seal, fusion bonded, epoxy coated with stainless steel nuts and bolts. The tapping valve must have centering ring and conform to Section 2.2.1 – Resilient Seat Gate Valves in these Technical Provisions.

2.3.5 PVC. Fittings for 2" PVC pipe will be PVC with rubber gasketed slip joints. No solvent weld joints will be accepted.

2.4 FIRE HYDRANTS
Fire hydrants must be manufactured in accordance with AWWA specification C503. Hydrants must have bronze– to–bronze main seat threading surfaces. They will be traffic type with drain holes plugged at the factory. Hydrants must be size of the following models:

- Model Mark 73 with bronze drain ring, American Darling Valve and Manufacturing Company
- Model No. A–421 Super Centurion 200, Mueller Company
- Model #K–81A, ITT Kennedy
- Dow Medallion, Clow Valved Company
- U.S. Metropolitan, U.S. Pipe

Hydrants will have one 4–1/2" valve opening, one 4–1/2" pumper nozzle, and two 2–1/2" hose nozzles. Stem couplings are to be cast iron or nylon–coated steel. The upper valve plate must be bronze. The hydrant shoe will be connected with fusion bonded epoxy, 6 mil minimum. All hydrants will be painted at the factory with Rustoleum high–performance epoxy 9100 system, non–lead, minimum thickness 3 to 8 mils, color #9143 Yellow. City crews will apply finish paint to each new fire hydrant after the contractor has paid the appropriate deposit.

Finish grade is to be established and the proper length hydrant 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 install risers or make repairs to hydrants. Adjustments or repairs to be made to the hydrant or installation will be done by the City. The contractor or developer will be charged the cost of labor and materials for this service and must provide payment in advance. At final inspection, if it is determined that a fire hydrant has been modified, the hydrant will be removed. Either the proper length hydrant will be installed by the City, at the contractor's or developer's expense, or the contractor may purchase a proper length hydrant and install it under the direction of Utilities Department personnel.

2.5 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 copper 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 pipe will be the same nominal diameter as the service line. Service taps in PVC pipe will be drilled with a shell cutter; the plug will be removed.

2.5.1 Saddles. Saddles must be used for all connections to PVC pipe. Saddles must be bronze as manufactured by Mueller Company, Ford Meter Box Company, or Smith–Blair Company. The pipe sizes for these manufacturers are noted below:

MUELLER: For 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 double strap design must be used. Both designs are for the H–16000 series.

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.

SMITH–BLAIR: For pipe sizes 4" to 12", for 3/4" and 1" services, the 321 series single strap design must be used. For pipe sizes 4" and larger, for 3/4", 1", 1–1/2" and 2" services, the 323 series double strap design must be used.

An approved equal may be used in lieu of any of the above–listed designs/models.

2.5.2 Curb Stops, 3/4" and 1". Curb stops 3/4" and 1" in size will be Mueller Mark II Oriseal, Model No. H–14352 or No. B–24–332M ball valves, as manufactured by Mueller Company. Model No. B–23–232W can be used for 3/4" curb stops and Model No. B–23–444W for 1" curb stops, as manufactured by Ford Meter Box Company. Model No. 4317, as manufactured by Hayes Manufacturing Company, or an approved equal, is also acceptable. Curb stops must have locking wings and a swivel meter nut. Curb stops that are 1–1/2" or 2" will be flare–by–flange with locking wing, Model No. B723–666W for 1–1/2", Model No. B723–777W for 2", as manufactured by Ford Meter Box Company; Model No. 4316 as manufactured by Hayes Manufacturing Company; or an approved equal.

2.5.3 Corporation Stops, 3/4" and 1". Corporation stops 3/4" and 1" will be of brass and equal to Model No. H– 15000, manufactured by Mueller Company; Model No.F–600, as manufactured by Ford Meter Box Company; Model No. 5200, as manufactured by Hayes Manufacturing Company; or an approved equal. Corporation stops 1–1/2" and 2" will be brass and equal to Mueller Oriseal, as manufactured by Mueller Company; Model No. FB 600, as manufactured by Ford Meter Box Company; Model No. 4400, as manufactured by Hayes Manufacturing Company; or an approved equal.

2.5.4 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. Curb stops will be located in a plastic meter box with an iron flipper lid with a full pin hinge, such as Model No. DX1419–12CIR, as manufactured by Dexol Plastics, or an approved equal. Service locations will be permanently stenciled on concrete curb or the street with a blue "W" for potable water or a purple "R" for reuse. Reuse services will be located at the opposite lot corner from water services where practical or with five feet minimum separation.

2.5.5 Reclaimed Water. Reclaimed water service will be installed to finished grade in a plastic meter box with a purple plastic top and iron flipper lid with a full pin hinge, such as Model No. DX1419–12CIR, as manufactured by Dexol Plastics, or an approved equal. A 3" x 5" permanent plastic tag, secured to the curb stop with a nylon tie wrap, will be supplied. Tags will be inscribed "REUSE WATER DO NOT DRINK".

2.6 INSPECTION OF MATERIALS
Materials delivered to the job site will be subject to inspection by the City prior to installation. 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 City prior to installation will be subject to inspection at his/her expense to verify compliance with these specifications. The contractor will furnish copies of the packing list(s) for materials upon demand.

SECTION III. PROTECTION OF PROPERTY AND OBSTRUCTIONS

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.

3.2 OBSTRUCTIONS. All utility owners must be notified prior to beginning construction. Any known obstructions will be shown on the plans. The utmost caution will be taken in all operations to avoid damage to existing obstructions whether or not shown on the plans.

SECTION IV. TRENCH PREPARATION

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 so as 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 unstable is uncovered at the bottom of the trench at sub–grade, it 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 water courses, 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.

4.2 SHEETING AND BRACING. Open cut trenches must be sheeted and braced as required by any 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.

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 City is not responsible for obtaining de–watering permits.

SECTION V. PIPE LINE CONSTRUCTION

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.

5.2 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 Manager. 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 all 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.

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 water–tight 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.

5.3 WIRE. A UF#14 locator wire will be installed on all potable water, reclaimed water, and sewer mains. The wire must be placed on the top of the pipe with at least one wrap around each section of pipe. 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.

A run of wire will also be brought up in each valve box. The wire will have 4 feet of excess length. Wire is to be connected together using a yellow wire nut.

5.4 BACKFILLING. 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. Valves, fittings, and thrust blocks will be left uncovered until inspection by the Utilities Department has been completed.

5.5 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 and will be 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.)

5.6 FIRE HYDRANTS. All fire 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 so as 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 with the pumper nozzle facing towards the curb and the bury line at the hydrant at the finished grade. Fire hydrants installed in State highway rights–of–way will be placed in accordance with any F.D.O.T. requirements. All fire hydrants will be connected to the main in the manner shown on the Standard Detail Sheet.

5.7 THRUST BLOCKS. Thrust blocks will be installed at all 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 mechanical joint ductile iron pipe will be installed at all main endings and a thrust collar will be poured around the pipe at a distance of 10 feet from the end of the joint.

5.8 PIPE INSTALLED IN CASINGS. Pipe to be installed under pavement where open trenching is not permitted will be installed through a steel casing which has been jacked and bored. Casing size will be as indicated below:

PIPE SIZE	MINIMUM CASING SIZE
4"	12"
6"	14"
8"	18"
10"	20"
12"	24"
16"	30"
20"	36"

Water mains must be pushed or pulled through the casing on pressure–treated wood skids attached to the pipe with stainless steel straps. Stainless steel casing spacers with polyethylene skids will be accepted in lieu of wood skids and are required on mains 12" in diameter and larger. 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.

5.9 BLOWOFFS. Flushing blowoffs are to be installed and constructed as shown on the Standard Detail Sheet. Blowoff materials include 2" galvanized pipe, threaded fittings, 2" brass wheel valve, and a plastic meter box (curb stop for reuse). The plastic meter box is to be installed at grade over the wheel valve. The wheel valve will be within six inches of finished grade and will be plugged with a brass plug. 4" blowoffs 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 reuse tag will be installed on reuse main blowoffs in a reuse meter box.

SECTION VI. TIE–INS TO EXISTING SYSTEMS

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 a representative of the Utilities Department. All contractors must follow the procedures listed below for connecting new mains to existing water systems.

6.1.1 Mains 8" and smaller. Tie–in valves will be operated and pressure tested to verify water tightness prior to the tie–in. Valves that are not water tight must be replaced or a new valve must be installed immediately adjacent to the valve; otherwise, the tie–in is not to be made until the system has been approved for service by F.D.E.P. 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 backflow preventer (double check) will be installed. The backflow preventer will be utilized for filling the main, flushing the main, providing water for bacteriological sampling, and maintaining pressure in the main while a successful bacteriological test. The tie–in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from F.D.E.P. and the City. The project engineer will be required to provide an executed F.D.E.P. 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 Engineering Division.

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 a backflow preventer will be utilized 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 Division. The tie–in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from F.D.E.P. 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 Engineering Division.

SECTION VII. TESTING

7.1 GENERAL
All newly installed pipe that has been backfilled must be tested at a gauge pressure of 150 psi in accordance with AWWA specification C600.

7.2 FLUSHING. 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 so that at no time should the pressure in the City's system be allowed to drop below 40 psi. Water used during wasteful or unsupervised flushing will be billed to the contractor.

7.3 HYDROSTATIC TEST. A blowoff 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. After applying the specified test pressure, 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. The first hour is to be witnessed by the contractor; the second hour must be witnessed by Engineering Division personnel. Sufficient human resources are to be employed to insure inspection. If the line fails to meet the tests, 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.

7.4 LEAKAGE TEST. A leakage test at 150 psi will be performed on all newly installed sections of pipe after installation of all service connections. Any leakage observed must be less than the following per thousand feet of pipe:

SIZE	ALLOWABLE LEAKAGE
2"	0.20 Gallons/Hour
4"	0.33 Gallons/Hour
6"	0.50 Gallons/Hour
8"	0.67 Gallons/Hour
10"	0.83 Gallons/Hour
12"	1.06 Gallons/Hour
14"	1.16 Gallons/Hour
16"	1.32 Gallons/Hour

SECTION VIII. DISINFECTION & BACTERIOLOGICAL TESTING

8.1 GENERAL
The contractor must flush mains and arrange for complete disinfection by chlorination under the direction of the Utilities Department. Work will conform to applicable provisions of AWWA specification C651, "Disinfecting Water Mains." Water with a chlorine content of 100 ppm will be evenly distributed throughout the pipe system and allowed to remain in the pipe for twenty–four hours before it is flushed out. After flushing, the water should remain in the pipe for 24 hours before the main to each hydrant. Each tie–ins made before tests must be disinfected in accordance with AWWA specification C651. Samples will be taken by Utilities Department personnel. Water mains must not be flushed between samples. The contractor will be charged a fee by the City to cover the cost of bacteriological tests. The contractor must provide proof of payment for bacteriological testing at the time of pressure and leakage test inspection. Sample points are determined by the F.D.E.P. Samples are collected Monday through Thursday by City of Cocoa Dyal Plant personnel. Dyal Plant personnel can be contacted at (407) 568–5867 to schedule a sample pick–up. If samples taken do not demonstrate satisfactory results, re–chlorination is required. A fee will be charged by the City for additional sample collection and analysis.

Disinfection and bacteriological testing of reclaimed water mains is performed in the same manner as potable water mains. Sample points for reclaimed water mains, however, are determined by the Engineering Division Manager. Samples are collected Monday through Thursday by City of Cocoa Sellers Plant personnel. Sellers Plant personnel can be contacted at (407) 639–7681 to schedule a sample pick–up. If samples taken do not demonstrate satisfactory results, re–chlorination is required. A fee will be charged by the City for additional sample collection and analysis.

SECTION IX. CONNECTION TO EXISTING SYSTEM

9.1 GENERAL
Connections to existing City concrete mains will be made by the Utilities Department under the direction of the Engineering Division. Any charges for taps or connections made by the Utilities Department will be paid to the City by the owner or contractor prior to the installation. For all water main connections, the contractor must obtain all required permits; provide a dry pit area, all pit preparation including shoring and bracing, maintenance of traffic, all right–of–way restoration; and notify all utilities prior to construction. Taps of PVC, AC, or DIP mains that are from 4" through 12" in size must be made by City personnel utilizing saddles and valves provided by the contractor. Alternatively, the tap may be made by a tapping contractor who has been approved by the Utilities Department.

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 insure a water–tight installation. The pressure test will be performed by the contractor and witnessed by a representative of the Engineering Division. After the pressure test of the saddle has been completed and payment of the tapping cost has been made to the City of Cocoa Customer Service Department, the contractor must contact the Transmission/Distribution Division to schedule the tap. When personnel from the Transmission/Distribution Division arrive on site to make the tap, the contractor will provide a dry work pit in accordance with OSHA standards. The contractor will also provide the necessary equipment to lift the tapping machine into and out of the pit.

SECTION X. FINAL CLEAN–UP AND ACCEPTANCE

10.1 GENERAL
Upon completion of the work and before acceptance by the Utilities Department, 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 his/her operations in a neat and presentable condition.

SECTION XI. FIRE SERVICE

11.1 GENERAL
Where wet pipe sprinkler service is used, an appropriate backflow prevention device will be installed in accordance with the "Cross–Connection Control and Backflow Prevention" section of the Utilities Handbook.

SECTION XII. CONNECTION OF BUILDINGS OVER FOUR FLOORS

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:

1. A fixture unit analysis will be performed by the project engineer to determine peak domestic flow requirements. This analysis is to be provided to the City.

2. 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.

3. 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 water to all parts of the building during periods of minimum pressure will be the responsibility of the building architect.

4. Repair costs for damage to the water meter caused by flows exceeding its rated capacity will be charged to the customer.

SECTION XIII. BACKFLOW PREVENTERS

13.1 GENERAL
Backflow preventers must be installed at locations where dangerous cross–connections may occur. The need for backflow preventers will be determined by the Utilities Department. Backflow preventers will be the reduced pressure type, as manufactured by Febco, Cla–Val, Hersey, Ames, Watts, or an approved equal, and 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. Backflow preventers are to be approved in accordance with the "Cross–Connection Control and Backflow Prevention" section of the Utilities Handbook.

SECTION XIV. AS–BUILT DRAWINGS

14.1 GENERAL
As–built drawings are required for all systems to be accepted by the City. As–builts will be prepared by a surveyor or an engineer registered in the State of Florida and will contain the following information:

1. Location of all valves, service lines, fittings and fire hydrants using at least two ties to permanent points (manholes, property corners, curbs, or stormwater inlets). An acceptable station and offset system may be used for service lines and fittings only.

2. Location of mains from property easement lines or edge of pavement at intervals of 300 feet.

3. Elevations to the top of the water line at intervals of 300 feet and at all drainage and sewer main crossings. Bench mark to be shown on as–builts.

4. Separation between reclaimed water or force mains and water mains if they are installed within 10 feet of water mains.

5. Water main material and distance of mains from buildings or structures within 20 feet of the water main.

6. Distance from hydrant to hydrant valve.

7. Pertinent easement information.

8. Certification by the surveyor or engineer accepting responsibility for accuracy of information supplied on the as–built drawings and a statement certifying that all mains are within easements and/or public rights–of–way. The name "City of Cocoa" must appear on all as–built survey information.

As–builts will be drawn at a scale of 1 inch = 100 feet. Areas requiring additional detail may be enlarged as necessary. Rights–of–way, easements, and lot lines will be accurately shown. Lots, block numbers, and street names will be included. If the as–builts were prepared by an AutoCad (version 12) compatible program or DFX file, a diskette with that file will be provided to the City. All projects within the South Mainland Water Service Area will be prepared in a digital format compatible with AutoCad (version 12).

One reproducible print or computer diskette and three signed and sealed blue–line prints are required. After the surveyor or engineer has certified the locations, the engineer will certify on F.D.E.P. Form 62–555.910(9) that the system depicted on the as–built drawing was constructed in substantial conformance with approved plans and will function as intended.

CITY OF COCOA
Brevard County, Florida
UTILITIES DEPARTMENT

CITY OF COCOA
TECHNICAL PROVISIONS – WATER

DRAWN BY: P.L.M.	SCALE: NONE
CHECKED BY: E.J.W.	DATE: OCT. 20, 1994
DRAWING No. :	SHEET: 1 OF 1
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DAVE SCHMITT ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD
SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

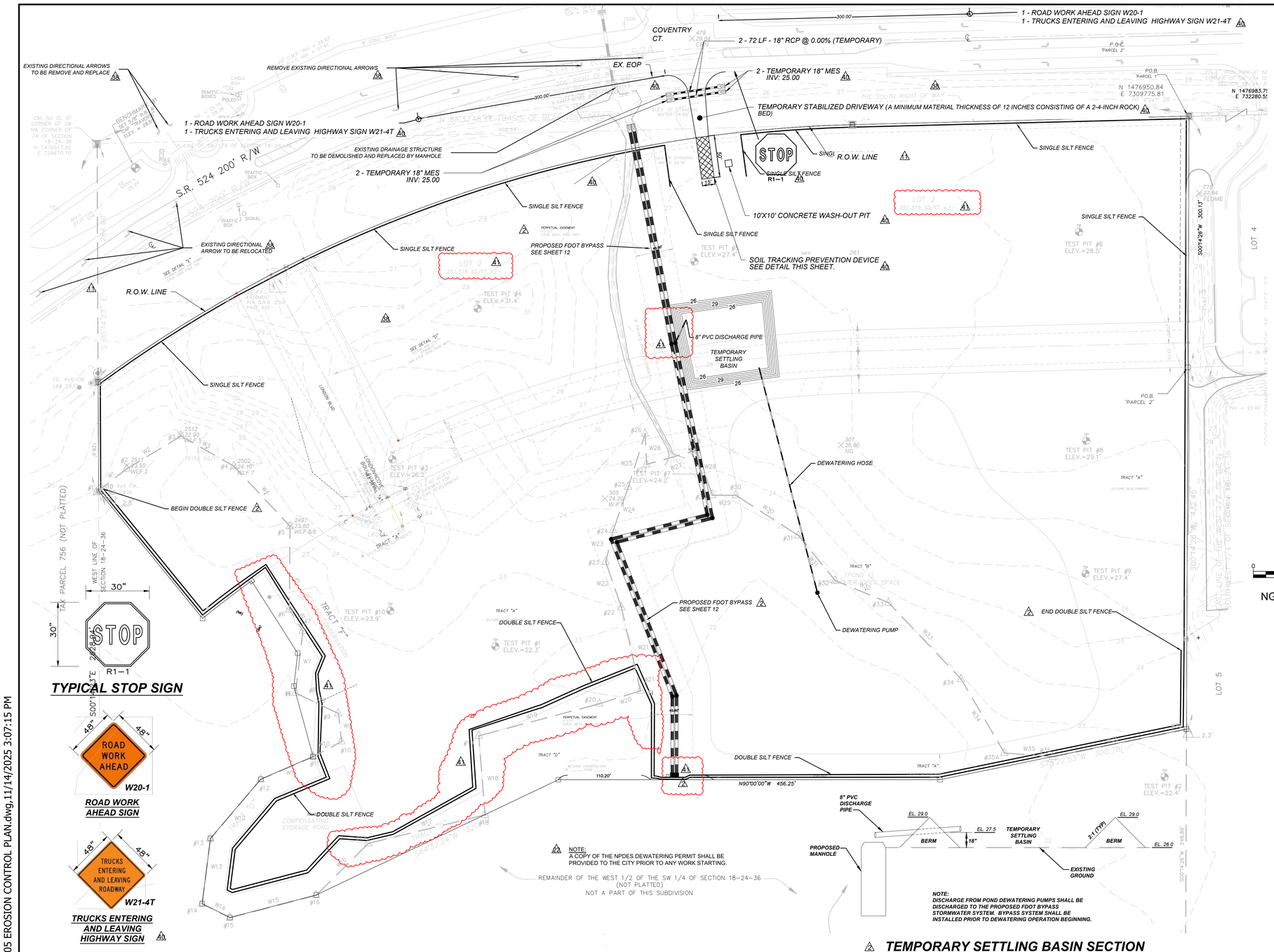
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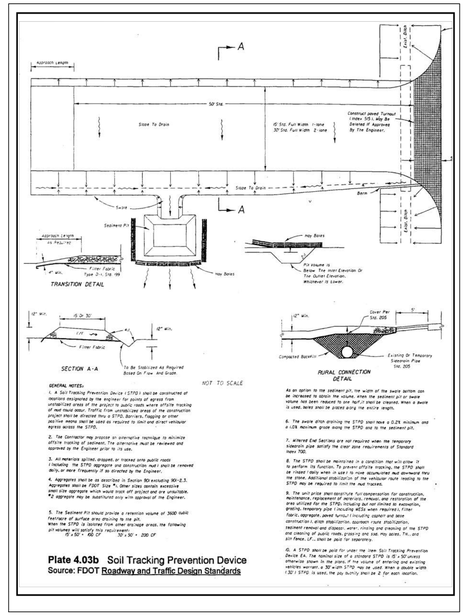
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

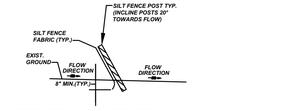
UTILITY NOTES
LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: NONE
SHEET: 04 OF 30





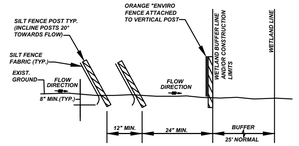
SOIL TRACKING PREVENTION DEVICE
N.T.S.



FDOT APPROVED TEMPORARY SILT FENCE PRE-ASSEMBLED IN 100' ROLLS UTILIZING 3" X 3" X 4' WOODEN POSTS @ 8' C/C MAX. w/3' OF WOVEN GEOTEXTILE MATERIAL MEETING THE REQUIREMENTS OF SEC. 985-4, SIMILAR & EQUAL TO THAT SUPPLIED BY FIREPIPE CO. OF TAMPA FLA.

NOTES:
CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AS FOLLOWS:
1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
2. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF ITS USE, IT SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT.
4. ANY SEDIMENT DEPOSITS LEFT IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE FINISHED GRADE, PREPARED AND SEEDED.
5. EROSION SILT OR CONSTRUCTION PRIVACY FENCING WILL NEVER OBSTRUCT THE SIGHTLINES.

TYPICAL SINGLE SILT FENCE DETAIL
N.T.S.



FDOT APPROVED TEMPORARY SILT FENCE PRE-ASSEMBLED IN 100' ROLLS UTILIZING 3" X 3" X 4' WOODEN POSTS @ 8' C/C MAX. w/3' OF WOVEN GEOTEXTILE MATERIAL MEETING THE REQUIREMENTS OF SEC. 985-4, SIMILAR & EQUAL TO THAT SUPPLIED BY FIREPIPE CO. OF TAMPA FLA.

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3. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT.
4. ANY SEDIMENT DEPOSITS LEFT IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE FINISHED GRADE, PREPARED AND SEEDED.

TYPICAL DOUBLE SILT FENCE DETAIL
N.T.S.

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Certification of Authorization #27471

REVISIONS

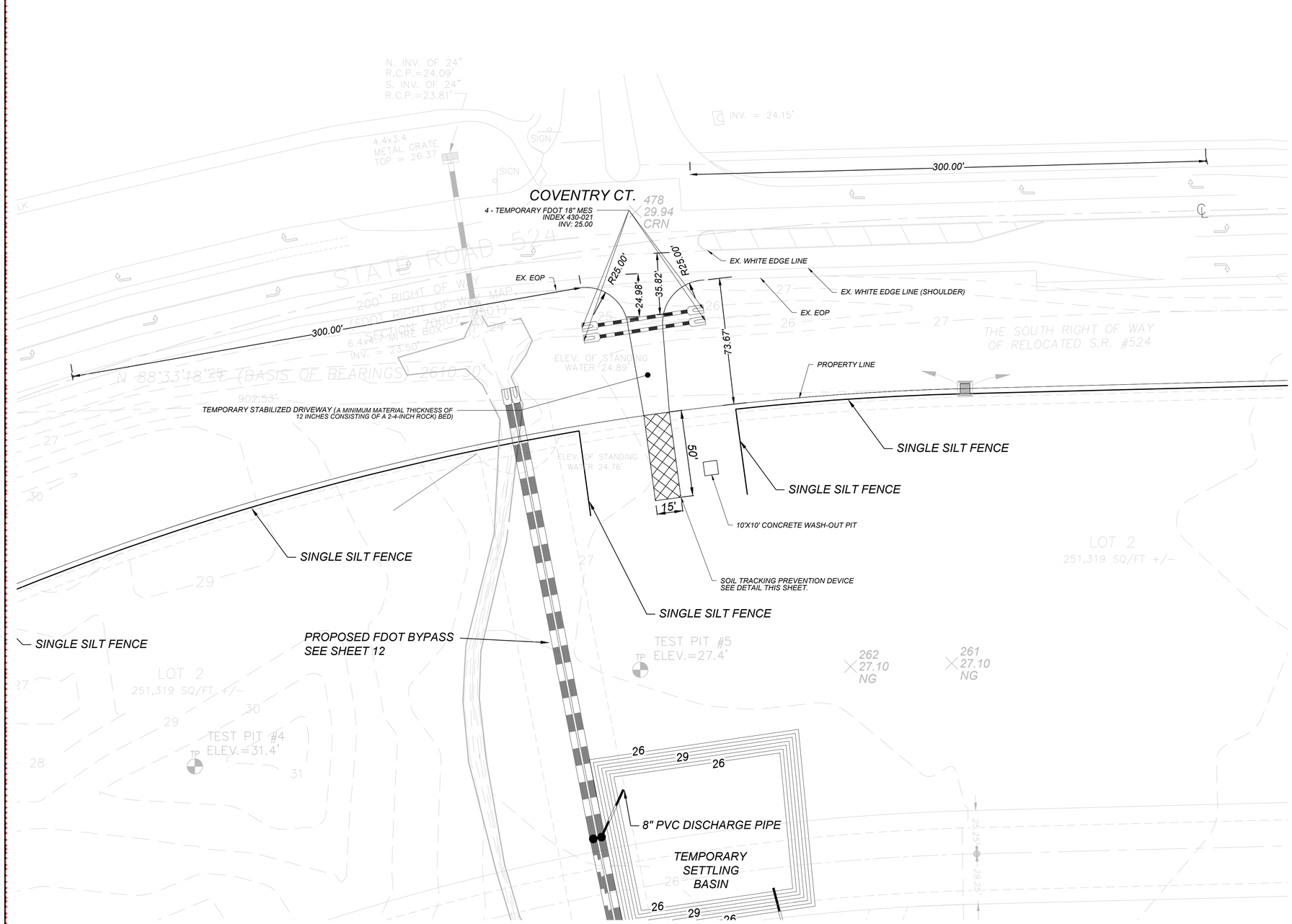
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			01-25-21	MGM	REVISION PER FDOT / CITY COMMENTS 2
			02-06-20	DLS	REVISION PER FDOT COMMENTS 1
11-14-25	JTV/BC	REV. PER SHOP DRAWINGS & PLAT REVIEW 4	02-25-19	MGM	REVISION PER CITY COMMENTS 1
10-16-25	JT	REVISION PER FDOT COMMENTS 4	10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS 2

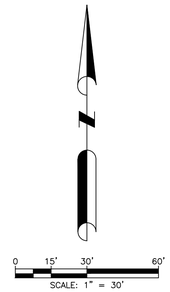
DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

EROSION CONTROL PLAN
LONDON COVE
CITY OF COCOA

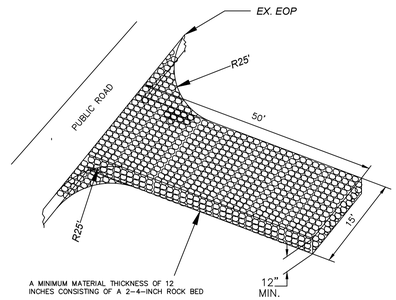
DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 60'
SHEET: 05 OF 30

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NGVD 29 DATUM ⚠



STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

⚠1

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Certification of Authorization #27471

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			10-16-25	JT	REVISION PER FDOT COMMENTS ⚠1

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

EROSION CONTROL PLAN-2

LONDON COVE

CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 30'
SHEET: 05A OF 30

STORM WATER POLLUTION PREVENTION PLAN

OWNER'S REQUIREMENTS

SITE DESCRIPTION

PROJECT NAME AND LOCATION:
LONDON COVE
CITY OF COCOA, FLORIDA

OWNER NAME AND ADDRESS:
DEMETREE BUILDERS
941 W. MORSE BLVD SUITE 315
WINTER PARK, FL 32789
PHONE: 407-422-8191
CONTACT: MARY DEMETREE
EMAIL: MDEMETREE@DEMETREEBUILDERS.COM

DESCRIPTION:
THIS PROJECT INCLUDES THE CONSTRUCTION OF ROADWAYS, UTILITIES AND DRAINAGE.

SOIL DISTURBING ACTIVITIES WILL INCLUDE:
CLEARING AND GRUBBING; EARTHWORK, PAVEMENT AND GRADING; STORM SEWER, UTILITIES, AND PREPARATION FOR FINAL PLANTING AND SEEDING.

RUNOFF CURVE NUMBERS:
1. PRE-CONSTRUCTION = SEE DRAINAGE CALC. NOTEBOOK
2. DURING CONSTRUCTION = SEE DRAINAGE CALC. NOTEBOOK
3. POST-CONSTRUCTION = SEE DRAINAGE CALC. NOTEBOOK

SOILS:
SEE SOIL BORING REPORTS FOR SOILS DATA

SITE MAPS:
* SEE ATTACHED PLANS FOR PRE & POST DEVELOPMENT GRADES, AREAS OF SOILS DISTURBANCE, LOCATION OF SURFACE WATERS, WETLANDS, PROTECTED AREAS, MAJOR STRUCTURAL AND NONSTRUCTURAL CONTROLS AND STORM WATER DISCHARGE POINTS.
* SEE ATTACHED EROSION & TURBIDITY CONTROL PLAN FOR LOCATION OF TEMPORARY STABILIZATION PRACTICES, AND TURBIDITY BARRIERS
* SEE GENERAL NOTES FOR REQUIRMENTS FOR TEMPORARY AND PERMANENT STABILIZATION.

SITE AREA:
1. TOTAL AREA OF SITE = 11.50 AC
2. TOTAL AREA TO BE DISTURBED = 10.80 AC (3)

NAME OF RECEIVING WATERS:
POND 1
LATITUDE : 28° 23' 41"
LONGITUDE : -80° 46' 06"

1. ANTICIPATED START DATE OF CONSTRUCTION: 06 / 2025 (3)
2. ANTICIPATED END DATE OF CONSTRUCTION: 06 / 2026 (3)

(CONSTRUCTION DATES ARE TO BE FILLED IN PRIOR TO COMMENCEMENT OF CONSTRUCTION)

CONTROLS

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN OFF. AN EROSION AND TURBIDITY PLAN HAS BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS. IT IS THE CONTRACTORS RESPONSIBILITY TO INSTALL AND MAINTAIN THE CONTROLS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL, STATE AND LOCAL LAWS. REFER TO "CONTRACTORS RESPONSIBILITY" FOR A VERBAL DESCRIPTION OF THE CONTROLS THAT MAY BE IMPLEMENTED.

STORM WATER MANAGEMENT

STORM WATER DRAINAGE WILL BE PROVIDED BY A SERIES OF PIPES AND INLETS CONVEYING RUNOFF TO THE STORMWATER RETENTION POND(S) FOR THE PROJECT. AREAS WHICH ARE NOT TO BE CONSTRUCTED ON, BUT WILL BE REGRADED SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE. THE SITE DISCHARGES TO A WET DETENTION SYSTEM. WHERE PRACTICAL, TEMPORARY SEDIMENT BASINS WILL BE USED TO INTERCEPT SEDIMENT BEFORE ENTERING THE PERMANENT DETENTION BASIN. THE WET DETENTION SYSTEM IS DESIGNED WITH A 21 DAY MINIMUM RESIDENCE VOLUME. THIS IS IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH BY THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT FOR THIS TYPE OF DEVELOPMENT AT THE TIME OF PERMITTING.

TIMING OF CONTROLS/MEASURES

REFER TO "CONTRACTORS REQUIREMENTS" FOR THE TIMING OF CONTROLMEASURES.

CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL LAWS RELATED TO STORM WATER MANAGEMENT AND EROSION AND TURBIDITY CONTROLS. THE FOLLOWING PERMITS HAVE BEEN OBTAINED (TO BE FILLED IN PRIOR TO COMMENCEMENT OF CONSTRUCTION):

F.D.E.P. DREDGE/FILL PERMIT # _____
A.C.O.E. DREDGE/FILL PERMIT # _____
S.J.R.W.M.D. M.S.S.W. PERMIT # _____
N.P.D.E.S PERMIT # _____

POLLUTION PREVENTION PLAN 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.

SIGNED:_____
OWNER/OPERATOR

DATED:_____

CONTRACTOR'S REQUIREMENTS

GENERAL

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IN ADDITION THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS, DEPENDING ON THE NATURE OF MATERIALS AND METHODS OF CONSTRUCTION THE CONTRACTOR MAY BE REQUIRED TO ADD FLOCCULANTS TO THE RETENTION SYSTEM PRIOR TO PLACING THE SYSTEM INTO OPERATION.

SEQUENCE OF MAJOR ACTIVITIES:

THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE
2. INSTALL SILT FENCES AS REQUIRED
3. CLEAR AND GRUB FOR DIVERSION SWALES/DIKES AND SEDIMENT BASIN
4. CONSTRUCT SEDIMENTATION BASIN
5. CONTINUE CLEARING AND GRUBBING
6. STOCK PILE TOP SOIL IF REQUIRED
7. PERFORM PRELIMINARY GRADING ON SITE AS REQUIRED
8. STABILIZE DENUDED AREAS AND STOCKPILES AS SOON AS PRACTICABLE
9. INSTALL UTILITIES, STORM SEWER, CURBS & GUTTER.
10. APPLY BASE TO PROJECT
11. COMPLETE GRADING AND INSTALL PERMANENT SEEDING/SOD AND PLANTING
12. COMPLETE FINAL PAVING
13. REMOVE ACCUMULATED SEDIMENT FROM BASINS
14. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ANY TEMPORARY DIVERSION SWALES/DIKES AND RESEED/SOD AS REQUIRED

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE SILT FENCES, STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASIN WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED PERMANENTLY IN ACCORDANCE WITH THE PLANS. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDIMENT TRAPS AND THE EARTH DIKE/SWALES WILL BE REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH THE EROSION & TURBIDITY CONTROL PLAN.

CONTROLS

IT IS THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IT IS ALSO THE CONTRACTORS RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED , MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION AND TURBIDITY CONTROLS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES, AS REQUIRED,TO ENSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION AND TURBIDITY CONTROL REQUIREMENTS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR AS REQUIRED BY THE EROSION AND TURBIDITY CONTROL PLAN AND AS REQUIRED TO MEET THE EROSION AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES.

EROSION AND SEDIMENT CONTROLS
STABILIZATION PRACTICES

1. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
2. BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.
3. LEVEL SPREADER: A LEVEL SPREADER MAY BE USED WHERE SEDIMENT-FREE STORM RUNOFF IS INTERCEPTED AND DIVERTED AWAY FROM THE GRADED AREAS ONTO UNDISTURBED STABILIZED AREAS. THIS PRACTICE APPLIES ONLY IN THOSE SITUATIONS WHERE THE SPREADER CAN BE CONSTRUCTED ON UNDISTURBED SOIL AND THE AREA BELOW THE LEVEL LIP IS STABILIZED. THE WATER SHOULD NOT BE ALLOWED TO RECONCENTRATE AFTER RELEASE.
4. STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.
5. EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 10 ACRES. THIS REQUIREMENT MAY BE WAIVED FOR LARGE PROJECTS WITH AN EROSION CONTROL PLAN WHICH DEMONSTRATES THAT OPENING OF ADDITIONAL AREAS WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.

CONTROLS CONT'D.

6. INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT-LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
7. TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 30 DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING.
8. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN PARAGRAPH 8 ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH.
9. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED OR HYDROMULCHED OR OTHER SUITABLE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER. TEMPORARY GRASSING SHALL BE THE SAME MIX & AMOUNT REQUIRED FOR PERMANENT GRASSING IN THE CONTRACT SPECIFICATIONS.
10. TEMPORARY REGRASSING : IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 85 PERCENT UNIFORM GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.
11. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.
12. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.
13. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL AS A MINIMUM, BE SEEDED. THE SEEDING MIX MUST PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL VEGETATION. SLOPES STEEPER THAN 4:1 SHALL BE SEEDED AND MULCHED OR SODDED.

STRUCTURAL PRACTICES

1. TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY.
2. TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP SHALL BE INSTALLED IN AN DRAINAGEWAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA. THE FOLLOWING SEDIMENT TRAPS MAY BE CONSTRUCTED EITHER INDEPENDENTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION DIKE:
   A. BLOCK & GRAVEL SEDIMENT FILTER - THIS PROTECTION IS APPLICABLE WHERE HEAVY FLOWS AND/OR WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.
   B. GRAVEL SEDIMENT TRAP - THIS PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES & UNPROTECTED AREAS.
   C. DROP INLET SEDIMENT TRAP - THIS PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (S < 5%) AND WHERE SHEET OR OVERLAND FLOWS (Q < 0.5 CFS) ARE TYPICAL. THIS METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS SUCH AS IN STREET OR HIGHWAY MEDIANS.
3. OUTLET PROTECTION: APPLICABLE TO THE OUTLETS OF ALL PIPES AND PAVED CHANNEL SECTIONS WHERE THE FLOW COULD CAUSE EROSION & SEDIMENT PROBLEM TO THE RECEIVING WATER BODY. SILT FENCES ARE TO BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE DISCHARGING STRUCTURE AS SHOWN ON THE OUTLET PROTECTION DETAIL.
4. SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES AT ONE TIME. THE PROPOSED STORM WATER PONDS (OR TEMPORARY POND(S) WILL BE CONSTRUCTED FOR USE AS SEDIMENT BASINS. THESE SEDIMENT BASINS MUST PROVIDE A MINIMUM OF 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED UNTIL FINAL STABILIZATION OF THE SITE.

NOTE:
THE 3,600 CUBIC FEET OF STORAGE AREA PER ACRE DRAINED DOES NOT APPLY TO FLOWS FROM OFFSITE AREAS AND FLOWS FROM ONSITE AREAS THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE DISTURBED AREA AND THE SEDIMENT BASIN. ANY TEMPORARY SEDIMENT BASINS CONSTRUCTED MUST BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR STRUCTURAL FILL. ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

OTHER CONTROLS

WASTE DISPOSAL

ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT. THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTE

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES DAY-TO-DAY SITE OPERATIONS,WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

SANITARY WASTE

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DEPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

OFFSITE VEHICLE TRACKING

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

INVENTORY FOR POLLUTION PREVENTION PLAN

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION:

- ☐ Concrete
- ☐ Asphalt
- ☐ Tar
- ☐ Detergents
- ☐ _____
- ☐ Fertilizers
- ☐ Petroleum Based Products
- ☐ Cleaning Solvents
- ☐ Paints
- ☐ _____
- ☐ Wood
- ☐ Masonry Blocks
- ☐ Roofing Materials
- ☐ Metal Studs
- ☐ _____

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF:

GOOD HOUSEKEEPING

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT:

* AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
* ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORGERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
* PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
* SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
* WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
* MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
* THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

HAZARDOUS PRODUCTS

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

* PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
* ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
* IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

SPILL PREVENTION CONT'D.

PRODUCT SPECIFIC PRACTICES
THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS

HAZARDOUS WASTES TO SURFACE AND GROUND WATERS. A DESIGNATED AREA MUST BE CREATED SPECIFICALLY FOR WASHING VEHICLES THAT WILL BE LAID WITH FILTER FABRIC, CRUSHED STONE (DOT GRAVEL #2 AND UP) AND COVERED WITH LINED BERM.

WASHING OF VEHICLES SHOULD BE CONDUCTED USING PRACTICES THAT WILL PREVENT DIRECT, UNTREATED DISCHARGES OF WASTEWATER AND

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, LIQUID ABSORBENT (i.e. KITTY LITTER OR EQUAL), SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL.

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE, IN THE OFFICE TRAILER ONSITE.

MAINTENANCE/INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

* NO MORE THAN 10 ACRES OF THE SITE WILL BE DENUDED AT ONE TIME WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.
* ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.25 INCHES OR GREATER.
* ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF
* BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
* SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
* DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.

MAINT./INSP. PROCEDURES CONT'D.

* THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB, WHICHEVER COMES FIRST.
* TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
* A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM TO BE COMPLETED BY THE INSPECTOR IS ATTACHED.
  THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS.
  THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.
* THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
* PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

NON-STORM WATER DISCHARGES

IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

* WATER FROM WATER LINE FLUSHING
* PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).
* UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).

ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

CONTRACTOR'S 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.

RESPONSIBLE FOR/DUTIES	GENERAL CONTRACTOR	SUB-CONTRACTOR	SUB-CONTRACTOR	SUB-CONTRACTOR	SUB-CONTRACTOR	SUB-CONTRACTOR
BUSINESS NAME AND ADDRESS OF CONTRACTOR & ALL SUBS						
DATE						
SIGNATURE						

DAVE SCHMITT ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD
SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			02-26-25	BC	REVISION PER CLIENT COMMENTS (3)
			09-04-20	MGM	REVISION PER CLIENT COMMENTS (4)
			10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS (2)

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

EROSION CONTROL SWPPP
LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: NONE
SHEET: 06 OF 30

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Stormwater Pollution Prevention Plan Inspection Report Form

Inspections must occur at least once a week and within 24 hours of the end of a storm event that is ½ inch or greater.

Project Name:_____ **FDEP NPDES Stormwater Identification Number: FLR10**_____

Location	Rain data	Type of control (see below)	Date installed/ modified	Current condition (see below)	Corrective action/other remarks

Condition Code:
G = Good
C = Needs to be cleaned
M = Marginal, needs maintenance or replacement soon
O = Other
P = Poor, needs immediate maintenance or replacement

Control Type Codes

1. Silt fence	8. Pipe slope drain	16. Curb and gutter	23. Permanent seed/sod	30. Retention pond
2. Earth berms	9. Level spreaders	17. Paved road surface	24. Mulch	31. Waste disposal/ housekeeping
3. Structural diversion	10. Storm drain inlet protection	18. Rock outlet protection	25. Hay bales	32. Dam
4. Swale	11. Vegetative buffer strip	19. Reinforced soil-retaining system	26. Geotextile	33. Sandbag
5. Sediment trap	13. Retention pond	20. Gabion	27. Rip-rap	34. Other
6. Check dam	14. Construction entrance stabilization	21. Sediment basin	28. Tree protection	
7. Subsurface drain	15. Perimeter ditch	22. Temporary seed/sod	29. Detention pond	

Inspector Information:

Name **Qualification** **Date**

The above signature also shall certify that this facility is in compliance with the Stormwater Pollution Prevention Plan and the State of Florida Generic Permit for Stormwater Discharge from Large and Small Construction Activities if there are no incidents of noncompliance identified above.

******

"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 ensure 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 (Responsible Authority) **Date**

⚠1 *NOTE:*
A COPY OF THIS REPORT IS TO BE PROVIDED TO THE CITY STORMWATER ENGINEER WEEKLY AND AFTER EACH 1/2" RAINFALL EVENT.

DAVE SCHMITT ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD
SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			12-06-2021	MGM	REVISION PER CITY COMMENTS ⚠1

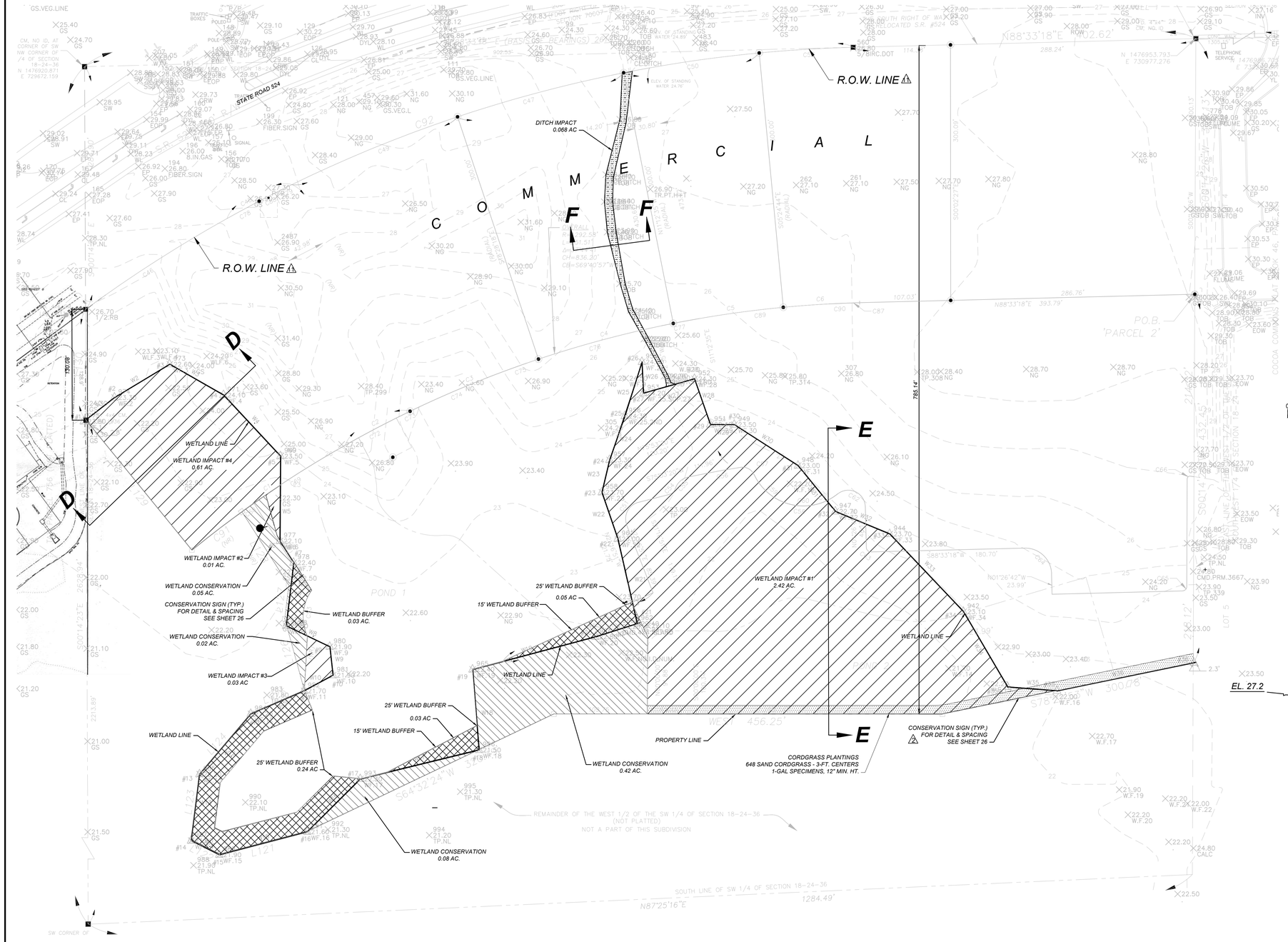
DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

EROSION CONTROL REPORT

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: NONE
SHEET: 07 OF 30

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LEGEND

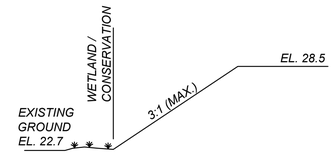
- WETLAND IMPACT AREA 3.07 AC
- DITCH IMPACT AREA 0.068 AC
- WETLAND UPLAND BUFFER AREA 0.35 AC ⚠2
- WETLAND CONSERVATION AREA 0.57 AC
- CONSERVATION EASEMENT FORMERLY ON-SITE, NOW OWNED BY CITY OF COCOA 55.54 AC
- ON-SITE CONSERVATION EASEMENT 0.92 AC

N

0 30' 60' 120'

SCALE: 1" = 60'

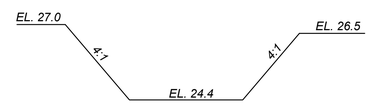
NGVD 29 DATUM ⚠1



SECTION D-D
N.T.S.



⚠2 SECTION E-E
N.T.S.



SECTION F-F
N.T.S.

F:\DB3\Final\DB3 08 ENVIRONMENTAL CONSIDERATIONS PLAN.dwg,4/28/2023 3:12:29 PM

DAVE SCHMITT ENGINEERING, INC.
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407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			02-10-21	MGM	REVISION PER SJRWMD COMMENTS ⚠4
			02-06-20	DLS	REVISION PER FDOT COMMENTS ⚠1
			02-25-19	MGM	REVISION PER CITY COMMENTS ⚠3
			10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS ⚠2

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

ENVIRONMENTAL CONSIDERATIONS PLAN

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 60'
SHEET: 08 OF 30

ORIGINAL PARENT TRACT 75.86 AC

CONSERVATION AREA 55.17 AC
(OWNED BY CITY OF COCOA)

ON-SITE CONSERVATION AREA 0.82 AC

ON-SITE CONSERVATION AREA 0.10 AC

R.O.W. LINE ⚠

⚠ COVENTRY COURT

⚠ STATE ROAD 524

⚠ LONDON BLVD.

0 50' 100' 200'
SCALE: 1" = 100'

NGVD 29 DATUM ⚠

1311.28'
1297.29' (CALC.)

12.80' OVERLAP OF
COCOA COMMONS
PLAT BOOK 46, PAGE 27

30' WIDE GAS EASEMENT PER O.R.B. 508, PG. 684

FLOOD ZONE "X"
FLOOD ZONE
"X-SHADED"

FLOOD ZONE
"X-SHADED"

FLOOD ZONE "AE"
BASE FLOOD ELEV.
= 22.00' N.G.V.D.1929

APPROXIMATE FLOOD
ZONE LINES SCALED
PER FEMA MAP
12009C0270 E

SW CORNER OF
SECTION 18-24-36

F:\DB3\Final\DB3 09 PARENT TRACT PRESERVATION PLAN.dwg,4/28/2023 3:12:31 PM

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REVISIONS

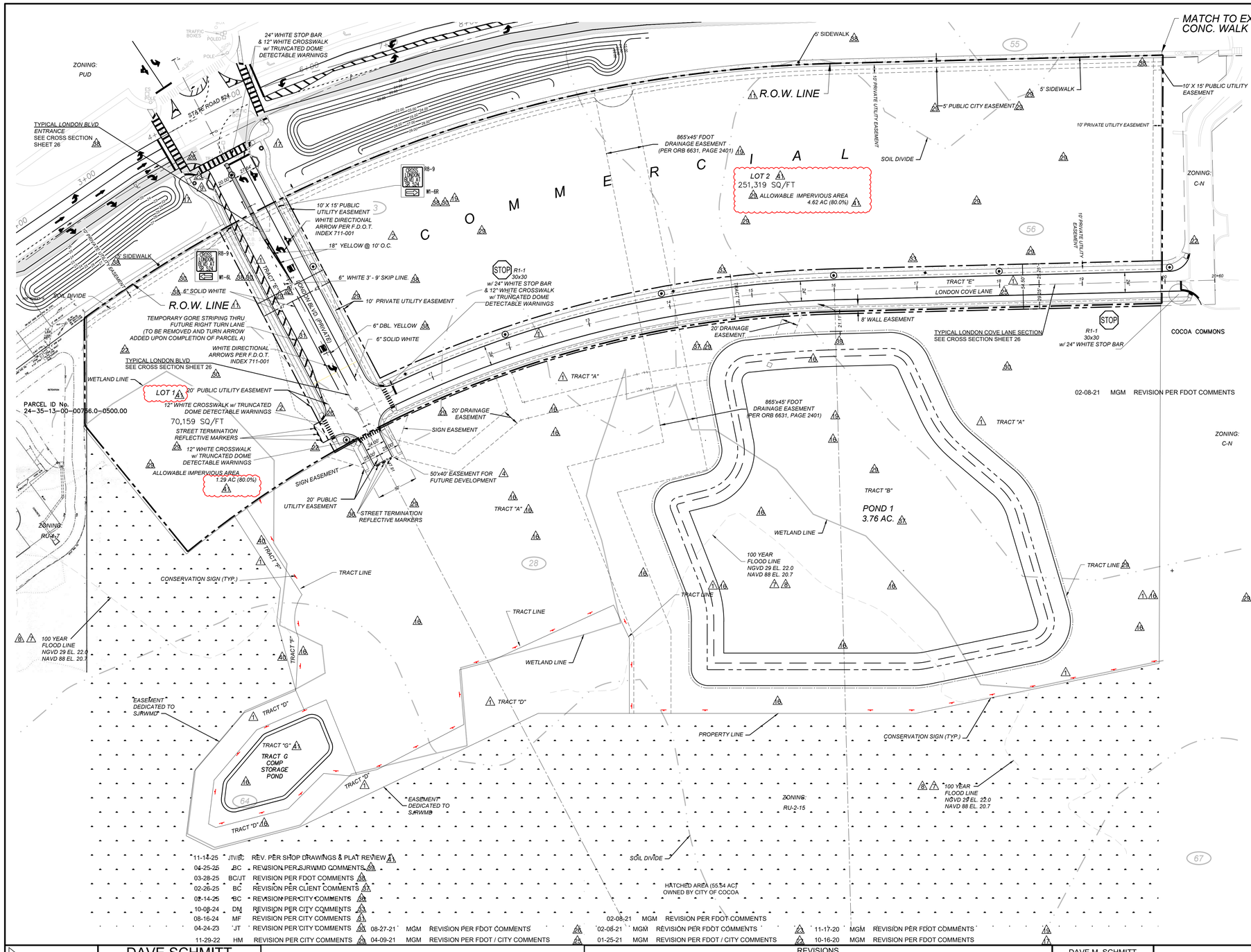
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			02-06-20	DLS	REVISION PER FDOT COMMENTS ⚠1
			02-25-19	MGM	REVISION PER CITY COMMENTS ⚠2

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

PARENT TRACT PRESERVATION PLAN

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 100'
SHEET: 09 OF 30



TRACT DESIGNATION AND AREAS				
TRACT	AREA (ACRES)	USE	COMMON OPEN SPACE CREDIT	MAINTAINED & OWNED
A	6.43	FUTURE DEVELOPMENT	7.25	POA
B	3.82	STORMWATER TREATMENT/RECREATION/COMMON OPEN SPACE (WATER BODY)	0.72	POA
D	0.82	WETLAND CONSERVATION	0.82	POA
E	1.79	ACCESS ROAD (PRIVATE ROADWAY) & LONDON BOULEVARD (PRIVATE ROADWAY)	0.70	POA
F	0.09	WETLAND CONSERVATION		POA
G	0.34	STORMWATER TREATMENT/RECREATION/COMMON OPEN SPACE (WATER BODY)		POA
		TOTAL RECREATION/COMMON OPEN SPACE AREA	10.85	

SITE DATA

TOTAL SITE AREA 11.50 AC
TOTAL AREA TO BE DISTURBED 10.80 AC
TOTAL RECREATION/COMMON OPEN SPACE AREA: 10.85 AC

ALLOWABLE IMPERVIOUS AREA: -3.4 AC

WETLAND IMPACT #1 2.42 AC
WETLAND IMPACT #2 0.01 AC
WETLAND IMPACT #3 0.03 AC
WETLAND IMPACT #4 0.61 AC

TOTAL WETLAND AC'S IMPACTED: 3.07 AC

CONSERVATION AREA: 55.17 AC
ORIGINAL PARENT TRACT 75.86 AC

EXISTING ZONING C-N AND RU - 2 -15
FUTURE LAND USE NCOMM & MDR

NGVD 29 DATUM

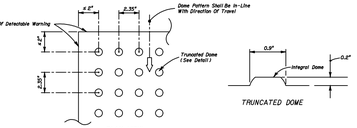
SOILS LEGEND

28	IMMOKALEE SAND
43	PAOLA FINE SAND, 0 TO 5 PERCENT SLOPES
55	ST. JOHN'S SAND DEPRESSIONAL
64	TERRA CEIA MUCK FREQUENTLY FLOODED
67	TOMOKA MUCK UNDRAINED
	SOIL DIVIDE

FLOOD PLAIN INFORMATION

FEMA FIRM PANEL No. 12009C0320H
EFFECTIVE DATE: JANUARY 29, 2021
100 YR. FLOOD ELEVATION NGVD '29 – 22.0
NAVD '88 – 20.7

NOTES:
1. NOTE REMOVED
2. STREET NAME SIGNS WILL BE PROVIDED AT A LATER DATE.
3. FINAL LIGHTING POLES WILL BE PROVIDED BY POWER COMPANY PRIOR TO CONSTRUCTION.
4. ALL SITE INFRASTRUCTURE FOR ALL LOTS AND TRACTS MUST BE DONE IN ONE PHASE. THE INFRASTRUCTURE WORK WILL NEED TO BE COMPLETED PRIOR TO THE ISSUANCE OF ANY BUILDING PERMITS FOR THE RESIDENTIAL DEVELOPMENT ON TRACT A OR FOR ANY OF THE COMMERCIAL LOTS.
5. R.O.W. WILL BE DEDICATED WITH THE FINAL PLAT.
6. ALL EASEMENTS TO BE GRANTED.
7. DURING BUILDING CONSTRUCTION, CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PARTS OF THE SITE, PROVIDE FIRE EXTINGUISHERS IN DESIGNATED AREAS, ACCUMULATION OF COMBUSTIBLE WASTE MATERIAL, DUST, AND DEBRIS SHALL BE REMOVED FROM THE STRUCTURE AND ITS IMMEDIATE VICINITY AT THE END OF EACH WORK SHIFT.
8. NOTE REMOVED.
9. ANY UNDERGROUND WATER MAINS AND HYDRANTS ARE TO BE TESTED AND APPROVED PRIOR TO COMMENCING CONSTRUCTION WORK ON ANY STRUCTURE.
10. UPON BUILDING COMPLETION: ADDRESS NUMBERS SHALL BE 6 INCHES IN HEIGHT PER FLORIDA FIRE PREVENTION CODE, NFPA 1 FIRE CODE. SECTION 10.11. ADDRESS NUMBERS SHALL BE POSTED IN A MANNER TO BE SEEN FROM THE STREET.
11. PROJECT TO FOLLOW FLORIDA FIRE PREVENTION CODE, SIX EDITION, NFPA 1, NFPA 101 2015 EDITION, IN ADDITION TO BUILDING CODE AND OTHER RELATED CODES AND STANDARDS. RECOMMENDED CHAPTERS TO REVIEW CHAPTER 18, FIRE DEPARTMENT ACCESS AND WATER SUPPLY AND CHAPTER 16, SAFEGUARDING CONSTRUCTION, ALTERATIONS, AND DEMOLITION OPERATIONS.
12.PARCELS A-F DRIVEWAY LOCATIONS WILL NEED TO BE REVIEWED AND ACCEPTED BY THE FDOT THRU THEIR PERMIT PROCESS.



ALL SIDEWALK CURB RAMPS SHALL HAVE "CAST IN PLACE" DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24 INCHES (610 mm) FROM THE BACK OF CURB IN ACCORDANCE WITH F.D.O.T. INDEX 304.

CURB RAMP DETECTABLE WARNING

11-14-25	JT/BC	REV. PER SHOP DRAWINGS & PLAT REVIEW									
04-25-25	BC	REVISION PER SJRWMD COMMENTS									
03-28-25	BC/JT	REVISION PER FDOT COMMENTS									
02-26-25	BC	REVISION PER CLIENT COMMENTS									
02-14-25	BC	REVISION PER CITY COMMENTS									
10-08-24	DM	REVISION PER CITY COMMENTS									
08-16-24	MF	REVISION PER CITY COMMENTS									
04-24-23	JT	REVISION PER CITY COMMENTS	08-27-21	MGM	REVISION PER FDOT COMMENTS	02-08-21	MGM	REVISION PER FDOT COMMENTS	11-17-20	MGM	REVISION PER FDOT COMMENTS
11-29-22	HM	REVISION PER CITY COMMENTS	04-09-21	MGM	REVISION PER FDOT / CITY COMMENTS	01-25-21	MGM	REVISION PER FDOT / CITY COMMENTS	10-16-20	MGM	REVISION PER FDOT COMMENTS

02-08-21 MGM REVISION PER FDOT COMMENTS

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Certification of Authorization #27471

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
09-04-20	MGM	REVISION PER CLIENT COMMENTS	02-25-19	MGM	REVISION PER CITY COMMENTS
05-05-20	SAM	REVISION PER FDOT COMMENTS	01-30-19	MGM	REVISION PER CITY COMMENTS
02-06-20	DLS	REVISION PER FDOT COMMENTS	12-11-18	MGM	REVISION PER FDOT / CITY COMMENTS
05-20-19	MGM	REVISION PER FDOT / CITY COMMENTS	10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS
03-04-19	MGM	REVISION PER CITY COMMENTS	09-17-18	MGM	REVISION PER FDOT COMMENTS

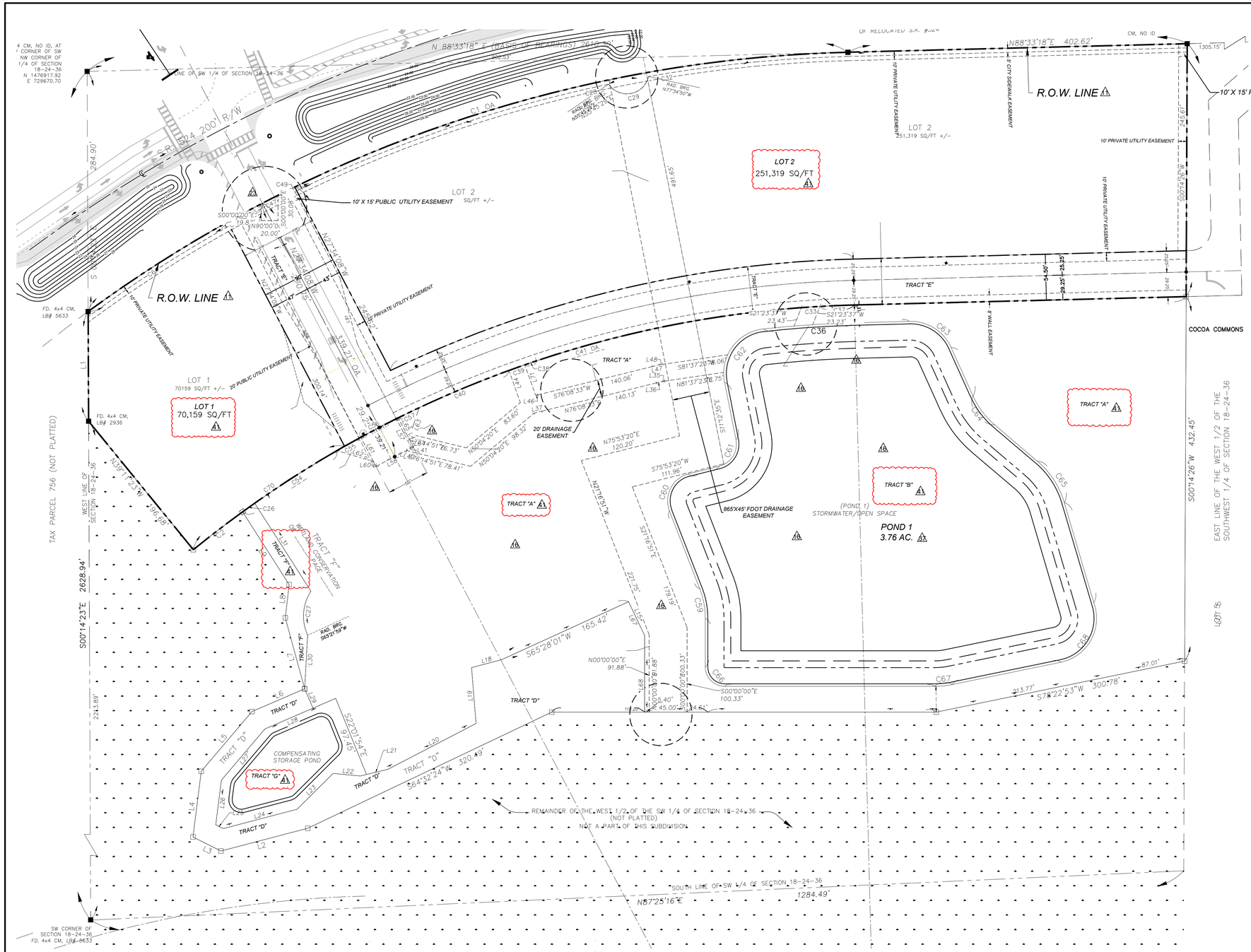
DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

OVERALL SITE PLAN

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 60'
SHEET: 10 OF 30

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LINE TABLE		
LINE	BEARING	LENGTH
L1	N00°14'23"W	130.15'
L2	S75°20'50"W	106.54'
L3	N63°26'03"W	37.10'
L4	N07°10'52"E	78.58'
L5	N40°22'20"E	92.99'
L6	N66°36'34"E	68.06'
L7	N15°16'11"W	87.27'
L8	N06°42'05"E	39.66'
L9	N32°34'42"W	102.57'
L15	N25°14'15"W	36.40'
L18	N75°05'31"E	36.99'
L19	S04°33'50"E	66.45'
L20	N62°31'30"E	117.68'
L21	N76°15'48"E	33.77'
L22	S84°27'52"E	32.48'
L23	N45°09'39"E	60.48'
L24	N75°20'40"E	90.40'
L25	S63°26'03"E	9.99'
L26	S07°10'52"W	53.42'
L27	S40°22'20"W	79.71'
L28	S66°36'34"W	62.23'
L29	S23°23'26"E	25.00'
L30	S03°07'08"W	63.69'
L31	S32°34'42"E	123.93'
L60	S27°34'08"E	6.45'
L62	S73°21'02"E	45.30'
L67	S25°24'50"E	44.38'
L68	S00°00'12"E	90.89'
L88	N31°53'50"W	79.50'
L91	S14°46'31"E	81.29'
L92	S1°26'42"E	21.08'
L93	S0°47'51"E	81.29'

CURVE TABLE					
CURVE	LENGTH	RADIUS	CENTRAL ANGLE	CHORD BEARING	CHORD DISTANCE
C1	967.29'	1592.58'	34°48'00"	S71°09'18"W	952.49'
C2	73.77'	1292.58'	3°16'12"	S52°26'43"W	73.76'
C3	196.62'	1592.58'	7°04'25"	S57°17'31"W	196.49'
C4	31.85'	1592.58'	1°08'45"	S61°55'18"W	31.85'
C5	22.15'	1592.58'	0°47'49"	S63°40'07"W	22.15'
C6	207.17'	1592.58'	7°27'12"	S67°47'37"W	207.02'
C7	204.02'	1592.58'	7°20'24"	S75°11'25"W	203.88'
C8	160.97'	1592.58'	5°47'28"	S81°40'54"W	160.90'
C9	110.57'	1592.58'	3°58'40"	S86°33'58"W	110.55'
C15	218.39'	1292.58'	9°40'50"	S55°39'02"W	218.13'
C26	17.49'	1292.58'	0°46'31"	S54°28'04"W	17.49'
C27	54.66'	53.98'	58°01'16"	S04°22'37"W	52.36'
C36	108.63'	1271.50	04°53'42"	N86°06'27"E	108.60'
C41	777.74'	1292.58'	34°28'29"	S71°19'03"W	766.06'
C46	31.85'	1592.58'	1°08'45"	S61°53'44"W	31.85'
C54	133.39'	1292.58'	5°54'45"	S57°00'12"W	133.33'
C56	170.84'	1347.08'	07°15'59"	N75°09'08"E	170.73'
C59	35.99'	97.00'	21°15'31"	N10°39'02"W	35.70'
C60	55.97'	33.00'	97°10'38"	N27°18'14"E	49.50'
C61	41.04'	27.00'	87°05'23"	N27°18'14"E	49.50'
C62	87.76'	53.00	94°52'23"	N36°13'30"E	78.07'
C63	62.13'	53.00'	67°09'57"	S57°51'40"E	58.63'
C64	42.84'	97.00'	25°18'17"	S36°55'46"E	44.49'
C65	59.58'	103.00'	33°08'33"	S33°00'38"E	58.75'
C66	36.12'	23.00'	89°58'45"	N45°00'37"W	32.52'
C67	20.89'	103.00'	11°37'14"	N84°11'27"E	20.85'
C68	87.71'	53.00'	94°49'09"	S30°58'17"W	78.04'
C67	20.89'	103.00'	11°37'14"	N84°11'27"E	20.85'
C68	87.71'	53.00'	94°49'09"	S30°58'17"W	78.04'

CURVE	LENGTH	RADIUS	CENTRAL ANGLE	CHORD BEARING	CHORD DISTANCE

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Certification of Authorization #27471

11-14-25 JTV/BC REV. PER SHOP DRAWINGS & PLAT REVIEW

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
02-26-25	BC	REVISION PER CLIENT COMMENTS	09-04-20	MGM	REVISION PER CLIENT COMMENTS
11-29-22	HM	REVISION PER CITY COMMENTS	02-06-20	DLS	REVISION PER FDOT COMMENTS
06-08-22	BG	REVISION PER CITY COMMENTS	02-25-19	MGM	REVISION PER CITY COMMENTS
12-06-21	MGM	REVISION PER CITY COMMENTS	01-30-19	MGM	REVISION PER CITY COMMENTS
02-08-21	MGM	REVISION PER FDOT COMMENTS	10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS

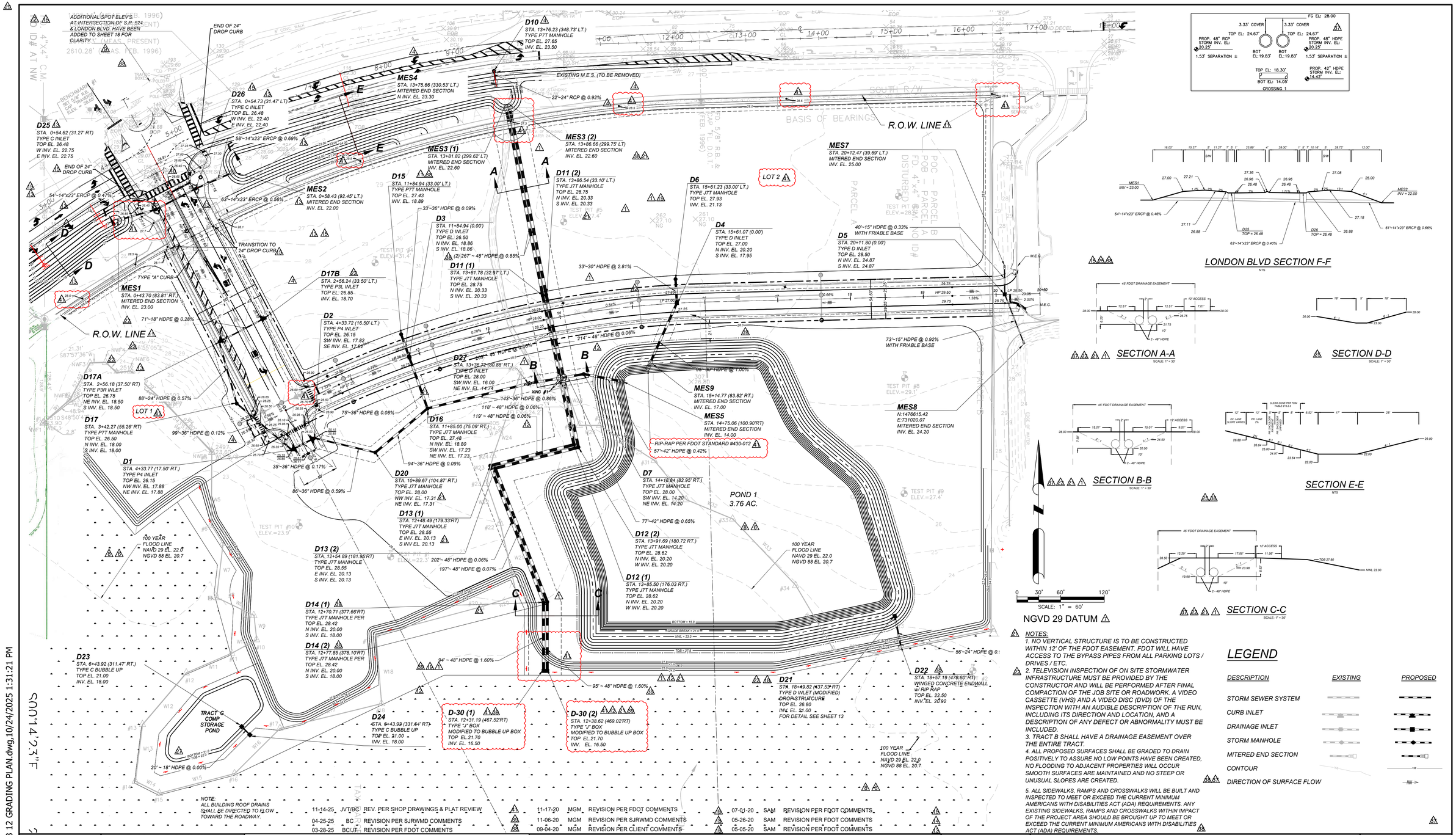
DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

GEOMETRY PLAN

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 60'
SHEET: 11 OF 30

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NOTES:

1. NO VERTICAL STRUCTURE IS TO BE CONSTRUCTED WITHIN 12' OF THE FDOT EASEMENT. FDOT WILL HAVE ACCESS TO THE BYPASS PIPES FROM ALL PARKING LOTS / DRIVES / ETC.
2. TELEVISION INSPECTION OF ON SITE STORMWATER INFRASTRUCTURE MUST BE PROVIDED BY THE CONSTRUCTOR AND WILL BE PERFORMED AFTER FINAL COMPACTION OF THE JOB SITE OR ROADWORK. A VIDEO CASSETTE (VHS) AND A VIDEO DISC (DVD) OF THE INSPECTION WITH AN AUDIBLE DESCRIPTION OF THE RUN, INCLUDING ITS DIRECTION AND LOCATION, AND A DESCRIPTION OF ANY DEFECT OR ABNORMALITY MUST BE INCLUDED.
3. TRACT B SHALL HAVE A DRAINAGE EASEMENT OVER THE ENTIRE TRACT.
4. ALL PROPOSED SURFACES SHALL BE GRADED TO DRAIN POSITIVELY TO ASSURE NO LOW POINTS HAVE BEEN CREATED, NO FLOODING TO ADJACENT PROPERTIES WILL OCCUR SMOOTH SURFACES ARE MAINTAINED AND NO STEEP OR UNUSUAL SLOPES ARE CREATED.
5. ALL SIDEWALKS, RAMPS AND CROSSWALKS WILL BE BUILT AND INSPECTED TO MEET OR EXCEED THE CURRENT MINIMUM AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. ANY EXISTING SIDEWALKS, RAMPS AND CROSSWALKS WITHIN IMPACT OF THE PROJECT AREA SHOULD BE BROUGHT UP TO MEET OR EXCEED THE CURRENT MINIMUM AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS.

LEGEND

DESCRIPTION	EXISTING	PROPOSED
STORM SEWER SYSTEM		
CURB INLET		
DRAINAGE INLET		
STORM MANHOLE		
MITERED END SECTION		
CONTOUR	104	104
DIRECTION OF SURFACE FLOW		

REVISIONS								
DATE	BY	DESCRIPTION		DATE	BY	DESCRIPTION		
11-14-25	JVT/BC	REV. PER SHOP DRAWINGS & PLAT REVIEW	1	11-17-20	MGM	REVISION PER FDOT COMMENTS	4	
04-25-25	BC	REVISION PER SJRWMD COMMENTS	3	11-06-20	MGM	REVISION PER SJRWMD COMMENTS	3	
03-28-25	BC/JT	REVISION PER FDOT COMMENTS	5	09-04-20	MGM	REVISION PER CLIENT COMMENTS	2	
02-26-25	BC	REVISION PER CLIENT COMMENTS	2	07-01-20	SAM	REVISION PER FDOT COMMENTS	5	
11-29-22	HM	REVISION PER CITY COMMENTS	4	05-26-20	SAM	REVISION PER FDOT COMMENTS	4	
12-06-21	MGM	REVISION PER CITY COMMENTS	3	05-05-20	SAM	REVISION PER FDOT COMMENTS	3	
04-09-21	MGM	REVISION PER FDOT / CITY COMMENTS	2	02-18-20	DLS	REVISION PER FDOT COMMENTS	2	
01-25-21	MGM	REVISION PER FDOT / CITY COMMENTS	1	02-06-20	DLS	REVISION PER FDOT COMMENTS	1	
01-12-21	MGM	REVISION PER FDOT COMMENTS	1	01-30-19	MGM	REVISION PER CITY COMMENTS	6	
				10-18-19	JIF	REVISION PER FDOT COMMENTS	1	
				05-20-19	JIF	REVISION PER FDOT COMMENTS	3	
				03-04-19	MGM	REVISION PER CITY COMMENTS	3	
				02-25-19	MGM	REVISION PER CITY COMMENTS	7	
				12-11-18	MGM	REVISION PER FDOT / CITY COMMENTS	4	
				10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS	3	
				09-17-18	MGM	REVISION PER FDOT COMMENTS	1	

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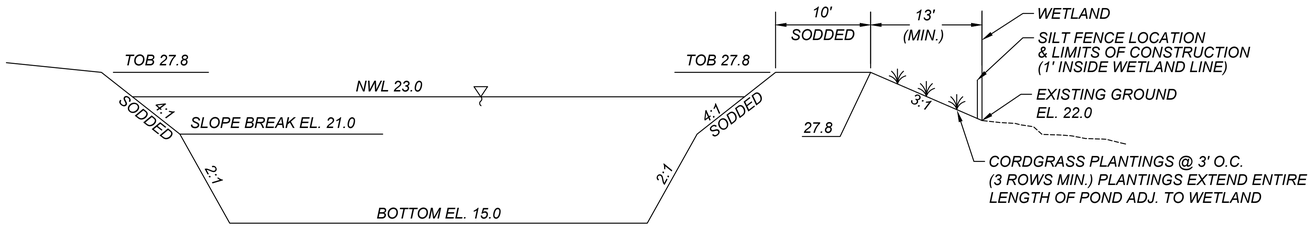
GRADING PLAN

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 60'
SHEET: 12 OF 30

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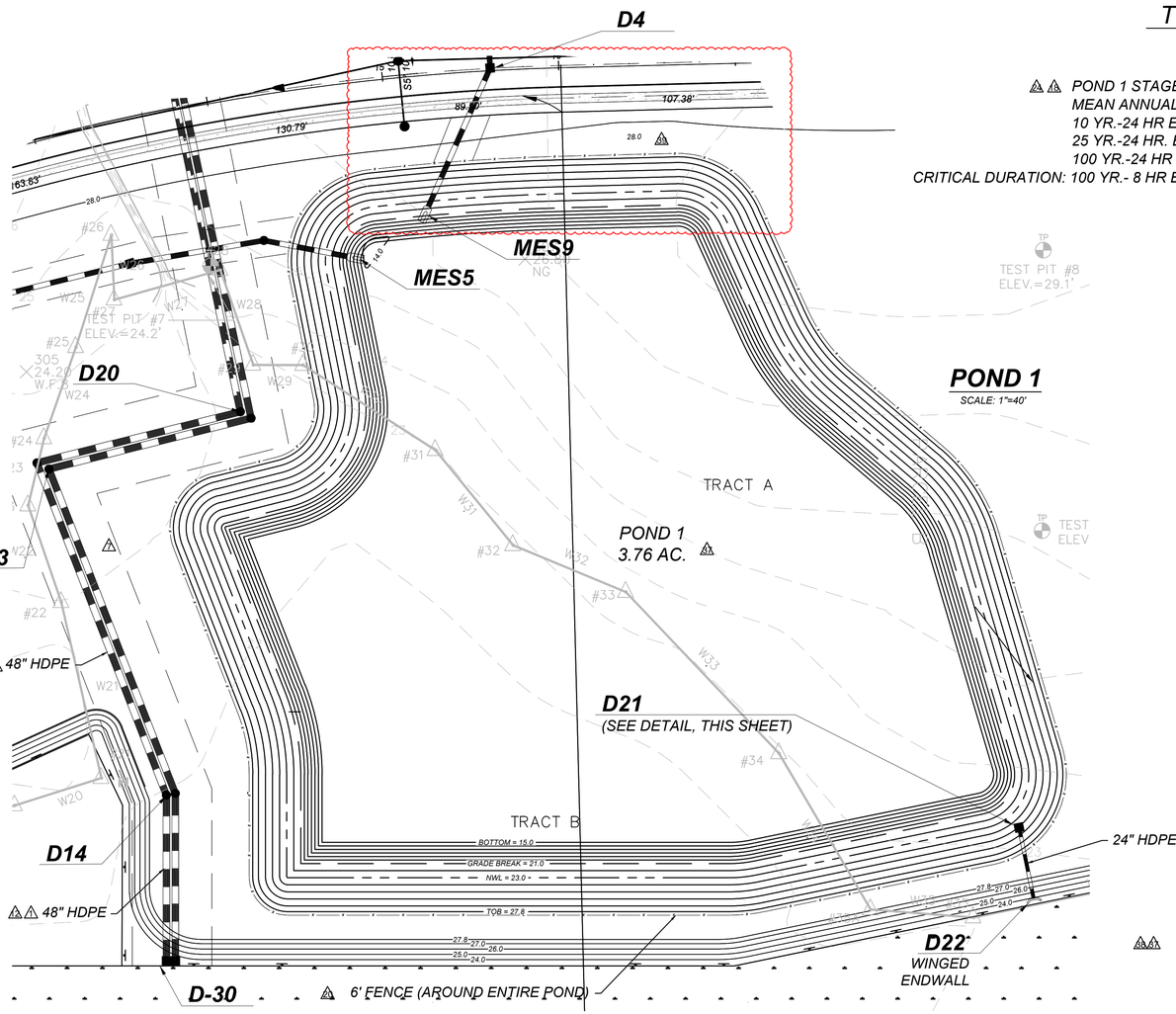


TYPICAL POND SECTION

N.T.S.

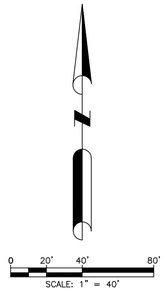
POND 1 STAGES
MEAN ANNUAL EL. 24.4
10 YR.-24 HR EL. 25.4
25 YR.-24 HR. EL. 25.8
100 YR.-24 HR EL. 26.2
CRITICAL DURATION: 100 YR.- 8 HR EL. 26.8

REMOVED

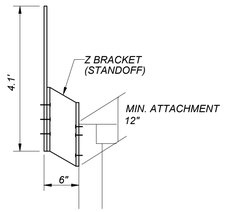


POND 1

SCALE: 1"=40'

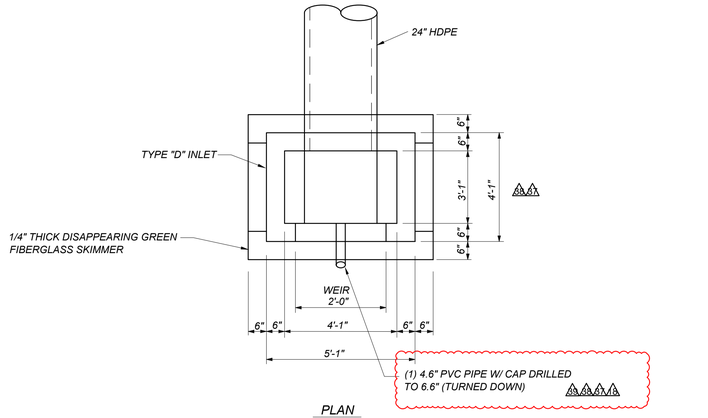


NGVD 29 DATUM

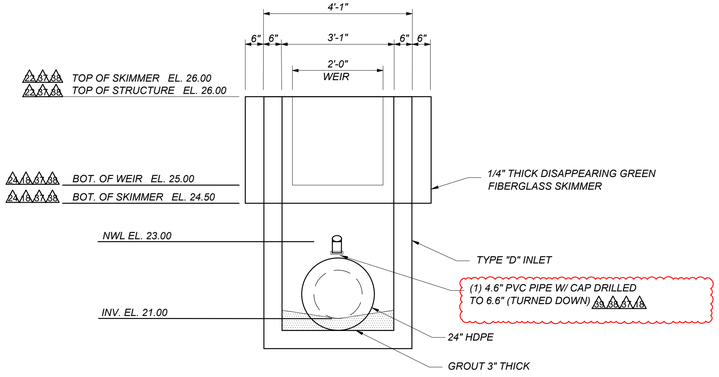


NOTE
CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF BRACKET AND METHOD OF CONNECTION TO THE STRUCTURE & SKIMMER TO THE ENGINEER PRIOR TO INSTALLATION OF THE OUTFALL CONTROL STRUCTURE.

SKIMMER FASTENER DETAIL



PLAN



ELEVATION

TYPE D INLET (MODIFIED) DROP STRUCTURE - D21

N.T.S.

DAVE SCHMITT ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD
SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

04-25-25 BC REVISION PER SJRWMD COMMENTS
03-28-25 BC/JT REVISION PER FDOT COMMENTS

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
02-26-25	BC	REVISION PER CLIENT COMMENTS	11-06-20	MGM	REVISION PER SJRWMD COMMENTS
12-06-21	MGM	REVISION PER CITY COMMENTS	09-04-20	MGM	REVISION PER CLIENT COMMENTS
02-10-21	MGM	REVISION PER SJRWMD COMMENTS	02-18-20	DLS	REVISION PER FDOT COMMENTS
01-25-21	MGM	REVISION PER FDOT / CITY COMMENTS	02-25-19	MGM	REVISION PER CITY COMMENTS
12-09-20	MGM	REVISION PER SJRWMD COMMENTS	09-17-18	MGM	REVISION PER FDOT COMMENTS

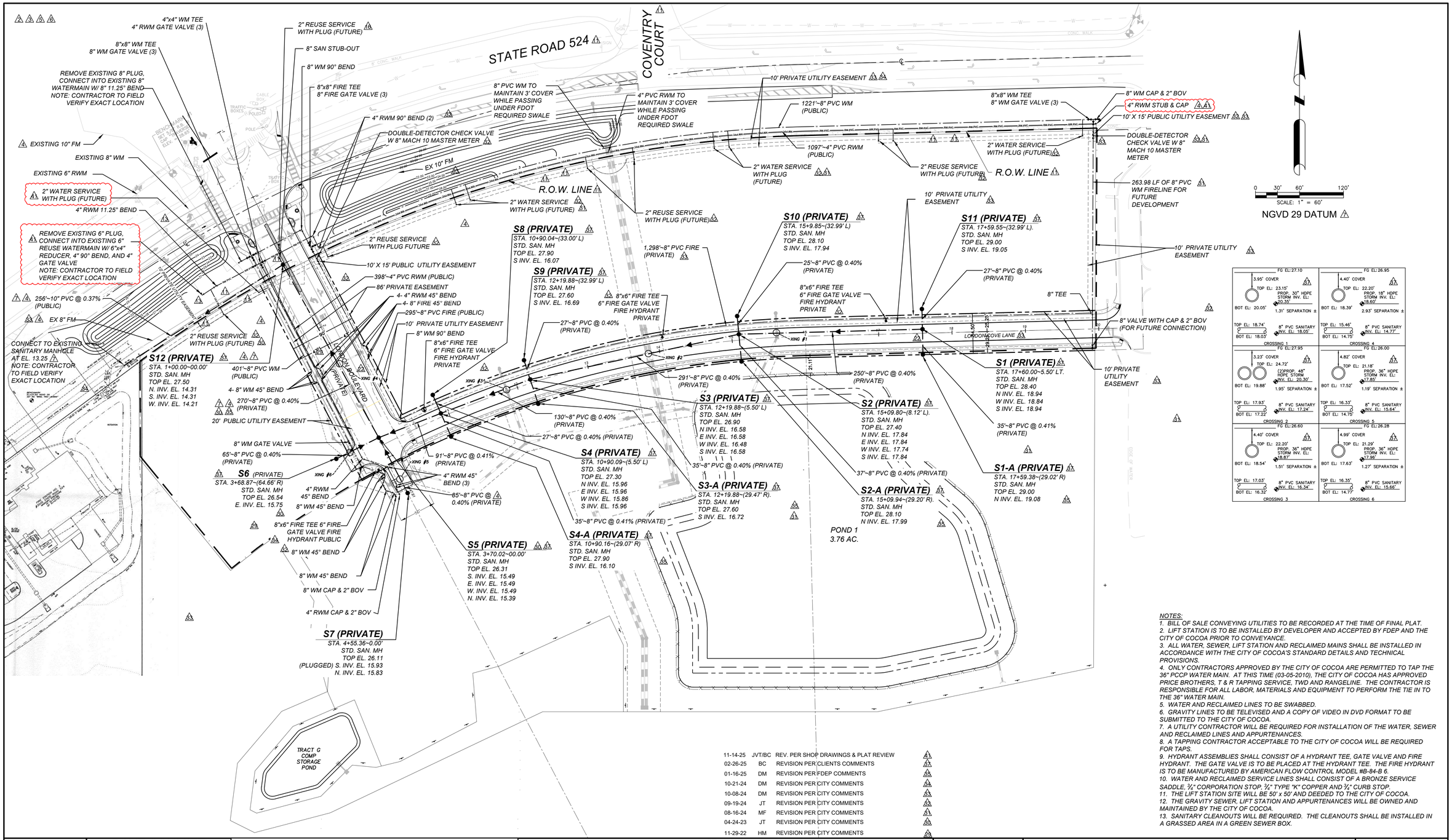
DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

POND DETAILS

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 40'
SHEET: 13 OF 30

F:\DB3\Final\DB3 13 POND DETAILS.dwg,3/27/2025 2:05:28 PM



NOTES:
1. BILL OF SALE CONVEYING UTILITIES TO BE RECORDED AT THE TIME OF FINAL PLAT.
2. LIFT STATION IS TO BE INSTALLED BY DEVELOPER AND ACCEPTED BY FDEP AND THE CITY OF COCOA PRIOR TO CONVEYANCE.
3. ALL WATER, SEWER, LIFT STATION AND RECLAIMED MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF COCOA'S STANDARD DETAILS AND TECHNICAL PROVISIONS.
4. ONLY CONTRACTORS APPROVED BY THE CITY OF COCOA ARE PERMITTED TO TAP THE 36" PCCP WATER MAIN. AT THIS TIME (03-05-2010), THE CITY OF COCOA HAS APPROVED PRICE BROTHERS, T & R TAPPING SERVICE, TWD AND RANGELINE. THE CONTRACTOR IS RESPONSIBLE FOR ALL LABOR, MATERIALS AND EQUIPMENT TO PERFORM THE TIE IN TO THE 36" WATER MAIN.
5. WATER AND RECLAIMED LINES TO BE SWABBED.
6. GRAVITY LINES TO BE TELEVISED AND A COPY OF VIDEO IN DVD FORMAT TO BE SUBMITTED TO THE CITY OF COCOA.
7. A UTILITY CONTRACTOR WILL BE REQUIRED FOR INSTALLATION OF THE WATER, SEWER AND RECLAIMED LINES AND APPURTENANCES.
8. A TAPPING CONTRACTOR ACCEPTABLE TO THE CITY OF COCOA WILL BE REQUIRED FOR TAPS.
9. HYDRANT ASSEMBLIES SHALL CONSIST OF A HYDRANT TEE, GATE VALVE AND FIRE HYDRANT. THE GATE VALVE IS TO BE PLACED AT THE HYDRANT TEE. THE FIRE HYDRANT IS TO BE MANUFACTURED BY AMERICAN FLOW CONTROL MODEL #B-84-B 6.
10. WATER AND RECLAIMED SERVICE LINES SHALL CONSIST OF A BRONZE SERVICE SADDLE, ¾" CORPORATION STOP, ¾" TYPE "K" COPPER AND ¾" CURB STOP.
11. THE LIFT STATION SITE WILL BE 50' x 50' AND DEEDED TO THE CITY OF COCOA.
12. THE GRAVITY SEWER, LIFT STATION AND APPURTENANCES WILL BE OWNED AND MAINTAINED BY THE CITY OF COCOA.
13. SANITARY CLEANOUTS WILL BE REQUIRED. THE CLEANOUTS SHALL BE INSTALLED IN A GRASSED AREA IN A GREEN SEWER BOX.

11-14-25	JVT/BC	REV. PER SHOP DRAWINGS & PLAT REVIEW
02-26-25	BC	REVISION PER CLIENTS COMMENTS
01-16-25	DM	REVISION PER FDEP COMMENTS
10-21-24	DM	REVISION PER CITY COMMENTS
10-08-24	DM	REVISION PER CITY COMMENTS
09-19-24	JT	REVISION PER CITY COMMENTS
08-16-24	MF	REVISION PER CITY COMMENTS
04-24-23	JT	REVISION PER CITY COMMENTS
11-29-22	HM	REVISION PER CITY COMMENTS

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REVISIONS

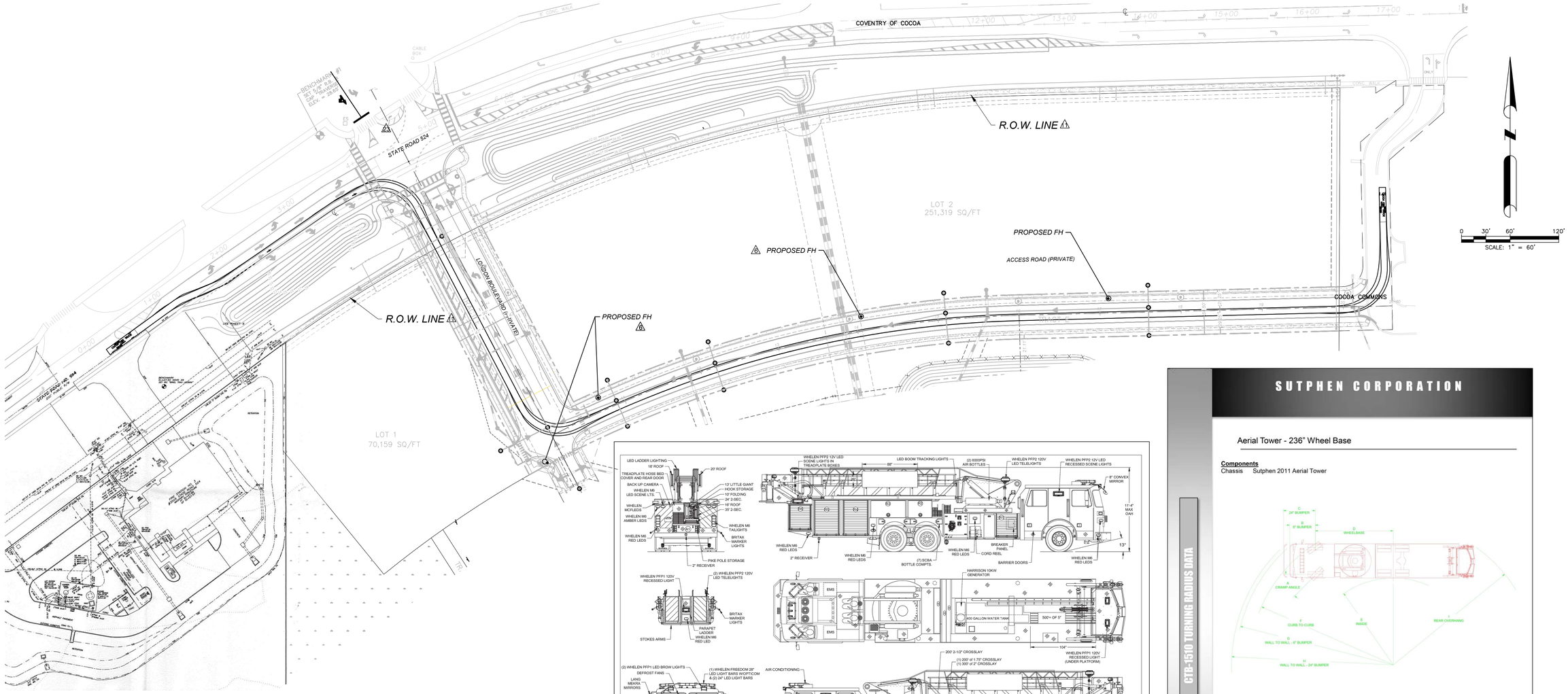
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
01-25-21	MGM	REVISION PER FDOT / CITY COMMENTS 2	01-30-19	MGM	REVISION PER CITY COMMENTS 6
09-04-20	MGM	REVISION PER CLIENT COMMENTS 1	01-07-19	MGM	REVISION PER CITY COMMENTS 5
05-05-20	SAM	REVISION PER FDOT COMMENTS 3	12-11-18	MGM	REVISION PER FDOT / CITY COMMENTS 4
02-06-20	DLS	REVISION PER FDOT COMMENTS 1	11-12-18	MGM	REVISION PER CITY COMMENTS 3
02-25-19	MGM	REVISION PER CITY COMMENTS 7	10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS 2

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

UTILITY PLAN
LONDON COVE
CITY OF COCOA

DATE:	AUGUST 2018
PROJECT NO.:	DB-3
DRAWN BY:	MGM
CHECKED BY:	DMS
SCALE:	1" = 60'
SHEET:	14 OF 30

F:\DB3\Final\DB3 14 UTILITY PLAN.dwg,11/14/2025 1:51:57 PM



DOOR OPENINGS			COMPARTMENT DIMENSIONS		
COMPT	HEIGHT	WIDTH	HEIGHT	WIDTH	DEPTH
L1	31 1/2	13 1/2	38 1/2	20 1/4	20 1/4
L2	29	30 1/4	36 1/2	27 1/2	18
L3	29	30 1/4	27 1/2	18	12 1/8
L4	46 1/2	36 3/4	56 1/2	45 3/4	28 1/2
L5	46 1/2	15 1/8	48 1/2	22	28 1/2
L6	32 7/8	24 1/8	34 3/4	34 3/4	28 1/2

DOOR OPENINGS			COMPARTMENT DIMENSIONS		
COMPT	HEIGHT	WIDTH	HEIGHT	WIDTH	DEPTH
R1	31 1/2	33 1/2	36 1/2	40	27 1/2
R2	29	30 1/4	36 1/2	27 1/2	18
R3		30 1/4	27 1/2	18	36 1/2
R4	46 1/2	36 3/4	56 1/2	45 3/4	36 1/2
R5	46 1/2	36 3/4	56 1/2	45 3/4	36 1/2
R6	32 1/8	20 7/8	40 1/8	34 3/4	25 1/2

TOTAL COMPARTMENT VOLUME- 293 CU FT.

DOOR OPENINGS			COMPARTMENT DIMENSIONS		
COMPT	HEIGHT	WIDTH	HEIGHT	WIDTH	DEPTH
R7	8.1	9 1/8	24 1/2	9 7/8	26
R8	13 1/8	20 7/8	40 1/8	34 3/4	25 1/2

DIMENSIONS ARE NOMINAL, APPROXIMATE AND ARE SUBJECT TO MINOR DEVIATIONS DURING CONSTRUCTION.

IN THE EVENT OF A DISCREPANCY BETWEEN THE SUTPHEN SPECIFICATIONS AND DRAWING, THE SUTPHEN SPECIFICATIONS SHALL PREVAIL.

DRAWING IS FOR REFERENCE ONLY. SOME ITEMS PROPOSED MAY NOT BE SHOWN OR NOTED.

CUSTOMER APPROVAL

NAME:

TITLE:

DATE:

REV	DESCRIPTION	BY	DATE
D	CHANGE BRON LIGHTS AND PLATFORM MOVATIONS	KDF	6/16/2015
C	MISC. CHANGES PER CUSTOMER REQUEST	CAG	4/10/2015
B	CHANGE 24" CENTER LIGHT BAR TO 28" W/INTERNAL OPTICOM, OTHER MISC. CHANGES	CAG	1/26/2015
A	CHANGES FROM PRE-CONSTRUCTION MEETING	CAG	12/1/2014
REV	DESCRIPTION	BY	DATE

THIS PRINT IS PROVIDED ON A WEB RACTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF SUTPHEN CORPORATION.

DRAWN BY: C. GREEN
CHK'D BY:
DATE: 8/27/2014
APP'D BY: TROUTT
DWG #: SPH100 AERIAL PLATFORM
DISC NO: HELISEO

SUTPHEN
SALEM FIRE DEPARTMENT
SALEM, NH

SUTPHEN CORPORATION

Aerial Tower - 236" Wheel Base

Components
Chassis Sutphen 2011 Aerial Tower

CYL-1510 TURNING RADIUS DATA

Parameters

A	Cramp Angle (maximum)	42 deg. 425 Tires
B	Front Overhang 6" Bumper	76"
C	Front Overhang 24" Bumper	94"
D	Wheelbase	236"

Calculated Results

E	Inside Turning Radius	20'-11"
F	Curb to Curb	34'-4"
G	Wall to Wall 6" Bumper	39'-3"
H	Wall to Wall 24" Bumper	40'-3"
I	Rear Overhang Swing	35'

Cramp Angle may vary due to vehicle configuration.
Curb to Curb based on a 9" curb

Rand Smith pg.1 Rev A 6/1/11

NOTES:

1. *AN APPROVED WATER SUPPLY CAPABLE OF SUPPLYING THE REQUIRED FIRE FLOW FOR FIRE PROTECTION SHALL BE PROVIDED TO ALL PREMISES.*
2. *FIRE HYDRANTS SHALL BE PROVIDED FOR BUILDINGS OTHER THAN DETACHED ONE- AND TWO-FAMILY DWELLINGS IN ACCORDANCE WITH THE FOLLOWING:*
3. *THE MAXIMUM DISTANCE TO A FIRE HYDRANT FROM THE CLOSEST POINT ON THE BUILDING SHALL NOT EXCEED 400 FT.*
4. *THE MAXIMUM DISTANCE BETWEEN FIRE HYDRANTS SHALL NOT EXCEED 500 FT.*
5. *FIRE SPRINKLER SYSTEM FIRE DEPARTMENT CONNECTION LOCATION SHALL BE LOCATED AWAY FROM THE BUILDING EQUAL TO THE HEIGHT OF THE BUILDING AND LOCATED NO MORE THAN 100 FEET FROM THE FIRE HYDRANT. FIRE INSPECTOR TO REVIEW LOCATION OF FIRE HYDRANT AND FDC.*
6. *TWO WAY RADIO ENHANCEMENT SYSTEM MAY BE REQUIRED FOR BUILDING. RADIO ASSESSMENT TEST WILL BE COMPLETED BY THE FIRE INSPECTOR, AHJ NEAR THE END OF CONSTRUCTION TO DETERMINE IF SUCH SYSTEM IS REQUIRED. BUDGET ACCORDINGLY. CONTRACTOR TO CONTACT FIRE INSPECTOR.*
7. *NOTE REMOVED.* ⚠6
8. *ALL FIRE SPRINKLER AND FIRE ALARM SYSTEMS SHALL BE IN COMPLIANCE WITH FLORIDA FIRE PREVENTION CODE, 6TH EDITIONS, NFPA 101 LIFE SAFETY CODE, 2015 EDITION AND APPLICABLE NFPA STANDARDS.*
9. *ADDRESS NUMBERS SHALL BE POSTED ON THE BUILDING OF AT LEAST 6" IN HEIGHT AND ON ANY BUSINESS SIGN WHICH MAY BE INSTALLED.*
10. *FIRE ALARM SYSTEM AND TWO WAY RADIO ENHANCEMENT SYSTEM (IF REQUIRED) SHALL BE PROTECTED WITHIN A 2 HOUR ENCLOSURE, ROOM.*
11. *FIRE FLOW CALCULATIONS WILL NEED TO BE PROVIDED WITH FINAL PLANS.*
12. *DURING CONSTRUCTION: (1) DURABLE ACCESS ROAD SHALL BE PROVIDED TO THE BUILDING WHICH SUPPORTS THE LOAD OF FIRE APPARATUS AT THE START OF THE PROJECT (2) TEMPORARY ADDRESS NUMBER SHALL BE POSTED FOR THE JOB SITE VISIBLE FROM THE STREET (3) HYDRANT SHALL BE PROVIDED ON THE CONSTRUCTION SITE WHEN COMBUSTIBLE BUILDING SUPPLIES ARE STORED AND/OR BEING INSTALLED. (4) ALL CONSTRUCTION COMBUSTIBLE WASTE MATERIAL SHALL BE DISPOSED OF FROM THE SITE IN TIMELY MANNER AND SHALL NOT ACCUMULATE TO CREATE A FIRE HAZARD (5) AT LEAST ONE WORKING FIRE EXTINGUISHER SHALL BE KEPT ON THE JOB SITE OF AT LEAST A 4A60BC RATING.*

⚠6

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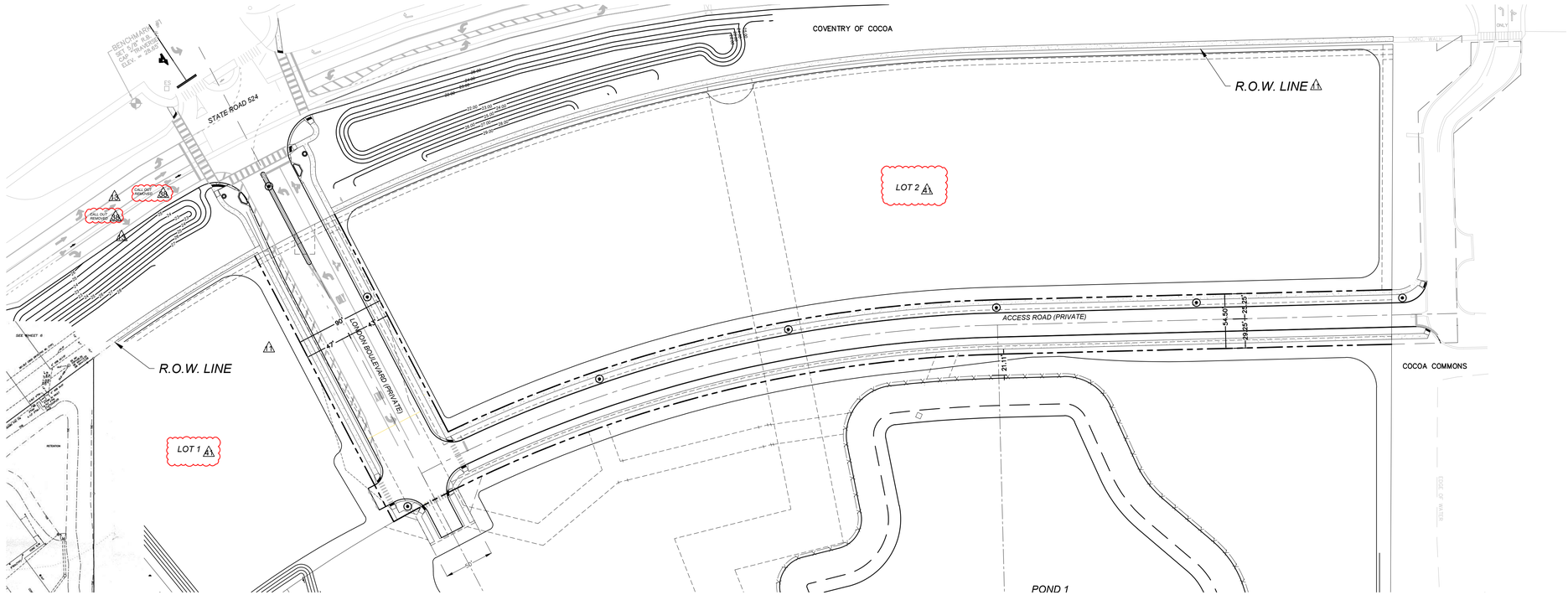
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			01-25-21	MGM	REVISION PER FDOT / CITY COMMENTS ⚠2
			02-06-20	DLS	REVISION PER FDOT COMMENTS ⚠1
			05-20-19	MGM	REVISION PER FDOT / CITY COMMENTS ⚠5
03-28-25	BC/JT	REVISION PER FDOT COMMENTS ⚠3	01-30-19	MGM	REVISION PER CITY COMMENTS ⚠6
02-08-21	MGM	REVISION PER FDOT COMMENTS ⚠3	12-11-18	MGM	REVISION PER FDOT / CITY COMMENTS ⚠4

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

FIRE TRUCK ROUTING PLAN

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 60'
SHEET: 14B OF 30

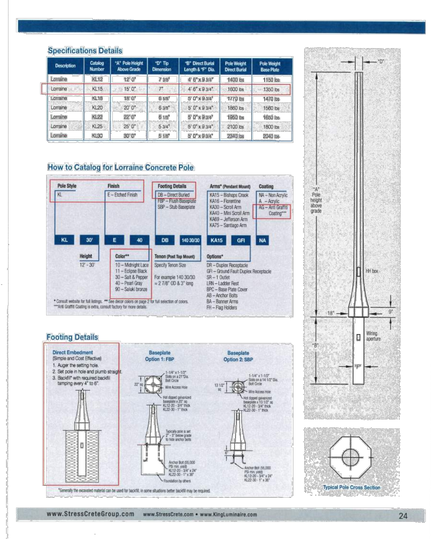


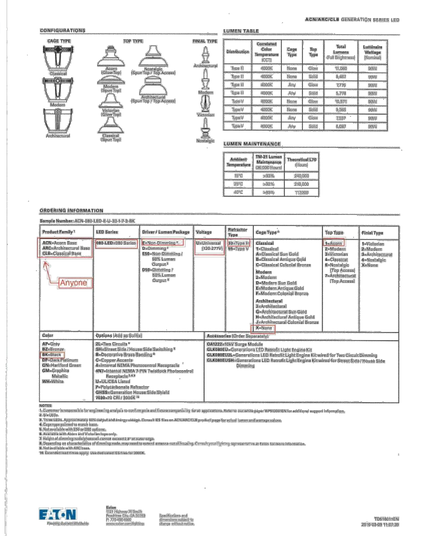
LUMINAIRE SCHEDULE

SYMBOL	QTY
⊙	8









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SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

REVISIONS

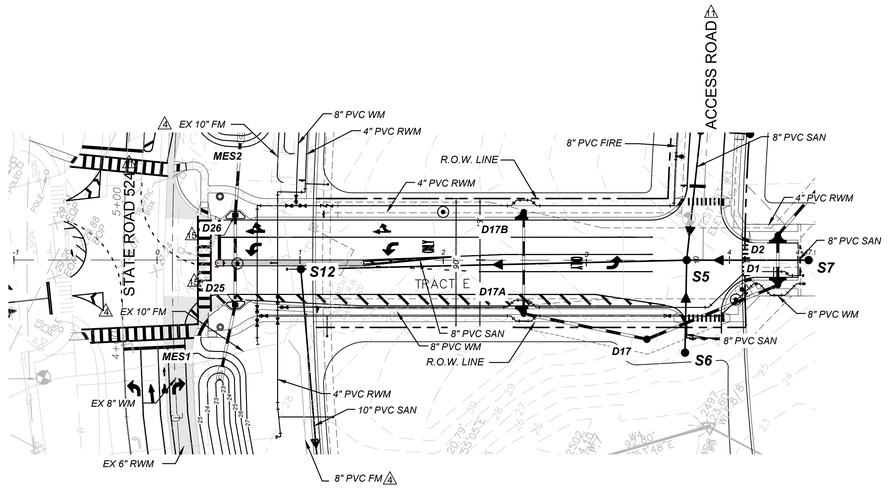
DATE	BY	DESCRIPTION
11-14-25	JTV/BC	REV. PER SHOP DRAWINGS & PLAT REVIEW (1)
03-28-25	BC/JT	REVISION PER FDOT COMMENTS (2)
05-05-20	SAM	REVISION PER FDOT COMMENTS (3)
02-06-20	DLS	REVISION PER FDOT COMMENTS (4)
01-30-19	MGM	REVISION PER CITY COMMENTS (5)

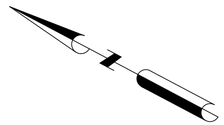
DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

SITE LIGHTING PLAN

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 60'
SHEET: 14C OF 30

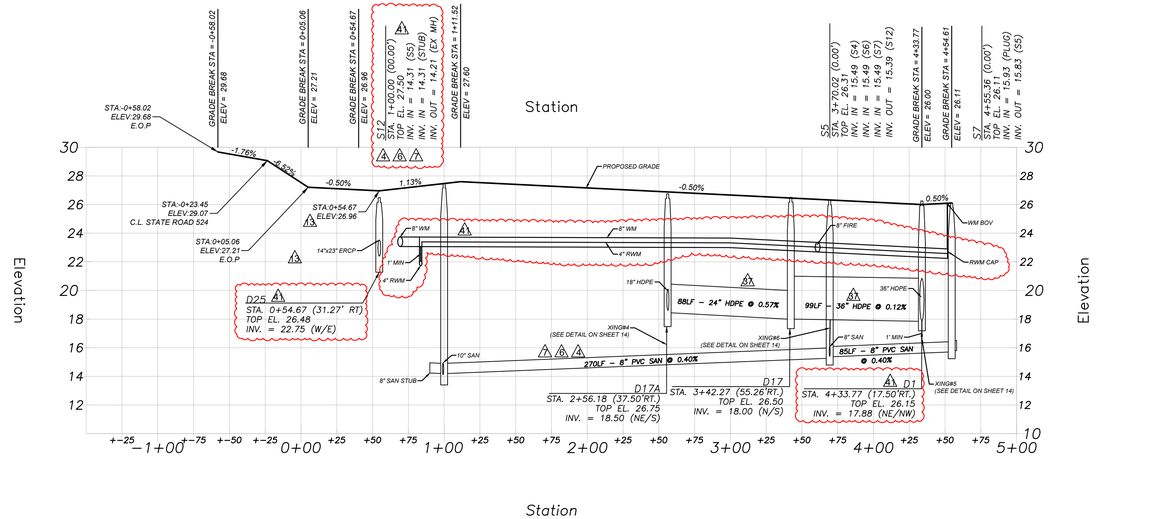




NGVD 29 DATUM

LEGEND

DESCRIPTION	EXISTING	PROPOSED
STORM SEWER SYSTEM		
CURB INLET		
DRAINAGE INLET		
STORM MANHOLE		
SANITARY SEWER SYSTEM		
SANITARY MANHOLE		



LONDON BLVD PROFILE

REVISIONS						
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
03-28-25	BC/JT	REVISION PER FDOT COMMENTS 3	02-25-19	MGM	REVISION PER CITY COMMENTS 7
02-26-25	BC	REVISION PER CLIENT COMMENTS 2	01-30-19	MGM	REVISION PER CITY COMMENTS 6
07-01-20	SAM	REVISION PER FDOT COMMENTS 5	01-07-19	MGM	REVISION PER CITY COMMENTS 5
05-05-20	SAM	REVISION PER FDOT COMMENTS 4	12-11-18	MGM	REVISION PER FDOT / CITY COMMENTS 4
02-06-20	DLS	REVISION PER FDOT COMMENTS 1	10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS 3

11-14-25 JTV/BC REV. PER SHOP DRAWINGS & PLAT REVIEW 1

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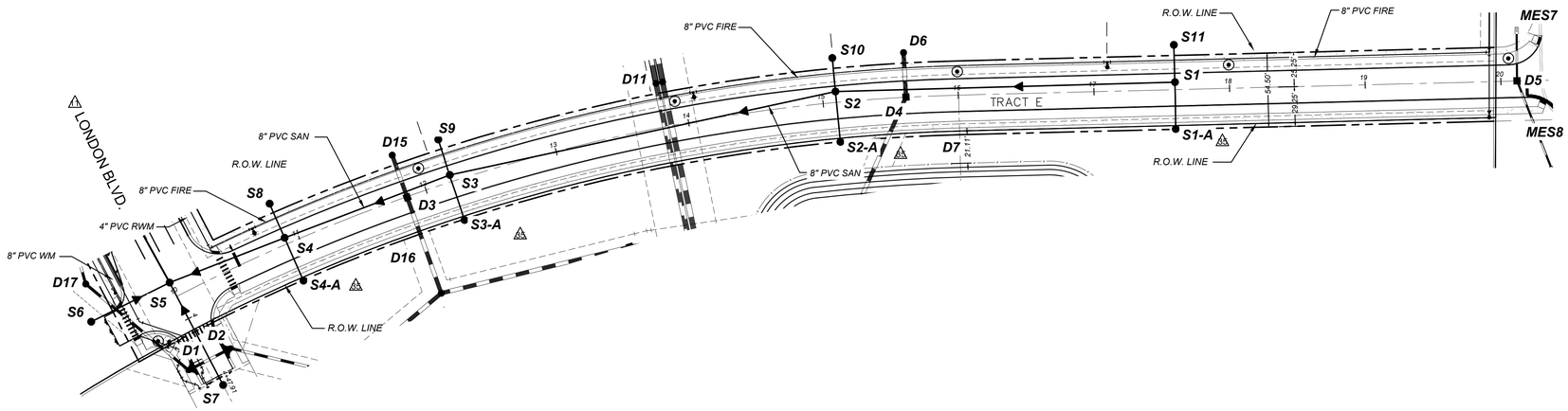
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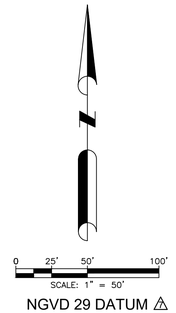
PLAN & PROFILE - LONDON BLVD

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 50'
SHEET: 15 OF 30

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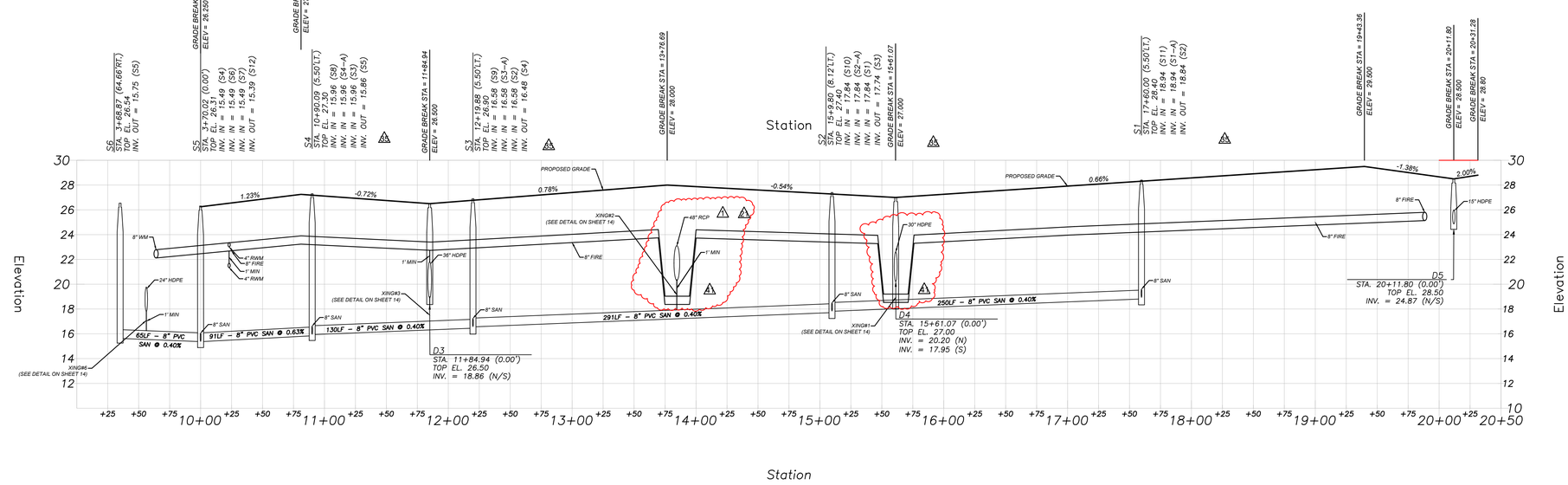




NGVD 29 DATUM ⚠1

LEGEND

DESCRIPTION	EXISTING	PROPOSED
STORM SEWER SYSTEM		
CURB INLET		
DRAINAGE INLET		
STORM MANHOLE		
SANITARY SEWER SYSTEM		
SANITARY MANHOLE		



⚠2 ⚠2 ACCESS ROAD PROFILE ⚠1

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SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			02-06-20	DLS	REVISION PER FDOT COMMENTS ⚠1
11-14-25	JTV/BC	REV. PER SHOP DRAWINGS & PLAT REVIEW ⚠1	02-25-19	MGM	REVISION PER CITY COMMENTS ⚠1
02-26-25	BC	REVISION PER CLIENT COMMENTS ⚠1	01-07-19	MGM	REVISION PER CITY COMMENTS ⚠1
01-16-25	DM	REVISION PER FDEP COMMENTS ⚠1	10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS ⚠2
01-12-21	MGM	REVISION PER FDOT COMMENTS ⚠1	09-17-18	MGM	REVISION PER FDOT COMMENTS ⚠1

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

PLAN & PROFILE - LONDON COVE LANE ⚠1

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 50'
SHEET: 16 OF 30

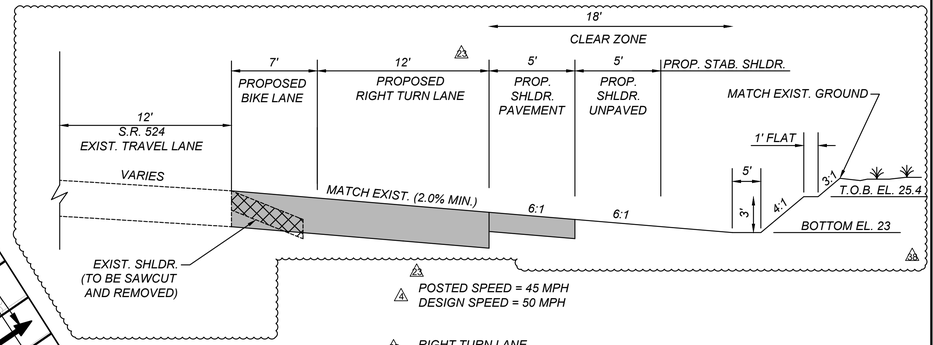
WHITE DIRECTIONAL ARROWS PER F.D.O.T. INDEX 711-001

6" SOLID WHITE WITH W/R RPM'S @ 20' O.C.

BIKE LANE MARKINGS FDM

6" SOLID WHITE EDGELINE

6" WHITE 2' - 4' SKIP



POSTED SPEED = 45 MPH
DESIGN SPEED = 50 MPH

RIGHT TURN LANE
2-1/2" FRICTION COURSE (FC-12.5) SINGLE LIFT
3" TYPE SP STRUCTURAL COURSE (TRAFFIC C) 2 LIFTS OF 1.5"
10" LIMEROCK BASE (LBR 100, 98% MAX DENSITY) 2 LIFTS OF 5"
12" TYPE B STABILIZATION (LBR 40, COMPACTION PER STD SPEC 160)

SHOULDER PAVEMENT:
1-1/2" FRICTION COURSE (FC-12.5) SINGLE LIFT
3" TYPE SP STRUCTURAL COURSE (TRAFFIC C) 2 LIFTS OF 1.5"
6" LIMEROCK BASE (LBR 100, 98% MAX DENSITY)
12" TYPE B STABILIZATION (LBR 40, COMPACTION PER STD SPEC 160)

RIGHT TURN LANE SECTION DETAIL

N.T.S.

MATCH LINE A ~ SEE SHEET 18

SWALE

7'

12'

27.97'

26.87'

PR. E.O.P

EX. E.O.P

SEE SHEET 6

R.O.W.

198.15'

381.8LF C900 DR18 PVC WL (TYP)

4" 45Ø 23.70'

4" 45Ø 24.01'

SS MH RIM=18.35 NE INV=13.25 SW INV=13.08

33.5' 45Ø

26.7 LF 4" C900 DR18 PVC FM

6.9LF 4"FM

3"MV IN VAULT

4"FM

16.7LF 3"FM

3" COUPLER

3"MV

4.1LF 3"FM

3.4LF

258.4LF 10"PVC SS @ 0.27%

336.3LF 3" SCH80 PVC FM

TOB

30.1

RETENTION

BENCHMARK
EL=27.90 NGVD 29
SET IRC "BRIEL TRAV LB3869"

STATE ROAD NO. 524
200' PUBLIC R/W

MATCH

EOP

ASPHALT PAVEMENT

EX EOP

EXISTING ASPHALT PAVEMENT

SIGN

8"x4" TEE

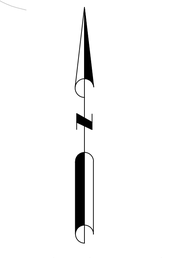
47.9LF 8" PVC WL

1.2LF 8" PVC WL

15.2LF 8" PVC WL

FH

0711



NGVD 29 DATUM

NOTES:

1. MAINTENANCE OF TRAFFIC THROUGH THE WORK ZONE MUST BE IN ACCORDANCE WITH FDOT STANDARD PLAN INDEXES, ALL PER 2025-26 FDOT DESIGN STANDARDS.
2. ALL STRIPING SHALL BE PER FDOT INDEX 711-001.
3. HYDRO-BLASTING SHALL BE USED TO REMOVE EXISTING CONFLICTING STRIPING. IF THE PROPOSED HYDRO-BLASTING GOUGES THE EXIST. ASPHALT, THE CONTRACTOR WILL BE REQUIRED TO MILL & RESURFACE THE EXIST. ROADWAY.
4. ALL PAVEMENT MARKINGS WITHIN FDOT RIGHT-OF-WAY SHALL BE THERMOPLASTIC CERTIFIED LEAD-FREE.
5. AT THE END OF THE DAY THE RIGHT OF WAY (INCLUDING ALL TRAVEL LANES) SHALL BE RESTORED FOR SAFE VEHICULAR TRAFFIC. NO DROP-OFF CONDITIONS ARE ALLOWED TO REMAIN. NO MATERIAL, EQUIPMENT, ETC. SHALL BE STORED WITHIN THE RIGHT OF WAY WHILE THE WORK ZONE IS INACTIVE.
6. ALL DISTURBED AREAS WITHIN THE FDOT RIGHT OF WAY SHALL BE SODDED WITH COMMON BERMUDA SOD.
7. SAW CUT AND REMOVE EXIST. PAVED SHOULDER INCLUDING THE WHITE EDGE LINE. DO NOT DISTURB MAINLINE BASE UNDER EXIST. WHITE EDGE LINE.
8. INTERSECTION IS SIGNALIZED.
9. ALL EXISTING NO PARKING IN RIGHT OF WAY SIGNAGE TO BE RELOCATED USING THE EXISTING OFFSET DISTANCE FROM THE EDGE OF THE EXISTING PAVEMENT OF S.R. 524 TO THE SIGN.
10. SEE SHEET 21 FOR TURN LANE CROSS SECTIONS.

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SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

03-28-25 BC/JT REVISION PER FDOT COMMENTS

REVISIONS						
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	
04-09-21	MGM	REVISION PER FDOT COMMENTS	10-18-19	JIF	REVISION PER FDOT COMMENTS	10
02-08-21	MGM	REVISION PER FDOT COMMENTS	05-20-19	MGM	REVISION PER FDOT / CITY COMMENTS	9
11-17-20	MGM	REVISION PER FDOT COMMENTS	02-25-19	MGM	REVISION PER CITY COMMENTS	7
05-05-20	SAM	REVISION PER FDOT COMMENTS	12-11-18	MGM	REVISION PER FDOT / CITY COMMENTS	4
02-06-20	DLS	REVISION PER FDOT COMMENTS	10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS	2

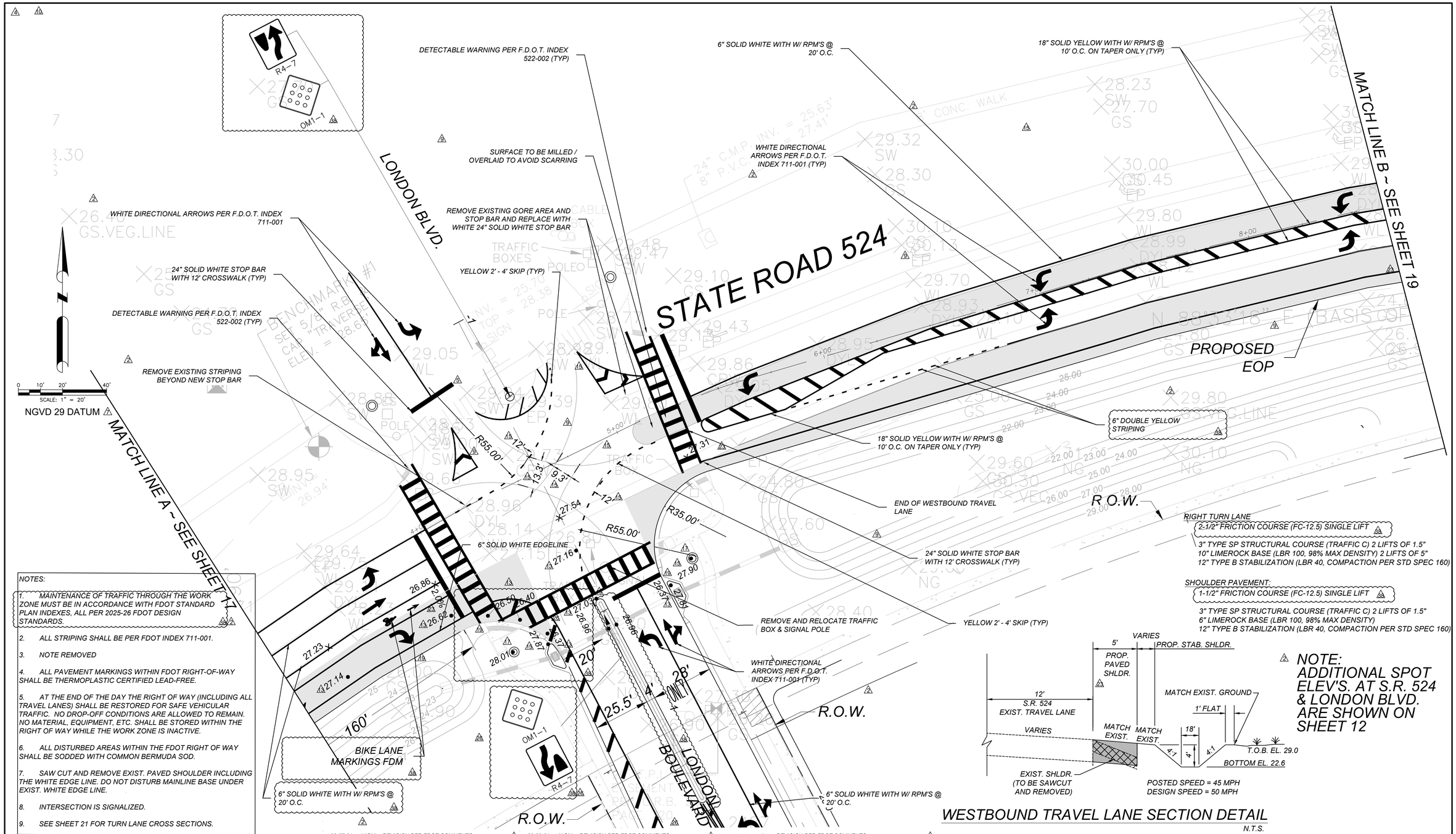
DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

INTERSECTION IMPROVEMENTS - 1

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 20'
SHEET: 17 OF 30

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NOTE: ADDITIONAL SPOT ELEV'S. AT S.R. 524 & LONDON BLVD. ARE SHOWN ON SHEET 12

WESTBOUND TRAVEL LANE SECTION DETAIL

N.T.S.

NOTES:

1. MAINTENANCE OF TRAFFIC THROUGH THE WORK ZONE MUST BE IN ACCORDANCE WITH FDOT STANDARD PLAN INDEXES, ALL PER 2025-26 FDOT DESIGN STANDARDS.
2. ALL STRIPING SHALL BE PER FDOT INDEX 711-001.
3. NOTE REMOVED
4. ALL PAVEMENT MARKINGS WITHIN FDOT RIGHT-OF-WAY SHALL BE THERMOPLASTIC CERTIFIED LEAD-FREE.
5. AT THE END OF THE DAY THE RIGHT OF WAY (INCLUDING ALL TRAVEL LANES) SHALL BE RESTORED FOR SAFE VEHICULAR TRAFFIC. NO DROP-OFF CONDITIONS ARE ALLOWED TO REMAIN. NO MATERIAL, EQUIPMENT, ETC. SHALL BE STORED WITHIN THE RIGHT OF WAY WHILE THE WORK ZONE IS INACTIVE.
6. ALL DISTURBED AREAS WITHIN THE FDOT RIGHT OF WAY SHALL BE SODDED WITH COMMON BERMUDA SOD.
7. SAW CUT AND REMOVE EXIST. PAVED SHOULDER INCLUDING THE WHITE EDGE LINE. DO NOT DISTURB MAINLINE BASE UNDER EXIST. WHITE EDGE LINE.
8. INTERSECTION IS SIGNALIZED.
9. SEE SHEET 21 FOR TURN LANE CROSS SECTIONS.

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REVISIONS						
DATE	BY	DESCRIPTION		DATE	BY	DESCRIPTION
10-16-20	MGM	REVISION PER FDOT COMMENTS	1	05-20-19	MGM	REVISION PER FDOT / CITY COMMENTS 6
07-01-20	SAM	REVISION PER FDOT COMMENTS	2	02-25-19	MGM	REVISION PER CITY COMMENTS 7
05-05-20	SAM	REVISION PER FDOT COMMENTS	3	01-07-19	MGM	REVISION PER FDOT / CITY COMMENTS 5
02-06-20	DLS	REVISION PER FDOT COMMENTS	1	12-11-18	MGM	REVISION PER FDOT / CITY COMMENTS 4
10-18-19	JIF	REVISION PER FDOT COMMENTS	0	10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS 2

08-27-21 MGM REVISION PER FDOT COMMENTS 8
02-08-21 MGM REVISION PER FDOT COMMENTS 3
11-17-20 MGM REVISION PER FDOT COMMENTS 1
03-28-25 BC/JT REVISION PER FDOT COMMENTS 9

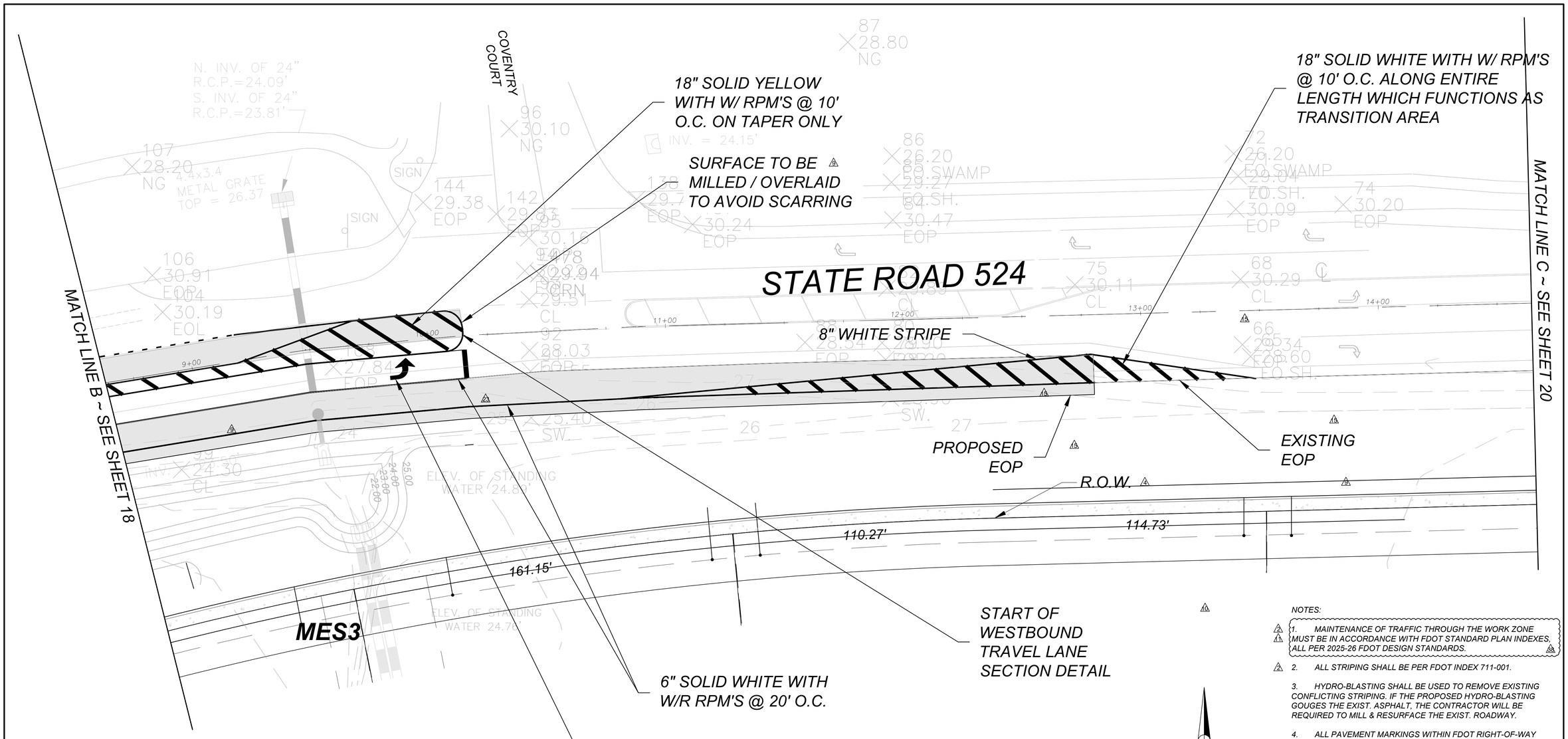
DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

INTERSECTION IMPROVEMENTS - 2

LONDON COVE
CITY OF COCOA

DATE:	AUGUST 2018
PROJECT NO.:	DB-3
DRAWN BY:	MGM
CHECKED BY:	DMS
SCALE:	1" = 20'
SHEET:	18 OF 30

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NOTES:

1. MAINTENANCE OF TRAFFIC THROUGH THE WORK ZONE MUST BE IN ACCORDANCE WITH FDOT STANDARD PLAN INDEXES, ALL PER 2025-26 FDOT DESIGN STANDARDS.
2. ALL STRIPING SHALL BE PER FDOT INDEX 711-001.
3. HYDRO-BLASTING SHALL BE USED TO REMOVE EXISTING CONFLICTING STRIPING. IF THE PROPOSED HYDRO-BLASTING GOUGES THE EXIST. ASPHALT, THE CONTRACTOR WILL BE REQUIRED TO MILL & RESURFACE THE EXIST. ROADWAY.
4. ALL PAVEMENT MARKINGS WITHIN FDOT RIGHT-OF-WAY SHALL BE THERMOPLASTIC CERTIFIED LEAD-FREE.
5. AT THE END OF THE DAY THE RIGHT OF WAY (INCLUDING ALL TRAVEL LANES) SHALL BE RESTORED FOR SAFE VEHICULAR TRAFFIC. NO DROP-OFF CONDITIONS ARE ALLOWED TO REMAIN. NO MATERIAL, EQUIPMENT, ETC. SHALL BE STORED WITHIN THE RIGHT OF WAY WHILE THE WORK ZONE IS INACTIVE.
6. ALL DISTURBED AREAS WITHIN THE FDOT RIGHT OF WAY SHALL BE SODDED WITH COMMON BERMUDA SOD.
7. SAW CUT AND REMOVE EXIST. PAVED SHOULDER INCLUDING THE WHITE EDGE LINE. DO NOT DISTURB MAINLINE BASE UNDER EXIST. WHITE EDGE LINE.
8. INTERSECTION IS UNSIGNALIZED.

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Certification of Authorization #27471

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			10-18-19	JIF	REVISION PER FDOT COMMENTS 11
03-28-25	BC/JT	REVISION PER FDOT COMMENTS 10	05-20-19	MGM	REVISION PER FDOT / CITY COMMENTS 9
02-08-21	MGM	REVISION PER FDOT COMMENTS 8	02-25-19	MGM	REVISION PER CITY COMMENTS 7
07-01-20	SAM	REVISION PER FDOT COMMENTS 6	12-11-18	MGM	REVISION PER FDOT / CITY COMMENTS 4
02-06-20	DLS	REVISION PER FDOT COMMENTS 11	10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS 2

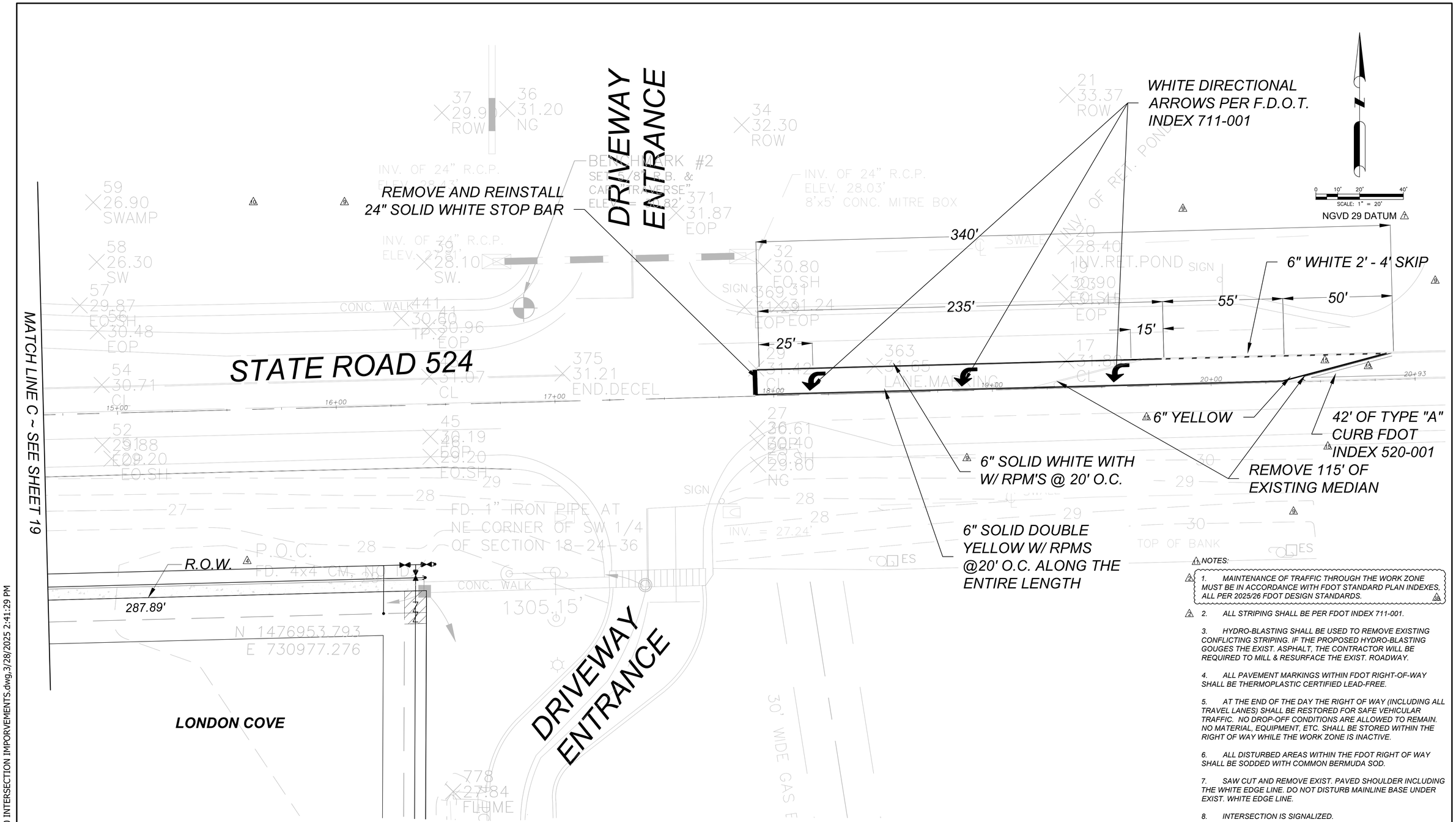
DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

INTERSECTION IMPROVEMENTS - 3

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 20'
SHEET: 19 OF 30

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NOTES:

1. MAINTENANCE OF TRAFFIC THROUGH THE WORK ZONE MUST BE IN ACCORDANCE WITH FDOT STANDARD PLAN INDEXES, ALL PER 2025/26 FDOT DESIGN STANDARDS.
2. ALL STRIPING SHALL BE PER FDOT INDEX 711-001.
3. HYDRO-BLASTING SHALL BE USED TO REMOVE EXISTING CONFLICTING STRIPING. IF THE PROPOSED HYDRO-BLASTING GOUGES THE EXIST. ASPHALT, THE CONTRACTOR WILL BE REQUIRED TO MILL & RESURFACE THE EXIST. ROADWAY.
4. ALL PAVEMENT MARKINGS WITHIN FDOT RIGHT-OF-WAY SHALL BE THERMOPLASTIC CERTIFIED LEAD-FREE.
5. AT THE END OF THE DAY THE RIGHT OF WAY (INCLUDING ALL TRAVEL LANES) SHALL BE RESTORED FOR SAFE VEHICULAR TRAFFIC. NO DROP-OFF CONDITIONS ARE ALLOWED TO REMAIN. NO MATERIAL, EQUIPMENT, ETC. SHALL BE STORED WITHIN THE RIGHT OF WAY WHILE THE WORK ZONE IS INACTIVE.
6. ALL DISTURBED AREAS WITHIN THE FDOT RIGHT OF WAY SHALL BE SODDED WITH COMMON BERMUDA SOD.
7. SAW CUT AND REMOVE EXIST. PAVED SHOULDER INCLUDING THE WHITE EDGE LINE. DO NOT DISTURB MAINLINE BASE UNDER EXIST. WHITE EDGE LINE.
8. INTERSECTION IS SIGNALIZED.

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REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			02-06-20	DLS	REVISION PER FDOT COMMENTS 1
			10-18-19	JIF	REVISION PER FDOT COMMENTS 1
			05-20-19	MGM	REVISION PER FDOT / CITY COMMENTS 3
03-28-25	BC/JT	REVISION PER FDOT COMMENTS 3	02-25-19	MGM	REVISION PER CITY COMMENTS 1
07-01-20	SAM	REVISION PER FDOT COMMENTS 1	12-11-18	MGM	REVISION PER FDOT / CITY COMMENTS 4

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

INTERSECTION IMPROVEMENTS - 4

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 20'
SHEET: 20 OF 30

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0 5' 10' 20'

SCALE: 1" = 10'

NGVD 29 DATUM

WHITE DIRECTIONAL ARROWS PER F.D.O.T. INDEX 711-001

BIKE LANE MARKINGS FDM

WHITE DIRECTIONAL ARROWS PER F.D.O.T. INDEX 711-001

BIKE LANE MARKINGS FDM

6" SOLID WHITE WITH W/ RPM'S @ 20' O.C.

WHITE DIRECTIONAL ARROWS PER F.D.O.T. INDEX 711-001

6" WHITE 2' - 4' SKIP

12'

12'

7'

12'

5'

25.00'

15.00'

50.00'

6" SOLID WHITE EDGELINE

WHITE DIRECTIONAL ARROWS PER F.D.O.T. INDEX 711-001

PROPOSED E.O.P.

6" SOLID WHITE EDGELINE

5' PAVED SHOULDER

WHITE DIRECTIONAL ARROWS PER F.D.O.T. INDEX 711-001

1- 24" WHITE STOP BAR
1- 12" WHITE CROSSWALK W / TRUNCATED DOME DETECTABLE WARNINGS

WHITE DIRECTIONAL ARROWS PER F.D.O.T. INDEX 711-001

EX EOP

25 24 23 23 24 25 26 27

26 25 24 23 23 24 25 26 27 28

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REVISIONS

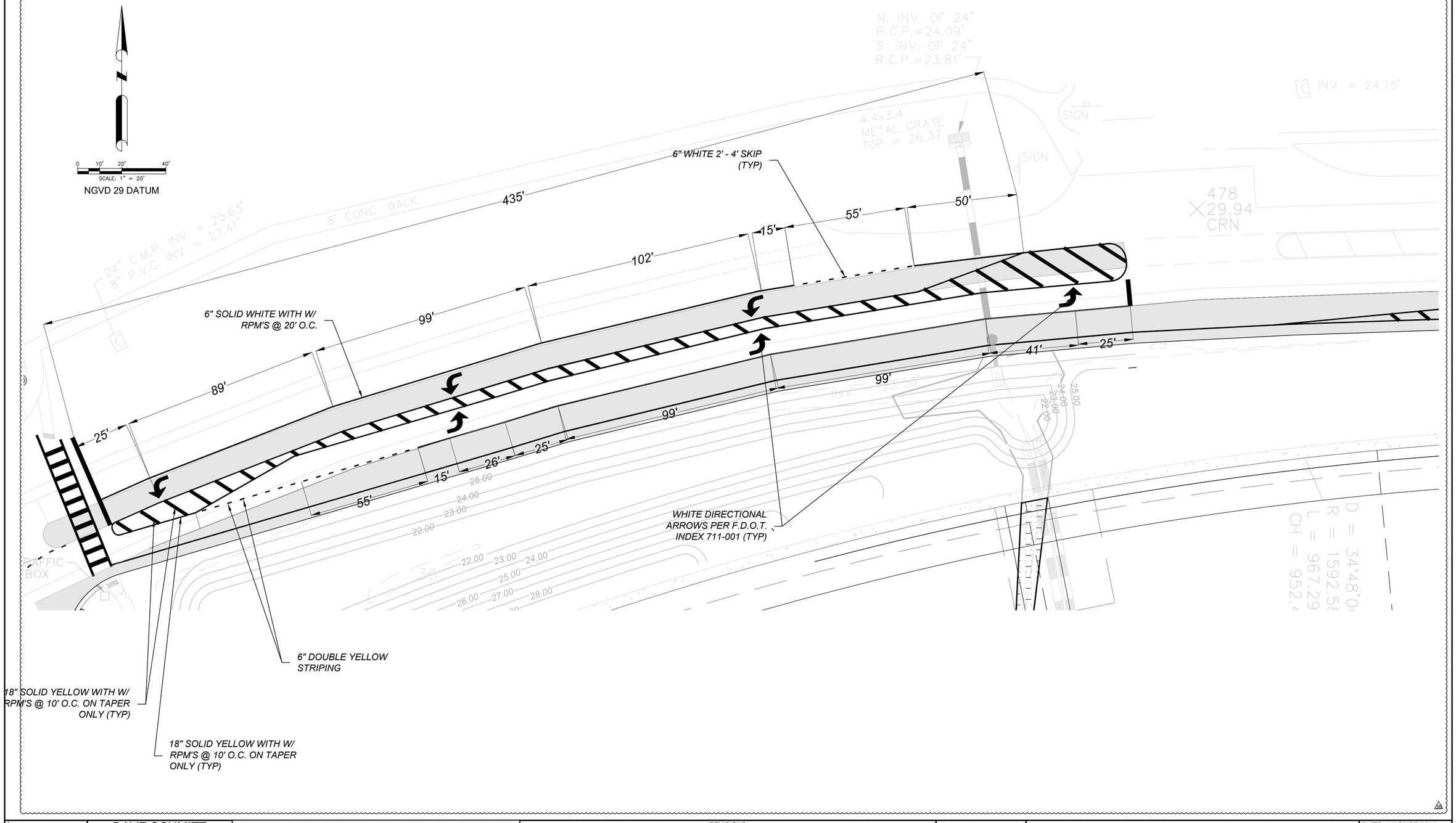
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			03-28-25	BC/JT	REVISION PER FDOT COMMENTS

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

INTERSECTION IMPROVEMENTS - 5

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 10'
SHEET: 20A OF 30



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Certification of Authorization #27471

REVISIONS

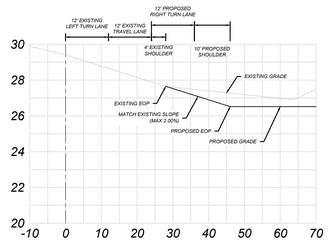
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			03-28-25	BC/JT	REVISION PER FDOT COMMENTS ⚠3

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

INTERSECTION IMPROVEMENTS - 6

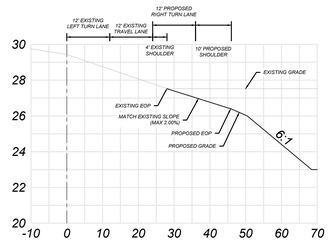
LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: 1" = 20'
SHEET: 20B OF 30



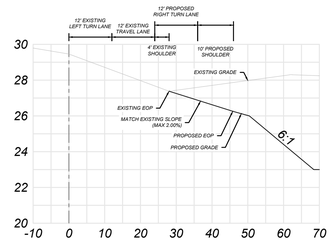
STATION 1+50.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



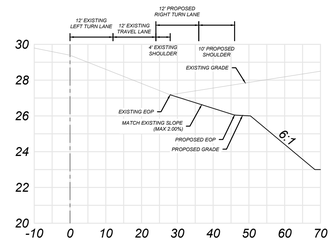
STATION 2+00.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



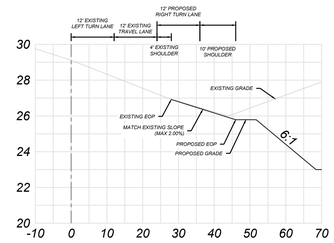
STATION 2+50.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



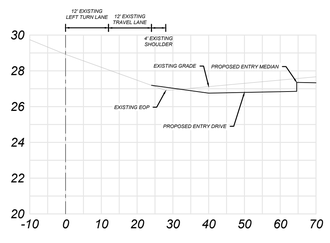
STATION 3+00.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



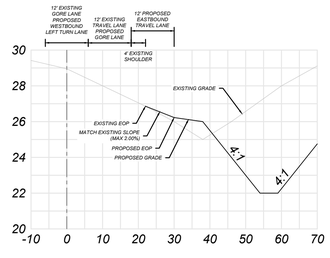
STATION 3+50.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



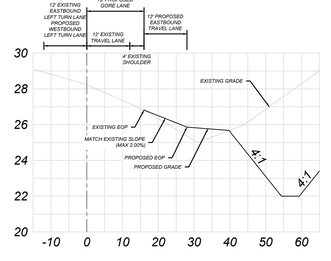
STATION 4+59.31

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



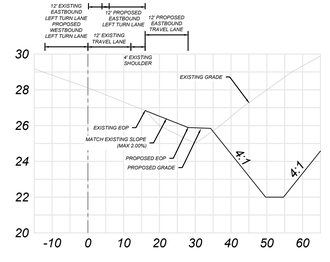
STATION 6+00.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



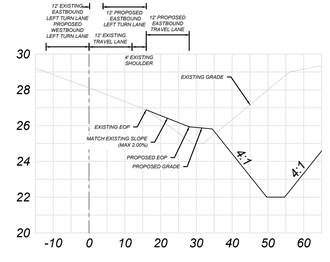
STATION 6+50.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



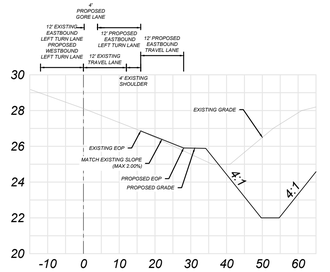
STATION 7+00.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



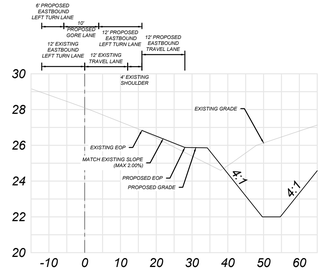
STATION 7+50.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



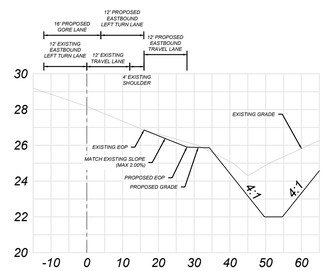
STATION 8+00.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



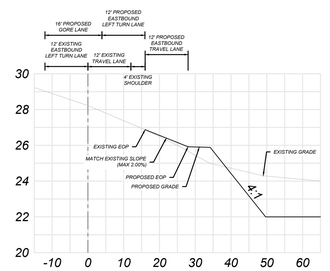
STATION 8+50.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



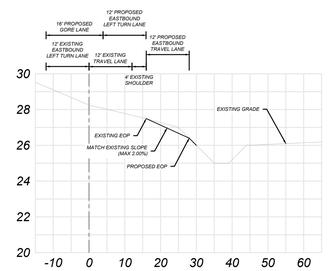
STATION 9+00.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



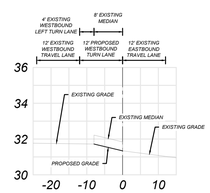
STATION 9+50.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



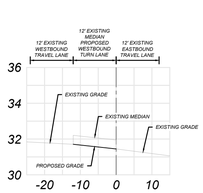
STATION 10+00.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



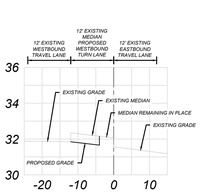
STATION 19+50.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



STATION 20+00.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



STATION 20+50.00

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

F:\DB3\Final\DB3 21 RIGHT TURN LANE CROSS SECTIONS.dwg,4/28/2023 2:00:05 PM

DAVE SCHMITT ENGINEERING, INC.
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Certification of Authorization #27471

REVISIONS

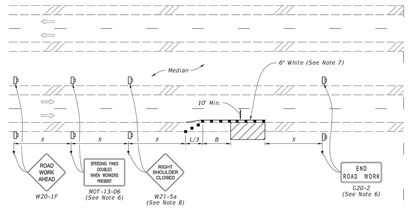
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			02-06-20	DLS	REVISION PER FDOT COMMENTS (1)
			12-11-18	MGM	REVISION PER FDOT / CITY COMMENTS (2)

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

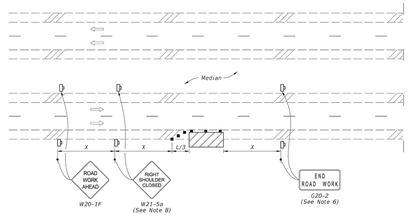
TURN LANE CROSS SECTIONS

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: NOTED
SHEET: 21 OF 30



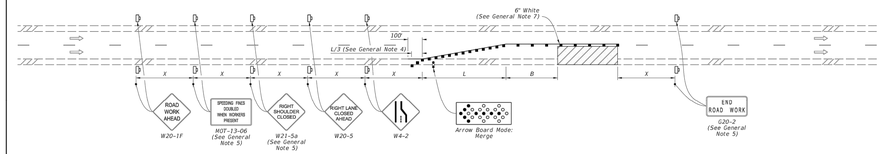
MULTILANE ROADWAY
SHOULDER WORK LESS THAN 2' FROM THE TRAVELED WAY WITH WORK ZONE SPEED OF 45 MPH OR LESS



MULTILANE ROADWAY
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY

SYMBOLS:
- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Lane Identification and Direction of Traffic

LAST REVISION 11/01/20	REVISION DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER	INDEX 102-602	SHEET 2 of 2

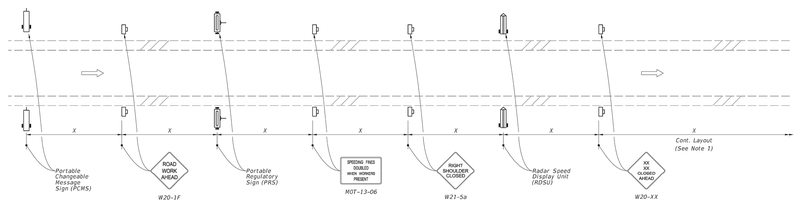


SINGLE LANE CLOSURE

SYMBOLS:
- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Arrow Board
- Lane Identification and Direction of Traffic

GENERAL NOTE:
1. L = Taper Length
   B = Buffer Length
   X = Work Zone Sign Distance
   See Index 102-600 for "L", "B", "X", and channelizing device spacing values.
2. On undivided highways the median signs as shown are to be omitted.
3. On limited access facilities, omit "Right Shoulder Closed" signs (W21-5a) and associated work zone sign spacing distances.
4. If the paved shoulder is less than 4' in width, omit the taper and channelizing devices from the paved shoulder.
5. The "Speeding Fines Doubled When Workers Present" signs (M07-13-06) and "End Road Work" signs (G20-2) and "Right Shoulder Closed" (W21-5a), along with associated work zone sign distances, may be omitted when the work operation will be in place for 24 hours or less. For Single Lane Closures, arrow boards and buffer (B) may also be omitted when the work operation will be in place for 60 minutes or less and the speed limit is 45 mph or less.
6. Use inverted plan of the illustrations for work on left side of roadways.
7. Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.

LAST REVISION 11/01/21	REVISION DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	MULTILANE ROADWAY, LANE CLOSURES	INDEX 102-613	SHEET 1 of 5



MOTORIST AWARENESS SYSTEM

SYMBOLS:
- Work Zone Sign
- (1) PCMS= Portable Changeable (Variable) Message Sign
- (2) PRS= Portable Regulatory Sign-Speed Limit When Flashing
- (2) RSDU= Radar Speed Display Unit
- Lane Identification and Direction of Traffic

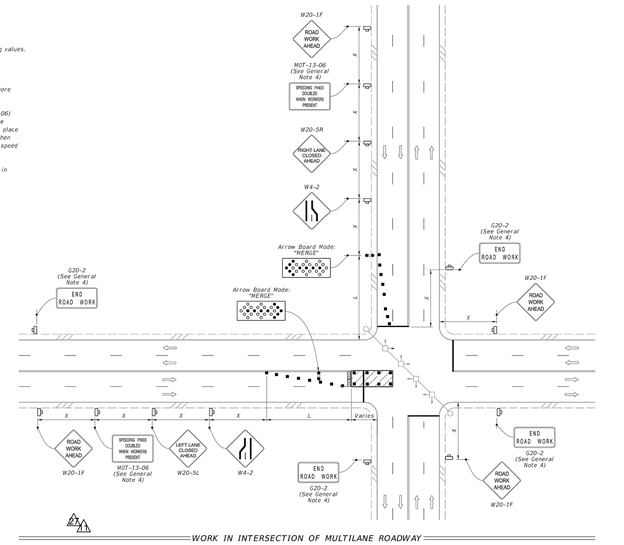
NOTES:
1. Use the Motorist Awareness System (MAS) for lane closures of at least 5 days (consecutive or not) on multilane divided facilities with a posted speed of 55 mph or greater when workers are present and not protected by a barrier.
2. Locate the Motorist MAS devices (i.e., PCMS, PRS, and RDSU) within the advance warning signs as shown. Continue with the remainder of the work zone signs and devices in accordance with the Plans or Standard Plans after the appropriate "Lane Closed Ahead" (W20-XX) sign.
3. For a posted speed of 65 mph or greater, display speed with a ten mph reduction. For a posted speed of 60 mph, display a reduced speed of 55 mph. For areas outside of the lane closure, use the posted speed as the work zone speed.
4. Omit the PCMS in the median for roadways with three lanes or less in the same direction of traffic.

TYPICAL PCMS DISPLAY:
With speed reduction:
Message 1: WORKERS PRESENT AHEAD
Message 2: SPEED REDUCED NEXT XXMI

Without speed reduction:
Message 1: WORKERS PRESENT AHEAD
Message 2: NEXT XX MILES

LAST REVISION 11/01/21	REVISION DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	MULTILANE ROADWAY, LANE CLOSURES	INDEX 102-613	SHEET 5 of 5

GENERAL NOTES:
1. L = Taper Length
   B = Buffer Length
   X = Work Zone Sign Distance
   See Index 102-600 for "L", "B", "X", and channelizing device spacing values.
2. If vehicles in a parking zone block the line of sight to TCZ signs, locate and post mount signs in accordance with Index 700-101.
3. Use temporary "STOP" sign (R1-1) where the existing stop bar is more than 30' from the taper, remove or cover existing sign.
4. The "Speeding Fines Doubled When Workers Present" sign (M07-13-06) and "End Road Work" Sign (G20-2), along with associated Work Zone Sign Distances, may be omitted when the work operation will be in place for 24 hours or less. Additionally, arrow boards may be omitted when the work operation will be in place for 60 minutes or less and the speed limit is 45 mph or less.
5. If the work area extends across a crosswalk, close the crosswalk in accordance with Index 102-660.
6. Dual signs are required for divided roadways.



SYMBOLS:
- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Type III Barricade
- Arrow Board
- Stop Bar
- Lane Identification and Direction of Traffic

WORK IN INTERSECTION OF MULTILANE ROADWAY

LAST REVISION 11/01/22	REVISION DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	MULTILANE ROADWAY, INTERSECTION WORK	INDEX 102-615	SHEET 1 of 5

NOTE:
NO LANE CLOSURES WILL BE ALLOWED FROM 7:00 AM TO 9:00 AM AND 3:00 PM TO 7:00 PM.

F:\DB3\Final\DB3 22 MAINTENANCE OF TRAFFIC.dwg,3/28/2025 2:42:16 PM

DAVE SCHMITT ENGINEERING, INC.
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Certification of Authorization #27471

REVISIONS

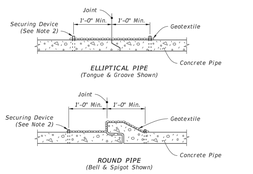
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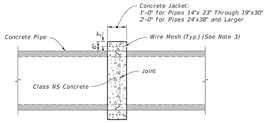
DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

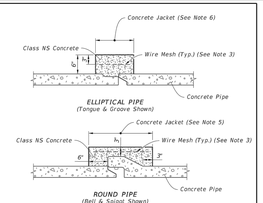
MAINTENANCE OF TRAFFIC

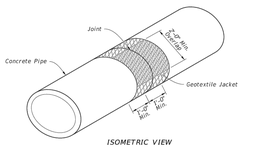
LONDON COVE
CITY OF COCOA

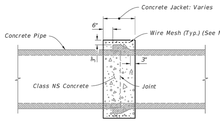
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PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: NONE
SHEET: 22 OF 30

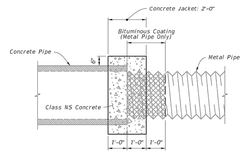






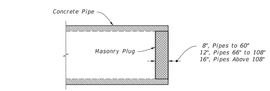






GEOTEXTILE JACKET
(For All Pipe Types - Concrete Elliptical Pipe Shown)

CONCRETE JACKET



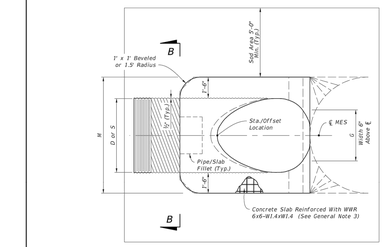
PIPE PLUG

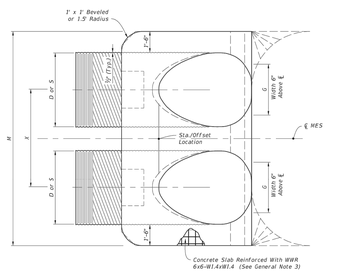
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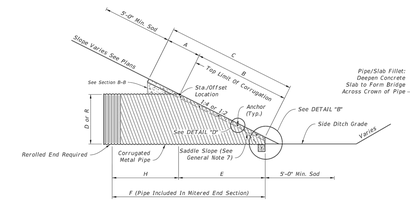
1. Alternate connection must be approved by the Engineer.
2. Install Type D-3 geotextile in accordance with Specification 514. Install securing device to hold the geotextile jacket on to the pipe.
3. Any wire mesh arrangement which provides 0.126 square inches of steel area per linear foot both ways may be used, provided the wires are spaced a minimum of 2" and/or a maximum of 6" on centers.
4. Do not use a concrete jacket to join dissimilar metal pipes.
5. 12" for pipes 15" through 24"; 24" for pipes 30" and larger.
6. 12" for pipes 14" x 23" through 19" x 30"; 24" for pipes 24" x 38" and larger.

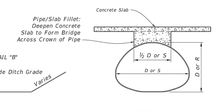
GEOTEXTILE JACKET, CONCRETE JACKET, AND PIPE PLUG

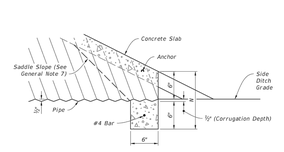
LAST REVISION 11/01/23	REVISION	DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	MISCELLANEOUS DRAINAGE DETAILS	INDEX 430-001	SHEET 3 of 7









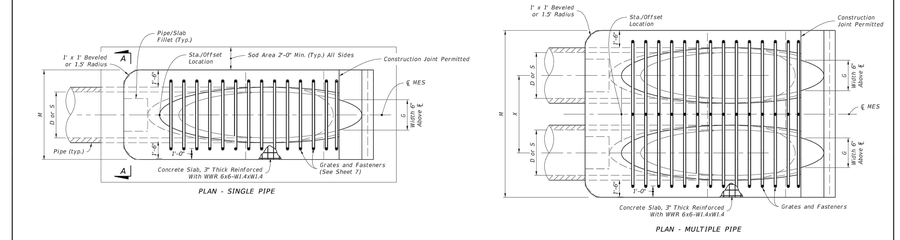


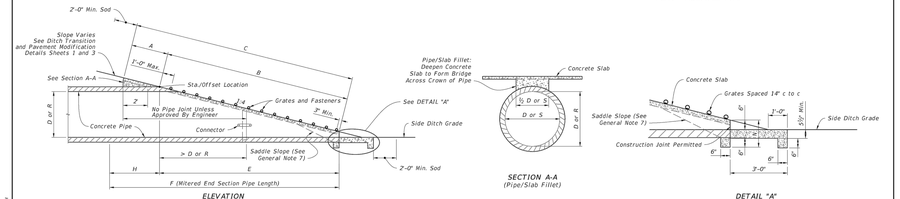
ARCHED CORRUGATED METAL PIPE
(Round Pipe Similar)

NOTE: See Table 2 on Sheet 5 for Dimensions and Quantities.

SINGLE AND MULTIPLE CORRUGATED METAL PIPE

LAST REVISION 11/01/19	REVISION	DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	CROSS DRAIN MITERED END SECTION	INDEX 430-021	SHEET 4 of 6





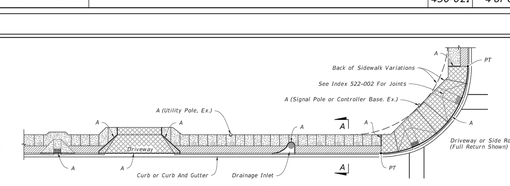
ROUND CONCRETE PIPE
(Elliptical Pipe Similar)

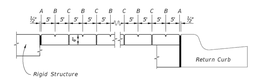
SINGLE AND MULTIPLE CONCRETE PIPE

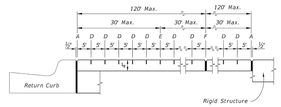
LAST REVISION 11/01/18	REVISION	DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	SIDE DRAIN MITERED END SECTION	INDEX 430-022	SHEET 2 of 7

GENERAL NOTES:

1. Construct sidewalks in accordance with Specification 522. Use 6" concrete for Sidewalks and Curb Ramps Located within Curb Returns (See Plan View). Install all other concrete with thickness as shown, unless otherwise detailed in the Plans.
2. Include detectable warnings on sidewalk curb ramps in accordance with Index 522-002.
3. For Driveways see Index 522-003.
4. Bond breaker material can be any impermeable coated or sheet membrane or preformed material having a thickness of not less than 6 mils and not more than ½".
5. Construct sidewalks with Edge Beam through the limits of any surface mounted Pedestrian/Bicycle Railing or Pipe Guiderail shown in the plans. (See RAILING DETAIL)







LEGEND:

A- ½" Expansion Joints (Preformed Joint Filler) between the sidewalk and; driveways, sidewalk-intersections, and all other fixed objects (e.g. drainage inlets and utility poles).

B- ½" Dummy Joints, Tooled

C- ½" Formed Open Joints

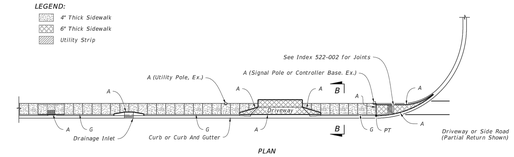
D- ¾" Saw Cut Joints, 1½" Deep (within 96 hours) Max. 5' Centers

E- ¾" Saw Cut Joints, 1½" Deep (within 12 hours) Max. 30' Centers Joint(s) Required When Length Exceeds 30'

F- ½" Expansion Joint When Run Of Sidewalk Exceeds 120'. Intermediate locations when called for in the plans or at locations as directed by the Engineer.

G- Cold Joint With Bond Breaker, Tooled

SIDEWALK JOINTS





GENERAL NOTES AND CONCRETE SIDEWALK ON CURBED ROADWAYS

LAST REVISION 11/01/18	REVISION	DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	CONCRETE SIDEWALK	INDEX 522-001	SHEET 1 of 2

F:\DB3\Final\DB3 25 PAVING GRADING & DRAINAGE DETAILS.dwg,3/28/2025 2:42:41 PM

DAVE SCHMITT ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD
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Certification of Authorization #27471

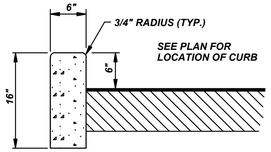
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			12-06-21	MGM	REVISION PER CITY COMMENTS 2
			02-06-20	DLS	REVISION PER FDOT COMMENTS 1
			10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS 2

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

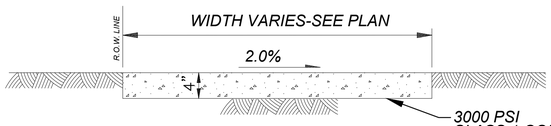
PAVING GRADING & DRAINAGE DETAILS- 1

LONDON COVE
CITY OF COCOA

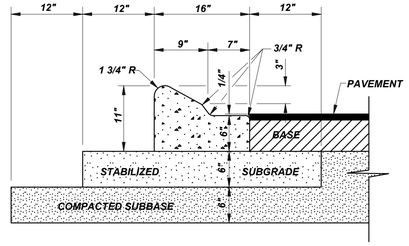
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PROJECT NO.:	DB-3
DRAWN BY:	MGM
CHECKED BY:	DMS
SCALE:	NONE
SHEET:	25 OF 30



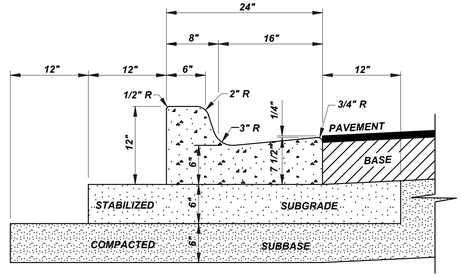
6" x 16" CONCRETE HEADER CURB
N.T.S.



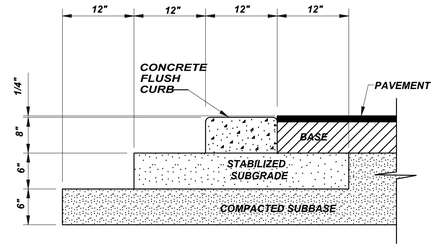
CONCRETE WALK DETAIL
N.T.S.



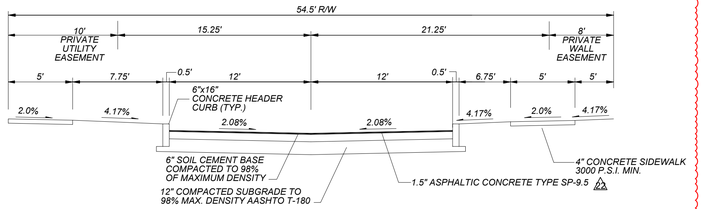
FDOT TYPE "A" CONCRETE CURB DETAIL
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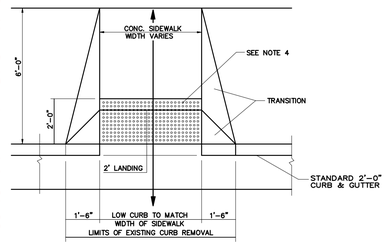
FDOT TYPE "F" CURB AND GUTTER DETAIL
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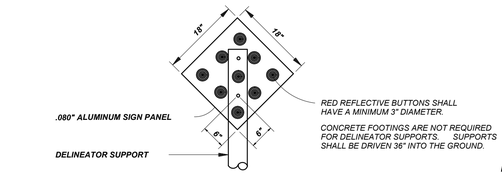


CONCRETE FLUSH CURB DETAIL ⚠4



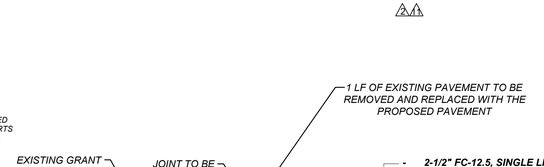
⚠1⚠6⚠2 TYPICAL LONDON COVE LANE SECTION
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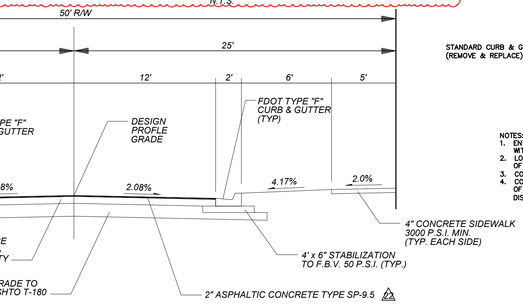


⚠2 F.D.O.T. INDEX 700-109 CASE II (RED REFLECTIVE BUTTONS)

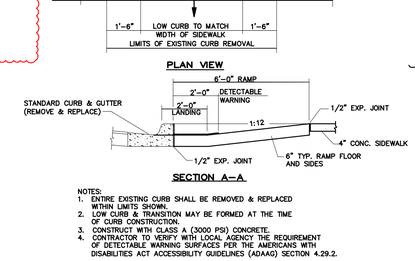
TRAFFIC CONTROLS FOR STREET TERMINATIONS DETAIL
N.T.S.



TYPICAL PAVEMENT TIE-IN DETAIL ⚠4
NTS

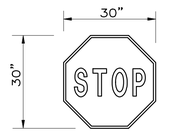


⚠6⚠2 TYPICAL SECTION FOR SOUTH INTERSECTION OF ⚠1 LONDON BLVD X LONDON COVE LANE
N.T.S.

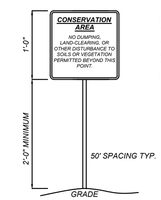


NOTES:
1. ENTIRE EXISTING CURB SHALL BE REMOVED & REPLACED WITHIN LIMITS SHOWN.
2. LOW CURB & TRANSITION MAY BE FORMED AT THE TIME OF CURB CONSTRUCTION.
3. CONSTRUCT WITH CLASS A (3000 PSI) CONCRETE.
4. CONTRACTOR TO VERIFY WITH LOCAL AGENCY THE REQUIREMENT OF DETECTABLE WARNING SURFACES PER THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) SECTION 4.29.2.

HANDICAP RAMP

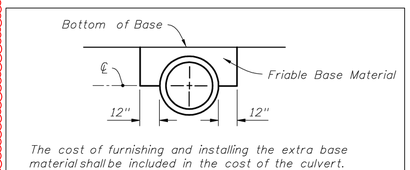


STOP SIGN (R1-1) DETAIL
N.T.S.



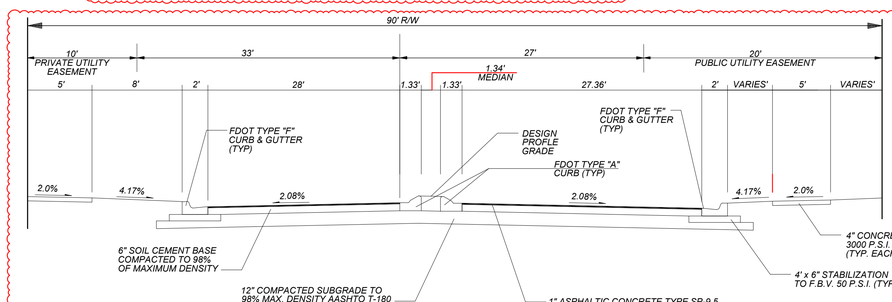
CONSERVATION SIGNS TO BE PLACED ON 50' CENTERS ALONG COMMON AREAS AND AT THE REAR CORNER OF EVERY OTHER LOT. THE SIGN SHALL BE PLACED ON THE UPLAND MOST EDGE OF THE WETLAND BUFFER OR UPLAND PRESERVATION AREA

CONSERVATION SIGN DETAIL
N.T.S.

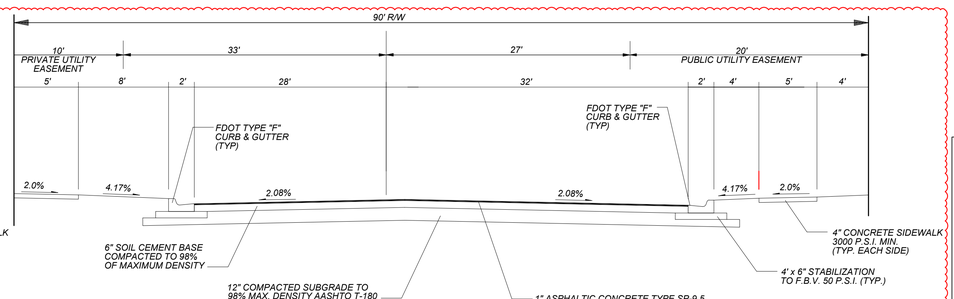


The cost of furnishing and installing the extra base material shall be included in the cost of the culvert.

FRIABLE BASE
(SEE SHEET 12 FOR LOCATION)



⚠1⚠6⚠2 TYPICAL LONDON BLVD ENTRANCE SECTION
N.T.S.



⚠6⚠2 TYPICAL LONDON BLVD SECTION ⚠1
N.T.S.

DAVE SCHMITT ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD
SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			01-25-21	MGM	REVISION PER FDOT / CITY COMMENTS ⚠2
			05-26-20	SAM	REVISION PER FDOT COMMENTS ⚠4
			02-06-20	DLS	REVISION PER FDOT COMMENTS ⚠1
11-14-25	JTV/BC	REV. PER SHOP DRAWINGS & PLAT REVIEW ⚠1	01-30-19	MGM	REVISION PER CITY COMMENTS ⚠6
03-28-25	BC/JT	REVISION PER FDOT COMMENTS ⚠6⚠8	10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS ⚠2

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

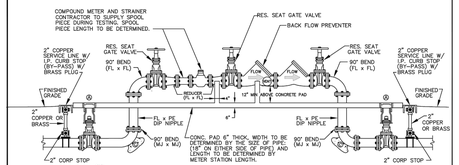
PAVING GRADING & DRAINAGE DETAILS- 2

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: NONE
SHEET: 26 OF 30

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NON - PROTECTUS METER STATION

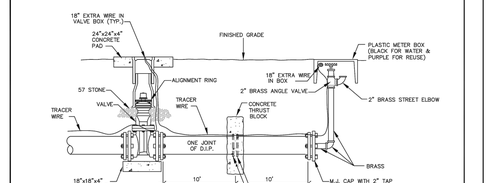


NOTE:

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.
9. ABOVE GROUND ASSEMBLY SHALL BE SETBACK A MINIMUM OF 3' FROM BACK OF CURB.

Ⓥ 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: NOVEMBER 2022
		DESIGN BY:	SHEET: 1 OF 1
		ACAD NAME: 3 IN AND LARGER METER WITH BACKFLOW.dwg	

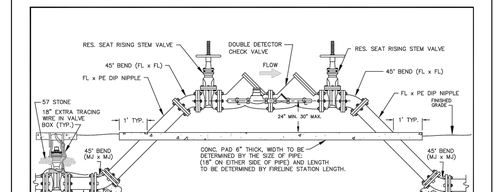


NOTE: PERMANENT BLOW-OFFS DO NOT REQUIRE A JOINT OF D.I.P. OR A VALVE. ALSO ALL BLOW-OFFS NEED TO BE PLACED AT PROPERTY LINES.

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: NOVEMBER 2022
		DESIGN BY:	SHEET: 1 OF 3
		ACAD NAME: BLOW-OFF DETAIL 1	

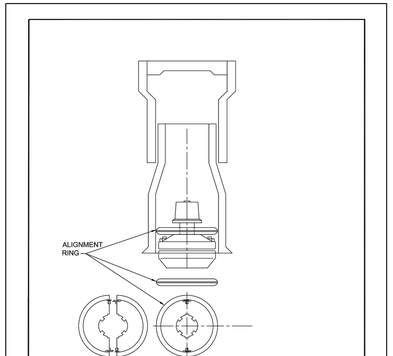


NOTES:

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.
9. ABOVE GROUND ASSEMBLY SHALL BE SETBACK A MINIMUM OF 3' FROM BACK OF CURB.

Ⓒ REFER TO THRUST BLOCK NOTES & DETAILS.

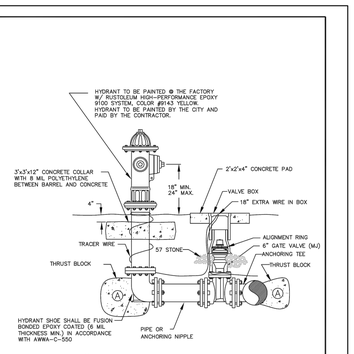
CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT ENGINEERING DIVISION	DOUBLE CHECK DETECTOR ASSEMBLY	DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
		CHECKED BY: P. DAVIS	DATE: NOVEMBER 2022
		DESIGN BY:	SHEET: 1 OF 1
		ACAD NAME: DOUBLE CHECK DETECTOR ASSEMBLY	



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: NOVEMBER 2022
		DESIGN BY:	SHEET: 1 OF 1
		ACAD NAME: ALIGNMENT RING	

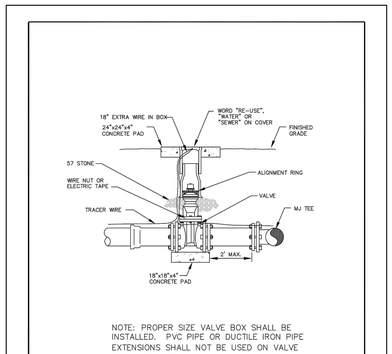


NOTES:

1. CITY CREWS WILL APPLY FINISH PAINT COAT.
2. HYDRANT RISERS WILL NOT BE PERMITTED.
3. FIRE HYDRANT WILL HAVE 18-8 TYPE 304 STAINLESS STEEL BOLTS AND NUTS (BONNET, TRAFFIC FLANGE AND SHOE).
4. SEE "FIRE HYDRANTS" SPECIFICATIONS.
5. PAINT PAID BY THE CONTRACTOR.

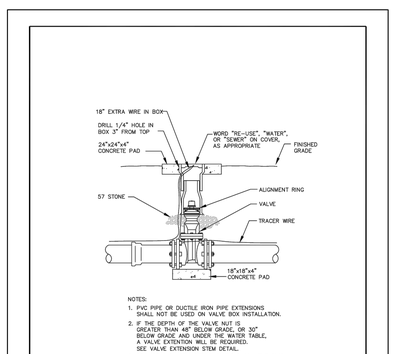
Ⓐ REFER TO THRUST BLOCK NOTES AND DETAILS.

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: NOVEMBER 2022
		DESIGN BY:	SHEET: 1 OF 1
		ACAD NAME: FIRE HYDRANT DETAIL	



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: NOVEMBER 2022
		DESIGN BY:	SHEET: 1 OF 1
		ACAD NAME: GATE VALVE & FITTING DETAIL	

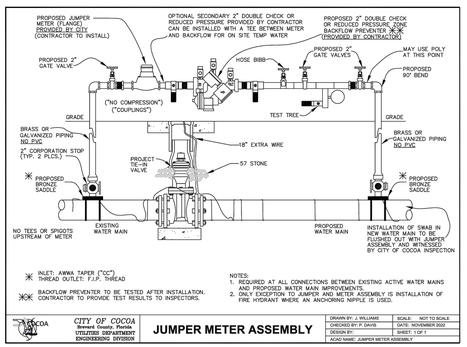


NOTES:

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 AND UNDER THE WATER 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. TRACER WIRE SHALL BE CONTINUOUS WITH NO SPLICES AND SHALL EXTEND 18" 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.

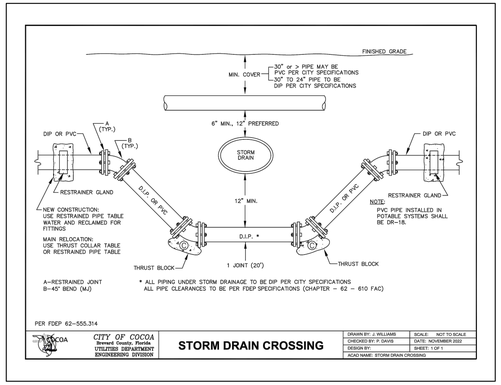
CITY OF COCOA, Brevard County, Florida, UTILITIES DEPARTMENT ENGINEERING DIVISION	GATE VALVE AND VALVE BOX DETAIL	DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
		CHECKED BY: P. DAVIS	DATE: NOVEMBER 2022
		DESIGN BY:	SHEET: 1 OF 1
		ACAD NAME: GATE VALVE & VALVE BOX DETAIL	



NOTES:

1. REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED WATER MAIN IMPROVEMENTS.
2. ONLY EXCEPTION TO JUMPER AND METER ASSEMBLY IS INSTALLATION OF FIRE HYDRANT WHERE AN ANCHORING NIPPLE IS USED.

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: NOVEMBER 2022
		DESIGN BY:	SHEET: 1 OF 1
		ACAD NAME: JUMPER METER ASSEMBLY	

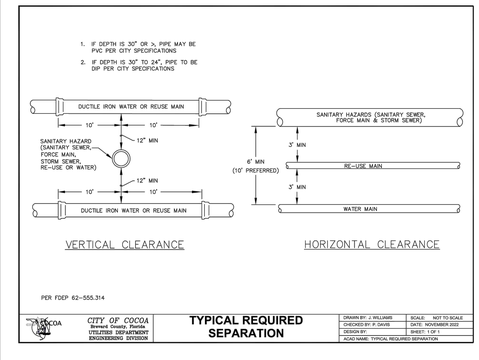


A=RESTRAINED JOINT
B=45° BEND (MJ)

* ALL PIPING UNDER STORM DRAINAGE TO BE DIP PER CITY SPECIFICATIONS
ALL PIPE CLEARANCES TO BE PER FDEP SPECIFICATIONS (CHAPTER – 62 – 610 FAC)

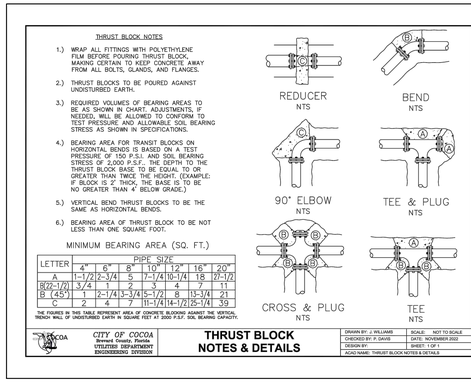
PER FDEP 62-555.314

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: NOVEMBER 2022
		DESIGN BY:	SHEET: 1 OF 1
		ACAD NAME: STORM DRAIN CROSSING	



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: NOVEMBER 2022
		DESIGN BY:	SHEET: 1 OF 1
		ACAD NAME: TYPICAL REQUIRED SEPARATION	



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(2-1/2)	3/4	1	2	3	4	7	11
B (45°)	1	1-2-1/4	3-3/4	5-1/2	8	13-3/4	21
C	2	4	7	11-1/4	14-1/2	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: NOVEMBER 2022
		DESIGN BY:	SHEET: 1 OF 1
		ACAD NAME: THRUST BLOCK NOTES & DETAILS	

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DAVE SCHMITT ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD
SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

CONTRACTOR "AS-BUILTS"

I hereby state that these "As-Builts" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.

Contractor_____ Engineer_____

Not valid without the signature and the original raised seal of a Florida Registered Engineer.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			04-24-23	JT	REVISION PER CITY COMMENTS 1
			10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS 2

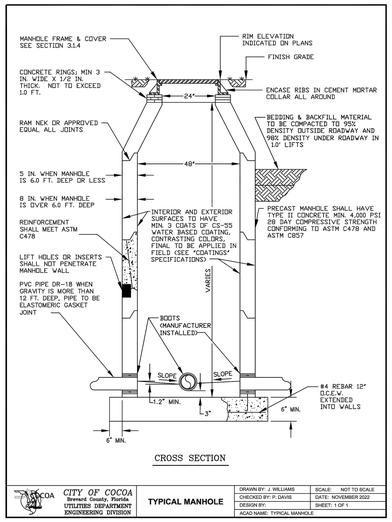
DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

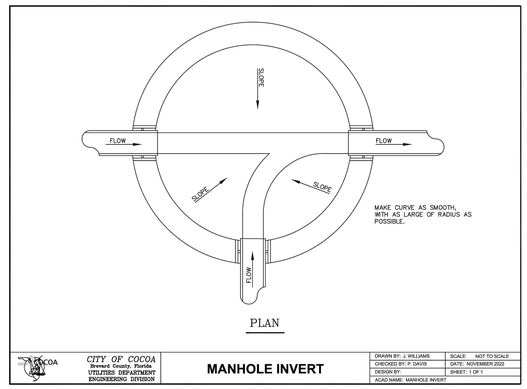
UTILITY DETAILS - 1

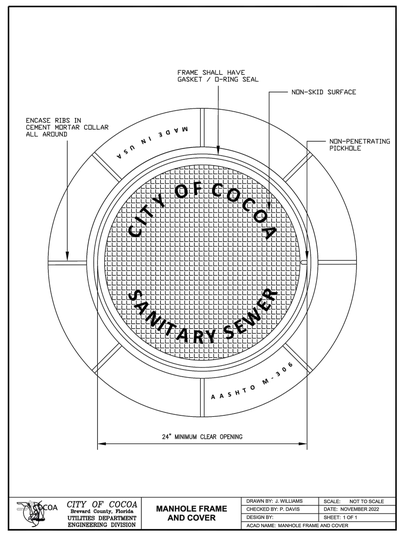
LONDON COVE

CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: NONE
SHEET: 27 OF 30







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REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			04-24-23	JT	REVISION PER CITY COMMENTS 3
			10-17-18	MGM	REVISION PER FDOT / CITY COMMENTS 2

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

UTILITY DETAILS - 2

LONDON COVE
CITY OF COCOA

DATE: AUGUST 2018
PROJECT NO.: DB-3
DRAWN BY: MGM
CHECKED BY: DMS
SCALE: NONE
SHEET: 28 OF 30

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TREE SURVEY CHART

TREE NUMBER	DBH	TOTAL DBH	Tree Name	Scientific Name	Removed (in.")	Saved (in.")
332	20	20	Slash Pine	Pinus elliottii	20	0
333	9	9	Sand Pine	Pinus clausa	9	0
334	11	11	Sand Live Oak	Quercus geminata	11	0
335	4	4	Sand Live Oak	Quercus geminata	4	0
336	8	8	Sand Pine	Pinus clausa	8	0
337	21	21	Slash Pine	Pinus elliottii	21	0
338	6	6	Sand Pine	Pinus clausa	6	0
339	8	8	Sand Pine	Pinus clausa	8	0
340	4	4	Sand Live Oak	Quercus geminata	4	0
341	6	6	Sand Pine	Pinus clausa	6	0
342	4	4	Sand Live Oak	Quercus geminata	4	0
343	6, 8	14	Sand Pine	Pinus clausa	14	0
344	4, 7	11	Sand Live Oak	Quercus geminata	11	0
345	5, 6	11	Sand Pine	Pinus clausa	11	0
346	6	6	Slash Pine	Pinus elliottii	6	0
347	4, 6, 7, 7, 8, 8	40	Sand Pine	Pinus clausa	40	0
348	6, 8	14	Sand Pine	Pinus clausa	14	0
349	5, 6, 12	23	Sand Live Oak	Quercus geminata	23	0
350	5, 8, 10	23	Slash Pine	Pinus elliottii	23	0
351	6, 8	14	Slash Pine	Pinus elliottii	14	0
352	5, 5, 7, 11	28	Pond Pine	Pinus serotina	28	0
353	10, 11, 12	33	Loblolly Bay	Gordonia lasianthus	33	0
354	6, 7, 13	26	Loblolly Bay	Gordonia lasianthus	26	0
355	6, 10, 11, 11	38	Slash Pine	Pinus elliottii	38	0
356	4, 5, 11	20	Loblolly Bay	Gordonia lasianthus	20	0
357	5, 7, 10	22	Loblolly Bay	Gordonia lasianthus	22	0
358	6, 9	15	Slash Pine	Pinus elliottii	15	0
359	4, 9	13	Loblolly Bay	Gordonia lasianthus	13	0
360	4, 4, 5	13	Slash Pine	Pinus elliottii	13	0
361	6, 13	19	Slash Pine	Pinus elliottii	19	0
362	4, 11	15	Slash Pine	Pinus elliottii	15	0
363	4, 11	15	Slash Pine	Pinus elliottii	15	0
364	4, 4, 11	19	Loblolly Bay	Gordonia lasianthus	19	0
365	4, 5, 6, 7	22	Slash Pine	Pinus elliottii	22	0
366	8	8	Pond Pine	Pinus serotina	8	0
367	5, 6	11	Loblolly Bay	Gordonia lasianthus	11	0
368	11	11	Slash Pine	Pinus elliottii	11	0
369	8, 7, 8, 11	32	Slash Pine	Pinus elliottii	32	0
370	7, 10	17	Slash Pine	Pinus elliottii	17	0
371	5, 5, 5	15	Slash Pine	Pinus elliottii	15	0
372	6	6	Loblolly Bay	Gordonia lasianthus	6	0
373	4, 4, 6	14	Loblolly Bay	Gordonia lasianthus	14	0
374	5, 6, 9, 6	23	Slash Pine	Pinus elliottii	23	0
375	5, 7, 9	21	Slash Pine	Pinus elliottii	21	0
376	5	5	Loblolly Bay	Gordonia lasianthus	5	0
377	6, 9, 11	26	Slash Pine	Pinus elliottii	26	0
378	5, 8, 9	22	Slash Pine	Pinus elliottii	22	0
379	4, 4, 12	20	Slash Pine	Pinus elliottii	20	0
380	4, 5, 9, 9	27	Slash Pine	Pinus elliottii	27	0
381	6, 9, 13	28	Slash Pine	Pinus elliottii	28	0
382	6, 8, 12	26	Gordonia lasianthus	Gordonia lasianthus	26	0
383	6, 9, 13	28	Slash Pine	Pinus elliottii	28	0
384	6, 10	16	Pond Pine	Pinus serotina	16	0
385	5, 7	12	Pond Pine	Pinus serotina	12	0
386	6	6	Slash Pine	Pinus elliottii	6	0
387	10	10	Pond Pine	Pinus serotina	10	0
388	4, 4, 5	13	Loblolly Bay	Gordonia lasianthus	13	0
389	6	6	Pond Pine	Pinus serotina	6	0
390	6	6	Pond Pine	Pinus serotina	6	0
391	8	8	Pond Pine	Pinus serotina	8	0
392	4, 5, 5, 5	19	Sand Pine	Pinus clausa	19	0
393	11	11	Slash Pine	Pinus elliottii	11	0
394	4	4	Sand Pine	Pinus clausa	4	0
395	10	10	Slash Pine	Pinus elliottii	10	0
396	10	10	Slash Pine	Pinus elliottii	10	0
397	4, 4, 18	26	Slash Pine	Pinus elliottii	26	0
398	4, 5, 6	15	Slash Pine	Pinus elliottii	15	0
399	5, 5, 5, 6	22	Slash Pine	Pinus elliottii	22	0
400	5	5	Sand Pine	Pinus clausa	5	0
401	5, 6	11	Sand Pine	Pinus clausa	11	0
402	5, 8	13	Sand Pine	Pinus clausa	13	0
403	4	4	Sand Pine	Pinus clausa	4	0
404	4, 4, 4	12	Sand Live Oak	Quercus geminata	12	0
405	5, 6	11	Sand Live Oak	Quercus geminata	11	0
406	12	12	Pond Pine	Pinus serotina	12	0
407	4, 5, 5, 5, 6, 8, 12	55	Slash Pine	Pinus elliottii	55	0
408	4, 6, 7, 7, 9	40	Slash Pine	Pinus elliottii	40	0
409	8	8	Southern Magnolia	Magnolia grandiflora	8	0
410	8	8	Slash Pine	Pinus elliottii	8	0
411	11	11	Slash Pine	Pinus elliottii	11	0
412	14	14	Pond Pine	Pinus serotina	14	0
413	4, 5	9	Loblolly Bay	Gordonia lasianthus	9	0
414	5	5	Sand Live Oak	Quercus geminata	5	0
415	5	5	Sand Pine	Pinus clausa	5	0
416	4	4	Sand Live Oak	Quercus geminata	4	0
417	5	5	Sand Pine	Pinus clausa	5	0
418	5, 6, 8	19	Sand Pine	Pinus clausa	19	0
419	5, 9	14	Sand Pine	Pinus clausa	14	0
420	14	14	Sand Pine	Pinus clausa	14	0
421	8, 10	18	Sand Pine	Pinus clausa	18	0
422	4, 5, 6	15	Sand Live Oak	Quercus geminata	15	0
423	4, 5, 6	15	Sand Pine	Pinus clausa	15	0
424	12, 13	25	Sand Pine	Pinus clausa	25	0
425	18	18	Slash Pine	Pinus elliottii	18	0
426	4, 4, 4, 4	16	Sand Live Oak	Quercus geminata	16	0
427	7, 11	18	Slash Pine	Pinus elliottii	18	0
428	7, 10	17	Slash Pine	Pinus elliottii	17	0
429	10, 11, 12, 14	47	Slash Pine	Pinus elliottii	47	0
430	10	10	Slash Pine	Pinus elliottii	10	0
431	4, 5, 5, 7	22	Slash Pine	Pinus elliottii	22	0
432	7, 8	15	Slash Pine	Pinus elliottii	15	0
433	5, 6, 8	19	Sand Pine	Pinus clausa	19	0
434	5, 7, 8, 9	29	Slash Pine	Pinus elliottii	29	0
435	5, 5	12	Loblolly Bay	Gordonia lasianthus	12	0
436	5, 10	15	Pond Pine	Pinus serotina	15	0
437	4	4	Loblolly Bay	Gordonia lasianthus	4	0
438	4, 5, 6, 8	23	Loblolly Bay	Gordonia lasianthus	23	0
439	7	7	Loblolly Bay	Gordonia lasianthus	7	0
440	5	5	Loblolly Bay	Gordonia lasianthus	5	0
441	5, 5, 5, 12	27	Gordonia lasianthus	Gordonia lasianthus	27	0
442	11, 15, 12	38	Slash Pine	Pinus elliottii	38	0
443	5	5	Sand Pine	Pinus clausa	5	0
444	4, 5, 6, 7, 7	29	Slash Pine	Pinus elliottii	29	0
445	4, 5, 6, 17	32	Sand Pine	Pinus clausa	32	0
446	4, 5, 6, 7, 8, 9	41	Slash Pine	Pinus elliottii	41	0
447	4, 4, 7, 8, 8, 9	36	Slash Pine	Pinus elliottii	36	0
448	7, 9, 10, 10, 13	50	Slash Pine	Pinus elliottii	50	0
449	4, 7, 11	22	Slash Pine	Pinus elliottii	22	0
450	4, 5, 7, 10	26	Slash Pine	Pinus elliottii	26	0
451	7, 7, 7, 8	29	Slash Pine	Pinus elliottii	29	0
452	6, 6, 7, 14	33	Slash Pine	Pinus elliottii	33	0
453	7, 12	19	Slash Pine	Pinus elliottii	19	0
454	6, 8	14	Slash Pine	Pinus elliottii	14	0
455	5, 6, 8, 8	27	Slash Pine	Pinus elliottii	27	0
456	7, 8, 10	25	Slash Pine	Pinus elliottii	25	0
457	10, 17	27	Slash Pine	Pinus elliottii	27	0
458	8	8	Slash Pine	Pinus elliottii	8	0
459	6, 10	16	Red Maple	Acer rubrum	16	0
460	4, 5, 6, 11, 13	39	Slash Pine	Pinus elliottii	39	0
461	5, 5, 7, 8, 9	34	Slash Pine	Pinus elliottii	34	0
462	7, 7, 10, 14	38	Slash Pine	Pinus elliottii	38	0
463	4, 4, 4, 4	16	Sand Live Oak	Quercus geminata	16	0
464	4, 4, 4, 4	16	Sand Live Oak	Quercus geminata	16	0
465	5, 6, 7, 9	27	Slash Pine	Pinus elliottii	27	0
466	5, 7, 8, 9, 13	46	Slash Pine	Pinus elliottii	46	0
467	7, 10, 14	31	Slash Pine	Pinus elliottii	31	0
468	4, 4, 4, 5	17	Sand Live Oak	Quercus geminata	17	0
469	4, 4, 5, 5	18	Sand Live Oak	Quercus geminata	18	0
470	6, 10, 12	28	Sand Pine	Pinus clausa	28	0
471	4, 4, 4, 4, 5, 6, 7	35	Sand Pine	Pinus clausa	35	0
472	4	4	Sand Live Oak	Quercus geminata	4	0
473	4, 5, 7	17	Sand Pine	Pinus clausa	17	0
474	5, 6	11	Sand Pine	Pinus clausa	11	0
475	9, 9, 11	29	Sand Pine	Pinus clausa	29	0
476	11	11	Sand Pine	Pinus clausa	11	0
477	4, 4, 4, 4	16	Sand Live Oak	Quercus geminata	16	0
478	4, 4	8	Sand Live Oak	Quercus geminata	8	0
479	6, 17	23	Sand Pine	Pinus clausa	23	0
480	5	5	Sand Pine	Pinus clausa	5	0
481	5, 7, 8	20	Slash Pine	Pinus elliottii	20	0
482	4, 5, 7	16	Slash Pine	Pinus elliottii	16	0
483	4, 5	9	Loblolly Bay	Gordonia lasianthus	9	0
484	4, 4, 4, 5, 5, 6, 7	40	Loblolly Bay	Gordonia lasianthus	40	0
485	4, 5, 5, 5, 8	28	Slash Pine	Pinus elliottii	28	0
486	4, 5, 6, 8, 8	31	Slash Pine	Pinus elliottii	31	0
487	4, 5, 7, 8, 9	33	Pond Pine	Pinus serotina	33	0
488	14	14	Pond Pine	Pinus serotina	14	0
489	4, 5, 5, 5, 6, 6, 7	44	Slash Pine	Pinus elliottii	44	0
490	5, 6, 8, 10	31	Slash Pine	Pinus elliottii	31	0
491	6, 7, 7, 8	28	Slash Pine	Pinus elliottii	28	0
492	5	5	Sand Pine	Pinus clausa	5	0
493	5, 5, 6, 7, 9	32	Slash Pine	Pinus elliottii	32	0
494	10	10	Slash Pine	Pinus elliottii	10	0
495	4, 5, 5, 5	19	Slash Pine	Pinus elliottii	19	0
496	4, 5, 6, 7, 8	30	Slash Pine	Pinus elliottii	30	0
497	5, 7, 9, 12	33	Loblolly Bay	Gordonia lasianthus	33	0
498	5, 10, 12	31	Pond Pine	Pinus serotina	31	0
499	8, 12	20	Slash Pine	Pinus elliottii	20	0
500	5, 7, 8	20	Loblolly Bay	Gordonia lasianthus	20	0
501	5, 7, 12, 13	37	Loblolly Bay	Gordonia lasianthus	37	0
502	5	5	Sand Pine	Pinus clausa	5	0
503	12, 14	26	Slash Pine	Pinus elliottii	26	0
504	4, 11, 12	27	Slash Pine	Pinus elliottii	27	0
505	7	7	Sand Pine	Pinus clausa	7	0
506	6, 7, 10	23	Sand Pine	Pinus clausa	23	0
507	7, 12, 14	33	Sand Pine	Pinus clausa	33	0
508	4, 4, 4, 4, 5	5	Sand Live Oak	Quercus geminata	5	0
509	4, 4, 5, 5, 6, 6, 8	38	Sand Live Oak	Quercus geminata	38	0
510	4, 4, 4, 4, 4, 5, 5	35	Sand Live Oak	Quercus geminata	35	0
511	13	13	Slash Pine	Pinus elliottii	13	0
512	4, 4, 4, 4, 4	20	Sand Live Oak	Quercus geminata	20	0
513	8, 8	16	Loblolly Bay	Gordonia lasianthus	16	0
514	5, 6, 7, 7	25	Loblolly Bay	Gordonia lasianthus	25	0
515	11	11	Laurel Oak	Quercus laurifolia	11	0
516	5, 5, 7	18	Loblolly Bay	Gordonia lasianthus	18	0
517	4, 5, 6, 11	27	Loblolly Bay	Gordonia lasianthus	27	0
518	5, 5, 7, 9	26	Loblolly Bay	Gordonia lasianthus	26	0
519	4, 5, 5, 6	20	Loblolly Bay	Gordonia lasianthus	20	0
520	4, 5, 6	15	Loblolly Bay	Gordonia lasianthus	15	0
521	4, 5, 5, 7, 7, 11, 12	51	Loblolly Bay	Gordonia lasianthus	51	0
522	4, 5, 5, 7	21	Loblolly Bay	Gordonia lasianthus	21	0
523	24	24	Slash Pine	Pinus elliottii	24	0
524	8, 9	17	Pond Pine	Pinus serotina	17	0
525	9, 13	22	Pond Pine	Pinus serotina	22	0
526	8	8	Loblolly Bay	Gordonia lasianthus	8	0
527	6	6	Laurel Oak	Quercus laurifolia	6	0
528	14	14	Slash Pine	Pinus elliottii	14	0
529	12, 12	24	Slash Pine	Pinus elliottii	24	0
530	6	6	Live Oak	Quercus virginiana	6	0
531	6	6	Sand Pine	Pinus clausa	6	0
532	6	6	Water Oak	Quercus nigra	6	0
533	6	6	Slash Pine	Pinus elliottii	6	0
534	6	6	Loblolly Bay	Gordonia lasianthus	6	0
535	4, 4, 4	12	Live Oak	Quercus virginiana	12	0
536	4, 5	9	Live Oak	Quercus virginiana	9	0
537	5, 6, 7	18	Slash Pine	Pinus elliottii	18	0
538	4, 4, 4, 5, 7, 11, 12	48	Sand Pine	Pinus clausa	48	0
539	7, 12, 13	32	Sand Pine	Pinus clausa	32	0
540	5, 8, 9	25	Sand Pine	Pinus clausa	25	0
541	5, 6, 8	19	Sand Pine	Pinus clausa	19	0
542	5	5	Sand Pine	Pinus clausa	5	0
543	13	13	Pond Pine	Pinus serotina	13	0
544	4, 4, 4	12	Loblolly Bay	Gordonia lasianthus	12	0
545	7	7	Live Oak	Quercus virginiana	7	0
546	4, 4, 4	12	Sand Live Oak	Quercus geminata	12	0
547	4, 4, 4, 5, 8, 8	33	Loblolly Bay	Gordonia lasianthus	33	0
548	4, 4, 5	13	Loblolly Bay	Gordonia lasianthus	13	0
549	5	5	Loblolly Bay	Gordonia lasianthus	5	0
550	4, 9, 9	13	Loblolly Bay	Gordonia lasianthus	13	0
551	4, 5, 5, 6, 8	30	Loblolly Bay	Gordonia lasianthus	30	0
552	4, 4, 5, 5, 6, 20	44	Loblolly Bay	Gordonia lasianthus	44	0
553	13	13	Pond Pine	Pinus serotina	13	0
554	4, 8, 18	30	Loblolly Bay	Gordonia lasianthus	30	0
555	4, 5, 5, 6	20	Sand Live Oak	Quercus geminata	20	0
556	4, 5, 5, 6	20	Sand Live Oak	Quercus geminata	16	0
557	4, 5, 5, 7, 7, 10	38	Sand Live Oak	Quercus geminata	38	0
558	5, 5, 6, 9	29	Sand Live Oak	Quercus geminata	29	0
559	5, 6, 7, 8	26	Sand Live Oak	Quercus geminata	26	0
560	5, 6, 7, 12, 20	50	Sand Live Oak	Quercus geminata	50	0
561	9, 9	18	Sand Live Oak	Quercus geminata	18	0
562	13, 13, 21	47	Loblolly Bay	Gordonia lasianthus	47	0
563	7	7	Sand Live Oak	Quercus geminata	7	0
564	8	8	Laurel Oak	Quercus laurifolia	8	0
565	4, 5, 7, 7, 8	31	Slash Pine	Pinus elliottii	31	0
566	4, 10, 14, 16	44	Live Oak	Quercus virginiana	44	0
567	6, 11	17	Live Oak	Quercus virginiana	17	0
568	7, 9	16	Live Oak	Quercus virginiana	16	0
569	5, 5, 9	19	Live Oak	Quercus virginiana	19	0
570	4, 5, 6, 7	22	Sand Live Oak	Quercus geminata	22	0
571	10, 17, 18	50	Laurel Oak	Quercus laurifolia	50	0
572	5, 6, 8	19	Loblolly Bay	Gordonia lasianthus	19	0
573	4, 4, 4	12	Loblolly Bay	Gordonia lasianthus	12	0
574	4, 5, 5, 7	21	Loblolly Bay	Gordonia lasianthus	21	0
575	4, 5, 5, 7	21	Loblolly Bay	Gordonia lasianthus	21	0
576	4, 5, 6	15	Loblolly Bay	Gordonia lasianthus	15	0
577	4, 4, 4, 4	16	Loblolly Bay	Gordonia lasianthus	16	0
578	5, 6, 7	18	Loblolly Bay	Gordonia lasianthus	18	0
579	5, 7, 10	22	Loblolly Bay	Gordonia lasianthus	22	0
580	4, 4, 6, 7, 8	29	Loblolly Bay	Gordonia lasianthus	29	0
581	4, 4, 6, 7, 8	29	Loblolly Bay	Gordonia lasianthus	29	0
582	5, 6, 8	20	Laurel Oak	Quercus laurifolia	20	0
583	4, 5, 6, 7	22	Laurel Oak	Quercus laurifolia	22	0
584	7, 10, 10, 11	38	Laurel Oak	Quercus laurifolia	38	0
585	5, 5, 6, 8, 9, 10	51	Slash Pine	Pinus elliottii	51	0
586	4, 4, 4, 4, 5	21	Sand Live Oak	Quercus geminata	21	0
587	4, 4, 5, 5, 6	23	Sand Live Oak	Quercus geminata	23	0
588	4, 4, 4, 5	17	Slash Pine	Pinus elliottii	17	0
589	4, 7, 10, 12	33	Slash Pine	Pinus elliottii	33	0
590	5, 7, 8, 9, 11	40	Slash Pine	Pinus elliottii	40	0
591	12, 14	26	Slash Pine	Pinus elliottii	26	0
592	5, 7, 16, 22	52	Slash Pine	Pinus elliottii	52	0
593	10, 11, 11, 12	44	Slash Pine	Pinus elliottii	44	0
594	12	12	Slash Pine	Pinus elliottii	12	0
595	6, 6, 7	19	Slash Pine	Pinus elliottii	19	0
596	7	7	Slash Pine	Pinus elliottii	7	0
597	6, 6, 7, 7, 8	34	Slash Pine	Pinus elliottii	34	0
598	7, 8	15	Slash Pine	Pinus elliottii	15	0
599	5, 6	11	Sand Live Oak	Quercus geminata	11	0
600	4, 4	8	Sand Pine	Pinus clausa	8	0
601	5	5	Sand Live Oak	Quercus geminata	5	0
602	5	5	Sand Live Oak	Quercus geminata	5	0
603	10, 11	21	Slash Pine	Pinus elliottii	21	0
604	4, 4, 4	12	Sand Live Oak	Quercus geminata	12	0
605	6, 7	13	Slash Pine	Pinus elliottii	13	0
606	10	10	Slash Pine	Pinus elliottii	10	0
607	7	7	Sand Pine	Pinus clausa	7	0
608	4, 4, 4	12	Sand Pine	Pinus clausa	12	0
609	7, 11	18	Slash Pine	Pinus elliottii	18	0
610	7	7	Sand Pine	Pinus clausa	7	0
TOTAL S		5500			5500	0



EXISTING TREES

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- ALL EXISTING TREES

CITY OF COCOA TREE REPLACEMENT CALCULATIONS

TOTAL PROPERTY 20.67 ACRES

EXISITNG TREE SIZES	QUANTITY ON-SITE	REQ. 3" TREES MULTIPLIER	TOTAL 3" TREES REQUIRED
0"-5" DBH	302	X 0	0 TREES
6"-12" DBH	386	X 1	386 TREES
13"-23" DBH	52	X 4	208 TREES
24" +	3	X 9	27 TREES
TOTALS	743		621 TREES

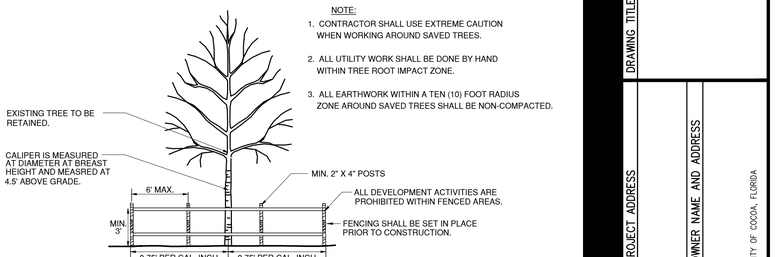
TOTAL PROPOSED 3" TREES AT COMMON AREAS	429 TREES
TOTAL PROPOSED PALM TREES AT COMMON AREAS	206 TREES*
TOTAL TREES TO BE PLANTED	-14 TREES (SURPLUS)

PROPOSED COMMON AREA TREES

REPLACEMENT PROVIDED	QUANTITY	FINAL QUANTITY
LIVE OAK - 6" CAL.	18	36
RED MAPLE - 3" CAL.	98	98
BALD CYPRESS - 3" CAL.	185	185
SLASH PINE - 3" CAL.	110	110
SABAL PALMS - 8" CAL.	206	206 *(33% of total)
TOTAL TREES PLANTED	617 TREES	635 TREES

11.

TREE PROTECTION DETAIL



NOTES: FENCING SHALL BE AT LEAST 3' ABOVE GROUND AND MIN. OF 3' BELOW GRADE.
THE MAXIMUM REQUIRED UNDISTURBED AREA SHALL NOT EXCEED 24' FROM CENTER OF TREE.

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIOR
AAC 0001170
720 VASSAR STREET ORLANDO, FL 32804 (407) 418-1338

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SIGNATURE AND DATED SEAL

LICENSED ARCHITECT CHRISTOPHER D. RICCI LA6667122 STATE OF FLORIDA

CHRISTOPHER D. RICCI LA6667122

CONSULTANTS

LONDON COVE

DRAWING TITLE

TREE MITIGATION PLAN AND CALCULATIONS

REV.	DESCRIPTION	DATE
9.	CIVIL BASE CHANGE	08/28/25
10.	CIVIL BASE CHANGE	10/21/25
11.	CIVIL BASE CHANGE	11/21/25
5.	UP-SIZE TREES	12/04/23
6.	NEW TREE ORDINANCE	12/21/23
7.	PLAT REVIEW COMMENTS	09/04/24
8.	CITY COMMENTS	10/15/24

PROJECT ADDRESS

OWNER NAME AND ADDRESS

CITY OF COCOA, FLORIDA

PROJECT NO.	19-009
PHASE	CONSTRUCTION DOCUMENTS
SCALE	1"=100'-0"
FILE NAME	
DRAWN BY	CDR
CHECKED BY	CDR
DATE	02/01/19

TMP-100

S.R. 524

LOT 2
251,319 SQ/FT

LOT 1
70,158 SQ/FT

TRACT A

TRACT B

TRACT C

TRACT D

TRACT E

TRACT G
COMP
STORAGE
POND

POND 1
3.76 AC.

BAHIA GRASS
DISTURBED AREAS

'FLORATAM'
GRASS

LONDON BLVD.

TELEPHONE SERVICE

REMAINDER OF EDGE OF WATER

SEE SHEET 6

SCALE: 1"=50'-0"

NORTH

0' 25' 50' 100'

L-100

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIOR
AAC 0001751
710 VASSAR STREET
ORLANDO, FL 32804 (407) 418-1338

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SIGNATURE AND DATED SEAL

LANDSCAPE ARCHITECTURE
CHRISTOPHER D. RIGLA
LA667122
STATE OF FLORIDA

CHRISTOPHER D. RIGLA667122

CONSULTANTS

LONDON COVE

DRAWING TITLE

LANDSCAPE PLAN

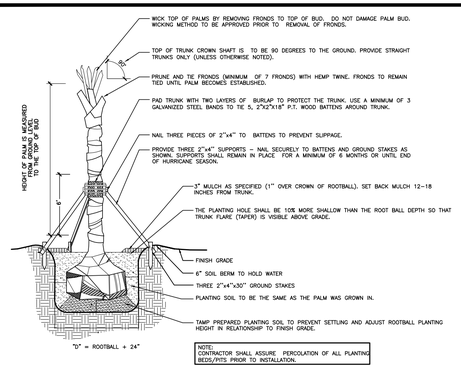
REV.	DESCRIPTION	DATE
9.	CIVIL BASE CHANGE	05/29/25
10.	CIVIL BASE CHANGE	10/21/25
11.	CIVIL BASE CHANGE	11/11/25
5.	UP-SIZE TREES	12/04/23
6.	NEW TREE ORDINANCE	12/11/23
7.	PLAT REVIEW COMMENTS	09/04/24
8.	CITY COMMENTS	10/15/24

PROJECT ADDRESS

CITY OF COCOA, FLORIDA

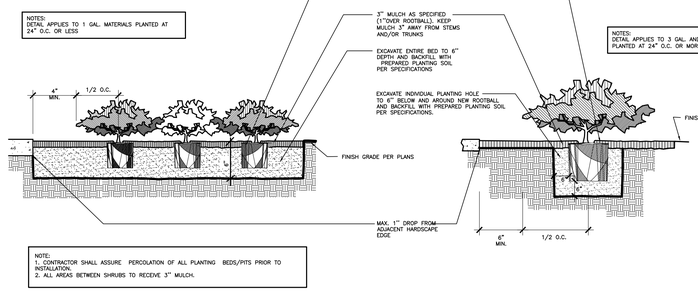
OWNER NAME AND ADDRESS

PROJECT NO.	19-009
PHASE	CONSTRUCTION DOCUMENTS
SCALE	1"=50'-0"
FILE NAME	
DRAWN BY	CDR
CHECKED BY	CDR
DATE	02/01/19



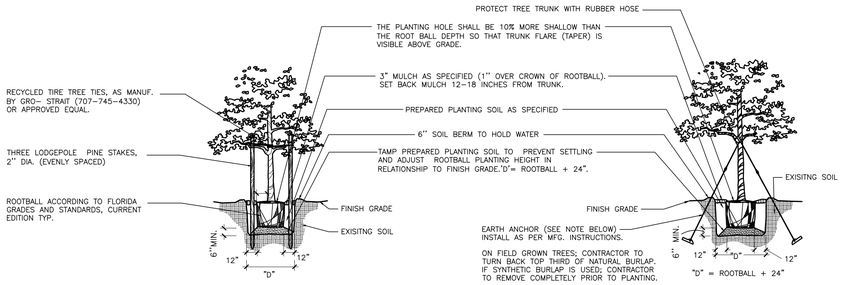
NOTE:
CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING BEDS/PITS PRIOR TO INSTALLATION.

1 TYPICAL PALM TREE PLANTING DETAIL
1" = 1'-0"



NOTE:
1. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING BEDS/PITS PRIOR TO INSTALLATION.
2. ALL AREAS BETWEEN SHRUBS TO RECEIVE 3" MULCH.

2 GROUNDCOVER PLANTING DETAIL
3/4" = 1'-0"

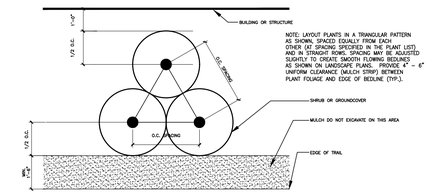


NOTES:
INCLUDES TREES WITH 3-1/2" CALIPER AND BELOW.

SUPPORTS AND STAKES MUST BE AT LEAST 2' FROM NEAREST EDGE OF PAVEMENT.

3 SHRUB PLANTING DETAIL
3/4" = 1'-0"

NOTES:
INCLUDES TREES WITH 4" CALIPER AND GREATER.
TREE SUPPORT SYSTEM TO BE "DUCKBILL" MODEL No. 88-DTS-0, OR APPROVED EQUAL. SYSTEM INCLUDES THREE (3) EARTH ANCHORS, 15' OF GALV. STEEL CABLE WITH BRIGHT ORANGE COATING, THREE (3) TURNBUCKLES AND SIX (6) 3/16" CABLE CLAMPS.



4 ON CENTER PLANTING DETAIL
3/4" = 1'-0"

5 SMALL TREE PLANTING DETAIL
NOT TO SCALE

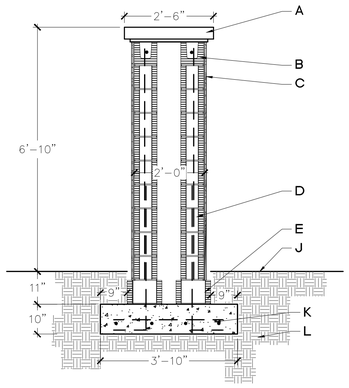
6 LARGE TREE PLANTING DETAILS
NOT TO SCALE

LANDSCAPE PLANT LIST

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	DESCRIPTION	REMARKS
TREES					
QV	18	QUERCUS VIRGINIANA	LIVE OAK	18'-20' HT X 5'-8" SPR., 6" CAL.	SPACE AS SHOWN GUY
SP	39	SABAL PALMETTO	CABBAGE PALM	39 @ 12' CT.; 8" CAL.	SPACE AS SHOWN GUY
POND AND REAR BUFFER TREES					
AR	98	ACER RUBRUM 'FLAME'	RED MAPLE	12'-14' HT X 5'-6' SPR., 3" CAL.	SPACE AS SHOWN GUY
PE	110	PINUS ELLIOTTII	SLASH PINE	12'-14' HT X 5'-6' SPR., 3" CAL.	SPACE AS SHOWN GUY
TD	185	TAXODIUM DISTICHUM	BALD CYPRESS	12'-14' HT X 5'-6' SPR., 3" CAL.	SPACE AS SHOWN GUY
SP	167	SABAL PALMETTO	CABBAGE PALM	72 @ 10'; 60 @ 12'; 35 @ 15' C.T.; 8" CAL.	SPACE AS SHOWN GUY
SHRUBS					
MC	278	MUHLENBERGIA CAPILLARRIS	PINK MUHLY GRASS	24" HT. x 18" SPRD. / FULL / 3G	36" O.C.
GROUNDCOVERS					
LEG	106	LIRIOPE MUSCARI 'EMERALD GODDESS'	BORDER GRASS	14" O.A, MIN 7 BIBS., FULL, 1 GAL.	24" O.C.
GRASS					
SOD	SEE PLANS	STENOTAPHRUM SECONDATUM 'FLORATAM'	ST. AUGUSTINE GRASS	FREE OF WEEDS AND DEBRIS	FIELD VERIFY QTY
SOD	SEE PLANS	PASPALUM NOTATUM 'ARENTINE'	ARGENTINE BAHIA GRASS	FREE OF WEEDS AND DEBRIS	FIELD VERIFY QTY
MULCH					
	SEE PLANS	MINI PINE BARK NUGGETS	MINI PINE BARK NUGGETS	FREE OF DIRT AND DEBRIS	FIELD VERIFY QTY.

LANDSCAPE PLANTING AND CONTRACTOR NOTES:

1. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL FREE OF PESTS AND DISEASES.
2. ALL PLANTS SHALL BE FLORIDA NO. 1 OR BETTER, AS GRADED IN FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS.
3. ALL PLANTS ARE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT AND OWNER BEFORE, DURING, AND AFTER INSTALLATION.
4. ALL SINGLE-TRUNKED TREES SHALL BE STRAIGHT TRUNKED WITH ONE CENTRAL LEADER AND HAVE A FULL, DENSE CROWN.
5. ALL TREES SHALL BE STAKED AND GUYED AS SHOWN IN PLANTING DETAILS.
6. ALL MULCH PLANTING AREAS SHALL BE A MINIMUM OF 3" IN DEPTH.
7. ALL PLANTING AREAS SHALL HAVE A MINIMUM OF 3" TOPSOIL.
8. ALL TREES SHALL BE FREE OF OPEN WOUNDS AND WOUND SCARS IN THE CLEAR TRUNK AREA.
9. ANY SYNTHETIC BURLAP AND/OR WIRE BASKETS MUST BE TOTALLY REMOVED PRIOR TO INSTALLATION OF PLANT MATERIAL. IF NATURAL BURLAP IS USED, IT MAY BE TURNED DOWN 1/3 OF THE ROOTBALL.
10. TREES SHALL NOT BE PLACED WITHIN 7' OF ANY FIRE PROTECTION EQUIPMENT AND NOT WITHIN 5' OF ANY UTILITIES.
11. TREES SHALL NOT BE PLACED WHERE THEY WILL OBSCURE ANY VIEWS TO TRAFFIC, PEDESTRIANS OR SIGNAGE. CONTRACTOR TO FIELD ADJUST TREE LOCATIONS TO AVOID CONFLICTS. IF PLANTING IS QUESTIONABLE; CONTRACTOR TO CONTACT LANDCAPE ARCHITECT OR OWNER'S REPRESENTATIVE TO DISCUSS RELOCATION.
12. CONTRACTOR SHALL TAKE CARE TO PROTECT ALL TREES AND LANDSCAPING MATERIAL WITHIN PROJECT LIMITS AS WELL AS EXISTING TREES IMMIDIATELY ADJACENT TO PROJECT LIMITS. IF THE EXISTING LANDSCAPE, TREES OR OTHER RELATED MATERIALS ARE IMPACTED DURING LANDSCAPE INSTALLATION THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPLACEMENTS, AS WELL AS, ALL OTHER ASPECTS OF REMEDIATION INCLUDING BUT NOT LIMITED TO: TREES, SHRUBS, GROUNDCOVERS, SOD, AND ANY OTHER MATERIALS IMPACTED BY CONSTRUCTION.
13. SOIL CONDITIONS MAY VARY THROUGHOUT THE SITE AND CONTRACTOR TO SHALL PROVIDE PROPER EQUIPMENT FOR PROPER EXCAVATION.
14. CONTRACTOR SHALL INCLUDE THE COSTS OF EXCAVATION, DISPOSAL OF EXCESS MATERIALS, BACKFILL, SOIL AMENDMENTS, SPECIAL BED PREPERATION, MULCH, TREE STAKING AND GUYING, FERTILIZER, WATERING FOR PLANT ESTABLISHMENT, SITE CLEAN-UP AND MAINTAINENCE WITHIN BID NUMBER.
15. CONTRACTOR SHALL SOD ALL DAMAGED GRASS AREAS DISTURBED DURING CONSTRUCTION. SEE LANDSCAPE SPECIFICATIONS FOR SOD INSTALLATION.
16. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, IN FULL, ALL LANDSCAPE PLANTING AREAS, UNTIL THE JOB IS ACCEPTED IN FULL BY THE OWNER. "IN FULL" MEANS WATERING, PEST CONTROL, MULCHING, MOWING, FERTILIZING AND RESETTING TREES THAT ARE OUT OF PLUMB.
17. THE LANDSCAPE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL INSTALLED PLANT MATERIAL FOR A PERIOD OF ONE CALENDAR YEAR BEGINNING ON THE DATE OF 100% COMPLETION. ANY AND ALL REQUIRED PLANT REPLACEMENTS SHALL BE MADE PROMPTLY AND AT NO ADDITIONAL COST TO THE OWNER.
18. THE LANDSCAPE CONTRACTOR SHALL STAKE THE LOCATIONS OF ALL PLANT MATERIAL AND PLANTING BED LINES FOR REVIEW BY THE LANDSCAPE ARCHITECT AND OWNER.
19. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL WRITTEN PLANT QUANITIES PRIOR TO INITIATION OF THE WORK. IN THE EVENT THAT THE PLANS CONTRADICT THE PLANT LIST, THE PLANS SHALL RULE.
20. THE LANDSCAPE CONTRACTOR SHALL BE FAMILIAR WITH AND ACCEPT THE EXISTING SITE CONDITIONS PRIOR TO INITIATION OF THE WORK. ANY VARIATION FROM THE SPECIFIED WORK SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
21. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES, DRAINAGE STRUCTURES, CURBS, SIDEWALKS, AND ANY OTHER OBJECTS WHICH MIGHT BE DAMAGED DURING THE WORK.
22. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ANY AND ALL NECESSARY REPAIRS TO DAMAGE CAUSED BY HIS WORK AT NO ADDITIONAL COST TO THE OWNER OR LANDSCAPE ARCHITECT.
23. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, AND FOLLOWING ALL APPLICABLE LOCAL CODES PERTAINING TO THE PROJECT DURING THE COURSE OF THEIR WORK.



NOTES

A. CAST STONE COLUMN CAP. ATTACH TO COLUMN UTILIZING RAKED MORTAR BED.

B. 8"x8"x16" CMU LINTEL BLOCK WITH (1)#5 RE-BAR CONT.

C. APPLY 7/8" THICK STUCCO IN MEDIUM FINISH. COLOR TO BE BY OWNER.

D. 2'-0" SQUARE 8"x8"x16" CMU BLOCK COLUNM WITH (1)#5 RE-BAR VERTICAL AT EACH CORNER. FILL CELLS WITH CONC.

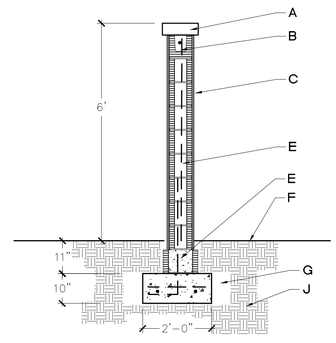
E. 8"x12"x16" CMU STEM WALL. FILL ALL CELLS WITH CONCRETE.

J. FINISH GRADE

K. 10" THICK x 3'-10" SQUARE 3,000 P.S.I. CONCRETE FOOTER W/ (4) #5 RE-BAR IN EACH DIRECTION AS SHOWN. PROVIDE (1)#5 VERT. RE-BAR IN EACH CORNER.

L. CLEAN BACKFILL COMPACTED TO 95% PROCTOR DENSITY.

A SCREEN WALL COLUMNS
SCALE: 1/2"=1'-0"



NOTES

A. PRECAST CONCRETE WALL CAP ATTACH TO TOP WALL UTILIZING RAKED MORTAR BED AND TRUSS TIES. APPLY 7/8" THICK STUCCO AND PAINT COLOR BY OWNER.

B. 8"x8"x16" CMU LINTEL BLOCK WITH (1)#5 RE-BAR CONT. FILL ALL CELLS WITH MORTAR.

C. APPLY MIN. 5/8" THICK STUCCO IN MEDIUM FINISH TO WALL AS SHOWN. PAINT COLOR BY OWNER.

D. 6'-0" HIGH MAX., 8"X8"X16" CMU BLOCK SCREEN WALL WITH (1)#5 RE-BAR VERTICAL @ 48" O.C. AND END CONDITIONS. FILL CELLS WITH MORTAR.

E. 12"x8"x16" CMU STEM WALL. FILL ALL CELLS WITH CONCRETE. ALLOW 4 DAYS FOR CONCRETE TO CURE PRIOR TO WALL CONSTRUCTION.

F. FINISH GRADE.

G. 10" THICK x 2'-0" WIDE 3,000 P.S.I. CONCRETE FOOTER W/ (2)#5 RE-BAR CONTINUOUS AND 1-#5 LAP BAR EVERY 24" O.C. AS SHOWN. PROVIDE (1)#5 VERT. RE-BAR @48" O.C. AND END CONDITIONS.

J. CLEAN BACKFILL COMPACTED TO 95% PROCTOR DENSITY.

B 6' HIGH SCREEN WALL
SCALE: 1/2"=1'-0"

BORRELLI + PARTNERS
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SIGNATURE AND DATED SEAL

LICENSED LANDSCAPE ARCHITECT CHRISTOPHER D. RICCI LA6667122 STATE OF FLORIDA

CHRISTOPHER D. RICCI LA6667122

CONSULTANTS

LONDON COVE

DRAWING TITLE: LANDSCAPE AND HARDSCAPE DETAILS

REV.	DESCRIPTION	DATE	PROJECT ADDRESS
9.	CIVIL BASE CHANGE	08/28/25	
10.	CIVIL BASE CHANGE	10/21/25	
11.	CIVIL BASE CHANGE	11/11/25	OWNER NAME AND ADDRESS
5.	UP-SIZE TREES	12/04/23	
6.	NEW TREE DRAINAGE	12/11/23	
7.	PLAT REVIEW COMMENTS	09/04/24	
8.	CITY COMMENTS	10/15/24	CITY OF COCOA, FLORIDA

PROJECT NO.	19-009
PHASE	CONSTRUCTION DOCUMENTS
SCALE	AS NOTED
FILE NAME	19-009A
DRAWN BY	CDR
CHECKED BY	CDR
DATE	02/01/19

L-500

S.R. 524

S.R. 524

LONDON BLVD.

LOT 1
70,158 SQ/FT

LOT 2
251,319 SQ/FT

TRACT A

TRACT A

TRACT B

POND 1
3.76 AC.

TRACT D

TRACT E

TRACT G
COMP
STORAGE
POND

CONC. WALK

TELEPHONE SERVICE

SIGN

TRAFFIC BOXES

CABLE BOX

TRAFFIC BOX

POLE

BENCHMARK #1
SET 7/8" REBAR
CAP
ELEV = 28.65

11.

2" RECLAIMED WATER METER FOR IRRIGATION

2" GATE VALVE

2" SLEEVE

2" MAINLINE

4" MAINLINE SLEEVE WITH 2" WIRE SLEEVE

IRRIGATION CONTROLLER

SOLAR-SYNC SENSOR

CAP 2" MAINLINE FOR FUTURE EXTENSION

2" MAINLINE FOR FUTURE EXTENSION

SEE SHEET 6

0' 25' 50' 100'
SCALE: 1"=50'-0"

NORTH

LONDON COVE

IRRIGATION PLAN

BORRELLI + PARTNERS
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SIGNATURE AND DATED SEAL

LANDSCAPE ARCHITECT
CHRISTOPHER D. RIGG
LA6667122
STATE OF FLORIDA

CHRISTOPHER D. RIGG LA6667122

CONSULTANTS

REV.	DESCRIPTION	DATE
9.	CIVIL BASE CHANGE	08/28/25
10.	CIVIL BASE CHANGE	10/21/25
11.	CIVIL BASE CHANGE	11/11/25
5.	LIP- SIZE TREES	12/04/23
6.	NEW TREE ORDINANCE	12/11/23
7.	PLAT REVIEW COMMENTS	09/04/24
8.	CITY COMMENTS	10/15/24

PROJECT ADDRESS

OWNER NAME AND ADDRESS

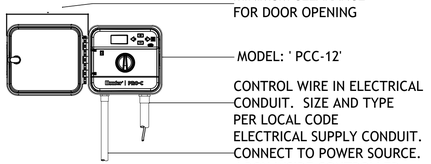
CITY OF COCOA, FLORIDA

PROJECT NO.	19-009
PHASE	CONSTRUCTION DOCUMENTS
SCALE	1"=50'-0"
FILE NAME	
DRAWN BY	CDR
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DRAWING TITLE

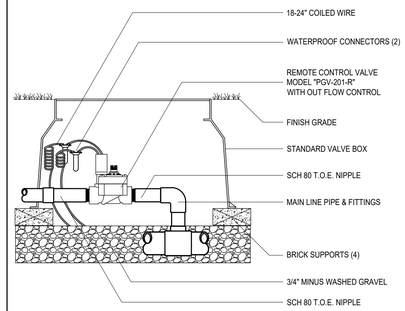
I-100

IRRIGATION DETAILS

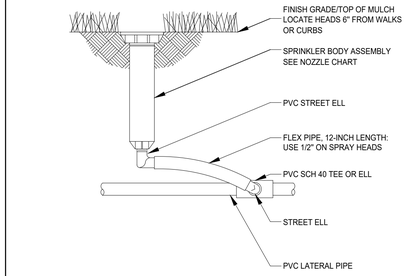


NOTE
SPECIFY 4, 7, 10, 13, 16 STATION MODEL CONTROLLER.
MOUNT CONTROLLER WITH LCD SCREEN AT EYE LEVEL.
CONTROLLER SHALL BE HARD-WIRED TO GROUNDED 110 VAC SOURCE.

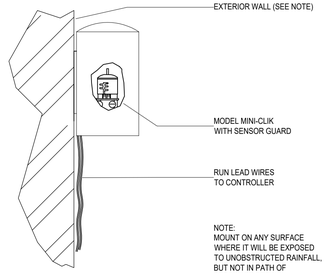
(A) PRO-C WALL MOUNT CONTROLLER



(B) PGV 151 AND 201 GLOBE VALVE

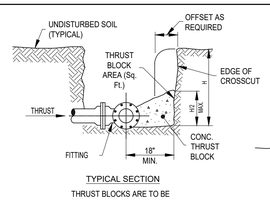


(C) 6" & 12" POP-UP HEAD DETAIL



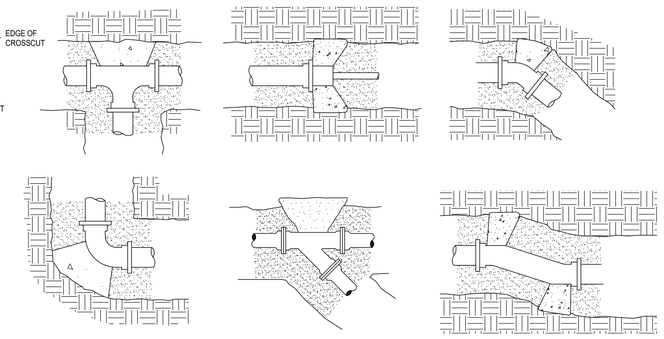
NOTE:
MOUNT ON ANY SURFACE WHERE IT WILL BE EXPOSED TO UNOBSTRUCTED RAINFALL, BUT NOT IN PATH OF SPRINKLER SPRAY.

(E) SOLAR-SYNC RAIN/WIND SENSOR WITH GAURD



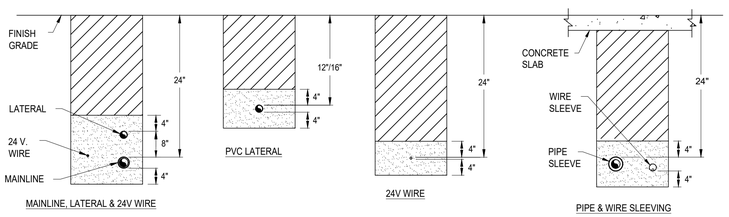
TYPICAL SECTION

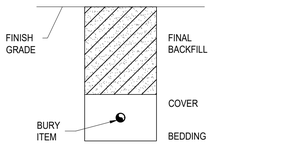
THRUST BLOCKS ARE TO BE CONSTRUCTED WITH 3,000 PSI CONCRETE AT 48 HRS. STEEL REINFORCING RODS WILL BE REQ'D IF SURROUNDING SOIL HAS A BEARING VALUE OF LESS THAN 2,000 PSF. THRUST BLOCKS REQUIRED AT ALL FITTINGS AND DIRECTION CHANGES ON MAIN LINES. NOTE THRUST BLOCK LOCATIONS ON AS-BUILT DRAWINGS.



PLAN VIEWS

(F) THRUST BLOCK DETAILS





EXCAVATED MATERIAL SHALL BE FINELY SCREENED WITH NO ROCKS LARGER THAN 1".

BEDDING AND COVER MATERIAL SHALL BE TOPSOIL WITH NO ROCKS.

NOTES:
1. BEDDING SHALL BE PLACED AND LEVELED PRIOR TO INSTALLATION OF BURY ITEM.
2. BACKFILL SHALL BE PLACED IN MAXIMUM 6" LIFTS.
3. SLEEVE ALL PIPE AND WIRE SEPARATELY. SLEEVE 2 X DIA. OF PIPE (MIN 2"). ONE PIPE PER SLEEVE. SLEEVES TO BE PRIMED AND SOLVENT WELDED.
4. ALL PIPE TO BE INSTALLED PER MANUFACTURES SPECIFICATIONS WITH PIPE LABELING FACING UP FOR INSPECTION PURPOSES. PROVIDE A MINIMUM OF 2" CLEARANCE TO SIDE OF TRENCH AND BETWEEN PIPES.
5. ALL 120 V. WIRING SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS.
6. TAPE AND BUNDLE IRRIGATION CONTROL WIRES EVERY 10'. PROVIDE LOOSE 20" LOOP AT ALL CHANGES OF DIRECTION OVER 30".
7. ALL REMOTE CONTROL VALVE WIRING NOT INSTALLED WITH MAINLINE PIPE SHALL BE INSTALLED IN A MINIMUM 2" SCHEDULE 40 GREY ELECTRICAL CONDUIT OR AS APPROVED.
8. "NON-POTABLE" WARNING TAPE TO BE INSTALLED ON ALL PRESSURIZED MAINLINES 12" ABOVE THE PIPE.
9. INSTALL ONE ADDITIONAL SLEEVE SIZED TO MATCH THE LARGEST REQUIRED SLEEVE WITH ENDS TAPED FOR FUTURE USE.
10. SLEEVES TO EXTEND A MINIMUM OF 12" PAST HARDSCAPE PLANTERS, CURBS, SIDEWALKS, ETC. SLEEVES TO BE STAGGERED/OFFSET SO THAT SLEEVE USE IS NOT OBSTRUCTED BY OTHER PIPES.
11. WHERE PRESSURE SUPPLY PIPING IS INSTALLED WITHOUT CONTROL WIRING, A 14 GA. TRACKING WIRE SHALL BE INSTALLED.

(H) TRENCHING DETAILS

11. IRRIGATION EQUIPMENT LIST

SYMBOL	DESCRIPTION	QUANTITIES
□	TREE BUBBLER - HUNTER IND. 'PCN NOZZLE ON FLEX PIPE	561
○	6" POP-UP SPRAY - HUNTER IND. 'PROS-06-PRS40' BODY W/MP 1000 NOZZLES	282
◔	HUNTER 'ICV-FS-AS-40' SERIES ELECTRIC VALVE WITH ACCU-SET PRESSURE REGULATOR 1-1/2" + 2"	7
Ⓒ	HUNTER 'PCC-12' 12 STATION WALL MOUNT CONTROLLER INSTALL WITH A SOLAR-SYNC SENSOR AND BY-PASS BOX. GROUND WITH AN 8' COPPER CLAD ROD.	1
⊕	HUNTER SOLAR-SYNC SENSOR	1
▞	2" IRRIGATION RECLAIMED WATER METER TO PROVIDE 80 GPM AT 50 PSI	1 (BY OWNER)
⋈	2" IRRIGATION GATE VALVE	1
4.	LATERAL LINE - CLASS 200 PVC - SIZE PER PLAN (ALL 1/2" PIPE TO BE SCH-40)	SEE PLAN
——	2" MAINLINE - CLASS 315 PVC	SEE PLAN
▬	SLEEVING - SCH. 40 PVC MIN. DEPTH OF 24"	SEE PLAN

SPRAY NOZZLE CHART

TYPE	SYM	NOZZLE	NOZZLE PATTERN	GPM
MP1000 8'-15' radius	A	MAROON	90° ADJUSTABLE ARC	.21
	B	MAROON	180° ADJUSTABLE ARC	.42
	C	LT. BLUE	210° ADJUSTABLE ARC	.49
	D	LT. BLUE	270° ADJUSTABLE ARC	.63
	E	OLIVE	360° ARC	.84
MP2000 13'-21' radius	F	BLACK	90° ADJUSTABLE ARC	.43
	G	BLACK	180° ADJUSTABLE ARC	.77
	H	GREEN	210° ADJUSTABLE ARC	.86
	I	GREEN	270° ADJUSTABLE ARC	1.10
	J	RED	360° ARC	1.48
MP3000 22'-30' radius	K	BLUE	90° ADJUSTABLE ARC	.86
	L	BLUE	180° ADJUSTABLE ARC	1.82
	M	YELLOW	210° ADJUSTABLE ARC	2.12
	N	YELLOW	270° ADJUSTABLE ARC	2.73
	O	GRAY	360° ARC	3.64
STRIPS & CORNERS	P	TURQOUISE	45°-105° ADJUSTABLE ARC	.45
	Q	IVORY	5'x15' LEFT STRIP	.22
	R	COPPER	5'x15' RIGHT STRIP	.22
	S	BROWN	5'x30' SIDE STRIP	.44
BUBBLERS AND MICRO-SPRAYS	T	PCN10	1.00 GPM FLOOD BUBBLER	1.00
	U	PCN50	0.50 GPM FLOOD BUBBLER	.50
	V	SR-4Q	90° 4' RADIUS	.22
	W	SR-4H	180° 4' RADIUS	.44
MP800 6'-12' radius	AA	ORANGE	90° ADJUSTABLE ARC	.23
	BB	ORANGE	180° ADJUSTABLE ARC	.42
	CC	ORANGE	210° ADJUSTABLE ARC	.43
	DD	GREEN	360° ARC	.78

IRRIGATION NOTES

1) REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREES AND SHRUBS.

2) ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18" OF COVER. ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.

3) ALL POP-UP ROTORS AND SPRAY HEADS SHALL BE INSTALLED USING AN 18" P.V.C. FLEX PIPE CONNECTION. DO NOT USE FUNNY PIPE.

4) ADJUST ALL NOZZLES TO REDUCE WATER WASTE ON HARD SURFACES AND BUILDING WALLS.

5) THROTTLE ALL VALVES ON SHRUB LINES AS REQUIRED TO PREVENT FOGGING.

6) ABSOLUTELY NO RISERS SHALL BE USED ON THIS PROJECT.

7) ALL CONTROL WIRE SPLICES SHALL BE MADE IN VALVE BOXES USING SNAP-TITE CONNECTORS AND SEALANT.

8) THE CONTRACTOR SHALL PREPARE AN AS-BUILT DRAWING ON A REPRODUCIBLE PAPER (SEPIA OR MYLAR) SHOWING ALL INSTALLED IRRIGATION. A MYLAR OR SEPIA OF THE ORIGINAL PLAN MAY BE OBTAINED FROM THE LANDSCAPE ARCHITECT FOR A FEE. THE DRAWING SHALL LOCATE ALL MAINLINE AND VALVES BY SHOWING EXACT MEASUREMENTS FROM HARD SURFACES.

9) ALL VALVES, GATE VALVES AND QUICK COUPLERS SHALL BE INSTALLED IN VALVE BOXES.

10) ANY PIPING SHOWN OUTSIDE THE PROPERTY LINE OR RUNNING OUTSIDE A LANDSCAPE AREA IS SHOWN THERE FOR CLARITY ONLY. ALL LINES SHALL BE INSTALLED ON THE PROPERTY AND INSIDE THE LANDSCAPE AREAS.

11) THE EXACT HEIGHT OF ANY 12" POP-UP THAT IS SHOWN IN A SHRUB BED SHALL BE DETERMINED BY THE LANDSCAPE ARCHITECT IN THE FIELD.

12) THE CONTRACTOR SHALL EXERCISE CARE SO AS NOT TO DAMAGE ANY EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIRS AND COST OF ANY DAMAGE CAUSED BY HIS WORK.

13) ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT AND WORKMANSHIP.

14) CONTRACTOR TO USE MIN. OF 12 GAUGE WIRE FOR ALL COMMON WIRES AND 14 GAUGE WIRE FOR ALL CONTROL WIRES. CONTRACTOR ALSO TO PROVIDE 3 SPARE CONTROL WIRES FOR ANY FUTURE USE.

15) CONCRETE THRUST BLOCKS ARE TO BE UTULIZED AT ALL MAINLINE DIRECTION CHANGES.

16) ALL IRRIGATION SHOWN ON PLANS IS SCHEMATIC AND DOES NOT REFLECT ALL FITTINGS AND APPURTENANCES WHICH SHALL BE INCLUDED TO PROVIDE A FULLY FUNCTIONAL IRRIGATION SYSTEM CAPABLE OF PROVIDING 100 PERCENT COVERAGE WITH A 50 PERCENT OVERLAP.

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIOR
AAC 0001570
210 VASSAR STREET
ORLANDO, FL 32804 (407) 418-1338

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SIGNATURE AND DATED SEAL

LICENSED LANDSCAPE ARCHITECT CHRISTOPHER D. RICE LA6667122 STATE OF FLORIDA

CHRISTOPHER D. RICE LA6667122

CONSULTANTS

LONDON COVE

DRAWING TITLE: IRRIGATION DETAILS

REV.	DESCRIPTION	DATE
9.	CIVIL BASE CHANGE	08/29/25
10.	CIVIL BASE CHANGE	10/22/25
11.	CIVIL BASE CHANGE	11/11/25
5.	UP-SIZE TREES	12/04/23
6.	NEW TREE DISCHARGE	12/11/23
7.	PLAT REVIEW COMMENTS	03/04/24
8.	CITY COMMENTS	10/15/24

PROJECT ADDRESS: CITY OF COCOA, FLORIDA

OWNER NAME AND ADDRESS

PROJECT NO.	19-009
PHASE	CONSTRUCTION DOCUMENTS
SCALE	AS NOTED
FILE NAME	19-XXX
DRAWN BY	CDR
CHECKED BY	CDR
DATE	02/01/19

I-500

S.R. 524

LOT 2
251,319 SQ/FT

LOT 1
70,158 SQ/FT

TRACT A

TRACT B

TRACT E

TRACT F

POND 1
3.76 AC.

LONDON BLVD.

8' CONC. WALK

CONC. WALK

CABLE BOX

TRAFFIC BOXES

P.P.-POLE

POLE

SIGN

TRAFFIC BOX

ROAD CURB

5' WIDE SIDEWALK

8' WALL EASEMENT

2' X 2' SQUARE BLOCK AND STUCCO COLUMN

BOUNDARY LINE

6' HIGH BLOCK AND STUCCO SCREEN WALL

20' WIDE DRAINAGE EASEMENT

45' WIDE DRAINAGE EASEMENT

8' WIDE WALL EASEMENT

0' 20' 40' 80'
SCALE: 1"=40'-0"

NORTH

BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIOR
AAC 0001170
720 VASSAR STREET
ORLANDO, FL 32804 (407) 418-1338

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SIGNATURE AND DATED SEAL

LICENSED LANDSCAPE ARCHITECT
CHRISTOPHER D. RIGG
LA6667122
STATE OF FLORIDA

CHRISTOPHER D. RIGG LA6667122

CONSULTANTS

LONDON COVE

DRAWING TITLE

HARDSCAPE WALL
LAYOUT PLAN

PROJECT ADDRESS

OWNER NAME AND ADDRESS

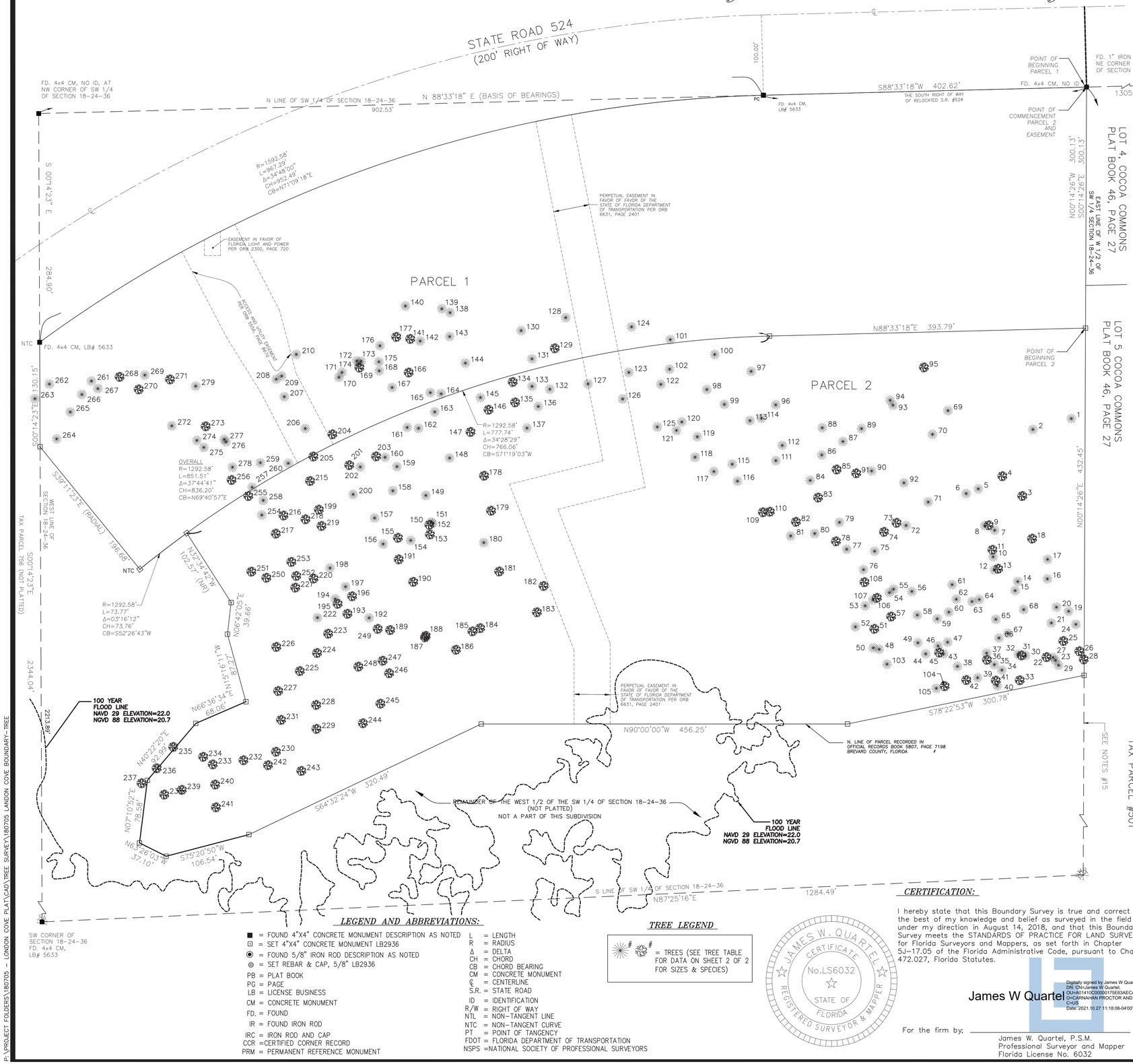
CITY OF COCOA, FLORIDA

REV.	DESCRIPTION	DATE
9.	CIVIL BASE CHANGE	08/28/25
10.	CIVIL BASE CHANGE	10/21/25
11.	CIVIL BASE CHANGE	11/11/25
5.	LUP-SIZE TREES	12/04/23
6.	NEW TREE ORDINANCE	12/11/23
7.	PLAT REVIEW COMMENTS	03/04/24
8.	CITY COMMENTS	10/15/24

PROJECT NO.	19-009
PHASE	CONSTRUCTION DOCUMENTS
SCALE	1"=40'-0"
FILE NAME	
DRAWN BY	CDR
CHECKED BY	CDR
DATE	02/01/19

H-100

Boundary & Tree Survey



LEGAL DESCRIPTION:

PARCEL 1 (LONDON COVE COMMERCIAL CENTER)

THE NORTH 300 FEET OF THE FOLLOWING DESCRIBED LAND:

THE WEST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 18 TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, LYING SOUTH OF THE SOUTH RIGHT OF WAY OF RELOCATED STATE ROAD NO. 524, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE INTERSECTION OF THE EAST LINE OF THE SAID WEST 1/2 OF THE SOUTHWEST 1/4 OF SAID SECTION 18 AND THE SOUTH RIGHT OF WAY OF SAID STATE ROAD NO. 524; THENCE S88°33'18"W, ALONG SAID SOUTH RIGHT OF WAY, A DISTANCE OF 402.62 FEET TO THE BEGINNING OF A TANGENT CIRCULAR CURVE, CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 1592.58 FEET; THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 34°48'00" AN ARC DISTANCE OF 967.29 FEET TO A POINT ON THE WEST LINE OF SAID SECTION 18; THENCE S00°14'23"E, ALONG SAID WEST LINE, A DISTANCE OF 130.15 FEET; THENCE S39°11'23"E, A DISTANCE OF 196.68 FEET, TO A POINT ON A CIRCULAR CURVE, CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 1292.58 FEET; SAID RADIUS BEARS S39°11'23"E; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 37°44'41", AN ARC DISTANCE OF 851.51 FEET; THENCE N88°33'18"E A DISTANCE OF 393.79 FEET, TO SAID EAST LINES OF SAID WEST 1/2 OF SAID SOUTHWEST 1/4 OF SAID SECTION 18; THENCE N00°14'26"W, ALONG SAID EAST LINE A DISTANCE OF 300.13 FEET TO THE POINT OF BEGINNING.

AND

PARCEL 2

A PORTION THE WEST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 18 TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, LYING SOUTH OF THE SOUTH RIGHT OF WAY OF RELOCATED STATE ROAD NO. 524, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE EAST LINE OF THE SAID WEST 1/2 OF THE SOUTHWEST 1/4 OF SAID SECTION 18 AND THE SOUTH RIGHT OF WAY OF SAID STATE ROAD NO. 524; THENCE S00°14'26"E, ALONG SAID EAST LINE A DISTANCE OF 300.13 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE S00°14'26"E, ALONG SAID EAST LINE, A DISTANCE OF 432.45 FEET; THENCE S78°22'53"W A DISTANCE OF 300.78 FEET; THENCE WEST A DISTANCE 456.25 FEET; THENCE S64°32'24"W A DISTANCE OF 320.49 FEET; THENCE S75°20'40"W A DISTANCE OF 106.54 FEET; THENCE N63°26'03"W A DISTANCE OF 37.10 FEET; THENCE N07° 10'52"E A DISTANCE OF 75.58 FEET; THENCE N40°22'20"E A DISTANCE OF 92.99 FEET; THENCE N66°36'34"E A DISTANCE OF 68.06 FEE"T; THENCE N15°16'11"W A DISTANCE OF 87.27 FEET; THENCE N06°42'05"E A DISTANCE OF 39.66 FEET; THENCE N32°34'42"W A DISTANCE OF 102.57 FEET; TO A POINT ON A CIRCULAR CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 1292.58 FEET; SAID RADIUS BEARS S35°55'11 "E; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 34°28'29", AN ARC DISTANCE OF 777.74 FEET; THENCE N88°33'18"E, TANGENT TO SAID CURVE, A DISTANCE OF 393.79 FEET TO THE POINT OF BEGINNING.

EASEMENT:

A PORTION OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 18 TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, LYING SOUTH OF THE SOUTH RIGHT OF WAY LINE OF RELOCATED STATE ROAD NO. 524, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE EAST LINE OF THE SAID WEST 1/2 OF THE SOUTHWEST 1/4 OF SAID SECTION 18 AND THE SOUTH RIGHT OF WAY OF SAID STATE ROAD NO. 524; THENCE S 88°33'18" W, ALONG THE NORTH LINE OF SAID SOUTHWEST 1/4 AND SAID SOUTH RIGHT OF WAY LINE, A DISTANCE OF 402.62 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 1592.58 FEET, A CHORD BEARING OF S 84°12'34" W, AND A CHORD LENGTH OF 241.35 FEET; THENCE CONTINUE ALONG SAID SOUTH RIGHT OF WAY LINE AND ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 08°41'28" FOR AN ARC LENGTH OF 241.58 FEET TO THE POINT OF BEGINNING; THENCE LEAVING SAID SOUTH RIGHT OF WAY LINE S 11° 12' 35" E A DISTANCE OF 473.53 FEET; THENCE S 75° 53' 20" W A DISTANCE OF 111.91 FEET; THENCE S 21° 16' 51" E A DISTANCE OF 166.14 FEET; THENCE S 00° 12' 11" W A DISTANCE OF 112.05 FEET TO THE NORTH LINE OF THE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 5807, PAGE 7198 BREVARD COUNTY, FLORIDA; THENCE N 90° 00' 00" W ALONG SAID NORTH BOUNDARY LINE A DISTANCE OF 45.00 FEET; THENCE LEAVING SAID NORTH BOUNDARY LINE N 00° 12' 11" E A DISTANCE OF 103.67 FEET; THENCE N 21° 16' 51" W A DISTANCE OF 208.60 FEET; THENCE N 75° 53' 20" E A DISTANCE OF 120.15 FEET; THENCE N 11° 12' 35" W A DISTANCE OF 430.98 FEET TO SAID SOUTH RIGHT OF WAY LINE AND TO A POINT ON A NON-TANGENT CURVE CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 1592.58 FEET, A CHORD BEARING OF N 79° 03' 15" E AND A CHORD LENGTH OF 45.00 FEET; THENCE ALONG SAID RIGHT-OF-WAY AND THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 01° 37' 08", FOR AN ARC LENGTH OF 45.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 0.892 ACRES MORE OR LESS.

SURVEYOR'S REPORT

1. Easements or rights of way that appear on this survey have been incorporated into this drawing by a search of the Public Records.
2. This survey meet STANDARDS OF PRACTICE FOR LAND SURVEYING Chapter 5J-17.050-.052 requirements.
3. All bearings and distances shown hereon are referenced to the East Zone of Florida State Plane Coordinate System, NAD 83 (1990) adjustment.
4. This survey is not valid without the signature and original raised seal of a Florida Licensed Surveyor and Mapper.
5. The land description shown hereon was prepared by Carnahan Proctor and Cross Inc.
6. Features shown by symbol as indicated in the legend are not to scale.
7. There are no encroachments from this property onto adjoiners, or from adjoiners onto this property, except as shown.
8. Bearings shown in this Survey are based on the south right of way line of State Road No. 524 and is also the North line of the SW 1/4 of Section 18-24-36, as shown on FDOT Map Section #70007-2501. bearing of said line N 88°33'18"E.
9. According to the Federal Emergency Management Agency Flood Insurance Rate Map number 12009C0320H, dated 01-29-2021, the described property in this survey is within Zone "X"and "AE", having the base flood elevation of 20.7 feet NAVD88.
10. The 100 year flood line shown hereon is based upon the Grading Plan prepared by Dave Schmitt Engineering, Inc, Project Number DB-3, dated August 2018.
11. Adjacent property information shown in this surveyor was obtained by searching at Brevard County appraiser's site.
12. The total area of the subject property is 20.684 acres, more or less.
13. Right of Way information shown in this Survey was determined by found monumentation and information obtained on the Brevard County Property Appraisers web site.
14. The right of way information for State Road No. 524 was obtained from Florida Department of Transportation Right of Way Map, Section 70007-2501.
15. The east line of the subject property is adjacent and contiguous with the west line of the plat of Cocoa Commons as recorded in Plat Book 46, Page 27 of the Public Records of Brevard county, without any gaps or gores.
16. This Survey was performed with the benefit of Property Information Report for the Filing of a Subdivision Plat ("Report") by First America Title Insurance Company Commitment No. 2037-4130255 effective date: May 6, 2019 at 8:00 a.m. We offer the following comments in regards to said Report:
    E. Underlying rights of way, easements or plats affecting said property are as follows:
    1. Easement granted to Florida Power and Light Company by instrument recorded May 18, 1981 in Official Records Book 2300, Page 720 affects subject property as shown hereon.
    2. Access and Utility Easement granted to London Cove Homeowners Association, Inc., a Florida not-for-profit corporation by London Cove Property Owners Association., a Florida not-for-profit corporation recorded October 28, 2005 in Official Records Book 5556, Page 8670 is appurtenant to and affects subject property as shown hereon.
    3. Terms and conditions of the Cross Access Easement Agreement between SR 524 Cocoa II, LLC, a Florida Limited Liability Company; Poplar Associates, LLC, a North Carolina limited liability company and S.J. Holding, LLC, a Florida limited liability company recorded February 8, 2006 in Official Records Book 5602, Page 268 affects Parcel 1 of subject property but is blanket.
    4. Perpetual Easement in favor of the State of Florida Department of Transportation recorded June 28, 2012 in Official Records Book 6631, Page 2401 affects subject property as shown hereon.
    F. Other information regarding said property includes:
    1.Notice of Preliminary Development Plan Approval – London Cove, by the City of Cocoa, Florida recorded August 14, 2009 in Official Records Book 6009, Page 955 affects subject property but is blanket in nature and cannot be graphically depicted.
17. Tree count, locations, and species were provided by Client. Carnahan, Proctor, and Cross (CPC), assumes no responsibility of the accuracy regarding the Tree count, locations, or species, and did not verify tree data provided.

CERTIFICATION:

I hereby state that this Boundary Survey is true and correct to the best of my knowledge and belief as surveyed in the field under my direction in August 14, 2018, and that this Boundary Survey meets the STANDARDS OF PRACTICE FOR LAND SURVEYING for Florida Surveyors and Mappers, as set forth in Chapter 5J-17.05 of the Florida Administrative Code, pursuant to Chapter 472.027, Florida Statutes.

James W Quartel

Digitally signed by James W Quartel
DN: CN=James W Quartel, OU=A01410C000001758EA6EC4000006168, O=CARNAHAN PROCTOR AND CROSS INC., C=US
Date: 2021.10.27 11:18:08-04'00'

For the firm by;

James W. Quartel, P.S.M.
Professional Surveyor and Mapper
Florida License No. 6032

JAMES W. QUARTEL CERTIFICATE No.LS6032 STATE OF FLORIDA REGISTERED SURVEYOR & MAPPER

LEGEND AND ABBREVIATIONS:

- ■ = FOUND 4"X4" CONCRETE MONUMENT DESCRIPTION AS NOTED
- ⊡ = SET 4"X4" CONCRETE MONUMENT LB2936
- ◉ = FOUND 5/8" IRON ROD DESCRIPTION AS NOTED
- ◎ = SET REBAR & CAP, 5/8" LB2936
- PB = PLAT BOOK
- PG = PAGE
- LB = LICENSE BUSINESS
- CM = CONCRETE MONUMENT
- FD. = FOUND
- IR = FOUND IRON ROD
- IRC = IRON ROD AND CAP
- CCR =CERTIFIED CORNER RECORD
- PRM = PERMANENT REFERENCE MONUMENT
- L = LENGTH
- R = RADIUS
- Δ = DELTA
- CH = CHORD
- CB = CHORD BEARING
- CM = CONCRETE MONUMENT
- ℄ = CENTERLINE
- S.R. = STATE ROAD
- ID = IDENTIFICATION
- R/W = RIGHT OF WAY
- NTL = NON-TANGENT LINE
- NTC = NON-TANGENT CURVE
- PT = POINT OF TANGENCY
- FDOT = FLORIDA DEPARTMENT OF TRANSPORTATION
- NSPS =NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS

TREE LEGEND

= TREES (SEE TREE TABLE FOR DATA ON SHEET 2 OF 2 FOR SIZES & SPECIES)

CARNAHAN PROCTOR & CROSS

604 COURTLAND STREET SUITE 101
PHONE : (407) 960-5980
ORLANDO, FLORIDA 32804
CERTIFICATE OF AUTHORIZATION # 2936

LAND DEVELOPMENT
SURVEYING
CONSTRUCTION ENGINEERING INSPECTION

1" = 60'
0 30 60 120
GRAPHIC SCALE

No.	Revision	Date	Appvd.
6	ADD TREES & CHART	10-26-21	
5	REVISED NOTE 15	7-24-2019	J.D.S
4	UPDATED TITLE WORK	5-20-2019	J.D.S
3	ADD 100 YEAR FLOOD LINE	4-17-2019	J.D.S
2	UPDATED TITLE WORK	11-20-2018	J.D.S
1	LEGAL DESCRIPTION UPDATED	9-11-2018	J.D.F

Designed by	LS	Checked by	J.W.Q
CAD checked by	J.D.F	Approved by	J.D.F
Scale	AS SHOWN	Date	8/20/2018

LONDON COVE TOWNHOMES

Project Title

Brevard County

Issued for

Boundary & Tree Survey

Drawing Title

Sheet 1 of 2
Drawing Number

180705
Project Number

P:\PROJECT FOLDERS\180705 - LONDON COVE PLAT\CAD\TREE SURVEY\180705 LONDON COVE BOUNDARY-TREE

1	Slash Pine	20
2	Sand Pine	9
3	Sand Live Oak	11
4	Sand Live Oak	4
5	Sand Pine	8
6	Slash Pine	21
7	Sand Pine	6
8	Sand Pine	6
9	Sand Live Oak	4
10	Sand Pine	6
11	Sand Live Oak	4
12	Sand Pine	6, 8
13	Sand Live Oak	5, 5
14	Sand Pine	5, 6
15	Slash Pine	6
16	Sand Pine	4, 6, 7, 7, 8, 8
17	Sand Pine	5, 9
18	Sand Live Oak	6, 7, 9
19	Slash Pine	5, 6, 12
20	Slash Pine	6, 8
21	Pond Pine	5, 5, 7, 11
22	Loblolly Bay	10, 11, 12
23	Slash Pine	11, 12
24	Slash Pine	6, 10, 11, 11
25	Loblolly Bay	4, 5,11
26	Loblolly Bay	5, 7, 10
27	Slash Pine	9, 9
28	Loblolly Bay	9
29	Slash Pine	4, 4, 5
30	Slash Pine	6, 13
31	Loblolly Bay	4, 11
32	Slash Pine	4, 4
33	Loblolly Bay	4, 4, 11
34	Slash Pine	4, 5, 6, 7
35	Pond Pine	8
36	Loblolly Bay	5
37	Slash Pine	11
38	Slash Pine	6, 7, 8, 11
39	Slash Pine	7, 10
40	Slash Pine	5, 5, 5
41	Loblolly Bay	9
42	Loblolly Bay	4, 4, 6
43	Slash Pine	5, 6, 6, 6
44	Slash Pine	5, 7, 9
45	Loblolly Bay	5
46	Slash Pine	6, 9, 11
47	Slash Pine	5, 8, 9
48	Slash Pine	4, 4, 12
49	Slash Pine	4, 5, 9, 9[
50	Slash Pine	8, 9, 13
51	Loblolly Bay	7, 9, 13
52	Slash Pine	9, 9, 10
53	Pond Pine	6, 10
54	Pond Pine	5, 7
55	Sand Pine	9
56	Slash Pine	19
57	Loblolly Bay	4, 4, 5
58	Pond Pine	6
59	Slash Pine	8
60	Pond Pine	8
61	Sand Pine	4, 5, 5, 5
62	Slash Pine	11
63	Sand Pine	4
64	Slash Pine	15
65	Slash Pine	19
66	Slash Pine	4, 4, 18
67	Slash Pine	4, 5, 6
68	Slash Pine	5, 5, 6, 6
69	Sand Pine	6
70	Sand Pine	5, 6
71	Sand Pine	5, 8
72	Sand Pine	4
73	Sand Live Oak	4, 4, 4
74	Sand Live Oak	8
75	Pond Pine	12
76	Slash Pine	4, 5, 5, 6, 6, 8, 9, 12
77	Slash Pine	4, 6, 7, 7, 7, 9
78	Southern Magnolia	8
79	Slash Pine	8
80	Slash Pine	11
81	Pond Pine	14
82	Loblolly Bay	4, 5
83	Sand Live Oak	5
84	Sand Pine	5
85	Sand Live Oak	4
86	Sand Pine	5
87	Sand Pine	5, 7
88	Sand Pine	6, 8
89	Sand Pine	14
90	Sand Pine	9, 10
91	Sand Live Oak	4, 5, 6
92	Sand Pine	4, 5
93	Sand Pine	12, 13
94	Slash Pine	18
95	Sand Live Oak	4, 4, 4, 4
96	Slash Pine	7, 11
97	Slash Pine	10, 12
98	Slash Pine	10, 11, 12, 14
99	Slash Pine	10
100	Slash Pine	4, 5, 6, 7
101	Slash Pine	7, 8
102	Slash Pine	8, 12
103	Pond Pine	5, 7, 8, 9
104	Loblolly Bay	6, 6
105	Pond Pine	5, 10
106	Loblolly Bay	4
107	Pond Pine	4, 5, 6, 8
108	Loblolly Bay	7
109	Loblolly Bay	5
110	Loblolly Bay	5, 5, 5, 12
111	Slash Pine	11, 12, 12
112	Sand Pine	5
113	Slash Pine	4, 5, 6, 7, 7
114	Sand Pine	5
115	Slash Pine	4, 5, 6, 17
116	Slash Pine	4, 4, 7, 8, 9, 9
117	Slash Pine	5, 8, 11, 12
118	Slash Pine	7, 8, 10, 12, 13
119	Slash Pine	4, 7, 11
120	Slash Pine	4, 5, 7, 8, 10
121	Slash Pine	7, 7, 7, 8
122	Slash Pine	6, 6, 7, 14
123	Slash Pine	7, 12
124	Slash Pine	6, 8
125	Slash Pine	7, 8, 8, 8
126	Slash Pine	7, 8, 10
127	Slash Pine	10, 17
128	Slash Pine	8
129	Red Maple	15
130	Slash Pine	6, 12
131	Slash Pine	4, 5, 6, 11, 13
132	Slash Pine	5, 6, 7, 8, 8
133	Slash Pine	6, 7, 12, 14
134	Sand Live Oak	4, 4, 4, 4
135	Sand Live Oak	4, 4, 4, 4
136	Slash Pine	5, 6, 7, 9
137	Slash Pine	5, 7, 8, 13, 13
138	Sand Pine	5, 7, 9
139	Sand Pine	4, 10, 12
140	Sand Pine	4, 4, 4, 4, 6, 6, 7
141	Sand Live Oak	4
142	Sand Pine	4, 6, 7
143	Sand Pine	4, 9
144	Sand Pine	9, 9, 11
145	Sand Pine	11
146	Sand Live Oak	4, 4, 4, 4
147	Sand Live Oak	4, 4
148	Sand Pine	6, 17
149	Sand Pine	9
150	Slash Pine	5, 7, 8
151	Slash Pine	4, 5, 7
152	Loblolly Bay	4, 5
153	Loblolly Bay	4, 4, 4, 5, 5, 5, 6, 7
154	Slash Pine	4, 5, 5, 6, 8
155	Loblolly Bay	6, 9, 10
156	Pond Pine	4, 5, 7, 8, 9
157	Pond Pine	14
158	Slash Pine	4, 5, 5, 5, 6, 6, 6, 7
159	Slash Pine	5, 8, 8, 10
160	Slash Pine	6, 7, 7, 8
161	Sand Pine	5
162	Slash Pine	5, 5, 6, 7, 9
163	Slash Pine	12
164	Slash Pine	4, 5, 5, 5
165	Slash Pine	4, 6, 6, 7, 8
166	Loblolly Bay	5, 7, 9, 12
167	Pond Pine	9, 10, 12
168	Slash Pine	8, 12
169	Loblolly Bay	6, 7, 7
170	Pond Pine	5, 7, 12, 13
171	Sand Pine	5
172	Slash Pine	12, 14
173	Slash Pine	4, 11, 12
174	Sand Pine	5
175	Sand Pine	6, 7, 10
176	Sand Pine	7, 12, 14
177	Sand Live Oak	5
178	Sand Live Oak	4, 4, 4, 4, 5
179	Sand Live Oak	4, 4, 4, 4, 4, 4, 5, 6
180	Slash Pine	13
181	Sand Live Oak	4, 4, 4, 4, 4, 5
182	Loblolly Bay	8, 8
183	Loblolly Bay	5, 5, 6, 7, 7
184	Laurel Oak	11
185	Loblolly Bay	5, 6, 7
186	Loblolly Bay	4, 6, 6, 11
187	Loblolly Bay	5, 5, 7, 9
188	Loblolly Bay	4, 5, 5, 5
189	Loblolly Bay	4, 5, 6
190	Loblolly Bay	4, 5, 5, 7, 7, 11, 12
191	Loblolly Bay	4, 5, 5, 7
192	Slash Pine	24
193	Live Oak	8
194	Pond Pine	9, 13
195	Loblolly Bay	8
196	Laurel Oak	8
197	Slash Pine	14
198	Slash Pine	12, 12
199	Live Oak	6
200	Sand Pine	6
201	Loblolly Bay	5
202	Slash Pine	6
203	Loblolly Bay	6
204	Live Oak	4, 4, 4
205	Live Oak	4, 5
206	Sand Pine	5, 13
207	Sand Pine	4, 4, 4, 6, 7, 11, 12
208	Sand Pine	7, 12, 13
209	Sand Pine	8, 9, 9
210	Sand Pine	5, 6, 8
211	Sand Pine	21
212	Pond Pine	13
213	Loblolly Bay	4, 4, 4
214	Live Oak	7
215	Sand Live Oak	4, 4, 4
216	Loblolly Bay	4, 5, 7, 7, 8, 8
217	Loblolly Bay	4, 4, 5
218	Loblolly Bay	5
219	Loblolly Bay	4, 9
220	Loblolly Bay	4, 5, 5, 8, 8
221	Loblolly Bay	4, 4, 4, 5, 8, 20
222	Pond Pine	13
223	Loblolly Bay	4, 8, 18
224	Sand Live Oak	4, 5, 5, 6, 6
225	Sand Live Oak	4, 5, 5, 5
226	Sand Live Oak	4, 5, 5, 5, 7, 13
227	Sand Live Oak	5, 6, 8, 9
228	Sand Live Oak	5, 6, 7, 8
229	Loblolly Bay	6, 8, 12, 12, 25
230	Sand Live Oak	8, 8
231	Loblolly Bay	13, 13, 21
232	Sand Live Oak	7
233	Laurel Oak	8
234	Live Oak	10, 35
235	Live Oak	4, 13, 14, 18
236	Live Oak	6, 11
237	Live Oak	7, 9
238	Live Oak	5, 6, 8
239	Sand Live Oak	4, 5, 5, 5, 7
240	Laurel Oak	15, 17, 18
241	Loblolly Bay	6, 6, 6
242	Loblolly Bay	4, 4, 4
243	Loblolly Bay	4, 5, 5, 7
244	Loblolly Bay	4, 5, 5, 7
245	Loblolly Bay	4, 5, 6
246	Loblolly Bay	4, 4, 4, 4
247	Loblolly Bay	5, 6, 7
248	Loblolly Bay	5, 5
249	Loblolly Bay	5, 7, 10
250	Loblolly Bay	4, 4, 6, 7, 8
251	Laurel Oak	6, 6, 8
252	Loblolly Bay	4, 4, 6
253	Laurel Oak	7, 10, 10, 11
254	Slash Pine	5, 8, 8, 8, 9, 13
255	Sand Live Oak	4, 4, 4, 4, 5
256	Sand Live Oak	4, 4, 4, 5, 6
257	Slash Pine	6, 7, 9
258	Slash Pine	4, 7, 10, 12
259	Slash Pine	5, 7, 8, 9, 11
260	Slash Pine	12, 14
261	Slash Pine	5, 7, 18, 22
262	Slash Pine	10, 11, 11, 12
263	Slash Pine	12
264	Slash Pine	6, 6, 7
265	Slash Pine	7
266	Slash Pine	6, 6, 7, 7, 8
267	Sand Pine	4, 4
268	Sand Live Oak	5, 6
269	Sand Pine	4, 4
270	Sand Live Oak	5
271	Sand Live Oak	6
272	Slash Pine	10,11
273	Sand Live Oak	4, 4, 4
274	Slash Pine	6, 7
275	Slash Pine	13
276	Sand Pine	4
277	Sand Pine	4, 4, 4
278	Slash Pine	7, 11
279	Sand Pine	7

CARNAHAN PROCTOR & CROSS

604 COURTLAND STREET SUITE 101
PHONE : (407) 960-5980
ORLANDO, FLORIDA 32804
CERTIFICATE OF AUTHORIZATION # 2936

LAND DEVELOPMENT
SURVEYING
CONSTRUCTION ENGINEERING INSPECTION

No.	Revision	Date	Appvd.
6	ADD TREES & CHART	10-26-21	
5	REVISED NOTE 15	7-24-2019	J.D.S
4	UPDATED TITLE WORK	5-20-2019	J.D.S
3	ADD 100 YEAR FLOOD LINE	4-17-2019	J.D.S
2	UPDATED TITLE WORK	11-20-2018	J.D.S
1	LEGAL DESCRIPTION UPDATED	9-11-2018	J.D.F

Designed by	Drawn by LS	Checked by	J.W.Q
CAD checked by J.D.F		Approved by	J.D.F
Scale AS SHOWN		Date	8/20/2018

LONDON COVE TOWNHOMES

Project Title

Brevard County

Issued for

Boundary & Tree Survey

Drawing Title

Sheet 2 of 2
Drawing Number

180705
Project Number

P:\PROJECT FOLDERS\180705 - LONDON COVE PLAT\CAD\TREE SURVEY\180705 LANDON COVE BOUNDARY-TREE

Bio-Tech Consulting Inc.
Environmental and Permitting Services

info@bio-techconsulting.com
www.bio-techconsulting.com

November 1, 2021

Dave Schmitt
Dave Schmitt Engineering, Inc.
12301 Lake Underhill Road
Suite 241
Orlando, FL 32789

Proj: London Cove Site – Brevard County, Florida
Sections 13 & 18, Township 24 South, Ranges 35 & 36 East
(BTC File #451-09)
Re: Environmental Assessment Report

Dear Mr. Schmitt,

During October of 2021, Bio-Tech Consulting, Inc. (BTC) conducted an updated environmental assessment of the approximately 20.5-acre London Cove Site. This property is located on the south side of State Road. 524, within Sections 13 and 18; Township 24 South; Ranges 35 and 36 East; in Brevard County, Florida (Figures 1, 2 & 3). This environmental assessment included the following elements:

- Review of soil types mapped within the site boundaries;
- Evaluation of land use types/vegetative communities present;
- Field review for occurrence of protected flora and fauna; and,
- A review of environmental constraints.

SOILS

According to the Soil Survey of Brevard County, Florida, prepared by the U.S. Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS), five (5) soil types exist within the subject parcel (Figure 4). These soil types include the following:

Orlando: Main Office
3025 East South Street
Orlando, FL 32803

Vero Beach Office
4445 N A1A
Suite 221
Vero Beach, FL 32963

Jacksonville Office
1157 Beach Boulevard
Jacksonville Beach, FL 32250

Tampa Office
6011 Benjamin Road
Suite 101 B
Tampa, FL 33634

Key West Office
1107 Key Plaza
Suite 259
Key West, FL 33040

Aquatic & Land
Management Operations
3825 Rouse Road
Orlando, FL 32817

407.894.5969
877.894.5969
407.894.5970 fax

- **Immokalee sand, 0 to 2 percent slopes (#28)**
- **Paola fine sand, 0 to 5 percent slopes (#43)**
- **St. Johns soils, depressional (#55)**
- **St. Lucie fine sand, 0 to 5 percent slopes (#56)**
- **Terra Ceia muck, frequently flooded (#64)**

The following presents a brief description of each of the soil types mapped for the subject parcel:

Immokalee sand, 0 to 2 percent slopes (#28) is a nearly level, poorly drained sandy soil on broad areas on the flatwoods, on low ridges between sloughs, and in low narrow areas between sand ridges and lakes and ponds. The surface layer of this soil type consists of very dark gray and dark gray sand about 11 inches thick. During most years, the water table for this soil type is within a depth of 10 inches of the surface for 1 to 2 months and between 10 and 40 inches of the surface for more than half the time and during short, dry periods below 40 inches. The permeability of this soil type is moderate to moderately rapid in the weakly cemented layers and rapid in all other layers.

Paola fine sand, 0 to 5 percent slopes (#43) is a nearly level to strongly sloping, excessively drained soils on the tops and sides of ridges. The surface layer is dark gray fine sand about 5 inches thick. Permeability is very rapid, and the available water capacity is very low.

St. Johns soils, depressional (#55) is a nearly level, poorly drained sandy soil on broad low ridges on the flatwoods. The surface layer of this soil type consists of black sand about 11 inches thick. During most years, the water table for this soil type is within a depth of 10 inches of the surface for 2 to 6 months and between 10 and 40 inches of the surface for the rest of the time. The permeability of this soil type is moderate in the weakly cemented layers and rapid in all other layers.

St. Lucie fine sand, 0 to 5 percent slopes (#56) is nearly level to strongly sloping, excessively drained sandy soil on high, dunelike ridges and isolated knolls. The surface layer is gray fine sand about 3 inches thick. Below this, to a depth of 120 inches, is white fine sand. Permeability is very rapid throughout. The available water capacity is very low in all layers.

Terra Ceia muck, frequently flooded (#64) is a nearly level, very poorly drained, well-decomposed organic soil in broad flat marshes and small depressions. The water table is within a depth of 10 inches for 9 to 12 months in most years, and water stands on the surface for more than 6 months. The profile of the soil is black muck a depth of 54 inches. Below this to a depth of about 70 inches is very dark brown muck. These layers contain small amount of decomposed plant fibers. Permeability is rapid and available water capacity is very high throughout the profile. Organic-matter content is very high, and natural fertility is high.

The Florida Association of Environmental Soil Scientists (FAESS) considers the main component of the St. Johns soils, depressional (#55) and Terra Ceia muck, frequently flooded (#64) soil types to be hydric. The Association also considers inclusions present within the Immokalee sand, 0 to 2 percent slopes (#28) soil type to be hydric. This information can be found in the Hydric Soils of Florida Handbook, Third Edition, March 2000.

LAND USE TYPES/VEGETATIVE COMMUNITIES

The London Cove Site currently supports four (4) land use types/vegetative communities. These land use types/vegetative communities were identified utilizing the Florida Land Use, Cover and Forms Classification System, Level III (FLUCFCS, FDOT, January 2004) (Figure 5). The on-site upland land use types/vegetative communities are classified as Open Lands (190) and Sand Pine (413). The on-site wetland/surface water land use types/vegetative communities are classified as Streams and Waterways (510) and Wetland Forested Mixed (630). The following provides a brief description of the on-site land use types/vegetative communities:

Uplands:

190 – Open Lands

The subject site's road frontage is most consistent with the Open Lands (190) FLUCFCS classification. The vegetative species identified within this community includes nutsedge (*Cyperus esculentus*), crow's footgrass (*Eleusine indica*), bermudagrass (*Cynodon dactylon*), field sandspur (*Cenchrus incertus*), common ragweed (*Ambrosia artemisiifolia*), dogfennel (*Eupatorium capillifolium*), sensitive pea (*Chamaecrista nictitans*), guineagrass (*Panicum maximum*), broomsedge (*Andropogon virginicus*), hairy indigo (*Indigofera hirsuta*), shiny blueberry (*Vaccinium myrsinites*), caesarweed (*Urena lobata*), chickweed (*Stellaria media*), blackroot (*Pterocaulon pycnostachyum*), Virginia creeper (*Parthenocissus quinquefolia*), and muscadine grapevine (*Vitis rotundifolia*).

413 – Sand Pine

The native upland habitat within the site is most consistent with the Sand Pine (413) FLUCFCS classification. A portion of this community indicates a recent wildfire within the eastern half of the site. The vegetative species identified within this community includes sand pine (*Pinus clausa*), slash pine (*Pinus elliottii*), sand live oak (*Quercus geminata*), Chapman's oak (*Quercus chapmanii*), myrtle oak (*Quercus myrtifolia*), live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), gallberry (*Ilex glabra*), winged sumac (*Rhus copallinum*), saw palmetto (*Serenoa repens*), fetterbush (*Lyonia lucida*), tarflower (*Bejaria racemosa*), shiny blueberry (*Vaccinium myrsinites*), slender goldentop (*Solidago microcephala*), bracken fern (*Pteridium aquilinum* var. *pseudocaudatum*), gopher apple (*Licania michauxii*), pricklypear cactus (*Opuntia humifusa*), wiregrass (*Aristida stricta*), beggarticks (*Bidens alba*), Virginia pepperweed (*Lepidium virginicum*), skunkvine (*Paederia foetida*), Virginia creeper (*Parthenocissus quinquefolia*), greenbriar (*Smilax* spp.), blackberry (*Rubus cuneifolius*), and muscadine grapevine (*Vitis rotundifolia*).

<u>Wetlands/Surface Waters</u>:

510 – Streams and Waterways

An excavated ditch extends from the forested wetland north to the roadside swale. This ditch is most consistent with the Streams and Waterways (510) FLUCFCS classification. Vegetative species present within the waterways include Peruvian primrose willow (*Ludwigia peruviana*), hairy smartweed (*Polygonum hirsutum*), marsh pennywort (*Hydrocotyle verticillata*), soft rush (*Juncus effusus*), wild taro (*Colocasia esculenta*), torpedograss (*Panicum repens*), blue maidencane (*Amphicarpum muehlenbergianum*), and water spangles (*Salvinia minima*).

630 – Wetland Forested Mixed

The on-site wetland is most consistent with the Wetland Forested Mixed (630) FLUCFCS classification. This large forested system extends off-site to the south and west. Vegetation observed includes red maple (*Acer rubrum*), wax myrtle (*Myrica cerifera*), pond pine (*Pinus serotina*), sweetbay (*Magnolia virginiana*), loblolly bay (*Gordonia lasianthus*), cabbage palm (*Sabal palmetto*), Chinese tallowtree (*Triadica sebifera*), wild taro (*Colocasia esculenta*), sawgrass (*Cladium jamaicense*), soft rush (*Juncus effusus*), nutsedge (*Cyperus esculentus*), lizard's tail (*Saururus cernuus*), savanna iris (*Iris savannarum*), coinwort (*Centella asiatica*), marsh pennywort (*Hydrocotyle umbellata*), royal fern (*Osmunda regalis*), netted chain fern (*Woodwardia areolata)*, Virginia chain fern (*Woodwardia virginica*), Brazilian pepper (*Schinus terebinthifolia*), Peruvian primrosewillow (*Ludwigia peruviana*), Virginia creeper (*Parthenocissus*

quinquefolia), greenbriar (*Smilax* spp.), blackberry (*Rubus cuneifolius*), and muscadine grapevine (*Vitis rotundifolia*).

PROTECTED SPECIES

Using methodologies outlined in the Florida's Fragile Wildlife (Wood, 2001); Measuring and Monitoring Biological Diversity Standard Methods for Mammals (Wilson, et al., 1996); and Florida Fish and Wildlife Conservation Commission's (FFWCC) Gopher Tortoise Permitting Guidelines (April 2008 - revised January 2017); an assessment for "listed" floral and faunal species was conducted at the parcel in October 2021. This assessment included both direct observations and indirect evidence, such as tracks, burrows, tree markings and birdcalls that indicated the presence of species observed. The assessment focused on species that are "listed" by the FFWCC's Official Lists - Florida's Endangered Species, Threatened Species and Species of Special Concern (May 2017) that have the potential to occur in Brevard County (Table 1).

Reptiles and Amphibians
brown anole (*Norops sagrei*)
Cuban tree frog (*Osteopilus septentrionalis*)
eastern racer (*Coluber constrictor*)
gopher tortoise (*Gopherus polyphemus*)
pig frog (*Lithobates grylio*)
southern leopard frog (*Rana utricularia*)

Birds
American Crow (*Corvus caurinus*)
Black Vulture (*Coragyps atratus*)
Red-shouldered Hawk (*Buteo lineatus*)

Mammals
marsh rabbit (*Sylvilagus palustris*)
nine-banded armadillo (*Dasypus novemcinctus*)
northern raccoon (*Procyon lotor*)
Virginia opossum (*Didelphis virginiana*)
white-tailed deer (*Odocoileus virginianus*)

One (1) of the above wildlife species, the gopher tortoise (*Gopherus polyphemus*), is identified in the FFWCC's Official Lists - Florida's Endangered Species, Threatened Species and Species of Special Concern (May 2017). The following provides brief description of wildlife species as they relate to the development of the site.

Gopher Tortoise (Gopherus polyphemus)
State Listed as "Threatened" by FFWCC

Gopher tortoises *(Gopherus polyphemus)* have been identified within the on-site upland community, predominately within the Sand Pine community. Currently the gopher tortoise *(Gopherus polyphemus)* is classified as a "Category 2 Candidate Species" by USFWS, and as of September 2007, is now classified as "Threatened" by FFWCC, and as "Threatened" by FCREPA. The basis of the "Threatened" classification by the FFWCC for the gopher tortoise is due to habitat loss and destruction of burrows.

Gopher tortoises are commonly found in areas with well-drained soils associated with xeric pine-oak hammock, scrub, pine flatwoods, pastures and abandoned citrus groves. Several other protected species known to occur in Orange County have a possibility of occurring in this area, as they are gopher tortoise commensal species. These species include the eastern indigo snake *(Drymarchon corais couperi)*, Florida mouse *(Podomys floridanus)*, and the gopher frog *(Rana capito)*. However, none of these species were observed during the cursory survey conducted.

The FFWCC provides three (3) options for developers that have gopher tortoises on their property. These options include: 1) avoidance (i.e., 25-foot buffer around burrow), 2) preservation of habitat, and 3) off-site relocation. As such, resolution of the gopher tortoise issue will need to be permitted through FFWCC prior to any construction activities.

Bald Eagle (Haliaeetus leucocephalus)
State protected by F.A.C. 68A-16.002 and federally protected by both the Migratory Bird Treaty Act (1918) and the Bald and Golden Eagle Protection Act (1940)

In August of 2007, the US Fish and Wildlife Service (USFWS) removed the Bald Eagle from the list of federally endangered and threatened species. Additionally, the Bald Eagle was removed from FFWCC's imperiled species list in April of 2008. Although the Bald Eagle is no longer protected under the Endangered Species Act, it is still protected under the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and FFWCC's Bald Eagle rule (Florida Administrative Code 68A-16.002 Bald Eagle (*Haliaeetus Leuchocephalus*).

In May of 2007, the USFWS issued the National Bald Eagle Management Guidelines. In April of 2008, the FFWCC adopted a new Bald Eagle Management Plan that was written to closely follow the federal guidelines. In November of 2017, the FFWCC issued "A Species Action Plan for the Bald Eagle" in response to the sunset of the 2008 Bald Eagle Management Plan. Under the USFWS's management plans, buffer zones are recommended based on the nature and magnitude of the project or activity. The recommended protective buffer zone is 660 feet or less from the nest tree, depending on what activities or structures are already near the nest. As provided within the

above referenced Species Action Plan, the USFWS is the regulating body responsible for issuing permits for Bald Eagles. In 2017, the need to obtain a State permit (FFWCC) for the take of Bald Eagles or their nests in Florida was eliminated following revisions to Rule 68A-16.002, F.A.C.. A USFWS Bald Eagle "Non-Purposeful Take Permit" is not needed for any activity occurring outside of the 660-foot buffer zone. No activities are permitted within 330 feet of a nest without a USFWS permit.

In addition to the on-site evaluation for "listed" species, BTC conducted a review for any FFWCC recorded Bald Eagle nests on or in the vicinity of the property. This review revealed that there are no Bald Eagle nest within one (1.0) mile of the London Cove Site. No further action is required with respect to Bald Eagles.

USFWS CONSULTATION AREAS

The U.S. Fish and Wildlife Service has established "consultation areas" for certain listed species. Generally, these consultation areas only become an issue if USFWS consultation is required, which is usually associated with permitting through the U.S. Army Corps of Engineers. The reader should be aware that species presence and need for additional review are often determined to be unnecessary early in the permit review process due to lack of appropriate habitat or other conditions. However, the USFWS makes the final determination.

Consultation areas are typically very regional in size, often spanning multiple counties where the species in question is known to exist. Consultation areas by themselves do not indicate the presence of a listed species. They only indicate an area where there is a potential for a listed species to occur and that additional review might be necessary to confirm or rule-out the presence of the species. The additional review typically includes the application of species-specific criteria to rule-out or confirm the presence of the species in question. Such criteria might consist of a simple review for critical habitat types. In other cases, the review might include the need for species-specific surveys using established methodologies that have been approved by the USFWS.

The following paragraphs include a brief description of the respective USFWS Consultation Areas specific to the subject site along with a brief discussion of on-site habitat and potential for additional review:

Audubon's Crested Caracara (Polyborus plancus audubonii)
Federally Listed as "Threatened" by USFWS

The subject site falls within the USFWS Consultation Areas for the species Audubon's Crested Caracara *(Polyborus planeus audubonii)*. Currently the Audubon's Crested Caracara is listed as threatened by the USFWS due primarily to habitat loss. The Audubon's Crested Caracara

commonly occurs in dry or wet prairie areas with scattered cabbage palms, lightly wooded areas with saw palmetto, scrub oaks and cypress. The Audubon's Crested Caracara also uses improved or semi-improved pasture with seasonal wetlands. Audubon's Crested Caracaras construct new nests each nesting season, often in the same tree as the previous year.

Although the subject site falls within the USFWS Audubon's Crested Caracara consultation area, no Crested Caracaras were observed and no suitable habitat for this species exists within the project boundaries. No further action should be required pertaining to Crested Caracaras.

Everglade Snail Kite (Rostrhamus sociabilis)
Federally Listed as "Endangered" by USFWS

The subject site falls within the USFWS Consultation Area for the Everglade Snail Kite. Currently the Snail Kite is listed as "Endangered" by the USFWS. Snail Kites are similar in size to Red-shouldered Hawks. All Snail Kites have deep red eyes and a white rump patch. Males are slate gray, and females and juveniles vary in amounts of white, light brown, and dark brown, but the females always have white on their chin. Kites vocalize mainly during courtship and nesting. They may occur in nearly all of the wetlands of central and southern Florida. They regularly occur in lake shallows along the shores and islands of many major lakes, including Lakes Okeechobee, Kissimmee, Tohopekaliga (Toho) and East Toho. They also regularly occur in the expansive marshes of southern Florida such as Water Conservation Areas 1, 2, and 3, Everglades National Park, the upper St. John's River marshes and Grassy Waters Preserve.

No Snail Kites were observed within the subject site during the wildlife survey conducted by BTC and no suitable habitat exists. A formal survey should not be required by the USFWS or another agency to determine if any Snail Kites utilize the site.

Florida Scrub-Jay (Aphelocoma coerulescens)
Federally Listed as "Threatened" by USFWS

Currently the Florida Scrub-Jay is listed as threatened by the USFWS. Florida Scrub Jays are largely restricted to scattered, often small and isolated patches of sand pine scrub, xeric oak, scrubby flatwoods, and scrubby coastal stands in peninsular Florida (Woolfenden 1978a, Fitzpatrick et al. 1991). They avoid wetlands and forests, including canopied sand pine stands. Optimal Scrub-Jay habitat is dominated by shrubby scrub, live oaks, myrtle oaks, or scrub oaks from 1 to 3 m (3 to 10 ft.) tall, covering 50% to 90 % of the area; bare ground or sparse vegetation less than 15 cm (6 in) tall covering 10% to 50% of the area; and scattered trees with no more than 20% canopy cover (Fitzpatrick et al. 1991).

No Scrub Jays were observed on the project site during the cursory survey conducted by BTC. The subject site's uplands that are proposed for development do not contain suitable habitat for foraging. As such, a formal survey will not be required by the USFWS or another agency in order to determine if the Florida Scrub-Jay utilizes and portion of the site.

The environmental limitations described in this document are based on observations and technical information available on the date of the on-site evaluation. This report is for general planning purposes only. The limits of any on-site wetlands/surface waters can only be determined and verified through field delineation and/or on-site review by the pertinent regulatory agencies. The wildlife surveys conducted within the subject property boundaries do not preclude the potential for any listed species, as noted on Table 1 (attached), currently or in the future. Should you have any questions or require any additional information, please do not hesitate to contact our office at (407) 894-5969. Thank you.

Regards,

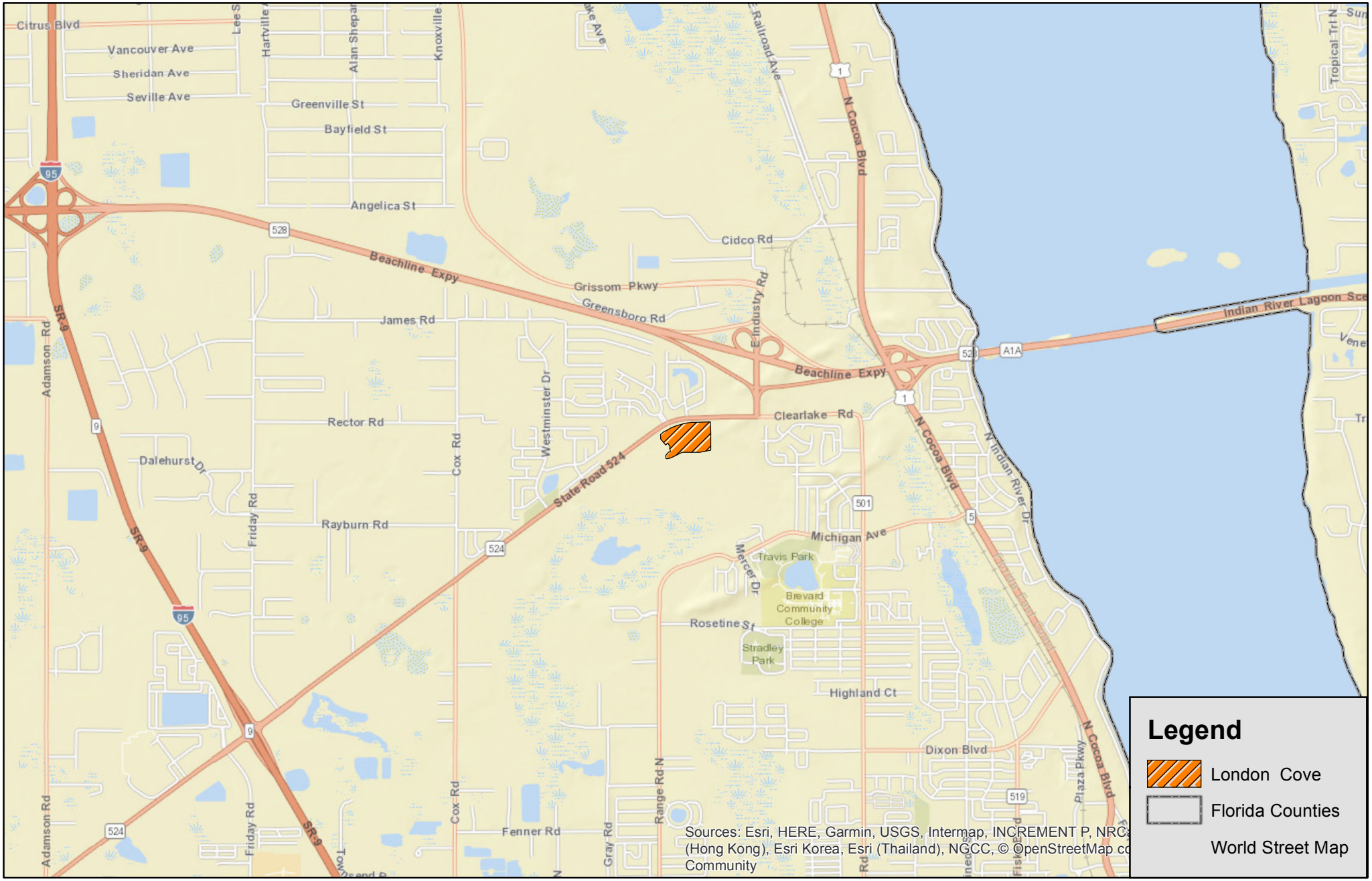


Spencer Clark
Field Biologist



Daniel Gough
Project Manager

Attachments



Bio-Tech Consulting Inc.
Environmental and Permitting Services
3025 E. South Street Orlando, FL 32803
Ph: 407-894-5969 Fax: 407-894-5970
www.bio-techconsulting.com

London Cove
Brevard County, Florida
Figure 1
Location Map

N
W E
S

1
Miles

Project #: 451-09
Produced By: STC
Date: 8/7/2018



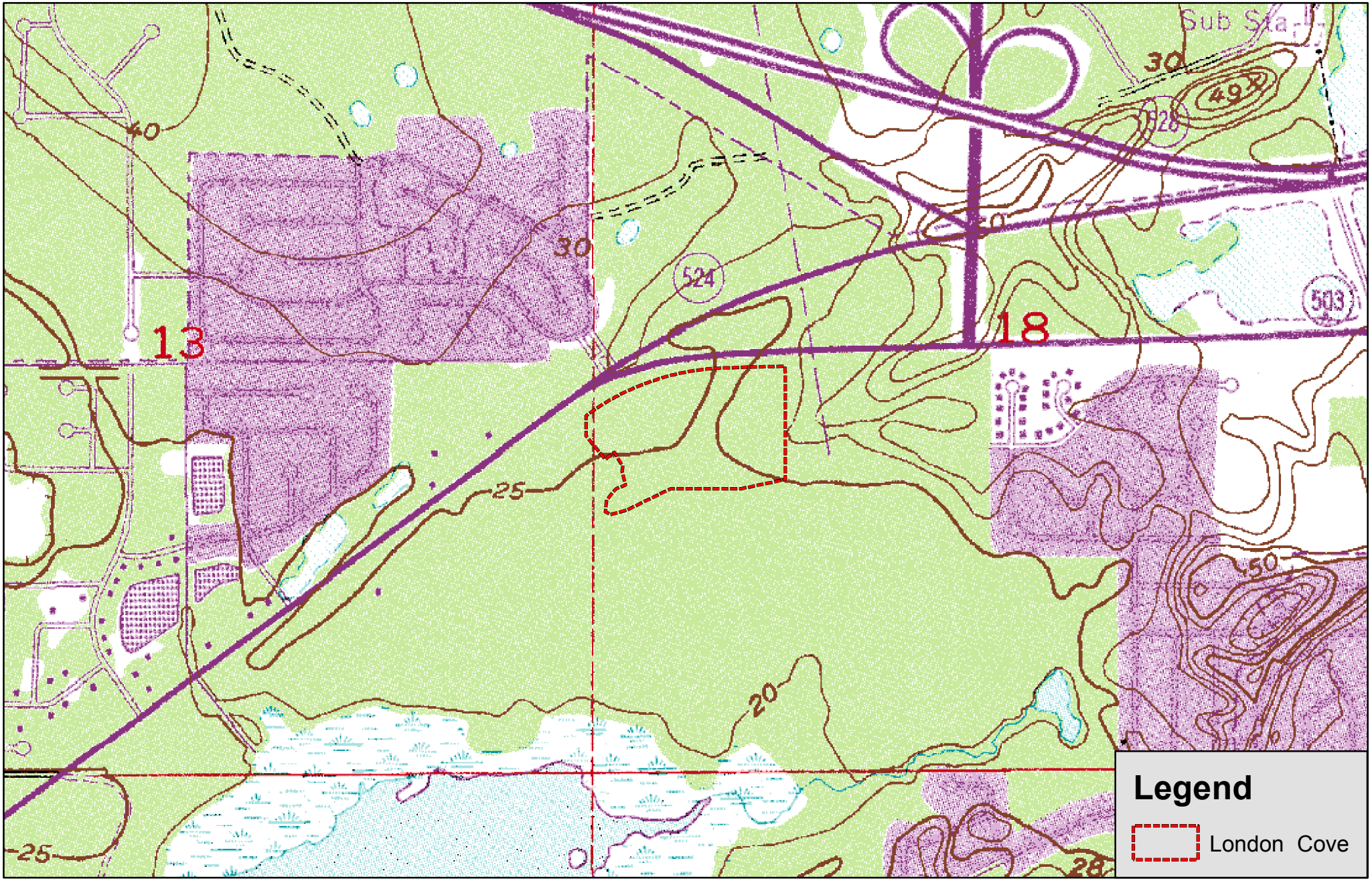
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London Cove
Brevard County, Florida
Figure 2
2018 Aerial Photograph

N
W E
S

400
Feet

Project #: 451-09
Produced By: STC
Date: 8/7/2018



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London Cove
Brevard County, Florida
Figure 3
USGS Topographic Map

N
W E
S

1,300 Feet

Project #: 451-09
Produced By: STC
Date: 8/7/2018



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London Cove
Brevard County, Florida
Figure 4
SSURGO Soils Map

N
W E
S

400
Feet

Project #: 451-09
Produced By: STC
Date: 8/7/2018



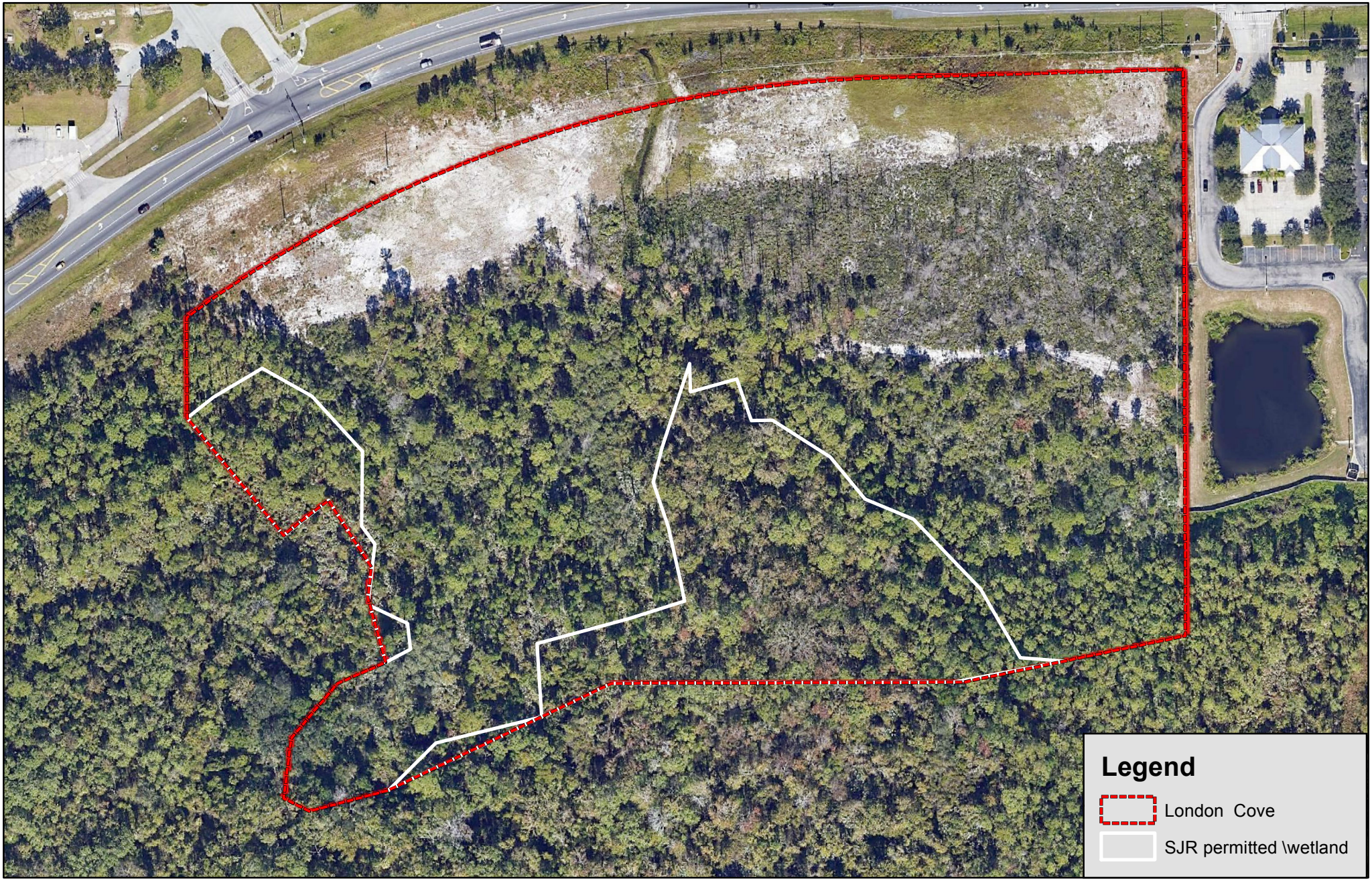
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London Cove
Brevard County, Florida
Figure 5
FLUCFCS Map

N
W E
S

300
Feet

Project #: 451-09
Produced By: STC
Date: 8/7/2018



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London Cove
Brevard County, Florida
Figure 6
Permitted Weltand Line Map

N
W E
S

200
Feet

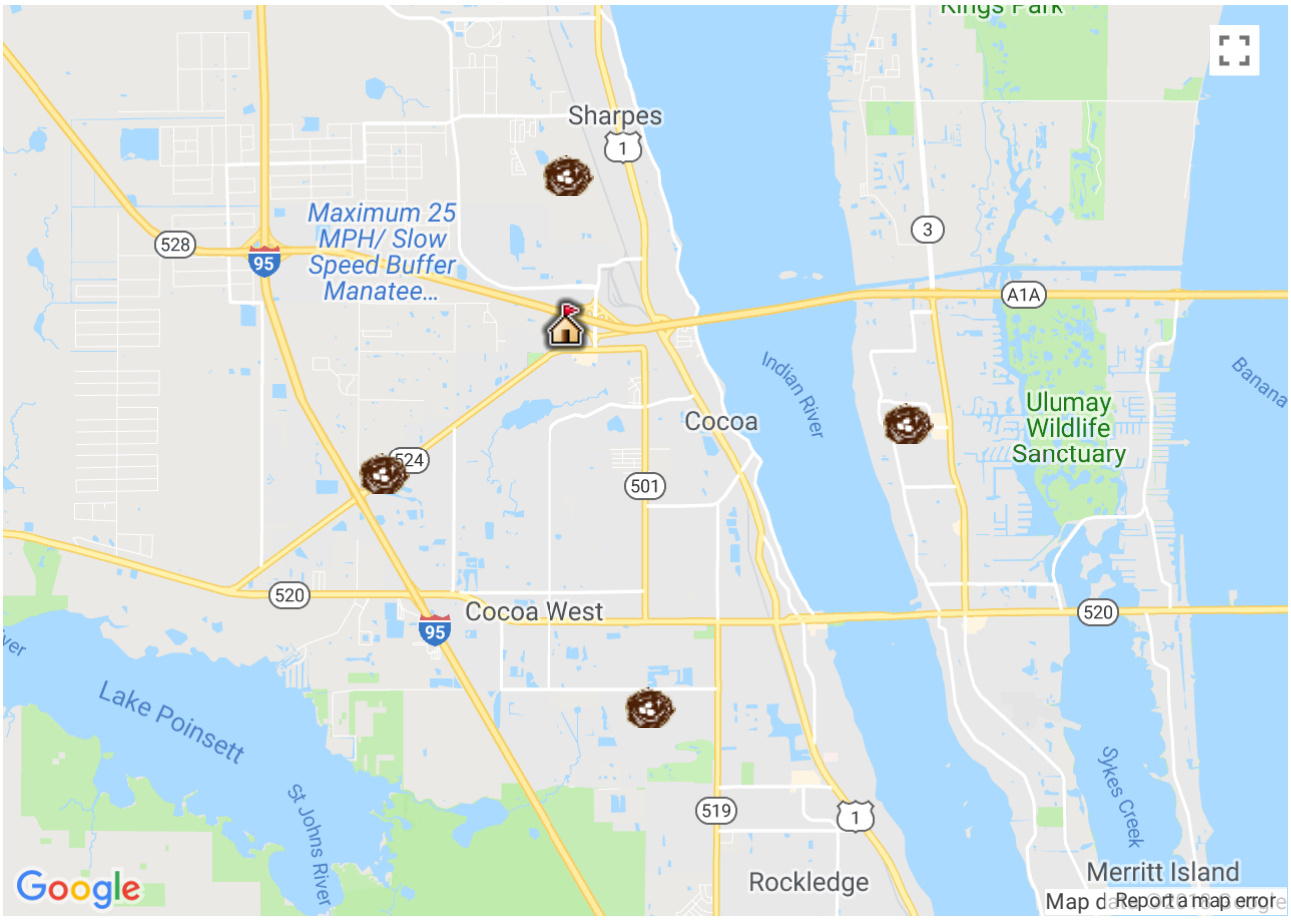
Project #: 451-09
Produced By: STC
Date: 7/25/2018

This report was generated using the bald eagle nest locator at https://public.myfwc.com/FWRI/EagleNests/nestlocator.aspx on 8/9/2018 3:43:28 PM.

Search Entered: Within 5 miles of latitude 28.3952777777778 and longitude -80.7688888888889; All Search Results

4 record(s) were found; 4 record(s) are shown

Bald Eagle Nest Map:



Bald Eagle Nest Data Search Results:

Results per page: All

Nest ID	County	Latitude	Longitude	Township	Range	Section	Gaz Page	Last Known Active	Last Surveyed	Act 13	Act 14	Act 15	Act 16	Act 17	Dist. (Mi)
BE021	Brevard	28 25.21	80 46.11	24S	36E	06	87	2016	2016	Y	*	*	*	Y	1.72
BE036	Brevard	28 20.39	80 45.26	25S	36E	05	87	2016	2016	Y	*	*	*	Y	3.93
BE047	Brevard	28 22.97	80 42.61	24S	36E	22	88	2012	2016	Y	*	*	*	U	3.67
BE082	Brevard	28 22.50	80 48.00	24S	35E	23	87	2016	2016	*	*	*	Y	Y	2.36

"Y" denotes an active nest
"N" denotes an inactive nest
"-" denotes an unobserved nest
"U" denotes a nest that was visited but status was undetermined
"*" denotes a nest that was not surveyed

Table 1:

Potentially Occurring Listed Wildlife and Plant Species in Brevard County, Florida

Scientific Name	Common Name	Federal Status	State Status	Occurrence Status
FISH				
Acipenser oxyrinchus	Atlantic sturgeon	LE	FE	C
REPTILES				
Alligator mississippiensis	American alligator	T(S/A)	FT(S/A)	C
Caretta caretta	loggerhead sea turtle	LT	FT	C
Chelonia mydas	green sea turtle	LT	FT	C
Dermochelys coriacea	leatherback sea turtle	LE	FE	C
Drymarchon corais couperi	eastern indigo snake	LT	FT	C
Gopherus polyphemus	gopher tortoise	C	ST	C
Lepidochelys kempii	Kemp's ridley sea turtle	LE	FE	P
Pituophis melanoleucus mugitus	Florida pine snake	N	ST	C
BIRDS				
Platalea ajaja	roseate spoonbill	N	ST	C
Aphelocoma coerulescens	Florida scrub-jay	LT	FT	C
Polyborus plancus audubonii	Audubon's crested caracara	LT	FT	C
Charadrius melodus	piping plover	LT	FT	P
Egretta caerulea	little blue heron	N	ST	C
Egretta rufescens	reddish egret	N	ST	C
Egretta tricolor	tricolored heron	N	ST	C
Falco sparverius paulus	southeastern American kestrel	N	ST	P
Grus canadensis pratensis	Florida sandhill crane	N	ST	C
Haematopus palliatus	American oystercatcher	N	ST	P
Haliaeetus leucocephalus	bald eagle	N	**	C
Mycteria americana	wood stork	LT	FT	C
Pandion haliaetus	osprey	N	SSC*	C
Picoides borealis	red-cockaded woodpecker	LE	FE	C
Rynchops niger	black skimmer	N	ST	C
Athene cunicularia	burrowing owl	N	ST	P
Sterna antillarum	least tern	N	ST	C
MAMMALS				
Eubalaena glacialis	North Atlantic right whale	LE	FE	C
Peromyscus polionotus niveiventris	southeastern beach mouse	LT	FT	C
Sciurus niger shermani	Sherman's fox squirrel	N	SSC	P
Trichechus manatus (Trichechus manatus latirostris)	West Indian manatee (Florida manatee)	E, PT	FE	C

** See Rank and Status Explanations and Definitions, Special Animal Listings - Federal and State Status

County Occurrence Status

Vertebrates and Invertebrates:

C = (Confirmed) Occurrence status derived from a documented record in the FNAI data base.

P = (Potential) Occurrence status derived from a reported occurrence for the county or the occurrence lies within the published range of the taxon.

N = (Nesting) For sea turtles only; occurrence status derived from documented nesting occurrences.

DAVE SCHMITT ENGINEERING INC.

Drainage Calculations

London Cove
Cocoa, Florida

(DSE Job No.: DB-3)

Prepared By
Dave Schmitt Engineering, Inc.

Prepared For
Demetree Builders

November 2016
September 2018
February 2019
April 2019
August 2020
November 2020
December 2020
February 2021
Revised April 2021

State of Florida Board of Professional Engineers
Certification of Authorization #27471

Drainage Calculations

London Cove
Cocoa, Florida

Prepared For
Demetree Builders

Prepared By
Dave Schmitt Engineering, Inc.

Dave Schmitt, P.E
Fl. Reg. #48274

November 2016
September 2018
February 2019
April 2019
August 2020
November 2020
December 2020
February 2021
Revised April 2021

12301 Lake Underhill –Suite 241, Orlando, Florida 32828 (407) 207-9088
State of Florida Board of Professional Engineers
Certification of Authorization #27471

Drainage Calculations
London Cove
Cocoa, Florida

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Drainage Summary

The London Cove site was previously permitted by St. John's River Water Management District (SJRWMD) under permit #: 4-009-91298-1 by a different engineering firm. Dave Schmitt Engineering has now become the engineer of record.

The project site is located on the south side of SR 524 just west of Industry Road in Cocoa, Florida and lies in Section 7, Township 21 South and Range 31 East as well as Section 13, Township 24 South and Range 35 East. The site is approximately 75 acres of which approximately 20.81 acres are to be developed.

The project includes approximately 8.92 ac of future commercial development and 10.63 ac residential development in additional to 0.34 ac of comp. storage and 0.92 ac of conservation area.

The site is currently undeveloped and wooded with heavy vegetation. The flow across the site is generally north to south with roughly 6 feet of fall. The 100-year base flood elevation per FEMA firm panel 12009C0320G dated March 17, 2014 is 20.7 feet NAVD88. Currently runoff from SR 524 passes through the site via a swale. This runoff will be bypassed through the site after development via storm pipes and will be under a drainage easement to the FDOT.

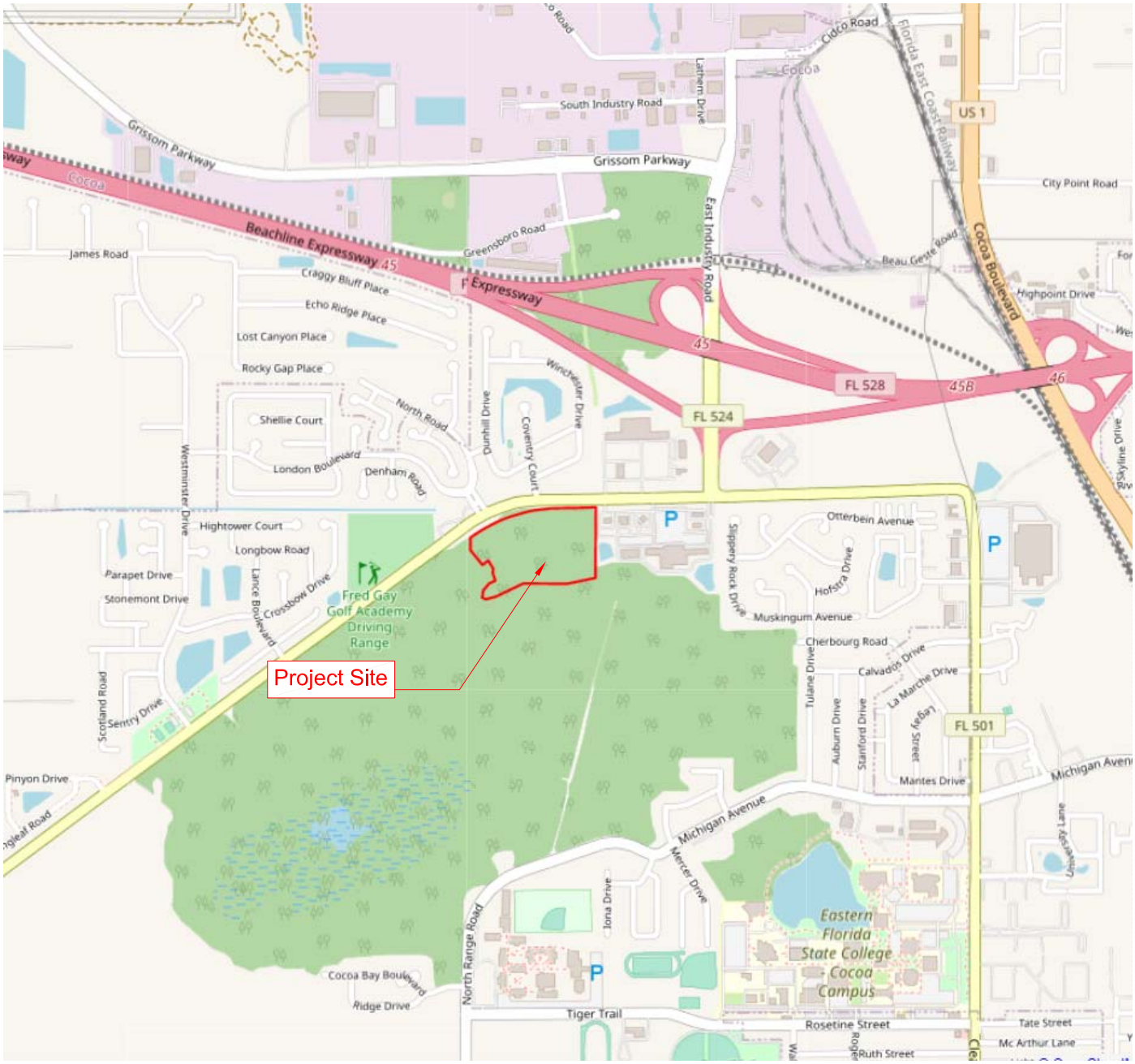
The wet detention ponds will treat and attenuate the stormwater according to SJRWMD criteria before discharging to the adjacent wetlands and ultimately to Mud Lake. Mud Lake is not an OFW or an impaired water body. The tailwater stage in the wetland is based on 100-year floodplain elevation and is the same as was previously permitted by SJRWMD. As previously agreed upon the normal water level (NWL) for the wet detention pond was set at elevation 23.0. The soils report submitted for permit #: 4-009-91298-1 indicates that the seasonal high-water table (SHWT) was at ground and the boring is shown at elevation 22.

The water quality and recovery requirements have been met for the SJRWMD. The wet detention pond will have side slopes of 2:1 from two feet below the seasonal low water table (SLWT) to the bottom of the pond and 4:1 side slope from two feet below NWL to the top of bank.

LONDON COVE
STORMWATER ANALYSIS
Peak Discharge Summary Table

PRE-POST* PEAK DISCHARGE	NODE 99	NODE D-21	MAX POST STAGE FOR PONDS 1	MAX POST STAGE FOR PONDS 2
	Pre-Development	**Post Development**	**Post Development**	**Post Development**
Storm Frequency	**Flow**	**Flow**	***Max Stage**	***Max Stage**
MEANFL	7.09	1.31	24.35	24.35
10Y24H	24.30	3.17	25.37	25.36
25Y24HFL	38.29	6.67	25.83	25.82
100Y24H	50.31	10.25	26.21	26.18
TOP OF BANK			**27.8**	**27.8**

(*) Considering Pre UH 256 and Post UH323 (Res) and UH484 (Com)



DAVE SCHMITT ENGINEERING INC.

N

Demetree Builders

London Cove

Location Map



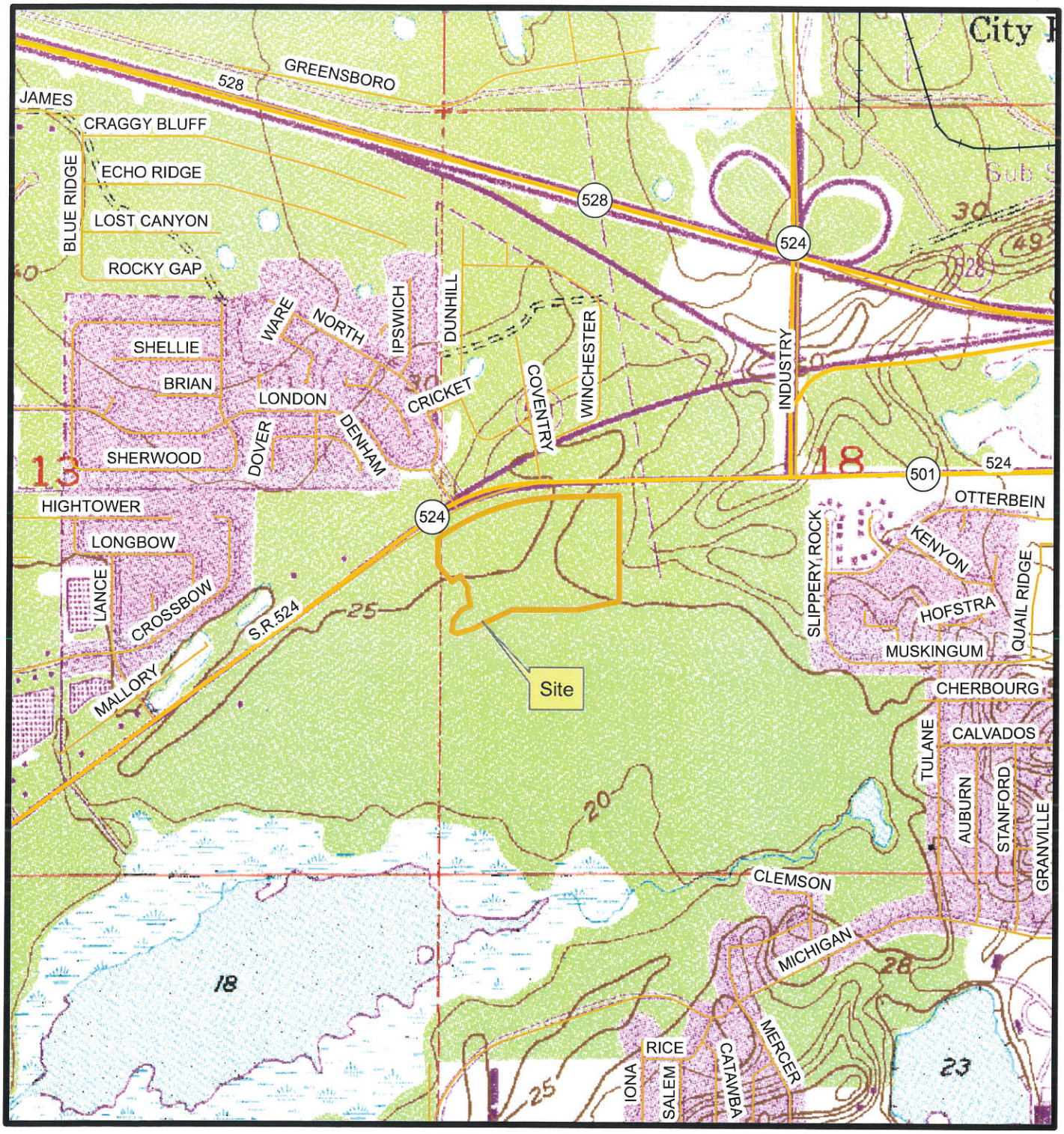
Feet
0 150 300

N
W E
S

DAVE SCHMITT ENGINEERING INC.

Demetree Builders
London Cove

Aerial Map

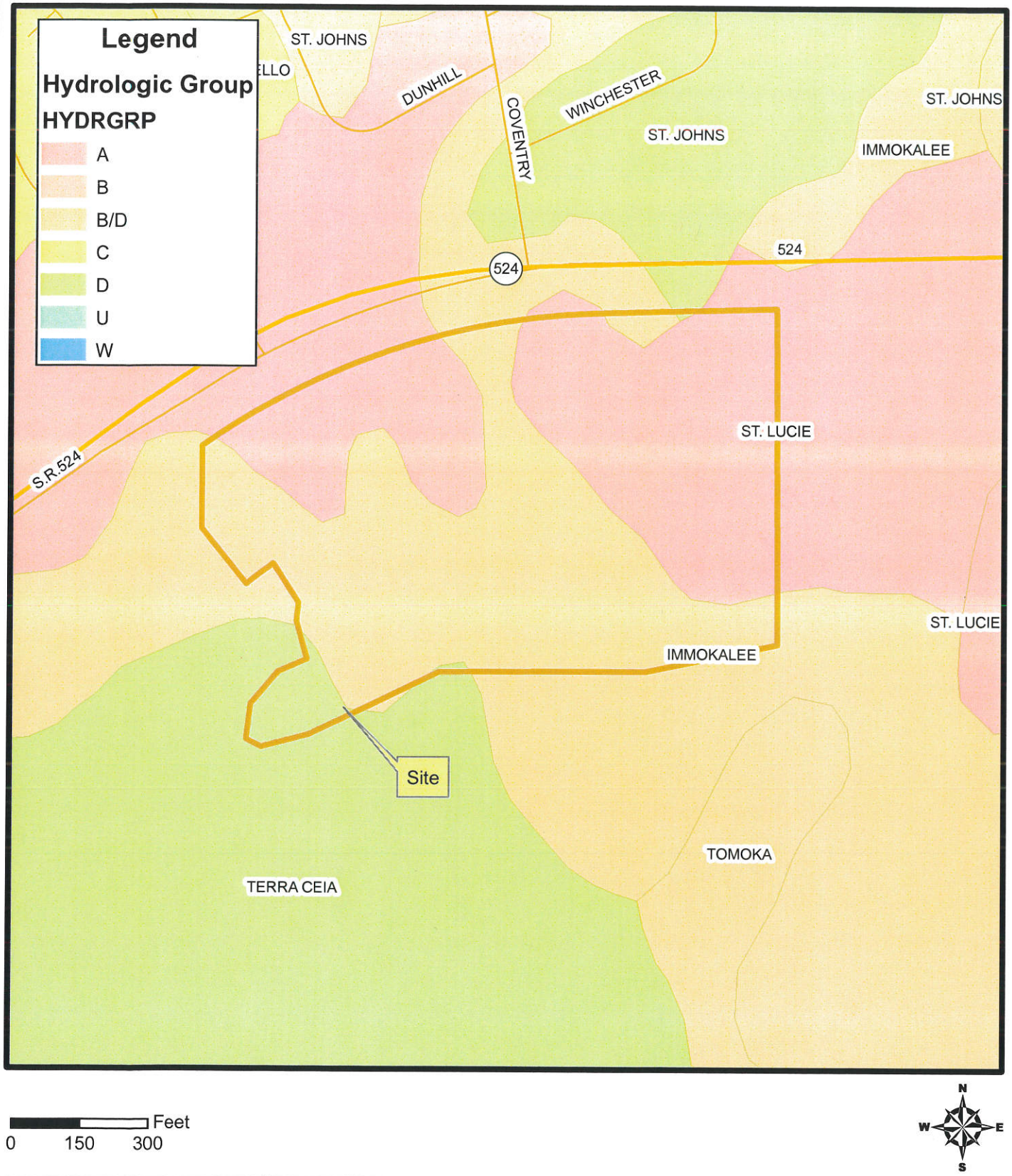


Feet
0 500 1,000

N
W E
S

DAVE SCHMITT ENGINEERING INC.

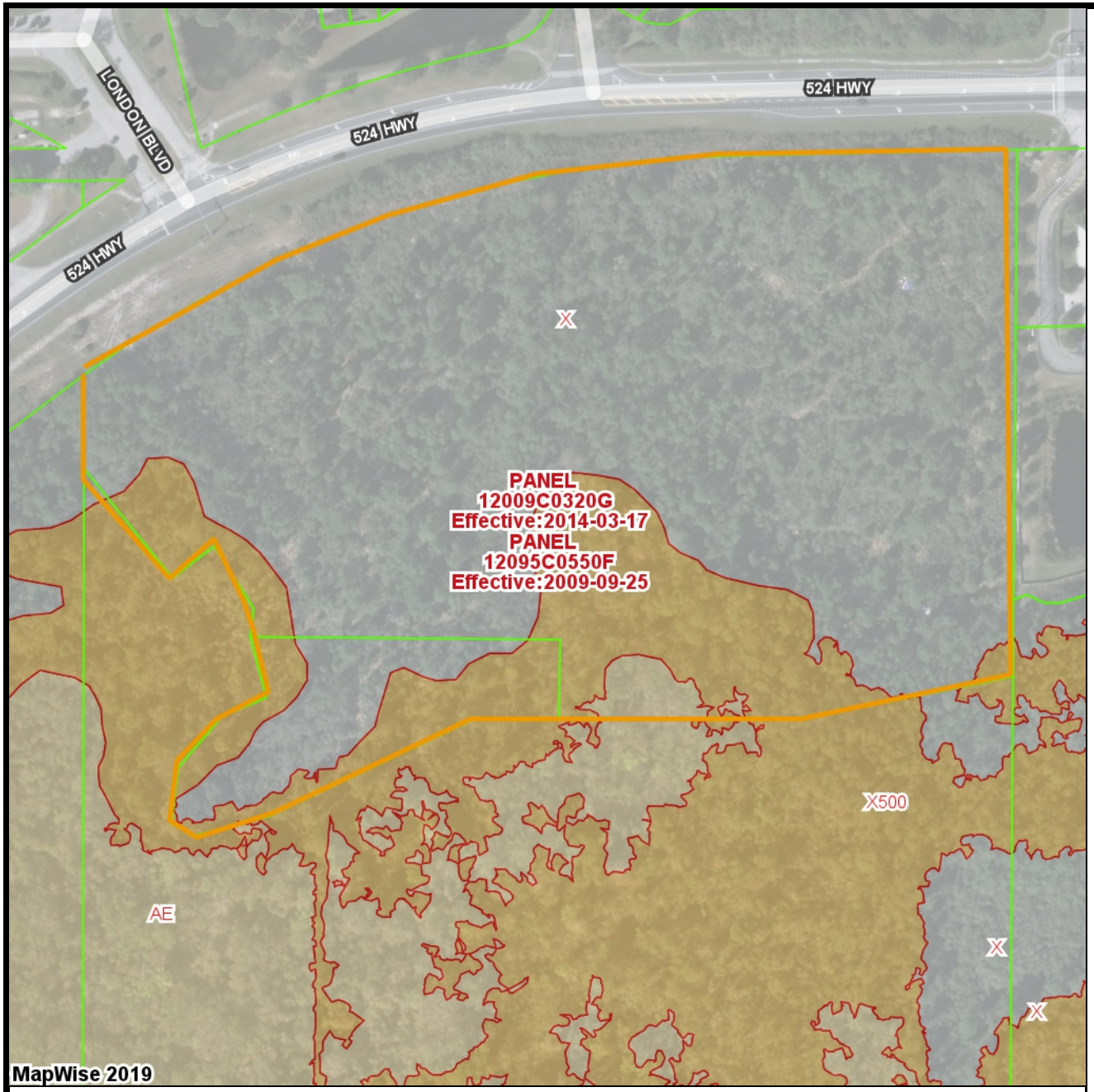
Demetree Builders
London Cove
USGS Quadrangle Map
Sharpes, FL 1989



DAVE SCHMITT ENGINEERING INC.

Demetree Builders
London Cove

Soils Map



London Cove FEMA

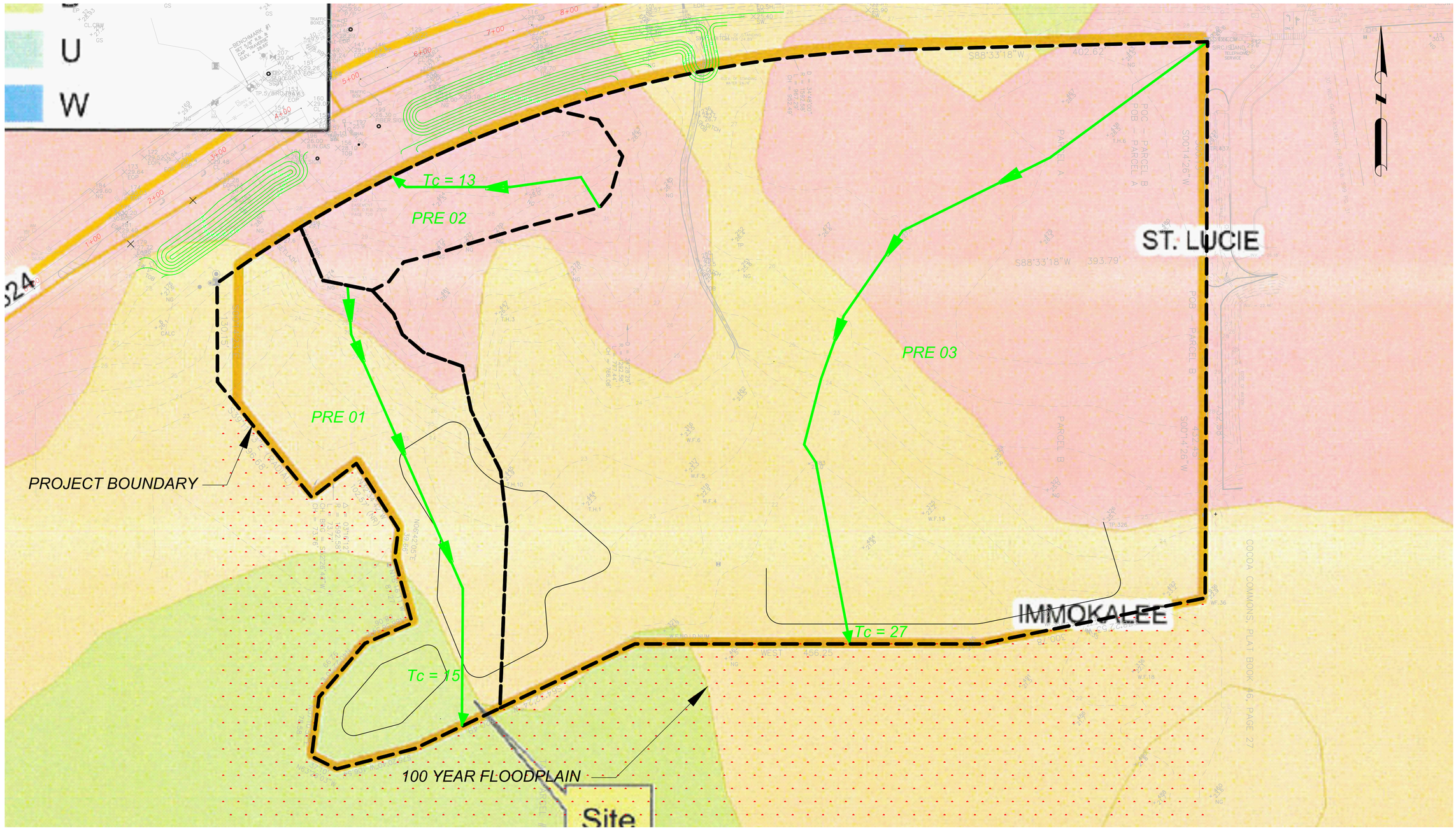
- Labels Drawing
- Points Drawing
- Lines Drawing
- Polygons Drawing
- Selected Custom Parcels
- Streets MapWise
- County Boundaries
- Parcel Outlines
- FEMA DFIRM Panels
- V - 100-year, wave action, BFE no
- VE - 100-year, wave action, BFE yes
- A - 100-year, BFE no
- AE - 100-year, BFE yes
- AH - 100-year, ponding, BFE yes
- AO - 100-year, sheet flow, BFE yes
- X500 - 500-year
- D - Undetermined, possible hazard
- ANI - Area Not Included
- X - Outside any floodplains



N

0 160 320 480 ft

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F:\DB3\Drainage\New Layout 08.10.2020\Pre_Post Drainage Map 02.01.19.dwg,2/5/2021 11:01:27 AM

DAVE SCHMITT ENGINEERING, INC.
3680 AVALON PARK E. BLVD SUITE 310
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

CONTRACTOR "AS-BUILTS"

I hereby state that these "As-Builts" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.

Contractor _____ Engineer _____

Not valid without the signature and the original raised seal of a Florida Registered Engineer.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

PRE-DEVELOPMENT BASIN MAP

LONDON COVE
COCOA, FL

DATE: MARCH 2010
PROJECT NO.: DB-3
DRAWN BY: BRW\
CHECKED BY: TFS
SCALE: NTS
SHEET: 1 OF 1

LONDON COVE
PRE-DEVELOPMENT - STORMWATER ANALYSIS
Basin Area, Curve Number, and Tc Summary

BASIN #	AREA (ac)	CN	TC (min)
PRE 01	3.17	73	15
PRE 02	1.16	30	13
PRE 03	16.48	56	27
TOTAL	20.81		

LONDON COVE
PRE-DEVELOPMENT - STORMWATER ANALYSIS
Basin Area Summary

Basin	Onsite Area (ac)	Offsite Area (ac)	Total Area (ac)
PRE 01	3.17	0.00	3.17
PRE 02	1.16	0.00	1.16
PRE 03	16.48	0.00	16.48
Total	20.81	0.00	20.81

LONDON COVE
PRE-DEVELOPMENT - STORMWATER ANALYSIS
Curve Number Calculations

Basin ID : PRE 01
Total Acres: 3.17

Soil Class	Cover Type	Percent Cover	CN	% Area	Area	Factor
A	Woods	Good: > 75%	30	8.8%	0.28	8
D	Woods	Good: > 75%	77	91.2%	2.89	223
					100.0%	3.17
					Composite CN:	**73**

Basin ID : PRE 02
Total Acres: 1.16

Soil Class	Cover Type	Percent Cover	CN	% Area	Area	Factor
A	Woods	Good: > 75%	30	100.0%	1.16	35
D	Woods	Good: > 75%	77	0.0%	0.00	0
					100.0%	1.16
					Composite CN:	**30**

Basin ID : PRE 03
Total Acres: 16.48

Soil Class	Cover Type	Percent Cover	CN	% Area	Area	Factor
A	Woods	Good: > 75%	30	43.1%	7.10	213
D	Woods	Good: > 75%	77	56.1%	9.25	712
					99.2%	16.35
					Composite CN:	**56**

LONDON COVE
PRE-DEVELOPMENT - STORMWATER ANALYSIS
Time of Concentration Calculations

BASIN	Sheet Flow Slope (ft/ft)	Sheet Flow Length (ft)	Manning's n	Sheet Flow Tt (min)	Shallow Concentrated Flow Slope (ft/ft)	Shallow Concentrated Flow Length (ft)	Paved / Unpaved	Shallow Concentrated Flow Tt (min)	Pipe Flow Length (ft)	Pipe Flow Tt (min)	Tc (min)
PRE 01	0.075	100	0.22	7	0.004	512	U	8	0	0	15
PRE 02	0.030	100	0.30	11	0.010	201	U	2	0	0	13
PRE 03	0.006	100	0.24	16	0.008	959	U	11	0	0	27

Kinematic Wave Equation (Sheet Flow), Shallow Conc. Flow & Pipe Flow (SCS TR-55):

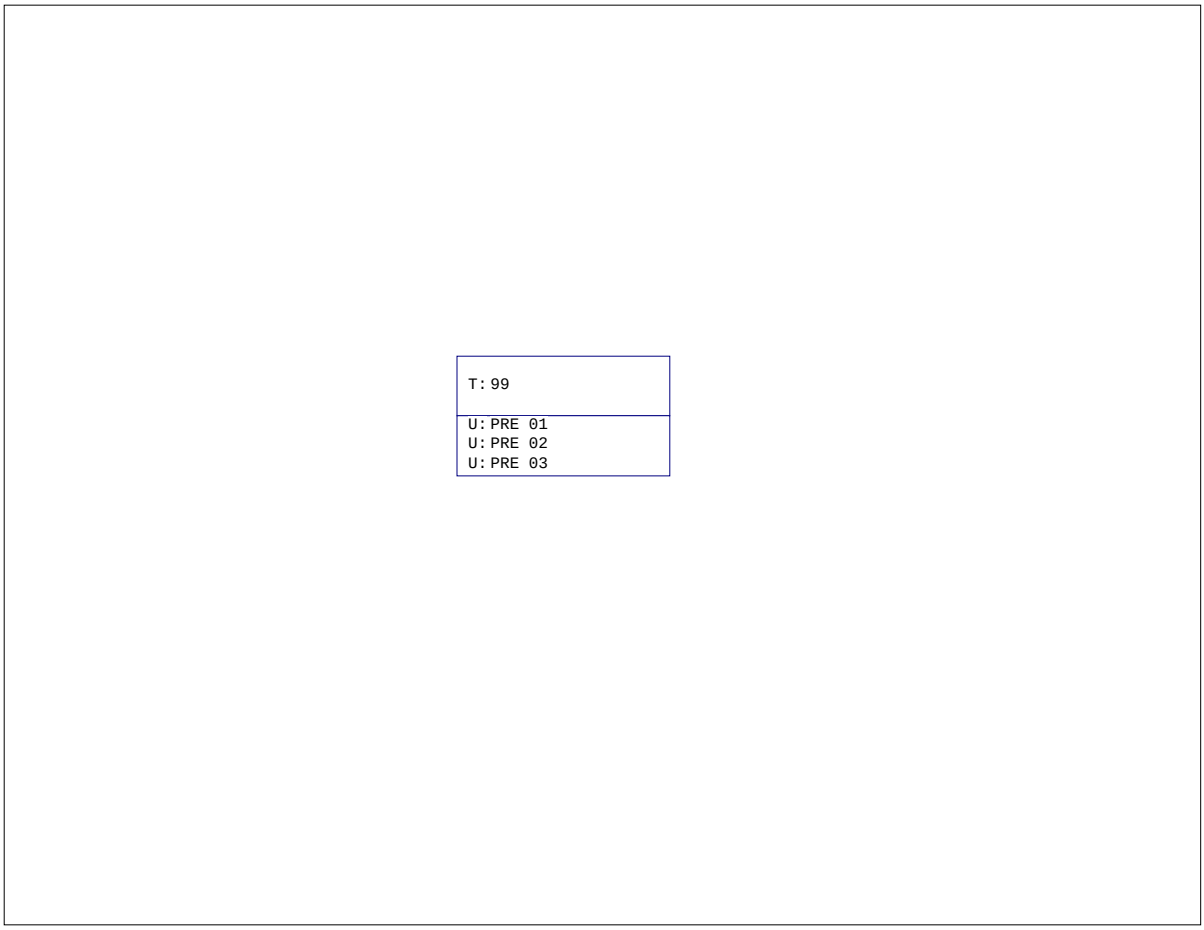
t = 0.93*L^0.6*n^0.6/I^0.4*s^0.3 + L/60*V + L/60*V

t = overland flow travel time (minutes)
L = overland flow length (ft.)
n = mannings roughness coefficient
I = rainfall intensity (4.50 in./hr.)
s = average slope (ft./ft.)
V = average velocity:
paved surface V = 20.3282*s^0.5
unpaved surface V = 16.1345*s^0.5
60=conversion factor from seconds to minutes

Nodes
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins
O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links
P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc.

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==========
==== Basins ====
==========

Name: PRE 01 Node: 99 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 15.00
Area(ac): 3.170 Time Shift(hrs): 0.00
Curve Number: 73.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: PRE 02 Node: 99 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 13.00
Area(ac): 1.160 Time Shift(hrs): 0.00
Curve Number: 30.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: PRE 03 Node: 99 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 27.00
Area(ac): 16.480 Time Shift(hrs): 0.00
Curve Number: 56.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

==========
==== Nodes ====
==========

Name: 99 Base Flow(cfs): 0.000 Init Stage(ft): 22.000
Group: BASE Warn Stage(ft): 23.000
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	22.000
336.00	22.000

==========
==== Hydrology Simulations ====
==========

Name: 100Y24H
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Pre\100Y24H.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 11.10

Time(hrs)	Print Inc(min)
30.000	15.00

Name: 10Y24H
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Pre\10Y24H.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 7.50

Time(hrs)	Print Inc(min)

30.000 15.00

Name: 25Y24HFL
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Pre\25Y24HFL.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 9.50

Time(hrs)	Print Inc(min)
30.000	15.00

Name: MEANFL
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Pre\MEANFL.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 4.50

Time(hrs)	Print Inc(min)
30.000	15.00

==========
==== Routing Simulations ==========
==========

Name: 100Y24H Hydrology Sim: 100Y24H
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Pre\100Y24H.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.05000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 2.0000 Max Calc Time(sec): 5.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
30.000	15.000

Group	Run
BASE	Yes

Name: 10Y24H Hydrology Sim: 10Y24H
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Pre\10Y24H.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.05000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 2.0000 Max Calc Time(sec): 5.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
30.000	15.000

Group	Run
BASE	Yes

Name: 25Y24HFL Hydrology Sim: 25Y24HFL
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Pre\25Y24HFL.I32

Execute: Yes Restart: No Patch: No
Alternative: No

```
        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.05000
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 30.00
     Min Calc Time(sec): 2.0000              Max Calc Time(sec): 5.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
30.000          15.000

Group           Run
--------------- -----
BASE            Yes


-------------------------------------------------------------------------------------------------------
         Name: MEANFL              Hydrology Sim: MEANFL
     Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Pre\MEANFL.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.05000
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 30.00
     Min Calc Time(sec): 2.0000              Max Calc Time(sec): 5.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
30.000          15.000

Group           Run
--------------- -----
BASE            Yes
```

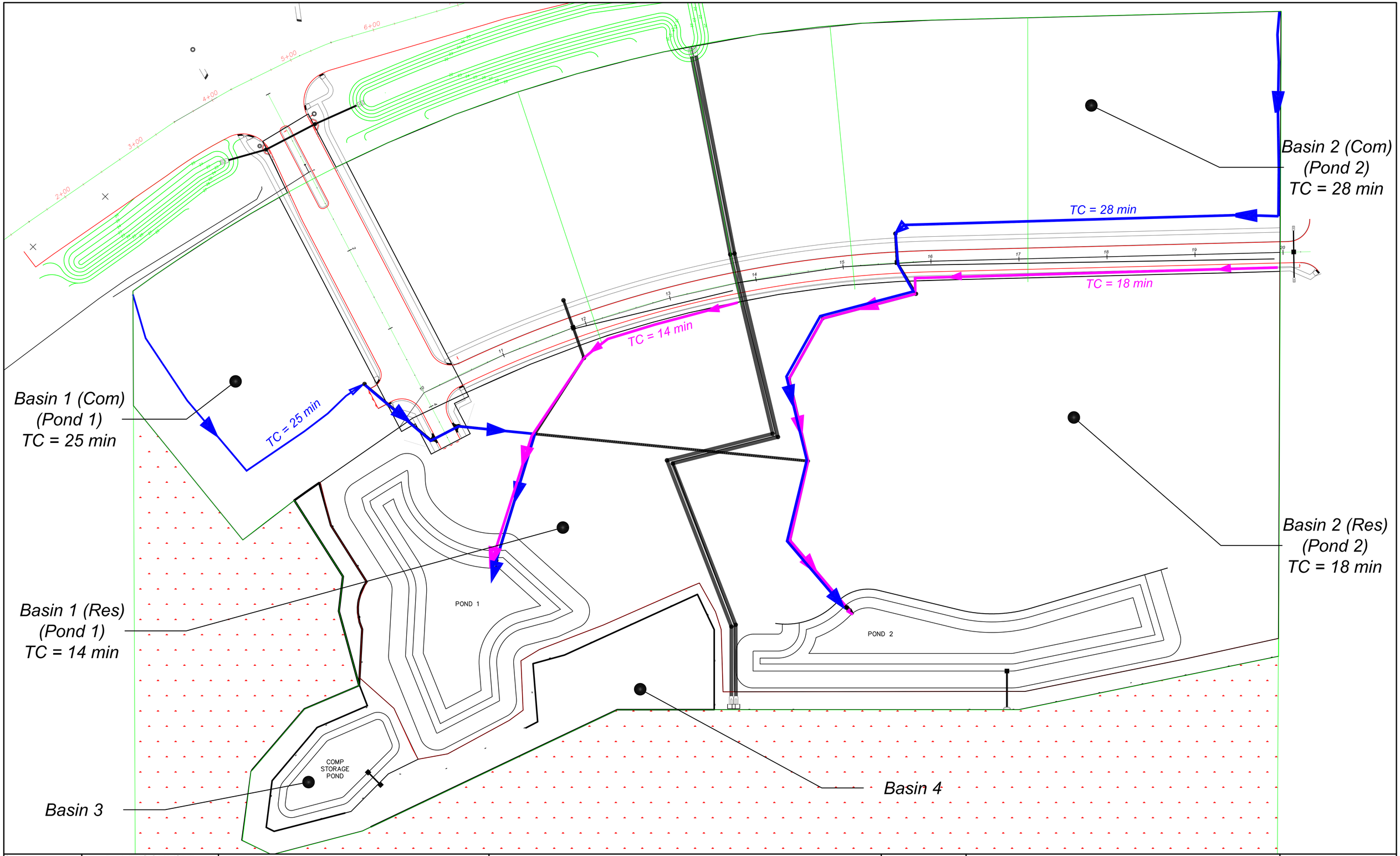
Name:	PRE 01	PRE 02	PRE 03	PRE 01	PRE 02
Group:	BASE	BASE	BASE	BASE	BASE
Simulation:	100Y24H	100Y24H	100Y24H	10Y24H	10Y24H
Node:	99	99	99	99	99
Type:	SCS	SCS	SCS	SCS	SCS
Unit Hydrograph:	Uh256	Uh256	Uh256	Uh256	Uh256
Peaking Factor:	256.0	256.0	256.0	256.0	256.0
Spec Time Inc(min):	2.00	1.73	3.60	2.00	1.73
Comp Time Inc(min):	2.00	1.73	3.60	2.00	1.73
Rain File:	Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	11.100	11.100	11.100	7.500	7.500
Duration(hrs):	24.00	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite	Onsite
TC(min):	15.00	13.00	27.00	15.00	13.00
Time Shift(hrs):	0.00	0.00	0.00	0.00	0.00
Area(ac):	3.170	1.160	16.480	3.170	1.160
Vol of Unit Hyd(in):	1.000	1.000	1.000	1.000	1.000
Curve Num:	73.000	30.000	56.000	73.000	30.000
DCIA(%):	0.000	0.000	0.000	0.000	0.000
Time Max(hrs):	12.10	12.31	12.24	12.10	12.83
Flow Max(cfs):	14.329	0.626	37.228	8.238	0.048
Runoff Volume(in):	7.632	1.389	5.221	4.368	0.306
Runoff Volume(ft3):	87823.306	5848.679	312304.960	50264.434	1289.946

Name:	PRE 03	PRE 01	PRE 02	PRE 03	PRE 01
Group:	BASE	BASE	BASE	BASE	BASE
Simulation:	10Y24H	25Y24HFL	25Y24HFL	25Y24HFL	MEANFL
Node:	99	99	99	99	99
Type:	SCS	SCS	SCS	SCS	SCS
Unit Hydrograph:	Uh256	Uh256	Uh256	Uh256	Uh256
Peaking Factor:	256.0	256.0	256.0	256.0	256.0
Spec Time Inc(min):	3.60	2.00	1.73	3.60	2.00
Comp Time Inc(min):	3.60	2.00	1.73	3.60	2.00
Rain File:	Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	7.500	9.500	9.500	9.500	4.500
Duration(hrs):	24.00	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite	Onsite
TC(min):	27.00	15.00	13.00	27.00	15.00
Time Shift(hrs):	0.00	0.00	0.00	0.00	0.00
Area(ac):	16.480	3.170	1.160	16.480	3.170
Vol of Unit Hyd(in):	1.000	1.000	1.000	1.000	1.000
Curve Num:	56.000	73.000	30.000	56.000	73.000
DCIA(%):	0.000	0.000	0.000	0.000	0.000
Time Max(hrs):	12.30	12.10	12.34	12.30	12.10
Flow Max(cfs):	17.155	11.603	0.295	27.911	3.468
Runoff Volume(in):	2.549	6.158	0.828	3.981	1.895
Runoff Volume(ft3):	152470.528	70855.597	3488.372	238144.859	21806.280

Name:	PRE 02	PRE 03
Group:	BASE	BASE
Simulation:	MEANFL	MEANFL
Node:	99	99
Type:	SCS	SCS
Unit Hydrograph:	Uh256	Uh256
Peaking Factor:	256.0	256.0
Spec Time Inc(min):	1.73	3.60
Comp Time Inc(min):	1.73	3.60
Rain File:	Flmod	Flmod
Rain Amount(in):	4.500	4.500
Duration(hrs):	24.00	24.00
Status:	Onsite	Onsite
TC(min):	13.00	27.00
Time Shift(hrs):	0.00	0.00
Area(ac):	1.160	16.480
Vol of Unit Hyd(in):	1.000	1.000
Curve Num:	30.000	56.000
DCIA(%):	0.000	0.000
Time Max(hrs):	0.00	12.42
Flow Max(cfs):	0.000	4.273
Runoff Volume(in):	0.000	0.795
Runoff Volume(ft3):	0.000	47552.795

LONDON COVE - DB-3
PRE-DEVELOPMENT Node Min Max Report
02-05-2021

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
99	BASE	100Y24H	0.00	22.000	23.000	0.0000	0	12.25	50.314	0.00	0.000
99	BASE	10Y24H	0.00	22.000	23.000	0.0000	0	12.25	24.302	0.00	0.000
99	BASE	25Y24HFL	0.00	22.000	23.000	0.0000	0	12.25	38.294	0.00	0.000
99	BASE	MEANFL	0.00	22.000	23.000	0.0000	0	12.25	7.087	0.00	0.000



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Certification of Authorization #27471

CONTRACTOR "AS-BUILTS"

I hereby state that these "As-Builts" were furnished to me by the contractor listed below. I, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.

Contractor _____ Engineer _____

Not valid without the signature and the original raised seal of a Florida Registered Engineer.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

Basin Exhibit

LONDON COVE

CITY OF COCOA, FLORIDA

DATE: August 2020	
PROJECT NO.: DB-3	
DRAWN BY: DSE	
CHECKED BY: DSE	
SCALE: N/A	
SHEET: 1 OF 1	

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LONDON COVE
POST-DEVELOPMENT STORMWATER ANALYSIS
Basin Area, Curve Number, and Tc Summary

Basin	Area (ac)	CN	Tc (min)
BASIN 1 (Commercial) Pond 1	4.79	88	25
BASIN 1 (Residential) Pond 1	3.68	93	14
BASIN 2 (Commercial) Pond 2	4.14	86	28
BASIN 2 (Residential) Pond 2	6.95	89	18
BASIN 3 (Comp. Storage)	0.34		
Basin 4 (Conservation Area)	0.92		
Total	20.81		

LONDON COVE
POST-DEVELOPMENT STORMWATER ANALYSIS
Basin Area Summary

Basin	Onsite Area (ac)	Offsite Area (ac)	Total Area (ac)
BASIN 1 (Commercial) Pond 1	4.79	0.00	4.79
BASIN 2 (Commercial) Pond 2	4.14	0.00	4.14
BASIN 1 (Residential) Pond 1	3.68	0.00	3.68
BASIN 2 (Residential) Pond 2	6.95	0.00	6.95
BASIN 3 (Comp. Storage)	0.34	0.00	0.34
Basin 4 (Conservation Area)	0.92	0.00	0.92
Total	20.81	0.00	20.81

LONDON COVE
POST-DEVELOPMENT STORMWATER ANALYSIS
Basin Impervious Area Calculations

Basin	Clubhouse and Future Residential Development[1] (ac)	Commercial Area[2] (ac)	Subtotal Impervious (ac)	Pond Surface Area (ac)	Total Impervious (ac)
BASIN 1 (Commercial) Pond 1		3.83	3.83		3.83
BASIN 2 (Commercial) Pond 2		3.31	3.31		3.31
BASIN 1 (Residential) Pond 1	2.21		2.21	0.66	2.87
BASIN 2 (Residential) Pond 2	4.17		4.17	0.74	4.91
BASIN 3 (Comp. Storage)					
Basin 4 (Conservation Area)					
Total	6.38	7.14	13.52	1.40	14.92

NOTES: 1. Future development is assumed to be 4 and 5 unit townhomes at a max. 60% impervious.
2. Commercial area is assumed to be 80% impervious.

LONDON COVE
POST-DEVELOPMENT STORMWATER ANALYSIS
Basin Curve Number Calculations

Basin	CN=98 Impervious Area (ac)	Impervious Area (% of Total)	CN=100 Pond Area (ac)	Pervious Area (ac)	CN=77 Soil Type D (ac)	CN=30 Soil Type A (ac)	Total Area (ac)	Composite CN
BASIN 1 (Commercial) Pond 1	3.83	80.00%	0.00	0.96	0.39	0.57	4.79	88
BASIN 2 (Commercial) Pond 2	3.31	80.00%	0.00	0.83	0.13	0.70	4.14	86
BASIN 1 (Residential) Pond 1	2.21	60.00%	0.66	0.81	0.77	0.04	3.68	93
BASIN 2 (Residential) Pond 2	4.17	60.00%	0.74	2.04	1.54	0.50	6.95	89
BASIN 3 (Comp. Storage)								
Basin 4 (Conservation Area)								

NOTES: 1. Impervious CN = 98
2. Pond CN = 100
3. Pervious CN value is based pre-development CN.

LONDON COVE
POST-DEVELOPMENT STORMWATER ANALYSIS
Time of Concentration Calculations

Basin	Sheet Flow Slope (ft/ft)	Sheet Flow Length (ft)	Manning's n	Sheet Flow Tt (min)	Shallow Conc. Flow Slope (ft/ft)	Shallow Conc. Flow Length (ft)	Paved / Unpaved	Shallow Conc. Flow Tt (min)	Pipe Flow Length (ft)	Pipe Flow Tt (min)	Tc (min)
BASIN 1 (Commercial) Pond 1	0.001	100.0	0.120	18.0	0.005	304	P	4	377	2.8	**25**
BASIN 2 (Commercial) Pond 2	0.001	100.0	0.120	18.0	0.007	572	P	6	548	4.0	**28**
BASIN 1 (Residential) Pond 1	0.005	100.0	0.120	11.1	0.005	90	P	1	259	1.9	**14**
BASIN 2 (Residential) Pond 2	0.005	100.0	0.120	11.1	0.006	328	P	3	473	3.5	**18**

Kinematic Wave Equation (Sheet Flow), Shollow Conc. Flow & Pipe Flow (SCS TR-55):

t = 0.93*L^0.6*n^0.6/(I^0.4*s^0.3) + L/60*V +L/60*V

t = overland flow travel time (min)
L = overland flow length (ft)
n = manning's roughness coefficient
I = rainfall intensity (4.50 in/hr)
s = average slope (ft/ft)
V = average velocity:
paved surface V = 20.3282*s^0.5
unpaved surface V = 16.1345*s^0.5
60 = conversion factor from seconds to minutes

LONDON COVE
POST-DEVELOPMENT STORMWATER ANALYSIS
Water Quality Calculations

Basin	Total Area	Impervious Area	1 in x Area	2.5 in x Impervious Area	Normal WQ Required	Normal WQ Required	Water Quality Provided
	(ac)	(ac)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)	(ac-ft)
BASIN 1 (Commercial) Pond 1	4.79	3.83	0.40	0.80	0.80		
BASIN 1 (Residential) Pond 1	3.68	2.87	0.31	0.60	0.60	3.11	3.12
BASIN 2 (Commercial) Pond 2	4.14	3.31	0.34	0.69	0.69		
BASIN 2 (Residential) Pond 2	6.95	4.91	0.58	1.02	1.02		
BASIN 3 (Comp. Storage)	0.34						
Basin 4 (Conservation Area)	0.92						
Total:	20.81						

LONDON COVE
POST-DEVELOPMENT STORMWATER ANALYSIS
Stage - Storage Calculations
POND 1 & 2

Elevation (ft)	Area (ac)	Average Area (ac)	Depth (ft)	Storage (ac-ft)	Cumulative Storage (ac-ft)
23.00	1.42				0.00
		1.49	1.00	1.49	
24.00	1.56				1.49
		1.63	1.00	1.63	
25.00	1.70				3.12
		1.78	1.00	1.78	
26.00	1.85				4.90
		1.93	1.00	1.93	
27.00	2.00				6.82
		2.04	0.80	1.63	
27.80	2.08				8.45

Required Treatment Volume =	3.11	(ac-ft)
Required Weir Elevation =	24.99	(ft)
Actual Weir Elevation =	25.00	(ft)
Actual Treatment Volume =	3.12	(ac-ft)
1/2 TV =	1.55	Ac-ft
Elevation at which 1/2 TV has recovered (h2) =	24.04	feet

LONDON COVE
POST-DEVELOPMENT STORMWATER ANALYSIS
Permanent Pool Calculations

POND	**1**	
BASIN AREA	8.46	ACRES
IMPERVIOUS AREA	6.69	ACRES
AVG RAINFALL	32	INCHES (JUNE-OCTOBER)
WET SEASON	153	DAYS
C - FACTOR	0.79	

ELEV (FEET)	AREA (ACRES)	AVG. AREA (ACRES)	INC. DEPTH (FEET)	INC. STORAGE (AC-FT)	CUM. TORAGE (AC-FT)
15.00	0.31	-	-	-	0.00
21.00	0.51	0.41	6.00	2.46	2.46
23.00	1.42	0.97	2.00	1.93	4.39

PERMANENT POOL AVAIL.= 4.39 AC-FT

AVERAGE DAILY RUNOFF VOLUME (USING 153 DAY RAINFALL PERIOD) =
(TOTAL AREA*C)(31"/153 DAYS)(1'/12") =
= 0.12 AC-FT

$$\text{RESIDENCE TIME} = \frac{\text{PERMANENT VOLUME AVAILABLE}}{\text{AVERAGE DAILY RUNOFF VOLUME}} = 37.5 \text{ DAYS}$$

RESIDENCE TIME = 37.5 > 21.0 DAYS O.K.
Mean Depth 3.09 feet

LONDON COVE
POST-DEVELOPMENT STORMWATER ANALYSIS
Permanent Pool Calculations

POND	**2**	
BASIN AREA	11.09	ACRES
IMPERVIOUS AREA	8.22	ACRES
AVG RAINFALL	32	INCHES (JUNE-OCTOBER)
WET SEASON	153	DAYS
C - FACTOR	0.76	

ELEV (FEET)	AREA (ACRES)	AVG. AREA (ACRES)	INC. DEPTH (FEET)	INC. STORAGE (AC-FT)	CUM. TORAGE (AC-FT)
15.00	0.28	-	-	-	0.00
21.00	0.52	0.40	6.00	2.40	2.40
23.00	0.72	0.62	2.00	1.24	3.64

PERMANENT POOL AVAIL.= 3.64 AC-FT

AVERAGE DAILY RUNOFF VOLUME (USING 153 DAY RAINFALL PERIOD) =
(TOTAL AREA*C)(31"/153 DAYS)(1'/12") =
= 0.15 AC-FT

$$\text{RESIDENCE TIME} = \frac{\text{PERMANENT VOLUME AVAILABLE}}{\text{AVERAGE DAILY RUNOFF VOLUME}} = 24.9 \text{ DAYS}$$

RESIDENCE TIME = 24.9 > 21.0 DAYS O.K.
Mean Depth 5.06 feet

LONDON COVE
STORMWATER ANALYSIS
Peak Discharge Summary Table

PRE-POST* PEAK DISCHARGE	NODE 99	NODE D-21	MAX POST STAGE FOR PONDS 1	MAX POST STAGE FOR PONDS 2
	Pre-Development	**Post Development**	**Post Development**	**Post Development**
Storm Frequency	**Flow**	**Flow**	***Max Stage**	***Max Stage**
MEANFL	7.09	1.31	24.35	24.35
10Y24H	24.30	3.17	25.37	25.36
25Y24HFL	38.29	6.67	25.83	25.82
100Y24H	50.31	10.25	26.21	26.18
TOP OF BANK			**27.8**	**27.8**

(*) Considering Pre UH 256 and Post UH323 (Res) and UH484 (Com)

LONDON COVE
POST-DEVELOPMENT STORMWATER ANALYSIS
100 YEAR COMPENSATING STORAGE CALCS

Impact

Elevation (ft)	Area (ac)	Average Area (ac)	Depth (ft)	Storage (ac-ft)	Cumulative Impact (ac-ft)
21.80	0.27				0.00
		0.28	0.20	0.06	
22.00	0.29				0.06

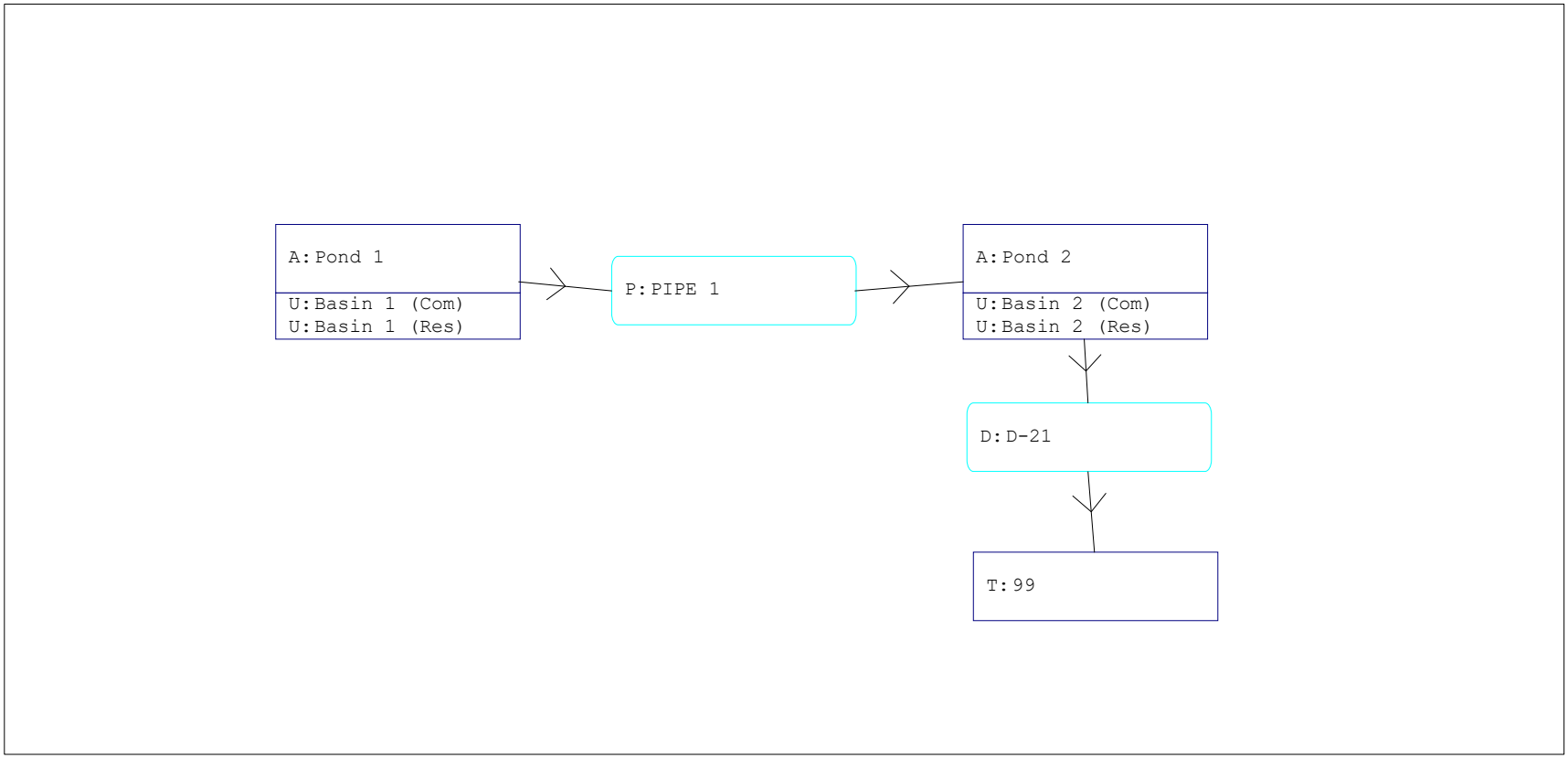
Compensating Storage

Elevation (ft)	Area (ac)	Average Area (ac)	Depth (ft)	Storage (ac-ft)	Cumulative Storage (ac-ft)
21.00	0.15				0.00
		0.16	1.00	0.16	
22.00	0.18				0.16

Nodes
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins
O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links
P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



Basins

Name: Basin 1 (Com) Node: Pond 1 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 25.00
Area(ac): 4.790 Time Shift(hrs): 0.00
Curve Number: 88.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: Basin 1 (Res) Node: Pond 1 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh323 Peaking Factor: 323.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 14.00
Area(ac): 3.680 Time Shift(hrs): 0.00
Curve Number: 93.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: Basin 2 (Com) Node: Pond 2 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh484 Peaking Factor: 484.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 28.00
Area(ac): 4.140 Time Shift(hrs): 0.00
Curve Number: 86.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: Basin 2 (Res) Node: Pond 2 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh323 Peaking Factor: 323.0
Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 18.00
Area(ac): 6.950 Time Shift(hrs): 0.00
Curve Number: 89.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Nodes

Name: 99 Base Flow(cfs): 0.000 Init Stage(ft): 22.000
Group: BASE Warn Stage(ft): 23.000
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	22.000
336.00	22.000

Name: Pond 1 Base Flow(cfs): 0.000 Init Stage(ft): 23.000
Group: BASE Warn Stage(ft): 27.800
Type: Stage/Area

Stage(ft)	Area(ac)
23.000	1.4200
24.000	1.5600
25.000	1.7000
26.000	1.8500
27.000	2.0000
27.800	2.0800

```
--------------------------------------------------------------------------------------------
      Name: Pond 2             Base Flow(cfs): 0.000          Init Stage(ft): 23.000
     Group: BASE                                             Warn Stage(ft): 27.800
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         23.000          1.4200
         24.000          1.5600
         25.000          1.7000
         26.000          1.8500
         27.000          2.0000
         27.800          2.0800

============================================================================================
==== Pipes =================================================================================
============================================================================================

        Name: PIPE 1              From Node: Pond 1             Length(ft): 656.00
       Group: BASE                  To Node: Pond 2                  Count: 1
                                                          Friction Equation: Automatic
              UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
    Geometry: Circular       Circular                              Flow: Both
    Span(in): 36.00          36.00                     Entrance Loss Coef: 0.00
    Rise(in): 36.00          36.00                         Exit Loss Coef: 1.00
   Invert(ft): 16.000        16.000                        Bend Loss Coef: 0.00
  Manning's N: 0.013000      0.013000                   Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000         0.000                        Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000         0.000                     Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


============================================================================================
==== Drop Structures =======================================================================
============================================================================================

        Name: D-21                From Node: Pond 2             Length(ft): 40.00
       Group: BASE                  To Node: 99                      Count: 1

              UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
    Geometry: Circular       Circular                   Solution Algorithm: Most Restrictive
    Span(in): 24.00          24.00                                 Flow: Both
    Rise(in): 24.00          24.00                     Entrance Loss Coef: 0.000
   Invert(ft): 21.000        21.000                        Exit Loss Coef: 1.000
  Manning's N: 0.013000      0.013000                   Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000         0.000                        Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000         0.000                          Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


*** Weir 1 of 3 for Drop Structure D-21 ***
                                                                                TABLE
                 Count: 3                      Bottom Clip(in): 0.000
                  Type: Vertical: Mavis           Top Clip(in): 0.000
                  Flow: Both                   Weir Disc Coef: 3.200
              Geometry: Circular              Orifice Disc Coef: 0.600

              Span(in): 3.90                        Invert(ft): 23.000
              Rise(in): 3.90                   Control Elev(ft): 23.000

*** Weir 2 of 3 for Drop Structure D-21 ***
                                                                                TABLE
                 Count: 1                      Bottom Clip(in): 0.000
                  Type: Vertical: Mavis           Top Clip(in): 0.000
                  Flow: Both                   Weir Disc Coef: 3.200
              Geometry: Rectangular           Orifice Disc Coef: 0.600

              Span(in): 24.00                       Invert(ft): 25.000
              Rise(in): 21.60                  Control Elev(ft): 25.000
```

*** Weir 3 of 3 for Drop Structure D-21 ***
TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Horizontal	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	58.00	Invert(ft):	26.800
Rise(in):	46.00	Control Elev(ft):	26.800

==========
==== Hydrology Simulations ==========
==========

Name: 100Y-24H
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Post\100Y-24H.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 11.10

Time(hrs)	Print Inc(min)
30.000	15.00

Name: 10Y24H
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Post\10Y24H.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 7.50

Time(hrs)	Print Inc(min)
30.000	15.00

Name: 25Y24HFL
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Post\25Y24HFL.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 9.50

Time(hrs)	Print Inc(min)
30.000	15.00

Name: MEANFL
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Post\MEANFL.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 4.50

Time(hrs)	Print Inc(min)
30.000	15.00

==========
==== Routing Simulations ==========
==========

Name: 100Y-24H Hydrology Sim: 100Y-24H
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Post\100Y-24H.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.50000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 2.0000 Max Calc Time(sec): 5.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)

30.000	15.000

Group	Run
BASE	Yes

Name: 10Y24H Hydrology Sim: 10Y24H
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Post\10Y24H.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.05000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 2.0000 Max Calc Time(sec): 5.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
30.000	15.000

Group	Run
BASE	Yes

Name: 25Y24HFL Hydrology Sim: 25Y24HFL
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Post\25Y24HFL.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.50000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 2.0000 Max Calc Time(sec): 5.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
30.000	15.000

Group	Run
BASE	Yes

Name: MEANFL Hydrology Sim: MEANFL
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Post\MEANFL.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.50000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 2.0000 Max Calc Time(sec): 5.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
30.000	15.000

Group	Run
BASE	Yes

Name:	Basin 1 (Com)	Basin 1 (Res)	Basin 2 (Com)	Basin 2 (Res)	Basin 1 (Com)
Group:	BASE	BASE	BASE	BASE	BASE
Simulation:	100Y-24H	100Y-24H	100Y-24H	100Y-24H	10Y24H
Node:	Pond 1	Pond 1	Pond 2	Pond 2	Pond 1
Type:	SCS	SCS	SCS	SCS	SCS
Unit Hydrograph:	Uh484	Uh323	Uh484	Uh323	Uh484
Peaking Factor:	484.0	323.0	484.0	323.0	484.0
Spec Time Inc(min):	3.33	1.87	3.73	2.40	3.33
Comp Time Inc(min):	3.33	1.87	3.73	2.40	3.33
Rain File:	Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	11.100	11.100	11.100	11.100	7.500
Duration(hrs):	24.00	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite	Onsite
TC(min):	25.00	14.00	28.00	18.00	25.00
Time Shift(hrs):	0.00	0.00	0.00	0.00	0.00
Area(ac):	4.790	3.680	4.140	6.950	4.790
Vol of Unit Hyd(in):	1.001	1.001	1.001	1.001	1.001
Curve Num:	88.000	93.000	86.000	89.000	88.000
DCIA(%):	0.000	0.000	0.000	0.000	0.000
Time Max(hrs):	12.11	12.07	12.20	12.08	12.11
Flow Max(cfs):	30.101	23.738	24.406	39.749	19.469
Runoff Volume(in):	9.603	10.248	9.343	9.747	6.072
Runoff Volume(ft3):	166979.760	136897.927	140406.125	245911.439	105577.500

Name:	Basin 1 (Res)	Basin 2 (Com)	Basin 2 (Res)	Basin 1 (Com)	Basin 1 (Res)
Group:	BASE	BASE	BASE	BASE	BASE
Simulation:	10Y24H	10Y24H	10Y24H	25Y24HFL	25Y24HFL
Node:	Pond 1	Pond 2	Pond 2	Pond 1	Pond 1
Type:	SCS	SCS	SCS	SCS	SCS
Unit Hydrograph:	Uh323	Uh484	Uh323	Uh484	Uh323
Peaking Factor:	323.0	484.0	323.0	484.0	323.0
Spec Time Inc(min):	1.87	3.73	2.40	3.33	1.87
Comp Time Inc(min):	1.87	3.73	2.40	3.33	1.87
Rain File:	Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	7.500	7.500	7.500	9.500	9.500
Duration(hrs):	24.00	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite	Onsite
TC(min):	14.00	28.00	18.00	25.00	14.00
Time Shift(hrs):	0.00	0.00	0.00	0.00	0.00
Area(ac):	3.680	4.140	6.950	4.790	3.680
Vol of Unit Hyd(in):	1.001	1.001	1.001	1.001	1.001
Curve Num:	93.000	86.000	89.000	88.000	93.000
DCIA(%):	0.000	0.000	0.000	0.000	0.000
Time Max(hrs):	12.07	12.20	12.12	12.11	12.07
Flow Max(cfs):	15.776	15.630	25.852	25.394	20.208
Runoff Volume(in):	6.669	5.837	6.199	8.028	8.655
Runoff Volume(ft3):	89081.105	87712.835	156402.677	139596.712	115620.708

Name:	Basin 2 (Com)	Basin 2 (Res)	Basin 1 (Com)	Basin 1 (Res)	Basin 2 (Com)
Group:	BASE	BASE	BASE	BASE	BASE
Simulation:	25Y24HFL	25Y24HFL	MEANFL	MEANFL	MEANFL
Node:	Pond 2	Pond 2	Pond 1	Pond 1	Pond 2
Type:	SCS	SCS	SCS	SCS	SCS
Unit Hydrograph:	Uh484	Uh323	Uh484	Uh323	Uh484
Peaking Factor:	484.0	323.0	484.0	323.0	484.0
Spec Time Inc(min):	3.73	2.40	3.33	1.87	3.73
Comp Time Inc(min):	3.73	2.40	3.33	1.87	3.73
Rain File:	Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	9.500	9.500	4.500	4.500	4.500
Duration(hrs):	24.00	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite	Onsite
TC(min):	28.00	18.00	25.00	14.00	28.00
Time Shift(hrs):	0.00	0.00	0.00	0.00	0.00
Area(ac):	4.140	6.950	4.790	3.680	4.140
Vol of Unit Hyd(in):	1.001	1.001	1.001	1.001	1.001
Curve Num:	86.000	89.000	88.000	93.000	86.000
DCIA(%):	0.000	0.000	0.000	0.000	0.000
Time Max(hrs):	12.20	12.08	12.17	12.07	12.20
Flow Max(cfs):	20.520	33.591	10.516	9.052	8.240
Runoff Volume(in):	7.777	8.166	3.192	3.709	2.997
Runoff Volume(ft3):	116878.930	206015.140	55500.820	49543.684	45045.282

Name:	Basin 2 (Res)
Group:	BASE
Simulation:	MEANFL
Node:	Pond 2
Type:	SCS
Unit Hydrograph:	Uh323
Peaking Factor:	323.0
Spec Time Inc(min):	2.40
Comp Time Inc(min):	2.40
Rain File:	Flmod
Rain Amount(in):	4.500

Duration(hrs):	24.00
Status:	Onsite
TC(min):	18.00
Time Shift(hrs):	0.00
Area(ac):	6.950
Vol of Unit Hyd(in):	1.001
Curve Num:	89.000
DCIA(%):	0.000
Time Max(hrs):	12.12
Flow Max(cfs):	14.141
Runoff Volume(in):	3.297
Runoff Volume(ft3):	83167.389

LONDON COVE - DB-3
POST-DEVELOPMENT - Node Min Max Report
04/22/2021

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
99	BASE	100Y-24H	0.00	22.000	23.000	0.0000	0	13.90	10.254	0.00	0.000
99	BASE	10Y24H	0.00	22.000	23.000	0.0000	0	17.43	3.171	0.00	0.000
99	BASE	25Y24HFL	0.00	22.000	23.000	0.0000	0	14.70	6.671	0.00	0.000
99	BASE	MEANFL	0.00	22.000	23.000	0.0000	0	20.17	1.305	0.00	0.000
Pond 1	BASE	100Y-24H	14.00	26.210	27.800	0.0035	82009	12.00	48.472	14.72	4.455
Pond 1	BASE	10Y24H	17.47	25.365	27.800	0.0024	76489	12.00	31.596	18.16	1.390
Pond 1	BASE	25Y24HFL	14.74	25.831	27.800	0.0031	79529	12.00	40.997	15.45	2.908
Pond 1	BASE	MEANFL	20.18	24.350	27.800	0.0014	70139	12.00	17.354	25.27	0.637
Pond 2	BASE	100Y-24H	13.90	26.178	27.800	0.0036	81797	12.00	53.708	13.90	10.254
Pond 2	BASE	10Y24H	17.43	25.362	27.800	0.0025	76467	12.05	34.607	17.43	3.171
Pond 2	BASE	25Y24HFL	14.70	25.816	27.800	0.0031	79435	12.00	45.231	14.70	6.671
Pond 2	BASE	MEANFL	20.17	24.350	27.800	0.0014	70135	12.25	18.978	20.17	1.305

LONDON COVE - DB-3
POST-DEVELOPMENT - Link Min Max Report
04/22/2021

Name	Group	Simulation	Max Time Flow hrs	Max Flow cfs	Max Delta Q cfs	Max Time US Stage hrs	Max US Stage ft	Max Time DS Stage hrs	Max DS Stage ft
D-21	BASE	100Y-24H	13.90	10.254	0.020	13.90	26.178	0.00	22.000
D-21	BASE	10Y24H	17.43	3.171	0.002	17.43	25.362	0.00	22.000
D-21	BASE	25Y24HFL	14.70	6.671	0.010	14.70	25.816	0.00	22.000
D-21	BASE	MEANFL	20.17	1.305	0.002	20.17	24.350	0.00	22.000

Basins

Name: Basin 1 (Com) | Node: Pond 1 | Status: Onsite
Group: BASE | Type: SCS Unit Hydrograph CN

Unit Hydrograph:	Uh484	Peaking Factor:	484.0
Rainfall File:		Storm Duration(hrs):	0.00
Rainfall Amount(in):	0.000	Time of Conc(min):	25.00
Area(ac):	4.790	Time Shift(hrs):	0.00
Curve Number:	88.00	Max Allowable Q(cfs):	999999.000
DCIA(%):	0.00		

Name: Basin 1 (Res) | Node: Pond 1 | Status: Onsite
Group: BASE | Type: SCS Unit Hydrograph CN

Unit Hydrograph:	Uh323	Peaking Factor:	323.0
Rainfall File:		Storm Duration(hrs):	0.00
Rainfall Amount(in):	0.000	Time of Conc(min):	14.00
Area(ac):	3.680	Time Shift(hrs):	0.00
Curve Number:	93.00	Max Allowable Q(cfs):	999999.000
DCIA(%):	0.00		

Name: Basin 2 (Com) | Node: Pond 2 | Status: Onsite
Group: BASE | Type: SCS Unit Hydrograph CN

Unit Hydrograph:	Uh484	Peaking Factor:	484.0
Rainfall File:		Storm Duration(hrs):	0.00
Rainfall Amount(in):	0.000	Time of Conc(min):	28.00
Area(ac):	4.140	Time Shift(hrs):	0.00
Curve Number:	86.00	Max Allowable Q(cfs):	999999.000
DCIA(%):	0.00		

Name: Basin 2 (Res) | Node: Pond 2 | Status: Onsite
Group: BASE | Type: SCS Unit Hydrograph CN

Unit Hydrograph:	Uh323	Peaking Factor:	323.0
Rainfall File:		Storm Duration(hrs):	0.00
Rainfall Amount(in):	0.000	Time of Conc(min):	18.00
Area(ac):	6.950	Time Shift(hrs):	0.00
Curve Number:	89.00	Max Allowable Q(cfs):	999999.000
DCIA(%):	0.00		

Nodes

Name: 99 | Base Flow(cfs): 0.000 | Init Stage(ft): 22.000
Group: BASE | Warn Stage(ft): 23.000
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	22.000
336.00	22.000

Name: Pond 1 | Base Flow(cfs): 0.000 | Init Stage(ft): 25.000
Group: BASE | Warn Stage(ft): 27.500
Type: Stage/Area

Stage(ft)	Area(ac)
23.000	1.4200
24.000	1.5600
25.000	1.7000
26.000	1.8500
27.000	2.0000
27.500	2.0800

```
--------------------------------------------------------------------------------------------
      Name: Pond 2             Base Flow(cfs): 0.000          Init Stage(ft): 25.000
     Group: BASE                                             Warn Stage(ft): 27.500
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         23.000          1.4200
         24.000          1.5600
         25.000          1.7000
         26.000          1.8500
         27.000          2.0000
         27.500          2.0800

============================================================================================
==== Pipes =================================================================================
============================================================================================

        Name: PIPE 1              From Node: Pond 1             Length(ft): 656.00
       Group: BASE                  To Node: Pond 2                  Count: 1
                                                          Friction Equation: Automatic
              UPSTREAM       DOWNSTREAM                Solution Algorithm: Most Restrictive
    Geometry: Circular       Circular                         Flow: Both
    Span(in): 36.00          36.00                    Entrance Loss Coef: 0.00
    Rise(in): 36.00          36.00                        Exit Loss Coef: 1.00
   Invert(ft): 16.000        16.000                       Bend Loss Coef: 0.00
  Manning's N: 0.013000      0.013000                  Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000         0.000                       Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000         0.000                    Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


============================================================================================
==== Drop Structures =======================================================================
============================================================================================

        Name: D-21                From Node: Pond 2             Length(ft): 40.00
       Group: BASE                  To Node: 99                      Count: 1

              UPSTREAM       DOWNSTREAM                Friction Equation: Automatic
    Geometry: Circular       Circular                 Solution Algorithm: Most Restrictive
    Span(in): 24.00          24.00                            Flow: Both
    Rise(in): 24.00          24.00                    Entrance Loss Coef: 0.000
   Invert(ft): 21.000        21.000                       Exit Loss Coef: 1.000
  Manning's N: 0.013000      0.013000                  Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000         0.000                       Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000         0.000                         Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


*** Weir 1 of 3 for Drop Structure D-21 ***
                                                                              TABLE
                 Count: 3                      Bottom Clip(in): 0.000
                  Type: Vertical: Mavis           Top Clip(in): 0.000
                  Flow: Both                   Weir Disc Coef: 3.200
              Geometry: Circular              Orifice Disc Coef: 0.600

              Span(in): 3.90                        Invert(ft): 23.000
              Rise(in): 3.90                   Control Elev(ft): 23.000

*** Weir 2 of 3 for Drop Structure D-21 ***
                                                                              TABLE
                 Count: 1                      Bottom Clip(in): 0.000
                  Type: Vertical: Mavis           Top Clip(in): 0.000
                  Flow: Both                   Weir Disc Coef: 3.200
              Geometry: Rectangular           Orifice Disc Coef: 0.600

              Span(in): 24.00                       Invert(ft): 25.000
              Rise(in): 21.60                  Control Elev(ft): 25.000
```

*** Weir 3 of 3 for Drop Structure D-21 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Horizontal	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.200
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	58.00	Invert(ft):	26.800
Rise(in):	46.00	Control Elev(ft):	26.800

==========
==== Hydrology Simulations ==========
==========

Name:
Filename:

Override Defaults: Yes
Storm Duration(hrs): 0.00
Rainfall File:
Rainfall Amount(in): 0.00

Time(hrs)	Print Inc(min)
30.000	5.00

==========
==== Routing Simulations ==========
==========

Name: Recovery Hydrology Sim:
Filename: F:\DB3\Drainage\ICPR\New Layout 08.11.2020\Recovery\Recovery.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.01000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 120.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 10.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
120.000	15.000

Group	Run
BASE	Yes

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
Recovery	Pond 1	BASE	0.00	25.000	27.500	74101	0.000	0.000	0.00	0.00
Recovery	Pond 1	BASE	0.25	24.991	27.500	74045	0.000	0.810	0.00	0.01
Recovery	Pond 1	BASE	0.50	24.981	27.500	73985	0.000	0.807	0.00	0.03
Recovery	Pond 1	BASE	0.75	24.971	27.500	73925	0.000	0.805	0.00	0.04
Recovery	Pond 1	BASE	1.00	24.961	27.500	73865	0.000	0.803	0.00	0.06
Recovery	Pond 1	BASE	1.25	24.952	27.500	73806	0.000	0.801	0.00	0.07
Recovery	Pond 1	BASE	1.50	24.942	27.500	73746	0.000	0.799	0.00	0.09
Recovery	Pond 1	BASE	1.75	24.932	27.500	73687	0.000	0.797	0.00	0.11
Recovery	Pond 1	BASE	2.00	24.922	27.500	73627	0.000	0.794	0.00	0.12
Recovery	Pond 1	BASE	2.25	24.913	27.500	73568	0.000	0.792	0.00	0.14
Recovery	Pond 1	BASE	2.50	24.903	27.500	73509	0.000	0.790	0.00	0.16
Recovery	Pond 1	BASE	2.75	24.893	27.500	73450	0.000	0.788	0.00	0.17
Recovery	Pond 1	BASE	3.00	24.884	27.500	73391	0.000	0.786	0.00	0.19
Recovery	Pond 1	BASE	3.25	24.874	27.500	73333	0.000	0.783	0.00	0.21
Recovery	Pond 1	BASE	3.50	24.864	27.500	73274	0.000	0.781	0.00	0.22
Recovery	Pond 1	BASE	3.75	24.855	27.500	73216	0.000	0.779	0.00	0.24
Recovery	Pond 1	BASE	4.00	24.845	27.500	73157	0.000	0.777	0.00	0.25
Recovery	Pond 1	BASE	4.25	24.836	27.500	73099	0.000	0.775	0.00	0.27
Recovery	Pond 1	BASE	4.50	24.826	27.500	73041	0.000	0.772	0.00	0.29
Recovery	Pond 1	BASE	4.75	24.817	27.500	72983	0.000	0.770	0.00	0.30
Recovery	Pond 1	BASE	5.00	24.807	27.500	72925	0.000	0.768	0.00	0.32
Recovery	Pond 1	BASE	5.25	24.798	27.500	72867	0.000	0.766	0.00	0.33
Recovery	Pond 1	BASE	5.50	24.788	27.500	72810	0.000	0.764	0.00	0.35
Recovery	Pond 1	BASE	5.75	24.779	27.500	72752	0.000	0.761	0.00	0.37
Recovery	Pond 1	BASE	6.00	24.769	27.500	72695	0.000	0.759	0.00	0.38
Recovery	Pond 1	BASE	6.25	24.760	27.500	72638	0.000	0.757	0.00	0.40
Recovery	Pond 1	BASE	6.50	24.751	27.500	72581	0.000	0.755	0.00	0.41
Recovery	Pond 1	BASE	6.75	24.741	27.500	72524	0.000	0.752	0.00	0.43
Recovery	Pond 1	BASE	7.00	24.732	27.500	72467	0.000	0.750	0.00	0.44
Recovery	Pond 1	BASE	7.25	24.723	27.500	72410	0.000	0.748	0.00	0.46
Recovery	Pond 1	BASE	7.50	24.713	27.500	72353	0.000	0.746	0.00	0.47
Recovery	Pond 1	BASE	7.75	24.704	27.500	72297	0.000	0.743	0.00	0.49
Recovery	Pond 1	BASE	8.00	24.695	27.500	72240	0.000	0.741	0.00	0.51
Recovery	Pond 1	BASE	8.25	24.686	27.500	72184	0.000	0.739	0.00	0.52
Recovery	Pond 1	BASE	8.50	24.676	27.500	72128	0.000	0.737	0.00	0.54
Recovery	Pond 1	BASE	8.75	24.667	27.500	72072	0.000	0.735	0.00	0.55
Recovery	Pond 1	BASE	9.00	24.658	27.500	72016	0.000	0.732	0.00	0.57
Recovery	Pond 1	BASE	9.25	24.649	27.500	71960	0.000	0.730	0.00	0.58
Recovery	Pond 1	BASE	9.50	24.640	27.500	71905	0.000	0.728	0.00	0.60
Recovery	Pond 1	BASE	9.75	24.631	27.500	71849	0.000	0.726	0.00	0.61
Recovery	Pond 1	BASE	10.00	24.622	27.500	71794	0.000	0.723	0.00	0.63
Recovery	Pond 1	BASE	10.25	24.613	27.500	71739	0.000	0.721	0.00	0.64
Recovery	Pond 1	BASE	10.50	24.604	27.500	71684	0.000	0.719	0.00	0.66
Recovery	Pond 1	BASE	10.75	24.595	27.500	71629	0.000	0.717	0.00	0.67
Recovery	Pond 1	BASE	11.00	24.586	27.500	71574	0.000	0.714	0.00	0.69
Recovery	Pond 1	BASE	11.25	24.577	27.500	71519	0.000	0.712	0.00	0.70
Recovery	Pond 1	BASE	11.50	24.568	27.500	71465	0.000	0.710	0.00	0.72
Recovery	Pond 1	BASE	11.75	24.559	27.500	71410	0.000	0.708	0.00	0.73
Recovery	Pond 1	BASE	12.00	24.550	27.500	71356	0.000	0.705	0.00	0.74
Recovery	Pond 1	BASE	12.25	24.541	27.500	71302	0.000	0.703	0.00	0.76
Recovery	Pond 1	BASE	12.50	24.532	27.500	71248	0.000	0.701	0.00	0.77
Recovery	Pond 1	BASE	12.75	24.523	27.500	71194	0.000	0.699	0.00	0.79
Recovery	Pond 1	BASE	13.00	24.514	27.500	71140	0.000	0.696	0.00	0.80
Recovery	Pond 1	BASE	13.25	24.506	27.500	71086	0.000	0.694	0.00	0.82
Recovery	Pond 1	BASE	13.50	24.497	27.500	71033	0.000	0.692	0.00	0.83
Recovery	Pond 1	BASE	13.75	24.488	27.500	70979	0.000	0.689	0.00	0.85
Recovery	Pond 1	BASE	14.00	24.479	27.500	70926	0.000	0.687	0.00	0.86
Recovery	Pond 1	BASE	14.25	24.471	27.500	70873	0.000	0.685	0.00	0.87
Recovery	Pond 1	BASE	14.50	24.462	27.500	70820	0.000	0.683	0.00	0.89
Recovery	Pond 1	BASE	14.75	24.453	27.500	70767	0.000	0.680	0.00	0.90
Recovery	Pond 1	BASE	15.00	24.445	27.500	70714	0.000	0.678	0.00	0.92
Recovery	Pond 1	BASE	15.25	24.436	27.500	70662	0.000	0.676	0.00	0.93
Recovery	Pond 1	BASE	15.50	24.427	27.500	70609	0.000	0.673	0.00	0.94
Recovery	Pond 1	BASE	15.75	24.419	27.500	70557	0.000	0.671	0.00	0.96
Recovery	Pond 1	BASE	16.00	24.410	27.500	70505	0.000	0.669	0.00	0.97
Recovery	Pond 1	BASE	16.25	24.402	27.500	70453	0.000	0.667	0.00	0.99
Recovery	Pond 1	BASE	16.50	24.393	27.500	70401	0.000	0.664	0.00	1.00
Recovery	Pond 1	BASE	16.75	24.385	27.500	70349	0.000	0.662	0.00	1.01
Recovery	Pond 1	BASE	17.00	24.376	27.500	70298	0.000	0.660	0.00	1.03
Recovery	Pond 1	BASE	17.25	24.368	27.500	70246	0.000	0.657	0.00	1.04
Recovery	Pond 1	BASE	17.50	24.359	27.500	70195	0.000	0.655	0.00	1.05
Recovery	Pond 1	BASE	17.75	24.351	27.500	70144	0.000	0.653	0.00	1.07
Recovery	Pond 1	BASE	18.00	24.343	27.500	70093	0.000	0.651	0.00	1.08
Recovery	Pond 1	BASE	18.25	24.334	27.500	70042	0.000	0.648	0.00	1.09
Recovery	Pond 1	BASE	18.50	24.326	27.500	69991	0.000	0.646	0.00	1.11
Recovery	Pond 1	BASE	18.75	24.318	27.500	69941	0.000	0.644	0.00	1.12
Recovery	Pond 1	BASE	19.00	24.310	27.500	69890	0.000	0.641	0.00	1.13
Recovery	Pond 1	BASE	19.25	24.301	27.500	69840	0.000	0.639	0.00	1.15
Recovery	Pond 1	BASE	19.50	24.293	27.500	69790	0.000	0.637	0.00	1.16
Recovery	Pond 1	BASE	19.75	24.285	27.500	69740	0.000	0.634	0.00	1.17
Recovery	Pond 1	BASE	20.00	24.277	27.500	69690	0.000	0.632	0.00	1.19
Recovery	Pond 1	BASE	20.25	24.269	27.500	69640	0.000	0.630	0.00	1.20
Recovery	Pond 1	BASE	20.50	24.260	27.500	69591	0.000	0.627	0.00	1.21

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
Recovery	Pond 1	BASE	20.75	24.252	27.500	69541	0.000	0.625	0.00	1.23
Recovery	Pond 1	BASE	21.00	24.244	27.500	69492	0.000	0.623	0.00	1.24
Recovery	Pond 1	BASE	21.25	24.236	27.500	69443	0.000	0.620	0.00	1.25
Recovery	Pond 1	BASE	21.50	24.228	27.500	69394	0.000	0.618	0.00	1.26
Recovery	Pond 1	BASE	21.75	24.220	27.500	69345	0.000	0.616	0.00	1.28
Recovery	Pond 1	BASE	22.00	24.212	27.500	69297	0.000	0.613	0.00	1.29
Recovery	Pond 1	BASE	22.25	24.204	27.500	69248	0.000	0.611	0.00	1.30
Recovery	Pond 1	BASE	22.50	24.196	27.500	69200	0.000	0.609	0.00	1.31
Recovery	Pond 1	BASE	22.75	24.188	27.500	69151	0.000	0.606	0.00	1.33
Recovery	Pond 1	BASE	23.00	24.180	27.500	69103	0.000	0.604	0.00	1.34
Recovery	Pond 1	BASE	23.25	24.173	27.500	69055	0.000	0.602	0.00	1.35
Recovery	Pond 1	BASE	23.50	24.165	27.500	69008	0.000	0.599	0.00	1.36
Recovery	Pond 1	BASE	23.75	24.157	27.500	68960	0.000	0.597	0.00	1.38
Recovery	Pond 1	BASE	24.00	24.149	27.500	68913	0.000	0.595	0.00	1.39
Recovery	Pond 1	BASE	24.25	24.141	27.500	68865	0.000	0.592	0.00	1.40
Recovery	Pond 1	BASE	24.50	24.134	27.500	68818	0.000	0.590	0.00	1.41
Recovery	Pond 1	BASE	24.75	24.126	27.500	68771	0.000	0.588	0.00	1.43
Recovery	Pond 1	BASE	25.00	24.118	27.500	68724	0.000	0.585	0.00	1.44
Recovery	Pond 1	BASE	25.25	24.111	27.500	68678	0.000	0.583	0.00	1.45
Recovery	Pond 1	BASE	25.50	24.103	27.500	68631	0.000	0.581	0.00	1.46
Recovery	Pond 1	BASE	25.75	24.095	27.500	68585	0.000	0.578	0.00	1.47
Recovery	Pond 1	BASE	26.00	24.088	27.500	68539	0.000	0.576	0.00	1.49
Recovery	Pond 1	BASE	26.25	24.080	27.500	68493	0.000	0.574	0.00	1.50
Recovery	Pond 1	BASE	26.50	24.073	27.500	68447	0.000	0.571	0.00	1.51
Recovery	Pond 1	BASE	26.75	24.065	27.500	68401	0.000	0.569	0.00	1.52
Recovery	Pond 1	BASE	27.00	24.058	27.500	68355	0.000	0.567	0.00	1.53
Recovery	Pond 1	BASE	27.25	24.050	27.500	68310	0.000	0.564	0.00	1.54
Recovery	Pond 1	BASE	27.50	24.043	27.500	68265	0.000	0.562	0.00	1.56
Recovery	Pond 1	BASE	27.75	24.036	27.500	68220	0.000	0.560	0.00	1.57
Recovery	Pond 1	BASE	28.00	24.028	27.500	68175	0.000	0.557	0.00	1.58
Recovery	Pond 1	BASE	28.25	24.021	27.500	68130	0.000	0.555	0.00	1.59
Recovery	Pond 1	BASE	28.50	24.014	27.500	68085	0.000	0.552	0.00	1.60
Recovery	Pond 1	BASE	28.75	24.006	27.500	68041	0.000	0.550	0.00	1.61
Recovery	Pond 1	BASE	29.00	23.999	27.500	67997	0.000	0.548	0.00	1.63
Recovery	Pond 1	BASE	29.25	23.992	27.500	67952	0.000	0.545	0.00	1.64
Recovery	Pond 1	BASE	29.50	23.985	27.500	67908	0.000	0.543	0.00	1.65
Recovery	Pond 1	BASE	29.75	23.977	27.500	67865	0.000	0.541	0.00	1.66
Recovery	Pond 1	BASE	30.00	23.970	27.500	67821	0.000	0.538	0.00	1.67
Recovery	Pond 1	BASE	30.25	23.963	27.500	67778	0.000	0.536	0.00	1.68
Recovery	Pond 1	BASE	30.50	23.956	27.500	67734	0.000	0.533	0.00	1.69
Recovery	Pond 1	BASE	30.75	23.949	27.500	67691	0.000	0.531	0.00	1.70
Recovery	Pond 1	BASE	31.00	23.942	27.500	67648	0.000	0.529	0.00	1.71
Recovery	Pond 1	BASE	31.25	23.935	27.500	67605	0.000	0.526	0.00	1.73
Recovery	Pond 1	BASE	31.50	23.928	27.500	67563	0.000	0.524	0.00	1.74
Recovery	Pond 1	BASE	31.75	23.921	27.500	67520	0.000	0.521	0.00	1.75
Recovery	Pond 1	BASE	32.00	23.914	27.500	67478	0.000	0.519	0.00	1.76
Recovery	Pond 1	BASE	32.25	23.907	27.500	67436	0.000	0.517	0.00	1.77
Recovery	Pond 1	BASE	32.50	23.900	27.500	67394	0.000	0.514	0.00	1.78
Recovery	Pond 1	BASE	32.75	23.893	27.500	67352	0.000	0.512	0.00	1.79
Recovery	Pond 1	BASE	33.00	23.886	27.500	67310	0.000	0.509	0.00	1.80
Recovery	Pond 1	BASE	33.25	23.880	27.500	67269	0.000	0.507	0.00	1.81
Recovery	Pond 1	BASE	33.50	23.873	27.500	67228	0.000	0.505	0.00	1.82
Recovery	Pond 1	BASE	33.75	23.866	27.500	67187	0.000	0.502	0.00	1.83
Recovery	Pond 1	BASE	34.00	23.859	27.500	67146	0.000	0.500	0.00	1.84
Recovery	Pond 1	BASE	34.25	23.853	27.500	67105	0.000	0.497	0.00	1.85
Recovery	Pond 1	BASE	34.50	23.846	27.500	67064	0.000	0.495	0.00	1.86
Recovery	Pond 1	BASE	34.75	23.839	27.500	67024	0.000	0.493	0.00	1.87
Recovery	Pond 1	BASE	35.00	23.833	27.500	66984	0.000	0.490	0.00	1.88
Recovery	Pond 1	BASE	35.25	23.826	27.500	66943	0.000	0.488	0.00	1.89
Recovery	Pond 1	BASE	35.50	23.820	27.500	66904	0.000	0.485	0.00	1.90
Recovery	Pond 1	BASE	35.75	23.813	27.500	66864	0.000	0.483	0.00	1.91
Recovery	Pond 1	BASE	36.00	23.807	27.500	66824	0.000	0.481	0.00	1.92
Recovery	Pond 1	BASE	36.25	23.800	27.500	66785	0.000	0.478	0.00	1.93
Recovery	Pond 1	BASE	36.50	23.794	27.500	66746	0.000	0.476	0.00	1.94
Recovery	Pond 1	BASE	36.75	23.787	27.500	66707	0.000	0.473	0.00	1.95
Recovery	Pond 1	BASE	37.00	23.781	27.500	66668	0.000	0.471	0.00	1.96
Recovery	Pond 1	BASE	37.25	23.775	27.500	66629	0.000	0.469	0.00	1.97
Recovery	Pond 1	BASE	37.50	23.768	27.500	66591	0.000	0.466	0.00	1.98
Recovery	Pond 1	BASE	37.75	23.762	27.500	66552	0.000	0.464	0.00	1.99
Recovery	Pond 1	BASE	38.00	23.756	27.500	66514	0.000	0.461	0.00	2.00
Recovery	Pond 1	BASE	38.25	23.750	27.500	66476	0.000	0.459	0.00	2.01
Recovery	Pond 1	BASE	38.50	23.743	27.500	66438	0.000	0.456	0.00	2.02
Recovery	Pond 1	BASE	38.75	23.737	27.500	66401	0.000	0.454	0.00	2.03
Recovery	Pond 1	BASE	39.00	23.731	27.500	66363	0.000	0.452	0.00	2.04
Recovery	Pond 1	BASE	39.25	23.725	27.500	66326	0.000	0.449	0.00	2.05
Recovery	Pond 1	BASE	39.50	23.719	27.500	66289	0.000	0.447	0.00	2.06
Recovery	Pond 1	BASE	39.75	23.713	27.500	66252	0.000	0.444	0.00	2.07
Recovery	Pond 1	BASE	40.00	23.707	27.500	66215	0.000	0.442	0.00	2.08
Recovery	Pond 1	BASE	40.25	23.701	27.500	66179	0.000	0.439	0.00	2.08
Recovery	Pond 1	BASE	40.50	23.695	27.500	66142	0.000	0.437	0.00	2.09
Recovery	Pond 1	BASE	40.75	23.689	27.500	66106	0.000	0.434	0.00	2.10
Recovery	Pond 1	BASE	41.00	23.683	27.500	66070	0.000	0.432	0.00	2.11
Recovery	Pond 1	BASE	41.25	23.677	27.500	66034	0.000	0.430	0.00	2.12

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
Recovery	Pond 1	BASE	41.50	23.671	27.500	65999	0.000	0.427	0.00	2.13
Recovery	Pond 1	BASE	41.75	23.666	27.500	65963	0.000	0.425	0.00	2.14
Recovery	Pond 1	BASE	42.00	23.660	27.500	65928	0.000	0.422	0.00	2.15
Recovery	Pond 1	BASE	42.25	23.654	27.500	65893	0.000	0.420	0.00	2.16
Recovery	Pond 1	BASE	42.50	23.648	27.500	65858	0.000	0.417	0.00	2.16
Recovery	Pond 1	BASE	42.75	23.643	27.500	65824	0.000	0.415	0.00	2.17
Recovery	Pond 1	BASE	43.00	23.637	27.500	65789	0.000	0.412	0.00	2.18
Recovery	Pond 1	BASE	43.25	23.631	27.500	65755	0.000	0.410	0.00	2.19
Recovery	Pond 1	BASE	43.50	23.626	27.500	65721	0.000	0.408	0.00	2.20
Recovery	Pond 1	BASE	43.75	23.620	27.500	65687	0.000	0.405	0.00	2.21
Recovery	Pond 1	BASE	44.00	23.615	27.500	65653	0.000	0.403	0.00	2.21
Recovery	Pond 1	BASE	44.25	23.609	27.500	65619	0.000	0.400	0.00	2.22
Recovery	Pond 1	BASE	44.50	23.604	27.500	65586	0.000	0.398	0.00	2.23
Recovery	Pond 1	BASE	44.75	23.598	27.500	65553	0.000	0.395	0.00	2.24
Recovery	Pond 1	BASE	45.00	23.593	27.500	65520	0.000	0.393	0.00	2.25
Recovery	Pond 1	BASE	45.25	23.587	27.500	65487	0.000	0.390	0.00	2.26
Recovery	Pond 1	BASE	45.50	23.582	27.500	65454	0.000	0.388	0.00	2.26
Recovery	Pond 1	BASE	45.75	23.577	27.500	65422	0.000	0.385	0.00	2.27
Recovery	Pond 1	BASE	46.00	23.571	27.500	65390	0.000	0.383	0.00	2.28
Recovery	Pond 1	BASE	46.25	23.566	27.500	65358	0.000	0.380	0.00	2.29
Recovery	Pond 1	BASE	46.50	23.561	27.500	65326	0.000	0.378	0.00	2.30
Recovery	Pond 1	BASE	46.75	23.556	27.500	65294	0.000	0.376	0.00	2.30
Recovery	Pond 1	BASE	47.00	23.551	27.500	65263	0.000	0.373	0.00	2.31
Recovery	Pond 1	BASE	47.25	23.546	27.500	65231	0.000	0.371	0.00	2.32
Recovery	Pond 1	BASE	47.50	23.540	27.500	65200	0.000	0.368	0.00	2.33
Recovery	Pond 1	BASE	47.75	23.535	27.500	65169	0.000	0.366	0.00	2.33
Recovery	Pond 1	BASE	48.00	23.530	27.500	65139	0.000	0.363	0.00	2.34
Recovery	Pond 1	BASE	48.25	23.525	27.500	65108	0.000	0.361	0.00	2.35
Recovery	Pond 1	BASE	48.50	23.520	27.500	65078	0.000	0.358	0.00	2.36
Recovery	Pond 1	BASE	48.75	23.515	27.500	65048	0.000	0.356	0.00	2.36
Recovery	Pond 1	BASE	49.00	23.511	27.500	65018	0.000	0.353	0.00	2.37
Recovery	Pond 1	BASE	49.25	23.506	27.500	64988	0.000	0.351	0.00	2.38
Recovery	Pond 1	BASE	49.50	23.501	27.500	64959	0.000	0.348	0.00	2.39
Recovery	Pond 1	BASE	49.75	23.496	27.500	64929	0.000	0.346	0.00	2.39
Recovery	Pond 1	BASE	50.00	23.491	27.500	64900	0.000	0.343	0.00	2.40
Recovery	Pond 1	BASE	50.25	23.486	27.500	64871	0.000	0.341	0.00	2.41
Recovery	Pond 1	BASE	50.50	23.482	27.500	64842	0.000	0.338	0.00	2.41
Recovery	Pond 1	BASE	50.75	23.477	27.500	64814	0.000	0.336	0.00	2.42
Recovery	Pond 1	BASE	51.00	23.472	27.500	64786	0.000	0.333	0.00	2.43
Recovery	Pond 1	BASE	51.25	23.468	27.500	64757	0.000	0.331	0.00	2.43
Recovery	Pond 1	BASE	51.50	23.463	27.500	64729	0.000	0.328	0.00	2.44
Recovery	Pond 1	BASE	51.75	23.459	27.500	64702	0.000	0.326	0.00	2.45
Recovery	Pond 1	BASE	52.00	23.454	27.500	64674	0.000	0.323	0.00	2.45
Recovery	Pond 1	BASE	52.25	23.450	27.500	64647	0.000	0.321	0.00	2.46
Recovery	Pond 1	BASE	52.50	23.445	27.500	64620	0.000	0.318	0.00	2.47
Recovery	Pond 1	BASE	52.75	23.441	27.500	64593	0.000	0.316	0.00	2.47
Recovery	Pond 1	BASE	53.00	23.436	27.500	64566	0.000	0.313	0.00	2.48
Recovery	Pond 1	BASE	53.25	23.432	27.500	64539	0.000	0.311	0.00	2.49
Recovery	Pond 1	BASE	53.50	23.428	27.500	64513	0.000	0.308	0.00	2.49
Recovery	Pond 1	BASE	53.75	23.423	27.500	64487	0.000	0.306	0.00	2.50
Recovery	Pond 1	BASE	54.00	23.419	27.500	64461	0.000	0.303	0.00	2.51
Recovery	Pond 1	BASE	54.25	23.415	27.500	64435	0.000	0.301	0.00	2.51
Recovery	Pond 1	BASE	54.50	23.411	27.500	64410	0.000	0.298	0.00	2.52
Recovery	Pond 1	BASE	54.75	23.407	27.500	64384	0.000	0.296	0.00	2.53
Recovery	Pond 1	BASE	55.00	23.403	27.500	64359	0.000	0.293	0.00	2.53
Recovery	Pond 1	BASE	55.25	23.398	27.500	64334	0.000	0.291	0.00	2.54
Recovery	Pond 1	BASE	55.50	23.394	27.500	64310	0.000	0.288	0.00	2.54
Recovery	Pond 1	BASE	55.75	23.390	27.500	64285	0.000	0.286	0.00	2.55
Recovery	Pond 1	BASE	56.00	23.386	27.500	64261	0.000	0.282	0.00	2.56
Recovery	Pond 1	BASE	56.25	23.383	27.500	64237	0.000	0.277	0.00	2.56
Recovery	Pond 1	BASE	56.50	23.379	27.500	64214	0.000	0.273	0.00	2.57
Recovery	Pond 1	BASE	56.75	23.375	27.500	64190	0.000	0.269	0.00	2.57
Recovery	Pond 1	BASE	57.00	23.371	27.500	64168	0.000	0.265	0.00	2.58
Recovery	Pond 1	BASE	57.25	23.367	27.500	64145	0.000	0.261	0.00	2.58
Recovery	Pond 1	BASE	57.50	23.364	27.500	64123	0.000	0.257	0.00	2.59
Recovery	Pond 1	BASE	57.75	23.360	27.500	64101	0.000	0.253	0.00	2.59
Recovery	Pond 1	BASE	58.00	23.357	27.500	64079	0.000	0.249	0.00	2.60
Recovery	Pond 1	BASE	58.25	23.353	27.500	64058	0.000	0.245	0.00	2.60
Recovery	Pond 1	BASE	58.50	23.350	27.500	64037	0.000	0.242	0.00	2.61
Recovery	Pond 1	BASE	58.75	23.346	27.500	64017	0.000	0.238	0.00	2.61
Recovery	Pond 1	BASE	59.00	23.343	27.500	63997	0.000	0.234	0.00	2.62
Recovery	Pond 1	BASE	59.25	23.340	27.500	63977	0.000	0.231	0.00	2.62
Recovery	Pond 1	BASE	59.50	23.337	27.500	63957	0.000	0.227	0.00	2.63
Recovery	Pond 1	BASE	59.75	23.333	27.500	63938	0.000	0.224	0.00	2.63
Recovery	Pond 1	BASE	60.00	23.330	27.500	63919	0.000	0.220	0.00	2.64
Recovery	Pond 1	BASE	60.25	23.327	27.500	63900	0.000	0.217	0.00	2.64
Recovery	Pond 1	BASE	60.50	23.324	27.500	63881	0.000	0.214	0.00	2.65
Recovery	Pond 1	BASE	60.75	23.321	27.500	63863	0.000	0.213	0.00	2.65
Recovery	Pond 1	BASE	61.00	23.318	27.500	63845	0.000	0.212	0.00	2.66
Recovery	Pond 1	BASE	61.25	23.315	27.500	63826	0.000	0.210	0.00	2.66
Recovery	Pond 1	BASE	61.50	23.312	27.500	63808	0.000	0.208	0.00	2.66
Recovery	Pond 1	BASE	61.75	23.309	27.500	63791	0.000	0.206	0.00	2.67
Recovery	Pond 1	BASE	62.00	23.306	27.500	63773	0.000	0.204	0.00	2.67

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
Recovery	Pond 1	BASE	62.25	23.304	27.500	63755	0.000	0.202	0.00	2.68
Recovery	Pond 1	BASE	62.50	23.301	27.500	63738	0.000	0.200	0.00	2.68
Recovery	Pond 1	BASE	62.75	23.298	27.500	63721	0.000	0.197	0.00	2.69
Recovery	Pond 1	BASE	63.00	23.295	27.500	63704	0.000	0.195	0.00	2.69
Recovery	Pond 1	BASE	63.25	23.292	27.500	63687	0.000	0.193	0.00	2.69
Recovery	Pond 1	BASE	63.50	23.290	27.500	63671	0.000	0.190	0.00	2.70
Recovery	Pond 1	BASE	63.75	23.287	27.500	63655	0.000	0.188	0.00	2.70
Recovery	Pond 1	BASE	64.00	23.284	27.500	63639	0.000	0.186	0.00	2.71
Recovery	Pond 1	BASE	64.25	23.282	27.500	63623	0.000	0.183	0.00	2.71
Recovery	Pond 1	BASE	64.50	23.279	27.500	63607	0.000	0.181	0.00	2.71
Recovery	Pond 1	BASE	64.75	23.277	27.500	63591	0.000	0.179	0.00	2.72
Recovery	Pond 1	BASE	65.00	23.274	27.500	63576	0.000	0.176	0.00	2.72
Recovery	Pond 1	BASE	65.25	23.272	27.500	63561	0.000	0.174	0.00	2.72
Recovery	Pond 1	BASE	65.50	23.269	27.500	63546	0.000	0.172	0.00	2.73
Recovery	Pond 1	BASE	65.75	23.267	27.500	63531	0.000	0.169	0.00	2.73
Recovery	Pond 1	BASE	66.00	23.264	27.500	63517	0.000	0.167	0.00	2.73
Recovery	Pond 1	BASE	66.25	23.262	27.500	63502	0.000	0.165	0.00	2.74
Recovery	Pond 1	BASE	66.50	23.260	27.500	63488	0.000	0.163	0.00	2.74
Recovery	Pond 1	BASE	66.75	23.257	27.500	63474	0.000	0.160	0.00	2.74
Recovery	Pond 1	BASE	67.00	23.255	27.500	63461	0.000	0.158	0.00	2.75
Recovery	Pond 1	BASE	67.25	23.253	27.500	63447	0.000	0.156	0.00	2.75
Recovery	Pond 1	BASE	67.50	23.251	27.500	63434	0.000	0.154	0.00	2.75
Recovery	Pond 1	BASE	67.75	23.249	27.500	63420	0.000	0.152	0.00	2.76
Recovery	Pond 1	BASE	68.00	23.246	27.500	63407	0.000	0.150	0.00	2.76
Recovery	Pond 1	BASE	68.25	23.244	27.500	63394	0.000	0.148	0.00	2.76
Recovery	Pond 1	BASE	68.50	23.242	27.500	63382	0.000	0.146	0.00	2.77
Recovery	Pond 1	BASE	68.75	23.240	27.500	63369	0.000	0.144	0.00	2.77
Recovery	Pond 1	BASE	69.00	23.238	27.500	63357	0.000	0.142	0.00	2.77
Recovery	Pond 1	BASE	69.25	23.236	27.500	63345	0.000	0.140	0.00	2.78
Recovery	Pond 1	BASE	69.50	23.234	27.500	63333	0.000	0.138	0.00	2.78
Recovery	Pond 1	BASE	69.75	23.232	27.500	63321	0.000	0.136	0.00	2.78
Recovery	Pond 1	BASE	70.00	23.230	27.500	63309	0.000	0.134	0.00	2.78
Recovery	Pond 1	BASE	70.25	23.228	27.500	63298	0.000	0.132	0.00	2.79
Recovery	Pond 1	BASE	70.50	23.227	27.500	63286	0.000	0.130	0.00	2.79
Recovery	Pond 1	BASE	70.75	23.225	27.500	63275	0.000	0.129	0.00	2.79
Recovery	Pond 1	BASE	71.00	23.223	27.500	63264	0.000	0.127	0.00	2.79
Recovery	Pond 1	BASE	71.25	23.221	27.500	63253	0.000	0.125	0.00	2.80
Recovery	Pond 1	BASE	71.50	23.219	27.500	63242	0.000	0.123	0.00	2.80
Recovery	Pond 1	BASE	71.75	23.218	27.500	63232	0.000	0.122	0.00	2.80
Recovery	Pond 1	BASE	72.00	23.216	27.500	63221	0.000	0.120	0.00	2.80
Recovery	Pond 1	BASE	72.25	23.214	27.500	63211	0.000	0.118	0.00	2.81
Recovery	Pond 1	BASE	72.50	23.213	27.500	63201	0.000	0.117	0.00	2.81
Recovery	Pond 1	BASE	72.75	23.211	27.500	63190	0.000	0.115	0.00	2.81
Recovery	Pond 1	BASE	73.00	23.209	27.500	63180	0.000	0.114	0.00	2.81
Recovery	Pond 1	BASE	73.25	23.208	27.500	63171	0.000	0.112	0.00	2.82
Recovery	Pond 1	BASE	73.50	23.206	27.500	63161	0.000	0.111	0.00	2.82
Recovery	Pond 1	BASE	73.75	23.204	27.500	63151	0.000	0.109	0.00	2.82
Recovery	Pond 1	BASE	74.00	23.203	27.500	63142	0.000	0.108	0.00	2.82
Recovery	Pond 1	BASE	74.25	23.201	27.500	63133	0.000	0.106	0.00	2.83
Recovery	Pond 1	BASE	74.50	23.200	27.500	63124	0.000	0.105	0.00	2.83
Recovery	Pond 1	BASE	74.75	23.198	27.500	63114	0.000	0.104	0.00	2.83
Recovery	Pond 1	BASE	75.00	23.197	27.500	63106	0.000	0.102	0.00	2.83
Recovery	Pond 1	BASE	75.25	23.196	27.500	63097	0.000	0.101	0.00	2.83
Recovery	Pond 1	BASE	75.50	23.194	27.500	63088	0.000	0.100	0.00	2.84
Recovery	Pond 1	BASE	75.75	23.193	27.500	63079	0.000	0.098	0.00	2.84
Recovery	Pond 1	BASE	76.00	23.191	27.500	63071	0.000	0.097	0.00	2.84
Recovery	Pond 1	BASE	76.25	23.190	27.500	63062	0.000	0.096	0.00	2.84
Recovery	Pond 1	BASE	76.50	23.189	27.500	63054	0.000	0.095	0.00	2.84
Recovery	Pond 1	BASE	76.75	23.187	27.500	63046	0.000	0.093	0.00	2.85
Recovery	Pond 1	BASE	77.00	23.186	27.500	63038	0.000	0.092	0.00	2.85
Recovery	Pond 1	BASE	77.25	23.185	27.500	63030	0.000	0.091	0.00	2.85
Recovery	Pond 1	BASE	77.50	23.183	27.500	63022	0.000	0.090	0.00	2.85
Recovery	Pond 1	BASE	77.75	23.182	27.500	63014	0.000	0.089	0.00	2.85
Recovery	Pond 1	BASE	78.00	23.181	27.500	63007	0.000	0.088	0.00	2.86
Recovery	Pond 1	BASE	78.25	23.179	27.500	62999	0.000	0.087	0.00	2.86
Recovery	Pond 1	BASE	78.50	23.178	27.500	62992	0.000	0.085	0.00	2.86
Recovery	Pond 1	BASE	78.75	23.177	27.500	62984	0.000	0.084	0.00	2.86
Recovery	Pond 1	BASE	79.00	23.176	27.500	62977	0.000	0.083	0.00	2.86
Recovery	Pond 1	BASE	79.25	23.175	27.500	62970	0.000	0.082	0.00	2.86
Recovery	Pond 1	BASE	79.50	23.174	27.500	62963	0.000	0.081	0.00	2.87
Recovery	Pond 1	BASE	79.75	23.172	27.500	62955	0.000	0.080	0.00	2.87
Recovery	Pond 1	BASE	80.00	23.171	27.500	62949	0.000	0.079	0.00	2.87
Recovery	Pond 1	BASE	80.25	23.170	27.500	62942	0.000	0.078	0.00	2.87
Recovery	Pond 1	BASE	80.50	23.169	27.500	62935	0.000	0.077	0.00	2.87
Recovery	Pond 1	BASE	80.75	23.168	27.500	62928	0.000	0.077	0.00	2.87
Recovery	Pond 1	BASE	81.00	23.167	27.500	62921	0.000	0.076	0.00	2.88
Recovery	Pond 1	BASE	81.25	23.166	27.500	62915	0.000	0.111	0.00	2.88
Recovery	Pond 1	BASE	81.50	23.165	27.500	62908	0.000	0.076	0.00	2.88
Recovery	Pond 1	BASE	81.75	23.164	27.500	62902	0.000	0.075	0.00	2.88
Recovery	Pond 1	BASE	82.00	23.163	27.500	62896	0.000	0.082	0.00	2.88
Recovery	Pond 1	BASE	82.25	23.162	27.500	62889	0.000	0.081	0.00	2.88
Recovery	Pond 1	BASE	82.50	23.161	27.500	62883	0.000	0.075	0.00	2.89
Recovery	Pond 1	BASE	82.75	23.160	27.500	62877	0.000	0.091	0.00	2.89

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
Recovery	Pond 1	BASE	83.00	23.159	27.500	62871	0.000	0.090	0.00	2.89
Recovery	Pond 1	BASE	83.25	23.158	27.500	62865	0.000	0.089	0.00	2.89
Recovery	Pond 1	BASE	83.50	23.157	27.500	62859	0.000	0.088	0.00	2.89
Recovery	Pond 1	BASE	83.75	23.156	27.500	62853	0.000	0.087	0.00	2.90
Recovery	Pond 1	BASE	84.00	23.155	27.500	62848	0.000	0.104	0.00	2.90
Recovery	Pond 1	BASE	84.25	23.154	27.500	62842	0.000	0.075	0.00	2.90
Recovery	Pond 1	BASE	84.50	23.153	27.500	62836	0.000	0.087	0.00	2.90
Recovery	Pond 1	BASE	84.75	23.152	27.500	62831	0.000	0.086	0.00	2.90
Recovery	Pond 1	BASE	85.00	23.151	27.500	62825	0.000	0.085	0.00	2.90
Recovery	Pond 1	BASE	85.25	23.150	27.500	62820	0.000	0.084	0.00	2.91
Recovery	Pond 1	BASE	85.50	23.149	27.500	62814	0.000	0.082	0.00	2.91
Recovery	Pond 1	BASE	85.75	23.148	27.500	62809	0.000	0.081	0.00	2.91
Recovery	Pond 1	BASE	86.00	23.147	27.500	62804	0.000	0.080	0.00	2.91
Recovery	Pond 1	BASE	86.25	23.147	27.500	62798	0.000	0.079	0.00	2.91
Recovery	Pond 1	BASE	86.50	23.146	27.500	62793	0.000	0.078	0.00	2.91
Recovery	Pond 1	BASE	86.75	23.145	27.500	62788	0.000	0.077	0.00	2.92
Recovery	Pond 1	BASE	87.00	23.144	27.500	62783	0.000	0.076	0.00	2.92
Recovery	Pond 1	BASE	87.25	23.143	27.500	62778	0.000	0.075	0.00	2.92
Recovery	Pond 1	BASE	87.50	23.142	27.500	62773	0.000	0.000	0.00	2.92
Recovery	Pond 1	BASE	87.75	23.142	27.500	62768	0.000	0.094	0.00	2.92
Recovery	Pond 1	BASE	88.00	23.141	27.500	62763	0.000	0.000	0.00	2.92
Recovery	Pond 1	BASE	88.25	23.140	27.500	62759	0.000	0.000	0.00	2.92
Recovery	Pond 1	BASE	88.50	23.139	27.500	62754	0.000	0.000	0.00	2.92
Recovery	Pond 1	BASE	88.75	23.139	27.500	62749	0.000	0.000	0.00	2.92
Recovery	Pond 1	BASE	89.00	23.138	27.500	62744	0.000	0.000	0.00	2.92
Recovery	Pond 1	BASE	89.25	23.137	27.500	62740	0.000	0.092	0.00	2.92
Recovery	Pond 1	BASE	89.50	23.136	27.500	62735	0.000	0.075	0.00	2.92
Recovery	Pond 1	BASE	89.75	23.136	27.500	62731	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	90.00	23.135	27.500	62726	0.000	0.101	0.00	2.93
Recovery	Pond 1	BASE	90.25	23.134	27.500	62722	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	90.50	23.133	27.500	62717	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	90.75	23.133	27.500	62713	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	91.00	23.132	27.500	62709	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	91.25	23.131	27.500	62705	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	91.50	23.131	27.500	62700	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	91.75	23.130	27.500	62696	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	92.00	23.129	27.500	62692	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	92.25	23.129	27.500	62688	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	92.50	23.128	27.500	62684	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	92.75	23.127	27.500	62680	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	93.00	23.127	27.500	62676	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	93.25	23.126	27.500	62672	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	93.50	23.125	27.500	62668	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	93.75	23.125	27.500	62664	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	94.00	23.124	27.500	62661	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	94.25	23.123	27.500	62657	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	94.50	23.123	27.500	62653	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	94.75	23.122	27.500	62649	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	95.00	23.122	27.500	62646	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	95.25	23.121	27.500	62642	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	95.50	23.120	27.500	62638	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	95.75	23.120	27.500	62635	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	96.00	23.119	27.500	62631	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	96.25	23.119	27.500	62628	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	96.50	23.118	27.500	62624	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	96.75	23.117	27.500	62621	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	97.00	23.117	27.500	62618	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	97.25	23.116	27.500	62614	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	97.50	23.116	27.500	62611	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	97.75	23.115	27.500	62607	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	98.00	23.115	27.500	62604	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	98.25	23.114	27.500	62601	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	98.50	23.114	27.500	62598	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	98.75	23.113	27.500	62594	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	99.00	23.113	27.500	62591	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	99.25	23.112	27.500	62588	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	99.50	23.112	27.500	62585	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	99.75	23.111	27.500	62582	0.000	0.000	0.00	2.93
Recovery	Pond 1	BASE	100.00	23.111	27.500	62579	0.000	0.093	0.00	2.93
Recovery	Pond 1	BASE	100.25	23.110	27.500	62576	0.000	0.092	0.00	2.93
Recovery	Pond 1	BASE	100.50	23.110	27.500	62573	0.000	0.091	0.00	2.93
Recovery	Pond 1	BASE	100.75	23.109	27.500	62570	0.000	0.091	0.00	2.93
Recovery	Pond 1	BASE	101.00	23.109	27.500	62567	0.000	0.090	0.00	2.94
Recovery	Pond 1	BASE	101.25	23.108	27.500	62564	0.000	0.089	0.00	2.94
Recovery	Pond 1	BASE	101.50	23.108	27.500	62561	0.000	0.089	0.00	2.94
Recovery	Pond 1	BASE	101.75	23.107	27.500	62558	0.000	0.088	0.00	2.94
Recovery	Pond 1	BASE	102.00	23.107	27.500	62555	0.000	0.087	0.00	2.94
Recovery	Pond 1	BASE	102.25	23.106	27.500	62553	0.000	0.000	0.00	2.94
Recovery	Pond 1	BASE	102.50	23.106	27.500	62550	0.000	0.000	0.00	2.94
Recovery	Pond 1	BASE	102.75	23.105	27.500	62547	0.000	0.000	0.00	2.94
Recovery	Pond 1	BASE	103.00	23.105	27.500	62544	0.000	0.000	0.00	2.94
Recovery	Pond 1	BASE	103.25	23.104	27.500	62541	0.000	0.076	0.00	2.94
Recovery	Pond 1	BASE	103.50	23.104	27.500	62539	0.000	0.000	0.00	2.95

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
Recovery	Pond 1	BASE	103.75	23.104	27.500	62536	0.000	0.075	0.00	2.95
Recovery	Pond 1	BASE	104.00	23.103	27.500	62533	0.000	0.091	0.00	2.95
Recovery	Pond 1	BASE	104.25	23.103	27.500	62531	0.000	0.090	0.00	2.95
Recovery	Pond 1	BASE	104.50	23.102	27.500	62528	0.000	0.090	0.00	2.95
Recovery	Pond 1	BASE	104.75	23.102	27.500	62525	0.000	0.089	0.00	2.95
Recovery	Pond 1	BASE	105.00	23.101	27.500	62523	0.000	0.088	0.00	2.96
Recovery	Pond 1	BASE	105.25	23.101	27.500	62520	0.000	0.087	0.00	2.96
Recovery	Pond 1	BASE	105.50	23.101	27.500	62518	0.000	0.087	0.00	2.96
Recovery	Pond 1	BASE	105.75	23.100	27.500	62515	0.000	0.086	0.00	2.96
Recovery	Pond 1	BASE	106.00	23.100	27.500	62513	0.000	0.085	0.00	2.96
Recovery	Pond 1	BASE	106.25	23.099	27.500	62510	0.000	0.085	0.00	2.96
Recovery	Pond 1	BASE	106.50	23.099	27.500	62508	0.000	0.084	0.00	2.97
Recovery	Pond 1	BASE	106.75	23.099	27.500	62505	0.000	0.083	0.00	2.97
Recovery	Pond 1	BASE	107.00	23.098	27.500	62503	0.000	0.083	0.00	2.97
Recovery	Pond 1	BASE	107.25	23.098	27.500	62500	0.000	0.082	0.00	2.97
Recovery	Pond 1	BASE	107.50	23.097	27.500	62498	0.000	0.081	0.00	2.97
Recovery	Pond 1	BASE	107.75	23.097	27.500	62496	0.000	0.081	0.00	2.97
Recovery	Pond 1	BASE	108.00	23.097	27.500	62493	0.000	0.080	0.00	2.98
Recovery	Pond 1	BASE	108.25	23.096	27.500	62491	0.000	0.079	0.00	2.98
Recovery	Pond 1	BASE	108.50	23.096	27.500	62489	0.000	0.079	0.00	2.98
Recovery	Pond 1	BASE	108.75	23.095	27.500	62486	0.000	0.078	0.00	2.98
Recovery	Pond 1	BASE	109.00	23.095	27.500	62484	0.000	0.078	0.00	2.98
Recovery	Pond 1	BASE	109.25	23.095	27.500	62482	0.000	0.077	0.00	2.98
Recovery	Pond 1	BASE	109.50	23.094	27.500	62480	0.000	0.076	0.00	2.99
Recovery	Pond 1	BASE	109.75	23.094	27.500	62477	0.000	0.076	0.00	2.99
Recovery	Pond 1	BASE	110.00	23.094	27.500	62475	0.000	0.075	0.00	2.99
Recovery	Pond 1	BASE	110.25	23.093	27.500	62473	0.000	0.088	0.00	2.99
Recovery	Pond 1	BASE	110.50	23.093	27.500	62471	0.000	0.081	0.00	2.99
Recovery	Pond 1	BASE	110.75	23.093	27.500	62469	0.000	0.000	0.00	2.99
Recovery	Pond 1	BASE	111.00	23.092	27.500	62466	0.000	0.000	0.00	2.99
Recovery	Pond 1	BASE	111.25	23.092	27.500	62464	0.000	0.000	0.00	2.99
Recovery	Pond 1	BASE	111.50	23.091	27.500	62462	0.000	0.079	0.00	2.99
Recovery	Pond 1	BASE	111.75	23.091	27.500	62460	0.000	0.088	0.00	3.00
Recovery	Pond 1	BASE	112.00	23.091	27.500	62458	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	112.25	23.090	27.500	62456	0.000	0.078	0.00	3.00
Recovery	Pond 1	BASE	112.50	23.090	27.500	62454	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	112.75	23.090	27.500	62452	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	113.00	23.089	27.500	62450	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	113.25	23.089	27.500	62448	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	113.50	23.089	27.500	62446	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	113.75	23.088	27.500	62444	0.000	0.087	0.00	3.00
Recovery	Pond 1	BASE	114.00	23.088	27.500	62442	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	114.25	23.088	27.500	62440	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	114.50	23.088	27.500	62438	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	114.75	23.087	27.500	62436	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	115.00	23.087	27.500	62434	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	115.25	23.087	27.500	62432	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	115.50	23.086	27.500	62430	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	115.75	23.086	27.500	62429	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	116.00	23.086	27.500	62427	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	116.25	23.085	27.500	62425	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	116.50	23.085	27.500	62423	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	116.75	23.085	27.500	62421	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	117.00	23.084	27.500	62419	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	117.25	23.084	27.500	62418	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	117.50	23.084	27.500	62416	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	117.75	23.084	27.500	62414	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	118.00	23.083	27.500	62412	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	118.25	23.083	27.500	62411	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	118.50	23.083	27.500	62409	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	118.75	23.082	27.500	62407	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	119.00	23.082	27.500	62405	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	119.25	23.082	27.500	62404	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	119.50	23.082	27.500	62402	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	119.75	23.081	27.500	62400	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	120.00	23.081	27.500	62399	0.000	0.000	0.00	3.00
Recovery	Pond 1	BASE	120.00	23.081	27.500	62399	0.000	0.000	0.00	3.00
Recovery	Pond 2	BASE	0.00	25.000	27.500	74101	0.000	1.623	0.00	0.00
Recovery	Pond 2	BASE	0.25	24.990	27.500	74038	0.810	1.619	0.01	0.03
Recovery	Pond 2	BASE	0.50	24.980	27.500	73978	0.807	1.614	0.03	0.07
Recovery	Pond 2	BASE	0.75	24.970	27.500	73918	0.805	1.610	0.04	0.10
Recovery	Pond 2	BASE	1.00	24.960	27.500	73858	0.803	1.606	0.06	0.13
Recovery	Pond 2	BASE	1.25	24.950	27.500	73799	0.801	1.601	0.07	0.17
Recovery	Pond 2	BASE	1.50	24.941	27.500	73739	0.799	1.597	0.09	0.20
Recovery	Pond 2	BASE	1.75	24.931	27.500	73680	0.797	1.593	0.11	0.23
Recovery	Pond 2	BASE	2.00	24.921	27.500	73620	0.794	1.588	0.12	0.27
Recovery	Pond 2	BASE	2.25	24.911	27.500	73561	0.792	1.584	0.14	0.30
Recovery	Pond 2	BASE	2.50	24.902	27.500	73502	0.790	1.579	0.16	0.33
Recovery	Pond 2	BASE	2.75	24.892	27.500	73443	0.788	1.575	0.17	0.36
Recovery	Pond 2	BASE	3.00	24.883	27.500	73385	0.786	1.571	0.19	0.40
Recovery	Pond 2	BASE	3.25	24.873	27.500	73326	0.783	1.566	0.21	0.43
Recovery	Pond 2	BASE	3.50	24.863	27.500	73268	0.781	1.562	0.22	0.46

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
Recovery	Pond 2	BASE	3.75	24.854	27.500	73209	0.779	1.557	0.24	0.49
Recovery	Pond 2	BASE	4.00	24.844	27.500	73151	0.777	1.553	0.25	0.53
Recovery	Pond 2	BASE	4.25	24.835	27.500	73093	0.775	1.549	0.27	0.56
Recovery	Pond 2	BASE	4.50	24.825	27.500	73035	0.772	1.544	0.29	0.59
Recovery	Pond 2	BASE	4.75	24.816	27.500	72977	0.770	1.540	0.30	0.62
Recovery	Pond 2	BASE	5.00	24.806	27.500	72919	0.768	1.535	0.32	0.65
Recovery	Pond 2	BASE	5.25	24.797	27.500	72861	0.766	1.531	0.33	0.68
Recovery	Pond 2	BASE	5.50	24.787	27.500	72804	0.764	1.526	0.35	0.72
Recovery	Pond 2	BASE	5.75	24.778	27.500	72746	0.761	1.522	0.37	0.75
Recovery	Pond 2	BASE	6.00	24.768	27.500	72689	0.759	1.518	0.38	0.78
Recovery	Pond 2	BASE	6.25	24.759	27.500	72632	0.757	1.513	0.40	0.81
Recovery	Pond 2	BASE	6.50	24.750	27.500	72574	0.755	1.509	0.41	0.84
Recovery	Pond 2	BASE	6.75	24.740	27.500	72517	0.752	1.504	0.43	0.87
Recovery	Pond 2	BASE	7.00	24.731	27.500	72461	0.750	1.500	0.44	0.90
Recovery	Pond 2	BASE	7.25	24.722	27.500	72404	0.748	1.495	0.46	0.93
Recovery	Pond 2	BASE	7.50	24.712	27.500	72347	0.746	1.491	0.47	0.97
Recovery	Pond 2	BASE	7.75	24.703	27.500	72291	0.743	1.486	0.49	1.00
Recovery	Pond 2	BASE	8.00	24.694	27.500	72234	0.741	1.482	0.51	1.03
Recovery	Pond 2	BASE	8.25	24.685	27.500	72178	0.739	1.478	0.52	1.06
Recovery	Pond 2	BASE	8.50	24.675	27.500	72122	0.737	1.473	0.54	1.09
Recovery	Pond 2	BASE	8.75	24.666	27.500	72066	0.735	1.469	0.55	1.12
Recovery	Pond 2	BASE	9.00	24.657	27.500	72010	0.732	1.464	0.57	1.15
Recovery	Pond 2	BASE	9.25	24.648	27.500	71955	0.730	1.460	0.58	1.18
Recovery	Pond 2	BASE	9.50	24.639	27.500	71899	0.728	1.455	0.60	1.21
Recovery	Pond 2	BASE	9.75	24.630	27.500	71844	0.726	1.451	0.61	1.24
Recovery	Pond 2	BASE	10.00	24.621	27.500	71788	0.723	1.446	0.63	1.27
Recovery	Pond 2	BASE	10.25	24.612	27.500	71733	0.721	1.442	0.64	1.30
Recovery	Pond 2	BASE	10.50	24.603	27.500	71678	0.719	1.437	0.66	1.33
Recovery	Pond 2	BASE	10.75	24.594	27.500	71623	0.717	1.433	0.67	1.36
Recovery	Pond 2	BASE	11.00	24.585	27.500	71568	0.714	1.428	0.69	1.39
Recovery	Pond 2	BASE	11.25	24.576	27.500	71514	0.712	1.424	0.70	1.42
Recovery	Pond 2	BASE	11.50	24.567	27.500	71459	0.710	1.419	0.72	1.45
Recovery	Pond 2	BASE	11.75	24.558	27.500	71405	0.708	1.415	0.73	1.48
Recovery	Pond 2	BASE	12.00	24.549	27.500	71350	0.705	1.410	0.74	1.50
Recovery	Pond 2	BASE	12.25	24.540	27.500	71296	0.703	1.406	0.76	1.53
Recovery	Pond 2	BASE	12.50	24.531	27.500	71242	0.701	1.401	0.77	1.56
Recovery	Pond 2	BASE	12.75	24.522	27.500	71188	0.699	1.397	0.79	1.59
Recovery	Pond 2	BASE	13.00	24.514	27.500	71135	0.696	1.392	0.80	1.62
Recovery	Pond 2	BASE	13.25	24.505	27.500	71081	0.694	1.387	0.82	1.65
Recovery	Pond 2	BASE	13.50	24.496	27.500	71027	0.692	1.383	0.83	1.68
Recovery	Pond 2	BASE	13.75	24.487	27.500	70974	0.689	1.378	0.85	1.71
Recovery	Pond 2	BASE	14.00	24.478	27.500	70921	0.687	1.374	0.86	1.73
Recovery	Pond 2	BASE	14.25	24.470	27.500	70868	0.685	1.369	0.87	1.76
Recovery	Pond 2	BASE	14.50	24.461	27.500	70815	0.683	1.365	0.89	1.79
Recovery	Pond 2	BASE	14.75	24.452	27.500	70762	0.680	1.360	0.90	1.82
Recovery	Pond 2	BASE	15.00	24.444	27.500	70709	0.678	1.356	0.92	1.85
Recovery	Pond 2	BASE	15.25	24.435	27.500	70657	0.676	1.351	0.93	1.88
Recovery	Pond 2	BASE	15.50	24.427	27.500	70604	0.673	1.346	0.94	1.90
Recovery	Pond 2	BASE	15.75	24.418	27.500	70552	0.671	1.342	0.96	1.93
Recovery	Pond 2	BASE	16.00	24.410	27.500	70500	0.669	1.337	0.97	1.96
Recovery	Pond 2	BASE	16.25	24.401	27.500	70448	0.667	1.333	0.99	1.99
Recovery	Pond 2	BASE	16.50	24.392	27.500	70396	0.664	1.328	1.00	2.01
Recovery	Pond 2	BASE	16.75	24.384	27.500	70345	0.662	1.324	1.01	2.04
Recovery	Pond 2	BASE	17.00	24.376	27.500	70293	0.660	1.319	1.03	2.07
Recovery	Pond 2	BASE	17.25	24.367	27.500	70242	0.657	1.314	1.04	2.10
Recovery	Pond 2	BASE	17.50	24.359	27.500	70190	0.655	1.310	1.05	2.12
Recovery	Pond 2	BASE	17.75	24.350	27.500	70139	0.653	1.305	1.07	2.15
Recovery	Pond 2	BASE	18.00	24.342	27.500	70088	0.651	1.301	1.08	2.18
Recovery	Pond 2	BASE	18.25	24.334	27.500	70038	0.648	1.296	1.09	2.20
Recovery	Pond 2	BASE	18.50	24.325	27.500	69987	0.646	1.291	1.11	2.23
Recovery	Pond 2	BASE	18.75	24.317	27.500	69936	0.644	1.287	1.12	2.26
Recovery	Pond 2	BASE	19.00	24.309	27.500	69886	0.641	1.282	1.13	2.28
Recovery	Pond 2	BASE	19.25	24.301	27.500	69836	0.639	1.278	1.15	2.31
Recovery	Pond 2	BASE	19.50	24.292	27.500	69785	0.637	1.273	1.16	2.34
Recovery	Pond 2	BASE	19.75	24.284	27.500	69736	0.634	1.268	1.17	2.36
Recovery	Pond 2	BASE	20.00	24.276	27.500	69686	0.632	1.264	1.19	2.39
Recovery	Pond 2	BASE	20.25	24.268	27.500	69636	0.630	1.259	1.20	2.41
Recovery	Pond 2	BASE	20.50	24.260	27.500	69586	0.627	1.254	1.21	2.44
Recovery	Pond 2	BASE	20.75	24.252	27.500	69537	0.625	1.250	1.23	2.47
Recovery	Pond 2	BASE	21.00	24.244	27.500	69488	0.623	1.245	1.24	2.49
Recovery	Pond 2	BASE	21.25	24.235	27.500	69439	0.620	1.241	1.25	2.52
Recovery	Pond 2	BASE	21.50	24.227	27.500	69390	0.618	1.236	1.26	2.54
Recovery	Pond 2	BASE	21.75	24.219	27.500	69341	0.616	1.231	1.28	2.57
Recovery	Pond 2	BASE	22.00	24.211	27.500	69292	0.613	1.227	1.29	2.59
Recovery	Pond 2	BASE	22.25	24.204	27.500	69244	0.611	1.222	1.30	2.62
Recovery	Pond 2	BASE	22.50	24.196	27.500	69196	0.609	1.217	1.31	2.65
Recovery	Pond 2	BASE	22.75	24.188	27.500	69147	0.606	1.213	1.33	2.67
Recovery	Pond 2	BASE	23.00	24.180	27.500	69099	0.604	1.208	1.34	2.70
Recovery	Pond 2	BASE	23.25	24.172	27.500	69052	0.602	1.203	1.35	2.72
Recovery	Pond 2	BASE	23.50	24.164	27.500	69004	0.599	1.199	1.36	2.74
Recovery	Pond 2	BASE	23.75	24.156	27.500	68956	0.597	1.194	1.38	2.77
Recovery	Pond 2	BASE	24.00	24.149	27.500	68909	0.595	1.189	1.39	2.79
Recovery	Pond 2	BASE	24.25	24.141	27.500	68862	0.592	1.185	1.40	2.82

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
Recovery	Pond 2	BASE	24.50	24.133	27.500	68814	0.590	1.180	1.41	2.84
Recovery	Pond 2	BASE	24.75	24.125	27.500	68767	0.588	1.175	1.43	2.87
Recovery	Pond 2	BASE	25.00	24.118	27.500	68721	0.585	1.170	1.44	2.89
Recovery	Pond 2	BASE	25.25	24.110	27.500	68674	0.583	1.166	1.45	2.92
Recovery	Pond 2	BASE	25.50	24.102	27.500	68628	0.581	1.161	1.46	2.94
Recovery	Pond 2	BASE	25.75	24.095	27.500	68581	0.578	1.156	1.47	2.96
Recovery	Pond 2	BASE	26.00	24.087	27.500	68535	0.576	1.152	1.49	2.99
Recovery	Pond 2	BASE	26.25	24.080	27.500	68489	0.574	1.147	1.50	3.01
Recovery	Pond 2	BASE	26.50	24.072	27.500	68443	0.571	1.142	1.51	3.04
Recovery	Pond 2	BASE	26.75	24.065	27.500	68397	0.569	1.138	1.52	3.06
Recovery	Pond 2	BASE	27.00	24.057	27.500	68352	0.567	1.133	1.53	3.08
Recovery	Pond 2	BASE	27.25	24.050	27.500	68307	0.564	1.128	1.54	3.11
Recovery	Pond 2	BASE	27.50	24.042	27.500	68261	0.562	1.123	1.56	3.13
Recovery	Pond 2	BASE	27.75	24.035	27.500	68216	0.560	1.119	1.57	3.15
Recovery	Pond 2	BASE	28.00	24.028	27.500	68171	0.557	1.114	1.58	3.17
Recovery	Pond 2	BASE	28.25	24.020	27.500	68127	0.555	1.109	1.59	3.20
Recovery	Pond 2	BASE	28.50	24.013	27.500	68082	0.552	1.104	1.60	3.22
Recovery	Pond 2	BASE	28.75	24.006	27.500	68038	0.550	1.100	1.61	3.24
Recovery	Pond 2	BASE	29.00	23.998	27.500	67993	0.548	1.095	1.63	3.27
Recovery	Pond 2	BASE	29.25	23.991	27.500	67949	0.545	1.090	1.64	3.29
Recovery	Pond 2	BASE	29.50	23.984	27.500	67905	0.543	1.085	1.65	3.31
Recovery	Pond 2	BASE	29.75	23.977	27.500	67861	0.541	1.081	1.66	3.33
Recovery	Pond 2	BASE	30.00	23.970	27.500	67818	0.538	1.076	1.67	3.36
Recovery	Pond 2	BASE	30.25	23.963	27.500	67774	0.536	1.071	1.68	3.38
Recovery	Pond 2	BASE	30.50	23.955	27.500	67731	0.533	1.066	1.69	3.40
Recovery	Pond 2	BASE	30.75	23.948	27.500	67688	0.531	1.062	1.70	3.42
Recovery	Pond 2	BASE	31.00	23.941	27.500	67645	0.529	1.057	1.71	3.44
Recovery	Pond 2	BASE	31.25	23.934	27.500	67602	0.526	1.052	1.73	3.47
Recovery	Pond 2	BASE	31.50	23.927	27.500	67560	0.524	1.047	1.74	3.49
Recovery	Pond 2	BASE	31.75	23.920	27.500	67517	0.521	1.043	1.75	3.51
Recovery	Pond 2	BASE	32.00	23.913	27.500	67475	0.519	1.038	1.76	3.53
Recovery	Pond 2	BASE	32.25	23.907	27.500	67433	0.517	1.033	1.77	3.55
Recovery	Pond 2	BASE	32.50	23.900	27.500	67391	0.514	1.028	1.78	3.57
Recovery	Pond 2	BASE	32.75	23.893	27.500	67349	0.512	1.023	1.79	3.59
Recovery	Pond 2	BASE	33.00	23.886	27.500	67308	0.509	1.019	1.80	3.62
Recovery	Pond 2	BASE	33.25	23.879	27.500	67266	0.507	1.014	1.81	3.64
Recovery	Pond 2	BASE	33.50	23.872	27.500	67225	0.505	1.009	1.82	3.66
Recovery	Pond 2	BASE	33.75	23.866	27.500	67184	0.502	1.004	1.83	3.68
Recovery	Pond 2	BASE	34.00	23.859	27.500	67143	0.500	0.999	1.84	3.70
Recovery	Pond 2	BASE	34.25	23.852	27.500	67102	0.497	0.995	1.85	3.72
Recovery	Pond 2	BASE	34.50	23.846	27.500	67062	0.495	0.990	1.86	3.74
Recovery	Pond 2	BASE	34.75	23.839	27.500	67021	0.493	0.985	1.87	3.76
Recovery	Pond 2	BASE	35.00	23.832	27.500	66981	0.490	0.980	1.88	3.78
Recovery	Pond 2	BASE	35.25	23.826	27.500	66941	0.488	0.975	1.89	3.80
Recovery	Pond 2	BASE	35.50	23.819	27.500	66901	0.485	0.971	1.90	3.82
Recovery	Pond 2	BASE	35.75	23.813	27.500	66861	0.483	0.966	1.91	3.84
Recovery	Pond 2	BASE	36.00	23.806	27.500	66822	0.481	0.961	1.92	3.86
Recovery	Pond 2	BASE	36.25	23.800	27.500	66782	0.478	0.956	1.93	3.88
Recovery	Pond 2	BASE	36.50	23.793	27.500	66743	0.476	0.951	1.94	3.90
Recovery	Pond 2	BASE	36.75	23.787	27.500	66704	0.473	0.946	1.95	3.92
Recovery	Pond 2	BASE	37.00	23.781	27.500	66665	0.471	0.942	1.96	3.94
Recovery	Pond 2	BASE	37.25	23.774	27.500	66627	0.469	0.937	1.97	3.96
Recovery	Pond 2	BASE	37.50	23.768	27.500	66588	0.466	0.932	1.98	3.98
Recovery	Pond 2	BASE	37.75	23.762	27.500	66550	0.464	0.927	1.99	4.00
Recovery	Pond 2	BASE	38.00	23.755	27.500	66512	0.461	0.922	2.00	4.02
Recovery	Pond 2	BASE	38.25	23.749	27.500	66474	0.459	0.917	2.01	4.04
Recovery	Pond 2	BASE	38.50	23.743	27.500	66436	0.456	0.913	2.02	4.05
Recovery	Pond 2	BASE	38.75	23.737	27.500	66398	0.454	0.908	2.03	4.07
Recovery	Pond 2	BASE	39.00	23.731	27.500	66361	0.452	0.903	2.04	4.09
Recovery	Pond 2	BASE	39.25	23.725	27.500	66324	0.449	0.898	2.05	4.11
Recovery	Pond 2	BASE	39.50	23.719	27.500	66287	0.447	0.893	2.06	4.13
Recovery	Pond 2	BASE	39.75	23.713	27.500	66250	0.444	0.888	2.07	4.15
Recovery	Pond 2	BASE	40.00	23.707	27.500	66213	0.442	0.883	2.08	4.17
Recovery	Pond 2	BASE	40.25	23.701	27.500	66177	0.439	0.878	2.08	4.18
Recovery	Pond 2	BASE	40.50	23.695	27.500	66140	0.437	0.874	2.09	4.20
Recovery	Pond 2	BASE	40.75	23.689	27.500	66104	0.434	0.869	2.10	4.22
Recovery	Pond 2	BASE	41.00	23.683	27.500	66068	0.432	0.864	2.11	4.24
Recovery	Pond 2	BASE	41.25	23.677	27.500	66032	0.430	0.859	2.12	4.26
Recovery	Pond 2	BASE	41.50	23.671	27.500	65997	0.427	0.854	2.13	4.27
Recovery	Pond 2	BASE	41.75	23.665	27.500	65961	0.425	0.849	2.14	4.29
Recovery	Pond 2	BASE	42.00	23.659	27.500	65926	0.422	0.844	2.15	4.31
Recovery	Pond 2	BASE	42.25	23.654	27.500	65891	0.420	0.839	2.16	4.33
Recovery	Pond 2	BASE	42.50	23.648	27.500	65856	0.417	0.834	2.16	4.34
Recovery	Pond 2	BASE	42.75	23.642	27.500	65822	0.415	0.830	2.17	4.36
Recovery	Pond 2	BASE	43.00	23.637	27.500	65787	0.412	0.825	2.18	4.38
Recovery	Pond 2	BASE	43.25	23.631	27.500	65753	0.410	0.820	2.19	4.39
Recovery	Pond 2	BASE	43.50	23.625	27.500	65719	0.408	0.815	2.20	4.41
Recovery	Pond 2	BASE	43.75	23.620	27.500	65685	0.405	0.810	2.21	4.43
Recovery	Pond 2	BASE	44.00	23.614	27.500	65651	0.403	0.805	2.21	4.44
Recovery	Pond 2	BASE	44.25	23.609	27.500	65618	0.400	0.800	2.22	4.46
Recovery	Pond 2	BASE	44.50	23.603	27.500	65584	0.398	0.795	2.23	4.48
Recovery	Pond 2	BASE	44.75	23.598	27.500	65551	0.395	0.790	2.24	4.49
Recovery	Pond 2	BASE	45.00	23.593	27.500	65518	0.393	0.785	2.25	4.51

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
Recovery	Pond 2	BASE	45.25	23.587	27.500	65485	0.390	0.780	2.26	4.53
Recovery	Pond 2	BASE	45.50	23.582	27.500	65453	0.388	0.776	2.26	4.54
Recovery	Pond 2	BASE	45.75	23.577	27.500	65420	0.385	0.771	2.27	4.56
Recovery	Pond 2	BASE	46.00	23.571	27.500	65388	0.383	0.766	2.28	4.57
Recovery	Pond 2	BASE	46.25	23.566	27.500	65356	0.380	0.761	2.29	4.59
Recovery	Pond 2	BASE	46.50	23.561	27.500	65324	0.378	0.756	2.30	4.61
Recovery	Pond 2	BASE	46.75	23.556	27.500	65293	0.376	0.751	2.30	4.62
Recovery	Pond 2	BASE	47.00	23.550	27.500	65261	0.373	0.746	2.31	4.64
Recovery	Pond 2	BASE	47.25	23.545	27.500	65230	0.371	0.741	2.32	4.65
Recovery	Pond 2	BASE	47.50	23.540	27.500	65199	0.368	0.736	2.33	4.67
Recovery	Pond 2	BASE	47.75	23.535	27.500	65168	0.366	0.731	2.33	4.68
Recovery	Pond 2	BASE	48.00	23.530	27.500	65137	0.363	0.726	2.34	4.70
Recovery	Pond 2	BASE	48.25	23.525	27.500	65107	0.361	0.721	2.35	4.71
Recovery	Pond 2	BASE	48.50	23.520	27.500	65076	0.358	0.716	2.36	4.73
Recovery	Pond 2	BASE	48.75	23.515	27.500	65046	0.356	0.711	2.36	4.74
Recovery	Pond 2	BASE	49.00	23.510	27.500	65016	0.353	0.706	2.37	4.76
Recovery	Pond 2	BASE	49.25	23.505	27.500	64987	0.351	0.701	2.38	4.77
Recovery	Pond 2	BASE	49.50	23.501	27.500	64957	0.348	0.696	2.39	4.79
Recovery	Pond 2	BASE	49.75	23.496	27.500	64928	0.346	0.691	2.39	4.80
Recovery	Pond 2	BASE	50.00	23.491	27.500	64899	0.343	0.686	2.40	4.81
Recovery	Pond 2	BASE	50.25	23.486	27.500	64870	0.341	0.681	2.41	4.83
Recovery	Pond 2	BASE	50.50	23.482	27.500	64841	0.338	0.676	2.41	4.84
Recovery	Pond 2	BASE	50.75	23.477	27.500	64813	0.336	0.671	2.42	4.86
Recovery	Pond 2	BASE	51.00	23.472	27.500	64784	0.333	0.667	2.43	4.87
Recovery	Pond 2	BASE	51.25	23.468	27.500	64756	0.331	0.662	2.43	4.88
Recovery	Pond 2	BASE	51.50	23.463	27.500	64728	0.328	0.657	2.44	4.90
Recovery	Pond 2	BASE	51.75	23.459	27.500	64701	0.326	0.652	2.45	4.91
Recovery	Pond 2	BASE	52.00	23.454	27.500	64673	0.323	0.647	2.45	4.92
Recovery	Pond 2	BASE	52.25	23.450	27.500	64646	0.321	0.642	2.46	4.94
Recovery	Pond 2	BASE	52.50	23.445	27.500	64619	0.318	0.637	2.47	4.95
Recovery	Pond 2	BASE	52.75	23.441	27.500	64592	0.316	0.632	2.47	4.96
Recovery	Pond 2	BASE	53.00	23.436	27.500	64565	0.313	0.627	2.48	4.98
Recovery	Pond 2	BASE	53.25	23.432	27.500	64538	0.311	0.622	2.49	4.99
Recovery	Pond 2	BASE	53.50	23.428	27.500	64512	0.308	0.617	2.49	5.00
Recovery	Pond 2	BASE	53.75	23.423	27.500	64486	0.306	0.612	2.50	5.02
Recovery	Pond 2	BASE	54.00	23.419	27.500	64460	0.303	0.607	2.51	5.03
Recovery	Pond 2	BASE	54.25	23.415	27.500	64434	0.301	0.602	2.51	5.04
Recovery	Pond 2	BASE	54.50	23.411	27.500	64409	0.298	0.597	2.52	5.05
Recovery	Pond 2	BASE	54.75	23.407	27.500	64383	0.296	0.592	2.53	5.07
Recovery	Pond 2	BASE	55.00	23.402	27.500	64358	0.293	0.587	2.53	5.08
Recovery	Pond 2	BASE	55.25	23.398	27.500	64333	0.291	0.582	2.54	5.09
Recovery	Pond 2	BASE	55.50	23.394	27.500	64309	0.288	0.577	2.54	5.10
Recovery	Pond 2	BASE	55.75	23.390	27.500	64284	0.286	0.572	2.55	5.11
Recovery	Pond 2	BASE	56.00	23.386	27.500	64260	0.282	0.563	2.56	5.13
Recovery	Pond 2	BASE	56.25	23.382	27.500	64236	0.277	0.555	2.56	5.14
Recovery	Pond 2	BASE	56.50	23.379	27.500	64213	0.273	0.546	2.57	5.15
Recovery	Pond 2	BASE	56.75	23.375	27.500	64190	0.269	0.538	2.57	5.16
Recovery	Pond 2	BASE	57.00	23.371	27.500	64167	0.265	0.530	2.58	5.17
Recovery	Pond 2	BASE	57.25	23.367	27.500	64144	0.261	0.522	2.58	5.18
Recovery	Pond 2	BASE	57.50	23.364	27.500	64122	0.257	0.514	2.59	5.19
Recovery	Pond 2	BASE	57.75	23.360	27.500	64100	0.253	0.506	2.59	5.20
Recovery	Pond 2	BASE	58.00	23.357	27.500	64079	0.249	0.498	2.60	5.21
Recovery	Pond 2	BASE	58.25	23.353	27.500	64058	0.245	0.491	2.60	5.22
Recovery	Pond 2	BASE	58.50	23.350	27.500	64037	0.242	0.483	2.61	5.23
Recovery	Pond 2	BASE	58.75	23.346	27.500	64016	0.238	0.476	2.61	5.24
Recovery	Pond 2	BASE	59.00	23.343	27.500	63996	0.234	0.469	2.62	5.25
Recovery	Pond 2	BASE	59.25	23.340	27.500	63976	0.231	0.462	2.62	5.26
Recovery	Pond 2	BASE	59.50	23.336	27.500	63956	0.227	0.455	2.63	5.27
Recovery	Pond 2	BASE	59.75	23.333	27.500	63937	0.224	0.448	2.63	5.28
Recovery	Pond 2	BASE	60.00	23.330	27.500	63918	0.220	0.441	2.64	5.29
Recovery	Pond 2	BASE	60.25	23.327	27.500	63899	0.217	0.434	2.64	5.30
Recovery	Pond 2	BASE	60.50	23.324	27.500	63881	0.214	0.429	2.65	5.31
Recovery	Pond 2	BASE	60.75	23.321	27.500	63862	0.213	0.427	2.65	5.32
Recovery	Pond 2	BASE	61.00	23.318	27.500	63844	0.212	0.424	2.66	5.33
Recovery	Pond 2	BASE	61.25	23.315	27.500	63826	0.210	0.421	2.66	5.33
Recovery	Pond 2	BASE	61.50	23.312	27.500	63808	0.208	0.416	2.66	5.34
Recovery	Pond 2	BASE	61.75	23.309	27.500	63790	0.206	0.412	2.67	5.35
Recovery	Pond 2	BASE	62.00	23.306	27.500	63772	0.204	0.408	2.67	5.36
Recovery	Pond 2	BASE	62.25	23.303	27.500	63755	0.202	0.404	2.68	5.37
Recovery	Pond 2	BASE	62.50	23.301	27.500	63738	0.200	0.399	2.68	5.38
Recovery	Pond 2	BASE	62.75	23.298	27.500	63721	0.197	0.395	2.69	5.39
Recovery	Pond 2	BASE	63.00	23.295	27.500	63704	0.195	0.390	2.69	5.39
Recovery	Pond 2	BASE	63.25	23.292	27.500	63687	0.193	0.385	2.69	5.40
Recovery	Pond 2	BASE	63.50	23.290	27.500	63671	0.190	0.380	2.70	5.41
Recovery	Pond 2	BASE	63.75	23.287	27.500	63654	0.188	0.376	2.70	5.42
Recovery	Pond 2	BASE	64.00	23.284	27.500	63638	0.186	0.371	2.71	5.43
Recovery	Pond 2	BASE	64.25	23.282	27.500	63622	0.183	0.366	2.71	5.43
Recovery	Pond 2	BASE	64.50	23.279	27.500	63607	0.181	0.362	2.71	5.44
Recovery	Pond 2	BASE	64.75	23.277	27.500	63591	0.179	0.357	2.72	5.45
Recovery	Pond 2	BASE	65.00	23.274	27.500	63576	0.176	0.352	2.72	5.45
Recovery	Pond 2	BASE	65.25	23.272	27.500	63561	0.174	0.348	2.72	5.46
Recovery	Pond 2	BASE	65.50	23.269	27.500	63546	0.172	0.343	2.73	5.47
Recovery	Pond 2	BASE	65.75	23.267	27.500	63531	0.169	0.339	2.73	5.48

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
Recovery	Pond 2	BASE	66.00	23.264	27.500	63516	0.167	0.334	2.73	5.48
Recovery	Pond 2	BASE	66.25	23.262	27.500	63502	0.165	0.329	2.74	5.49
Recovery	Pond 2	BASE	66.50	23.260	27.500	63488	0.163	0.325	2.74	5.50
Recovery	Pond 2	BASE	66.75	23.257	27.500	63474	0.160	0.321	2.74	5.50
Recovery	Pond 2	BASE	67.00	23.255	27.500	63460	0.158	0.316	2.75	5.51
Recovery	Pond 2	BASE	67.25	23.253	27.500	63447	0.156	0.312	2.75	5.52
Recovery	Pond 2	BASE	67.50	23.251	27.500	63433	0.154	0.308	2.75	5.52
Recovery	Pond 2	BASE	67.75	23.249	27.500	63420	0.152	0.303	2.76	5.53
Recovery	Pond 2	BASE	68.00	23.246	27.500	63407	0.150	0.299	2.76	5.54
Recovery	Pond 2	BASE	68.25	23.244	27.500	63394	0.148	0.295	2.76	5.54
Recovery	Pond 2	BASE	68.50	23.242	27.500	63382	0.146	0.291	2.77	5.55
Recovery	Pond 2	BASE	68.75	23.240	27.500	63369	0.144	0.287	2.77	5.55
Recovery	Pond 2	BASE	69.00	23.238	27.500	63357	0.142	0.283	2.77	5.56
Recovery	Pond 2	BASE	69.25	23.236	27.500	63344	0.140	0.279	2.78	5.57
Recovery	Pond 2	BASE	69.50	23.234	27.500	63332	0.138	0.275	2.78	5.57
Recovery	Pond 2	BASE	69.75	23.232	27.500	63321	0.136	0.272	2.78	5.58
Recovery	Pond 2	BASE	70.00	23.230	27.500	63309	0.134	0.268	2.78	5.58
Recovery	Pond 2	BASE	70.25	23.228	27.500	63297	0.132	0.264	2.79	5.59
Recovery	Pond 2	BASE	70.50	23.227	27.500	63286	0.130	0.261	2.79	5.59
Recovery	Pond 2	BASE	70.75	23.225	27.500	63275	0.129	0.257	2.79	5.60
Recovery	Pond 2	BASE	71.00	23.223	27.500	63264	0.127	0.253	2.79	5.60
Recovery	Pond 2	BASE	71.25	23.221	27.500	63253	0.125	0.250	2.80	5.61
Recovery	Pond 2	BASE	71.50	23.219	27.500	63242	0.123	0.247	2.80	5.61
Recovery	Pond 2	BASE	71.75	23.218	27.500	63231	0.122	0.243	2.80	5.62
Recovery	Pond 2	BASE	72.00	23.216	27.500	63221	0.120	0.240	2.80	5.62
Recovery	Pond 2	BASE	72.25	23.214	27.500	63211	0.118	0.237	2.81	5.63
Recovery	Pond 2	BASE	72.50	23.213	27.500	63200	0.117	0.234	2.81	5.63
Recovery	Pond 2	BASE	72.75	23.211	27.500	63190	0.115	0.230	2.81	5.64
Recovery	Pond 2	BASE	73.00	23.209	27.500	63180	0.114	0.227	2.81	5.64
Recovery	Pond 2	BASE	73.25	23.208	27.500	63171	0.112	0.224	2.82	5.65
Recovery	Pond 2	BASE	73.50	23.206	27.500	63161	0.111	0.221	2.82	5.65
Recovery	Pond 2	BASE	73.75	23.204	27.500	63151	0.109	0.218	2.82	5.66
Recovery	Pond 2	BASE	74.00	23.203	27.500	63142	0.108	0.215	2.82	5.66
Recovery	Pond 2	BASE	74.25	23.201	27.500	63133	0.106	0.213	2.83	5.67
Recovery	Pond 2	BASE	74.50	23.200	27.500	63123	0.105	0.210	2.83	5.67
Recovery	Pond 2	BASE	74.75	23.198	27.500	63114	0.104	0.207	2.83	5.68
Recovery	Pond 2	BASE	75.00	23.197	27.500	63105	0.102	0.204	2.83	5.68
Recovery	Pond 2	BASE	75.25	23.195	27.500	63097	0.101	0.202	2.83	5.68
Recovery	Pond 2	BASE	75.50	23.194	27.500	63088	0.100	0.199	2.84	5.69
Recovery	Pond 2	BASE	75.75	23.193	27.500	63079	0.098	0.197	2.84	5.69
Recovery	Pond 2	BASE	76.00	23.191	27.500	63071	0.097	0.194	2.84	5.70
Recovery	Pond 2	BASE	76.25	23.190	27.500	63062	0.096	0.191	2.84	5.70
Recovery	Pond 2	BASE	76.50	23.189	27.500	63054	0.095	0.189	2.84	5.70
Recovery	Pond 2	BASE	76.75	23.187	27.500	63046	0.093	0.187	2.85	5.71
Recovery	Pond 2	BASE	77.00	23.186	27.500	63038	0.092	0.184	2.85	5.71
Recovery	Pond 2	BASE	77.25	23.185	27.500	63030	0.091	0.182	2.85	5.72
Recovery	Pond 2	BASE	77.50	23.183	27.500	63022	0.090	0.180	2.85	5.72
Recovery	Pond 2	BASE	77.75	23.182	27.500	63014	0.089	0.177	2.85	5.72
Recovery	Pond 2	BASE	78.00	23.181	27.500	63007	0.088	0.175	2.86	5.73
Recovery	Pond 2	BASE	78.25	23.179	27.500	62999	0.087	0.173	2.86	5.73
Recovery	Pond 2	BASE	78.50	23.178	27.500	62991	0.085	0.171	2.86	5.73
Recovery	Pond 2	BASE	78.75	23.177	27.500	62984	0.084	0.169	2.86	5.74
Recovery	Pond 2	BASE	79.00	23.176	27.500	62977	0.083	0.167	2.86	5.74
Recovery	Pond 2	BASE	79.25	23.175	27.500	62970	0.082	0.165	2.86	5.74
Recovery	Pond 2	BASE	79.50	23.173	27.500	62962	0.081	0.163	2.87	5.75
Recovery	Pond 2	BASE	79.75	23.172	27.500	62955	0.080	0.161	2.87	5.75
Recovery	Pond 2	BASE	80.00	23.171	27.500	62948	0.079	0.159	2.87	5.75
Recovery	Pond 2	BASE	80.25	23.170	27.500	62942	0.078	0.157	2.87	5.76
Recovery	Pond 2	BASE	80.50	23.169	27.500	62935	0.077	0.155	2.87	5.76
Recovery	Pond 2	BASE	80.75	23.168	27.500	62928	0.077	0.153	2.87	5.76
Recovery	Pond 2	BASE	81.00	23.167	27.500	62921	0.076	0.151	2.88	5.77
Recovery	Pond 2	BASE	81.25	23.166	27.500	62915	0.111	0.149	2.88	5.77
Recovery	Pond 2	BASE	81.50	23.165	27.500	62908	0.076	0.148	2.88	5.77
Recovery	Pond 2	BASE	81.75	23.164	27.500	62902	0.075	0.146	2.88	5.78
Recovery	Pond 2	BASE	82.00	23.163	27.500	62896	0.082	0.144	2.88	5.78
Recovery	Pond 2	BASE	82.25	23.162	27.500	62889	0.081	0.143	2.88	5.78
Recovery	Pond 2	BASE	82.50	23.161	27.500	62883	0.075	0.141	2.89	5.78
Recovery	Pond 2	BASE	82.75	23.159	27.500	62877	0.091	0.139	2.89	5.79
Recovery	Pond 2	BASE	83.00	23.159	27.500	62871	0.090	0.138	2.89	5.79
Recovery	Pond 2	BASE	83.25	23.158	27.500	62865	0.089	0.136	2.89	5.79
Recovery	Pond 2	BASE	83.50	23.157	27.500	62859	0.088	0.135	2.89	5.80
Recovery	Pond 2	BASE	83.75	23.156	27.500	62853	0.087	0.133	2.90	5.80
Recovery	Pond 2	BASE	84.00	23.155	27.500	62848	0.104	0.132	2.90	5.80
Recovery	Pond 2	BASE	84.25	23.154	27.500	62842	0.075	0.130	2.90	5.80
Recovery	Pond 2	BASE	84.50	23.153	27.500	62836	0.087	0.129	2.90	5.81
Recovery	Pond 2	BASE	84.75	23.152	27.500	62831	0.086	0.127	2.90	5.81
Recovery	Pond 2	BASE	85.00	23.151	27.500	62825	0.085	0.126	2.90	5.81
Recovery	Pond 2	BASE	85.25	23.150	27.500	62820	0.084	0.124	2.91	5.81
Recovery	Pond 2	BASE	85.50	23.149	27.500	62814	0.082	0.123	2.91	5.82
Recovery	Pond 2	BASE	85.75	23.148	27.500	62809	0.081	0.122	2.91	5.82
Recovery	Pond 2	BASE	86.00	23.147	27.500	62804	0.080	0.120	2.91	5.82
Recovery	Pond 2	BASE	86.25	23.147	27.500	62798	0.079	0.119	2.91	5.82
Recovery	Pond 2	BASE	86.50	23.146	27.500	62793	0.078	0.118	2.91	5.83

Simulation	Node	Group	Time	Stage	Warning Stage	Surface Area	Total Inflow	Total Outflow	Total Vol In	Total Vol Out
			hrs	ft	ft	ft2	cfs	cfs	af	af
Recovery	Pond 2	BASE	86.75	23.145	27.500	62788	0.077	0.116	2.92	5.83
Recovery	Pond 2	BASE	87.00	23.144	27.500	62783	0.076	0.115	2.92	5.83
Recovery	Pond 2	BASE	87.25	23.143	27.500	62778	0.075	0.114	2.92	5.83
Recovery	Pond 2	BASE	87.50	23.142	27.500	62773	0.000	0.113	2.92	5.84
Recovery	Pond 2	BASE	87.75	23.142	27.500	62768	0.094	0.112	2.92	5.84
Recovery	Pond 2	BASE	88.00	23.141	27.500	62763	0.000	0.110	2.92	5.84
Recovery	Pond 2	BASE	88.25	23.140	27.500	62758	0.000	0.109	2.92	5.84
Recovery	Pond 2	BASE	88.50	23.139	27.500	62754	0.000	0.108	2.92	5.85
Recovery	Pond 2	BASE	88.75	23.139	27.500	62749	0.000	0.107	2.92	5.85
Recovery	Pond 2	BASE	89.00	23.138	27.500	62744	0.000	0.106	2.92	5.85
Recovery	Pond 2	BASE	89.25	23.137	27.500	62740	0.092	0.105	2.92	5.85
Recovery	Pond 2	BASE	89.50	23.136	27.500	62735	0.075	0.104	2.92	5.85
Recovery	Pond 2	BASE	89.75	23.135	27.500	62731	0.000	0.103	2.93	5.86
Recovery	Pond 2	BASE	90.00	23.135	27.500	62726	0.101	0.102	2.93	5.86
Recovery	Pond 2	BASE	90.25	23.134	27.500	62722	0.000	0.101	2.93	5.86
Recovery	Pond 2	BASE	90.50	23.133	27.500	62717	0.000	0.099	2.93	5.86
Recovery	Pond 2	BASE	90.75	23.133	27.500	62713	0.000	0.098	2.93	5.87
Recovery	Pond 2	BASE	91.00	23.132	27.500	62709	0.000	0.098	2.93	5.87
Recovery	Pond 2	BASE	91.25	23.131	27.500	62705	0.000	0.097	2.93	5.87
Recovery	Pond 2	BASE	91.50	23.131	27.500	62700	0.000	0.096	2.93	5.87
Recovery	Pond 2	BASE	91.75	23.130	27.500	62696	0.000	0.095	2.93	5.87
Recovery	Pond 2	BASE	92.00	23.129	27.500	62692	0.000	0.094	2.93	5.87
Recovery	Pond 2	BASE	92.25	23.128	27.500	62688	0.000	0.093	2.93	5.88
Recovery	Pond 2	BASE	92.50	23.128	27.500	62684	0.000	0.092	2.93	5.88
Recovery	Pond 2	BASE	92.75	23.127	27.500	62680	0.000	0.091	2.93	5.88
Recovery	Pond 2	BASE	93.00	23.127	27.500	62676	0.000	0.090	2.93	5.88
Recovery	Pond 2	BASE	93.25	23.126	27.500	62672	0.000	0.089	2.93	5.88
Recovery	Pond 2	BASE	93.50	23.125	27.500	62668	0.000	0.088	2.93	5.89
Recovery	Pond 2	BASE	93.75	23.125	27.500	62664	0.000	0.087	2.93	5.89
Recovery	Pond 2	BASE	94.00	23.124	27.500	62661	0.000	0.087	2.93	5.89
Recovery	Pond 2	BASE	94.25	23.123	27.500	62657	0.000	0.086	2.93	5.89
Recovery	Pond 2	BASE	94.50	23.123	27.500	62653	0.000	0.085	2.93	5.89
Recovery	Pond 2	BASE	94.75	23.122	27.500	62649	0.000	0.084	2.93	5.90
Recovery	Pond 2	BASE	95.00	23.122	27.500	62646	0.000	0.083	2.93	5.90
Recovery	Pond 2	BASE	95.25	23.121	27.500	62642	0.000	0.083	2.93	5.90
Recovery	Pond 2	BASE	95.50	23.120	27.500	62638	0.000	0.082	2.93	5.90
Recovery	Pond 2	BASE	95.75	23.120	27.500	62635	0.000	0.081	2.93	5.90
Recovery	Pond 2	BASE	96.00	23.119	27.500	62631	0.000	0.080	2.93	5.90
Recovery	Pond 2	BASE	96.25	23.119	27.500	62628	0.000	0.080	2.93	5.91
Recovery	Pond 2	BASE	96.50	23.118	27.500	62624	0.000	0.079	2.93	5.91
Recovery	Pond 2	BASE	96.75	23.117	27.500	62621	0.000	0.078	2.93	5.91
Recovery	Pond 2	BASE	97.00	23.117	27.500	62617	0.000	0.077	2.93	5.91
Recovery	Pond 2	BASE	97.25	23.116	27.500	62614	0.000	0.077	2.93	5.91
Recovery	Pond 2	BASE	97.50	23.116	27.500	62611	0.000	0.076	2.93	5.91
Recovery	Pond 2	BASE	97.75	23.115	27.500	62607	0.000	0.075	2.93	5.91
Recovery	Pond 2	BASE	98.00	23.115	27.500	62604	0.000	0.075	2.93	5.92
Recovery	Pond 2	BASE	98.25	23.114	27.500	62601	0.000	0.074	2.93	5.92
Recovery	Pond 2	BASE	98.50	23.114	27.500	62598	0.000	0.073	2.93	5.92
Recovery	Pond 2	BASE	98.75	23.113	27.500	62594	0.000	0.073	2.93	5.92
Recovery	Pond 2	BASE	99.00	23.113	27.500	62591	0.000	0.072	2.93	5.92
Recovery	Pond 2	BASE	99.25	23.112	27.500	62588	0.000	0.071	2.93	5.92
Recovery	Pond 2	BASE	99.50	23.112	27.500	62585	0.000	0.071	2.93	5.93
Recovery	Pond 2	BASE	99.75	23.111	27.500	62582	0.000	0.070	2.93	5.93
Recovery	Pond 2	BASE	100.00	23.111	27.500	62579	0.093	0.070	2.93	5.93
Recovery	Pond 2	BASE	100.25	23.110	27.500	62576	0.092	0.069	2.93	5.93
Recovery	Pond 2	BASE	100.50	23.110	27.500	62573	0.091	0.068	2.93	5.93
Recovery	Pond 2	BASE	100.75	23.109	27.500	62570	0.091	0.068	2.93	5.93
Recovery	Pond 2	BASE	101.00	23.109	27.500	62567	0.090	0.067	2.94	5.93
Recovery	Pond 2	BASE	101.25	23.108	27.500	62564	0.089	0.067	2.94	5.94
Recovery	Pond 2	BASE	101.50	23.108	27.500	62561	0.089	0.066	2.94	5.94
Recovery	Pond 2	BASE	101.75	23.107	27.500	62558	0.088	0.065	2.94	5.94
Recovery	Pond 2	BASE	102.00	23.107	27.500	62555	0.087	0.065	2.94	5.94
Recovery	Pond 2	BASE	102.25	23.106	27.500	62552	0.000	0.064	2.94	5.94
Recovery	Pond 2	BASE	102.50	23.106	27.500	62550	0.000	0.064	2.94	5.94
Recovery	Pond 2	BASE	102.75	23.105	27.500	62547	0.000	0.063	2.94	5.94
Recovery	Pond 2	BASE	103.00	23.105	27.500	62544	0.000	0.063	2.94	5.94
Recovery	Pond 2	BASE	103.25	23.104	27.500	62541	0.076	0.062	2.94	5.95
Recovery	Pond 2	BASE	103.50	23.104	27.500	62539	0.000	0.062	2.95	5.95
Recovery	Pond 2	BASE	103.75	23.104	27.500	62536	0.075	0.061	2.95	5.95
Recovery	Pond 2	BASE	104.00	23.103	27.500	62533	0.091	0.061	2.95	5.95
Recovery	Pond 2	BASE	104.25	23.103	27.500	62531	0.090	0.060	2.95	5.95
Recovery	Pond 2	BASE	104.50	23.102	27.500	62528	0.090	0.060	2.95	5.95
Recovery	Pond 2	BASE	104.75	23.102	27.500	62525	0.089	0.059	2.95	5.95
Recovery	Pond 2	BASE	105.00	23.101	27.500	62523	0.088	0.059	2.96	5.95
Recovery	Pond 2	BASE	105.25	23.101	27.500	62520	0.087	0.058	2.96	5.96
Recovery	Pond 2	BASE	105.50	23.101	27.500	62518	0.087	0.058	2.96	5.96
Recovery	Pond 2	BASE	105.75	23.100	27.500	62515	0.086	0.057	2.96	5.96
Recovery	Pond 2	BASE	106.00	23.100	27.500	62513	0.085	0.057	2.96	5.96
Recovery	Pond 2	BASE	106.25	23.099	27.500	62510	0.085	0.056	2.96	5.96
Recovery	Pond 2	BASE	106.50	23.099	27.500	62508	0.084	0.056	2.97	5.96
Recovery	Pond 2	BASE	106.75	23.099	27.500	62505	0.083	0.056	2.97	5.96
Recovery	Pond 2	BASE	107.00	23.098	27.500	62503	0.083	0.055	2.97	5.96
Recovery	Pond 2	BASE	107.25	23.098	27.500	62500	0.082	0.055	2.97	5.97

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
Recovery	Pond 2	BASE	107.50	23.097	27.500	62498	0.081	0.054	2.97	5.97
Recovery	Pond 2	BASE	107.75	23.097	27.500	62496	0.081	0.054	2.97	5.97
Recovery	Pond 2	BASE	108.00	23.097	27.500	62493	0.080	0.053	2.98	5.97
Recovery	Pond 2	BASE	108.25	23.096	27.500	62491	0.079	0.053	2.98	5.97
Recovery	Pond 2	BASE	108.50	23.096	27.500	62489	0.079	0.053	2.98	5.97
Recovery	Pond 2	BASE	108.75	23.095	27.500	62486	0.078	0.052	2.98	5.97
Recovery	Pond 2	BASE	109.00	23.095	27.500	62484	0.078	0.052	2.98	5.97
Recovery	Pond 2	BASE	109.25	23.095	27.500	62482	0.077	0.051	2.98	5.97
Recovery	Pond 2	BASE	109.50	23.094	27.500	62480	0.076	0.051	2.99	5.98
Recovery	Pond 2	BASE	109.75	23.094	27.500	62477	0.076	0.051	2.99	5.98
Recovery	Pond 2	BASE	110.00	23.094	27.500	62475	0.075	0.050	2.99	5.98
Recovery	Pond 2	BASE	110.25	23.093	27.500	62473	0.088	0.050	2.99	5.98
Recovery	Pond 2	BASE	110.50	23.093	27.500	62471	0.081	0.049	2.99	5.98
Recovery	Pond 2	BASE	110.75	23.093	27.500	62469	0.000	0.049	2.99	5.98
Recovery	Pond 2	BASE	111.00	23.092	27.500	62466	0.000	0.049	2.99	5.98
Recovery	Pond 2	BASE	111.25	23.092	27.500	62464	0.000	0.048	2.99	5.98
Recovery	Pond 2	BASE	111.50	23.091	27.500	62462	0.079	0.048	2.99	5.98
Recovery	Pond 2	BASE	111.75	23.091	27.500	62460	0.088	0.048	3.00	5.98
Recovery	Pond 2	BASE	112.00	23.091	27.500	62458	0.000	0.047	3.00	5.99
Recovery	Pond 2	BASE	112.25	23.090	27.500	62456	0.078	0.047	3.00	5.99
Recovery	Pond 2	BASE	112.50	23.090	27.500	62454	0.000	0.047	3.00	5.99
Recovery	Pond 2	BASE	112.75	23.090	27.500	62452	0.000	0.046	3.00	5.99
Recovery	Pond 2	BASE	113.00	23.089	27.500	62450	0.000	0.046	3.00	5.99
Recovery	Pond 2	BASE	113.25	23.089	27.500	62448	0.000	0.046	3.00	5.99
Recovery	Pond 2	BASE	113.50	23.089	27.500	62446	0.000	0.045	3.00	5.99
Recovery	Pond 2	BASE	113.75	23.088	27.500	62444	0.087	0.045	3.00	5.99
Recovery	Pond 2	BASE	114.00	23.088	27.500	62442	0.000	0.045	3.00	5.99
Recovery	Pond 2	BASE	114.25	23.088	27.500	62440	0.000	0.044	3.00	5.99
Recovery	Pond 2	BASE	114.50	23.087	27.500	62438	0.000	0.044	3.00	5.99
Recovery	Pond 2	BASE	114.75	23.087	27.500	62436	0.000	0.044	3.00	6.00
Recovery	Pond 2	BASE	115.00	23.087	27.500	62434	0.000	0.043	3.00	6.00
Recovery	Pond 2	BASE	115.25	23.087	27.500	62432	0.000	0.043	3.00	6.00
Recovery	Pond 2	BASE	115.50	23.086	27.500	62430	0.000	0.043	3.00	6.00
Recovery	Pond 2	BASE	115.75	23.086	27.500	62429	0.000	0.042	3.00	6.00
Recovery	Pond 2	BASE	116.00	23.086	27.500	62427	0.000	0.042	3.00	6.00
Recovery	Pond 2	BASE	116.25	23.085	27.500	62425	0.000	0.042	3.00	6.00
Recovery	Pond 2	BASE	116.50	23.085	27.500	62423	0.000	0.042	3.00	6.00
Recovery	Pond 2	BASE	116.75	23.085	27.500	62421	0.000	0.041	3.00	6.00
Recovery	Pond 2	BASE	117.00	23.084	27.500	62419	0.000	0.041	3.00	6.00
Recovery	Pond 2	BASE	117.25	23.084	27.500	62418	0.000	0.041	3.00	6.00
Recovery	Pond 2	BASE	117.50	23.084	27.500	62416	0.000	0.040	3.00	6.01
Recovery	Pond 2	BASE	117.75	23.084	27.500	62414	0.000	0.040	3.00	6.01
Recovery	Pond 2	BASE	118.00	23.083	27.500	62412	0.000	0.040	3.00	6.01
Recovery	Pond 2	BASE	118.25	23.083	27.500	62411	0.000	0.040	3.00	6.01
Recovery	Pond 2	BASE	118.50	23.083	27.500	62409	0.000	0.039	3.00	6.01
Recovery	Pond 2	BASE	118.75	23.082	27.500	62407	0.000	0.039	3.00	6.01
Recovery	Pond 2	BASE	119.00	23.082	27.500	62405	0.000	0.039	3.00	6.01
Recovery	Pond 2	BASE	119.25	23.082	27.500	62404	0.000	0.038	3.00	6.01
Recovery	Pond 2	BASE	119.50	23.082	27.500	62402	0.000	0.038	3.00	6.01
Recovery	Pond 2	BASE	119.75	23.081	27.500	62400	0.000	0.038	3.00	6.01
Recovery	Pond 2	BASE	120.00	23.081	27.500	62399	0.000	0.038	3.00	6.01
Recovery	Pond 2	BASE	120.00	23.081	27.500	62399	0.000	0.038	3.00	6.01

UNIVERSAL ENGINEERING SCIENCES

SUBSURFACE EXPLORATION

Proposed London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Brevard County, Florida
Universal Project No. 0330.1500003.0000

February 20, 2015

PREPARED FOR:

SR 524 Cocoa II, LLC
c/o Demetree Global
1350 Orange Avenue, Suite 100
Winter Park, Florida 32955

PREPARED BY:

Universal Engineering Sciences, Inc.
820 Brevard Avenue
Rockledge, Florida 32955
(321) 638-0808

Consultants in: Geotechnical Engineering • Environmental Sciences • Construction Materials Testing • Threshold Inspection
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- Pensacola
- Rockledge
- Sarasota
- Tampa
- West Palm Beach

SR 524 Cocoa II, LLC
c/o Demetree Global
1350 Orange Avenue, Suite 100
Winter Park, Florida 32789

February 20, 2015

Attention: Mr. Eric S. Peisner

Reference: **Subsurface Exploration**
Proposed London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Brevard County, Florida
Universal Project No. 0330.1500003.0000

Dear Mr. Peisner:

Universal Engineering Sciences, Inc. (Universal) has completed a subsurface exploration at the above referenced site in Brevard County, Florida. Our exploration was authorized by Ms Mary L. Demetree, with Demetree Global and was conducted as outlined in Universal's Proposal No. 0330.1115.00001. This exploration was performed in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made.

The following report presents the results of our field exploration together with a geotechnical engineering interpretation of those results with respect to the project characteristics as such were provided to us. We have included general engineering recommendations concerning site preparation procedures, foundation and pavement design parameters, and our estimates of the typical wet season high groundwater levels at the boring locations.

Please note that deleterious organic (muck) soils were encountered at several of the boring locations within the southern sections of the site. These organic (muck) soils are completely unacceptable for pavement & foundation support and will require removal and replacement with select compacted backfill.

We appreciate the opportunity to have worked with you on this project and look forward to a continued association. Please do not hesitate to contact us if you should have any questions, or if we may further assist you as your plans proceed.

Sincerely yours,
UNIVERSAL ENGINEERING SCIENCES, INC.
Certificate of Authorization No. 549

Jose R. Benitez Jr., E.I.
Staff Engineer

2-20-2015

Brad Faucett, M.S. P.E.
Regional Engineer
Florida Professional Engineer No. 33123

2 – Client
1 – Dave Schmitt, P.E., Dave Schmitt Engineering, Inc. (by e-mail) UES DOCS No.: 1197987

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1.0 INTRODUCTION

Universal Engineering Sciences, Inc. (Universal) has completed a subsurface exploration for the proposed London Cove Commercial and Residential Subdivision in Cocoa, Brevard County, Florida. Our exploration was authorized by Ms Mary L. Demetree, Manager for Demetree Global and was conducted as outlined in Universal's Proposal No. 0330.1115.00001. This exploration was performed in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made.

2.0 PROJECT DESCRIPTION

It is Universal's understanding, based on review of a conceptual site plan provided by Dave Schmitt Engineering, Inc., the project civil engineers, that the proposed project will include the construction of a multi-family residential townhome and commercial subdivision in Cocoa, Florida, as shown on the attached Figure 3. The proposed subdivision will consist of approximately sixty-one (61) two-story multi-residential townhome units, within a total of twelve (12) individual buildings, and associated parking/drive areas.

In addition, it is Universal's understanding that six (6) outparcel lots totaling approximately 9.2 acres are intended for commercial usage.

The stormwater runoff from the new impervious surfaces will be retained within a proposed "wet" retention basin to be located on the south side of the project area.

We assume that the construction of the proposed townhome structures will consist of a combination of reinforced concrete, masonry and timber framing. Specific structural details are not yet available; however, based on our previous work with similar structures, we assume that maximum loading conditions for the proposed buildings will be on the order of 75 kips per column, 4 kips per lineal foot for structural walls, and 100 pounds per square foot for on grade floor slabs. We assume that the finished first floor levels of the proposed buildings will be approximately 2 to 4 feet above existing grades.

If any of the above information is incorrect or changes prior to construction, please contact Universal immediately so that we may revise the recommendations contained in this report, as necessary. In order to verify that our recommendations are properly interpreted and implemented, Universal should be allowed to review the final design and specifications prior to the start of construction.

3.0 PURPOSE

The purposes of this exploration were:

- to explore and evaluate the subsurface conditions at the site with special attention to potential problems that may hinder the proposed development,
- to provide our estimates of the typical wet high season groundwater levels at the boring locations,

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- to provide general comments concerning the anticipated infiltration characteristics of the retention basin subsoils, and

- to provide geotechnical engineering recommendations for site preparation procedures, foundation and pavement design parameters.

4.0 SITE DESCRIPTION

The subject site is located within Section 18, Township 24 South, Range 36 East in Brevard County, Florida. More specifically, the site is an approximate 20.7 acre tract located on the south side of SR 524 approximately 0.2 miles west of the interchange of SR 524 with East Industry Road in Cocoa, Florida. A PNC bank and retention basin, as part of an overall shopping center complex; adjoin the site on its east. Directly north across SR 524 is a Sunoco gas station and convenience store, along with the Cocoa North Subdivision. At the time of this exploration portions of the site were heavy wooded with thick dense trees and brush, requiring a considerable amount of hand clearing of trails for drill rig access.

4.1 SOIL SURVEY

There are four primary soil types (pre-development) within the area of the project according to the Brevard County Soil Survey (BCSS), dated 1974. A brief description of these soils is shown below in Table I.

TABLE I
BCSS DESIGNATED SOIL TYPES

Soil Type (Map Symbol)	Brief Description
St. Johns, ponded (Sc)	Soils in sloughs, poorly defined draingeways, and shallow intermittent ponds in the flatwoods.
St. Lucie fine sand (SfB)	Excessively drained sandy soil on high dunelike ridges and isolated knolls.
Paola fine sand (PfB)	An excessively drained soil on ridges.
Terra Ceia muck (Tc)	Nearly level, very poorly drained muck soils in broad flat marsh areas and small depressions.
Immokalee sand (Im)	Nearly level, poorly drained sandy soil in broad areas in the flatwoods, on low ridges between sloughs, and in low, narrow areas between sand ridges and lakes and ponds.

4.2 TOPOGRAPHY

According to information obtained from the United States Geological Survey (USGS) Sharpes, Florida 7.5-minute topographic quadrangle map (dated 1949 and photorevised 1988), ground surface elevation across the site area varies from approximately +30 feet National Geodetic Vertical Datum (NGVD) near the eastern side and the northwest corner of the property to between +20 & +25 feet NGVD along the southern boundary of the tract. The portion of the USGS map with coverage of the site is included as Figure No. 2 of this report.

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5.0 SCOPE OF SERVICES

The services completed by Universal for our subsurface exploration program were as follows:

- Drill five (4) Standard Penetration Test (SPT) borings along the proposed roadway to a depth of 10 feet below the existing land surface (bls).
- Drill two (2) auger borings within the proposed wet retention basin footprint to depths of 7 to 8 feet below the existing land surface (bls).
- Drill six (6) Standard Penetration Test (SPT) borings within the proposed commercial lot areas to a depth of 20 feet below the existing land surface (bls), as a "spot check" of the subsoil conditions.
- Drill fifteen (15) Standard Penetration Test (SPT) borings within the proposed residential townhome lot areas to depths of 5 to 15 feet below the existing land surface (bls).
- Secure samples of representative soils encountered in the soil borings for review, laboratory analysis and classification by a Geotechnical Engineer.
- Measure the existing site groundwater levels and provide an estimate of the typical wet season high groundwater levels at the boring locations.
- Conduct soil gradation & organic content tests on selected soil samples obtained in the field to help determine their engineering properties.
- Assess the existing soil conditions with respect to the proposed construction.
- Prepare a report which documents the results of our subsurface exploration and analysis with geotechnical engineering recommendations.

6.0 LIMITATIONS

This report has been prepared in order to aid the client/engineer in the design of the proposed London Cove Commercial and Residential Subdivision in Cocoa, Florida. The scope is limited to the specific project and locations described herein. Our description of the project's design parameters represents our understanding of the significant aspects relevant to soil and foundation characteristics. In the event that any changes in the design or location of the structures as outlined in this report are planned, we should be informed so the changes can be reviewed and the conclusions of this report modified, if required, and approved in writing by Universal.

The recommendations submitted in this report are based upon the data obtained from the soil borings performed at the locations indicated on the Boring Location Plan and from other information as referenced. This report does not reflect any variations which may occur between the boring locations. The nature and extent of such variations may not become evident until the course of construction. If variations become evident, it will then be necessary for a re-evaluation of the recommendations of this report after performing on-site observations during the construction period and noting the characteristics of the variations. Please note that this report

does not reflect the full horizontal and vertical extent of deleterious organic (muck) soils encountered at this site, and therefore, should not be used for estimating such items as cut and fill quantities.

Borings for a typical geotechnical report are widely spaced and generally not sufficient for reliably detecting the presence of isolated, anomalous surface or subsurface conditions, or reliably estimating unsuitable or suitable material quantities. Accordingly, Universal does not recommend relying on our boring information to negate presence of anomalous materials or for estimation of material quantities unless our contracted services ***specifically*** include sufficient exploration for such purpose(s) and within the report we so state that the level of exploration provided should be sufficient to detect such anomalous conditions or estimate such quantities. Therefore, Universal will not be responsible for any extrapolation or use of our data by others beyond the purpose(s) for which it is applicable or intended.

All users of this report are cautioned that there was no requirement for Universal to attempt to locate any man-made buried objects or identify any other potentially hazardous conditions that may exist at the site during the course of this exploration. Therefore no attempt was made by Universal to locate or identify such concerns. Universal cannot be responsible for any buried man-made objects or environmental hazards which may be subsequently encountered during construction that are not discussed within the text of this report. We can provide this service if requested.

For a further description of the scope and limitations of this report please review the document attached within Exhibit 1, "Important Information About Your Geotechnical Engineering Report", prepared by ASFE/ The Geoprofessional Business Association.

7.0 FIELD METHODOLOGIES

7.1 STANDARD PENETRATION TEST BORINGS

The twenty-five (25) Standard Penetration Test (SPT) borings, designated B1 through B10 and B13 through B27 on the attached Figure No. 3, were performed in general accordance with the procedures of ASTM D 1586 (Standard Method for Penetration Test and Split-Barrel Sampling of Soils). The SPT drilling technique involves driving a standard split-barrel sampler into the soil by a 140 pound hammer, free falling 30 inches. The number of blows required to drive the sampler 1 foot, after an initial seating of 6 inches, is designated the penetration resistance, or N-value, an index to soil strength and consistency. The soil samples recovered from the split-barrel sampler were visually inspected and classified in general accordance with the guidelines of ASTM D 2487 (Standard Classification of Soils for Engineering Purposes [Unified Soil Classification System]).

7.2 AUGER BORINGS

The two (2) auger borings, designated B11 & B12 on the attached Figure 3, were drilled in general accordance with the procedures of ASTM D 1452 (Standard Practice for Soil Investigation and Sampling by Auger Borings). The auger drilling technique involves advancing a slender, solid-stem, bucket auger into the soil to the required depth. The soil types encountered were also evaluated by visually classifying the cuttings recovered from the auger bucket in accordance with ASTM D 2487 guidelines.

The SPT soil borings were performed with a CME 45 ATV mounted drilling rig. The shallower auger borings were performed by experienced technicians using hand equipment. The boring locations were determined in the field using the provided site plan and a Garmin GPS receiver. No survey control was provided on-site, and our boring locations should be considered only as accurate as implied by the methods of measurement used. The approximate boring locations are shown on the attached Figure No. 3.

8.0 LABORATORY METHODOLOGIES

8.1 PARTICLE SIZE ANALYSIS

We completed #200 sieve particle size analyses on eight (8) representative soil samples. These samples were tested according to the procedures listed ASTM D 1140 (Standard Test Method for Amount of Material in Soils Finer than the No. 200 Sieve). The percentage of materials passing the #200 sieve is shown on the attached boring logs.

8.2 ORGANIC CONTENT TESTS

We also performed five (5) organic content tests in accordance with ASTM D 2974 (Standard Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils). These samples were obtained from various boring locations at depths ranging from approximately 1 to 2 feet bls. The results of these tests are found in the laboratory results section of this report.

9.0 SOIL STRATIGRAPHY

The results of our field exploration and laboratory analysis, together with pertinent information obtained from the SPT and auger borings, such as soil profiles, penetration resistance and stabilized groundwater levels are shown on the boring logs included in Appendix A. The Key to Boring Logs, Soil Classification Chart is also included in Appendix A. The soil profiles were prepared from field logs after the recovered soil samples were examined by a Geotechnical Engineer. The stratification lines shown on the boring logs represent the approximate boundaries between soil types, and may not depict exact subsurface soil conditions. The actual soil boundaries may be more transitional than depicted.

A generalized profile of the soils encountered at our boring locations is presented in Table II on the ensuing page. For more detailed soil profiles, please refer to the attached boring logs.

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TABLE II
GENERALIZED SOIL PROFILE

Depth Encountered (feet, bls)	Approximate Thickness (feet)	Soil Description
Surface	1 to 6	Fine sands [SP], loose to medium dense. At boring locations B1 & B2 the strata is overlain by (topsoil) fine sands with silt and roots [SP-SM]. At boring locations B11, B12, B13, B15, B20, B21, B22, & B23 there is a surficial layer of organic silty fine sand with root mats [OH] (muck) to a depth of 1 to 5 feet.
1 to 6	2+ to 17+	Fine sands with silt [SP-SM], loose to dense. Portions of these strata are partially cemented with iron oxide & organic salts and are locally known as hardpan.

NOTE: [ ] denotes Unified Soil Classification system designation.
+ indicates strata encountered at boring termination, total thickness undetermined.

10.0 GROUNDWATER CONDITIONS

10.1 EXISTING GROUNDWATER CONDITIONS

We measured the water levels in the boreholes on February 9, 2015 after the groundwater was allowed to stabilize. The groundwater levels are shown on the attached boring logs. The groundwater level depths ranged from 0.0 feet bls to 4.8 feet bls. Fluctuations in groundwater levels should be anticipated throughout the year, primarily due to seasonal variations in rainfall, surface runoff, and other factors that may vary from the time the borings were conducted.

10.2 TYPICAL WET SEASON HIGH GROUNDWATER LEVELS

The typical wet season high groundwater level is defined as the highest groundwater level sustained for a period of 2 to 4 weeks during the "wet" season of the year, for existing site conditions, in a year with average normal rainfall amounts. Based on historical data, the rainy season in Brevard County, Florida is between June and October of the year. In order to estimate the wet season high water level at the boring locations, many factors are examined, including the following:

a. Measured groundwater level
b. Drainage characteristics of existing soil types
c. Season of the year (wet/dry season)
d. Current & historical rainfall data (recent and year-to-date)
e. Natural relief points (such as lakes, rivers, swamp areas, etc.)
f. Man-made drainage systems (ditches, canals, etc.)
g. Distances to relief points and man-made drainage systems
h. On-site types of vegetation
i. Area topography (ground surface elevations)

Groundwater level readings were taken on February 9, 2015. According to data from the Southeast Regional Climate Center and the National Weather Service, the total rainfall in the previous month of January for Central Brevard County was 2.5 inches, approximately at the

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normal for January. The rainfall for the 2014 calendar year was 56.9 inches, roughly 4½ inches above normal. The year to date rainfall through February 9, 2015 was 2.3 inches, approximately 1½ inches above normal levels.

Based on this information and factors listed above, we estimate that the typical wet season high groundwater levels at the boring locations will be approximately 1 foot above the existing measured levels. Please note, however, that peak stage elevations immediately following various intense storm events, may be somewhat higher than the estimated typical wet season levels.

11.0 LABORATORY RESULTS

11.1 PARTICLE SIZE ANALYSIS

The soil samples submitted for analysis were classified as fine sands [SP] and fine sands with silt [SP-SM]. The percentage of soil sizes passing the #200 sieve size are shown on the boring logs at the approximate depth sampled.

11.2 ORGANIC CONTENT TESTS

The results of the organic content tests are displayed below in Table III.

TABLE III
ORGANIC CONTENT TEST RESULTS

Boring/Probe Location	Approximate Sample Depth (feet, bls)	Moisture Content (%)	Organic Content (%)
B11	2	461.0	87.2
B12	1	567.0	78.8
B13	1	192.9	30.6
B21	1	156.5	26.1
B22	1	374.0	72.8

12.0 PROPOSED TOWNHOME BUILDINGS

12.1 ANALYSIS

The majority of the near surface soils within the southeastern & central sections of the site appear to be loose to medium dense fine sands [SP] and fine sands with silt [SP-SM]. However, organic laden (muck) soils were encountered to depths of up to 5 feet bls at the boring locations within the remainder of the property. Such deleterious materials are completely unacceptable for building foundation & pavement support.

To help preclude problems with long term settlements, we recommend that the organic muck strata be completely removed from all building pavement areas under the full time observation of Universal personnel, as described in section 12.3.1 in this report. Thereafter, the building areas can be filled to final grade with select backfill placed and compacted in lifts as

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recommended. This will create a natural mat capable of dissipating foundation loads over any loose strata which might remain at depth.

Within the building areas not underlain by the organic laden soils, the removal of existing vegetation, topsoils and root mats will further loosen site soils to various depths. To provide a homogeneous, compacted, sandy soil system underneath the proposed foundations and floor slabs, densification of the surficial, loose soils and subsequent structural fill is necessary. This will create a soil mat capable of dissipating the building loads over any remaining loose strata at depth. This can be effectively accomplished by compacting the site surface with a large static roller or medium sized vibratory rollers, then filling to grade in compacted lifts as recommended in section 12.3.2 of this report.

The following recommendations are made based upon a review of the attached soil test data, our understanding of the proposed construction, and experience with similar projects and subsurface conditions. If the structural loadings, building locations or grading plans change from those discussed previously, we request the opportunity to review and possibly amend our recommendations with respect to those changes.

12.2 RECOMMENDATIONS – TOWNHOME BUILDINGS

Provided our suggested site preparation procedures are followed, we recommend designing conventional, shallow spread footings foundations for a maximum allowable soil-contact pressure of 2,500 pounds per square foot (psf). Even though computed soil-contact pressures may not warrant it, strip and square footings should have minimum widths of at least 18 and 24 inches, respectively to prevent "shear punch" deformations. The base of all footings should be at least 18 inches below finished grade elevation, with the exception of a thickened-edge slab foundation system for which a minimum depth of 14 inches is acceptable.

Assuming existing soils and added structural fill soils are prepared and footings are designed according to our recommendations, we estimate maximum total vertical settlements of the structure will be less than 1 inch and maximum differential settlements will be less than ½ inch. Almost all of the expected settlement will take place as soon as the soil fill and structural loads have been applied to the densified existing sandy soil (and overlying sandy soil fill).

We recommend using a sheet vapor barrier, such as visqueen, beneath the building slab-on-grade to help control moisture migration through the slab. Floor slabs can be supported upon the compacted fill and should be structurally isolated from other foundations elements or adequately reinforced to prevent distress due to differential movements. We recommend a minimum thickness of at least 5 inches be maintained for the concrete floor slab where heavy loads are anticipated. In lightly loaded pedestrian walk areas, we recommend a minimum thickness of at least 4 inches be maintained.

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12.3 SITE PREPARATION PROCEDURES – TOWNHOME BUILDINGS

12.3.1 Building Areas Underlain by Organic Laden Soils

Following is a list of our recommended site preparation procedures to prepare the townhome building areas that are underlain by organic laden soils.

1. Excavate the deleterious organic muck soils, under the observation of Universal personnel, in their entirety from beneath the footprints of the proposed buildings, plus a horizontal margin of at least ten feet beyond foundation lines. In addition, any areas of future construction and/or auxiliary structures which cannot tolerate substantial settlements (e.g. exterior equipment pads, pavements, sidewalks, etc.) should also be demucked.

   The contractor should be prepared to over-excavate localized pockets of deleterious materials to their full depth and width as indicated by Universal personnel. Please note that portions of the excavations may occur below the groundwater table. Dewatering will probably be necessary to assure complete removal of the compressible soils and to aid subsequent compactive efforts. Please note that deeper and/or thicker zones of deleterious materials than those shown on the attached boring logs may exist between boring locations and within unexplored areas at the site.

2. After approval of the excavated surface, backfill to proposed grades with select backfill placed in 12 inch loose lifts with each lift compacted to at least 95 percent of the Modified Proctor Test maximum dry density (ASTM D 1557). We recommend using sandy soils with less than 10% passing the #200 sieve size [SP, SP-SM, or SP-SC]. During this compactive effort each lift of fill should be tested and approved before the placement of subsequent lifts. Dewatering will probably be necessary during the placement of initial lifts of fill in order to aid compactive efforts.

3. For vibratory equipment used on-site, we recommend using vibratory compactors which weigh less than 1 ton within 20 feet of existing structures, less than 2 tons between distances of 20 and 40 feet, less than 6 tons between 40 to 100 feet, and up to 10 tons beyond 100 feet. The use of heavier equipment may damage existing neighboring structures.

4. Footing and utility excavations and other construction activities frequently disturb compacted subsoils to various depths; therefore, compaction beneath all floor slabs and footings should be verified for a depth of 1 foot immediately prior to the placement of reinforcing steel and concrete, and should meet at least 95 percent of the Modified Proctor Test maximum dry density of the soil (ASTM D 1557).

5. Field density tests should be performed by Universal at appropriate times during earthwork operations in order to verify that the compaction requirements have been satisfied. These tests should be performed after compaction in the existing soils, after placement of each lift of structural fill, within all footing excavations, and beneath all concrete slab-on-grade locations. Compaction tests should be performed at a frequency of not less than one test per 2,000 square feet per each foot of compacted increment as specified herein. In addition, we recommend that at least every other column footing be tested with at least one test per every 50 linear feet of wall footing.

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12.3.2 Building Areas Not Underlain by Organic Laden Soils

Following is a list of our recommended site preparation procedures to prepare the remaining portions of the site for the proposed construction.

1. Strip the footprint of the proposed buildings, plus a minimum margin of at least ten feet beyond foundation lines, of existing vegetation, root mats, organic topsoils, rubble, muck, etc. Any collapsible or leak prone utilities should be completely removed from within the location of the proposed building & canopy.

   It has been our experience that the subsoils adjacent to previously developed areas sometimes contain pockets of buried rubble, muck, debris or other deleterious materials. Therefore, we strongly recommend that the stripped surface be observed and probed by representatives of Universal. Any deleterious matter remaining should be removed and replaced with clean fine sands [SP] as recommended below.

2. Subsurface soils including the ten feet margin should be densified to at least 95 percent of the Modified Proctor test maximum dry density (ASTM D 1557, Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3))) to at least 12 inches below the stripped surface.

3. For vibratory equipment used on-site, we recommend using vibratory compactors which weigh less than 1 ton within 20 feet of existing structures, less than 2 tons between distances of 20 and 40 feet and less than 6 tons between 40 to 100 feet, and up to 10 tons beyond 100 feet. The use of heavier equipment may damage existing neighboring structures.

4. Proof-roll the exposed subsurface soils with a heavy, rubber tired piece of equipment (such as a fully loaded tandem axle dump truck) under the observation of Universal, to help locate any unforeseen soft areas of unsuitable soils. Each pass should overlap the proceeding pass by roughly 30 percent to insure complete coverage. If deemed necessary by Universal, in areas that continue to "yield", remove any deleterious materials and replace with a clean, compacted sand backfill.

5. Depending upon weather conditions, or other factors, the addition or removal (dewatering) of water may be necessary to aid compactive efforts. Additional passes with compaction equipment or over excavation and replacement in compacted layers may be necessary if the minimum density requirements are not achieved by the recommended equipment.

6. Within all of the building areas, fill to floor slab grade as necessary with select fill, placed in maximum 12 inch loose lifts. We recommend using sandy soils with less than 10% passing the #200 sieve size [SP, SP-SM, or SP-SC]. Each lift of structural fill should be densified to at least 95 percent of the Modified Proctor test maximum dry density of the soil (ASTM D 1557) and tested for compaction and approved before the placement of subsequent lifts.

7. See Item Nos. 4 and 5 from section 12.3.1 on the previous page.

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13.0 PAVEMENTS

For the perimeter access drive and associated parking areas on this project, we recommend using either a rigid concrete pavement or a flexible asphaltic pavement section. Flexible pavements combine the strength and durability of several layer components to produce an appropriate and cost-effective combination of locally available construction materials. Concrete pavement is a rigid pavement that transfers much lighter wheel loads to the subgrade soils than a flexible asphalt pavement; therefore, requiring less subgrade preparation than a comparable flexible pavement section.

13.1 ANALYSIS

Densification of the loose surficial sands will be required in all parking and drive areas, in order to both increase subgrade capacity and to limit subsequent settlements due to traffic vibrations. Within the parking/drive areas we recommend that the surficial soils be proof rolled with a heavy piece of equipment, such as a fully-loaded rubber tired dump truck, under the observation of Universal personnel. Any areas which exhibit instability under rolling should be examined by Universal for possible removal and replacement with compacted approved fill.

All pavement subgrade soils should be compacted to at least 95 percent of the Modified Proctor test maximum dry density (ASTM D 1557) to a depth of at least 2 feet below bottom of base course levels, or the full depth of fill and the top 12 inches of existing subgrade soils, whichever is greater.

Please note that portions of the near surface soils at this project contains varying amounts of silt. These soil types tend to readily hold moisture and may require more compactive efforts than the clean fine sand [SP] soils found elsewhere at the site. Soil density testing to verify the uniformity of compactive efforts should be performed at a frequency of one test per 10,000 square feet, one per each foot of compacted increment, as specified herein, or at a minimum of three test locations, whichever is greater.

All existing root mats, organic topsoils, vegetation, ditch bottom sediments, muck, debris, etc. should be completely removed from the proposed pavement areas. Any collapsible or leak prone utility lines remaining within the new pavement areas should either be completely removed or grouted closed.

All pavement area fill should be placed in 12 inch lifts with each lift compacted to at least 95 percent of the Modified Proctor test maximum dry density (ASTM D 1557). If vibratory equipment is used to compact fill, subgrade and base courses, then we recommend using vibratory rollers as described previously. Depending on weather conditions and other factors, the addition or removal (dewatering) of water may be necessary to aid compactive efforts.

All pavement area fill should consist of clean select fill, consisting of sandy soils with less than 10% passing the #200 sieve size [SP, SP-SM, or SP-SC], placed in 12 inch lifts with each lift compacted to at least 95 percent of the Modified Proctor test maximum dry density (ASTM D 1557).

If vibratory equipment is used to compact fill, subgrade and base courses, then we recommend using vibratory rollers weighing less than 1 ton within 20 feet of existing structures, less than 2

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tons within distances of 20 to 40 feet, less than 6 tons from 40 feet to 100 feet and up to 10 tons beyond 100 feet. The use of heavier equipment may damage existing neighboring structures.

13.2 RECOMMENDATIONS

13.2.1 Asphaltic (Flexible) Pavements

Standard duty pavement areas are defined as having car and pickup truck loading conditions. Heavy duty areas are defined as having delivery, storage, and garbage truck loading conditions along with service drives. Assuming a) the subgrade soils are compacted to 95 percent of Modified Proctor test maximum dry density (ASTM D 1557) with a design LBR value of 40 (after stabilization), b) a 20 year design life, c) terminal serviceability index (P_t) of 2, d) reliability of 90 percent, and e) total equivalent 18 kip single axle loads (E_{18}SAL) of 50,000, we recommend the minimum design shown in the following Table IV, for a standard duty asphalt pavement.

TABLE IV
MINIMUM STANDARD DUTY ASPHALT/LIMEROCK PAVEMENT

Pavement Layer	Thickness	Minimum Requirements
Asphalt Wearing Surface FDOT Type S-I (SP-12.5) or S-III (SP-9.5)	1.5 Inch Minimum	95% Laboratory Marshall Density, Mix to be approved by Universal. If an SP mix is used, it should be compacted to at least 92% of the maximum theoretical density.
Limerock, Cemented Coquina, or Recycled Concrete Base	6 Inch Minimum	98% Modified Proctor test maximum dry density, Limerock Bearing Ratio (LBR) of at least 100.
Stabilized Subbase Course	8 Inch Minimum	98% Modified Proctor test maximum dry density, stabilized to a Limerock Bearing Ratio (LBR) of at least 40.

Assuming the above factors for standard duty pavements apply to heavy duty pavements where heavy trucks such as delivery & refuse collection vehicles would traverse (i.e. loadings of up to 150,000 E_{18}SALs), we recommend using the following design in Table V below for minimum heavy duty pavement areas.

TABLE V
MINIMUM HEAVY DUTY ASPHALT/LIMEROCK PAVEMENT

Pavement Layer	Thickness	Minimum Requirements
Asphalt Wearing Surface FDOT Type S-I (SP-12.5) or S-III (SP-9.5)	2 Inch Minimum	95% Laboratory Marshall Density, Mix to be approved by Universal. If an SP mix is used, it should be compacted to at least 92% of the maximum theoretical density.
Limerock, Cemented Coquina, or Recycled Concrete Base	8 Inch Minimum	98% Modified Proctor test maximum dry density, Limerock Bearing Ratio (LBR) of at least 100.
Stabilized Subbase Course	8 Inch Minimum	98% Modified Proctor test maximum dry density, stabilized to a Limerock Bearing Ratio (LBR) of at least 40.

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We recommend designing asphaltic pavements with at least 18 inches of clearance between the bottom of the pavement base course and the estimated typical wet season groundwater level. A thorough testing and inspection program should be incorporated during the pavement construction.

Stabilized subgrade can be imported materials or a blend of on-site and imported materials. If a blend is proposed, we recommend that the contractor perform a mix design to find the optimum mix proportions. Compaction testing of the stabilized subgrade, and the subsequent limerock base course material should be performed to full depth at a minimum of at least ten test locations. After placement and field compaction, the wearing surface should be cored to evaluate material thickness and to perform laboratory densities of the asphaltic surfacing.

In parking lots, for extended life expectancy of the surface course, we recommend applying a coal tar emulsion sealer at least six months after placement of the surface course. The seal coat will help patch cracks and voids, and protect the surface from damaging ultraviolet light and automobile liquid spillage. Please note that applying the seal coat prior to six months after placement may hinder the "curing" of the surface course, leading to its early deterioration.

We recommend that all materials used in pavement construction comply with the latest edition of the Florida Department of Transportation, Standard Specifications For Road and Bridge Construction. Universal should be allowed to review and comment on the final asphalt pavement design.

13.2.2 Concrete (Rigid) Pavements

Concrete pavement is a rigid pavement that transfers much lighter wheel loads to the subgrade soils than a flexible asphalt pavement. We recommend using the existing surficial sands or select fill [SP, SP-SM, or SP-SC], densified to at least 95 percent of Modified Proctor test maximum dry density (ASTM D 1557) without additional stabilization, with the following stipulations.

1. Subgrade soils must be densified to at least 95 percent of Modified Proctor test maximum dry density (ASTM D 1557) for a depth of at least 2 feet, or the full depth of fill, whichever is greater, prior to placement of concrete.

2. The surface of the subgrade soils must be smooth, and any disturbances or wheel rutting corrected prior to placement of concrete.

3. The subgrade soils must be moistened prior to placement of concrete.

4. Concrete pavement thickness should be uniform throughout, with exception to the thickened edges (curb or footing).

5. The bottom of the pavement should be separated from the estimated typical wet season groundwater level by at least 1 foot.

Based on slab thickness for standard duty concrete pavements are based on the subgrade soils densified to 95 percent of Modified Proctor test maximum dry density we recommend using the design shown in the following Table VI for standard duty (loadings of up to 50,000 E_{18}SALs) concrete pavements.

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TABLE VI
MINIMUM STANDARD DUTY (UNREINFORCED) CONCRETE PAVEMENT

Minimum Pavement Thickness	Maximum Control Joint Spacing	Minimum Saw Cut Depth
6 Inches	10 Feet x 10 Feet	1-1/4 Inches

Our recommendations on slab thickness for heavy duty concrete pavements (loadings of up to 150,000 E_{18}SALs) are based on the same factors as above. Our recommended minimum design for heavy duty concrete pavement is shown in Table VII below.

TABLE VII
MINIMUM HEAVY DUTY (UNREINFORCED) CONCRETE PAVEMENT

Minimum Pavement Thickness	Maximum Control Joint Spacing	Minimum Saw Cut Depth
7 Inches	14 Feet x 14 Feet	1-3/4 Inches

We recommend using concrete with a minimum 28-day compressive strength of at least 4000 pounds per square inch. Layout of the Saw cut control joints should form square panels, and the depth of Saw cut joints should be at least ¼ of the concrete slab thickness.

We recommend allowing Universal to review and comment on the final concrete pavement design, including section and joint details (type of joints, joint spacing, etc.), prior to the start of construction.

For further details on concrete pavement construction, please reference the "Guide to Jointing of Non-Reinforced Concrete Pavements" published by the Florida Concrete and Products Association, Inc., and "Building Quality Concrete Parking Areas", published by the Portland Cement Association.

Compaction testing of the subgrade soils should be performed to the full depths recommended herein at a minimum of at least three locations. Cylinder specimens to verify the compressive strength of the pavement concrete should be obtained for at least every 50 cubic yards, or at least one set for each day's placement, whichever is greater.

14.0 PROPOSED RETENTION BASIN

14.1 INFILTRATION CHARACTERISTICS

We understand that the stormwater runoff from the new construction will be retained on-site within a proposed "wet" retention pond to be located within the southern portion of the proposed subdivision.

The hydraulic capacity of stormwater retention areas is principally a function of the ability of the surface soil to receive and percolate the storm water runoff. Upon reaching the groundwater table or a restrictive layer, the stormwater runoff begins to mound. The amount and rate of rise in the recharge mound depends on several factors, including the thickness and permeability of

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the receiving stratum, the elevation of the groundwater table, and the geometry of the loaded area.

The majority of the near surface soils at the proposed retention basin locations (B11 & B12), to depths of approximately 5 feet bls, appear to be organic silty fine sand with root mats [OH] (muck). The muck layer is then underlain by a layer of fine sands with silt [SP-SM]. Both the surficial muck and the underlying fine sands with silt [SP-SM] are slowly permeable and should be considered aquicludes in retention pond design. Depending upon the final depth of the proposed basin, and other factors, the presence of these impermeable layers could have a strong influence on such factors as the background groundwater seepage through the pond bottoms during periods of low pond water levels.

The actual infiltration rate of retention pond subsoils is influenced by the coefficient of permeability as well as several factors, including the elevation of the pond bottom, water level in the pond, the elevation of the wet season water table, and the confining layer. These factors must be accounted for in an appropriate groundwater model to determine the infiltration rate of a given soil stratum. We recommend the designer use a commercial software program such as "Ponds" or "Modret" in order to evaluate this pond. Universal would be pleased to perform a storm water infiltration study at your request.

After the configuration of the proposed retention basin is further defined, Universal should be allowed to review the proposed plans, so that recommendations for any necessary additional borings and/or laboratory testing can be formulated.

14.2 Suitability of the Site Soils For Use as Fill Materials

Structural fill should be densified to at least 95 percent of the Modified Proctor test maximum dry density of the soil (ASTM D 1557) and tested for compaction and approved before the placement of subsequent lifts. A discussion of the types of soil typically encountered within the general area of the site and their requirements for reuse as fill is provided below. Please note that the soil type designations listed below (e.g. A, B, C, D, E) are based on guidelines developed by Universal and should not be confused with similar type designators used by other entities.

TYPE A - "Clean" fine sands [SP] which have less than 5 percent soil fines are the most desirable for as engineered fill because they drain freely when excavated from beneath the groundwater table, and they are not as susceptible to moisture related instability. These soils may be placed and compacted as structural fill for support of any proposed foundations, floor slabs, or pavement areas. Please note that considerable raking of these materials may be necessary in many areas to remove roots, stumps and other deleterious matter.

TYPE B - Fine sands with silt/clay [SP-SM, SP-SC] which contain between 5 and 12 percent fines, including hardpan, are good sources of engineered fill, but require some extra care during placement and compaction. The moisture content of these soils should not be higher than optimum during placement and compaction in order to avoid problems caused by moisture related instability. These soils drain fairly well, but may require dewatering prior to excavation or some stockpiling and aeration time when excavated from below the groundwater level. These soils may be placed and compacted similarly to "clean" fine sands.

TYPE C – Clayey/silty fine sands [SC, SM] which contain between 12 and 35 percent fines may also be used as structural fill, however, when encountered below the water table, these soils are very difficult to use due to their extreme sensitivity to water. Extensive/excessive efforts may be required to dry these materials to near optimum moisture content, as determined by the modified proctor test (ASTM D-1557), prior to compactive efforts becoming effective. Moisture control and densification is typically very difficult when using these soils; therefore, alternate methods may be necessary to achieve the required compaction.

TYPE D – Clays [SC-CH], silts [SM-MH], clayey fine sands [SC], and silty fine sands [SM] which contain over 35 percent fines are not recommended for use as structural fill in this geographical region. If desired, special considerations can be made if use of these soils is absolutely necessary.

TYPE E – Organic (muck) [OH] soils are not recommended for structural fill due to their compressibility and extreme sensitivity to high moisture conditions. However, these materials might be useful as fill in non-structural areas and as "topsoils" within landscaping areas after being adjusted for pH and other factors.

If materials at this site are to be used as sources of borrow fill, then we recommend that the existing layers of Type A soils be stockpiled for later use as structural fill in areas that are difficult to compact or require a higher permeability rate. The Type B & C soils can also be used as structural fill but may require considerable drying before use. Such materials are much more moisture sensitive and much less permeable than clean fine sands and will also require a more rigid monitoring and testing program during placement and compaction.

The majority of the subsoils typically encountered from the surface to the maximum depth drilled of approximately 20 feet bls were Type A and Type B soils at the boring locations. However, please note that surficial organic muck soils (Type E) were encountered to depths of up to 5 feet bls at the boring locations within the southern & southwestern portions of the property.

15.0 SEWER AND UTILITY LINES

15.1 General Recommendations

We assume that proposed sewer and other utility lines at the site may have invert elevations roughly 2 to 4 feet below existing grades. Based on the results of the soil borings and our general knowledge of the area, we believe there may be occasional soft/deleterious pockets at this invert level. If encountered, such layers should be over excavated and replaced with approved backfill or open graded gravel.

15.2 Site Preparation Procedures

The following is our recommended procedure to prepare the site soils for construction of the proposed utility lines.

1. Install a dewatering system capable of maintaining a groundwater level at least 2 feet below bottom of pipe level.

2. Excavate and install the proposed utility lines. Any deleterious soils encountered at pipe bedding level should be examined by representatives of Universal for possible removal and replacement with approved backfill as previously discussed. All replacement soils should consist of clean fine sands [SP] compacted to at least 98 percent of the Modified Proctor test maximum dry density (ASTM D1557) with small vibratory plates or rollers.

3. Backfill to grade with approved fill [SP, SP-SM, or SP-SC] placed in 12 inch loose lifts with each lift compacted, with vibratory rollers or plates weighing less than 4 tons, to at least 98 percent of the Modified Proctor test maximum dry density (ASTM D 1557).

Backfill above and around thrust blocks should be compacted at least 98 percent of Modified Proctor test maximum dry density (ASTM D1557). For a design criteria, we recommend using an allowable passive earth pressure coefficient of K_p=3.0.

16.0 OUTPARCEL COMMERCIAL STRUCTURES - GENERAL COMMENTS

Universal assumes that the six (6) outparcel lots along the northern side of the property will be developed with one to two story commercial/retail buildings.

Six (6) SPT borings (one within each outparcel lot) were performed as a "spot check" of the subsoil conditions. The results of these borings indicate the surficial soils consist primarily of surficial loose to medium dense fine sands [SP] underlain by medium dense fine sand with silt [SP-SM] (hardpan) strata.

The removal of site vegetation and roots, along with other construction activities, will further loosen surficial soils to various depths. To provide a homogeneous, compacted, sandy soil system underneath the proposed foundations and floor slabs for the proposed residences, densification of at least the upper 2 feet of the existing surficial, loose soils and subsequent additional fill soils will be necessary. This should create a soil mat capable of dissipating the building loads over any remaining loose strata at depth.

Assuming that such procedures are properly performed, we anticipate that conventional, shallow spread footing foundations may be used to support conventional one to two story commercial construction.

Once site/building configurations are better established, additional test borings will need to be performed within the building footprints so that specific recommendations for foundation design parameters can be formulated.

17.0 DEWATERING

Based on the water level conditions encountered, control of the groundwater will probably be required to achieve the necessary excavation, construction, backfilling and compaction requirements presented in the preceding sections. Regardless of the method(s) used, we suggest drawing down the water level at least 2 to 3 feet below the bottom of the excavations to preclude "pumping" and/or compaction-related problems with the foundation and/or subgrade soils. The actual method(s) of dewatering should be determined by the contractor.

Dewatering should be accomplished with the knowledge that the permeability of soils decreases with increasing silt [ML] and/or clay [CL] content. Therefore, a silty fine sand [SM] is less

permeable than a fine sand [SP]. The fine sand, fine sand with silt and silty fine sand [SP, SP-SM and SM] soil types can usually be dewatered by well pointing.

It should be noted that the typical wet season high groundwater levels previously listed may be temporarily exceeded during any given year in the future. Should impediments to surface water drainage exist on the site, or should rainfall intensity and duration, or total rainfall quantities exceed the normally anticipated rainfall quantities, groundwater levels may exceed our seasonal high estimates. We recommend positive drainage be established and maintained on the site during construction. We further recommend permanent measures be constructed to maintain positive drainage from the site throughout the life of the project. We recommend that the contract documents provide for determining the depth to the groundwater table just prior to construction, and for any required remedial dewatering.

18.0 EXCAVATIONS

Excavations should be sloped as necessary to prevent slope failure and to allow backfilling. As a minimum, temporary excavations below 4-foot depth should be sloped in accordance with OSHA regulations (29 CFR Par 1926) dated October 31, 1989. Where lateral confinement will not permit slopes to be laid back, the excavation should be shored in accordance with OSHA requirements. During excavation, excavated material should not be stockpiled at the top of the slope within a horizontal distance equal to the excavation depth. Provisions for maintaining workman safety within excavations is the sole responsibility of the contractor.

19.0 CLOSURE

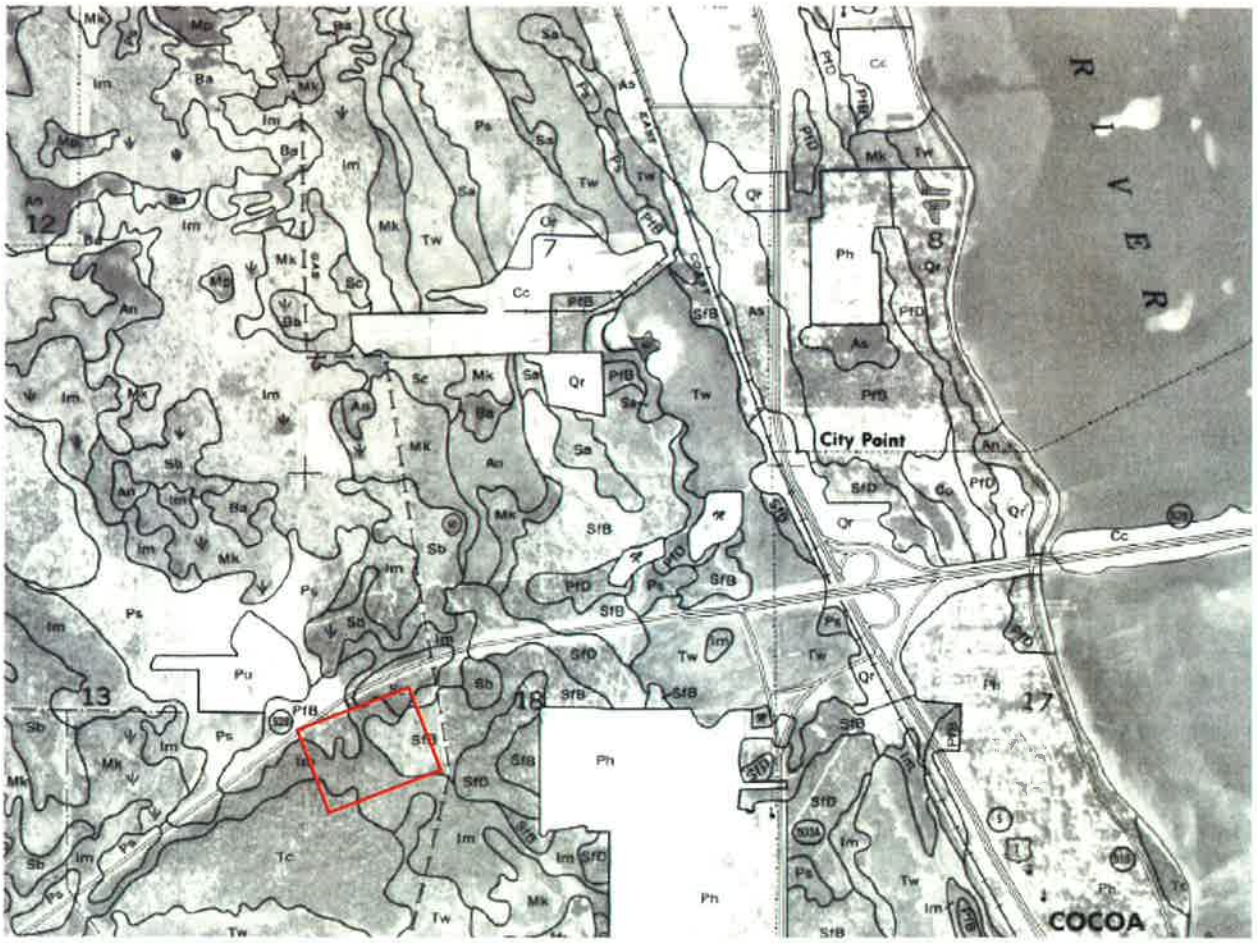
The soil and groundwater conditions encountered during our subsurface exploration of the property encountered deleterious organic muck soils within the southern/southwestern portions of the property. These deleterious soils are unsuitable for foundation/placement support and will require removal & replacement with select compacted fill. However, standard methods of surficial stripping, de-mucking excavation, proof rolling, compaction and backfilling should adequately prepare the site.

The geotechnical engineering design does not end with the advertisement of the construction documents. The design is an on-going process throughout construction. Because of our familiarity with the site conditions and the intent of the engineering design, we are most qualified to address site problems or construction changes, which may arise during construction, in a timely and cost-effective manner.

We recommend the owner retain the Universal Rockledge office to provide inspection services during the site preparation procedures for confirmation of the adequacy of the earthwork operations. Field tests and observations include verification of foundation and pavement subgrades by monitoring proof-rolling operations and performing quality assurance tests of the placement of compacted structural fill and pavement courses.

* * * * * * *

Figures



Source: USDA Soil Survey of Brevard County, Florida (1974)

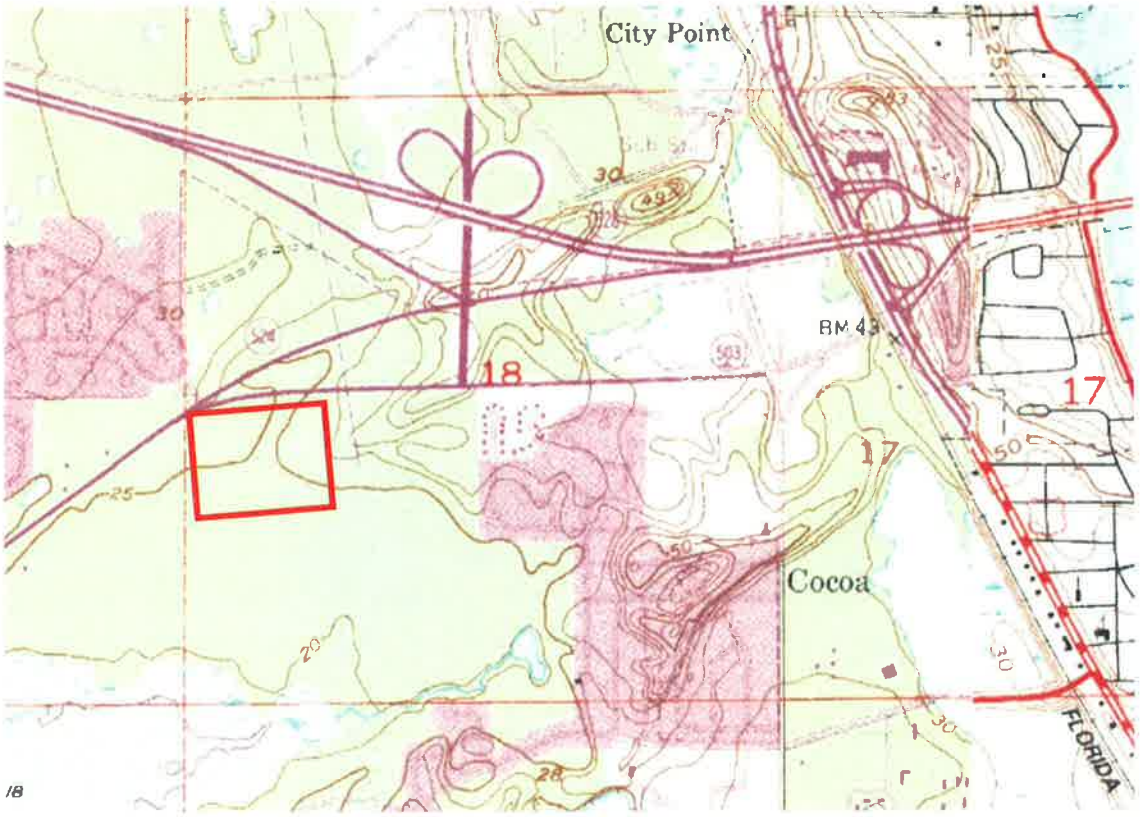
Approximate Project Location

UNIVERSAL
ENGINEERING SCIENCES

LONDON COVE TOWNHOMES
SR 524
COCOA, FLORIDA

BREVARD COUNTY SOIL SURVEY

DRAWN BY: JRB	DATE: January 27, 2015	CHECKED BY: BF	DATE: January 27, 2015
SCALE: NTS	PROJECT NO: 0330.1500003.0000	REPORT NO:	PAGE NO: **Figure No.: 1**



Source: USGS Sharpes, Florida
7.5 Minute Topographic Quadrangle
(1949); photorevised (1988)

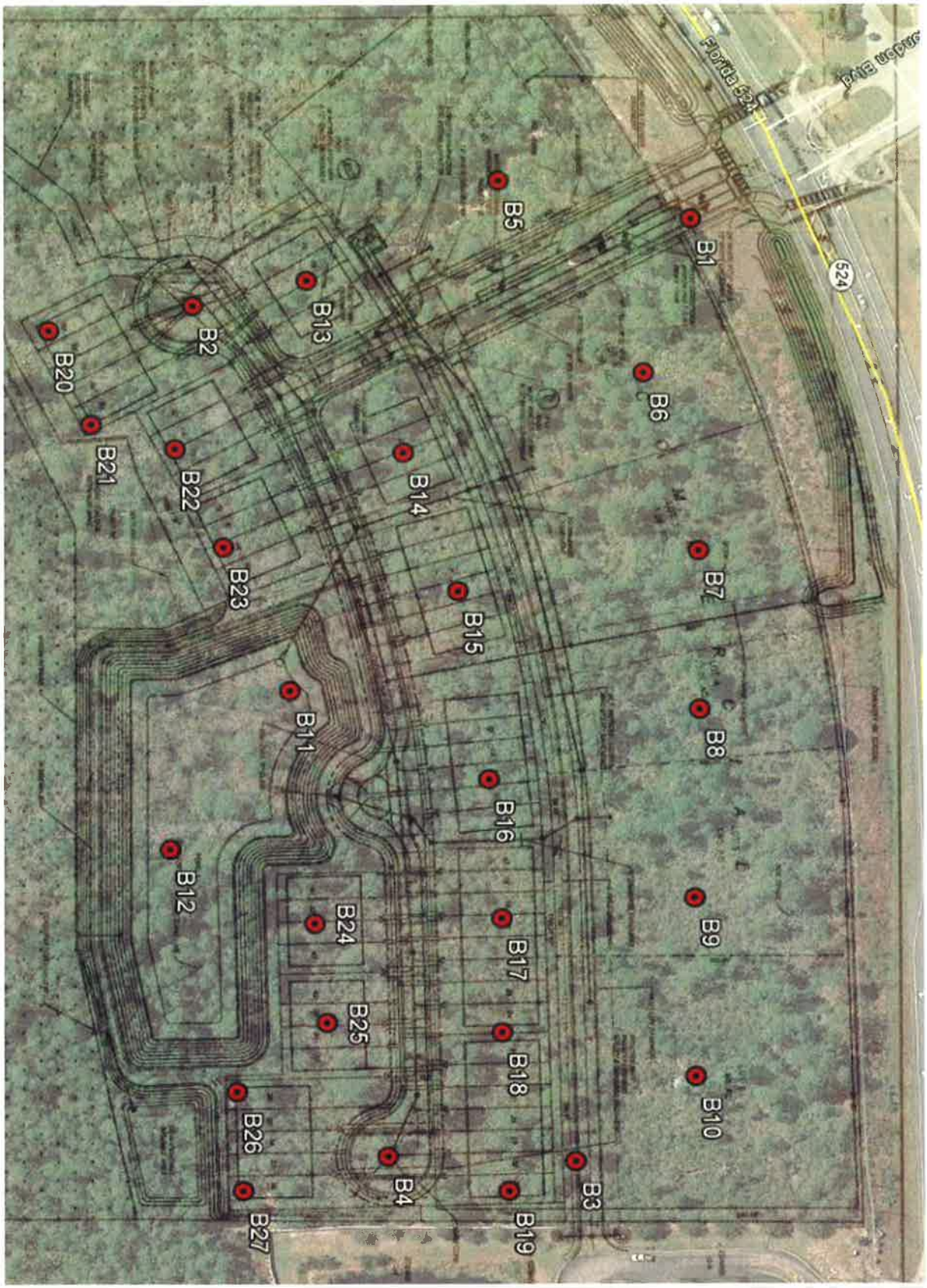
Approximate Project Location

UNIVERSAL
ENGINEERING SCIENCES

LONDON COVE TOWNHOMES
SR 524
COCOA, FLORIDA

USGS TOPOGRAPHIC SURVEY

DRAWN BY:	JRB	DATE:	January 27, 2015	CHECKED BY:	BF	DATE:	January 27, 2015
SCALE:	NTS	PROJECT NO:	0330.1500003.0000	REPORT NO:		PAGE NO:	Figure No.: 2

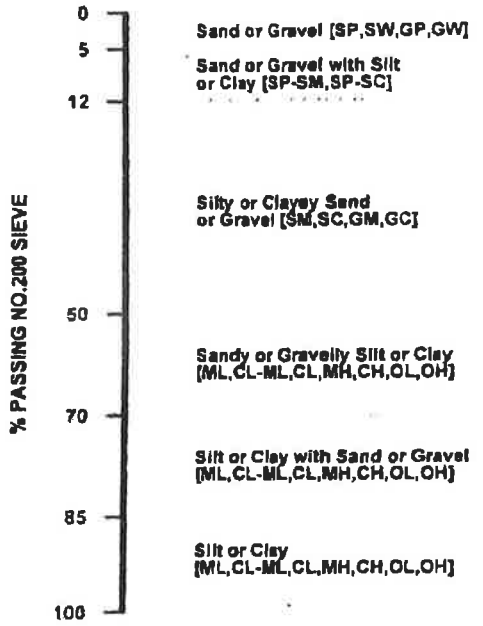


UNIVERSAL ENGINEERING SCIENCES	SUBSURFACE EXPLORATION	PROPOSED LONDON COVE TOWNHOMES SR 524 COCOA, BREVARD COUNTY, FLORIDA		
Figure 3	PROPOSED DEVELOPMENT	Drawn By:	Brandon Selph	Date: January 28, 2015
		Date:	January 28, 2015	
		Project No:	0330 1500003.0000	Scale: 1"=100'

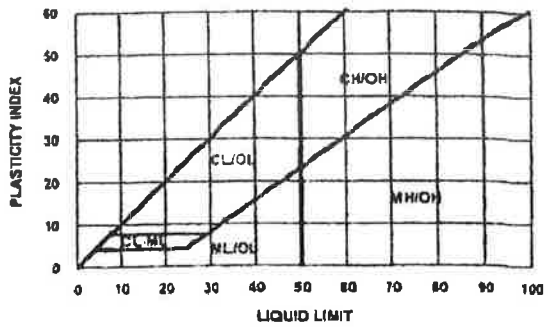
Appendix A

KEY TO BORING LOGS

SOIL CLASSIFICATION CHART*



UNIVERSAL ENGINEERING SCIENCES, INC.



PLASTICITY CHART

GROUP NAME AND SYMBOL

COARSE GRAINED SOILS

- WELL-GRADED SANDS [SW]
- POORLY-GRADED SANDS [SP]
- POORLY-GRADED SANDS WITH SILT [SP-SM]
- POORLY-GRADED SANDS WITH CLAY [SP-SC]
- SILTY SANDS [SM]
- CLAYEY SANDS [SC]
- SILTY CLAYEY SANDS [SC-SM]
- WELL-GRADED GRAVELS [GW]
- POORLY-GRADED GRAVELS [GP]
- POORLY-GRADED GRAVELS WITH SILT [GP-GM]
- POORLY-GRADED GRAVELS WITH CLAY [GP-GC]
- SILTY GRAVELS [GM]
- CLAYEY GRAVELS [GC]

FINE GRAINED SOILS

- INORGANIC SILTS SLIGHT PLASTICITY [ML]
- INORGANIC SILTY CLAY LOW PLASTICITY [CL-ML]
- INORGANIC CLAYS LOW TO MEDIUM PLASTICITY [CL]
- INORGANIC SILTS HIGH PLASTICITY [MH]
- INORGANIC CLAYS HIGH PLASTICITY [CH]

HIGHLY ORGANIC SOILS

- ORGANIC SILTS/CLAYS LOW PLASTICITY [OL]**
- ORGANIC SILTS/CLAYS MEDIUM TO HIGH PLASTICITY [OH]**
- PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS [PT]**

RELATIVE DENSITY

(SAND AND GRAVEL)

VERY LOOSE - 0 to 4 Blows/ft.
LOOSE - 5 to 10 Blows/ft.
MEDIUM DENSE - 11 to 30 Blows/ft.
DENSE - 31 to 50 Blows/ft.
VERY DENSE - more than 50 Blows/ft.

CONSISTENCY

(SILT AND CLAY)

VERY SOFT - 0 to 2 Blows/ft.
SOFT - 3 to 4 Blows/ft.
FIRM - 5 to 8 Blows/ft.
STIFF - 9 to 16 Blows/ft.
VERY STIFF - 17 to 30 Blows/ft.
HARD - more than 30 Blows/ft.

* IN ACCORDANCE WITH ASTM D 2487 - UNIFIED SOIL CLASSIFICATION SYSTEM

** LOCALLY MAY BE KNOWN AS MUCK.

NOTES:

8" - DENOTES DYNAMIC CONE PENETROMETER (DCP) VALUE.
R - DENOTES REFUSAL TO PENETRATION.
P - DENOTES PENETRATION WITH ONLY WEIGHT OF DRIVE HAMMER.
N/E - DENOTES GROUNDWATER TABLE NOT ENCOUNTERED.

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

APPENDIX A.1

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B1** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 1.5
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/15/15
DATE FINISHED: 1/15/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0						**fine SAND with silt and roots (Topsoil)**, dark brown, [SP-SM]						
		3-3-4	7	▼		**fine SAND**, grey, [SP]	0.9	20.4				
		3-5-6	11									
		10-13-17	30			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
5		11-14-16	30									
		12-16-19	35									
		11-12-16	28									
10						BORING TERMINATED AT 10'						
15												
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B2** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 0.6
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/27/15
DATE FINISHED: 1/27/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0				▼		**fine SAND with silt and traces of roots (topsoil)**, dark brown, [SP-SM]						
		8-10-12	22			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
		10-9-10	19									
		6-9-9	18									
5		4-5-5	10									
						fine SAND with silt, brown, [SP-SM]	2.7	20.2				
		5-6-6	12									
		5-6-7	13									
10						BORING TERMINATED AT 10'						
15												
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B3** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 3.4
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 2/3/15
DATE FINISHED: 2/3/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		1-2-3	5				1.3	3.8				
		3-3-4	7	▼								
		4-4-4	8									
5		6-8-9	17									
						fine SAND with silt, dark brown, (hardpan) [SP-SM]						
		11-9-13	22									
		10-11-12	23									
10						BORING TERMINATED AT 10'						
15												
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B4** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 3.5
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 2/5/15
DATE FINISHED: 2/5/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		2-2-4	6									
		3-3-5	8	▼								
		6-7-10	17			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
5		6-10-11	21									
		9-9-12	21									
		16-20-26	46									
10						BORING TERMINATED AT 10'						
15												
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B5** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 4.8
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/15/15
DATE FINISHED: 1/15/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		1-2-3	5									
		2-3-5	8									
		5-5-7	12	▼			1.7	24.7				
5						**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
		6-12-22	34									
		23-35-51	86									
		16-34-47	81									
10												
		3-4-6	10									
15												
		7-10-14	24									
20						BORING TERMINATED AT 20'						

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B6** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 2.4
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/15/15
DATE FINISHED: 1/15/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		2-2-3	5									
		4-6-8	14	▼								
		6-8-15	23									
5						**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
		16-12-9	21									
		4-5-6	11									
		5-6-8	14									
10						**fine SAND**, brown, [SP]						
		7-12-15	27									
15												
		5-6-8	14									
20						BORING TERMINATED AT 20'						

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B7** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 3.3
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/15/15
DATE FINISHED: 1/15/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		1-1-2	3									
		2-3-3	6	▼								
		2-4-6	10									
5		8-18-27	35			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
		10-10-13	23				6.3	18.4				
		8-9-13	22									
10												
		5-7-9	16									
15												
		6-8-12	20			**fine SAND**, brown, [SP]						
20						BORING TERMINATED AT 20'						

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B8** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 1.8
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/19/15
DATE FINISHED: 1/19/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		2-3-5	8	▼								
		4-6-7	13									
						fine SAND with silt, dark brown, (hardpan) [SP-SM]						
		8-8-13	21									
5												
		12-24-30	54									
		10-17-21	38									
		15-20-23	43									
10												
		7-8-12	20									
15												
		8-14-18	32									
20						BORING TERMINATED AT 20'						

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B9** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 1.7
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/19/15
DATE FINISHED: 1/19/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		2-2-3	5	▼								
		3-4-4	8									
		4-4-8	12									
5						**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
		5-6-14	20									
		7-8-24	32									
		10-21-21	42									
10												
		7-13-17	30									
15												
		13-13-16	29									
20						BORING TERMINATED AT 20'						

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B10** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 2.3
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/19/15
DATE FINISHED: 1/19/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		2-1-2	3	▼								
		2-2-3	5									
		5-4-5	9									
5						**fine SAND with silt**, dark brown, (hardpan) [SP-SM]	8.5	30.2				
		6-7-12	19									
		7-15-20	35									
		18-19-20	39									
10												
		6-8-12	20									
15												
		8-15-20	35									
20						BORING TERMINATED AT 20'						

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B11** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 0
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 2/6/15
DATE FINISHED: 2/6/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0				▼		**organic silty fine SAND with root mats,** dark brown, (muck) [OH]						
5						**fine SAND with silt**, dark brown, [SP-SM]						
						BORING TERMINATED AT 7'						
10												
15												
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B12** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 0
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 2/6/15
DATE FINISHED: 2/6/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0				▼								
						organic silty fine SAND with root mats, dark brown, (muck) [OH]						
5						**fine SAND with silt**, brown, [SP-SM]						
						BORING TERMINATED AT 8'						
10												
15												
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B13** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 0
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/15/15
DATE FINISHED: 1/15/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0				▼								
		2-4-6	10			**organic silty fine SAND with root mats,** dark brown, (muck) [OH]						
		5-6-6	12			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
		4-6-7	13									
5		5-6-7	13									
		9-12-14	26									
		8-12-12	24									
10						**fine SAND with silt**, brown, [SP-SM]						
		4-6-8	14									
15						BORING TERMINATED AT 15'						
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B14** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 1.8
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/26/15
DATE FINISHED: 1/26/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		2-2-3	5	▼								
		5-5-6	11									
		11-12-15	27			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
5		10-14-19	33									
		26-24	50									
		13-15-15	30									
10												
		3-6-8	14									
15						BORING TERMINATED AT 15'						
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
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APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B15** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 0.7
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/26/15
DATE FINISHED: 1/26/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0				▼		**organic silty fine SAND with root mats,** dark brown, (muck) [OH]						
		1-1-3	4			**fine SAND**, brown, [SP]						
		4-7-10	17									
		9-16-16	32			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
5		9-9-9	18									
		6-7-8	15									
		8-8-11	19									
10												
		5-16-17	33									
15						BORING TERMINATED AT 15'						
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B16** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 2.0
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 2/3/15
DATE FINISHED: 2/3/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		2-2-3	5	▼								
		3-5-5	10									
		2-4-6	10									
5		6-8-10	18									
		8-21-25	46			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
		10-12-21	43									
10												
		9-13-16	29									
15						BORING TERMINATED AT 15'						
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
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APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B17** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 3.3
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 2/3/15
DATE FINISHED: 2/3/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		1-2-2	4									
		2-3-3	6	▼								
						fine SAND with silt, dark brown, (hardpan) [SP-SM]						
		3-8-10	18									
5												
		8-18-20	28									
		10-14-22	36									
		18-21-22	43									
10												
		6-11-13	24									
15						BORING TERMINATED AT 15'						
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
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PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B18** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 4.3
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 2/3/15
DATE FINISHED: 2/3/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		1-2-3	5									
		4-4-5	9									
		2-2-3	5	▼								
5												
		3-5-8	13									
						fine SAND with silt, dark brown, (hardpan) [SP-SM]						
		7-9-9	18									
		10-12-21	33									
10												
		8-10-12	22									
15						BORING TERMINATED AT 15'						
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
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APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B19** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 4.0
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 2/3/15
DATE FINISHED: 2/3/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		1-2-3	5									
		2-3-4	7									
		1-4-4	8	▼			4.3	22.9				
5		4-9-9	18			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
		6-8-9	17									
		8-10-20	30									
10												
		7-11-13	24									
15						BORING TERMINATED AT 15'						
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B20** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 1.5
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/27/15
DATE FINISHED: 1/27/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0						**organic silty fine SAND with root mats,** dark brown, (muck) [OH]						
		2-3-5	8	▼		**fine SAND**, grey, [SP]						
		4-5-9	14			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]	3.1	30.5				
		4-10-13	23									
5		9-14-17	31			**fine SAND with silt**, brown, [SP-SM]						
		13-14-16	30									
		13-13-15	28									
10												
		6-10-13	23			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
15						BORING TERMINATED AT 15'						
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B21** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 0.3
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/26/15
DATE FINISHED: 1/26/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0				▼								
		1-3-8	11			**organic silty fine SAND with root mats,** dark brown, (muck) [OH]						
		10-15-16	31			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
5		9-13-16	29			BORING TERMINATED AT 5.5'						
10												
15												
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B22** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 0.3
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/27/15
DATE FINISHED: 1/27/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0				▼		**organic silty fine SAND with root mats,** dark brown, (muck) [OH]						
		1-P-P	P									
		2-3-4	7			**fine SAND with silt**, brown, [SP-SM]						
		4-6-7	13			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
5		6-6-8	14			**fine SAND with silt**, brown, [SP-SM]						
		6-6-7	13									
		5-8-10	18			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
10												
		10-14-16	30									
15						BORING TERMINATED AT 15' P - DENOTES PENETRATION WITH ONLY THE WEIGHT OF THE DRIVE HAMMER.						
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B23** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 1.2
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 1/27/15
DATE FINISHED: 1/27/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0												
		2-4-8	12	▼		**organic silty fine SAND with root mats,** dark brown, (muck) [OH]						
		16-17-17	34			**fine SAND**, grey, [SP]						
		15-15-18	33			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
5		8-10-11	21			**fine SAND with silt**, brown, [SP-SM]						
		9-9-11	20									
		14-14-14	28			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
10												
		10-11-15	26									
15						BORING TERMINATED AT 15'						
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B24** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 2.4
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 2/6/15
DATE FINISHED: 2/6/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		3-3-3	6									
		3-6-9	15	▼								
						fine SAND with silt, dark brown, (hardpan) [SP-SM]						
		8-16-17	33									
5												
		13-14-16	30									
		8-15-15	30									
		13-15-16	31									
10												
		11-18-21	39									
15						BORING TERMINATED AT 15'						
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
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APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B25** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 3.3
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 2/5/15
DATE FINISHED: 2/5/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		1-2-2	4									
		3-2-3	5	▼		**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
		6-8-10	18									
5		11-14-16	30									
		13-15-15	30									
		9-14-21	35									
10												
		11-16-20	36									
15						BORING TERMINATED AT 15'						
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B26** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 2.5
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 2/6/15
DATE FINISHED: 2/6/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./DAY)	ORG. CONT. (%)
0						**fine SAND with silt**, dark brown, [SP-SM]						
				▼		**fine SAND**, grey, [SP]						
						fine SAND with silt, dark brown, (hardpan) [SP-SM]						
5						BORING TERMINATED AT 5'						
10												
15												
20												

BL3

UNIVERSAL ENGINEERING SCIENCES
BORING LOG

PROJECT NO.:	0330.1500003.0000
REPORT NO.:	
APPENDIX:	A

PROJECT: London Cove Commercial & Residential Subdivision
SR 524
Cocoa, Florida

BORING DESIGNATION: **B27** SHEET: **1 of 1**
SECTION: TOWNSHIP: RANGE:

CLIENT:

LOCATION: SEE BORING LOCATION PLAN

REMARKS:

G.S. ELEVATION (ft):
WATER TABLE (ft): 2.6
DATE OF READING: 2/9/2015
EST. W.S.W.T. (ft):

DATE STARTED: 2/6/15
DATE FINISHED: 2/6/15
DRILLED BY: PM, AD
TYPE OF SAMPLING:

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT./ DAY)	ORG. CONT. (%)
0						**fine SAND**, grey, [SP]						
		2-2-3	5									
		2-3-5	8	▼								
		7-8-10	18			**fine SAND with silt**, dark brown, (hardpan) [SP-SM]						
5		12-17-25	42									
		11-14-17	31									
		9-10-15	25									
10												
		6-10-12	22									
15						BORING TERMINATED AT 15'						
20												

BL3

EXHIBIT 1

Important Information about Your

Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you* — should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final,* because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely on Your ASFE-Member Geotechncial Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.

ASFE THE GEOPROFESSIONAL BUSINESS ASSOCIATION

8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@asfe.org www.asfe.org

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IIGER03135.0MRP

St. Johns River Water Management District
Michael A. Register, P.E., Executive Director

4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • 386-329-4500 • www.sjrwmd.com

November 07, 2022

Mary Demetree – *Sent via email:* mstlefeld@demetreeglobal.com
SR 524 Cocoa 11, LLC; Demetree, WC Trustee
941 W Morse Blvd Ste 315
Winter Park, FL 32789-3781

SUBJECT: Permit Number: 91298-3
Project Name: London Cove

Dear Ms. Demetree:

Enclosed is your individual permit issued by the St. Johns River Water Management District on November 07, 2022. This permit is a legal document and should be kept with your other important documents. Permit issuance does not relieve you from the responsibility of obtaining any necessary permits from any federal, state, or local agencies for your project.

Technical Staff Report:
If you wish to review a copy of the Technical Staff Report (TSR) that provides the District's staff analysis of your permit application, you may view the TSR by going to the Permitting section of the District's website at www.sjrwmd.com/permitting. Using the "search applications and permits" feature, you can use your permit number or project name to find information about the permit. When you see the results of your search, click on the permit number and then on the TSR folder.

Noticing Your Permit:
For noticing instructions, please refer to the noticing materials in this package regarding closing the point of entry for someone to challenge the issuance of your permit. Please note that if a timely petition for administrative hearing is filed, your permit will become non-final and any activities that you choose to undertake pursuant to your permit will be at your own risk. Please refer to the attached Notice of Rights to determine any legal rights you may have concerning the District's agency action.

Compliance with Permit Conditions:
To submit your required permit compliance information, go to the District's website at www.sjrwmd.com/permitting. Under the "Apply for a permit or submit compliance data" section, click to sign-in to your existing account or to create a new account. Select the "Compliance Submittal" tab, enter your permit number, and select "No Specific Date" for the Compliance Due Date Range. You will then be able to view all the compliance submittal requirements for your project. Select the compliance item that you are ready to submit and then attach the appropriate information or form. The forms to comply with your permit conditions are available at www.sjrwmd.com/permitting under the section "Handbooks, forms, fees, final orders". Click on forms to view all permit compliance forms, then scroll to the ERP application forms section and select the applicable compliance forms. Alternatively, if you have difficulty finding forms or need

GOVERNING BOARD

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Cole Oliver MERRITT ISLAND
Janet Price FERNANDINA BEACH

copies of the appropriate forms, please contact the Bureau of Regulatory Support at (386) 329-4570.

Transferring Your Permit:
Your permit requires you to notify the District within 30 days of any change in ownership or control of the project or activity covered by the permit, or within 30 days of any change in ownership or control of the real property on which the permitted project or activity is located or occurs. You will need to provide the District with the information specified in rule 62-330.340, Florida Administrative Code (F.A.C.). Generally, this will require you to complete and submit Form 62-330.340(1), "Request to Transfer Permit," available at http://www.sjrwmd.com/permitting/permitforms.html.

Please note that a permittee is liable for compliance with the permit before the permit is transferred. The District, therefore, recommends that you request a permit transfer in advance in accordance with the applicable rules. You are encouraged to contact District staff for assistance with this process.

Thank you and please let us know if you have additional questions. For general questions contact e-permit@sjrwmd.com or (386) 329-4570.

Sincerely,



Michelle Reiber, Bureau Chief
Division of Regulatory Services
St. Johns River Water Management District
525 Community College Parkway, S.E.
Palm Bay, FL 32909
(321) 409-2129

Enclosures: Permit
Notice of Rights
List of Newspapers for Publication

cc: District Permit File
Agent: Dave Schmitt – *Sent via email:* dsemailbox@dseorl.com
Dave Schmitt Engineering, Inc.
Environmental Consultant: Danny Gough – *Sent via email:* danny@bio-techconsulting.com
Bio-Tech Consulting, Inc.
DEP Contact: Helen Benson – *Sent via email:* helen.benson@floridadep.gov
DEP - Central District

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
Post Office Box 1429
Palatka, Florida 32178-1429

PERMIT NO: 91298-3 **DATE ISSUED:** November 07, 2022

PROJECT NAME: London Cove

A PERMIT AUTHORIZING:
Construction and operation of a Stormwater Management System for 20.81-acre project known as London Cove as per plans received by the District on March 24, 2021.

LOCATION:

Section(s):	13	Township(s):	24S	Range(s):	35E
	18		24S		36E

Brevard County

Receiving Water Body:

Name	Class
Mud Lake	III Fresh

ISSUED TO:
SR 524 Cocoa 11, LLC; Demetree, WC Trustee
941 W Morse Blvd Ste 315
Winter Park, FL 32789-3781

The permittee agrees to hold and save the St. Johns River Water Management District and its successors harmless from any and all damages, claims, or liabilities which may arise from permit issuance. Said application, including all plans and specifications attached thereto, is by reference made a part hereof.

This permit does not convey to the permittee any property rights nor any rights or privileges other than those specified herein, nor relieve the permittee from complying with any law, regulation or requirement affecting the rights of other bodies or agencies. All structures and works installed by permittee hereunder shall remain the property of the permittee.

This permit may be revoked, modified, or transferred at any time pursuant to the appropriate provisions of Chapter 373, Florida Statutes.

PERMIT IS CONDITIONED UPON:
See conditions on attached “Exhibit A”, dated November 07, 2022

AUTHORIZED BY: St. Johns River Water Management District
Division of Regulatory Services

By: Marjorie D. Cook
_____
Marjorie Cook
Supervising Professional Engineer

"EXHIBIT A"
CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 91298-3
London Cove
DATED: November 07, 2022

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.

2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the District staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation June 2007), and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), which are both incorporated by reference in subparagraph 62-330.050(9)(b)5, F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.

4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the District a fully executed Form 62-330.350(1), "Construction Commencement Notice," (October 1, 2013) (http://www.flrules.org/Gateway/reference.asp?No=Ref-02505), incorporated by reference herein, indicating the expected start and completion dates. A copy of this form may be obtained from the District, as described in subsection 62-330.010(5), F.A.C., and shall be submitted electronically or by mail to the Agency. However, for activities involving more than one acre of construction that also require a NPDES stormwater construction general permit, submittal of the Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities, DEP Form 62-621.300(4)(b), shall also serve as notice of commencement of construction under this chapter and, in such a case, submittal of Form 62-330.350(1) is not required.

5. Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.

6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:

    a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex — "Construction Completion and Inspection Certification for Activities Associated with a Private Single-Family Dwelling Unit" [Form 62-330.310(3)]; or

    b. For all other activities — "As-Built Certification and Request for Conversion to

Operation Phase" [Form 62-330.310(1)].

c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

7. If the final operation and maintenance entity is a third party:

   a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as-built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.4 of Volume I) as filed with the Florida Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.

   b. Within 30 days of submittal of the as- built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation and Maintenance Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

8. The permittee shall notify the District in writing of changes required by any other regulatory District that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:

   a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;

   b. Convey to the permittee or create in the permittee any interest in real property;

   c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or

   d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the District in writing:

    a. Immediately if any previously submitted information is discovered to be inaccurate; and

b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

13. Upon reasonable notice to the permittee, District staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

14. If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, stone tools, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section (DHR), at (850) 245-6333, as well as the appropriate permitting agency office. Project activities shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, F.S. For project activities subject to prior consultation with the DHR and as an alternative to the above requirements, the permittee may follow procedures for unanticipated discoveries as set forth within a cultural resources assessment survey determined complete and sufficient by DHR and included as a specific permit condition herein.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.

16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.

17. This permit is issued based on the applicant’s submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the District will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

19. This permit for construction will expire five years from the date of issuance.

20. At a minimum, all retention and detention storage areas must be excavated to rough grade prior to building construction or placement of impervious surface within the area to be served by those facilities. To prevent reduction in storage volume and percolation rates, all accumulated sediment must be removed from the storage area prior to final grading and stabilization.

21. All wetland areas or water bodies that are outside the specific limits of construction authorized by this permit must be protected from erosion, siltation, scouring or excess turbidity, and dewatering.

22. The operation and maintenance entity shall inspect the stormwater or surface water management system once within two years after the completion of construction and every two years thereafter to determine if the system is functioning as designed and permitted. The operation and maintenance entity must maintain a record of each required inspection, including the date of the inspection, the name and contact information of the inspector, and whether the system was functioning as designed and permitted, and make such record available for inspection upon request by the District during normal business hours. If at any time the system is not functioning as designed and permitted, then within 30 days the entity shall submit a report electronically or in writing to the District using Form 62-330.311(1), “Operation and Maintenance Inspection Certification,” describing the remedial actions taken to resolve the failure or deviation.

23. This permit does not authorize the permittee to cause any adverse impact to or “take” of state listed species and other regulated species of fish and wildlife. Compliance with state laws regulating the take of fish and wildlife is the responsibility of the owner or applicant associated with this project. Please refer to Chapter 68A-27 of the Florida Administrative Code for definitions of “take” and a list of fish and wildlife species. If listed species are observed onsite, FWC staff are available to provide decision support information or assist in obtaining the appropriate FWC permits. Most marine endangered and threatened species are statutorily protected and a “take” permit cannot be issued. Requests for further information or review can be sent to FWCConservationPlanningServices@MyFWC.com.

24. The proposed project must be constructed and operated as per plans received by the District on March 24, 2021.

25. This permit requires the recording of a Declaration of Covenants and Restrictions that includes restrictions on certain real property. Description of Restricted Area The permittee shall provide to the District for review and written approval a copy of: (a) the preliminary plat showing the area to be encumbered by the restrictions, or (b) a surveyor's sketch and legal description of the area to be restricted, per the approved mitigation plan, at least 45 days prior to: (1) dredging, filling, or clearing any wetland or surface water for which mitigation is required, (2) clearing any upland within a Riparian Habitat Protection Zone for which mitigation is required, (3) the sale of any lot or parcel, (4) the recording of the subdivision plat, or (5) use of the infrastructure for its intended use, whichever occurs first. If the impacts to an upland within a Riparian Habitat Protection Zone or to a wetland or surface water for which mitigation is required will occur in discrete phases, the areas to be preserved to offset such impacts may be restricted in phases such that impacts are offset during each phase. Such phasing of preservation shall only occur if it has been proposed in the mitigation plan and approved by the permit, or if it is approved in writing by the District. A surveyor's sketch and legal description of the area to be restricted during each phase must be submitted in accordance with the previous paragraph. Recording of Declaration of Covenants and Restrictions Prior to (1) dredging, filling, or clearing any wetland or surface water for which mitigation is required, (2) clearing any upland within a Riparian Habitat Protection Zone for which mitigation is required, (3) the sale of any lot or parcel, (4) the recording of the subdivision plat, or (5) use of the infrastructure for its intended use, whichever occurs first, the permittee shall record a Declaration of Covenants and Restrictions which includes restrictions on the real property pursuant to section 704.06, Florida Statutes, and be consistent with section 12.3.8, Applicant's Handbook, Management and Storage of Surface Waters (February 16, 2010). The Declaration shall be in the form approved in writing by the District and, if no plat has been submitted, the Declaration shall include the approved legal description and surveyor's sketch. If the District does not provide written comments on the preliminary plat or surveyor's sketch and

legal description within 45 days of receipt, then the permittee may record the Declaration with the legal description and surveyor's sketch or plat reference previously submitted. If the District provides written disapproval of the preliminary plat or surveyor's sketch and legal description, the permittee shall, within ten (10) days of receipt of the disapproval, correct all errors with the Declaration, including the preliminary plat or legal description and surveyor's sketch, and record the Declaration Pursuant to section 704.06, Florida Statutes, the Declaration shall prohibit all construction, including clearing, dredging, or filling, except that which is specifically authorized by this permit, within the mitigation areas delineated on the final plans and/or mitigation proposal approved by the District. The Declaration must contain the provisions set forth in paragraphs 1(a)-(h) of section 704.06, Florida Statutes, as well as provisions indicating that the restrictions may be enforced by the District, and may not be amended without written District approval. Additional Documents Required The permittee shall ensure that the Declaration identifies, and is executed by, the correct grantor, who must hold sufficient record title to the land encumbered by the restrictions. If the Declaration's grantor is a partnership, the partnership shall provide to the District a partnership affidavit stating that the person executing the Declaration has the legal authority to restrict partnership land or convey an interest in the partnership land. If there exist any mortgages on the land, the permittee shall also have each mortgagee execute a consent and joinder of mortgagee subordinating the mortgage to the Declaration. The consent and joinder of mortgagee shall be recorded simultaneously with the Declaration in the public records of the county where the land is located. Within 30 days of recording, the permittee shall provide the District with: (a) a certified copy of the Declaration (including exhibits) showing the date it was recorded and the official records book and page number, (b) a copy of the recorded plat (if applicable), (c) a surveyor's sketch of the restricted area plotted on the appropriate USGS topographic map, and (d) the original recorded consent and joinder of mortgagee documents (if applicable). Demarcation of Restricted Area Prior to lot or parcel sales, all changes in direction of the restricted area boundaries must be permanently monumented above ground on the project site.

26. During dewatering, a settling basin will be constructed to contain turbid water on site. Turbidity controls will be utilized to ensure that only water meeting state water quality standards is discharged into wetlands or surfaces waters.

27. Prior to the use of the infrastructure or sale of any lot or parcel, the permittee must stabilize the slopes adjacent to the conservation easement areas, the stormwater pond, and Tracts C, N and O by planting with Spartina bakeri, sand cordgrass, using bare root plants at 18 inches on center or one gallon plants at 36 inches on center, planted within an erosion control fabric to prevent erosion of the berm and slopes. These buffer plantings must be maintained by the permittee.

28. Prior to the construction of impervious surface on any commercial outparcel associated with this project, the permittee or outparcel owner must obtain an environmental resource permit from the District. Along with the application submittal, construction plans must be provided that demonstrate conformance with the master plan and the allowable impervious surface coverage.

Notice of Rights

1. A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed (received) either by delivery at the office of the District Clerk at District Headquarters, P. O. Box 1429, Palatka Florida 32178-1429 (4049 Reid St., Palatka, FL 32177) or by e-mail with the District Clerk at Clerk@sjrwmd.com, within twenty-six (26) days of the District depositing the notice of District decision in the mail (for those persons to whom the District mails actual notice), within twenty-one (21) days of the District emailing the notice of District decision (for those persons to whom the District emails actual notice), or within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Chapter 28-106, Florida Administrative Code. The District will not accept a petition sent by facsimile (fax), as explained in paragraph no. 4 below.

2. Please be advised that if you wish to dispute this District decision, mediation may be available and that choosing mediation does not affect your right to an administrative hearing. If you wish to request mediation, you must do so in a timely-filed petition. If all parties, including the District, agree to the details of the mediation procedure, in writing, within 10 days after the time period stated in the announcement for election of an administrative remedy under Sections 120.569 and 120.57, Florida Statutes, the time limitations imposed by Sections 120.569 and 120.57, Florida Statutes, shall be tolled to allow mediation of the disputed District decision. The mediation must be concluded within 60 days of the date of the parties' written agreement, or such other timeframe agreed to by the parties in writing. Any mediation agreement must include provisions for selecting a mediator, a statement that each party shall be responsible for paying its pro-rata share of the costs and fees associated with mediation, and the mediating parties' understanding regarding the confidentiality of discussions and documents introduced during mediation. If mediation results in settlement of the administrative dispute, the District will enter a final order consistent with the settlement agreement. If mediation terminates without settlement of the dispute, the District will notify all the parties in writing that the administrative hearing process under Sections 120.569 and 120.57, Florida Statutes, is resumed. Even if a party chooses not to engage in formal mediation, or if formal mediation does not result in a settlement agreement, the District will remain willing to engage in informal settlement discussions.

3. A person whose substantial interests are or may be affected has the right to an informal administrative hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes, where no material facts are in dispute. A petition for an informal hearing must also comply with the requirements set forth in Rule 28-106.301, Florida Administrative Code.

4. A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Palatka, Florida during the District's regular business hours. The District's regular business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Petitions received by the District Clerk after the District's regular business hours shall be deemed filed as of 8:00 a.m. on the District's next regular business day. The District's acceptance of petitions filed by e-mail is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation (issued pursuant to Rule 28-101.001, Florida Administrative Code), which is available for viewing at *sjrwmd.com*. These conditions include, but are not limited to, the petition being in the form of a PDF or TIFF file and being capable of being stored and printed by the District. Further, pursuant to the District's Statement of Agency Organization and Operation, attempting to file a petition by facsimile is prohibited and shall not constitute filing.

5. Failure to file a petition for an administrative hearing within the requisite timeframe shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, Florida Administrative Code).

6. The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40C-1.1007, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District's final action may be different from the position taken by it in this notice. A person whose substantial interests are or may be affected by the District's final action has the right to become a party to the proceeding, in accordance with the requirements set forth above.

7. Pursuant to Section 120.68, Florida Statutes, a party to the proceeding before the District who is adversely affected by final District action may seek review of the action in the District Court of Appeal by filing a notice of appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, within 30 days of the rendering of the final District action.

8. A District action is considered rendered, as referred to in paragraph no. 7 above, after it is signed on behalf of the District and filed by the District Clerk.

9. Failure to observe the relevant timeframes for filing a petition for judicial review as described in paragraph no. 7 above will result in waiver of that right to review.

NOR.Decision.DOC.001
Revised 12.7.11

NOTICING INFORMATION

Please be advised that the St. Johns River Water Management District will not publish a notice in the newspaper advising the public that it has issued a permit for this project.

Newspaper publication, using the District's notice form, notifies members of the public of their right to challenge the issuance of the permit. If proper notice is given by newspaper publication, then there is a 21-day time limit for someone to file a petition for an administrative hearing to challenge the issuance of the permit.

To close the point of entry for filing a petition, you may publish (at your own expense) a one-time notice of the District's decision in a newspaper of general circulation within the affected area as defined in Section 50.011 of the Florida Statutes. If you do not publish a newspaper notice to close the point of entry, the time to challenge the issuance of your permit will not expire and someone could file a petition even after your project is constructed.

A copy of the notice form and a partial list of newspapers of general circulation are attached for your convenience. However, you are not limited to those listed newspapers. If you choose to close the point of entry and the notice is published, the newspaper will return to you an affidavit of publication. In that event, it is important that you either submit a scanned copy of the affidavit by emailing it to *compliancesupport@sjrwmd.com* (preferred method) **or** send a copy of the original affidavit to:

Office of Records and Regulatory Support
4049 Reid Street
Palatka, FL 32177

If you have any questions, please contact the Office of Records and Regulatory Support at (386) 329-4570.

NOTICE OF AGENCY ACTION TAKEN BY THE
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

Notice is given that the following permit was issued on _____:

(Name and address of applicant)_____
permit#_____. The project is located in _____County, Section _____, Township _____ South, Range _____ East. The permit authorizes a surface water management system on _____ acres for _____ known as _____. The receiving water body is _____.

A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code (F.A.C.), the petition must be filed (received) either by delivery at the office of the District Clerk at District Headquarters, P.O. Box 1429, Palatka FL 32178-1429 (4049 Reid St, Palatka, FL 32177) or by e-mail with the District Clerk at Clerk@sjrwmd.com, within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes (F.S.), and Chapter 28-106, F.A.C. The District will not accept a petition sent by facsimile (fax). Mediation pursuant to Section 120.573, F.S., may be available and choosing mediation does not affect your right to an administrative hearing.

A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Palatka, Florida during the District's regular business hours. The District's regular business hours are 8 a.m. – 5 p.m., excluding weekends and District holidays. Petitions received by the District Clerk after the District's regular business hours shall be deemed filed as of 8 a.m. on the District's next regular business day. The District's acceptance of petitions filed by e-mail is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation (issued pursuant to Rule 28-101.001, Florida Administrative Code), which is available for viewing at www.sjrwmd.com. These conditions include, but are not limited to, the petition being in the form of a PDF or TIFF file and being capable of being stored and printed by the District. Further, pursuant to the District's Statement of Agency Organization and Operation, attempting to file a petition by facsimile (fax) is prohibited and shall not constitute filing.

The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40C-1.1007, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District's final action may be different from the position taken by it in this notice. **Failure to file a petition for an administrative hearing within the requisite time frame shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, F.A.C.).**

If you wish to do so, please visit http://www.sjrwmd.com/nor_dec/ to read the complete Notice of Rights to determine any legal rights you may have concerning the District's decision(s) on the permit application(s) described above. You can also request the Notice of Rights by contacting the Director of Office of Records and Regulatory Support, 4049 Reid St., Palatka, FL 32177-2529, tele. no. (386)329-4570.

NEWSPAPER ADVERTISING

ALACHUA
The Alachua County Record, Legal Advertising
P. O. Box 806
Gainesville, FL 32602
352-377-2444/ fax 352-338-1986

BAKER
Baker County Press, Legal Advertising
P. O. Box 598
Maclenny, FL 32063
904-259-2400/ fax 904-259-6502

BRADFORD
Bradford County Telegraph, Legal Advertising
P. O. Drawer A
Starke, FL 32901
904-964-6305/ fax 904-964-8628

BREVARD
Florida Today, Legal Advertising
P. O. Box 419000
Melbourne, FL 32941-9000
321-242-3832/ fax 321-242-6618

CLAY
Clay Today, Legal Advertising
1560 Kinsley Ave., Suite 1
Orange Park, FL 32073
904-264-3200/ fax 904-264-3285

DUVAL
Daily Record, Legal Advertising
P. O. Box 1769
Jacksonville, FL 32201
904-356-2466 / fax 904-353-2628

FLAGLER
Flagler Tribune, c/o News Journal
P. O. Box 2831
Daytona Beach, FL 32120-2831
386- 681-2322

INDIAN RIVER
Treasure Coast News
760 NW Enterprise Dr.
Port St. Lucie, FL 34986
772-283-5252

LAKE
Daily Commercial, Legal Advertising
P. O. Drawer 490007
Leesburg, FL 34749
352-365-8235/fax 352-365-1951

MARION
Ocala Star Banner, Legal Advertising
2121 SW 19th Avenue Road
Ocala, FL 34474
352-867-4010/fax 352-867-4126

NASSAU
News-Leader, Legal Advertising
P. O. Box 766
Fernandina Beach, FL 32035
904-261-3696/fax 904-261-3698

OKEECHOBEE
Okeechobee News, Legal Advertising
P. O. Box 639
Okeechobee, FL 34973-0639
863-763-3134/fax 863-763-5901

ORANGE
Sentinel Communications, Legal Advertising
633 N. Orange Avenue
Orlando, FL 32801
407-420-5160/ fax 407-420-5011

OSCEOLA
Little Sentinel, Legal Advertising
633 N. Orange Avenue
Orlando, FL 32801
407-420-5160/ fax 407-420-5011

PUTNAM
Palatka Daily News, Legal Advertising
P. O. Box 777
Palatka, FL 32178
386-312-5200/ fax 386-312-5209

ST. JOHNS
St. Augustine Record, Legal Advertising
P. O. Box 1630
St. Augustine, FL 32085
904-819-3439

SEMINOLE
Sanford Herald, Legal Advertising
300 North French Avenue
Sanford, FL 32771
407-323-9408

VOLUSIA
News Journal Corporation, Legal Advertising
P. O. Box 2831
Daytona Beach, FL 32120-2831
(386) 681-2322

LONDON COVE

A SUBDIVISION LYING IN SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST, CITY OF COCOA, BREVARD COUNTY, FLORIDA

LEGAL DESCRIPTION:

PARCEL 1: (LONDON COVE COMMERCIAL CENTER)

THE NORTH 300 FEET OF THE FOLLOWING DESCRIBED LAND:

THE WEST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 18 TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, LYING SOUTH OF THE SOUTH RIGHT OF WAY OF RELOCATED STATE ROAD NO. 524, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE INTERSECTION OF THE EAST LINE OF THE SAID WEST 1/2 OF THE SOUTHWEST 1/4 OF SAID SECTION 18 AND THE SOUTH RIGHT OF WAY OF SAID STATE ROAD NO. 524; THENCE S88°33'18"W, ALONG SAID SOUTH RIGHT OF WAY, A DISTANCE OF 402.62 FEET TO THE BEGINNING OF A TANGENT CIRCULAR CURVE, CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 1592.58 FEET; THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 34°48'00" AN ARC DISTANCE OF 967.29 FEET TO A POINT ON THE WEST LINE OF SAID SECTION 18; THENCE S00°14'23"E, ALONG SAID WEST LINE, A DISTANCE OF 130.15 FEET; THENCE S39°11'23"E, A DISTANCE OF 196.68 FEET, TO A POINT ON A CIRCULAR CURVE, CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 1292.58 FEET; SAID RADIUS BEARS S39°11'23"E; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 37°44'41", AN ARC DISTANCE OF 851.51 FEET; THENCE N88°33'18"E A DISTANCE OF 393.79 FEET, TO SAID EAST LINE OF SAID WEST 1/2 OF SAID SOUTHWEST 1/4 OF SAID SECTION 18; THENCE N00°14'26"E, ALONG SAID EAST LINE A DISTANCE OF 300.13 FEET TO THE POINT OF BEGINNING.

CONTAINING 9.19 ACRES MORE OR LESS

AND

PARCEL 2: (LONDON COVE)

A PORTION THE WEST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 18 TOWNSHIP 24 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA, LYING SOUTH OF THE SOUTH RIGHT OF WAY OF RELOCATED STATE ROAD NO. 524, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE EAST LINE OF THE SAID WEST 1/2 OF THE SOUTHWEST 1/4 OF SAID SECTION 18 AND THE SOUTH RIGHT OF WAY OF SAID STATE ROAD NO. 524; THENCE S00°14'26"W, ALONG SAID EAST LINE A DISTANCE OF 300.13 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE S00°14'26"W, ALONG SAID EAST LINE, A DISTANCE OF 432.45 FEET; THENCE S78°22'53"W A DISTANCE OF 300.78 FEET; THENCE WEST A DISTANCE 456.25 FEET; THENCE S64°32'24"W A DISTANCE OF 320.49 FEET; THENCE S75°20'50"W A DISTANCE OF 106.54 FEET; THENCE N63°26'03"W A DISTANCE OF 37.10 FEET; THENCE N07°10'52"E A DISTANCE OF 78.58 FEET; THENCE N40°22'20"E A DISTANCE OF 92.99 FEET; THENCE N66°36'34"E A DISTANCE OF 68.06 FEET; THENCE N15°16'11"W A DISTANCE OF 87.27 FEET; THENCE N06°42'05"E A DISTANCE OF 39.66 FEET; THENCE N32°34'42"W A DISTANCE OF 102.57 FEET TO A POINT ON A CIRCULAR CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 1292.58 FEET; SAID RADIUS BEARS S35°55'11"E; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 34°28'29", AN ARC DISTANCE OF 777.74 FEET; THENCE N88°33'18"E, TANGENT TO SAID CURVE, A DISTANCE OF 393.79 FEET TO THE POINT OF BEGINNING.

CONTAINING 11.50 ACRES MORE OR LESS
TOTAL PARCEL 1 & 2 = 20.69 ACRES MORE OR LESS

PLAT NOTES

1. BEARINGS SHOWN HEREON ARE BASED ON THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD NO. 524 ALSO BEING THE NORTH LINE OF THE SOUTHWEST 1/4 OF SECTION 18-24-36, AS SHOWN ON FDOT MAP SECTION #70007-2501 BEING NORTH 88°33'18" EAST.
2. ALL PLATTED UTILITY EASEMENTS SHALL PROVIDE THAT SUCH 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.
3. ALL DRAINAGE EASEMENTS AND DRAINAGE FACILITIES/IMPROVEMENTS, EXCEPT THE FDOT DRAINAGE EASEMENT, SHALL BE DEDICATED TO AND MAINTAINED BY THE LONDON COVE PROPERTY OWNERS ASSOCIATION, INC.
4. ALL LOT DRAINAGE IS PRIVATE AND IS THE RESPONSIBILITY OF THE INDIVIDUAL LOT OWNER.
5. AN INGRESS AND EGRESS EASEMENT IS HEREBY DEDICATED TO THE CITY OF COCOA AND BREVARD COUNTY OVER AND ACROSS ALL PRIVATE DRAINAGE EASEMENTS, PRIVATE STORMWATER TRACTS AND PRIVATE ROADWAYS FOR LAW ENFORCEMENT, EMERGENCY ACCESS AND EMERGENCY MAINTENANCE. THE CITY OF COCOA SHALL HAVE THE RIGHT, BUT NOT THE OBLIGATION, TO ACCESS, MAINTAIN, REPAIR, REPLACE OR OTHERWISE CARE FOR OR CAUSE TO BE CARED FOR, THE DRAINAGE EASEMENTS AND STORMWATER TRACTS SHOWN ON THE PLAT AND THE PRIVATE DRAINAGE FACILITIES THEREIN, INCLUDING WITHOUT LIMITATIONS THE DRAINAGE SYSTEMS CONSTRUCTED THEREON, IN THE EVENT OF AN EMERGENCY AND IS GRANTED AN EASEMENT FOR SUCH PURPOSES. TO THE EXTENT THAT THE CITY OPTS TO MAINTAIN, REPAIR, REPLACE, OR OTHERWISE CARE FOR OR CAUSE TO BE CARED FOR THE DRAINAGE EASEMENTS AND STORMWATER TRACTS SHOWN ON THIS PLAT AND THE DRAINAGE SYSTEMS CONSTRUCTED THEREON, THE FREQUENCY, QUALITY EXTENT OF SUCH MAINTENANCE, REPAIR, REPLACEMENT AND CARE WILL BE SUBJECT TO THE CITYS DISCRETION. A BLANKET INGRESS/EGRESS EASEMENT IS GRANTED IN FAVOR OF THE CITY OF COCOA FOR SAID PURPOSE OVER THE STORMWATER TRACTS AND PRIVATE DRAINAGE EASEMENTS SHOWN ON THIS PLAT.
6. TRACTS A SHALL BE RETAINED AND MAINTAINED BY DEMETREE COCOA II RESIDENTIAL, LLC, A FLORIDA LIMITED LIABILITY COMPANY FOR FUTURE DEVELOPMENT.
7. TRACTS B AND TRACT G, ARE FOR STORM WATER RETENTION AND SHALL BE OWNED AND MAINTAINED BY LONDON COVE PROPERTY OWNERS ASSOCIATION, INC.
8. TRACT E IS FOR LONDON BOULEVARD AND LONDON COVE LANE RIGHT OF WAY AND SHALL BE OWNED AND MAINTAINED BY LONDON COVE PROPERTY OWNERS ASSOCIATION, INC. THE LONDON COVE PROPERTY OWNERS ASSOCIATION, INC, IS TO MAINTAIN THE DRAINAGE INFRASTRUCTURE AND LANDSCAPE MAINTENANCE.
9. TRACT "D" AND TRACT "F" ARE WETLAND CONSERVATION EASEMENT AREAS TO BE DEDICATED TO ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT BY THIS PLAT AND SHALL BE OWNED AND MAINTAINED BY THE LONDON COVE PROPERTY OWNERS ASSOCIATION, INC. FILLING, DREDGING, CONSTRUCTION OF STRUCTURES OF ANY KIND ARE PROHIBITED EXCEPT AS PROVIDED IN THE CONSERVATION EASEMENT. DISTURBANCE OF NATURAL GROWTH SHALL BE RESTRICTED TO THE MITIGATION OF WILDFIRE AND HAZARDOUS TREE CONDITIONS THAT POSE A DIRECT HAZARD TO STRUCTURES. THE APPROPRIATE GOVERNMENTAL BODY OR AGENCY SHALL HAVE PERMISSION TO INGRESS, INSPECT, AND IF NECESSARY, TAKE CORRECTIVE ACTION REGARDING THE CONSERVATION EASEMENT,
10. TRACT E (LONDON BOULEVARD AND LONDON COVE LANE, ACCESS ROADS) SHALL BE PRIVATE ROADWAYS OWNED AND MAINTAINED BY THE LONDON COVE PROPERTY OWNERS ASSOCIATION, INC., IT'S SUCCESSORS AND/OR ASSIGNS.

A. TRACT E IS HEREBY DEDICATED FOR THE PRIVATE USE AND AS A COMMON VEHICLE AND PEDESTRIAN WAY ACCESS EASEMENT FOR THE BENEFIT OF ALL TRACTS AND PARCELS IN LONDON COVE FOR INGRESS AND EGRESS FROM EACH LOT TO THE ABUTTING PUBLIC STREETS.

11. THE CITY OF COCOA, FLORIDA, BREVARD COUNTY, FLORIDA, THE STATE OF FLORIDA AND THE FEDERAL GOVERNMENT OF THE UNITED STATES OF AMERICA SHALL BE ALLOWED ACCESS ON THE PRIVATE DRIVES, PEDESTRIAN WAYS, EASEMENTS AND COMMON OPEN SPACES TO ENSURE AND PROVIDE THE POLICE AND FIRE PROTECTION OF THE AREA, AND CONTROL THE HEALTH AND SAFETY OF THE RESIDENTS AND GUESTS OF LONDON COVE .
12. EASEMENT GRANTED TO FLORIDA POWER AND LIGHT COMPANY BY INSTRUMENT RECORDED MAY 18, 1981 IN OFFICIAL RECORDS BOOK 2300, PAGE 720 AFFECTS SUBJECT PROPERTY AS SHOWN HEREON.
13. AMENDED AND RESTATED TERMS AND CONDITIONS OF THE CROSS ACCESS EASEMENT AGREEMENT BETWEEN SR 524 COCOA II, LLC, A FLORIDA LIMITED LIABILITY COMPANY; COCOA COMMONS STATION, LLC, A DELAWARE A LIMITED LIABILITY COMPANY AND KEEPER II-COCOA, LLC A MAINE LIMITED LIABILITY COMPANY RECORDED OCTOBER 10, 2024 IN OFFICIAL RECORDS BOOK 10173, PAGE 1460 AFFECTS PARCELS 1 AND 2 OF SUBJECT PROPERTY AND ONLY BURDENS THOSE PORTIONS OVER WHICH DRIVEWAYS AND WALKWAYS ARE HEREINAFTER CONSTRUCTED.
14. PERPETUAL EASEMENT IN FAVOR OF THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION RECORDED JUNE 28, 2012 IN OFFICIAL RECORDS BOOK 6631, PAGE 2401 AFFECTS SUBJECT PROPERTY AS SHOWN HEREON.
15. THE EAST LINE OF THE SUBJECT PROPERTY IS ADJACENT AND CONTIGUOUS WITH THE WEST LINE OF THE PLAT OF COCOA COMMONS AS RECORDED IN PLAT BOOK 46, PAGE 27 OF THE PUBLIC RECORDS OF BREVARD COUNTY, WITHOUT ANY GAPS OR GORES.
16. THE 5' SIDEWALK EASEMENT IS PRIVATE AND OWNED AND MAINTAINED BY THE PROPERTY OWNERS ASSOCIATION, INC.
17. THE 8' PRIVATE WALL EASEMENT & SIGN EASEMENTS ARE HEREBY DEDICATED TO THE LONDON COVE PROPERTY OWNERS ASSOCIATION, INC.
18. ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP NUMBER 12009C0320H, DATED 1/29/2021, THE DESCRIBED PROPERTY IN THIS PLAT IS WITHIN ZONE X AND AE, HAVING THE BASE FLOOD ELEVATION OF 20.7 FEET NAVD88.
19. LANDSCAPE MAINTENANCE AND IRRIGATION SYSTEM WILL BE MAINTAINED BY LONDON COVE PROPERTY OWNERS ASSOCIATION, INC.

LEGEND AND ABBREVIATIONS:

■	= FOUND 4"X4" CONCRETE MONUMENT DESCRIPTION AS NOTED
⊡	= SET 4"X4" CONCRETE MONUMENT LB2936
◎	= FOUND 5/8" IRON ROD DESCRIPTION AS NOTED
◉	= SET REBAR & CAP, 5/8" LB2936
PB	= PLAT BOOK
PG	= PAGE
LB	= LICENSE BUSINESS
CM	= CONCRETE MONUMENT
FD.	= FOUND
IR	= FOUND IRON ROD
IRC	= IRON ROD AND CAP
L	= LENGTH
R	= RADIUS
Δ	= DELTA
CH	= CHORD
CB	= CHORD BEARING
PRM	= PERMANENT REFERENCE MONUMENT
ID	= IDENTIFICATION
NSPS	= NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS
FDOT	= FLORIDA DEPARTMENT OF TRANSPORTATION
C/L	= CENTERLINE
CM	= CONCRETE MONUMENT
PCP	= PERMANENT CONTROL POINT
PRM	= PERMANENT REFERENCE MONUMENTS
PLS	= PROFESSIONAL LAND SURVEYOR
LS	= LAND SURVEYOR
LB	= LICENSED BUSINESS
P.B.	= PLAT BOOK
PGS.	= PAGES
(M)	= MEASURED
(D)	= DEED
SB	= SETBACK
R/W	= RIGHT OF WAY
DELTA	= CENTRAL ANGLE
O.R.B.	= OFFICIAL RECORD BOOK
NTS	= NOT TO SCALE
NAVD	= NORTH AMERICAN VERTICAL DATUM 1988
NAD	= NORTH AMERICAN DATUM
NGVD	= NATIONAL GEODETIC VERTICAL DATUM 1929
SJRWMD	= ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
P.A.D.E.	= PRIVATE ACCESS AND DRAINAGE EASEMENT
U.E.	= UTILITY EASEMENT
P.S.M.	= PROFESSIONAL SURVEYOR AND MAPPER
P.O.C.	= POINT OF COMMENCEMENT
P.O.B.	= POINT OF BEGINNING
P.O.B.	= POINT OF BEGINNING
SE	= SIDEWALK EASEMENT
RAD BRG.	= RADIAL BEARING
POA	= LONDON COVE PROPERTY OWNERS ASSOCIATION
AC.	= ACRES
OA	= OVERALL
●	= PERMANENT CONTROL POINT
OR	= OFFICIAL RECORDS
BLVD	= BOULEVARD

A. The last deed of record was dated December 31, 2020 and recorded March 26, 2025 in Official Records Book 10294, Page 1633 and 1635, Public Records of BREVARD County, Florida.

B. The record title holder is Demetree Cocoa II Residential, LLC, a Florida limited liability company and Demetree Cocoa II Commercial, LLC, a Florida limited liability company .

C. The name(s) of the record title holder DOES NOT coincide with the name(s) shown as owner(s) on the unrecorded plat of LONDON COVE .

D. Unsatisfied mortgages or liens encumbering said property are as follows:

1. Mortgage, Security Agreement, Financing Statement and Assignment of Rents executed by Demetree Cocoa II Residential, LLC in favor of Servisfirst Bank recorded December 29, 2025 in Official Records Book 10513, Page 341, Public Records of Brevard County, Florida.
2. Leasehold Mortgage, Security Agreement, Financing Statement and Assignment of Rents executed by SR 524 Cocoa II, LLC in favor of Servisfirst Bank recorded December 31, 2025 in Official Records Book 10514, Page 1153; together with Assignment of Rents, Leases, Profits and Contract recorded December 31, 2025 in Official Records Book 10514, Page 1174 and Uniform Commercial Code Financing Statement recorded December 31, 2025 in Official Records Book 10514, Page 1184, Public Records of Brevard County, Florida.

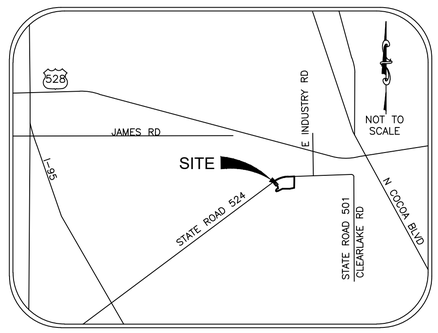
E. Underlying rights of way, easements or plats affecting said property are as follows:

1. Easement granted to Florida Power & Light Company by instrument recorded May 18, 1981 in Official Records Book 2300, Page 720 of the Public Records of Brevard County, Florida.
2. Terms and conditions of the Cross Access Easement Agreement between SR 524 Cocoa II, LLC, a Florida Limited Liability Company; Poplar Associates, LLC, a North Carolina limited liability company and S.J. Holding, LLC, a Florida limited liability company recorded February 8, 2006 in Official Records Book 5602, Page 268; and Amended and Restated Cross Access Easement Agreement recorded October 7, 2024 in Official Records Book 10173, Page 1460, of the Public Records of Brevard County, Florida.
3. Perpetual Easement in favor of the State of Florida Department of Transportation recorded June 28, 2012 in Official Records Book 6631, Page 2401 of the Public Records of Brevard County, Florida.

F. Other information regarding said property includes:

1. Notice of Preliminary Development Plan Approval - London Cove, by the City of Cocoa, Florida recorded August 14, 2009 in Official Records Book 6009, Page 955 of the Public Records of Brevard County, Florida.
2. Recorded Notice of Environmental Resource Permit recorded January 9, 2023 in Official Records Book 9692, Page 2654, Public Records of Brevard County, Florida.
3. Memorandum of Lease by and between Demetree Cocoa II Commercial, LLC (Landlord) and SR 524 Cocoa II, LLC (Tenant) recorded December 29, 2025 in Official Records Book 10513, Page 336, Public Records of Brevard County, Florida.
4. Notice of Commencement recorded December 31, 2025 in Official Records Book 10514, Page 1189, Public Records of Brevard County, Florida.
5. Notice of Commencement recorded December 31, 2025 in Official Records Book 10514, Page 1192, Public Records of Brevard County, Florida.
6. Notice of Commencement recorded December 31, 2025 in Official Records Book 10514, Page 1195, Public Records of Brevard County, Florida.

G. 2025 Ad valorem taxes on said property are paid for Tax Parcel I. D. Number 2414236, 2414234 and 3039015.



LOCATION MAP:
NOT TO SCALE

SHEET INDEX

Sheet 1 of 3 – Cover Notes, Dedication
Sheet 2 of 3 – Geometry
Sheet 3 of 3 – Detail Sheet

CARNAHAN PROCTOR & CROSS
604 COURTLAND STREET SUITE 101
PHONE : (407) 960-5980
ORLANDO, FLORIDA 32804
CERTIFICATE OF AUTHORIZATION # 2936

LAND DEVELOPMENT
SURVEYING
CONSTRUCTION ENGINEERING INSPECTION

NOTICE: THIS PLAT, AS RECORDED IN ITS GRAPHIC FORM, IS THE OFFICIAL DEPICTION OF THE SUBDIVIDED LAND 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.

TRACT DESIGNATION AND AREA SUMMARY

TRACT	AREA (ACRES)	USE	MAINTAINED & OWNED
A	6.43	FUTURE DEVELOPMENT	OWNER
B	3.82	STORM WATER TREATMENT/RECREATION/COMMON OPEN SPACE (WATER BODY)	POA
D	0.82	WETLAND CONSERVATION	POA
E	1.79	LONDON BOULEVARD/ LONDON COVE LANE RIGHT OF WAY.	POA
F	0.09	WETLAND CONSERVATION	POA
G	0.34	COMPENSATING AND STORAGE POND	POA

PLAT BOOK _____ PAGE _____
SHEET 1 OF 3

LONDON COVE

KNOW ALL MEN BY THESE PRESENTS, THAT DEMETREE COCOA II RESIDENTIAL, LLC, A FLORIDA LIMITED LIABILITY COMPANY AND DEMETREE COCOA II COMMERCIAL, LLC, A FLORIDA LIMITED LIABILITY COMPANY BEING THE OWNERS IN FEE SIMPLE OF THE LANDS DESCRIBED HEREIN, HEREBY DEDICATES SAID LANDS FOR THE USES AND PURPOSES HEREIN EXPRESSED IN THIS PLAT AND DEDICATES TO THE PUBLIC AND THE CITY OF COCOA, FLORIDA, ALL EASEMENTS SPECIFICALLY DESIGNATED AS PUBLIC EASEMENTS HEREIN. THE OWNER FURTHER HEREBY DEDICATES TO THE PUBLIC AND THE CITY OF COCOA, FLORIDA, A PERPETUAL PUBLIC EASEMENT OVER AND ACROSS THE PRIVATE RIGHTS-OF-WAY OF TRACT E FOR INSTALLATION AND MAINTENANCE OF PUBLIC UTILITIES AND FOR INGRESS AND EGRESS FOR LAW ENFORCEMENT AND EMERGENCY VEHICLES, MAIL AND PACKAGE DELIVERY, SOLID WASTE/SANITATION, AND OTHER SIMILAR GOVERNMENTAL AND QUASI-GOVERNMENTAL SERVICES.

TRACTS E AND PRIVATE DRAINAGE FACILITIES WITHIN THE SUBDIVISION ARE NOT DEDICATED TO, NOR THE RESPONSIBILITY OF THE CITY OF COCOA, FLORIDA.

_____ _____
PRINT NAME (WITNESS) *SIGNATURE (WITNESS)*

_____
DATE

_____ _____
PRINT NAME (WITNESS) *SIGNATURE (WITNESS)*

_____
DATE

STATE OF FLORIDA COUNTY OF _____

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME BY MEANS OF (___) PHYSICAL PRESENCE OR (___) ONLINE NOTARIZATION, THIS ___ DAY OF _____, 2026, BY MARY L. DEMETREE AS MANAGER OF DEMETREE COCOA II, RESIDENTIAL, LLC, A FLORIDA LIMITED LIABILITY COMPANY AND DEMETREE COCOA II, COMMERCIAL, LLC, A FLORIDA LIMITED LIABILITY COMPANY, WHO IS PERSONALLY KNOWN TO ME OR HAS PRODUCED _____ AS IDENTIFICATION.

NOTARY PUBLIC _____
PRINT NAME _____
MY COMMISSION NO. _____
MY COMMISSION EXPIRES _____

CERTIFICATE OF APPROVAL BY MUNICIPALITY

THIS IS TO CERTIFY, that on _____the city council of the City of Cocoa, Florida approved the foregoing plat.

_____
Michael C. Blake, Mayor

_____
Monica Arsenault, City Clerk

CERTIFICATE OF SURVEYOR

Known all men by these presents, that the undersigned being a licensed and registered land surveyor and mapper, does hereby certify that on November 28, 2022 he completed the survey of the lands as shown on the foregoing plat; that said plat is a true and correct representation of a survey made under my responsible direction and supervision; that said survey is accurate to the best of my knowledge and belief; that Permanent Reference Monuments (P.R.M.'s) have been placed as required by law, and that Permanent Control Points (P.C.P.'s), and Monuments according to Sec. 177.091(9), F.S., will be set under the guarantees posted with the Brevard County Board of County Commissioners for the required improvements; and, further, that the survey data complies with all the requirements of Chapter 177, Part 1, Florida Statutes, as amended.

_____DATE:_____
James W. Quartel, P.S.M. Registration No. 6032, State of Florida

CARNAHAN, PROCTOR AND CROSS L.B. # 2936
604 COURTLAND STREET SUITE 101
ORLANDO, FLORIDA 32804
PHONE : (407) 960-5980

CERTIFICATE OF REVIEWING SURVEYOR FOR THE CITY OF COCOA

I HEREBY CERTIFY, That I have reviewed the foregoing plat and find that it is in conformity with Chapter 177, Part 1, Florida Statutes.

_____
Andrew Perry, P.S.M. and Registered Florida Surveyor and Mapper #_____

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. _____.

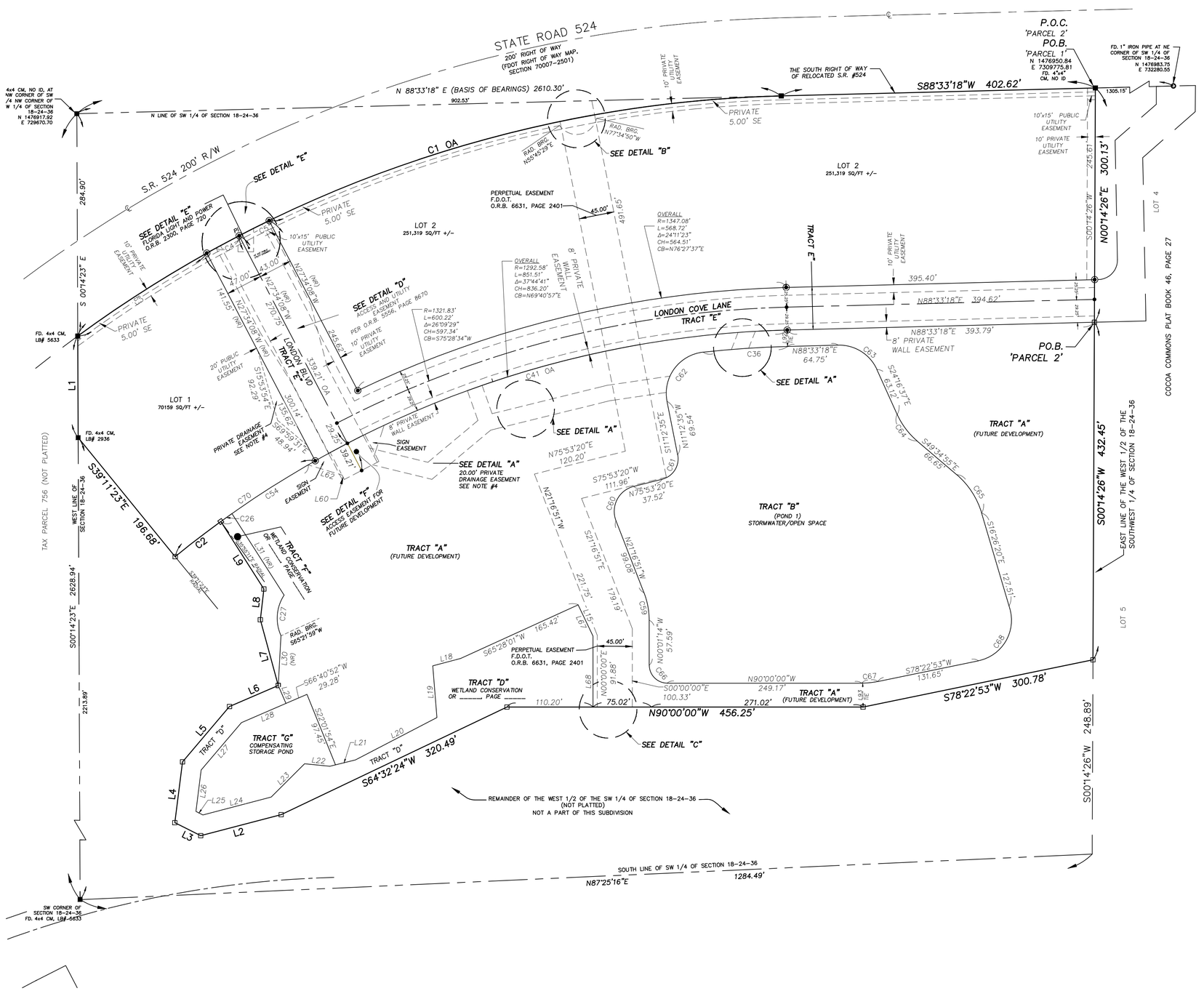
_____
Clerk of the Circuit Court
in and for Brevard County, FL

P:\PROJECT FOLDERS\180705 - LONDON COVE PLAT\CAD\180705 -LONDON COVE-PLAT LESS LOTS 2-6 REV 11-14-25

LONDON COVE

A SUBDIVISION LYING IN SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST, CITY OF COCOA, BREVARD COUNTY, FLORIDA

PLAT BOOK _____ PAGE _____
SHEET 2 OF 3



LINE TABLE		
LINE	BEARING	LENGTH
L1	S00°14'23"E	130.15'
L2	S75°20'50"W	106.54'
L3	N63°26'03"W	37.10'
L4	N07°10'52"E	78.58'
L5	N40°22'20"E	92.99'
L6	N66°36'34"E	68.06'
L7	N15°16'11"W	87.27'
L8	N06°42'05"E	39.66'
L9	N32°34'42"W	102.57'
L15	N25°14'15"W	36.40'
L18	N75°05'31"E	36.99'
L19	S04°33'50"E	66.45'
L20	N62°31'30"E	117.68'
L21	N76°15'48"E	33.77'
L22	S84°27'52"E	32.48'
L23	N45°09'39"E	60.48'
L24	N75°20'40"E	90.40'
L25	S63°26'03"E	9.99'
L26	S07°10'52"W	53.42'
L27	S40°22'20"W	79.71'
L28	S66°36'34"W	62.23'
L29	S23°23'26"E	25.00'
L30	S03°07'08"W	63.69'
L31	S32°34'42"E	123.93'
L60	S27°34'08"E	6.45'
L62	S73°21'02"E	45.30'
L67	S25°24'50"E	44.38'
L68	S00°00'12"E	90.89'
L88	N31°53'50"W	79.50'
L91	S14°46'31"E	81.29'
L92	S1°26'42"E	21.08'
L93	S0°47'51"E	81.29'

CURVE TABLE					
CURVE	LENGTH	RADIUS	CENTRAL ANGLE	CHORD BEARING	CHORD DISTANCE
C1	967.29'	1592.58'	34°48'00"	S71°09'18"W	952.49'
C2	73.77'	1292.58'	3°16'12"	S52°26'43"W	73.76'
C3	196.62'	1592.58'	7°04'25"	S57°17'31"W	196.49'
C4	31.85'	1592.58'	1°08'45"	S61°55'18"W	31.85'
C5	22.15'	1592.58'	0°47'49"	S63°40'07"W	22.15'
C6	207.17'	1592.58'	7°27'12"	S67°47'37"W	207.02'
C7	204.02'	1592.58'	7°20'24"	S75°11'25"W	203.88'
C8	160.97'	1592.58'	5°47'28"	S81°40'54"W	160.90'
C9	110.57'	1592.58'	3°58'40"	S86°33'58"W	110.55'
C15	218.39'	1292.58'	9°40'50"	S55°39'02"W	218.13'
C26	17.49'	1292.58'	0°46'31"	S54°28'04"W	17.49'
C27	54.66'	53.98'	58°01'16"	S04°22'37"W	52.36'
C36	108.63'	1271.50	04°53'42"	N86°06'27"E	108.60'
C41	777.74'	1292.58'	34°28'29"	S71°19'03"W	766.06'
C46	31.85'	1592.58'	1°08'45"	S61°53'44"W	31.85'
C54	133.39'	1292.58'	5°54'45"	S57°00'12"W	133.33'
C56	170.84'	1347.08'	07°15'59"	N75°09'08"E	170.73'
C59	35.99'	97.00'	21°15'31"	N10°39'02"W	35.70'
C60	55.97'	33.00'	97°10'38"	N27°18'14"E	49.50'
C61	41.04'	27.00'	87°05'23"	N27°18'14"E	49.50'
C62	87.76'	53.00	94°52'23"	N36°13'30"E	78.07'
C63	62.13'	53.00'	67°09'57"	S57°51'40"E	58.63'
C64	42.84'	97.00'	25°18'17"	S36°55'46"E	44.49'
C65	59.58'	103.00'	33°08'33"	S33°00'38"E	58.75'
C66	36.12'	23.00'	89°58'45"	N45°00'37"W	32.52'
C67	20.89'	103.00'	11°37'14"	N84°11'27"E	20.85'
C68	87.71'	53.00'	94°49'09"	S30°58'17"W	78.04'
C67	20.89'	103.00'	11°37'14"	N84°11'27"E	20.85'
C68	87.71'	53.00'	94°49'09"	S30°58'17"W	78.04'
C69	25.00'	1292.58'	01°06'29"	N61°59'11"E	25.00'
C70	217.62'	1292.58'	09°38'46"	N55°38'01"E	217.36'
C71	27.56'	1292.58'	01°13'18"	N64°15'34"E	27.56'

CURVE	LENGTH	RADIUS	CENTRAL ANGLE	CHORD BEARING	CHORD DISTANCE

CARNAHAN PROCTOR & CROSS
604 COURTLAND STREET SUITE 101
PHONE : (407) 960-5980
ORLANDO, FLORIDA 32804
CERTIFICATE OF AUTHORIZATION # 2936

LAND DEVELOPMENT
SURVEYING
CONSTRUCTION ENGINEERING INSPECTION

1" = 80'
0 40 80 160
GRAPHIC SCALE

SHEET INDEX

Sheet 1 of 3 – Cover Notes, Dedication
Sheet 2 of 3 – Geometry
Sheet 3 of 3 – Details

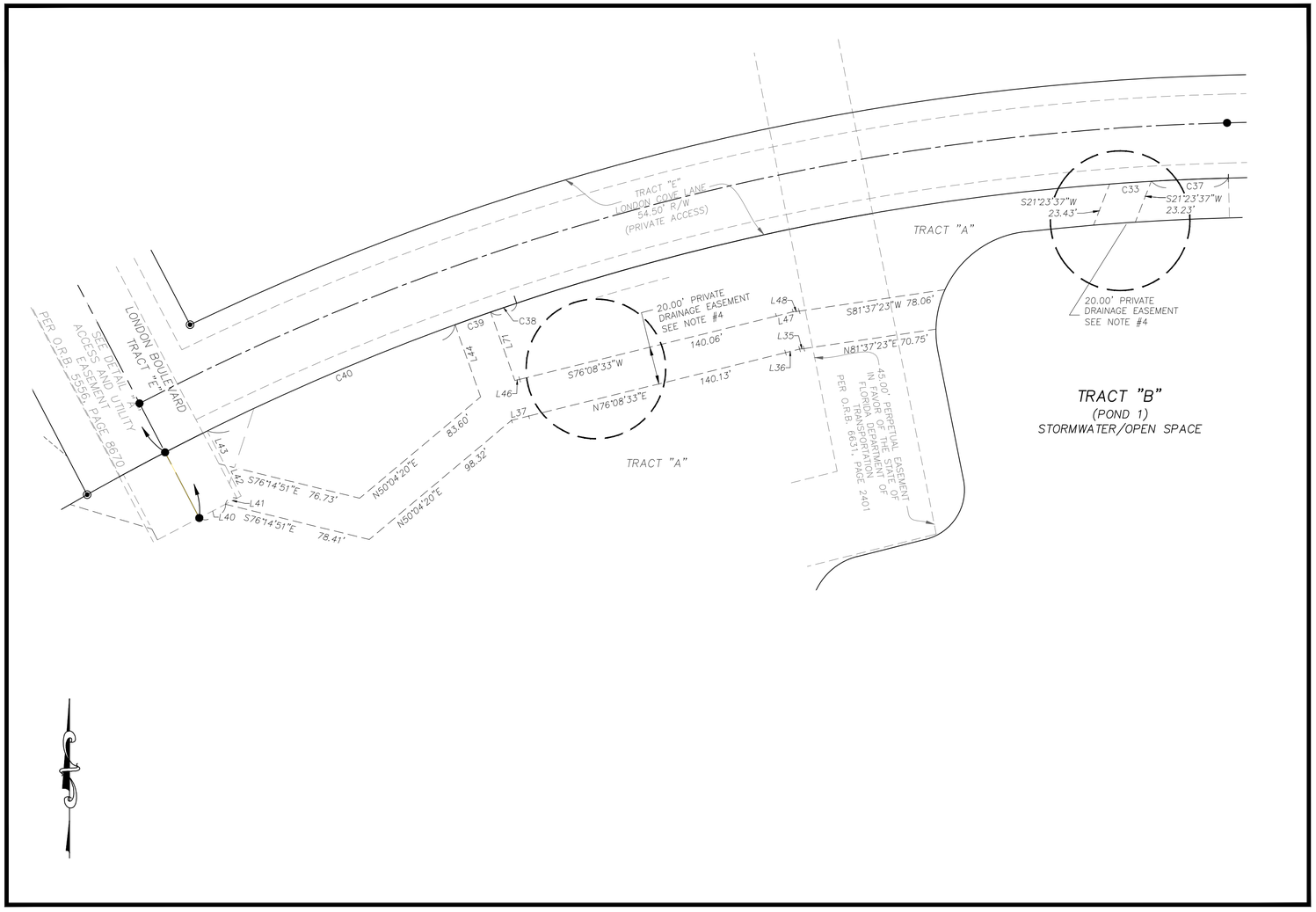
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LONDON COVE

A SUBDIVISION LYING IN SECTION 18, TOWNSHIP 24 SOUTH, RANGE 36 EAST, CITY OF COCOA, BREVARD COUNTY, FLORIDA

PLAT BOOK _____ PAGE _____
SHEET 3 OF 3

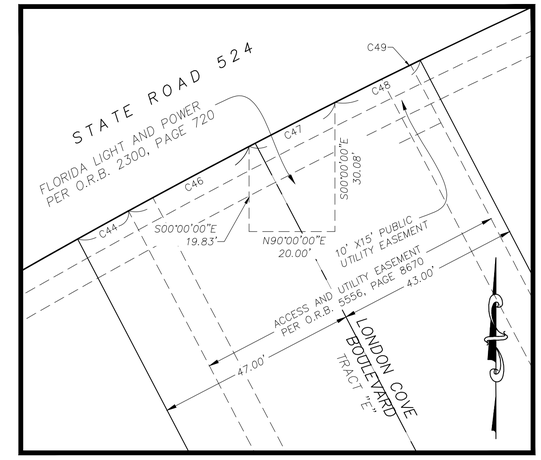
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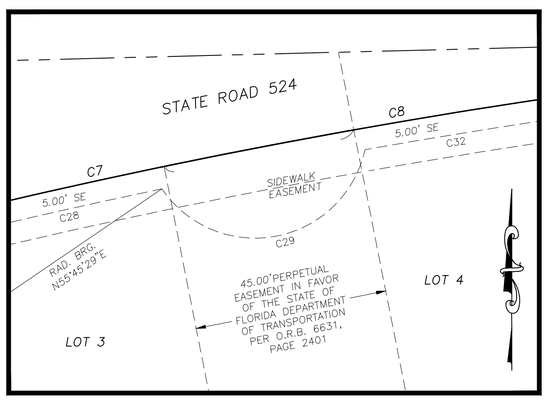
CURVE TABLE					
CURVE	LENGTH	RADIUS	CENTRAL ANGLE	CHORD BEARING	CHORD DISTANCE
C28	185.61'	1587.58'	6°41'55"	S74°52'11"W	185.50'
C29	61.08'	26.25'	133°20'19"	N79°05'20"E	48.20'
C30	47.00'	1592.58'	01°412'27"	S61°40'28"W	47.00'
C31	43.00'	1592.58'	01°32'39"	S63°17'37"W	43.00'
C32	127.97'	1587.58'	4°37'07"	S82°16'04"W	127.94'
C33	22.09''	1292.58'	00°58'45"	S86°15'09"W	22.09'
C34	22.21	1262.58'	01°00'28"	S85°36'43"W	22.21'
C35	40.90'	1292.58'	1°48'46"	S87°38'55"W	40.89'
C38	14.58'	1292.58'	0°38'47"	S71°11'43"W	14.58'
C39	19.99'	1292.58'	0°53'09"	S70°25'45"W	19.99'
C40	142.93	1292.58'	6°26'48"	S66°45'46"W	145.36'
C42	17.20'	1292.58'	0°45'45"	S63°55'15"W	17.20'
C43	50.00'	1292.58'	2°12'59"	S62°25'52"W	50.00'
C44	13.54	1592.58'	0°29'12"	S61°03'47"W	13.54
C45	18.78'	1292.58'	0°49'56"	S60°54'25"W	18.78'
C46	31.85'	1592.58'	1°08'45"	S61°53'34"W	31.85'
C47	22.47'	1592.58'	0°48'31"	S62°51'58"W	22.47'
C48	22.15'	1592.58'	0°47'49"	S63°40'07"W	15.88'
C49	683.93'	1592.58'	24°36'19"	S76°15'08"W	678.68'
C50	13.61'	1592.58'	0°29'23"	S56°41'09"W	13.61'
C51	74.01'	1592.58'	2°39'45"	S62°38'50"W	74.00'
C54	133.39'	1292.58'	5°54'45"	S57°00'12"W	133.33'
C55	30.01'	1292.58'	1°19'50"	S60°39'29"W	30.01'
C56	50.00'	1292.58'	2°12'59"	S62°25'53"W	50.00'
C57	25.02'	1292.58'	1°06'29"	S61°59'11"W	25.00'
C69	25.00'	1292.58'	1°06'29"	S63°05'40"W	25.00'
C71	27.56'	1292.58'	1°13'18"	S64°15'34"W	27.56'

LINE TABLE		
LINE	BEARING	LENGTH
L35	N84°19'20"E	2.26'
L36	N75°41'14"E	7.73'
L37	N76°06'09"E	9.39'
L40	S62°25'21"W	15.66'
L41	N62°25'52"E	6.87'
L42	N27°34'08"W	20.59'
L43	N27°34'08"W	18.38'
L44	S19°32'52"E	40.56'
L45	S19°33'47"E	38.48'
L46	S76°06'09"W	2.61'
L47	S75°41'14"W	9.16'
L48	S84°19'20"W	3.30'
L51	N27°34'08"W	99.85'
L52	N31°53'50"W	79.50'
L53	N27°34'08"W	120.82'
L54	S27°34'08"E	120.54'
L55	S14°46'31"E	81.29'
L56	S27°34'08"E	99.85'
L57	S27°34'08"E	38.96'
L58	N62°25'52"E	50.00'
L59	S27°34'08"E	38.96'
L60	S27°34'08"E	6.45'
L61	N27°34'29"W	30.17'
L62	S73°21'02"E	45.30'
L63	S18°12'47"W	41.86'
L64	S27°34'08"E	8.84'
L65	N27°34'08"W	18.38'

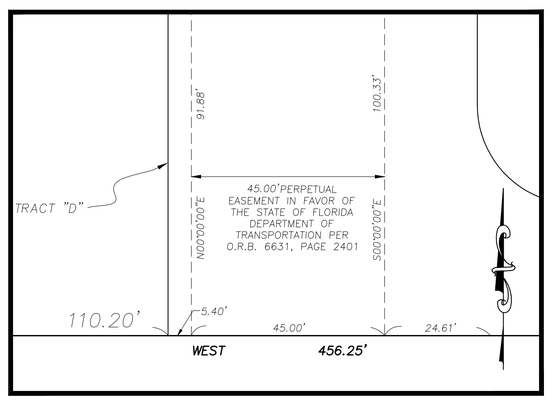
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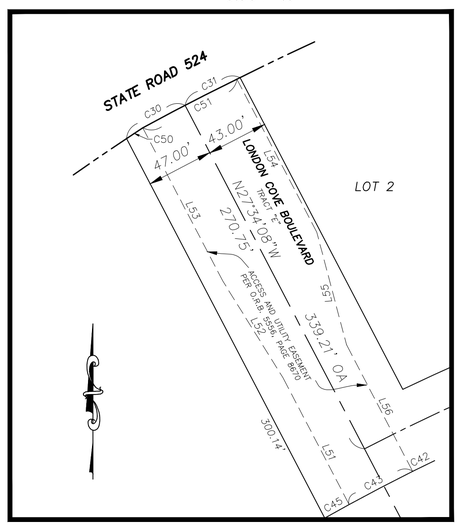
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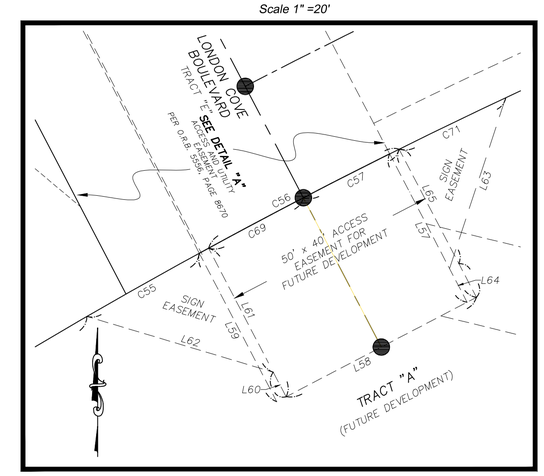
DETAIL "C"
Scale 1" =20'



DETAIL "D"
Scale 1" =60'



DETAIL "F"
Scale 1" =20'



CARNAHAN PROCTOR & CROSS
604 COURTLAND STREET SUITE 101
PHONE : (407) 960-5980
ORLANDO, FLORIDA 32804
CERTIFICATE OF AUTHORIZATION # 2936

LAND DEVELOPMENT
SURVEYING
CONSTRUCTION ENGINEERING INSPECTION

SHEET INDEX

Sheet 1 of 3 – Cover Notes, Dedication
Sheet 2 of 3 – Geometry
Sheet 3 of 3 – Details

P:\PROJECT FOLDERS\180705 – LONDON COVE PLAT\CAD\180705 –LONDON COVE–PLAT LESS LOTS 2–6 REV 11–14–25

Florida Power & Light Company, 21400 Powerline Rd, Boca Raton, FL 33433
561-479-4553

8/5/2026

Demetree Global
941 W Morse Blvd Suite 315
Winter Park, FL 32789

Re: Platted Easement Encroachment
Existing Easement in New Parcel "1" of "London Cove Subdivision" (O.R.B. 2300, PG. 720)

Name:

Thank you for contacting FPL about the encroachment of the 20 foot easement lying 10 feet on either side of the following described centerline: Commence at the intersection of the South Right-of-Way line of SR #524 (Old SR #528) and the West line of the SW 1/4 of Section 18, Township 24 South, Range 36 East, Brevard County, Florida; thence run North Easterly along said Right-of-Way line a distance of 253 feet to the Point of Beginning of said centerline; thence run South a distance of 25 feet to the terminus point of said centerline (O.R.B. 2300, PG. 720). The attached Exhibit A is noted as depicting the encroachement in the platted utility easement at the referenced location. FPL has no objection to this existing encroachment and will not require its removal, however FPL does not agree to the future encroachment of any other structures into the easement.

If I can be of any further assistance, please contact me at 561-479-4508.

Sincerely,

Breanna Hollaway

Breanna Hollaway
Engineering Leader

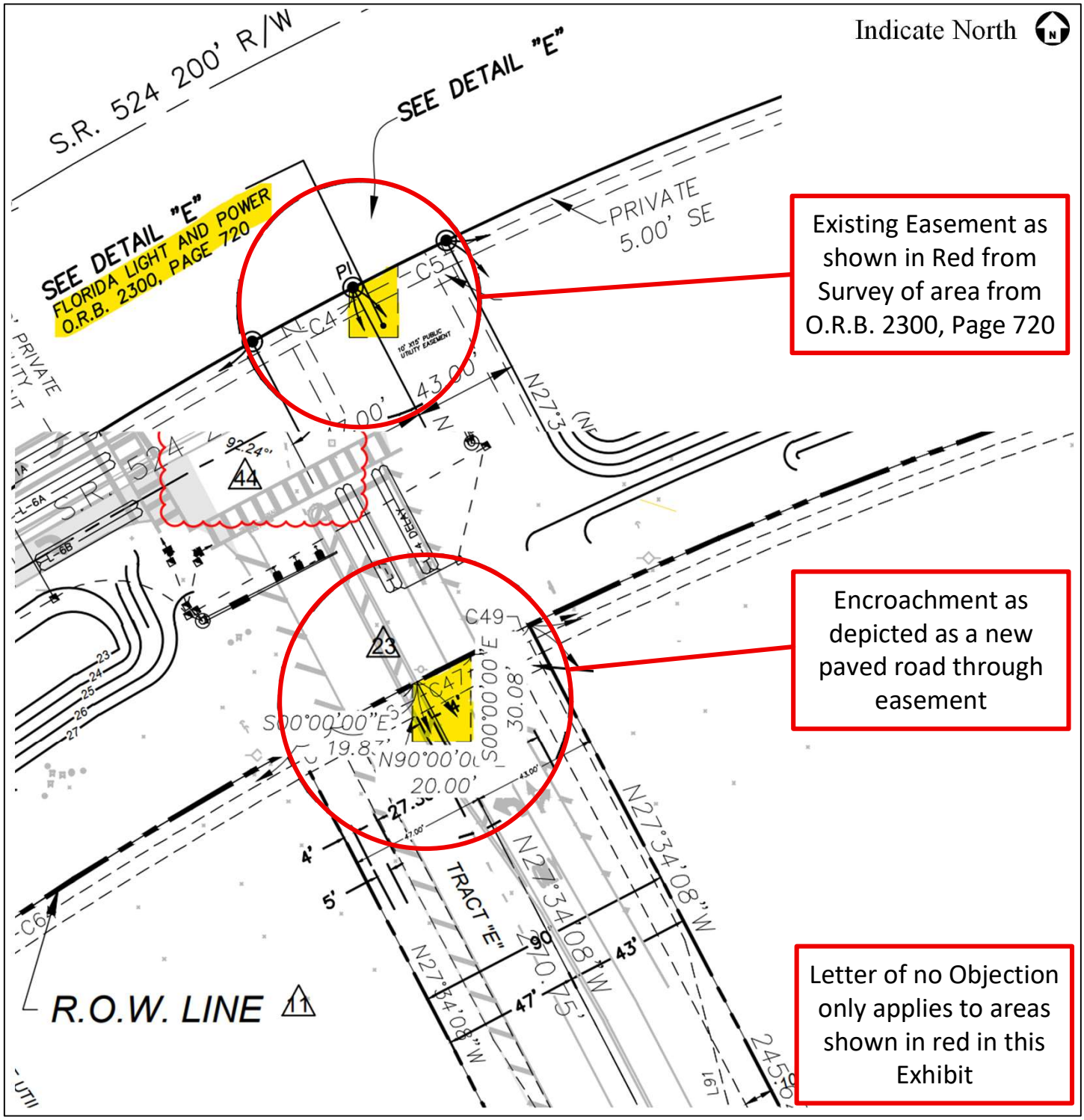
EXHIBIT "A"

Section 13 **Township** 24 **S,** **Range** 35 **E**

Brevard **County, Florida** **Scale:** _____

FPL Work Request No. N/A

Reserved for Circuit Court



Florida Department of Transportation

RON DESANTIS
GOVERNOR

Brevard Operations
555 Camp Road
Cocoa, Florida 32927-4738

JARED W. PERDUE, P.E.
SECRETARY

September 30th, 2026
Dack Vaught
Demetree Global
Vice President of Construction
941 W Morse Blvd., Suite 315
Winter Park, FL 32789
dvaught@demetreeglobal.com

RE: **Platted Easement Encroachment**
Existing Easement in London Cove Subdivision (O.R.B. 6631, Page 2401)

Dear Mr. Vaught,

Thank you for contacting FDOT about the encroachment of the 45 foot easement commencing at a 4"x 4" concrete monument at the Northwest corner of the Southwest 1/4 of Section 18, Township 24 South, Range 36 East, as referenced on the State of Florida State Road Department Right of Way Map, Section 70007-2501, thence run N 88°33'18"E , along the North line of the Southwest 1/4 of said Section 18 a distance of 902 53 feet to a point of intersection with the Southerly right of way line of State Road No 524, said point being monumented by a 4"x 4" concrete monument marked LB5633, and point also being on a point of curvature of a circular curve concave Southeasterly having as its elements a Radius of 1,592 58 feet, a central angle of 08°39'38" and an arc distance of 240 73 feet, thence Westerly along the arc of said curve for a chord bearing and distance of S 84°13'29"W , 240 50 feet, to the Point of Beginning, Thence leaving said Southerly right of way line of State Road No 524, S 11°12'35"E . a distance of 473 22 feet, thence S 75°53'20"W , a distance of 111 96 feet, thence S 21°16'51"E , a distance of 179 19 feet, thence South 100 34 feet to a point, thence West a distance of 45 00 feet, thence North a distance of 91 88 feet, thence N 21°16'51"W , a distance of 221 75 feet, thence N 75°53'20"E , a distance of 120 20 feet, thence N 11°12'35"W , a distance of 430 67 feet to a point on the aforementioned Southerly right of way line of said State Road No 524, said point being on a circular curve concave Southeasterly having as its elements a Radius of 1,592 58 feet, a central angle of 01°37'08" and an arc distance of 45 feet, thence Northeasterly along the arc of said curve and the said Southerly right of way line a chord bearing and distance of, N 79°05106"E , 45 feet to the Point of Beginning Contains 0.893 acres more or less.

The attached Exhibit A identifies the encroachment within the platted utility easement at the referenced location. Because the proposed private drainage pipe will be installed below FDOT's drainage infrastructure within the easement, FDOT has no objection to this encroachment and will not require its removal.

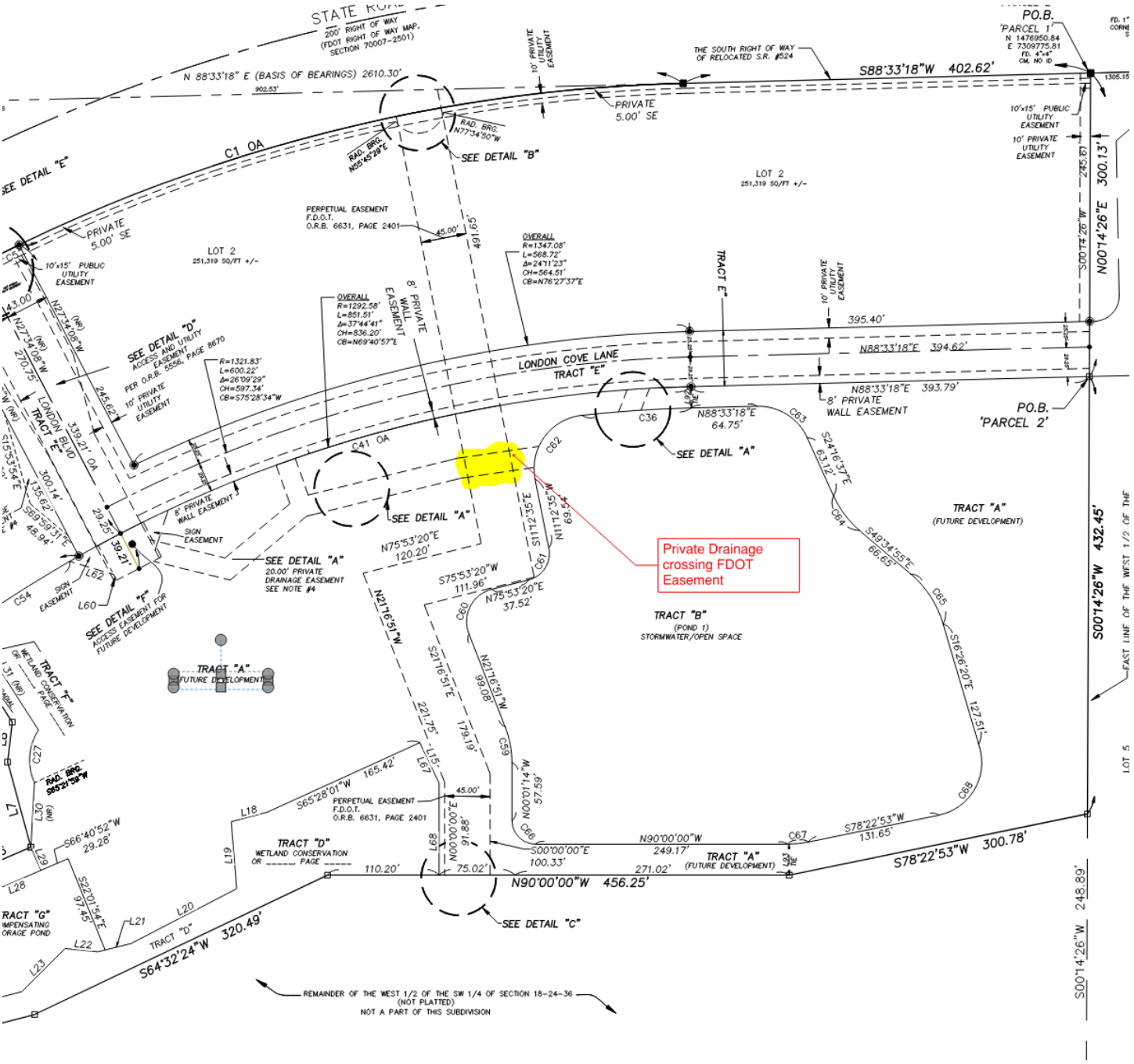
Sincerely,

Scott Rickard

Digitally signed by: Scott Rickard
DN: CN = Scott Rickard email = William.Rickard@dot.state.fl.us C = US O = FDOT - Brevard Operations
Date: 2026.09.30 10:02:26 -04'00'

Scott Rickard
Maintenance Manager / Permit
FDOT Brevard Operations

Exhibit A


Private Drainage crossing FDOT Easement
LONDON COVE LANE
TRACT "E"
TRACT "A"
(FUTURE DEVELOPMENT)
TRACT "B"
(POND 1)
STORMWATER/OPEN SPACE
TRACT "D"
WETLAND CONSERVATION
TRACT "F"
WETLAND CONSERVATION
TRACT "G"
COMPENSATING STORAGE POND
LOT 2
251,319 SQ/FT +/-
PERPETUAL EASEMENT
F.D.O.T.
O.R.B. 6631, PAGE 2401
8' PRIVATE WALL EASEMENT
10' PRIVATE UTILITY EASEMENT
10'x15' PUBLIC UTILITY EASEMENT
SEE DETAIL "A"
SEE DETAIL "B"
SEE DETAIL "C"
SEE DETAIL "D"
SEE DETAIL "E"
SEE DETAIL "F"
P.O.B. 'PARCEL 1'
P.O.B. 'PARCEL 2'
N 88°33'18" E (BASIS OF BEARINGS) 2610.30'
S88°33'18"W 402.62'
N00°14'26"E 300.13'
S00°14'26"W 432.45'
S78°22'53"W 300.78'
N90°00'00"W 456.25'
S64°32'24"W 320.49'
N88°33'18"E 394.62'
N88°33'18"E 393.79'
N88°33'18"E 64.75'
REMAINDER OF THE WEST 1/2 OF THE SW 1/4 OF SECTION 18-24-36
(NOT PLATTED)
NOT A PART OF THIS SUBDIVISION
EAST LINE OF THE WEST 1/2 OF THE
LOT 5

USA TODAY CO.

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Order Confirmation

Not an Invoice

Account Number:	1127247
Customer Name:	City Of Cocoa - Te
Customer Address:	City Of Cocoa - Te 65 Stone ST Accounting Division Cocoa FL 32922-7982
Contact Name:	Trimaine Smith
Contact Phone:	(321) 433-8535
Contact Email:	tsmith@cocoafl.gov
PO Number:	P/Z Board & City

Date:	09/16/2026
Order Number:	12640670
Prepayment Amount:	$ 0.00

Column Count:	1.0000
Line Count:	159.0000
Height in Inches:	13.1500

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Ad Preview

Ad#12640670 09/25/2026

CITY OF COCOA
NOTICE OF PUBLIC HEARING
NOTICE IS HEREBY GIVEN THAT THE PLANNING & ZONING BOARD/ LOCAL PLANNING AGENCY PROPOSES TO CONSIDER THE FOLLOWING:
PLANNING & ZONING BOARD WILL BE HELD ON October 7, 2026

PZ 25-00200020 Sky Powersports Large-Scale Site Plan

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

PZ 22-00100001 London Cove Site Plan and Preliminary Plat

Consider a large-scale site plan and preliminary plat for the London Cove subdivision, pursuant to Chapter 18, Subdivisions, of the City of Cocoa Code of Ordinances, subdividing three parcels into six parcels, including two commercial lots, two future development tracts, and associated open-space and stormwater tracts, totaling approximately 22.66 acres. Generally located south of State Road 524 and north of Range Road and identified by Parcel IDs: 24-36-18-00-506, 24-36-18-00-502, and 24-36-18-00-500.1.

NOTICE IS ALSO HEREBY GIVEN THAT THE
CITY OF COCOA COUNCIL PROPOSES TO CONSIDER THE FOLLOWING:
CITY COUNCIL HEARING WILL BE HELD ON
October 13, 2026

PZ 22-00100001 London Cove Site Plan and Preliminary Plat

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

General Notice Information:
This is a public meeting. Interested parties are hereby advised that they may appear at said meeting and be heard. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk of the City of Cocoa, listed below, at least 48 hours prior to the meeting: Monica Arsenault, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8488 or via email at marsenault@cocoafl.gov.
Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that if a person decides to appeal any decision made by the BOA, P&Z Board/LPA or City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made, and such record shall include the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.
The BOA or PZ Board/LPA meeting may include the attendance of one (1) or more members of the Cocoa City Council who may or may not participate in the Board discussions held at this public hearing. The BOA, PZ Board/LPA and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.
Public Participation Information:
Members of the public may view the meeting agenda, ordinances, project applications, supporting documents, and staff reports on the City's website at the following link prior to attending or commenting:
• City of Cocoa meeting calendar at https://www.cocoafl.gov/2910338/City-Meetings
Documents pertaining to the above may also be inspected at the Community Services Department between 8:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8400.
Interested persons may submit their written comments or questions prior to the meeting through Email at cityclerk@cocoafl.gov or via E-comments through the online agenda at the link above. Any electronic comments submitted will be made part of the meeting record.
Viewing In Real Time. Interested persons are encouraged to view and listen to the hearings live by accessing the meetings at the following internet address:
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However, the City is not responsible for technical difficulties that may occur while attempting to view or listen to the meeting on the internet.

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AFFIDAVIT OF PUBLICATION

Trimaine Smith
Monica Arsenault
Cocoa City Hall
65 Stone Street
Cocoa FL 32922

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BRE Brevard Florida Today 09/25/2026
BRE floridatoday.com 09/25/2026

Affiant further says that the website or newspaper complies with all legal requirements for publication in chapter 50, Florida Statutes.
Subscribed and sworn to before me, by the legal clerk, who is personally known to me, on 09/25/2026

Legal Clerk

Notary, State of WI, County of Brown

8.25.30

My commission expires

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PLANNING & ZONING AGENDA ITEM

Memo Date:	09/21/2026
Agenda Date:	10/7/2026
Prepared By:	Lucilene Ribeiro, Planner
Through:	Stockton Whitten, City Manager
Requested Action:	Consideration of a large-scale site plan for Sky Powersports, a powersports vehicle display, sales, and maintenance facility totaling approximately 52,550 square feet. The site is generally located on State Road 524, west of Interstate 95 in Cocoa, Florida, and is identified by Parcel ID: 24-35-27-00-16

BACKGROUND:

The applicant, R&R Cocoa, LLC, is requesting approval of a Large-Scale Site Plan to develop Sky Powersports Cocoa on approximately 4.92 acres at 995 Friday Road, generally at the intersection of State Road 524 and Friday Road.

The proposed development includes a one-story powersports vehicle dealership of approximately 52,500-52,550 square feet, along with vehicle display areas, service facilities, parking, loading, internal circulation, landscaping, utilities, stormwater management facilities, and associated site improvements. The project is proposed for construction in one phase.

The property is zoned C-G, General Commercial, and contains both Commercial and Conservation Future Land Use designations. The Development Review Committee (DRC) has completed its review; however, a few outstanding items remain to be addressed, including comments from the Utilities Department and inconsistencies among the development plans, Environmental Considerations Report, and SJRWMD documentation regarding the proposed impacts to jurisdictional wetlands within the Conservation-designated portion of the property. The submitted documents identify approximately 0.16 to 0.21 acres of direct wetland impact: the current construction plans identify approximately 0.21 acres, while the Environmental Considerations Report identifies approximately 0.16 acres. In addition to reconciling the proposed wetland-impact acreage across the applicable documents, the proposed impacts must demonstrate consistency with the wetland-impact and mitigation provisions of the City's Comprehensive Plan, including **C**onservation Element Policy 12.1.6.15(D)(3) regarding impacts to low-quality wetlands and the associated mitigation requirements.

Background and existing conditions

The property is bounded by State Road 524 to the northwest, Friday Road to the northeast, and vacant vegetated properties to the southeast and southwest. Existing grades are relatively flat with a general slope away from SR 524.

According to the applicant's Stormwater Report, the subject property and surrounding

properties were originally part of the larger Sabal Trails master-planned development (SJRWMD) Permit Nos. 15666-1 through 15666-8. Although the Sabal Trails development was not completed as originally proposed, the associated master drainage infrastructure, including a series of ponds and ditches, was constructed and remains in operation. Stormwater from the project area ultimately reaches the existing Sabal Trails drainage system before being conveyed toward SR 520 and the St. Johns River.

A jurisdictional wetland occurs near the eastern portion of the project site and extends onto the adjoining property. An existing surface-water feature is also located along the southwestern property boundary. The applicant's environmental consultant, Montrose Environmental Solutions, Inc., performed an ecological assessment and delineated jurisdictional wetlands and surface waters associated with the project.

Site Plan Analysis

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

Consistency with Code of the City of Cocoa
The Development Review Committee, consisting of the Building Official, the Code Enforcement Manager, the Environmental Control Coordinators, the Fire Department Chief and/or Inspector, the Planning & Zoning Manager and/or staff, the Public Works Director, and the Utilities Director, have reviewed the site plan and determined that it generally meets the minimum requirements of all applicable City Code requirements.

The Large-Scale Site Plan proposes development of a one-story, approximately 52,500-square-foot powersports dealership. The current plans identify 25-foot setbacks in the front, 20 feet along the corner side and rear, and 0 feet for the applicable interior side-yard standard. The proposed building height and FAR are below the maximums identified in the submitted site data.

The plans also provide outdoor vehicle-display areas, customer and employee parking, loading facilities, internal drive aisles, and associated site improvements.

	Future Land Use Designations	Zoning Districts	Land Uses
North	Commercial	Wholesale Commercial (CW) and General Commercial (C-G)	Fuel Station | Vacant Land
South	Commercial | Conservation	General Commercial (C-G)	Vacant Land
East	Commercial	General Commercial (C-G)	Car wash | Auto repair
West	Brevard County Neighborhood Commercial (NC)	Brevard County Zoning TR-1 Single Family Mobile Home	Vacant Land

Parking and Internal Circulation

The submitted site plan calculates a requirement of 98 parking spaces based upon the proposed motor vehicle sales and service components. The applicant proposes 131 spaces: 126 standard and five accessible. The plans identify 34 employee spaces and 97 customer spaces. The site includes designated vehicle-display areas and a 50-foot-by-14-foot loading zone. Drive aisles provide internal circulation connecting the parking, display, loading, and service areas.

The site plan also identifies a retaining wall with a 42-inch railing or fence. The retaining wall is to be designed under a separate permit, constructed with the site improvements, and paid for and maintained by the property owner. This clarification responds to Public Works' second-round review comment.

Transportation

Based on the trip-generation information provided on the site plan, the project is estimated to generate approximately 1,463 average daily trips (ADT), including approximately 98 trips during the AM peak hour and 128 trips during the PM peak hour. The trip-generation estimate is based on ITE Land Use Code 840, Automobile Sales.

The property is located in the vicinity of Friday Road and State Road 524 (SR 524). Brevard County maintains Friday Road as a collector roadway, while the Florida Department of Transportation (FDOT) maintains SR 524. The City Comprehensive Plan establishes a minimum Level of Service (LOS) standard of E for Friday Road between SR 524 and SR 520.

According to the Space Coast Transportation Planning Organization (SCTPO) Traffic Data Management System, Friday Road near SR 524 currently carries approximately 1,850 vehicles per day and is identified as operating at LOS A. The directional traffic count is approximately 940 vehicles northbound and 910 vehicles southbound. These

data indicate that Friday Road is presently operating substantially above the City's adopted minimum LOS E standard, with relatively low existing traffic volumes.

SR 524 carries substantially greater traffic volumes and serves as the principal arterial roadway in the vicinity of the project. Available transportation data indicate that SR 524 has experienced increasing traffic demand associated with existing and approved development within the corridor. FDOT is advancing improvements to SR 524 from Friday Road to Industry Road to address future transportation demand, traffic operations, and safety. The proposed improvements include widening the existing two-lane roadway to a four-lane divided facility, along with improvements to the I-95 interchange and multimodal facilities.

Based on the existing information available to staff, Friday Road currently operates at LOS A with an AADT of approximately 1,850 vehicles, compared with the City's adopted minimum LOS E standard. The available data therefore indicate Friday Road's existing operational capacity. However, because project-specific trip distribution has not been provided, staff cannot quantify Friday Road's post-development LOS or determine how many project-generated trips will be assigned to Friday Road versus SR 524.

SR 524 presents a different condition because it is the higher-volume arterial serving the project area. Accordingly, while available transportation information does not indicate an existing LOS deficiency on Friday Road, the project will add trips to the surrounding roadway network, including SR 524. The proposed development will remain subject to applicable transportation, access, and FDOT requirements associated with development along the SR 524 corridor.

Utilities

Potable water and sanitary sewer service will be provided by the City of Cocoa Utilities Department. The applicant utility report identifies potable-water service for the building, fire sprinkler system, private fire hydrant, and irrigation system. Sanitary sewer service will include a lateral, two private sanitary manholes, and a gravity main.

During DRC review, Utilities requested revisions to the fire department connection, RPZ/backflow configuration, and utility-detail references. The applicant's September 21, 2026, response states that the FDC was removed from the backflow preventer assembly and relocated to the adjacent landscape island, the 3-inch RPZ was revised to be directly downstream of the 3-inch water meter, and the potable-water service detail reference was corrected. After addressing these comments, Utilities issued another round of comments on September 30, 2026, which must be addressed before final approval within 90 days of the hearing date.

Stormwater management and floodplain

The City of Cocoa and the St. Johns River Water Management District (SJRWMD) have jurisdiction over stormwater management. The existing property is generally flat

and drains away from SR 524. An existing surface-water feature along the southwestern property boundary conveys runoff from the SR 524 area through the project vicinity toward downstream drainage infrastructure.

The project proposes a stormwater management system that ultimately discharges to a spreader swale, then by overland flow through adjoining property toward an existing lake and the larger drainage system.

SJRWMD issued Environmental Resource Permit No. 15666-10 on October 3, 2025, authorizing construction and operation of the stormwater management system for the 4.92-acre Sky Powersports Cocoa project based upon plans received by the District on September 5, 2025.

The Comprehensive Plan Capital Improvements Element establishes a stormwater level of service based on the 25-year/24-hour design event, requires applicable on-site retention, limits post-development runoff rates, quantities, peaks, and velocities to pre-development levels or less, and requires avoiding significant degradation of receiving-water quality.

According to FEMA FIRM Panel 12009C0425G, portions of the property are mapped as Zone X and Zone A. However, the applicant's stormwater report references the April 2014 West Cocoa Watershed Evaluation and states that the project site is not within the modeled 100-year floodplain under that study. Final development remains subject to applicable City, SJRWMD, and other regulatory requirements.

Environmental Conditions And Wetland Impacts

This component of the application requires consideration because the property's Future Land Use Map contains both Commercial and Conservation designations.

Montrose Environmental Solutions completed an Environmental Considerations Report for the approximately five-acre project site. Jurisdictional wetlands and surface waters were identified and evaluated as part of the environmental assessment. The environmental report characterizes the on-site wetland and non-wetland systems proposed for impact as low- to moderate-quality for providing foraging, nesting, resting, and denning habitat for wetland-dependent wildlife species. The report identifies approximately 0.21 acres of direct impact to Wetland W1 and 0.17 acres of direct impact to non-wetland surface water SW1. However, Sheet C04.2 contains conflicting information regarding the direct impact to Wetland W1, identifying 0.16 acres within the impact-area callout and 0.21 acres elsewhere on the sheet.

Staff has requested clarification of these discrepancies from the applicant. Any supplemental documentation received prior to the Planning and Zoning Board hearing will be incorporated into or provided as an update to the staff analysis.

Mitigation

The proposed mitigation for wetland impacts is purchasing mitigation-bank credits. A September 30, 2025, reservation letter from Farmton Mitigation Bank - South confirms reservation of 0.13 Freshwater State Herbaceous UMAM credits for Sky Powersports Cocoa under SJRWMD Application/Permit No. 15666-10. SJRWMD separately acknowledged receipt of the mitigation-bank credit transaction application for the same 0.13 herbaceous freshwater credits associated with Sky Powersports Cocoa.

The City Comprehensive Plan recognizes mitigation as a mechanism for offsetting unavoidable environmental impacts. Policy 12.1.6.15 nevertheless requires that mitigation and development remain consistent with the City Comprehensive Plan even where a state or regional permit has been issued. The policy establishes a preferred order for the location of mitigation, beginning with on-site mitigation and extending to other locations as identified in the policy.

Tree Mitigation

Trees located within the proposed building footprint and within 7.5 feet of the building footprint are exempt from the applicable tree replacement requirement and are not included in the mitigation calculation. The applicant's Tree Replacement Calculation Table identifies a total replacement requirement of 1,806 inches for protected trees proposed for removal. The landscape plan provides 637 inches of replacement trees and an additional 3 inches of preservation credit, resulting in a total of 640 inches credited toward the protected-tree replacement requirement. This leaves a remaining deficit of 1,166 replacement inches. Based on the mitigation rate of $100 per replacement inch, the applicant identifies a required payment of $116,600 to the City's Arbor Mitigation Fund to satisfy the remaining protected-tree mitigation requirement. The specimen-tree mitigation is calculated separately. The plan identifies 104 inches of required specimen-tree replacement and provides 105 inches through proposed plantings, resulting in no remaining specimen-tree deficit and no additional specimen-tree mitigation payment. Accordingly, the landscape plan proposes to satisfy the overall tree mitigation obligation through a combination of onsite replacement plantings, preservation credit, and payment of the remaining protected-tree deficit into the City's Arbor Mitigation Fund.

Consistency with Comprehensive Plan Policies and Objectives

Commercial Future Land Use

The upland portion of the property is designated Commercial (COMM). Policy 1.1.2.9 states that Commercial areas are intended to serve several neighborhoods and subregional and regional areas and provide an array of retail, personal and professional uses. The Commercial designation permits a maximum FAR of 1.0 outside the special redevelopment provisions identified by the policy.

The proposed FAR of approximately 0.25 is below the maximum 1.0 FAR applicable to

the Commercial designation. The proposed powersports vehicle dealership is therefore consistent with the commercial character of the upland Future Land Use designation, subject to the separate requirements applicable to the Conservation-designated wetland area.

C*onservation Future Land Use and Wetland Protection*

Policy 1.1.2.13 establishes the Conservation Future Land Use category to protect environmentally sensitive natural resource systems and provides that allowable uses, intensities, and impacts within Conservation areas shall be consistent with the Conservation Element. The policy also provides that Conservation boundaries may be adjusted to correspond with an SJRWMD wetland jurisdictional line determination without requiring a Comprehensive Plan amendment. In this instance, the affected area remains a jurisdictional wetland; therefore, the wetland impact provisions of Conservation Element Policy 12.1.6.15 apply.

Policy 12.1.6.15 requires development to avoid or, where unavoidable, minimize wetland impacts and allows wetland losses only after reasonable avoidance measures have been considered and appropriate mitigation is provided. More specifically, Policy 12.1.6.15.D.3 provides that where SJRWMD determines that a wetland, or portion thereof, is low quality and has minimal restoration potential, and beneficial restoration or enhancement of another wetland will occur through mitigation permitting development within the affected low-quality wetland, the applicable Future Land Use category shall apply.

The applicant's environmental assessment collectively characterizes the on-site wetland and non-wetland systems proposed for impact as low-to-moderate quality and concludes that the project has minimized impacts to the fullest practical extent. However, the assessment does not separately classify the affected portion of Wetland W1 as low quality or document that it has minimal restoration potential. Accordingly, the documentation currently provided does not establish that the affected portion of Wetland W1 satisfies the criteria of Policy 12.1.6.15.D.3.

SJRWMD subsequently issued Environmental Resource Permit No. 15666-10, and the applicant has provided documentation regarding the reservation of 0.13 UMAM mitigation credits. While these documents address the environmental permitting and mitigation requirements associated with the proposed wetland impacts, the documentation currently provided to the City does not independently establish the specific low-quality and minimal-restoration-potential criteria of Policy 12.1.6.15.D.3.

If the affected portion of Wetland W1 is demonstrated to satisfy the criteria of Policy 12.1.6.15.D.3, the applicable Future Land Use category Commercial may apply to that area as provided by the Comprehensive Plan. Additional documentation addressing the criteria of Policy 12.1.6.15.D.3 is therefore necessary before staff can determine that the proposed development within the Conservation-designated wetland area is consistent with the Comprehensive Plan.

Comprehensive Plan Consistency

Staff reviewed the proposed Large-Scale Site Plan against the applicable Goals, Objectives, and Policies of the Comprehensive Plan.

The proposal is generally consistent with Goal 1.1, which seeks thoughtful, planned development while protecting public health, safety, welfare, appearance, and natural resources. The proposed commercial use is consistent with the Commercial Future Land Use designation applicable to the upland portion of the property and remains below the maximum FAR established for that designation.

The environmental component requires application of Policies 1.1.2.13 and 12.1.6.15. The project proposes impacts to an existing jurisdictional wetland located within an area identified as Conservation on the Future Land Use Map. The Conservation Element expressly provides a mechanism for development within qualifying low-quality wetlands where the requirements of Policy 12.1.6.15.D.3 and the City mitigation provisions are satisfied.

The project has received an SJRWMD ERP, proposes mitigation through an approved mitigation bank, and has reserved 0.13 freshwater herbaceous UMAM credits. Staff therefore finds that the proposed development can be found consistent with the Comprehensive Plan subject to the conditions identified below, including confirmation that the affected wetland satisfies Policy 12.1.6.15.D.3.

PRIORITY AREA CONNECTION:
Economic and Community Development

BUDGETARY IMPACT:
N/A

PREVIOUS ACTION:
None

RECOMMENDED MOTION:
Staff recommends APPROVAL of the Large-Scale Site Plan for Sky Powersports, subject to the following conditions:

1. Prior to development within the area designated Conservation on the Future Land Use Map, the applicant shall provide documentation demonstrating that the affected wetland satisfies the criteria of Comprehensive Plan Policy 12.1.6.15.D.3. Upon satisfaction of the requirements of Policy 12.1.6.15.D.3, the applicable

Commercial Future Land Use category shall apply to the affected area as provided by the Comprehensive Plan.

2. The construction plans shall be revised to identify ductile iron pipe (DIP) for the water line at the water and sanitary sewer crossing, in accordance with City of Cocoa Utilities requirements.

3. The proposed public fire hydrant shall be located within the proposed utility easement.

4. The proposed 8-inch by 8-inch tee shall be revised, as the current plans depict four connections. Revise the fire hydrant connection to provide an upstream tap with an anchoring tee, in accordance with the applicable City of Cocoa fire hydrant details.

5. The proposed 3-inch PVC water line shall be revised to a minimum 4-inch PVC water line, as 3-inch PVC water lines are not permitted by City of Cocoa Utilities.



N

COCOA
FLORIDA

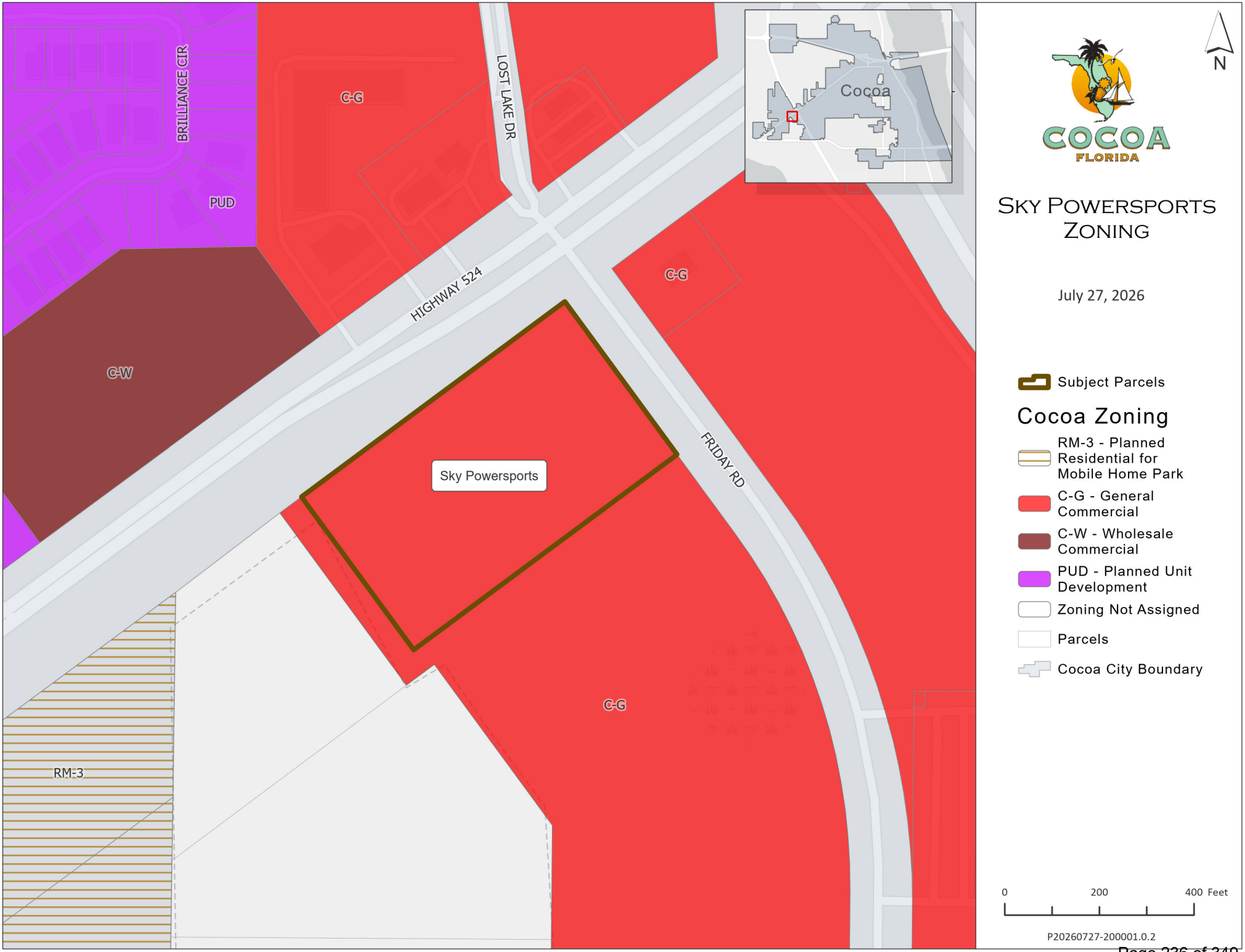
Sky Powersports Location

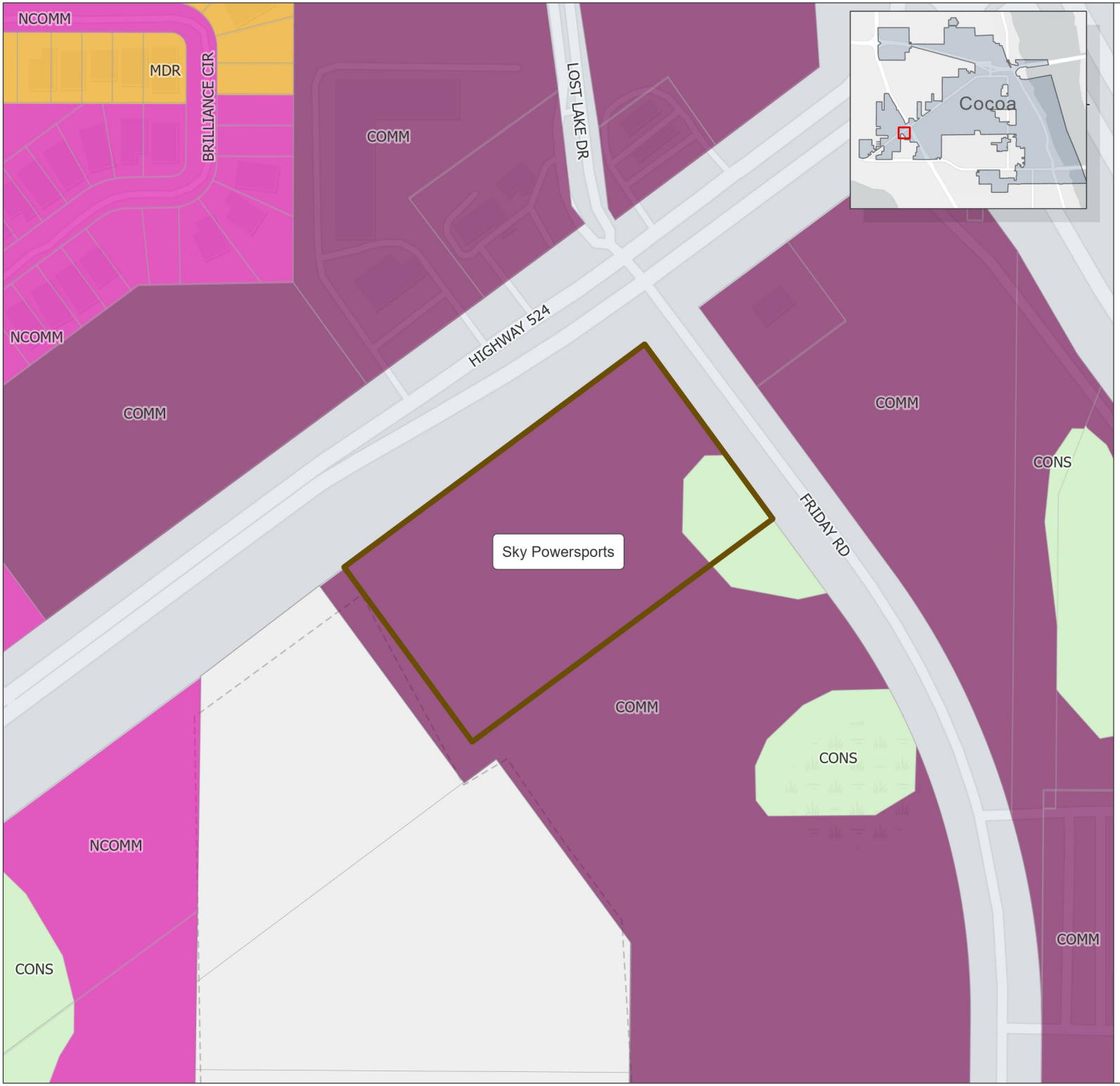
July 27, 2026

Subject Parcels
Parcels
Cocoa City Boundary

0 200 400 Feet

P20260727-200001.0.1


BRILLIANCE CIR
C-G
LOST LAKE DR
PUD
HIGHWAY 524
C-G
C-W
Sky Powersports
FRIDAY RD
C-G
RM-3
Cocoa
N
COCOA
FLORIDA
SKY POWERSPORTS ZONING
July 27, 2026
Subject Parcels
Cocoa Zoning
RM-3 - Planned Residential for Mobile Home Park
C-G - General Commercial
C-W - Wholesale Commercial
PUD - Planned Unit Development
Zoning Not Assigned
Parcels
Cocoa City Boundary
0
200
400 Feet
P20260727-200001.0.2



Sky Powersports Future Land Use

July 27, 2026

N

COCOA FLORIDA

Subject Parcels

Future Land Use

- Medium Density Residential
- Neighborhood Commercial
- Commercial
- Conservation
- Parcels
- Cocoa City Boundary

0 200 400 Feet

P20260727-200001.0.3

FINAL CONSTRUCTION PLANS

FOR

SKY POWER SPORTS

COCOA, FLORIDA 32926

PARCEL ID: 24-35-27-00-16

Digitally signed by David Evans
DN: CN=David Evans, dnQualifier=A01410C0000019B8FB699D8002B5746, O=Evans Engineering, C=US
Date: 2026.09.21 17:11:22-04'00'

DAVID L. EVANS LICENSE No. 46586 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been electronically signed and sealed by David L. Evans P.E on the date and/or time stamp shown using a digital signature. A printed copies of this document are not considered signed and sealed and the signature must be verified by a 3rd Party Certificate of Authority on any electronic copy. FAC 61G15-23.004

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
C00.0	COVER SHEET
C01.0	GENERAL NOTES
C02.0	EXISTING CONDITIONS & DEMO PLAN
C03.0	SITE PLAN
C04.0	GRADING & DRAINAGE PLAN
C04.1	POND PLAN & DETAILS
C04.2	WETLAND DELINEATION & ENVIRONMENTAL CONSIDERATION
C05.0	UTILITY PLAN
C06.0	STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
C06.1	SWPPP NOTES & DETAILS
C07.0	CONSTRUCTION DETAILS
C08.0	UTILITY DETAILS
C08.1	UTILITY DETAILS
C08.2	UTILITY DETAILS
C09.0	FIRE TRUCK ROUTING

PROJECT TEAM:

OWNER
R&R COCOA LLC
1638 KATHLEEN ROAD,
LAKELAND, FL 33805
(407) 323-1150

APPLICANT
MCKEE CONSTRUCTION CO.
717 MONROE ROAD,
SANFORD, FL 32771
(407) 872-1515

CIVIL ENGINEER
EVANS ENGINEERING, INC.
719 IRMA AVENUE
ORLANDO, FL 32803
(407) 872-1515

SURVEYOR
SCOTT'S SURVEYING SERVICES, INC
8 S HWY 17-92, SUITE 8A
DEBARY, FL 32713
(386) 668-7332

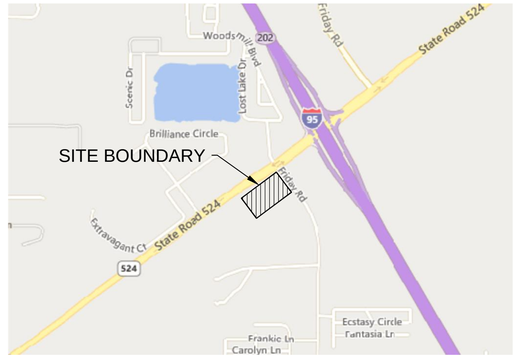
LANDSCAPE ARCHITECT
CATALYST DESIGN GROUP
1085 W MORSE BOULEVARD
WINTER PARK, FL 32789
(689) 219-8900

GEOTECHNICAL ENGINEER
BECHTOL ENGINEERINGS & TESTING, INC.
605 W NEW YORK AVENUE, SUITE A
DELAND, FL 32720
(386) 734-84444

LANDSCAPE ARCHITECT
CATALYST DESIGN GROUP
1085 W MORSE BOULEVARD
WINTER PARK, FL 32789
(689) 219-8900

UTILITY PROVIDERS:

POTABLE WATER, REUSE WATER, SEWER
CITY OF COCOA UTILITIES
351 SHEARER BOULEVARD
COCOA, FL 32922
(321) 433-8797



VICINITY MAP

SCALE: 1" = 1000'

"LEGAL DESCRIPTION"

A PARCEL OF LAND LYING IN SECTION 27, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF THE NORTHEAST ONE QUARTER OF SAID SECTION 27; THENCE NORTH 00 DEGREES 21'39" EAST, ALONG THE EAST LINE OF SAID NORTHEAST ONE QUARTER, A DISTANCE OF 600.01 FEET TO A POINT ON THE SOUTH LINE OF A 60.00 FOOT WIDE FLORIDA POWER AND LIGHT COMPANY TRANSMISSION EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK 539, PAGE 184. OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA; THENCE NORTH 89 DEGREES 57'35" WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 50.00 FEET, TO A POINT ON THE WEST RIGHT OF WAY LINE OF FRIDAY ROAD, A 100.00 FOOT WIDE RIGHT OF WAY, AND THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL, THENCE CONTINUE NORTH 89 DEGREES 57'35" WEST, ALONG THE SOUTH LINE OF SAID TRANSMISSION EASEMENT, A DISTANCE OF 610.00 FEET; THENCE NORTH 00 DEGREES 21'39" EAST, A DISTANCE OF 157.47 FEET; THENCE SOUTH 89 DEGREES 38'21" EAST, A DISTANCE OF 55.00 FEET; THENCE NORTH 00 DEGREES 21'39" EAST, A DISTANCE OF 290.01 FEET; THENCE NORTH 36 DEGREES 36'18" WEST, A DISTANCE OF 370.10 FEET; THENCE SOUTH 53 DEGREES 23'42" EAST, ALONG SAID SOUTH RIGHT OF WAY LINE, A DISTANCE OF 659.08 FEET, RIGHT OF WAY; THENCE NORTH 53 DEGREES 23'42" EAST, ALONG SAID SOUTH RIGHT OF WAY LINE, A DISTANCE OF 659.08 FEET, TO A POINT ON THE WEST RIGHT OF WAY LINE OF SAID FRIDAY ROAD; THENCE SOUTH 36 DEGREES 36'18" EAST, ALONG SAID 1096.28 FEET AND A CENTRAL ANGLE OF 36 DEGREES 57'57"; THENCE SOUTHERLY, ALONG SAID WEST RIGHT OF WAY LINE AND ALONG THE ARC OF SAID CURVE TO THE RIGHT, A DISTANCE OF 707.29 FEET, TO A POINT OF TANGENCY; THENCE SOUTH 00 DEGREES 21'39" WEST, ALONG SAID WEST RIGHT OF WAY LINE A DISTANCE OF 328.14 FEET, TO THE POINT OF BEGINNING; BEING SUBJECT TO FLORIDA POWER AND LIGHT COMPANY TRANSMISSION EASEMENTS OVER THE SOUTH 230.00 FEET AS DESCRIBED IN OFFICIAL RECORDS BOOK 539, PAGE 184 AND OFFICIAL RECORDS BOOK 47, PAGE 210, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.

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EVANS ENGINEERING, INC.
CIVIL ENGINEERING LAND PLANNING PERMITTING SERVICES
719 IRMA AVENUE
ORLANDO, FLORIDA 32803
(407) 872-1515
www.evansenginc.com
CERTIFICATE OF AUTHORIZATION NO. 00006788

FDOT DRAINAGE NOTE: PROJECT IS TO BE PRIVATELY OWNED, OPERATED, AND MAINTAINED BY R&R COCOA, LLC.

J:\JOBS\J1604 - Sky Power Sports Cocoa\CAD\Final\J1604 C00.0 COVER SHEET.dwg (C1.0 COVER SHEET) Plotted on: Sep 21, 2026 - 4:48pm by Hung Tran

STANDARD SPECIAL PURPOSE NOTES:

1. NO EQUIPMENT EXTENDING HIGHER THAN 15 FT. ABOVE EXISTING GRADE SHALL BE USED WITHIN POWER EASEMENTS.

GENERAL NOTES:

1. THESE GENERAL NOTES APPLY TO ALL WORK IN THIS SET OF DRAWINGS.

2. CONTRACTOR SHALL REVIEW ALL PERMITS PRIOR TO CONSTRUCTION FOR ANY CHANGES TO THE DESIGN INCLUDED THEREIN. NOTIFY ENGINEER/OWNER OF ANY REQUIRED CHANGES PRIOR TO CONSTRUCTION.

3. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR(S) TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND ARE IN HAND AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL ABIDE BY ALL CONDITIONS CONTAINED THEREIN. PERMITS INCLUDED (BUT NOT NECESSARILY LIMITED TO) ARE:
   - WATER MANAGEMENT DISTRICT CONSUMPTIVE USE (WATER USE) FOR CONSTRUCTION DEWATERING
   - WATER MANAGEMENT DISTRICT ENVIRONMENTAL RESOURCE PERMIT
   - FDEP WATER DISTRIBUTION
   - FDEP DREDGE AND FILL
   - ACOE INDIVIDUAL DREDGE AND FILL
   - LOCAL RIGHT OF WAY USE
   - LOCAL UNDERGROUND UTILITIES
   - EPA NPDES STORMWATER PERMIT

4. CONTRACTOR IS ADVISED THAT THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REQUIRES THAT OPERATORS FILE A NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NPDES GENERAL PERMIT PRIOR TO BEGINNING WORK. IT IS CONTRACTOR'S SOLE RESPONSIBILITY TO OBTAIN SAME. A COPY SHALL BE SENT TO EVANS ENGINEERING, INC.

5. FLORIDA LAW (F.S. 553.851) PROTECTION OF UNDERGROUND PIPELINES MANDATES THAT "NO EXCAVATOR SHALL COMMENCE OR PERFORM ANY EXCAVATION IN ANY PUBLIC OR PRIVATE STREET, ALLEY, RIGHT-OF-WAY DEDICATED TO THE PUBLIC USE, OR GAS UTILITY EASEMENT WITHOUT FIRST OBTAINING INFORMATION CONCERNING THE POSSIBLE LOCATION OF GAS PIPELINES IN THE AREA OF THE PROPOSED EXCAVATION." THIS INCLUDES ANY OPERATION UTILIZING HAND TOOLS OR POWER TOOLS WHICH MOVES OR REMOVES ANY STRUCTURE, EARTH, ROCK, OR OTHER MASS OF MATERIAL BY SUCH METHODS AS DIGGING, BACKFILLING, DEMOLITION, GRADING, DITCHING, DRILLING, BORING AND CABLE PLOWING. THE EXCAVATOR MUST NOTIFY THE GAS UTILITY A MINIMUM OF 48 HOURS AND A MAXIMUM OF 5 DAYS PRIOR TO EXCAVATING (EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS).

6. CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITY COMPANIES OF PROPOSED START OF WORK IN ACCORDANCE WITH THEIR STANDARD REQUIREMENTS; INCLUDING BUT NOT LIMITED TO WATER, SEWER, POWER, TELEPHONE, GAS AND CABLE TV COMPANIES.

7. CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN TO BOTH CITY/COUNTY AND EVANS ENGINEERING, LLC ENGINEERS FOR APPROVAL PRIOR TO SCHEDULING THE PRE-CONSTRUCTION MEETING.

8. PRIOR TO COMMENCEMENT, CONTRACTOR SHALL PROVIDE EVANS ENGINEERING , INC. WITH CONSTRUCTION SCHEDULE FOR VARIOUS SITE WORK ELEMENTS SO THAT PERIODIC SITE VISITS MAY BE COORDINATED TO ENSURE TIMELY CERTIFICATION OF COMPLETION TO AGENCIES AND AVOID DELAYS IN ISSUANCE OF CERTIFICATES OF OCCUPANCY/COMPLETION.

9. THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS FOR FIELD LOCATIONS AND FOR ANY RELOCATIONS OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH SHALL BE DONE IN A TIMELY FASHION TO MINIMIZE IMPACT ON THE CONSTRUCTION SCHEDULE. ANY DELAY OR INCONVENIENCE CAUSED THE CONTRACTOR BY THE RELOCATION OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.

10. ANY DIFFERING SITE CONDITIONS FROM THAT WHICH IS REPRESENTED HEREON, WHETHER ABOVE, ON OR BELOW THE SURFACE OF THE GROUND, SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND OWNER IN WRITING. NO CLAIM FOR EXPENSES INCURRED BY THE CONTRACTOR DUE TO DIFFERING SITE CONDITIONS WILL BE ALLOWED IF CONTRACTOR FAILS TO PROVIDE THE REQUIRED WRITTEN NOTIFICATION OF SUCH CONDITIONS FOR REVIEW BY THE ENGINEER AND OWNER.

11. CONTRACTOR SHALL PROTECT ADJACENT LAKES AND WETLANDS AND ALL ADJACENT PROPERTIES FROM DAMAGE BY SEDIMENTATION OR OTHER POTENTIAL CONSTRUCTION RELATED CAUSES.

12. ALL RECOMMENDATIONS AND REQUIREMENTS OF INSPECTION PERSONNEL OTHER THAN OWNER'S SHALL BE REPORTED TO ENGINEER/OWNER PRIOR TO IMPLEMENTATION. COMPENSATION WILL NOT BE ALLOWED FOR WORK WHICH IS NOT AUTHORIZED BY ENGINEER/OWNER.

13. CONTRACTOR SHALL BE EXTREMELY CAUTIOUS WHEN WORKING NEAR TREES WHICH ARE TO BE SAVED, WHETHER SHOWN IN THE PLANS OR DESIGNATED IN THE FIELD. CONTRACTOR SHALL BECOME FAMILIAR WITH AND CONFORM WITH ALL TREE PROTECTION/PRESERVATION PROVISIONS OF THE CONTRACT DOCUMENTS AND LOCAL GOVERNMENT.

14. ALL WORK SHALL BE OPEN TO AND SUBJECT TO INSPECTION BY AUTHORIZED PERSONNEL OF THE COUNTY/CITY, OWNER, INVOLVED UTILITY COMPANIES, PROJECT ENGINEER AND REGULATORY AGENCIES.

15. CONTRACTOR SHALL STAKE ALL IMPROVEMENTS USING THE PLAT AND COORDINATES PROVIDED IN THESE PLANS. CONTRACTOR SHALL CONFIRM WITH THE ENGINEER THAT THE PLAT IS CURRENT PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CONFIRM THE BUILDING DIMENSIONS SHOWN HEREIN WITH THOSE IN THE FINAL ARCHITECTURAL DRAWINGS PRIOR TO STAKEOUT. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLETELY STAKE AND CHECK ALL IMPROVEMENTS TO ENSURE ADEQUATE POSITIONING, BOTH HORIZONTAL AND VERTICAL, INCLUDING MINIMUM BUILDING SETBACKS PRIOR TO THE INSTALLATION OF ANY IMPROVEMENT.

16. CONTRACTOR SHALL CONFIRM COMPATIBILITY OF PIPE SLOPES AND INVERTS DURING SHOP DRAWING AND MATERIALS ORDERING PHASE OF PROJECT AND ADVISE ENGINEER OF ANY DISCREPANCIES.

17. CONTRACTOR SHALL FURNISH OWNER WITH SURVEYED RECORD DRAWINGS SHOWING AS-CONSTRUCTED HORIZONTAL AND VERTICAL DIMENSIONING OF THE WORK. THE SUBMITTAL COPY OF THE RECORD DRAWINGS WILL NOT BE RETURNED. THE RECORD DRAWING OR A REPRODUCIBLE COPY PREPARED BY ENGINEER SHALL BE CERTIFIED BY THE CONTRACTOR AS CORRECT. ALL INFORMATION WHICH IS UNCHANGED AND CURRENT SHALL BE NOTED BY CHECKING OFF OR CIRCLING. ALL REVISED INFORMATION SHALL BE CROSSED THROUGH AND NEW DATA ADDED. ADDITIONAL REQUIREMENTS ARE NOTED IN PAVING, GRADING AND DRAINAGE AND WATER AND SEWER NOTES.

18. CONTRACTOR SHALL CERTIFY VIA THE RECORD DRAWINGS THAT CONSTRUCTION CONFORMS WITH THE FOLLOWING CRITERIA:

    STORMWATER MANAGEMENT AREAS, MAINTENANCE BERMS, BERM BACK SLOPES AND OUTFALL CONVEYANCE ARE CONSTRUCTED WITHIN DESIGNATED TRACT OR EASEMENT.
    ELEVATIONS ARE WITHIN THE FOLLOWING SPECIFIED TOLERANCES OF DESIGN ELEVATIONS:
    TOP OF BERM, TOE OF SLOPE, POND BOTTOM +/- 0.50 FT.
    OUTFALL STRUCTURE AND PIPING +/- 0.20 FT.
    PIPE INVERTS, GUTTER LINE AND ROAD CENTERLINE AT SAG INLETS +/- 0.20 FT.
    COMPENSATING STORAGE AREAS +/- 0.50 FT.

19. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOUND BETWEEN DRAWINGS AND THE FIELD CONDITIONS PRIOR TO CONSTRUCTION IN THE AREA IMPACTED BY THE CONFLICT.

20. NO EXISTING MATERIAL SHALL BE USED IN NEW CONSTRUCTION UNLESS APPROVED DURING THE SHOP DRAWING APPROVAL PROCESS.

21. THE CONTRACTOR SHALL VERIFY THE LIMIT, DEPTH AND TYPE OF EXISTING FRICTION COURSE, IF ANY, PRIOR TO INITIATING OFFSITE ROADWAY IMPROVEMENTS.

PAVING, GRADING & DRAINAGE NOTES:

1. THE GENERAL NOTES SHOWN ON DRAWING 1 APPLY TO PAVING, GRADING AND DRAINAGE WORK.

EXISTING TOPOGRAPHY AND CONTOURS ARE BASED ON THE FOLLOWING: SCOTT'S SURVEYING SERVICES, INC.

2. BENCHMARK LOCATION AND ELEVATION ARE AS REPRESENTED BY SURVEYOR AT THE TIME OF THE SURVEY. CONTRACTOR SHALL VERIFY ITS CORRECTNESS AT TIME OF CONSTRUCTION.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SURVEY MONUMENTATION. DISTURBED MONUMENTATION SHALL BE RESTORED BY A LICENSED LAND SURVEYOR AS DIRECTED BY THE OWNER AT CONTRACTOR'S EXPENSE.

4. SITE GRADING, PAVING AND DRAINAGE MATERIALS AND CONSTRUCTION SHALL CONFORM TO FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION (AND CITY/COUNTY REGULATORY STANDARD SPECIFICATIONS).

5. IMMEDIATELY AT ONSET OF CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES CRITICAL TO COMPLETING THE PROJECT (INCLUDING WATER, SEWER, POWER, TELEPHONE, GAS, AND CABLE TV) AND SHALL EVALUATE POTENTIAL CONFLICTS. ALL SUCH CONFLICTS SHALL BE REPORTED TO ENGINEER/OWNER IMMEDIATELY UPON DISCOVERY.

6. CONTRACTOR SHALL INSTRUCT THE GEOTECHNICAL TESTING LABORATORY PROVIDING CONSTRUCTION TESTING TO PROVIDE EVANS ENGINEERING, INC. & OWNER WITH COPIES OF ALL SITE-WORK TEST REPORTS AS THEY ARE GENERATED. CONTRACTOR SHALL MAINTAIN THE RESPONSIBILITY OF CONSTRUCTING THE PROJECT IN STRICT ACCORDANCE WITH THE PROJECT PLANS, SPECIFICATIONS AND REQUIREMENTS. RECEIPT OF COPIES OF GEOTECHNICAL REPORTS BY EVANS ENGINEERING, INC. IN NO WAY OBLIGATES EVANS ENGINEERING, INC. TO ANY REVIEW, COMMENTS OR ACTIONS REGARDING THE WORK.

7. DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO INSURE AGAINST POLLUTING, SILTING, OR DISTURBING TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING DRAINAGE SYSTEM AND ADJACENT WATER BODIES AND WETLANDS. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL PERMIT REQUIREMENTS RELATED TO SUCH MEASURES. METHODS MAY INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION OF TEMPORARY EROSION CONTROL STRUCTURES SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, SILT BARRIERS, OR SILT SCREENS. ANY MEASURES SHOWN OR DETAILED IN THESE DRAWINGS SHALL BE CONSIDERED MINIMUMS AND SHALL NOT ALLEVIATE CONTRACTOR FROM THE RESPONSIBILITY TO IMPLEMENT ANY MEASURES NECESSARY TO PROVIDE PROTECTION.

8. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL FIELD STAKE AND ROPE OFF CONSERVATION AREA LINES. OWNER RESERVES THE RIGHTS TO CHECK THE STAKING AND ROPING AND REQUIRE IT TO BE RELOCATED IF NECESSARY. IT SHALL REMAIN IN PLACE UNTIL ADJACENT CONSTRUCTION IS COMPLETE.

9. NO WATER VALVE BOXES, METERS, PORTIONS OF MANHOLES, OR OTHER APPURTENANCES OF ANY KIND RELATING TO ANY UNDERGROUND UTILITIES SHALL BE LOCATED IN ANY PORTION OF A CURB-AND-GUTTER SECTION. ADVISE ENGINEER IMMEDIATELY UPON DISCOVERY OF A POTENTIAL CONFLICT.

10. ALL SIGNAGE, PAVEMENT MARKING AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS" AND FHWA "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."

11. REGULATORY SIGNS (STOP, ETC.) SHALL BE PAID FOR BY DEVELOPER AND IN PLACE PRIOR TO FINAL INSPECTION OF PAVING AND DRAINAGE IMPROVEMENTS.

12. BLUE REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED OPPOSITE FIRE HYDRANTS IN THE CENTER OF THE NEAREST TRAVELED LANE TO MARK THEIR LOCATIONS.

13. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING PROPER TRAFFIC MAINTENANCE AND CONTROLS IN ACCORDANCE WITH REGULATORY STANDARDS. WHERE A TRAFFIC MAINTENANCE PLAN IS REQUIRED, THE CONTRACTOR SHALL PREPARE AND SUBMIT THE PLAN FOR APPROVAL.

14. EVANS ENGINEERING, INC. SHALL PROVIDE ACCURATE AS-BUILT DIMENSIONS AND ELEVATIONS OF THE STORMWATER MANAGEMENT AREAS IN THE RECORD DRAWINGS.

15. GEOTECHNICAL SERVICES HAVE BEEN PROVIDED AS REFERENCED BELOW. GEOTECHNICAL RECOMMENDATIONS ARE NOT THE RESPONSIBILITY OF EVANS ENGINEERING, INC. EVANS ENGINEERING, INC. HAS RELIED ON THE BELOW REFERENCED GEOTECHNICAL REPORT(S) IN PREPARATION OF THE DRAWINGS. ANY CONFLICT BETWEEN INFORMATION WITHIN THE REPORT AND THESE DRAWINGS SHALL BE REPORTED TO ENGINEER/OWNER. EVANS ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR THE CORRECTNESS, COMPLETENESS OR ACCURACY OF GEOTECHNICAL INFORMATION. GEOTECHNICAL ENGINEER: BECHTOL ENGEERING AND TESTING, INC.

16. CONTRACTOR IS RESPONSIBLE FOR GRADING ALL PAVEMENTS TO DRAIN POSITIVELY. INTERSECTIONS SHALL BE TRANSITIONED TO PROVIDE SMOOTH DRIVING SURFACE WHILE MAINTAINING POSITIVE DRAINAGE. SHOULD AREAS OF POOR DRAINAGE BE OBSERVED, CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF CURBS OR PAVEMENT COURSES, SO THAT RECOMMENDATIONS FOR CORRECTION MAY BE MADE.

17. CONTRACTOR SHALL COORDINATE WITH MUNICIPAL AUTHORITY FOR PRE-POUR INSPECTION PRIOR TO ANY SIDEWALK AND/OR RAMP CONCRETE POURS. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THAT ALL RAMP TEXTURED SURFACES AND SIDEWALK LONGITUDINAL AND CROSS SLOPES ARE IN CONFORMANCE WITH LOCAL, STATE AND FEDERAL ADA STANDARDS.

18. PROPOSED AND EXISTING SIDEWALKS SHALL BE RAMPED FLUSH WITH PAVEMENT. RAMPS SHALL NOT EXCEED SLOPES OF 12 HORIZONTAL TO 1 VERTICAL.

19. FINISHED FLOOR ELEVATION IS TYPICALLY 6 INCHES ABOVE DESIGN FINISHED GRADE AT OUTSIDE PERIMETER OF BUILDINGS EXCEPT AT ENTRIES AND WHERE OTHERWISE SHOWN.

20. 100-YEAR FLOOD ELEVATIONS SHOWN HEREIN ARE DERIVED FROM FEMA/FLOOD INSURANCE RATE MAP OF CITY OF COCOCA, FLORIDA, MAP NUMBER 12009C0425G DATED MARCH 17, 2014.

21. FINISHED FLOOR ELEVATIONS ARE MINIMUM ELEVATIONS REQUIRED TO SATISFY DRAINAGE AND/OR 100-YEAR FLOODPLAIN REQUIREMENTS. PAD ELEVATIONS, IMMEDIATELY OUTSIDE OF BUILDING WALLS, SHALL BE NO MORE THAN 8 INCHES BELOW THE FINISHED FLOOR ELEVATIONS SHOWN.

22. ALL OFF-SITE DISTURBED AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION, OR BETTER.

23. OVER-EXCAVATION OF RETENTION BASINS SHALL NOT BE ALLOWED UNLESS SPECIFICALLY AUTHORIZED BY ENGINEER/OWNER. SHOULD UNAUTHORIZED OVER-EXCAVATION OCCUR, IT SHALL BE BACKFILLED, REGRADED, RESODDED AND/OR RESEEDED AS REQUIRED AT CONTRACTOR'S EXPENSE TO OWNER'S SPECIFICATIONS.

24. CONTRACTOR SHALL NOT COMPACT, STABILIZE, OR CONSTRUCT BASE COURSE WITHIN LANDSCAPE ISLANDS OR MEDIANS. WHERE SUCH TREATMENT DOES OCCUR, IT SHALL BE REMOVED AND REPLACED WITH SUITABLE PLANTING SOILS ACCEPTABLE TO OWNER'S LANDSCAPE ARCHITECT.

25. ENGINEER RESERVES THE RIGHT TO WITHHOLD AUTHORIZATION FOR PAYMENT FOR ANY ROADWORK WHICH HAS NOT BEEN TESTED BY A FLORIDA-REGISTERED GEOTECHNICAL ENGINEER AND REPORTED TO CONFORM TO PROJECT SPECIFICATIONS.

26. ELEVATIONS OF GRASSED AREAS ARE GIVEN AT FINISHED GRADE (TOP OF SOD OR SEEDED SURFACE).

27. SEE WATER AND SEWER NOTES FOR REQUIREMENTS AT CROSSINGS OF STORM DRAINS AND UTILITY PIPE.

28. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN CENTERLINES OF DRAINAGE STRUCTURES AND FROM INVERTS OF ENDWALLS AND/OR MITERED END SECTIONS. BIDDERS SHALL ADJUST FOR PIPE LENGTHS WHEN BIDDING MITERED END SECTIONS.

29. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND DISPOSING ALL WASTE MATERIALS CONSISTENT WITH ALL RULES AND REGULATIONS APPLICABLE TO THE SPECIFIC MATERIAL FOUND.

30. ROAD GRADING AND CONSTRUCTION SHALL INCLUDE BRINGING THE 10-FT. UTILITY EASEMENTS ADJACENT TO THE RIGHT-OF-WAY LINE TO WITHIN 6 INCHES OF FINAL DESIGN GRADE.

31. INLETS WHICH ARE GRAPHICALLY SHOWN ON LOT LINES AND NOT OTHERWISE LOCATED BY STATIONING SHALL BE LOCATED SUCH THAT THE CENTERLINE OF THE INLET BOTTOM IS ALIGNED WITH THE LOT LINE.

32. RETAINING WALL DESIGN BY OTHERS.

33. NEW PIPES SHALL BE CONNECTED TO EXISTING PIPES AT AN EXISTING FACTORY MADE JOINT. REMOVE PARTIAL PIPES IF AND AS NEEDED.

34. MINIMUM CURB SLOPE SHALL BE 0.30 PERCENT.

35. ALL MITERED END SECTIONS SHALL BE 2:1 FACE SLOPE UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

36. ALL SIDEWALKS DIRECTLY ADJACENT TO RETENTION POND ACCESS DRIVES SHALL BE 6 INCH THICK CONCRETE.

37. ALL PIPE END TREATMENTS SHALL CONFORM TO FDOT INDEX NO. 280, "CONCRETE JACKET FOR CONNECTING DISSIMILAR TYPES OF PIPE AND CONCRETE PIPES WITH DISSIMILAR JOINTS." CONTRACTOR MAY SUBMIT ALTERNATE DESIGN FOR REVIEW AND APPROVAL.

38. THE CURBS, CURB AND GUTTERS, CURB AND GUTTER ENDINGS, CONCRETE SIDEWALKS, SIDEWALK CURB RAMPS, DETECTABLE WARNINGS, DRIVEWAYS, CROSSWALKS, STOP MARKINGS AND SIGNS, MUST ALL COMPLY WITH THE FDOT STANDARDS.

39. CURB RAMPS SHALL BE 6" THICK.

40. CONTRACTOR MUST REPAIR THE EXISTING ROAD, SIDEWALKS, CURBS, LANDSCAPING, AND UTILITIES, IF IT IS DISTURBED BY THE CONSTRUCTION PROCESS.

41. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR MUST SUBMIT TO THE REGULATORY AGENCY SIGNED AND SEALED RECORD DRAWINGS ACCOMPANIED BY A CD WITH PDF AND ACAD FILES OF THE SIGNED AND SEALED RECORD DRAWINGS AS WELL AS AN EXCEL SPREADSHEET SHOWING THE COLLECTED X, Y, AND Z COORDINATES OF ASSETS.

MATERIAL SPECIFICATIONS (PAVING AND DRAINAGE):

1. PAVING MATERIALS SHALL CONFORM WITH FDOT STANDARD SPECIFICATIONS, LATEST EDITION AND CITY/COUNTY REGULATORY STANDARD SPECIFICATIONS.

2. STORM DRAINS SHALL BE REINFORCED CONCRETE PIPE, PER ASTM C-76 CLASS III, UNLESS OTHERWISE SPECIFIED. LIFTING HOLES ARE PROHIBITED.

3. ALL PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC. IN ALL OTHER MUNICIPALITIES PIPES BETWEEN LOTS, ADJACENT TO BUILDINGS OR BELOW THE WATER TABLE SHALL BE WRAPPED WITH FILTER FABRIC. FILTER FABRIC TO EXTEND A MINIMUM OF 3' TO EACH SIDE OF THE PIPE JOINT. THE FILTER FABRIC SHALL HAVE A MINIMUM OF 2' OF OVERLAP, AS IT IS WRAPPED AROUND THE PIPE JOINT.

4. ALL STORM STRUCTURES SHALL CONFORM WITH FDOT STANDARD INDEX DRAWINGS AND SPECIFICATIONS EXCEPT THAT DITCH BOTTOM INLETS IN PAVED AREAS SHALL HAVE TRAVERSABLE, TRAFFIC BEARING, GRATES SUPPORTED BY STEEL ANGLE SEATS OR SUPPORTED ON FOUR SIDES. GRATES SHALL BE CAST IRON UNLESS OTHERWISE SPECIFIED OR APPROVED.

5. UNDERDRAIN SHALL BE HEAVY-DUTY CORRUGATED POLYETHYLENE PIPE WITH FACTORY-INSTALLED FILTER FABRIC AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS (ADS), OR APPROVED EQUAL.

6. UNDERDRAIN DISCHARGE PIPE SHALL BE PVC PER ASTM D3034 SDR 35 WITH ELASTOMERIC JOINTS, NON-PERFORATED.

7. ALL TYPE "P" STRUCTURE BOTTOMS SHALL BE ROUND UNLESS OTHERWISE SPECIFIED AND SHALL HAVE 4 FT. MINIMUM DIAMETER.

8. ALL CONCRETE CURBS, SIDEWALKS, INLET TOPS, ETC. SHALL BE 3000 PSI MINIMUM, UNLESS OTHERWISE SPECIFIED.

SEED AND MULCH SPECIFICATIONS

WINTER (SEPTEMBER THROUGH JANUARY)	PER ACRE
RYE GRASS	30 POUNDS
BAHIA GRASS (90% GREEN OR BETTER)	70 POUNDS
FERTILIZER 10-10-10	
STAGE 1 (AT PLANTING)	400 POUNDS
STAGE 2 (AT GERMINATION)	400 POUNDS

SPRING (FEBRUARY THROUGH MARCH)	PER ACRE
RYE GRASS	20 POUNDS
BROWN TOP MILLET	20 POUNDS
BAHIA GRASS (90% GREEN OR BETTER)	70 POUNDS
FERTILIZER 10-10-10	
STAGE 1 (AT PLANTING)	400 POUNDS
STAGE 2 (AT GERMINATION)	400 POUNDS

SUMMER (MARCH THROUGH AUGUST)	PER ACRE
BROWN TOP MILLET	35 POUNDS
BAHIA GRASS (90% GREEN OR BETTER)	70 POUNDS
FERTILIZER 10-10-10	
STAGE 1 (AT PLANTING)	400 POUNDS
STAGE 2 (AT GERMINATION)	400 POUNDS

ALL OPEN SPACE AREAS NOT CLEARLY DEPICTED AS 'TO BE SODDED' ON LANDSCAPE PLANS SHALL BE SODDED.

UTILITY NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH THE STANDARDS AND SPECIFICATIONS SET FORTH BY LOCAL, STATE AND FEDERAL REGULATIONS, WHICH SO EVER ARE MORE STRINGENT, SHALL BE ADHERED TOO.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING (HORIZONTALLY AND VERTICALLY) ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND FOR NOTIFYING VARIOUS UTILITY COMPANIES TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, TEMPORARY DISTRIBUTION SERVICE OR CLARIFICATION OF ACTIVITY REGARDING SAID UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FILED LOCATED. ALL UTILITIES, WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION, SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANIES AND THE CONTRACTOR SHALL COOPERATE WITH THEM FULLY DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.

3. PROVIDE MINIMUM OF 3 FEET COVER FOR ALL UTILITIES UNLESS OTHERWISE NOTED IN THE CONSTRUCTION PLANS.

4. COMPACT ALL UTILITIES TRENCHES WITHIN THE ROADWAYS ASSOCIATED WITH THIS PROJECT TO 98% OF THE PROCTOR MAXIMUM DENSITY.

5. THE SPECIFICATIONS, NOTES AND PLANS CALL ATTENTION TO CERTAIN REQUIRED FEATURES OF THE CONSTRUCTION BUT DO NOT PURPORT TO COVER ALL DETAILS OF DESIGN AND CONSTRUCTION. HOWEVER, THE CONTRACTOR SHALL FURNISH AND INSTALL THE WORKS IN ALL DETAILS AND READY FOR OPERATION.

6. ALL EQUIPMENT AND MATERIAL ASSOCIATED WITH ANY UTILITY WORK ON THIS PROJECT SHALL BE HANDLED, STORED, INSTALLED, TESTED AND OPERATED IN STRICT ACCORDANCE WITH THE APPLICABLE MANUFACTURERS INSTRUCTIONS.

LOCATION OF PUBLIC WATER SYSTEM (PWS) MAINS (PIPE SEPARATION REQUIREMENTS)

THE TERM "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER; FIRE HYDRANT LEADS; AND SERVICE LINES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE (3) INCHES OR GREATER

1. HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
   A. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
   B. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET, AND PREFERABLY TEN (10) FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
   C. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE HORIZONTAL DISTANCE OF AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

CITY OF COCOA WATER GENERAL NOTES

GENERAL:

1. THESE TECHINICAL 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.

2. TECHNICAL INFORMATION PROVIDED BY THE CITY SHALL BE USED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR AND ENGINEER OF RECORD ARE RESPONSIBLE FOR VERIFYING FIELD CONDITIONS.

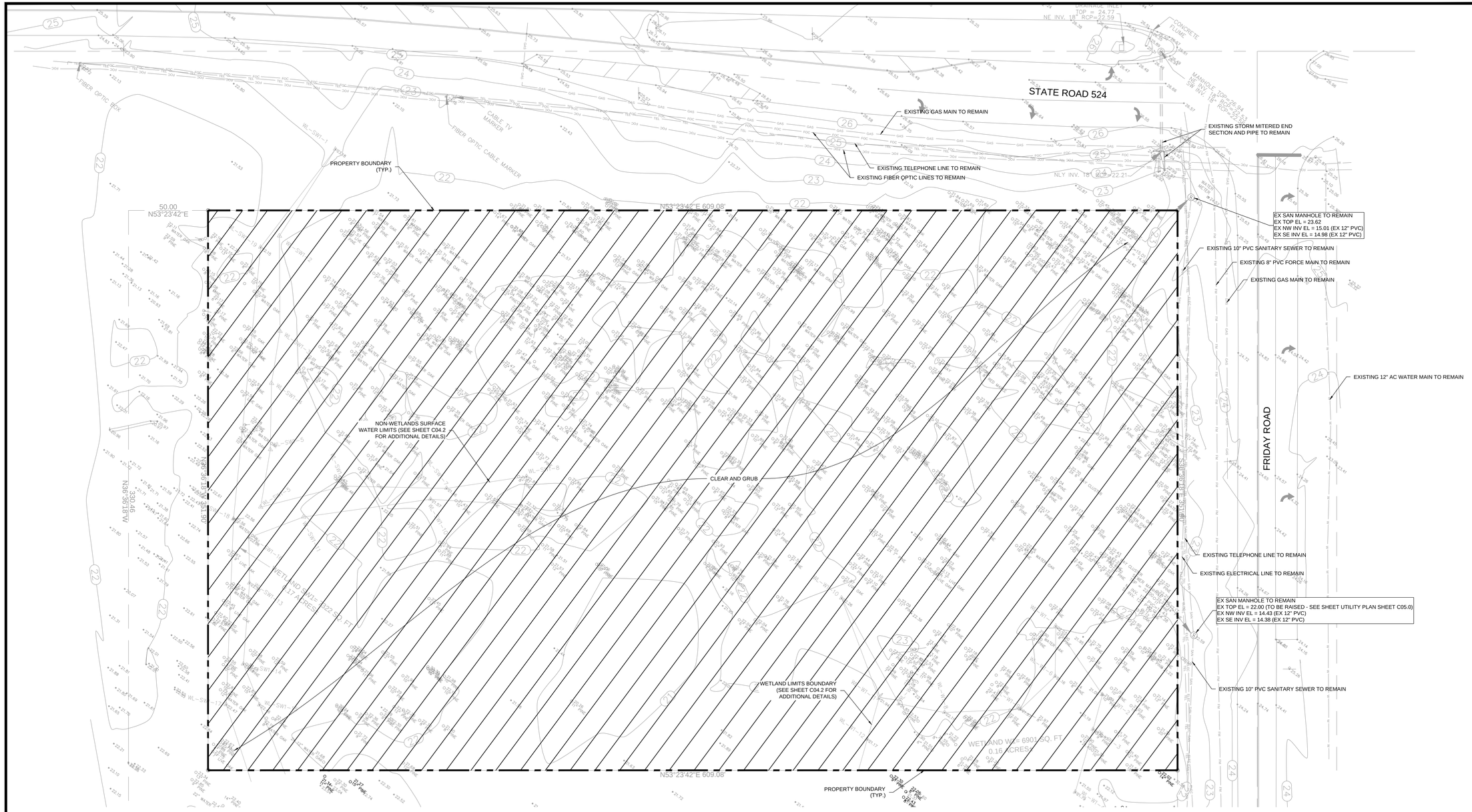
3. ANY DEVIATION FROM THESE REQUIREMENTS MUST BE APPROVED IN WRITING BY THE UTILITIES DIRECTOR OR HIS DESIGNEE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

4. 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.

5. 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.

PERMITS, PLANS, SHOP DRAWINGS:

1. PERMITS OR LETTERS OF DETERMINATION FROM FDEP SHALL BE OBTAINED FOR THE SANITARY SEWER COLLECTION SYSTEM AND WATER DISTRIBUTION SYSTEM PRIOR TO



LEGEND

ALL EXISTING FENCES, GATES, AND MONUMENT SIGNS TO BE REMOVED UNLESS OTHERWISE NOTED

LEGEND

1. CONTRACTOR TO REFER TO LANDSCAPE TREE REMOVAL / PRESERVATION PLANS FOR ANY EXISTING TREES TO BE REMOVED / SAVED.
2. CONTRACTOR TO REPLACE ALL DISTURBED SOD WITHIN THE RIGHT-OF-WAY.
3. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
4. CONTRACTOR TO COORDINATE THE REMOVAL AND / OR RELOCATION OF EXISTING UTILITIES WITH THE UTILITY PROVIDER AND THE CITY MUNICIPALITY.
5. FOR SILT FENCE, INLET PROTECTION, CONSTRUCTION ENTRANCE, AND OTHER SWPPP ITEMS, PLEASE SEE SWPP PLAN SHEET C06.0 AND SWPP NOTES AND DETAILS ON SHEET C06.1.

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CERTIFICATE OF AUTHORIZATION NO. 00006788

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DAVID L. EVANS
FLORIDA P.E. NO. 46586

DATE: _____

SKY POWERSPORTS OF COCOA

COCOA, FLORIDA

EXISTING CONDITIONS & DEMO PLAN

REVISIONS

NO.	DETAIL	BY	DATE

DRAWN BY:	DATE:
-	12/9/24
CHECKED BY:	JOB #:
DE	31604

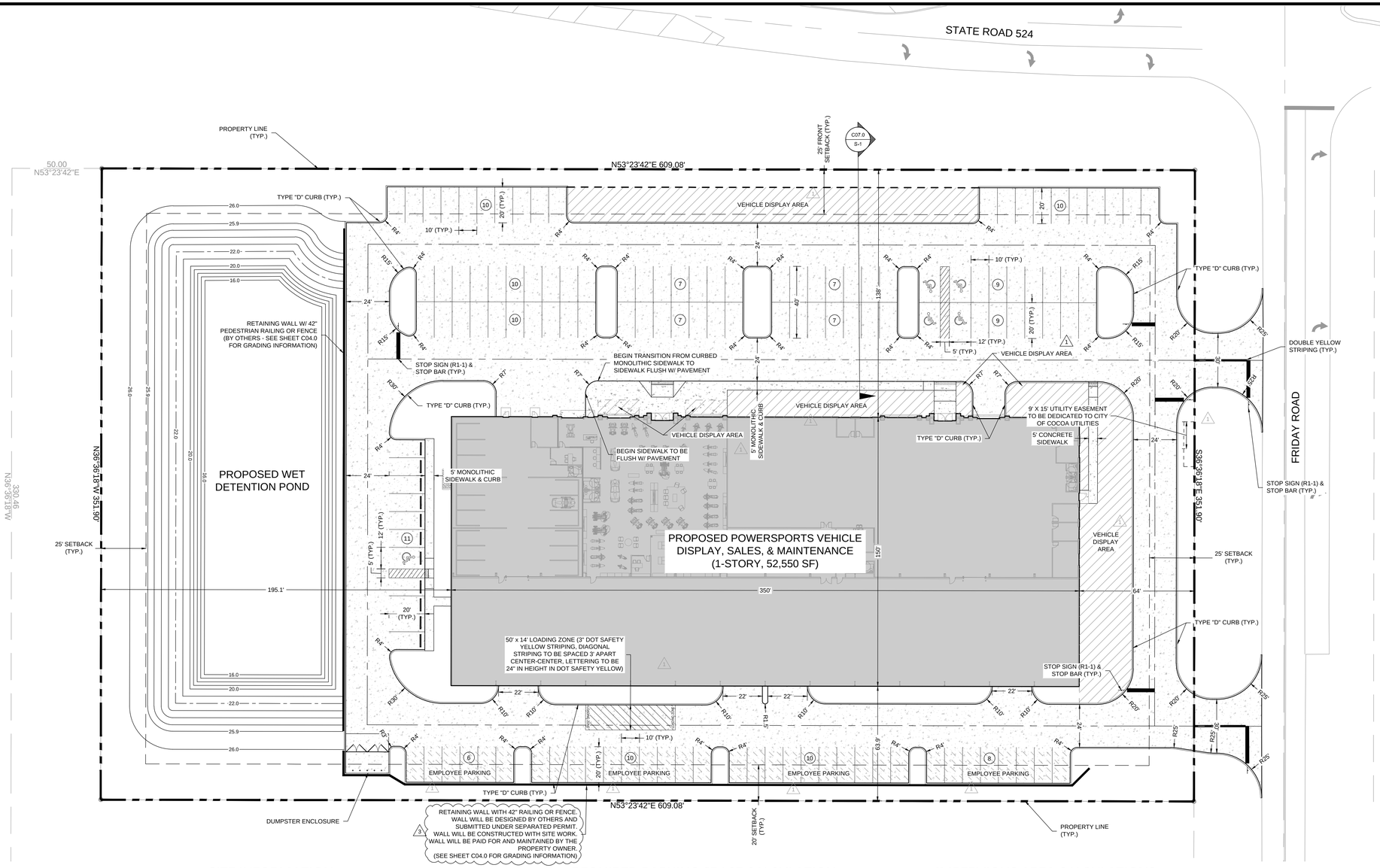
GRAPHIC SCALE

30' 0 15' 30' 60'

FEET
1 Inch = 30 Ft.

SHEET #:

C02.0



SITE INFORMATION

1. PARCEL ID = 24-35-27-00-16
2. GROSS SITE AREA = +/- 4.92 AC.
3. ON-SITE WETLAND AREA = +/- 0.16 AC. (0.16 AC. TO BE MITIGATED)
4. NET DEVELOPABLE AREA = +/- 4.92 AC.
5. ZONING = C-G, GENERAL COMMERCIAL
6. FUTURE LAND USE = COMMERCIAL / CONSERVATION
7. EXISTING USE = VACANT
8. PROPOSED USE = AUTOMOTIVE VEHICLE DISPLAY
9. PROPOSED BUILDING SQUARE FOOTAGE = 52,500 SF
10. MAXIMUM ALLOWED FLOOR-AREA-RATIO (FAR) = 1.0
11. PROPOSED FLOOR-AREA-RATIO (FAR) = 0.25
12. MAXIMUM ALLOWED BUILDING HEIGHT = 68'
13. PROPOSED BUILDING HEIGHT =27.25' (1-STORY)
14. BUILDING SETBACKS
    - FRONT = 25'
    - SIDE = 0'
    - SIDE CORNER = 20'
    - REAR = 20'
16. PER FEMA FIRM PANEL NO. 12009C0425G, DATED MARCH 17, 2014, THE SUBJECT PROPERTY IS DESIGNATED ZONE 'X', AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAN, AND ZONE 'A' AREAS WITHIN THE FLOOD PLAIN WITHOUT A BASE FLOOD ELEVATION DETERMINED.
    PER THE WEST COCOA WATERSHED EVALUATION COMPLETED BY BREVARD COUNTY IN APRIL OF 2014, THE SITE IS NOT LOCATED WITHIN A 100-YR FLOOD PLAIN.

REQUIRED PARKING SPACE CALCULATION

DESCRIPTION	CALCULATION	SPACES
MOTOR VEHICLE SALES	ONE SPACE PER 500 SF ENCLOSED FLOOR SPACE 1 SPACE / 500 SF X 31,490 SF	63
	ONE SPACE PER 2,000 SF OUTDOOR DISPLAY AREA 1 SPACE / 2,000 SF X 21,020 SF	11
	ONE AND ONE-HALF SPACES PER EMPLOYEE 1.5 SPACE / 1 EMPLOYEE X 10 EMPLOYEES	15
	ONE AND ONE-HALF SPACES PER SERVICE BAY 1.5 SPACE / 1 SERVICE BAY X 15 SERVICE BAYS	9
	TOTAL PARKING SPACES	98

PROVIDED PARKING SPACES

DESCRIPTION	SPACES
STANDARD (10' X 20') SPACE	126
HANDICAP (12' X 20') SPACE	5
TOTAL	131
EMPLOYEE PARKING SPACE	34
CUSTOMER PARKING SPACE	97
	131

TRIP GENERATION TABLE

ITE CODE & DESCRIPTION		RATE[1] (/KSF)	UNITS (KSF)	TRIPS
840 - AUTOMOBILE SALES	AM PEAK HOUR	1.86	52.55	98
	PM PEAK HOUR	2.42	52.55	128
	AVERAGE DAILY	27.84	52.55	1463

[1] TRIP RATES REFERENCED FROM THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) *TRIP GENERATION MANUAL*, 11TH EDITION (2021).

IMPERVIOUS AREA CALCULATIONS

DESCRIPTION	AREA	PERCENTAGE
BUILDING IMPERVIOUS	1.21 AC.	24.6%
PAVING, SIDEWALK, CURB, MISC IMPERVIOUS	1.85 AC.	37.6%
POND NORMAL WATER LEVEL IMPERVIOUS	0.53 AC.	10.8%
TOTAL IMPERVIOUS AREA	3.59 AC.	73.0%
TOTAL PERVIOUS AREA	1.33 AC.	27.0%
TOTAL AREA	4.92 AC.	100.0%

NOTES

1. THE STORMWATER MAANGEMENT SYSTEM FOR THE PROJECT COMPLIES WITH ALL CITY OF COCOA AND ST. JOHNS RIVIER WATER MANAGEMENT DISTRICT (SJRWMD) REQUIREMENTS.
2. POTABLE WATER AND SANITARY SEWER ARE TO BE PROVIDED BY CITY OF COCOA UTILITIES.
3. PROPOSED ON-SITE UTILTIES WILL BE PRIVATELY OWNED AND MAINTAINED UNLESS OTHERWISE NOTED. ALL PROPOSED UTILITIES ARE DESIGNED TO MEET ALL CITY OF COCOA UTILITIES AND FDEP STANDARDS.
4. ON-SITE ROADWAYS AND STORMWATER INFRASTRUCTURE WILL BE PRIVATELY OWNED AND MAINTAINED UNLESS OTHERWISE NOTED.
5. THE PROJECT WILL BE DEVELOPED IN ONE PHASE.
6. ALL CONSTRUCTION METHODS AND MATERIALS SHALL COMPLY WITH THE LATEST EDITIONS OF THE DESIGN STANDARDS, THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE UTILITY ACCOMMODATION MANUAL (UAM).
7. ALL R/W DISTURBED BY THIS WORK SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER AND IN ACCORDANCE WITH APPLICABLE FDOT SPECIFICATIONS. ALL DISTURBED AREAS MUST BE SODDED, MATCHING EXISTING GRASS TYPE.
8. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR/SUBCONTRACTOR AT HIS SOLE EXPENSE AND ANY DELAY INCURRED SHALL NOT BE CAUSE FOR AN EXTENSION IN THE TIME OF THE CONTRACT.
9. ALL AFFECTED SIDEWALKS, RAMPS, AND CROSSWALKS WILL BE BUILT AND INSPECTED TO MEET CURRENT ADA REQUIREMENTS
10. CONSTRUCTION NOTE: ALL EXISTING UTILITIES WILL BE LOCATED AND VERIFIED THROUGH THE USE OF GPR AND SUNSHINE 811 BEFORE ANY CONSTRUCTION WILL TAKE PLACE.

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DAVID L. EVANS
FLORIDA P.E. NO. 46586

DATE:

SKY POWERSPORTS OF COCOA

COCOA, FLORIDA

SITE PLAN

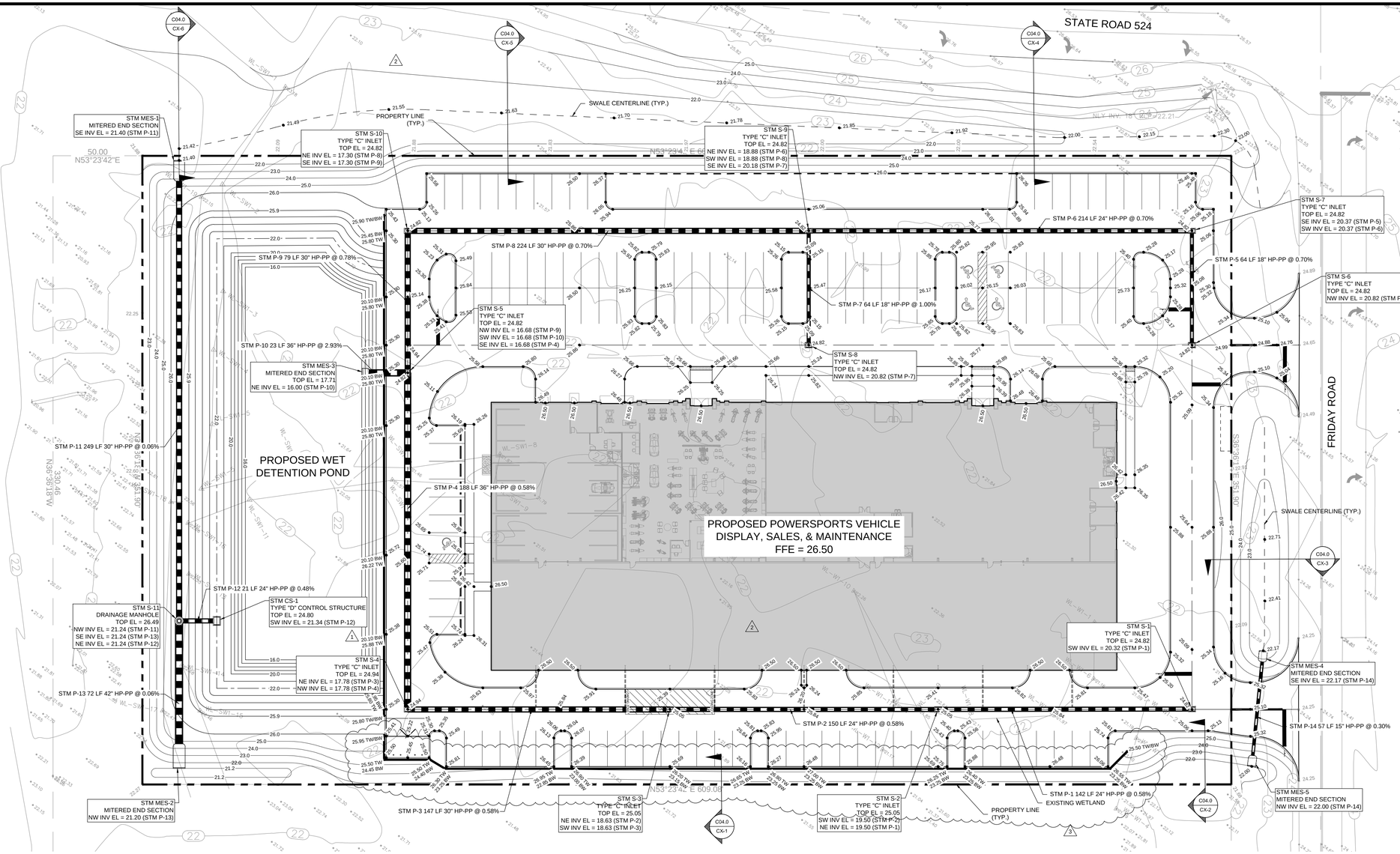
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07/02/26	2	ADDED RETAINING WALL	TLD
09/01/26	3	REVISED PER CITY COMMENTS	HQT

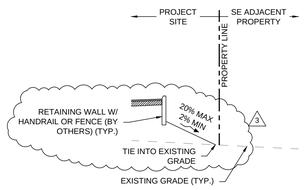
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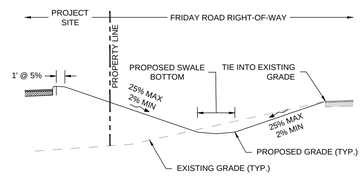
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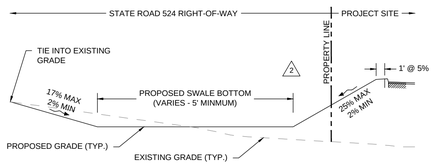




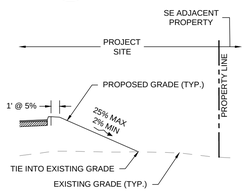
CX-1 — TIE-IN SECTION 1
N.T.S.



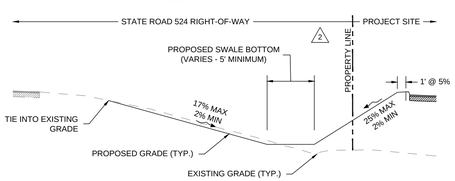
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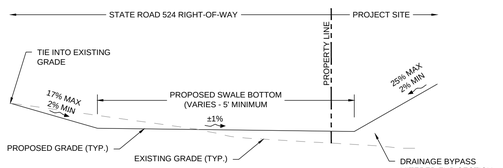
CX-5 — TIE-IN SECTION 5
N.T.S.



CX-2 — TIE-IN SECTION 1
N.T.S.



CX-4 — TIE-IN SECTION 4
N.T.S.



CX-6 — TIE-IN SECTION 6
N.T.S.

NOTES

1. ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
2. ALL PROPOSED SURFACES SHALL BE GRADED TO DRAIN POSITIVELY TO ASSURE NO LOW POINTS HAVE BEEN CREATED, NO FLOODING TO ADJACENT PROPERTIES WILL OCCUR SMOOTH SURFACES ARE MAINTAINED AND NO STEEP OR UNUSUAL SLOPES ARE CREATED.

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DATE:

SKY POWERSPORTS OF COCOA

COCOA, FLORIDA

GRADING & DRAINAGE PLAN

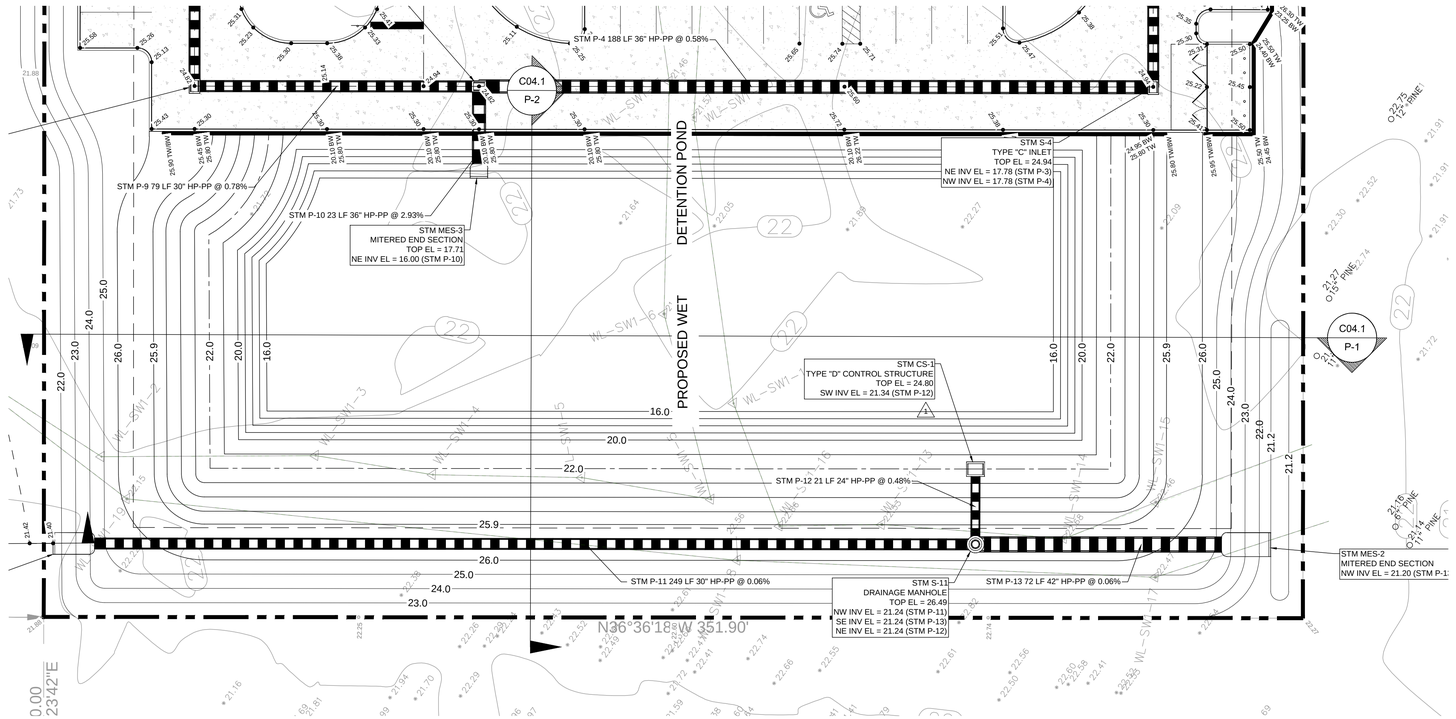
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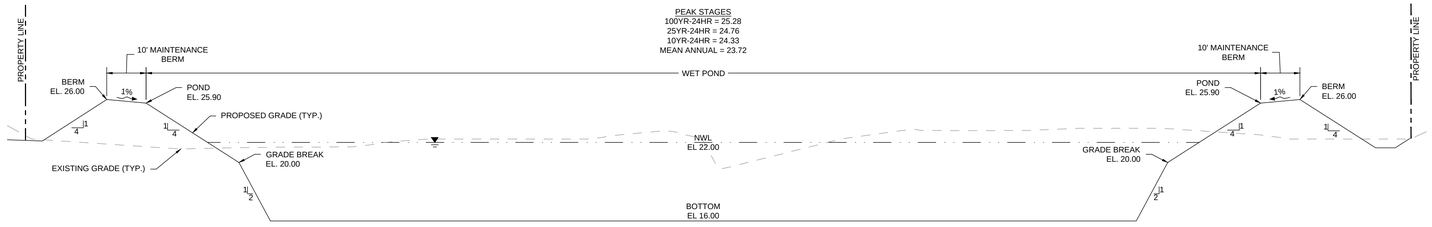
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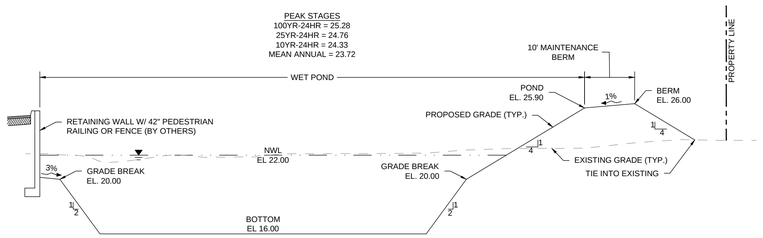
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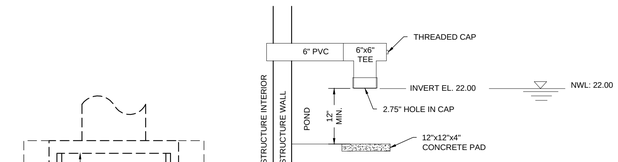




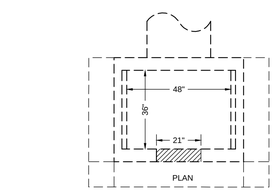
P-1 POND-1 TYPICAL SECTION 1
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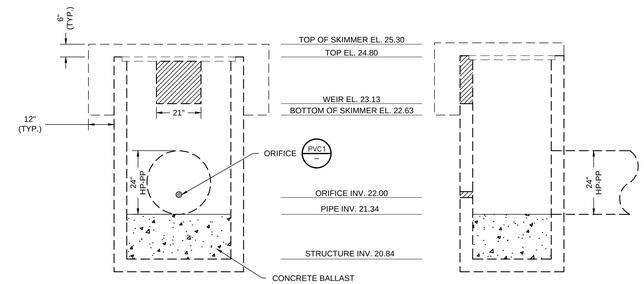


P-2 POND-1 TYPICAL SECTION 2
N.T.S.



PVC1 ORIFICE DETAIL (STM CS-1)
N.T.S.





CS-1 MODIFIED TYPE "D" INLET (STM CS-1)
N.T.S.

NOTES

1. ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

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EVANS ENGINEERING, INC.

CERTIFICATE OF AUTHORIZATION NO. 6788

DAVID L. EVANS
FLORIDA P.E. NO. 46586

DATE: _____

SKY POWERSPORTS OF COCOA

COCOA, FLORIDA

POND PLAN & DETAILS

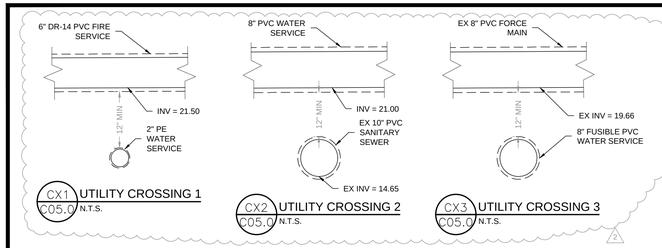
REVISIONS	NO	DATE	BY
DETAIL	1	09/03/25	TLD
REVISED PER SJRWMD COMMENTS			

DRAWN BY:	DATE:
-	12/9/24
CHECKED BY:	JOB #:
DE	31604

GRAPHIC SCALE
20' 0 10' 20' 40'
FEET
1 Inch = 20 Ft.

SHEET #:
C04.1

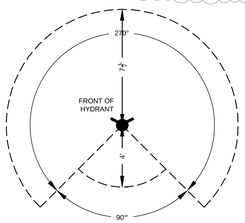
ACAD/Civil3D Files/Plans Sheets/CAD/Plan/31604 C04.0 GRADING & DRAINAGE Plan.dwg, C04.1 Pond Plan, 9/3/2025 4:47:09 PM, tlee



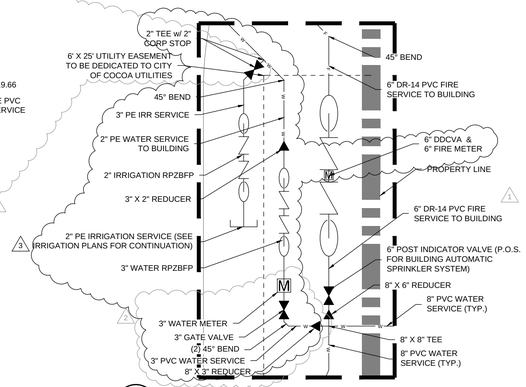
CX1 C05.0 UTILITY CROSSING 1 N.T.S.

CX2 C05.0 UTILITY CROSSING 2 N.T.S.

CX3 C05.0 UTILITY CROSSING 3 N.T.S.



— — FIRE HYDRANT CLEARANCE DETAIL N.T.S.



WS1 C05.0 POTABLE WATER, FIRE, & IRRIGATION SERVICE DETAIL N.T.S.

FDEP SEPARATION REQUIREMENTS UNDER 62-555.314 EFFECTIVE 8-28-2003				
HAZARD	HORIZONTAL SEPARATION	VERTICAL SEPARATION		JOINT SPACING
		WATER ABOVE	WATER BELOW	
STORM SEWER	3FT MIN	12IN PREF, 6IN MIN	12IN MIN	3FT MIN
STORM FORCE MAIN	3FT MIN	12IN MIN	12IN MIN	3FT MIN
RECLAIMED WATER IF REGULATED UNDER 62-610	3FT MIN	12IN MIN	12IN MIN	3FT MIN
RECLAIMED WATER IF NOT REGULATED UNDER 62-610	10FT PREF, 6FT MIN	12IN MIN	12IN MIN	6FT MIN
VACUUM SANITARY SEWER	10FT PREF, 3FT MIN	12IN PREF, 6IN MIN	12IN MIN	3FT MIN
GRAVITY SANITARY SEWER	10FT PREF, 6FT MIN, 3FT MIN IF WATER MAIN IS 6IN ABOVE GRAVITY SANITARY SEWER.	12IN PREF, 6IN MIN	12IN MIN	6FT MIN
SANITARY SEWER FORCE MAIN	10FT PREF, 6FT MIN	12IN MIN	12IN MIN	6FT MIN
SEWAGE TREATMENT & DISPOSAL SYSTEM	10FT MIN	NONE	NONE	NONE

UTILITY NOTES

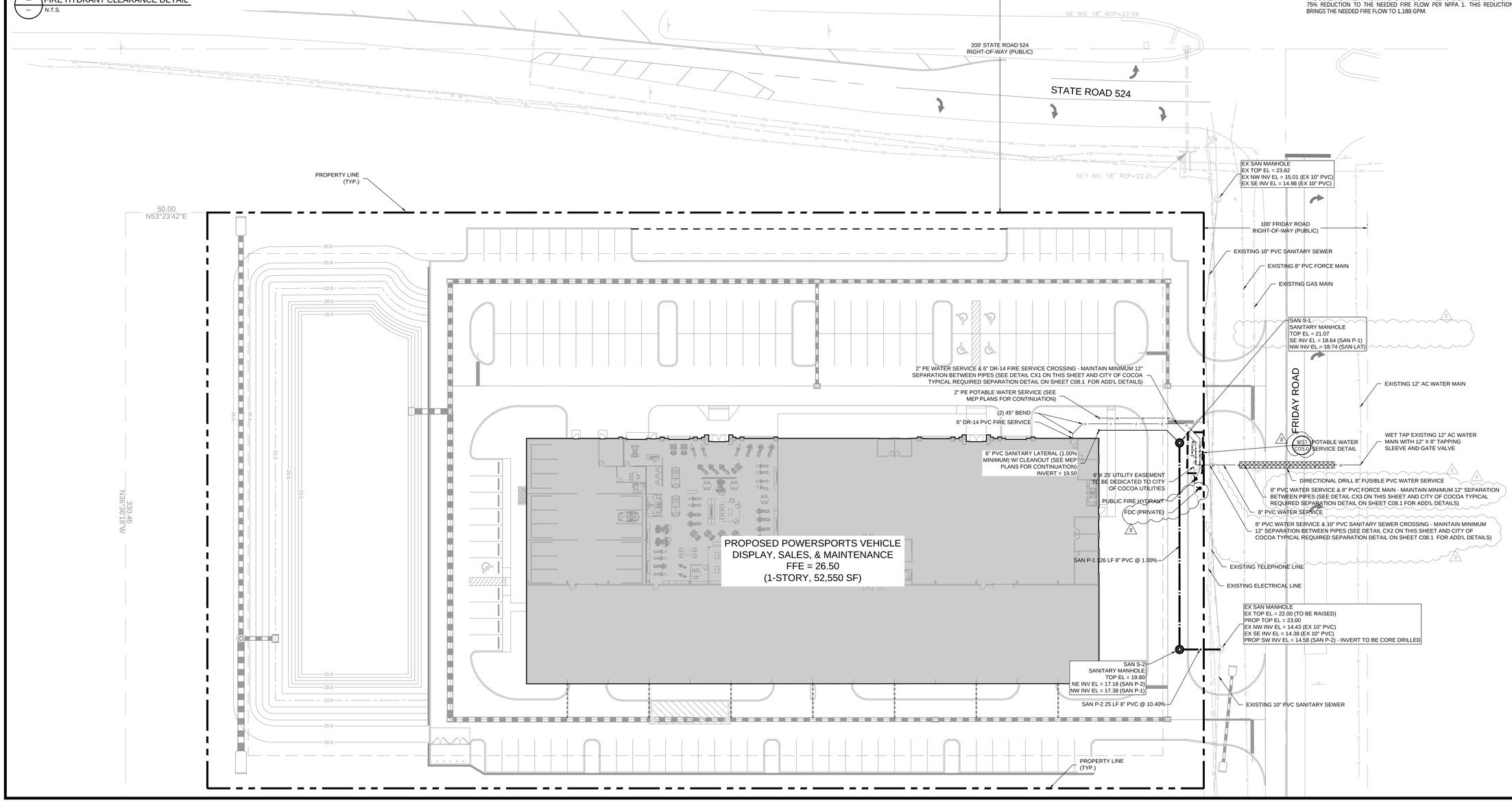
1. UTILITY SERVICE FOR POTABLE WATER, REUSE WATER, AND SANITARY SEWER IS PROVIDED BY CITY OF COCOA UTILITY DEPARTMENT AND ARE DESIGNED TO MEET FDEP AND CITY OF COCOA UTILITY DEPARTMENT'S REQUIREMENTS.
2. ELEVATIONS BASED ON NAVD88 DATUM.
3. FIRE LINE POST INDICATOR VALVES (PIV) SHALL COMPLY WITH NFPA 24-6.2.9.
4. WATER MAINS AND FIRE HYDRANTS SHALL BE INSTALLED, COMPLETED, AND IN SERVICE PRIOR TO COMBUSTIBLE MATERIALS BEING BROUGHT ON TO THE SITE.
5. ALL SANITARY SEWER LATERALS SHALL HAVE A MINIMUM SLOPE OF 1.00%.
6. ALL EXISTING UTILITIES TO BE FIELD VERIFIED (VERTICALLY AND HORIZONTALLY) AT ALL POINTS OF CONNECTION AND AT ALL AREAS OF CONFLICT WITH EXISTING UTILITIES INFRASTRUCTURE.
7. ALL UTILITIES LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAYS AND PUBLIC EASEMENTS SHALL BE PRIVATELY OWNED AND MAINTAINED.
8. ANY APPROVAL FOR THIS PROJECT IS CONDITIONAL UPON THE FUTURE SUBMISSION AND APPROVAL OF BORE PLAN CALCULATIONS.

REQUIREMENTS FOR SPRINKLERED BUILDING

1. CONTRACTOR SHALL APPLY FOR & OBTAIN A FIRE SPRINKLER PERMIT PRIOR TO INSTALLATION OF UNDERGROUND FIRE SPRINKLER LINE. THE FIRE SPRINKLER PERMIT APPLICATION SHALL INCLUDE ADEQUATE WORKING DRAWINGS THAT COMPLY WITH NFPA 13 & NFPA 24 MINIMUM REQUIREMENTS.
2. AT MINIMUM, A CLASS FIVE CONTRACTOR IS REQUIRED TO INSTALL FIRE LINES. FIRE LINES SHALL BEGIN AT THE POINT IN WHICH THE PIPING IS USED EXCLUSIVELY FOR FIRE PROTECTION AND END AT A POINT 1-FOOT ABOVE THE FINISHED FLOOR.
3. THE FIRE DEPARTMENT CONNECTION (FDC) SHALL BE WITHIN 100 FEET OF A FIRE HYDRANT.
4. THE FDC SHALL COMPLY WITH NFPA 13 & 24 (2016 ED.) DESIGN STANDARDS.
5. ANY FIRE LINE CHARGED BY THE FDC SHALL BE DR-14 OR CPVC PIPE.
6. THE ONLY VALVE ALLOWED IN THE FDC LINE IS A CHECK VALVE.
7. ALL FIRE LINES SHALL BE INSPECTED BY THE FIRE DEPARTMENT BEFORE BEING COVERED.
8. THERE SHALL BE A MINIMUM OF 7.5 FEET BETWEEN THE HYDRANT AND THE FDC.

NEEDED FIRE FLOW CALCULATIONS

PROPOSED POWERSPORTS VEHICLE SALES, DISPLAY, & MAINTENANCE FACILITY: 1-STORY BUILDING, 52,550 GROSS SQUARE FEET, TYPE II (000) CONSTRUCTION TYPE; THE NEEDED FIRE FLOW IS 4,750 GPM FOR A DURATION OF 4 HOURS PER NFPA 1 (FFPC 7TH EDITION), TABLE 18.4.5.2.1.
THE BUILDING WILL HAVE AN AUTOMATIC SPRINKLER SYSTEM ALLOWING FOR A 75% REDUCTION TO THE NEEDED FIRE FLOW PER NFPA 1. THIS REDUCTION BRINGS THE NEEDED FIRE FLOW TO 1,188 GPM.



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FLORIDA P.E. NO. 46586

DATE: _____

SKY POWERSPORTS OF COCOA

COCOA, FLORIDA

UTILITY PLAN

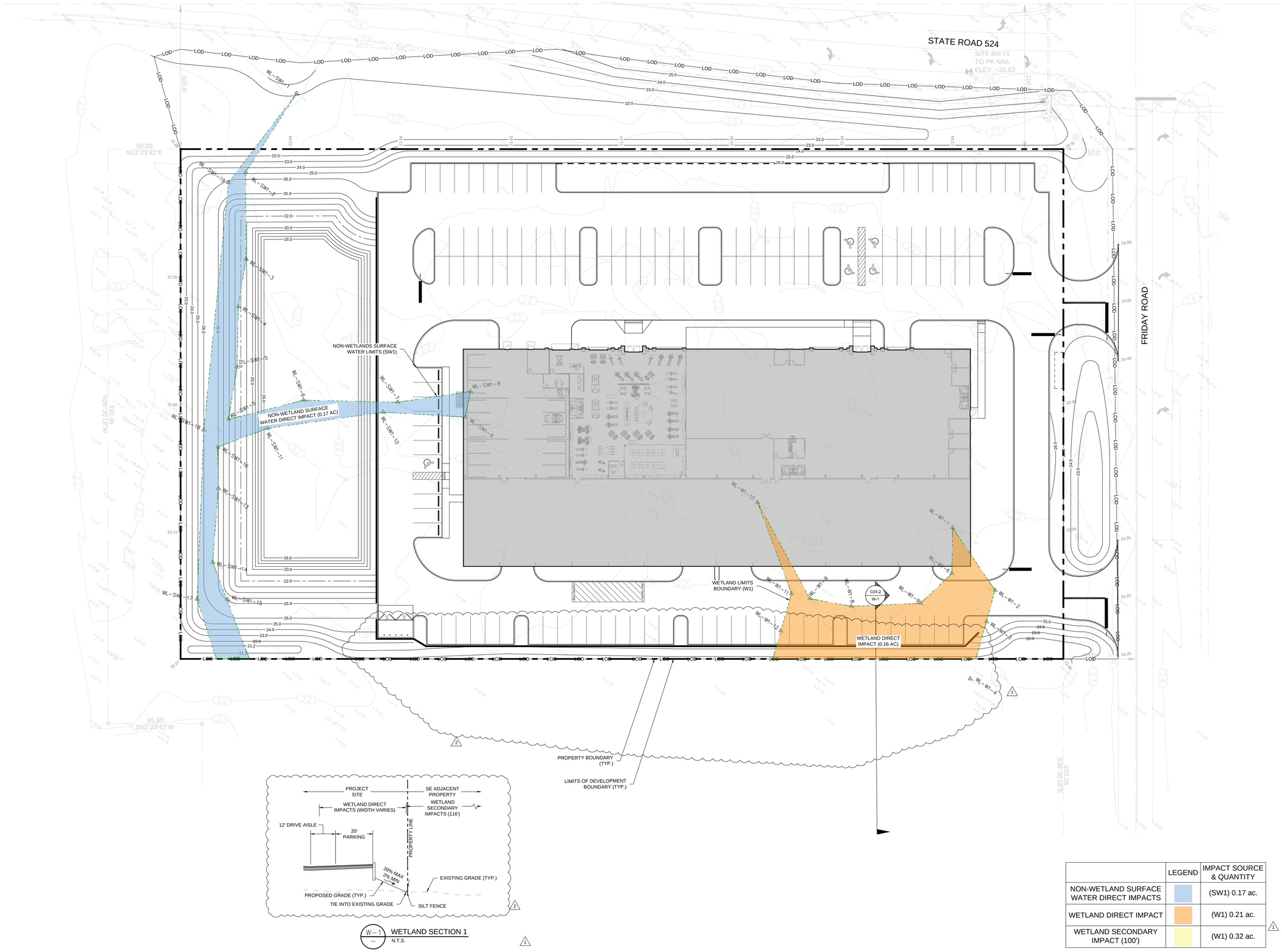
REVISIONS			
DATE	NO	DETAIL	BY
11/25/25	1	REVISED PER CITY & FDOT COMMENTS	TLD
04/01/26	2	REVISED PER CITY COMMENTS	TLD
09/01/26	3	REVISED PER CITY COMMENTS	HQT

DRAWN BY: -
DATE: 12/9/24
CHECKED BY: DE
JOB #: 31604

GRAPHIC SCALE
30' 0 15' 30' 60'
FEET
1 Inch = 30 Ft.

SHEET #: C05.0

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W-1 — WETLAND SECTION 1
N.T.S.

	LEGEND	IMPACT SOURCE & QUANTITY
NON-WETLAND SURFACE WATER DIRECT IMPACTS		(SW1) 0.17 ac.
WETLAND DIRECT IMPACT		(W1) 0.21 ac.
WETLAND SECONDARY IMPACT (100')		(W1) 0.32 ac.

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FLORIDA P.E. NO. 46586

DATE:

SKY POWERSPORTS OF COCOA

COCOA, FLORIDA

WETLAND DELINEATION & ENVIRONMENTAL CONSIDERATION

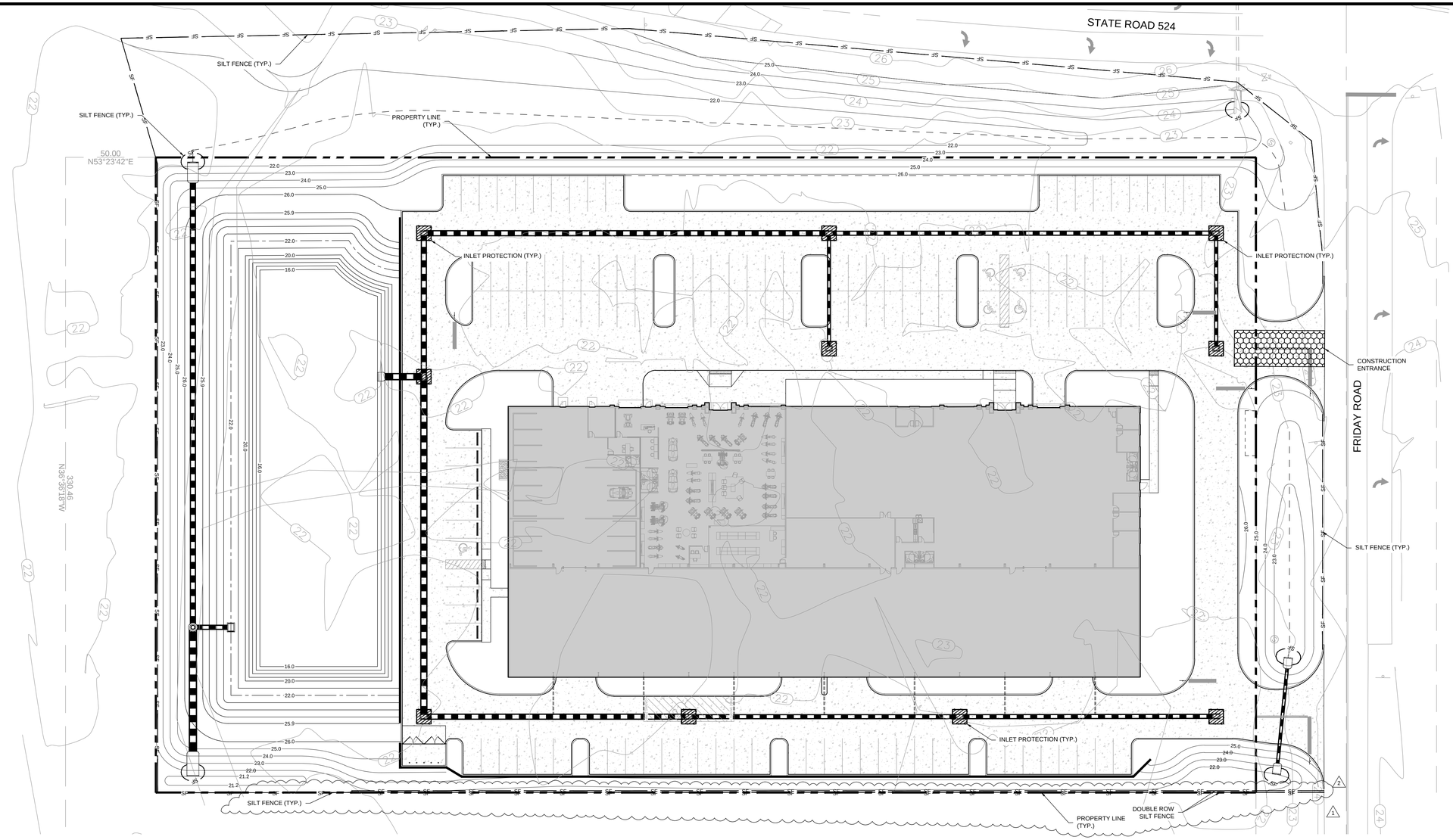
REVISIONS			
DATE	NO	DETAIL	BY
08/21/25	1	REVISED PER SJRWMD COMMENTS & SITE VISIT	TLD
07/02/26	2	ADDED RETAINING WALL	

DRAWN BY: -	DATE: 12/9/24
CHECKED BY: DE	JOB #: 31604

GRAPHIC SCALE
30' 0 15' 30' 60'
FEET
1 Inch = 30 Ft.

SHEET #:
C04.2

© 2025 EVANS ENGINEERING, INC. | C04.2 WETLAND DELINEATION.dwg | Last Modified by Tyler Dunn - 4:41pm on Feb 11, 2026 | Plotted on: Feb 11, 2026 - 4:41pm by Tyler Dunn



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DATE: _____

SKY POWERSPORTS OF COCOA

COCOA, FLORIDA

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

REVISIONS

NO	DATE	DETAIL	BY
1	11/25/25	REVISED PER CITY & FDOT COMMENTS	TLD
2	01/02/26	ADDED RETAINING WALL	TLD

DRAWN BY:	DATE:
-	12/9/24
CHECKED BY:	JOB #:
DE	31604

GRAPHIC SCALE

30' 0 15' 30' 60'

FEET

1 Inch = 30 Ft.

SHEET #:

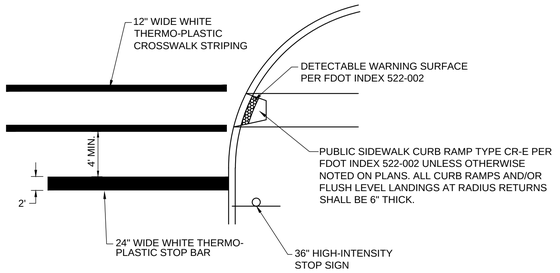
C06.0

G:\2025\31604 - Sky Town Sports\Civil\CAD\Plan\31604 - C06.0 SWPPP.dwg (C06.0 SWPPP) Tuesday, December 16, 2025 - 4:47pm by Trang Tran

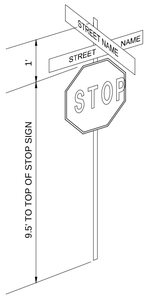


(STOP SIGN)
(R1-1)

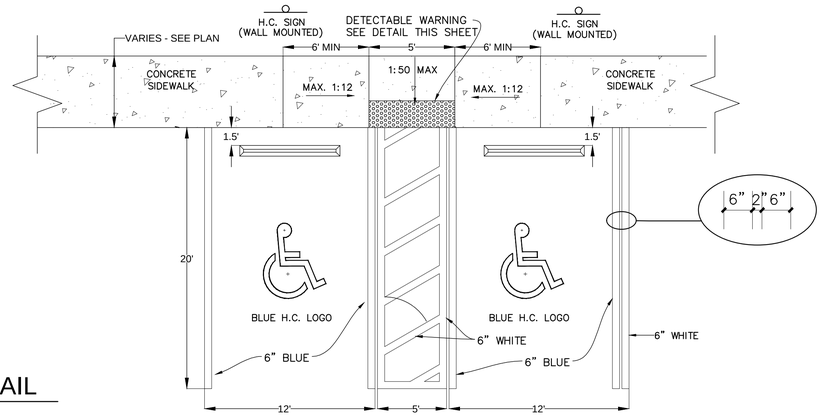
NOTES:
1. ALL TRAFFIC SIGNS SHALL COMPLY WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. ALL SIGNS SHOULD BE CLEARED OF ANY OBSTRUCTIONS AND BE VISIBLE.
3. STOP SIGN IN R/W SHALL BE 36" HIGH-INTENSITY STOP SIGNS.



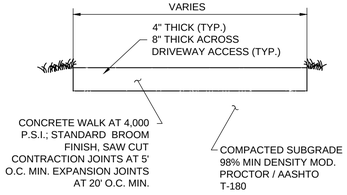
1 C03.0 **STOP BAR & SIGN DETAIL**
NOT TO SCALE



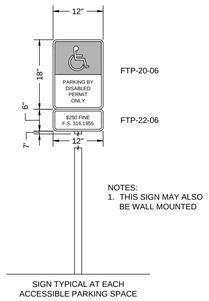
2 C03.0 **STOP SIGN AND STREET NAME SIGN DETAIL**
NOT TO SCALE



3 C03.0 **HANDICAP PARKING DETAIL**
NOT TO SCALE



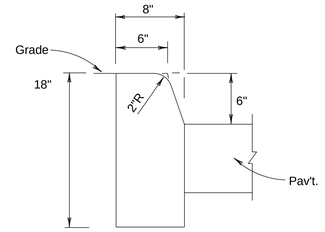
4 C03.0 **SIDEWALK DETAIL**
NOT TO SCALE



NOTES:
1. THIS SIGN MAY ALSO BE WALL MOUNTED

SIGN TYPICAL AT EACH ACCESSIBLE PARKING SPACE

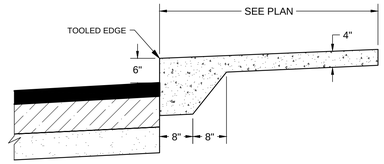
5 C03.0 **ACCESSIBLE PARKING SIGN DETAIL**
NOT TO SCALE



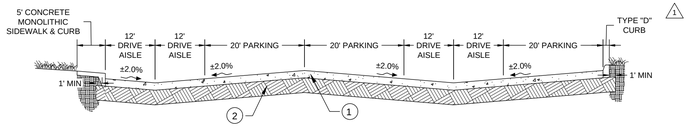
TYPE "D" CURB

NOTES:
1. SEE FDOT STANDARD INDEX 520-001 FOR MORE DETAILS

6 C03.0 **TYPICAL CURB DETAILS**
NOT TO SCALE



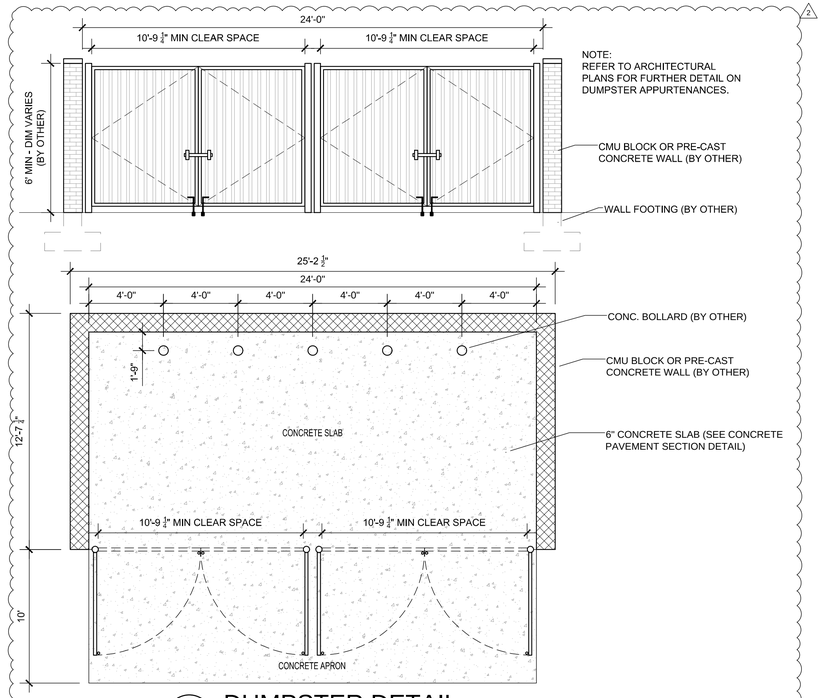
6 C03.0 **MONOLITHIC CURB & SIDEWALK**
NOT TO SCALE



1. 8", MIN 28-DAY COMPRESSIVE STRENGTH 4,000 PSI CONCRETE, WITH CONSTRUCTION AND CONTRACTOR JOINTS PROVIDED IN GENERAL CONFORMANCE TO PCA GUIDELINES (SEE BECHTOL ENGINEERING & TESTING, INC. REPORT PROJECT # G24286 DATED NOVEMBER 11, 2024).

2. 12" STABILIZED SUBGRADE OF GRANULAR FILL OR NATIVE SOILS MIXED WITH A QUANTITY OF SUITABLE STABILIZATION MATERAIL SUFFICIENT TO ACHIEVE MINIMUM LBR OF 30 AND COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95% OF THE MATERIAL'S MODIFIED PROCTOR (ASTM D-1557, AASHTO T-180) LABORATORY DRY DENSITY (SEE BECHTOL ENGINEERING & TESTING, INC. REPORT PROJECT # G24286 DATED NOVEMBER 11, 2024).

7 C03.0 **TYPICAL PARKING SECTION**
NOT TO SCALE



8 C03.0 **DUMPSTER DETAIL**
NOT TO SCALE

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FLORIDA P.E. NO. 46586

DATE: _____

SKY POWERSPORTS OF COCOA

COCOA, FLORIDA

CONSTRUCTION DETAILS

REVISIONS			
DATE	NO.	DETAIL	BY
12/20/25	1	REVISED PER PAVEMENT MATERIAL	TLD
04/02/26	2	REVISED PER CITY COMMENTS	TLD

DRAWN BY: -	DATE: 12/9/24
CHECKED BY: DE	JOB #: 31604

SHEET #: C07.0

4/2/2026 10:56:16 AM User: Sparks Excel CAD Files\31604 CDT\0 CONSTRUCTION DETAILS.dwg, C07.0 CONSTRUCTION DETAILS, 8.5x11, Date: Apr 2, 2026 - 4:47pm By: Greg Sparks

GENERAL

THE CONTRACTORS SHALL IMPLEMENT THE REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE CIVIL DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTORS TO UNDERTAKE ADDITIONAL MEASURES AS REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS.

CONSTRUCTION SEQUENCE:

1. FLAG ALL WORK LIMITS.
2. NOTIFY SEDIMENT CONTROL INSPECTOR 24 HOURS PRIOR TO START OF CONSTRUCTION.
3. IDENTIFY ALL EXISTING VEGETATION TO BE SAVED.
4. INSTALL CONSTRUCTION ENTRANCE TO PREVENT TRACKING AND SILTING OF MUD INTO PUBLIC ROADWAYS.
5. INSTALL STORM DRAINAGE INLET PROTECTION ON EXISTING INLETS.
6. INSTALL PERIMETER RUNOFF CONTROLS; NOTIFY SEDIMENT INSPECTOR AND OBTAIN APPROVAL BEFORE PROCEEDING FURTHER.
7. PERFORM CLEARING AND GRADING REQUIRED.
8. COMPLETE ALL NECESSARY STOCKPILING, SITE CLEARING/REMOVALS, AND GRADING.
9. COMPLETE PARKING BASE, BUILDING FOUNDATION, AND REMOVE, RELOCATE, INSTALL SITE UTILITIES.
10. INSTALL STORM DRAINAGE INLET PROTECTION ON NEW INLETS.
11. WEATHER IN BUILDING.
12. COMPLETE PARKING LOT CONSTRUCTION.
13. COMPLETE FINAL GRADING, STABILIZATION, AND LANDSCAPING.
14. NOTIFY SEDIMENT CONTROL INSPECTOR AND OBTAIN APPROVAL TO REMOVE SEDIMENT AND EROSION CONTROL.

CONTROLS

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN OFF. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROL MEASURES AND TO ENSURE THAT THESE CONTROLS ARE PROPERLY INSTALLED, MAINTAINED, AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION CONTROLS AND ADD ADDITIONAL CONTROL MEASURES, AS REQUIRED, TO ENSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION AND TURBIDITY CONTROL REQUIREMENTS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR.

EROSION AND SEDIMENT CONTROLS STABILIZATION PRACTICES

1. FILTER FABRIC BARRIERS: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET EROSION WITH THE FOLLOWING LIMITATIONS:
   A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 3:1.
   B. IN MINOR SWALES WHERE THE MAXIMUM CONTRIBUTION DRAINAGE AREA IS LESS THAN 2 ACRES.
2. STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUN-OFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER SYSTEM.
3. INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT-LADEN STORM RUN-OFF UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
4. UNLESS SPECIFIED, SILT FENCES MAY BE USED IN LIEU OF SYNTHETIC BARRIERS.
5. TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE REWORKED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 14 DAYS SHALL BE SEEDED WITH FAST GROWING GRASS SPECIES WHICH WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING.
6. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH.
7. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED TO ASSURE OPTIMUM GROWING CONDITIONS.
8. TEMPORARY RE-GRASSING: IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT OBTAINED A MINIMUM OF 75 PERCENT GOOD GRASS GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEEDS APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.
9. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.
10. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFF-SITE FACILITIES.
11. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM, BE SEEDED. SLOPES STEEPER THAN 4:1 SHALL BE SEEDED AND MULCHED OR SODDED.
12. AIR POLLUTION: THE BURNING OF BRUSH OR SLASH SHALL ADHERE TO STATE AND LOCAL REGULATIONS. FIRE PREVENTION MEASURES SHALL BE TAKEN TO PREVENT THE START OR SPREADING OF WILDFIRES THAT MAY RESULT FROM PROJECT ACTIVITIES. ALL DUST CONTROL METHODS SHALL ENSURE SAFE CONSTRUCTION OPERATIONS AT ALL TIMES.

STRUCTURAL CONTROLS

1. TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT TRAPPING FACILITY.
2. TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP IS USUALLY INSTALLED IN A DRAINAGE WAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA.
3. SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES AT ONE TIME. THE PROPOSED STORM WATER PONDS (OR TEMPORARY PONDS) WILL BE CONSTRUCTED FOR USE AS SEDIMENT BASINS. THESE SEDIMENT BASINS MUST PROVIDE A MINIMUM OF 3,600 CUBIC FEET OF STORAGE AREA PER ACRE OF DISTURBED AREA. ANY TEMPORARY SEDIMENT BASINS CONSTRUCTED MUST BE BACK-FILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR STRUCTURAL FILL. ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

OTHER CONTROLS

WASTE MATERIALS - DISPOSAL

ALL WASTE MATERIALS EXCEPT LAND CLEARANCE DEBRIS SHALL BE COLLECTED AND STORED IN A SECURE LIDDED METAL DUMPSTER. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT.

HAZARDOUS WASTE - DISPOSAL

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATIONS OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

SANITARY WASTE - DISPOSAL

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

OFF-SITE VEHICLE TRACKING

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT, OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

EQUIPMENT PLACEMENT

THE CONTRACTOR WILL USE BEST MANAGEMENT PRACTICES TO DETERMINE THE LOCATIONS OF EQUIPMENT TO BE LEFT ON-SITE.

SPILL PREVENTION

THE FOLLOWING PRACTICES WILL BE FOLLOWED BY THE CONTRACTOR TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF SUBSTANCES TO STORM WATER RUN-OFF.

THE FOLLOWING PRACTICES WILL BE FOLLOWED ON-SITE DURING THE CONSTRUCTION PROJECT.

1. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
2. ALL MATERIALS STORED ON-SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR ORIGINAL CONTAINERS.
3. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
4. MANUFACTURER'S RECOMMENDATION FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
5. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ON-SITE RECEIVE PROPER USE AND DISPOSAL.
6. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED.
7. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

IN ADDITION TO THE SPILL PREVENTION PRACTICES LISTED THE FOLLOWING WILL BE FOLLOWED FOR SPILL CONTROL:

1. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN-UP WILL BE CLEARLY POSTED ON-SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE CLEAN-UP SUPPLIES.
2. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEAN-UP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON-SITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO: BROOMS, DUST PANS, MOPS, RAGS, CLOVES, GOGGLES, LIQUID ABSORBENT, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
3. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
4. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
5. SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL.
6. THE SITE SUPERINTENDENT WILL BE THE SPILL PREVENTION AND CLEAN-UP COORDINATOR. AT LEAST ONE OTHER SITE PERSONNEL WILL RECEIVE SPILL PREVENTION AND CLEAN-UP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE AND PREVENTION OF CLEAN-UP. THE NAMES OF THE RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA IN THE OFFICE TRAILER ON-SITE.

PRODUCT SPECIFIC PRACTICES

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON-SITE:

1. PETROLEUM PRODUCTS

   ALL ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY SUBSTANCES USED ON-SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURE'S RECOMMENDATIONS.
2. FERTILIZERS

   THE USE OF FERTILIZERS ARE TO MEET REQUIREMENTS OF CITY OF DEBARY ORDINANCE 17-2122. FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. FERTILIZERS WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
3. PAINTS

   ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO STATE AND LOCAL REGULATIONS.
4. CONCRETE TRUCKS

   CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING AREA FOR CONCRETE TRUCK WASH OUT. CONCRETE TRUCKS THAT WASH OUT ON-SITE MUST WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER INTO A DESIGNATED SEDIMENT BASIN ON SITE PRIOR TO DISCHARGE INTO STORM WATER MANAGEMENT AREAS. CONTRACTOR WILL BE RESPONSIBLE FOR MEETING STATE AND LOCAL REQUIREMENTS.

MAINTENANCE / INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS:

1. ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.5 INCH OR GREATER.
2. ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER: IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
3. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAD REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
4. SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT AND TEARS TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
5. THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED.
6. DIKES AND SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
7. TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS.
8. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM SHALL BE COMPLETED BY THE INSPECTOR. THE REPORTS WILL BE KEPT ON-SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER, OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS. THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED. THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.
9. THE SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR MANAGING THE INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

NON-STORM WATER

IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

1. WATER FROM WATER LINE FLUSHING
2. PAVEMENT WASH WATER (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).
3. UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION)

ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM
STRUCTURAL CONTROLS

INSPECTOR:_____ DATE:_____

EARTH DIKES / SWALES

DIKE OR SWALE	FROM	TO	IS DIKE / SWALE STABILIZED?	IS THERE EVIDENCE OF WASHOUT OR OVERTOPPING?

MAINTENANCE REQUIRED FOR EARTH DIKE / SWALE:

TO BE PERFORMED BY_____ ON OR BEFORE:_____

CATCH BASIN / CURB INLET / OUTFALL TURBIDITY CONTROLS

STRUCTURE/ OUTFALL	ARE TURBIDITY CONTROLS IN PLACE?	ANY EVIDENCE OF CLOGGING/WASHOUT OR BYPASSING?	ARE TURBIDITY CONTROLS IN NEED OR REPLACING?	DOES SILT NEED TO BE REMOVED FROM AROUND CONTROLS?

MAINTENANCE REQUIRED FOR CATCH BASIN / CURB INLET / OUTFALL TURBIDITY CONTROLS:

TO BE PERFORMED BY_____ ON OR BEFORE:_____

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM
SEDIMENT BASIN

DEPTH OF SEDIMENT IN BASIN	DEPTH OF SEDIMENT SIDE BASIN	ANY EVIDENCE OF OVERTOPPING OF THE EMBANKMENT? (YES/NO)	CONDITION OF OUTFALL FROM SEDIMENT BASIN

MAINTENANCE REQUIRED FOR SEDIMENT BASIN:

TO BE PERFORMED BY_____ ON OR BEFORE:_____

OTHER CONTROLS

STABILIZED CONSTRUCTION ENTRANCE

DOES MUCH SEDIMENT GET TRACKED ON TO THE ROAD?	IS THE GRAVEL CLEAN OR IS IT FILLED WITH SEDIMENT?	DOES ALL TRAFFIC USE THE STABILIZED ENTRANCE TO LEAVE THIS SITE?	IS THE CULVERT BENEATH THE ENTRANCE WORKING? (IF APPLICABLE)

MAINTENANCE REQUIRED FOR STABILIZED CONSTRUCTION ENTRANCE:

TO BE PERFORMED BY_____ ON OR BEFORE:_____

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT
TO BE COMPLETED EVERY 7 DAYS AND WITHIN 24 HOURS OF
A RAINFALL EVENT OF 0.5 INCHES OR GREATER

INSPECTOR:_____ DATE:_____

INSPECTOR'S QUALIFICATIONS:

DAYS SINCE LAST RAINFALL:_____ AMOUNT OF LAST RAINFALL:_____ INCHES

STABILIZATION MEASURES

INSPECTION AREA (LOCATION)	DATE SINCE LAST DISTURBED	DATE OF NEXT DISTURBANCE	STABILIZED? YES / NO	STABILIZED WITH	CONDITION

STABILIZATION REQUIRED:

TO BE PERFORMED BY_____ ON OR BEFORE:_____

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:

REASONS FOR CHANGES:

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGN 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 (OPERATOR AND/OR RESPONSIBLE AUTHORITY) _____ DATE

CONTRACTOR 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 STORM WATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORM WATER POLLUTION PREVENTION PLAN THEREUNDER."

NAME AND TITLE	COMPANY NAME, ADDRESS AND PHONE NUMBER	DATE
GENERAL CONTRACTOR		
SUBCONTRACTOR		
SUBCONTRACTOR		
SUBCONTRACTOR		

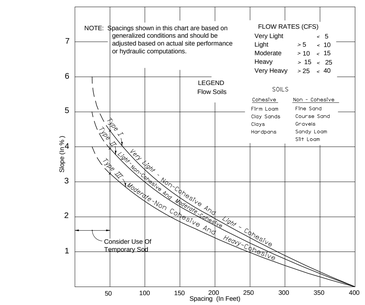
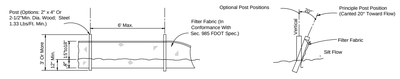


CHART I
RECOMMENDED SPACING FOR TYPE III SILT FENCES



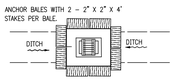
ELEVATION SECTION



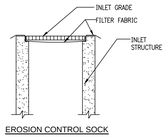
SILT FENCE APPLICATIONS

NOTE:
1. 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.
2. SPACING FOR TYPE III FENCE TO BE IN ACCORDANCE WITH CHART I ABOVE AND DITCH INSTALLATIONS AT DRAINAGE STRUCTURES.
3. SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

1 TYPE III SILT FENCE
NOT TO SCALE

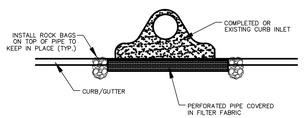


DITCH BOTTOM INLET
(FDOT INDEX 186)

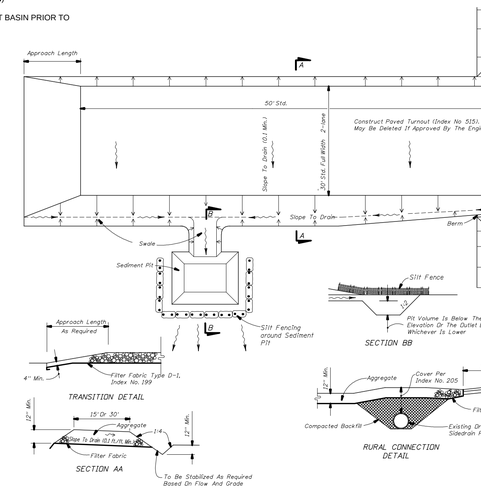


EROSION CONTROL SOCK

2 INLET PROTECTION
NOT TO SCALE



3 POLLUTION PREVENTION BARRIER FOR STORM CURB INLETS
NOT TO SCALE



GENERAL NOTES

1. A Soil Tracking Prevention Device (STPD) shall be constructed at locations designated by the engineer for points of egress from unstabilized areas of the project to public roads where off-site 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 to limit and direct vehicular egress across the STPD.
2. The Contractor may propose an alternative technique to minimize off-site 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 as 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:
   a. 15' x 50' (Std.) = 750 cubic feet x 50 ft.²
   As 50' is the length of 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 a swale is used, synthetic bales or silt fence shall be placed along the entire length.
6. The swale ditch draining the STPD shall have a 0.02 ft minimum and a 1.00 ft maximum grade along the STPD and to the sediment pit.
7. Mitered end sections are not required when the sidedrain pipe satisfies the clear zone requirements.
8. The STPD shall be maintained in a condition that will allow it to perform its function. To prevent off-site 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.
9. 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 public roads, grassing and sod. Synthetic Bale or Bale Type Barrier shall be paid for under the contract unit price for Synthetic Bales, LF. Silt fence shall be paid for under the contract unit price for Staked Silt Fence, LF.
10. The nominal size of a standard STPD is 15' x 50' unless otherwise shown in the plans. If the volume of entering and existing 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 TYPE A
Last Revision 07/01/07 | Sheet No. 1 of 1 | FDOT Index 106

4 ROCK CONSTRUCTION ENTRANCE
NOT TO SCALE

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EVANS ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION NO. 6788

DAVID L. EVANS
FLORIDA P.E. NO. 46586

DATE:_____

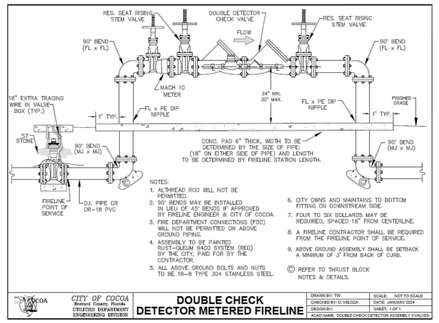
SKY POWERSPORTS OF COCOA
COCOA, FLORIDA
SWPPP NOTES & DETAILS

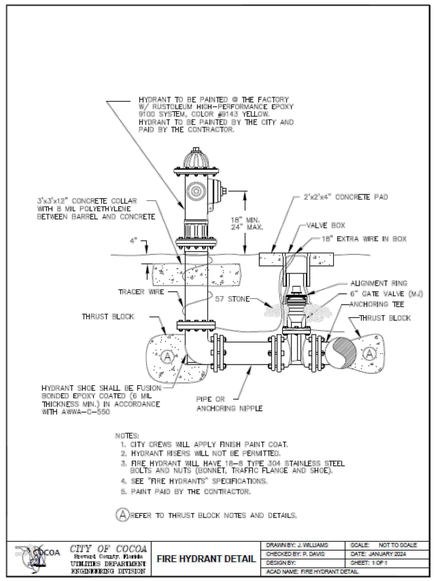
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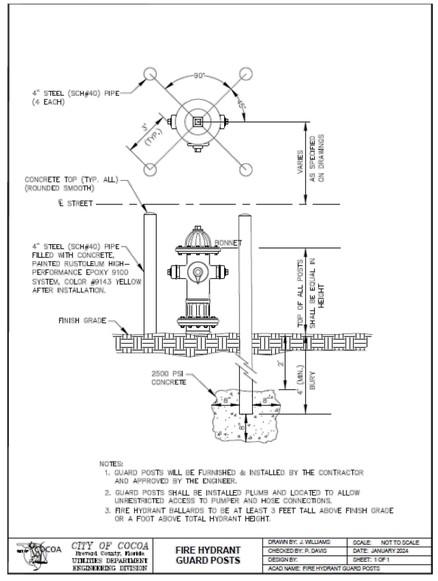
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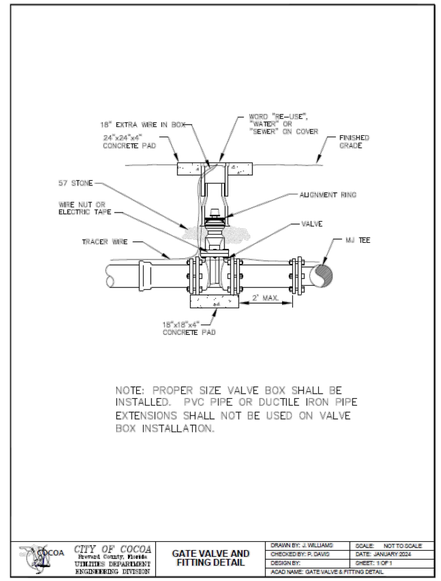
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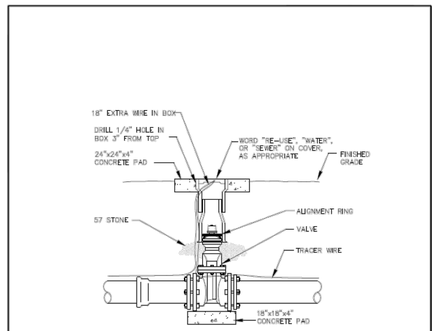
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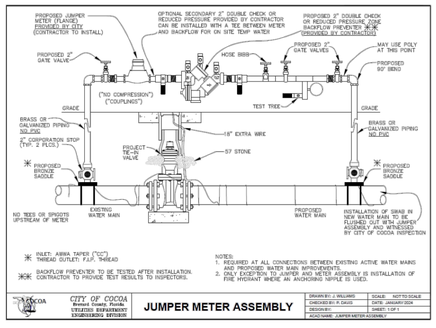


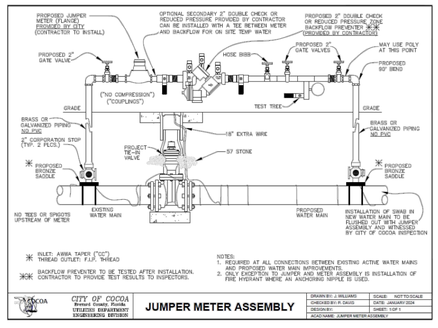


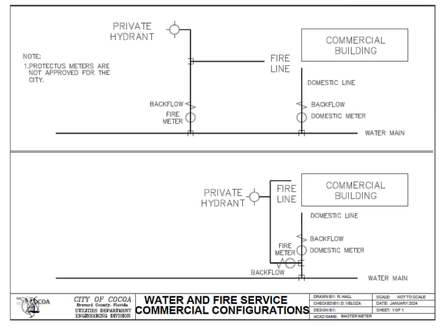












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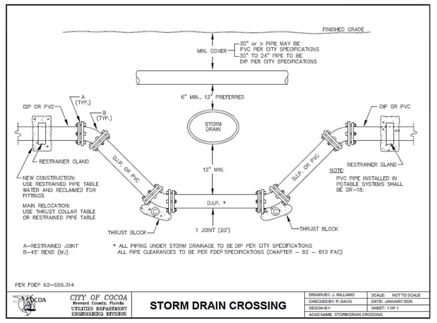
SKY POWERSPORTS OF COCOA
COCOA, FLORIDA
UTILITY DETAILS 1 OF 4

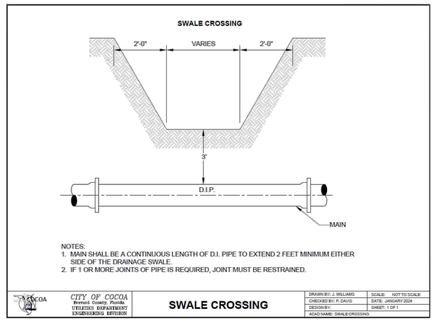
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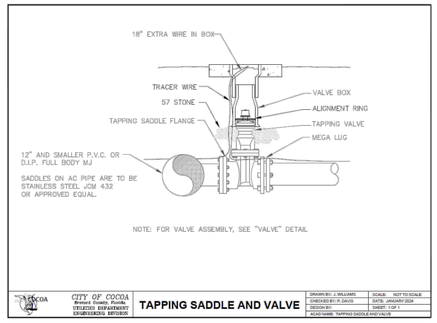
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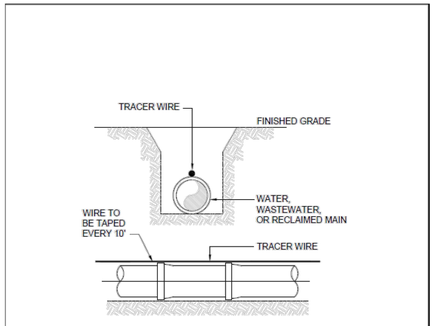
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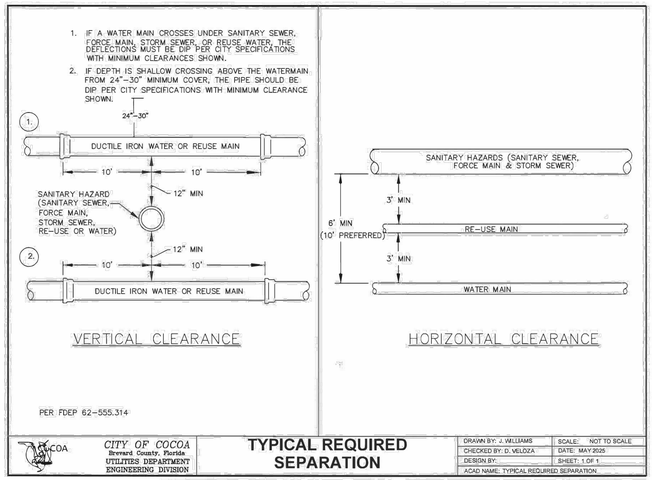
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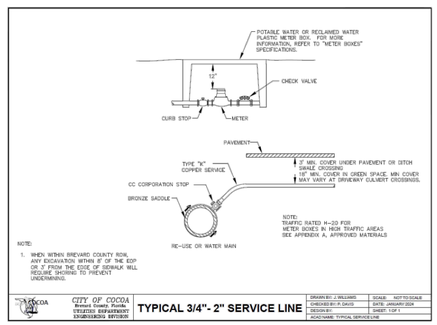


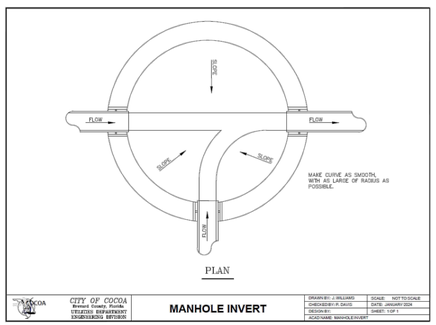












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CIVIL ENGINEERING LAND PLANNING PERMITTING SERVICES
719 IRMA AVENUE
ORLANDO, FLORIDA 32803
(407) 872-1515
www.evansenginc.com
CERTIFICATE OF AUTHORIZATION NO. 00006788

EVANS ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION NO. 6788

DAVID L. EVANS
FLORIDA P.E. NO. 46586

DATE: _____

SKY POWERSPORTS OF COCOA
COCOA, FLORIDA

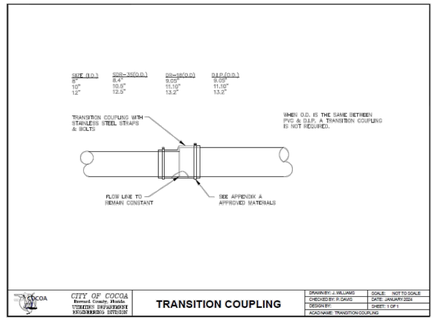
UTILITY DETAILS 1 OF 4

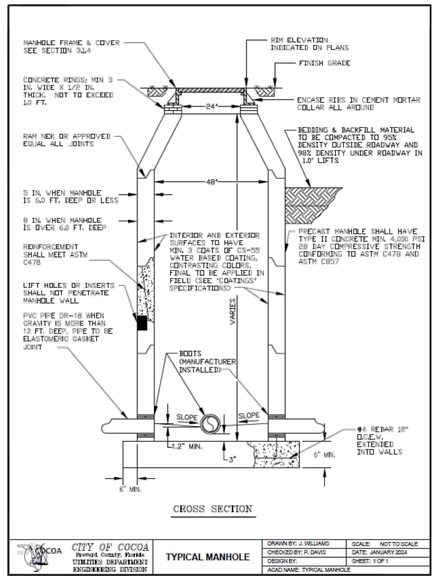
REVISIONS			
DATE	NO.	DETAIL	BY

DRAWN BY:	DATE:
-	12/9/24
CHECKED BY:	JOB #:
DE	31604

SHEET #:
C7.0

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SKY POWERSPORTS OF COCOA

COCOA, FLORIDA

UTILITY DETAILS 1 OF 4

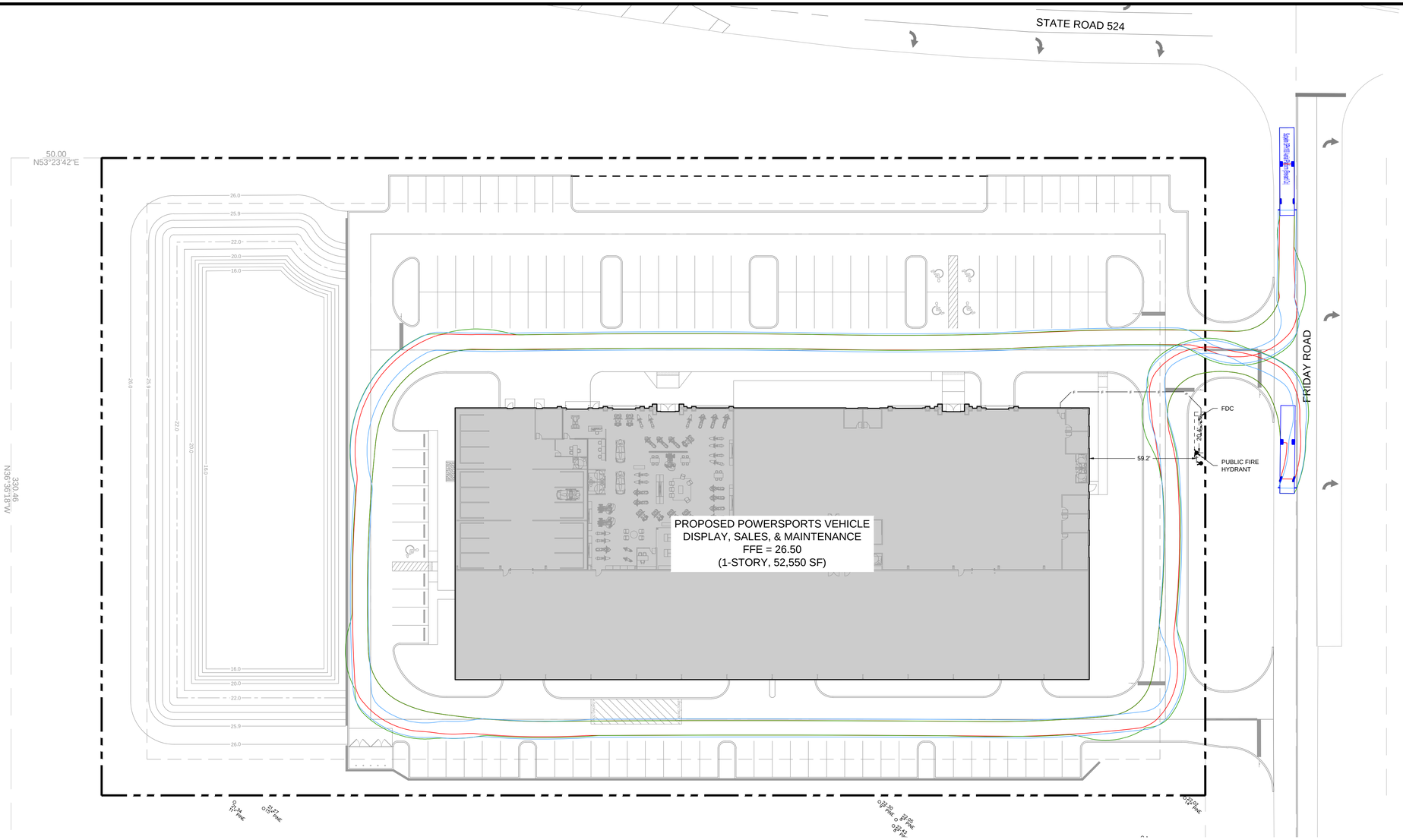
REVISIONS

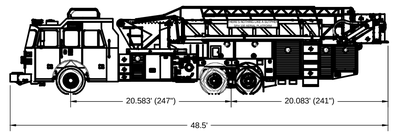
NO.	DATE	DETAIL	BY

DRAWN BY:	DATE:
-	12/9/24
CHECKED BY:	JOB #:
DE	31604

SHEET #:
C7.0

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SUTPHEN CORPORATION SPH100 AERIAL PLATFORM (BREVARD CO)

LENGTH - OVERALL:	582.00"	(48.5')
WIDTH - EXCLUDING MIRROR:	96.00"	(8.00')
REAR OVERHANG:	241.00"	(20.08')
WHEEL BASE:	247.00"	(20.58')
FRONT OVERHANG:	90.99"	(7.58')
CURB-TO-CURB TURNING RADIUS:		(36.75')

FIRE TRUCK SPECIFICATIONS

NOT TO SCALE

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DAVID L. EVANS
FLORIDA P.E. NO. 46586

DATE: _____

SKY POWERSPORTS OF COCOA

COCOA, FLORIDA

FIRE TRUCK ROUTING

REVISIONS

DATE	NO	DETAIL	BY
11/25/25	1	REVISED PER CITY COMMENTS	TLD

DRAWN BY:	DATE:
-	12/9/24
CHECKED BY:	JOB #:
DE	31604

GRAPHIC SCALE

30' 0 15' 30' 60'

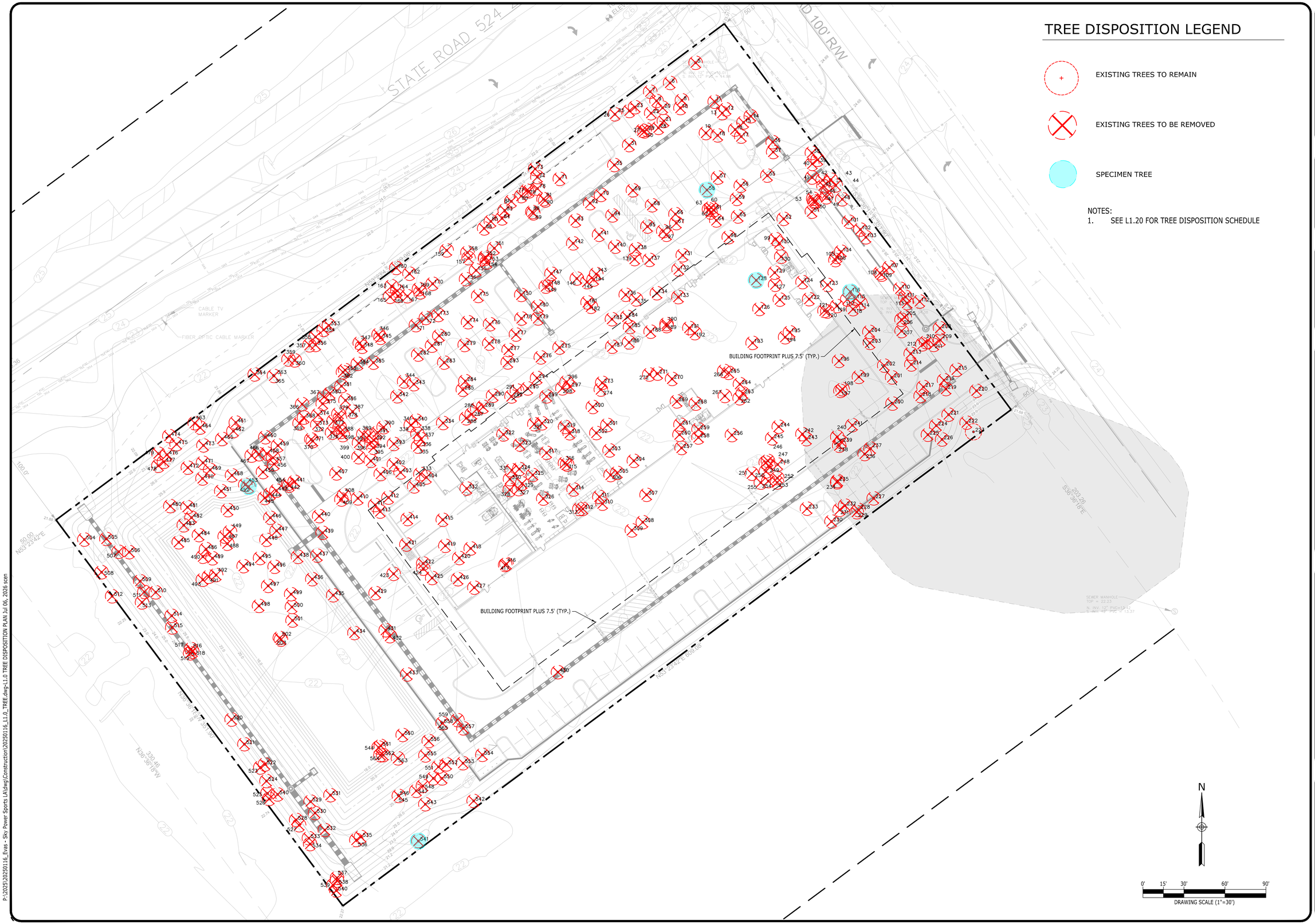
FEET

1 Inch = 30 Ft.

SHEET #:

C09.0

Saved: 12/9/2025 4:45pm By: Trent Smith
Plotted: 12/9/2025 4:45pm By: Trent Smith
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TREE DISPOSITION LEGEND

EXISTING TREES TO REMAIN

EXISTING TREES TO BE REMOVED

SPECIMEN TREE

NOTES:
1. SEE L1.20 FOR TREE DISPOSITION SCHEDULE

Catalyst Design Group
1065 W MORSE BLVD, WINTER PARK, FL 32789
(689) 219-8960 | WWW.CATALYST-DG.COM
BRUCE HALL, PLA LA 0001367
Florida Firm Registration No. 33093

Digitally signed by Bruce C Hall
Date: 2026.07.07 10:21:24-04'00'

CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

NO.	DESCRIPTION	DATE
1	CITY SUBMITTAL	09/15/2025
2	CITY RESUBMITTAL	12/09/2025
3	CITY RESUBMITTAL	04/02/2026
4	CITY RESUBMITTAL	07/07/2026

DRAWING TITLE

TREE DISPOSITION PLAN

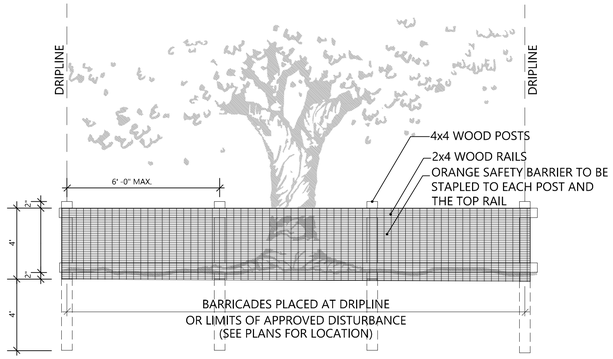
PROJECT NUMBER
20250116

DRAWING NUMBER
L1.00

P:\2025\20250116_Evas - Sky Power Sports LA\dwg\Construction\20250116_L1.0_TREE.dwg-L1.0 TREE DISPOSITION PLAN Jul 06, 2026 sean

TREE PROTECTION AND PRESERVATION NOTES

1. PROTECT DESIGNATED EXISTING TREES SCHEDULED TO REMAIN AGAINST:
   -UNNECESSARY CUTTING, BREAKING, OR SKINNING OF ROOTS
   -SKINNING AND BRUISING OF BARK
   -SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION OR EXCAVATION MATERIALS WITHIN PROTECTION BARRIER
2. PROTECTION BARRIERS (TREE BARRICADES) SHALL BE PLAINLY VISIBLE AND SHALL CREATE A CONTINUOUS BOUNDARY AROUND TREES OR VEGETATION CLUSTERS IN ORDER TO PREVENT ENCROACHMENT WITHIN THE BARRICADE.
3. FOR ALL TREES TO BE PRESERVED, SEE TREE PROTECTION AND BARRICADE ELEVATION DETAIL.
4. NO GRADE CHANGES SHALL BE MADE WITHIN THE PROTECTIVE BARRIER ZONES WITHOUT PRIOR APPROVAL.
5. THE METHOD OF PROTECTION IS TO MAKE CERTAIN THAT 50% OF THE AREA UNDER THE CANOPY DRIPLINE REMAINS UNDISTURBED (NO GRADE CHANGE OR ROOT CUT) AND THERE SHALL BE NO DISTURBANCE TO THE ROOT PLATE.
6. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT AND MITIGATION COSTS OF TREES DAMAGED BEYOND REPAIR THAT HAVE BEEN IDENTIFIED AS PROTECTED AND PRESERVED. IF TREES ARE HARMED THROUGH LACK OF PROTECTION OR THROUGH NEGLIGENCE ON THE PART OF THE CONTRACTOR, THE CONTRACTOR SHALL BEAR THE BURDEN OF THE COST OF REPAIR OR REPLACEMENT.
7. ROOT PRUNING SHALL BE DONE BY OR UNDER SUPERVISION OF AN ISA CERTIFIED ARBORIST, AND MEET OR EXCEED ANSI A300 OR APPROVED TREE CARE INDUSTRY STANDARDS. A CERTIFIED ARBORIST MUST BE ONSITE DURING THE ENTIRETY OF ROOT PRUNING.
8. NO ROOT PRUNING SHALL BE DONE WITHIN A DISTANCE OF 3X THE DIAMETER THE TREE UNLESS AUTHORIZED BY THE ARBORIST.
9. NO MORE THAN 30% OF THE TREES ROOTS MAY BE PRUNED.
10. A PRUNING TRENCH SHALL BE CLEARED IN A WAY THAT EXPOSES THE ROOTS WHILE LEAVING THEM INTACT. USE HAND TOOLS OR AN AIR KNIFE. LIMITS OF TRENCH TO BE DETERMINED BY THE ARBORIST.
11. ALL ROOTS OUTSIDE OF THE PROTECTIVE BARRICADE TO BE REMOVED DURING THE DEVELOPMENT SHALL BE SEVERED CLEAN USING A SHARP TOOL TO PROVIDE A CLEAN CUT. ROOTS SHALL BE LEFT WITH CLEAN SMOOTH ENDS AND NO RAGGED EDGES AND A TWO-INCH LAYER OF MULCH SHALL BE APPLIED OVER THE SURFACE OF EXPOSED ROOTS DURING DEVELOPMENT WITHIN ONE HOUR OF DAMAGE OR EXPOSURE.
12. AFTER PRUNING, TREE ROOTS SHALL BE COVERED AND KEPT MOIST. FILL PRUNING TRENCH WITH TOPSOIL AND WATER DAILY FOR A PERIOD DETERMINED BY THE ARBORIST.
13. ALL TREES APPROVED FOR REMOVAL UNDER THE TREE REMOVAL PERMIT SHALL BE REPLACED BY THE APPLICANT AT THEIR SOLE COST IN ACCORDANCE WITH SECTION 22(E)(5)(A) OF THE CITY OF COCOA LAND DEVELOPMENT REGULATIONS.



1 TREE PROTECTION DETAIL
SCALE: NTS

NOTES:
1. ROOT PRUNING SHALL BE DONE BY OR UNDER SUPERVISION OF AN ISA CERTIFIED ARBORIST, AND MEET OR EXCEED ANSI A300 OR APPROVED TREE CARE INDUSTRY STANDARDS. A CERTIFIED ARBORIST MUST BE ONSITE DURING THE ENTIRETY OF ROOT PRUNING.

2. NO ROOT PRUNING SHALL BE DONE WITHIN A DISTANCE OF 3X THE DIAMETER THE TREE UNLESS AUTHORIZED BY THE ARBORIST.

3. NO MORE THAN 30% OF THE TREES ROOTS MAY BE PRUNED.

4. A PRUNING TRENCH SHALL BE CLEARED IN A WAY THAT EXPOSES THE ROOTS WHILE LEAVING THEM INTACT. USE HAND TOOLS OR AN AIR KNIFE. LIMITS OF TRENCH TO BE DETERMINED BY THE ARBORIST.

5. EXPOSED ROOTS SHALL BE CUT USING A SHARP TOOL TO PROVIDE A CLEAN CUT. ROOTS SHALL BE LEFT WITH CLEAN SMOOTH ENDS AND NO RAGGED EDGES.

6. AFTER PRUNING, TREE ROOTS SHALL BE COVERED AND KEPT MOIST. FILL PRUNING TRENCH WITH TOPSOIL AND WATER DAILY FOR A PERIOD DETERMINED BY THE ARBORIST.

TREE REPLACEMENT CALCULATION TABLE
(See City of Cocoa, Code of Ordinances Sec. 22 (E)(5)(e) Table 2)

REMOVED TREES

PROTECTED TREES

	Number of Removed Trees	Number of Replacement Trees Required	Min. Size of Replacement	Total Replacement Required (Inches)
Palm Tree (12" or Greater)	0	0 (1 Per Tree Removed)	3"	0
6"-12"	358	358 (1 Per Tree Removed)	3"	1,074
13"-23"	61	244 (4 Per Tree Removed)	3"	732
			Total Protected Inches Required	1,806

REMOVED TREES

SPECIMEN TREES

	Number of Removed Trees	Number of Replacement Trees Required	Min. Size of Replacement	Total Replacement Required (Inches)
24" and above (Specimen)	4 (104 DBH Removed)	35 (Minimum of 9)	3"	104 (Minimum 27" or equivalent to inches removed)
			Total Specimen Inches Required	104

PRESERVED TREES
(See City of Cocoa, Code of Ordinances Sec. 22 (E)(5)(d) Table 1)

	Quantity	Reduction in Replacement Trees	Total Replacement Inches (1 Credit = 3" Replacement Tree)
6"-23"	1	1 Credit	3" (1 Credit x 3")
24"-35"	0	8 Credits	0
36"-42"	0	10 Credits	0
Greater than 42"	0	12 Credits	0
		Total Protected Inches Preserved	3"

TREE REPLACEMENT TABLE

PROTECTED TREE REPLACEMENT

Tree Species	Code	Quantity	Caliper Inch	Total Inches Provided
Florida Flame Red Maple	AF	10	4"	40
Southern Magnolia 'Litle Gem'	MG	10	3"	30
Slash Pine	PE	128	3"	384
Southern Live Oak	QS	18	4"	72
Natchez Crape Myrtle	LIM	37	3"	111
			Total Protected Replacement Inches Provided	637
			Total Protected Inches Preserved (See Preserved Tree Table for Calculation)	3
			Total Inches	640
			Protected Tree Inch Deficit	1,166
			Tree Replacement Fund ($100 Per Inch Not Replaced)	$ 116,600

SPECIMEN TREE REPLACEMENT

Tree Species	Code	Quantity	Caliper Inch	Total Inches Provided
Natchez Crape Myrtle	LIM	35	3"	105
			Total Specimen Inches Provided	105
			Protected Tree Inch Deficit	0
			Tree Replacement Fund ($200 Per Inch Not Replaced)	$ 0

NOTE:

* SEE SHEET L3.00 FOR LANDSCAPE SCHEDULE WITH PROPOSED TREE PLANTINGS.

Catalyst Design Group
1065 W MORSE BLVD, WINTER PARK, FL 32789
(689) 219-8900 | WWW.CATALYST-DG.COM
BRUCE HALL, PLA LA 0001367
Florida Firm Registration No.: 33093

Digitally signed by Bruce C Hall
Date: 2026.07.07 10:21:46-04'00'

CONSTRUCTION DOCUMENTS
SKY POWER SPORTS
CITY OF COCOA, FLORIDA

NO.	DESCRIPTION	DATE
	CITY SUBMITTAL	09/15/2025
	CITY RESUBMITTAL	12/09/2025
	CITY RESUBMITTAL	04/02/2026
	CITY RESUBMITTAL	07/07/2026

DRAWING TITLE
TREE MITIGATION NOTES & DETAILS

PROJECT NUMBER
20250116

DRAWING NUMBER
L1.10

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TREE DISPOSITION PLAN (SEE ARTICLE XIII SEC. 22. E OF CODE)

TREE ID	SPECIES	DBH (INCHES)	PROTECTED TREE	SPECIMEN	DISPOSITION
5	PINE	12	YES	NO	TO BE REMOVED
6	WATER OAK	9	YES	NO	TO BE REMOVED
7	WATER OAK	15	YES	NO	TO BE REMOVED
8	WATER OAK	8	YES	NO	TO BE REMOVED
9	PINE	12	YES	NO	TO BE REMOVED
10	WATER OAK	10	YES	NO	TO BE REMOVED
11	PINE	12	YES	NO	TO BE REMOVED
12	WATER OAK	10	YES	NO	TO BE REMOVED
13	WATER OAK	11	YES	NO	TO BE REMOVED
14	PINE	10	YES	NO	TO BE REMOVED
15	PINE	12	YES	NO	TO BE REMOVED
16	PINE	20	YES	NO	TO BE REMOVED
17	PINE	12	YES	NO	TO BE REMOVED
18	SWEETBAY	7	YES	NO	TO BE REMOVED
19	WATER OAK	9	YES	NO	TO BE REMOVED
20	PINE	10	YES	NO	TO BE REMOVED
21	PINE	12	YES	NO	TO BE REMOVED
22	WATER OAK	15	YES	NO	TO BE REMOVED
23	WATER OAK	6	YES	NO	TO BE REMOVED
25	WATER OAK	8	YES	NO	TO BE REMOVED
26	PINE	15	YES	NO	TO BE REMOVED
27	PINE	12	YES	NO	TO BE REMOVED
28	PINE	15	YES	NO	TO BE REMOVED
29	PINE	8	YES	NO	TO BE REMOVED
30	PINE	8	YES	NO	TO BE REMOVED
31	SWEETBAY	8	YES	NO	TO BE REMOVED
35	WATER OAK	19	YES	NO	TO BE REMOVED
36	WATER OAK	16	YES	NO	TO BE REMOVED
37	PINE	15	YES	NO	TO BE REMOVED
38	PINE	12	YES	NO	TO BE REMOVED
39	PINE	12	YES	NO	TO BE REMOVED
40	PINE	12	YES	NO	TO BE REMOVED
41	OAK	9	YES	NO	TO BE REMOVED
42	PINE	12	YES	NO	TO BE REMOVED
43	PINE	11	YES	NO	TO BE REMOVED
44	PINE	17	YES	NO	TO BE REMOVED
45	WATER OAK	10	YES	NO	TO BE REMOVED
46	PINE	7	YES	NO	TO BE REMOVED
47	PINE	14	YES	NO	TO BE REMOVED
48	PINE	12	YES	NO	TO BE REMOVED
49	PINE	7	YES	NO	TO BE REMOVED
50	WATER OAK	6	YES	NO	TO BE REMOVED
51	PINE	8	YES	NO	TO BE REMOVED
52	PINE	12	YES	NO	TO BE REMOVED
53	PINE	10	YES	NO	TO BE REMOVED
54	PINE	10	YES	NO	TO BE REMOVED
55	PINE	18	YES	NO	TO BE REMOVED
56	PINE	10	YES	NO	TO BE REMOVED
57	PINE	7	YES	NO	TO BE REMOVED
58	PINE	26	YES	YES	TO BE REMOVED
59	PINE	8	YES	NO	TO BE REMOVED
60	PINE	13	YES	NO	TO BE REMOVED
61	WATER OAK	8	YES	NO	TO BE REMOVED
62	PINE	14	YES	NO	TO BE REMOVED
63	OAK	7	YES	NO	TO BE REMOVED
64	OAK	7	YES	NO	TO BE REMOVED
65	PINE	9	YES	NO	TO BE REMOVED
66	PINE	11	YES	NO	TO BE REMOVED
67	PINE	17	YES	NO	TO BE REMOVED
68	SWEETBAY	10	YES	NO	TO BE REMOVED
69	PINE	13	YES	NO	TO BE REMOVED
70	PINE	6	YES	NO	TO BE REMOVED
71	PINE	7	YES	NO	TO BE REMOVED
72	PINE	16	YES	NO	TO BE REMOVED
73	WATER OAK	9	YES	NO	TO BE REMOVED
77	OAK	8	YES	NO	TO BE REMOVED
78	PINE	12	YES	NO	TO BE REMOVED
79	PINE	12	YES	NO	TO BE REMOVED
80	OAK	9	YES	NO	TO BE REMOVED
81	PINE	12	YES	NO	TO BE REMOVED
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84	OAK	6	YES	NO	TO BE REMOVED
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94	PINE	15	YES	NO	TO BE REMOVED
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97	RED MAPLE	16	YES	NO	TO BE REMOVED
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99	PINE	8	YES	NO	TO BE REMOVED
100	OAK	16	YES	NO	TO BE REMOVED
101	PINE	11	YES	NO	TO BE REMOVED
102	WATER OAK	8	YES	NO	TO BE REMOVED
103	PINE	10	YES	NO	TO BE REMOVED
104	WATER OAK	7	YES	NO	TO BE REMOVED
105	WATER OAK	10	YES	NO	TO BE REMOVED
106	WATER OAK	8	YES	NO	TO BE REMOVED
107	PINE	8	YES	NO	TO BE REMOVED
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109	WATER OAK	8	YES	NO	TO BE REMOVED
110	PINE	8	YES	NO	TO BE REMOVED
111	PINE	11	YES	NO	TO BE REMOVED
112	PINE	14	YES	NO	TO BE REMOVED
113	PINE	11	YES	NO	TO BE REMOVED
114	PINE	10	YES	NO	TO BE REMOVED
115	PINE	8	YES	NO	TO BE REMOVED
116	SWEETBAY	30	YES	YES	TO BE REMOVED
117	PINE	9	YES	NO	TO BE REMOVED
118	PINE	9	YES	NO	TO BE REMOVED
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125	PINE	14	YES	NO	TO BE REMOVED
126	PINE	19	YES	NO	TO BE REMOVED
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129	PINE	11	YES	NO	TO BE REMOVED
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160	PINE	7	YES	NO	TO BE REMOVED
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195	WATER OAK	16	YES	NO	TO BE REMOVED
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202	PINE	8	YES	NO	TO BE REMOVED
203	PINE	13	YES	NO	TO BE REMOVED
204	WATER OAK	7	YES	NO	TO BE REMOVED
205	WATER OAK	12	YES	NO	TO BE REMOVED
206	OAK	7	YES	NO	TO BE REMOVED
207	PINE	8	YES	NO	TO BE REMOVED
208	RED CEDAR	9	YES	NO	TO BE REMOVED
209	PINE	9	YES	NO	TO BE REMOVED
210	PINE	11	YES	NO	TO BE REMOVED
211	PINE	7	YES	NO	TO BE REMOVED
212	PINE	10	YES	NO	TO BE REMOVED
213	PINE	8	YES	NO	TO BE REMOVED
214	PINE	11	YES	NO	TO BE REMOVED
215	PINE	13	YES	NO	TO BE REMOVED
216	PINE	12	YES	NO	TO BE REMOVED
217	PINE	10	YES	NO	TO BE REMOVED
218	PINE	10	YES	NO	TO BE REMOVED
219	PINE	11	YES	NO	TO BE REMOVED
220	PINE	20	YES	NO	TO BE REMOVED
221	PINE	11	YES	NO	TO BE REMOVED
222	PINE	12	YES	NO	TO BE REMOVED
223	PINE	18	YES	NO	TO BE PRESERVED
224	PINE	9	YES	NO	TO BE REMOVED
225	PINE	12	YES	NO	TO BE REMOVED
226	PINE	10	YES	NO	TO BE REMOVED
227	PINE	8	YES	NO	TO BE REMOVED
228	PINE	8	YES	NO	TO BE REMOVED
229	PINE	6	YES	NO	TO BE REMOVED
230	PINE	6	YES	NO	TO BE REMOVED
231	PINE	8	YES	NO	TO BE REMOVED
232	PINE	8	YES	NO	TO BE REMOVED
233	PINE	10	YES	NO	TO BE REMOVED
234	PINE	6	YES	NO	TO BE REMOVED
235	PINE	8	YES	NO	TO BE REMOVED
236	PINE	7	YES	NO	TO BE REMOVED
237	PINE	8	YES	NO	TO BE REMOVED
238	PINE	6	YES	NO	TO BE REMOVED
239	PINE	8	YES	NO	TO BE REMOVED
240	PINE	7	YES	NO	TO BE REMOVED
241	PINE	9	YES	NO	TO BE REMOVED
242	PINE	7	YES	NO	TO BE REMOVED
243	PINE	9	YES	NO	TO BE REMOVED
244	PINE	10	YES	NO	TO BE REMOVED
245	PINE	9	YES	NO	TO BE REMOVED
246	PINE	8	YES	NO	TO BE REMOVED
247	PINE	8	YES	NO	TO BE REMOVED
248	PINE	13	YES	NO	TO BE REMOVED
249	PINE	8	YES	NO	TO BE REMOVED
250	PINE	13	YES	NO	TO BE REMOVED
251	PINE	9	YES	NO	TO BE REMOVED
252	PINE	11	YES	NO	TO BE REMOVED
253	PINE	12	YES	NO	TO BE REMOVED
254	PINE	12	YES	NO	TO BE REMOVED
255	PINE	7	YES	NO	TO BE REMOVED
256	PINE	11	YES	NO	TO BE REMOVED
257	LIVE OAK	8	YES	NO	TO BE REMOVED
258	PINE	9	YES	NO	TO BE REMOVED
259	PINE	13	YES	NO	TO BE REMOVED
260	PINE	15	YES	NO	TO BE REMOVED
261	PINE	8	YES	NO	TO BE REMOVED
262	LIVE OAK	7	YES	NO	TO BE REMOVED
263	LIVE OAK	14	YES	NO	TO BE REMOVED
264	PINE	9	YES	NO	TO BE REMOVED
265	LIVE OAK	8	YES	NO	TO BE REMOVED
266	PINE	9	YES	NO	TO BE REMOVED
267	LIVE OAK	7	YES	NO	TO BE REMOVED
268	PINE	14	YES	NO	TO BE REMOVED
269	PINE	13	YES	NO	TO BE REMOVED
270	PINE	9	YES	NO	TO BE REMOVED
271	PINE	10	YES	NO	TO BE REMOVED
272	PINE	13	YES	NO	TO BE REMOVED
273	PINE	7	YES	NO	TO BE REMOVED
274	PINE	11	YES	NO	TO BE REMOVED
275	PINE	8	YES	NO	TO BE REMOVED
276	PINE	12	YES	NO	TO BE REMOVED
277	PINE	12	YES	NO	TO BE REMOVED
278	PINE	13	YES	NO	TO BE REMOVED
279	PINE	10	YES	NO	TO BE REMOVED
280	PINE	8	YES	NO	TO BE REMOVED
281	PINE	10	YES	NO	TO BE REMOVED
282	PINE	10	YES	NO	TO BE REMOVED
283	PINE	13	YES	NO	TO BE REMOVED
284	PINE	8	YES	NO	TO BE REMOVED
285	PINE	12	YES	NO	TO BE REMOVED
286	PINE	7	YES	NO	TO BE REMOVED
287	PINE	12	YES	NO	TO BE REMOVED
288	PINE	8	YES	NO	TO BE REMOVED
289	PINE	10	YES	NO	TO BE REMOVED
290	PINE	9	YES	NO	TO BE REMOVED
291	PINE	12	YES	NO	TO BE REMOVED
292	PINE	14	YES	NO	TO BE REMOVED
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297	PINE	8	YES	NO	TO BE REMOVED
298	PINE	8	YES	NO	TO BE REMOVED
299	PINE	10	YES	NO	TO BE REMOVED
300	PINE	9	YES	NO	TO BE REMOVED
301	PINE	9	YES	NO	TO BE REMOVED
302	PINE	13	YES	NO	TO BE REMOVED
303	PINE	12	YES	NO	TO BE REMOVED
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305	PINE	7	YES	NO	TO BE REMOVED
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308	PINE	8	YES	NO	TO BE REMOVED
309	PINE	6	YES	NO	TO BE REMOVED
310	PINE	10	YES	NO	TO BE REMOVED
311	PINE	8	YES	NO	TO BE REMOVED
312	PINE	8	YES	NO	TO BE REMOVED
313	PINE	7	YES	NO	TO BE REMOVED
314	PINE	12	YES	NO	TO BE REMOVED
315	WATER OAK	8	YES	NO	TO BE REMOVED
316	PINE	10	YES	NO	TO BE REMOVED
317	PINE	8	YES	NO	TO BE REMOVED
318	PINE	8	YES	NO	TO BE REMOVED
319	PINE	12	YES	NO	TO BE REMOVED
320	PINE	13	YES	NO	TO BE REMOVED
321	PINE	8	YES	NO	TO BE REMOVED
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328	PINE	15	YES	NO	TO BE REMOVED
329	PINE	12	YES	NO	TO BE REMOVED
330	PINE	12	YES	NO	TO BE REMOVED
331	PINE	9	YES	NO	TO BE REMOVED
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333	PINE	12	YES	NO	TO BE REMOVED
334	PINE	13	YES	NO	TO BE REMOVED
335	PINE	13	YES	NO	TO BE REMOVED
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337	PINE	10	YES	NO	TO BE REMOVED
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342	PINE	13	YES	NO	TO BE REMOVED
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344	PINE	10	YES	NO	TO BE REMOVED
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346	WATER OAK	9	YES	NO	TO BE REMOVED
347	WATER OAK	8	YES	NO	TO BE REMOVED
348	PINE	13	YES	NO	TO BE REMOVED
353	PINE	9	YES	NO	TO BE REMOVED
354	PINE	9	YES	NO	TO BE REMOVED
355	PINE	6	YES	NO	TO BE REMOVED
356	PINE	10	YES	NO	TO BE REMOVED
357	WATER OAK	6	YES	NO	TO BE REMOVED
359	PINE	6	YES	NO	TO BE REMOVED
360	PINE	9	YES	NO	TO BE REMOVED
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364	PINE	14	YES	NO	TO BE REMOVED
365	WATER OAK	7	YES	NO	TO BE REMOVED
366	WATER OAK	8	YES	NO	TO BE REMOVED
367	PINE	10	YES	NO	TO BE REMOVED
368	PINE	8	YES	NO	TO BE REMOVED
369	PINE	12	YES	NO	TO BE REMOVED
370	PINE	9	YES	NO	TO BE REMOVED
371	PINE	9	YES	NO	TO BE REMOVED
372	PINE	10	YES	NO	TO BE REMOVED
373	PINE	7	YES	NO	TO BE REMOVED
374	PINE	9	YES	NO	TO BE REMOVED
375	PINE	8	YES	NO	TO BE REMOVED
376	PINE	10	YES	NO	TO BE REMOVED
377	PINE	8	YES	NO	TO BE REMOVED
378	PINE	9	YES	NO	TO BE REMOVED
379	PINE	7	YES	NO	TO BE REMOVED
380	PINE	12	YES	NO	TO BE REMOVED
381	PINE	10	YES	NO	TO BE REMOVED
382	WATER OAK	8	YES	NO	TO BE REMOVED
383	PINE	8	YES	NO	TO BE REMOVED
384	PINE	12	YES	NO	TO BE REMOVED
385	PINE	14	YES	NO	TO BE REMOVED
386	PINE	9	YES	NO	TO BE REMOVED
387	PINE	6	YES	NO	TO BE REMOVED
388	PINE	9	YES	NO	TO BE REMOVED
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390	PINE	12	YES	NO	TO BE REMOVED
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392	PINE	7	YES	NO	TO BE REMOVED
393	PINE	12	YES	NO	TO BE REMOVED
394	PINE	7	YES	NO	TO BE REMOVED
395	PINE	6	YES	NO	TO BE REMOVED
396	PINE	7	YES	NO	TO BE REMOVED
397	PINE	12	YES	NO	TO BE REMOVED
398	PINE	6	YES	NO	TO BE REMOVED
399	PINE	10	YES	NO	TO BE REMOVED
400	WATER OAK	7	YES	NO	TO BE REMOVED
401	PINE	12	YES	NO	TO BE REMOVED
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403	PINE	9	YES	NO	TO BE REMOVED
404	WATER OAK	6	YES	NO	TO BE REMOVED
405	WATER OAK	6	YES	NO	TO BE REMOVED
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417	PINE	10	YES	NO	TO BE REMOVED
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419	PINE	10	YES	NO	TO BE REMOVED
420	PINE	15	YES	NO	TO BE REMOVED
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436	PINE	7	YES	NO	TO BE REMOVED
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439	WATER OAK	7	YES	NO	TO BE REMOVED
440	PINE	12	YES	NO	TO BE REMOVED
441	PINE	10	YES	NO	TO BE REMOVED
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459	PINE	10	YES	NO	TO BE REMOVED
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461	WATER OAK	8	YES	NO	TO BE REMOVED
462	WATER OAK	7	YES	NO	TO BE REMOVED
463	WATER OAK	7	YES	NO	TO BE REMOVED
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465	PINE	6	YES	NO	TO BE REMOVED
466	PINE	14	YES	NO	TO BE REMOVED
467	PINE	10	YES	NO	TO BE REMOVED
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469	PINE	7	YES	NO	TO BE REMOVED
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471	PINE	9	YES	NO	TO BE REMOVED
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473	WATER OAK	8	YES	NO	TO BE REMOVED
474	WATER OAK	7	YES	NO	TO BE REMOVED
475	PINE	10	YES	NO	TO BE REMOVED
476	PINE	8	YES	NO	TO BE REMOVED
477	LIVE OAK	8	YES	NO	TO BE REMOVED
478	PINE	10	YES	NO	TO BE REMOVED
479	PINE	8	YES	NO	TO BE REMOVED
480	PINE	9	YES	NO	TO BE REMOVED
481	PINE	14	YES	NO	TO BE REMOVED
482	PINE	10	YES	NO	TO BE REMOVED
483	PINE	7	YES	NO	TO BE REMOVED
484	PINE	12	YES	NO	TO BE REMOVED
485	PINE	8	YES	NO	TO BE REMOVED
486	PINE	8	YES	NO	TO BE REMOVED
487	PINE	7	YES	NO	TO BE REMOVED
488	WATER OAK	8	YES	NO	TO BE REMOVED
489	PINE	10	YES	NO	TO BE REMOVED
490	PINE	10	YES	NO	TO BE REMOVED
491	WATER OAK	8	YES	NO	TO BE REMOVED
492	PINE	10	YES	NO	TO BE REMOVED
493	PINE	12	YES	NO	TO BE REMOVED
494	PINE	12	YES	NO	TO BE REMOVED
495	PINE	12	YES	NO	TO BE REMOVED
496	PINE	12	YES	NO	TO BE REMOVED
497	WATER OAK	7	YES	NO	TO BE REMOVED
498	PINE	8	YES	NO	TO BE REMOVED
499	WATER OAK	7	YES	NO	TO BE REMOVED
500	PINE	17	YES	NO	TO BE REMOVED
501	WATER OAK	8	YES	NO	TO BE REMOVED
502	PINE	8	YES	NO	TO BE REMOVED
503	PINE	7	YES	NO	TO BE REMOVED
504	pine	13	YES	NO	TO BE REMOVED
505	PINE	8	YES	NO	TO BE REMOVED
506	WATER OAK	10	YES	NO	TO BE REMOVED
507	PINE	10	YES	NO	TO BE REMOVED
508	PINE	6	YES	NO	TO BE REMOVED
509	LIVE OAK	7	YES	NO	TO BE REMOVED
510	PINE	12	YES	NO	TO BE REMOVED
511	WATER OAK	6	YES	NO	TO BE REMOVED
512	PINE	10	YES	NO	TO BE REMOVED
513	WATER OAK	6	YES	NO	TO BE REMOVED
514	PINE	18	YES	NO	TO BE REMOVED
515	LIVE OAK	9	YES	NO	TO BE REMOVED
516	WATER OAK	10	YES	NO	TO BE REMOVED
517	PINE	10	YES	NO	TO BE REMOVED
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519	WATER OAK	10	YES	NO	TO BE REMOVED
520	WATER OAK	7	YES	NO	TO BE REMOVED
521	LIVE OAK	18	YES	NO	TO BE REMOVED
522	WATER OAK	10	YES	NO	TO BE REMOVED
523	WATER OAK	17	YES	NO	TO BE REMOVED
524	LIVE OAK	16	YES	NO	TO BE REMOVED
525	PINE	11	YES	NO	TO BE REMOVED
526	PINE	6	YES	NO	TO BE REMOVED
527	PINE	10	YES	NO	TO BE REMOVED
528	PINE	8	YES	NO	TO BE REMOVED
529	PINE	10	YES	NO	TO BE REMOVED
530	PINE	9	YES	NO	TO BE REMOVED
531	PINE	12	YES	NO	TO BE REMOVED
532	PINE	15	YES	NO	TO BE REMOVED
533	PINE	10	YES	NO	TO BE REMOVED
534	WATER OAK	12	YES	NO	TO BE REMOVED
535	PINE	8	YES	NO	TO BE REMOVED
536	WATER OAK	8	YES	NO	TO BE REMOVED
537	PINE	8	YES	NO	TO BE REMOVED
538	PINE	10	YES	NO	TO BE REMOVED
539	PINE	6	YES	NO	TO BE REMOVED
540	LIVE OAK	7	YES	NO	TO BE REMOVED

L1.01

L1.02

VISIBILITY TRIANGLE; SHRUBS NOT TO EXCEED 4' HT.

APPROXIMATE LOCATION OF BUILDING SIGNAGE; SEE ARCH. DRAWINGS FOR EXACT LOCATION

WATER LINE (TYP.)

NORTH BUFFER: 471.83'

EAST BUFFER: 351.9'

SOUTH BUFFER: 474.1'

STATE ROAD 524

100' RW

N

0' 15' 30' 60' 90'

DRAWING SCALE (1"=30')

Catalyst DESIGN GROUP

1065 W MORSE BLVD, WINTER PARK, FL 32789
(689) 219-8960 | WWW.CATALYST-DG.COM
BRUCE HALL, PLA LA 0001367
Florida Firm Registration No. 33093

Digitally signed by Bruce C Hall
Date: 2026.07.07 10:22:21-04'00'

CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

NO.	DESCRIPTION	DATE
	CITY SUBMITTAL	09/15/2025
	CITY RESUBMITTAL	12/09/2025
	CITY RESUBMITTAL	04/02/2026
	CITY RESUBMITTAL	07/07/2026

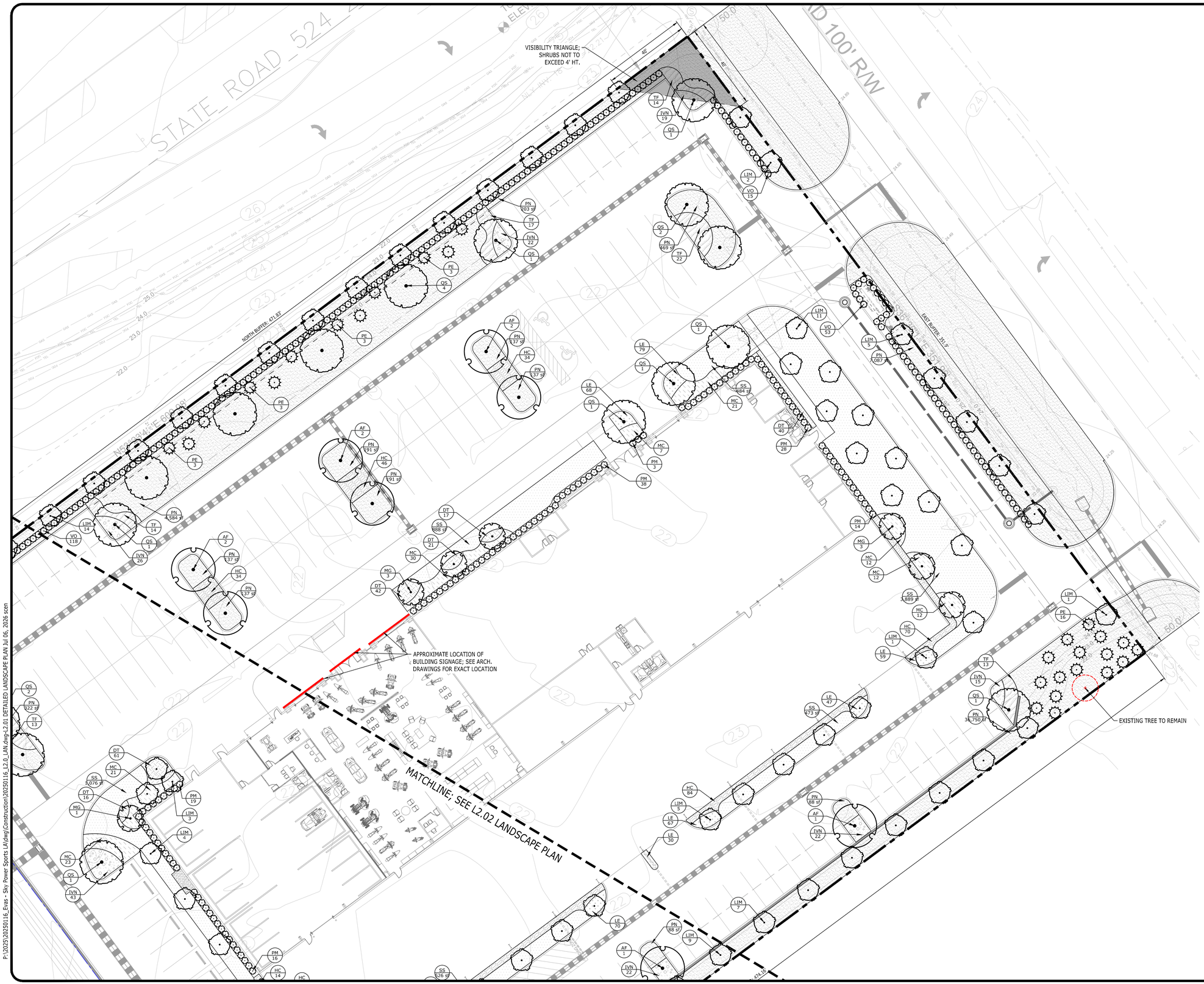
DRAWING TITLE

OVERALL LANDSCAPE PLAN

PROJECT NUMBER
20250116

DRAWING NUMBER
L2.00

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PLANT SCHEDULE

SYMBOL	CODE	COMMON NAME
CANOPY TREES		
	AF	Florida Flame Red Maple
	PE	Slash Pine
	QS	Southern Live Oak
	MG	Southern Magnolia 'Little Gem'
UNDERSTORY TREES		
	LIM	Natchez Crape Myrtle
SHRUBS		
	VO	Sweet Viburnum
	PM	Yew Pine
SHRUB AREAS		
	HC	Dwarf Firebush
	IVN	Dwarf Yaupon Holly
	TF	Fakahatchee Grass
	MC	Pink Muhly Grass
GROUND COVERS		
	LE	Evergreen Giant Lilyturf
	DT	Flax Lily
SOD		
	PN	Argentine Bahiagrass
	SS	Floratam St. Augustine Grass

NOTE:
1. SEE SHEET L3.00 FOR FULL LANDSCAPE SCHEDULE & LANDSCAPE CODE COMPLIANCE TABLE.

Catalyst Design Group
1065 W MORSE BLVD, WINTER PARK, FL 32789
(689) 219-8960 | WWW.CATALYST-DG.COM
BRUCE HALL, PLA LA 0001367
Florida Firm Registration No. 33093

Digitally signed by Bruce C Hall
Date: 2026.07.07 10:22:35-04'00'

CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

NO.	DESCRIPTION	DATE
1	CITY RESUBMITTAL	07/07/2026
2	CITY RESUBMITTAL	04/02/2026
3	CITY RESUBMITTAL	12/09/2025
4	CITY SUBMITTAL	09/15/2025

DRAWING TITLE
LANDSCAPE PLAN

PROJECT NUMBER
20250116

DRAWING NUMBER
L2.01

P:\2025\20250116_Evos - Sky Power Sports LA\dwg\Construction\20250116_L2.0_LAN.dwg-L2.01 DETAILED LANDSCAPE PLAN Jul 06, 2026 scen

PLANT SCHEDULE		
SYMBOL	CODE	COMMON NAME
CANOPY TREES		
	AF	Florida Flame Red Maple
	PE	Slash Pine
	QS	Southern Live Oak
	MG	Southern Magnolia 'Little Gem'
UNDERSTORY TREES		
	LIM	Natchez Crape Myrtle
SHRUBS		
	VO	Sweet Viburnum
	PM	Yew Pine
SHRUB AREAS		
	HC	Dwarf Firebush
	IVN	Dwarf Yaupon Holly
	TF	Fakahatchee Grass
	MC	Pink Muhly Grass
GROUND COVERS		
	LE	Evergreen Giant Lilyturf
	DT	Flax Lily
SOD		
	PN	Argentine Bahiagrass
	SS	Floratam St. Augustine Grass

NOTE:
1. SEE SHEET L3.00 FOR FULL LANDSCAPE SCHEDULE & LANDSCAPE CODE COMPLIANCE TABLE.

APPROXIMATE LOCATION OF BUILDING SIGNAGE; SEE ARCH. DRAWINGS FOR EXACT LOCATION

MATCHLINE; SEE L2.01 LANDSCAPE PLAN

WATER LINE (TYP.)

SOUTH BUFFER: 474 LF

N55°23'42"E 609.08'

N36°36'18"W 357.90'

330.46
N36°36'18"W

N

0' 10' 20' 40' 60'

DRAWING SCALE (1"=20')

Catalyst Design Group
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Florida Firm Registration No. 33093

Digitally signed by Bruce C Hall
Date: 2026.07.07 10:22:49-04'00'

CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

NO.	DESCRIPTION	DATE
	CITY SUBMITTAL	09/15/2025
	CITY RESUBMITTAL	12/09/2025
	CITY RESUBMITTAL	04/02/2026
	CITY RESUBMITTAL	07/07/2026

DRAWING TITLE

LANDSCAPE PLAN

PROJECT NUMBER
20250116

DRAWING NUMBER
L2.02

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PLANT SCHEDULE

SYMBOL	CODE	QTY	COMMON NAME	BOTANICAL NAME	CONT	CAL	SIZE
CANOPY TREES							
	AF	10	Florida Flame Red Maple	Acer rubrum `Florida Flame`	--	4" CAL.	14'-16' HT.
	MG	10	Southern Magnolia 'Little Gem'	Magnolia grandiflora `Little Gem'	--	3" CAL.	10-12' HT.
	PE	128	Slash Pine	Pinus elliottii	--	3" CAL.	12'-14' HT.
	QS	18	Southern Live Oak	Quercus virginiana	--	4" CAL.	14'-16' HT.
UNDERSTORY TREES							
	LIM	72	Natchez Crape Myrtle	Lagerstroemia fauriei 'Natchez'	--	3" CAL.	10'-12'; STANDARD
SYMBOL	CODE	QTY	COMMON NAME	BOTANICAL NAME	CONT	SIZE	SPACING
SHRUBS							
	PM	118	Yew Pine	Podocarpus macrophyllus	3 GAL.	24"-30"HT.	36" O.C.
	VO	212	Sweet Viburnum	Viburnum odoratissimum	3 GAL.	24" HT. MIN.	36" O.C.
SHRUB AREAS							
	HC	442	Dwarf Firebush	Hamelia patens 'Compacta'	3 GAL.	24" HT.	24" O.C.
	IVN	265	Dwarf Yaupon Holly	Ilex vomitoria `Nana`	3 GAL	24" HT.	24" O.C.
	MC	162	Pink Muhly Grass	Muhlenbergia capillaris	3 GAL	24"-36" HT.	36" O.C.
	TF	121	Fakahatchee Grass	Tripsacum dactyloides	3 GAL.	24"-30" OA, FULL	36" O.C.
GROUND COVERS							
	DT	230	Flax Lily	Dianella tasmanica	1 GAL.	18"-24" FULL	18" O.C.
	LE	534	Evergreen Giant Lilyturf	Liriope muscari 'Evergreen Giant'	1 GAL.	FULL	12" O.C.
SOD							
	PN	50,894 sf	Argentine Bahiagrass	Paspalum notatum 'Argentine'	SOD		
	SS	7,819 sf	Floratam St. Augustine Grass	Stenotaphrum secundatum `Floratam`	SOD		

GENERAL LANDSCAPE NOTES

1. THE PLANT QUANTITIES SHOWN ON THE PLANT SCHEDULE ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND REPORTING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO CONTRACT AWARD AND COMMENCEMENT OF WORK.
2. ALL LANDSCAPE AREAS TO BE COVERED WITH 3" DEPTH OF PINE BARK NUGGETS.
3. CONTRACTOR SHALL NOT OVERTHROW MULCH ONTO PLANT MATERIAL.
4. CONTRACTOR SHALL USE MULCH FINES TO COVER PERENNIAL PEANUTS, ASIATIC JASMINE PLANTING BEDS.
5. CONTRACTOR SHALL REPLACE (BY EQUAL SIZE AND QUALITY) ANY AND ALL EXISTING PLANT MATERIAL/SOD DISTURBED OR DAMAGED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
6. LANDSCAPE TO BE IRRIGATED BY AN AUTOMATIC SYSTEM WITH RAIN SENSOR.
7. SEE SHEET L1.00 - L1.20 FOR TREE DISPOSITION PLAN AND SCHEDULE.
8. DIAMETER/CALIPER TO BE MEASURED 4.5 FEET ABOVE FINISHED GRADE.

LANDSCAPE CODE COMPLIANCE TABLE (Sec. 22 of Code of Ordinances)

Landscape Buffers	Length	Required			Proposed	
North Buffer: Parking Lot Buffer Adjacent to R.O.W	471.83 L.F.	5' Wide	1 Tree Every 50 L.F. (471.83 LF/50 LF)	**10 Trees**	5' Wide	**18 Trees**
			Continuous Hedge Row; Planted at 2' Ht. and maintained at 4' Ht.			**Continuous Hedge**
East Buffer: Parking Lot Buffer Adjacent to R.O.W	351.9 L.F.	5' Wide	1 Tree Every 50 L.F. (351.9 LF/50 LF)	**8 Trees**	5' Wide	**8 Trees**
			Continuous Hedge Row; Planted at 2' Ht. and maintained at 4' Ht.			**Continuous Hedge**
South Buffer: Parking Lot Buffer Adjacent to Commercial	474.16 L.F.	5' Wide	1 Tree Every 50 L.F. (474.16 LF/50 LF)	**10 Trees**	5' Wide	**16 Trees**
			NO SHRUBS REQUIRED	**N/A**		**N/A**

Other Landscape Requirements	Code Required		Required	Proposed
Minimum Tree Planting Requirement	6 Trees Per Acre	4.92 AC x 6 Trees	**30 Trees**	**116 Trees**
Interior Parking Area Landscaping	10 SF of Landscaping for each Parking Space	122 Parking Spaces x 10 SF	**1,220 SF Total Landscape Area; 1 Tree Per Landscape Area with Shrubs/Groundcover/Turf**	**4,501 SF Total Landscape Area; 21 Trees with Shrubs/Groundcover/Turf**

NOTE:

* SEE SHEET L1.10 FOR TREE REPLACEMENT TABLE.

LANDSCAPE NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR HAND WATERING IN ALL PLANTING AREAS, REGARDLESS OF THE STATUS OF EXISTING OR PROPOSED IRRIGATION.
2. CONTRACTOR SHALL RE-GRADE ALL AREAS DISTURBED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
3. CONTRACTOR SHALL REPLACE (BY EQUAL SIZE AND QUALITY) ANY AND ALL EXISTING PLANT MATERIAL/SOD DISTURBED OR DAMAGED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
4. THE CONTRACTOR SHALL PROVIDE AN APPROVED PLANTING SOIL MIXTURE FOR ALL PLANT MATERIAL. SEE SPECIFICATIONS FOR REQUIREMENTS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STABILITY AND PLUMB CONDITION OF ALL TREES AND SHRUBS, AND SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIALS. STAKING OF TREES OR SHRUBS SHALL BE DONE IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSURE ADEQUATE VERTICAL DRAINAGE IN ALL PLANT BEDS AND PLANTERS. IF INADEQUATE VERTICAL DRAINAGE IS ENCOUNTERED, THE CONTRACTOR SHALL SUBMIT RECOMMENDATIONS FOR PROVIDING ADEQUATE DRAINAGE TO THE OWNER'S REPRESENTATIVE.
7. CONTRACTOR SHALL FIELD-ADJUST LOCATION OF PLANT MATERIAL PRIOR TO INITIATING INSTALLATION FOR THE REVIEW AND APPROVAL OF THE OWNER'S REPRESENTATIVE.
8. UPON COMPLETION OF ALL LANDSCAPING, AN INSPECTION FOR SUBSTANTIAL COMPLETION OF THE WORK SHALL BE HELD. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR SCHEDULING THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE.
9. CONTRACTOR SHALL SUBMIT WRITTEN GUARANTEE OF SURVIVABILITY OF ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
10. CONTRACTOR MUST REVIEW AND ACCEPT, APPROVE ALL GRADED AREAS PRIOR TO THE COMMENCEMENT OF PLANTING.
11. TREES ADJACENT TO BUILDINGS SHOULD BE PLANTED AT LEAST THE DIAMETER OF THE TREE CANOPY OR A MIN. OF 10'-0" (WHICHEVER IS GREATER) AWAY FROM THE BUILDING WALL.
12. MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL THE PROJECT HAS BEEN DEEMED SUBSTANTIALLY COMPLETE. MAINTENANCE INCLUDES WATERING, PRUNING, WEEDING, MULCHING, REPLACEMENTS OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY FOR THE PROPER GROWTH OF THE PLANT MATERIAL.
13. ALL PLANT MATERIAL SHALL BE IN FULL AND STRICT ACCORDANCE WITH FLORIDA NO. 1 GRADE OR BETTER, ACCORDING TO THE "GRADES AND STANDARDS FOR NURSERY PLANTS" PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
14. CONTRACTOR SHALL COORDINATE ALL PLANTING WORK WITH IRRIGATION WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HAND WATERING AS REQUIRED TO SUPPLEMENT IRRIGATION WATERING AND RAINFALL.
15. THE CONTRACTOR SHALL REVIEW PLANS TO BECOME THOROUGHLY FAMILIAR WITH SURFACE AND SUBSURFACE UTILITIES.
16. THE PLANT QUANTITIES SHOWN ON THE LANDSCAPE CONTRACT DOCUMENTS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND REPORTING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO CONTRACT AWARD AND COMMENCEMENT OF WORK.
17. PEG SOD ON SLOPES GREATER THAN 3:1.
18. CONTRACTOR SHALL PROTECT EXISTING VEGETATION TO REMAIN AS SHOWN ON DRAWINGS OR BY MEANS APPROVED BY THE OWNER'S REPRESENTATIVE.
19. CONTRACTOR TO CLEAN, PRUNE, AND SHAPE EDGES OF EXISTING VEGETATION AS DIRECTED BY OWNER'S REPRESENTATIVE. CREATE SMOOTH BED LINES AROUND EXISTING VEGETATION.
20. THE CONTRACTOR SHALL BEAR ALL COSTS OF TESTING OF SOILS, AMENDMENTS, ETC. ASSOCIATED WITH THE WORK. SEE SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS.
21. ALL INSTALLATION OF PLANT MATERIAL SHALL COMPLY WITH APPLICABLE JURISDICTIONAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS ASSOCIATED WITH THIS WORK.
22. PRIOR TO PLANTING INSTALLATION, THE CONTRACTOR SHALL CONFIRM THE AVAILABILITY OF ALL THE SPECIFIED PLANT MATERIALS. SUBMIT DATED PHOTOGRAPHS OF ALL TREE MATERIAL AND SPECIMEN MATERIAL AS TO THE OWNER'S REPRESENTATIVE FOR REVIEW.
23. ALL PLANT MATERIAL SIZES SPECIFIED ARE MINIMUM SIZES. CONTAINER SIZE SHALL BE INCREASED IF NECESSARY TO PROVIDE OVERALL PLANT SIZE SPECIFIED.
24. IF PLANT MATERIAL DOES NOT COMPLY WITH THE REQUIREMENTS AS SPECIFIED HEREIN, THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT SUCH PLANTS AND REQUIRE THE CONTRACTOR TO REPLACE REJECTED WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL RE-INSPECTED AND FOUND TO BE ACCEPTABLE.
25. THE PLANT QUANTITIES SHOWN ON THE PLANT SCHEDULE ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND REPORTING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO CONTRACT AWARD AND COMMENCEMENT OF WORK.
26. CONTRACTOR SHALL NOT OVERTHROW MULCH ONTO PLANT MATERIAL.
27. CONTRACTOR SHALL REPLACE (BY EQUAL SIZE AND QUALITY) ANY AND ALL EXISTING PLANT MATERIAL/SOD DISTURBED OR DAMAGED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
28. ALL LANDSCAPE AREA TO BE MULCHED WITH 3" DEEP PINE STRAWS.
29. LANDSCAPE TO BE IRRIGATED BY AN AUTOMATIC SYSTEM WITH RAIN SENSOR.

GENERAL NOTES

1. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE PROJECT SITE PRIOR TO BIDDING THE WORK. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND LOCATION OF PROPOSED IMPROVEMENTS PRIOR TO INITIATING ANY CONSTRUCTION.
2. LOCATION OF ALL UTILITIES AND BASE INFORMATION IS APPROXIMATE. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES AND OBSTRUCTIONS PRIOR TO INITIATING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGE TO EXISTING ELEMENTS ABOVE OR BELOW GROUND TO ITS ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
3. THE OWNER'S REPRESENTATIVE SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND MATERIAL WHICH, IN HIS OPINION, DO NOT MEET WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
4. CONTRACTOR SHALL VERIFY ALL GRADES, DIMENSIONS, AND EXISTING CONDITIONS ON THE JOB SITE PRIOR TO START OF CONSTRUCTION AND/OR FABRICATION. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS.
5. REPORT ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DRAWINGS AND FIELD CONDITIONS TO THE OWNER'S REPRESENTATIVE.
6. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION OPERATIONS TO PROTECT THE PUBLIC ACCORDING TO ALL APPLICABLE CODES AND RECOGNIZED LOCAL PRACTICES.
7. THE CONTRACTOR SHALL COORDINATE ACCESS AND STAGING AREAS WITH THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION. PROVIDE ADDITIONAL MEASURES AS NECESSARY TO MINIMIZE ADVERSE IMPACTS IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES.
8. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE. DURING THE COURSE OF THIS WORK, EXCESS WASTE MATERIAL SHALL BE REMOVED DAILY FROM THE SITE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION OF WORK WITH OTHER TRADES AND THE OWNER'S REPRESENTATIVE.
10. THE CONTRACTOR SHALL NOTIFY ALL NECESSARY UTILITY COMPANIES 48 HRS MINIMUM PRIOR TO DIGGING FOR FIELD VERIFICATION OF ALL UNDERGROUND UTILITIES. UTILITY LOCATING SHALL BE SCHEDULED BY THE CONTRACTOR WITH OWNER'S REPRESENTATIVE PRESENT.
11. UTILITIES TO BE LOCATED BY FLAGGING ONLY; PAINTING OF HARDSCAPE AREAS IS PROHIBITED. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTILITY LOCATING COMPANIES OF THIS REQUIREMENT.
12. ALL EXISTING SITE ROADS, PARKING LOTS, CURBS, UTILITIES, SEWERS, AND OTHER ELEMENTS TO REMAIN SHALL BE FULLY PROTECTED FROM ANY DAMAGE UNLESS OTHERWISE NOTED.
13. NOT ALL ITEMS SHOWN ON THIS SHEET APPEAR IN THE CONSTRUCTION DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS RELATED TO CONSTRUCTION INCLUDING, BUT NOT LIMITED TO: BUILDING, LANDSCAPE, IRRIGATION AND RIGHT-OF-WAY UTILIZATION PERMITS.
14. PLANTING WITHIN LOT LINES TO BE INSTALLED PRIOR TO OBTAINING CERTIFICATE OF OCCUPANCY. HOME AND LOT LANDSCAPING, DESIGNED BY OTHERS, TO BE CONSISTENT WITH CITY OF LAKE WALES CODE. SOD TO BE INSTALLED BETWEEN SIDEWALK AND CURB PRIOR TO OBTAINING CERTIFICATE OF OCCUPANCY. IRRIGATION OF LOTS TO BE PROVIDED ON ZONES INDEPENDENT OF OPEN SPACE AREAS. (TYP)
15. CONTRACTOR TO FIELD ADJUST LOT TREES AS NEEDED TO AVOID CONFLICTS WITH DRIVEWAY AND UTILITIES. (TYP)
16. ALL LANDSCAPE AND IRRIGATION SYSTEM TO BE MAINTAINED BY PTC CDD.
17. THE PROPERTY OWNER IS RESPONSIBLE FOR MAINTAINING ALL REQUIRED LANDSCAPING IN A HEALTHY AND ORDERLY CONDITION AT ALL TIMES. ANY DEAD, DAMAGED, OR DISEASED PLANT MATERIAL MUST BE REPLACED WITHIN NINETY (90) DAYS OF NOTIFICATION BY THE CITY, IN ACCORDANCE WITH SECTION 22(E)(5)(D) OF THE CITY CODE, WHICH ENCOURAGES RETENTION OF EXISTING TREES THROUGH PRESERVATION CREDITS.
18. ALL REPLACEMENT TREES SHALL BE MAINTAINED IN A HEALTHY, LIVING CONDITION FOR TWO (2) YEARS AFTER INSTALLATION. ANY TREES THAT DIE, BECOME DISEASED, OR ARE DAMAGED WITHIN THIS PERIOD SHALL BE REPLACED BY THE APPLICANT AT THEIR EXPENSE, IN ACCORDANCE WITH SECTION 22(E)(5)(G)

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Digitally signed by Bruce C Hall
Date: 2026.07.07 10:23:03-04'00'

CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

NO.	DATE	DESCRIPTION
1	07/07/2026	CITY RESUBMITTAL
2	04/02/2026	CITY RESUBMITTAL
3	12/09/2025	CITY RESUBMITTAL
4	09/15/2025	CITY SUBMITTAL

DRAWING TITLE

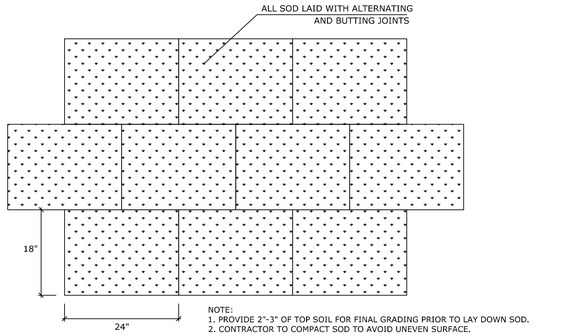
LANDSCAPE NOTES & SCHEDULE

PROJECT NUMBER 20250116

DRAWING NUMBER

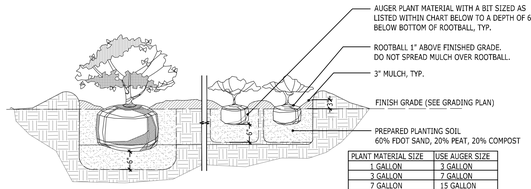
L3.00

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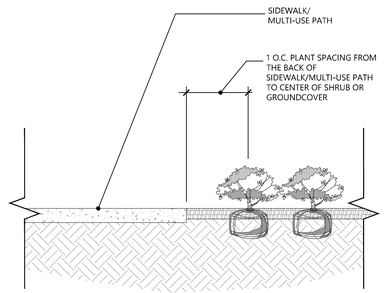
NOTE:
1. PROVIDE 2"-3" OF TOP SOIL FOR FINAL GRADING PRIOR TO LAY DOWN SOD.
2. CONTRACTOR TO COMPACT SOD TO AVOID UNEVEN SURFACE.
3. PARTIAL PIECES OF SOD OF NO LESS 2/3 IN SIZE WITHOUT ENDS WILL BE ACCEPTED.

1 SOD PLANTING
SCALE: NTS

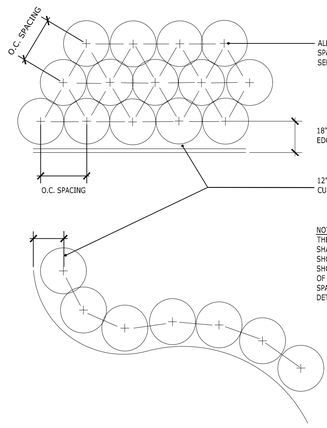


PLANT MATERIAL SIZE	USE AUGER SIZE
1 GALLON	3 GALLON
3 GALLON	7 GALLON
7 GALLON	15 GALLON
15 GALLON AND LARGER	SEE TREE PLTG. DETAILS

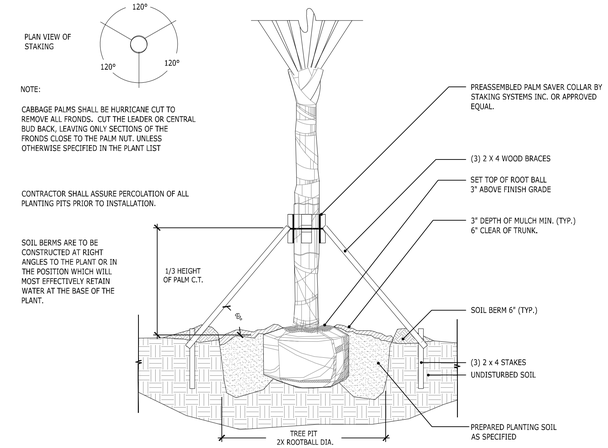
2 SHRUB & GROUNDCOVER PLANTING
SCALE: NTS



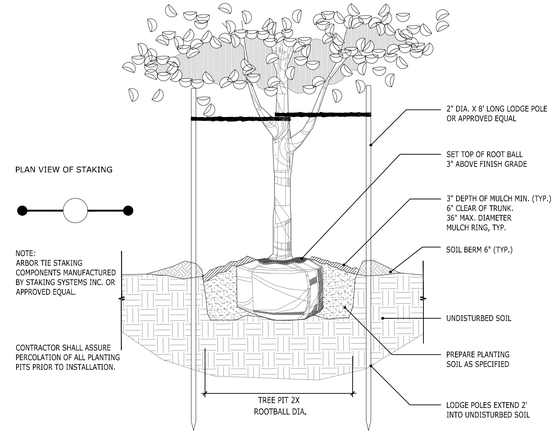
3 PLANTING ALONG SIDEWALK
SCALE: NTS



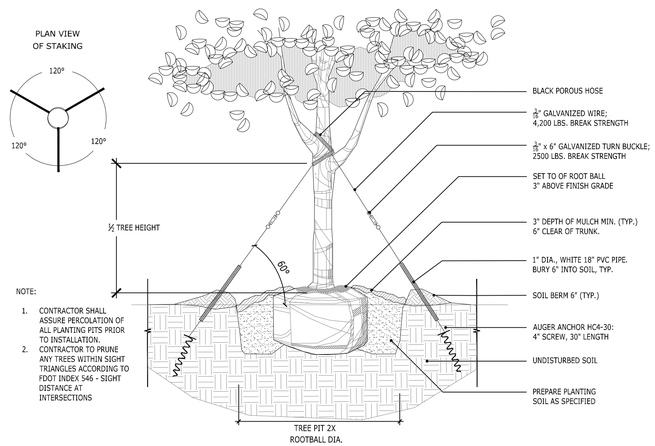
4 SHRUB & GROUNDCOVER SPACING
SCALE: NTS



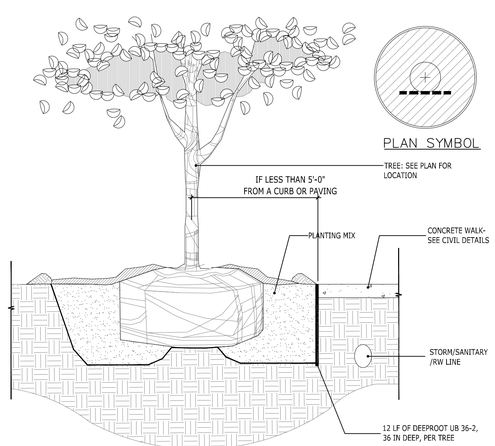
5 PALM PLANTING
SCALE: NTS



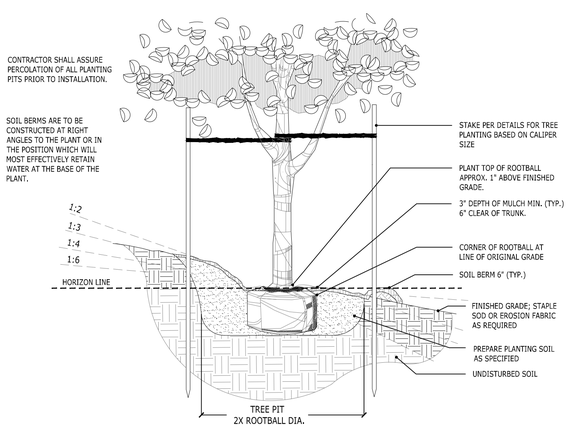
6 TREE PLANTING - LESS THAN 3" CAL.
SCALE: NTS



7 TREE PLANTING - 3" TO 7" CAL.
SCALE: NTS



8 ROOT BARRIER
SCALE: NTS



9 TREE PLANTING ON SLOPE
SCALE: NTS

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Date: 2026.07.07 10:23:18-04'00'

CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

NO.	DESCRIPTION	DATE
	CITY SUBMITTAL	09/15/2025
	CITY RESUBMITTAL	12/09/2025
	CITY RESUBMITTAL	04/02/2026
	CITY RESUBMITTAL	07/07/2026

DRAWING TITLE
LANDSCAPE DETAILS

PROJECT NUMBER
20250116

DRAWING NUMBER
L3.10

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SECTION 32 93 10 - TREES, PLANTS AND GROUNDCOVER

PART 1 - GENERAL

1.1 WORK INCLUDED

A. Provide all labor, equipment, materials and services necessary to complete the Work of this Section including:

1. Providing and installing trees, shrubs, groundcovers, sod and seed for landscape planting.
2. Fine grading of topsoil for all exterior areas to receive planting, mulch, seed or sod as specified.
3. Specified Maintenance Period and One-Year Guarantee Period.
4. Irrigation Work shall be provided as a subcontract to the Work of this Section.

1.2 RELATED WORK

A. Irrigation System

B. Backfilling and Finish Grading

1.3 QUALITY ASSURANCE

A. Codes and Standards:

1. All plant materials to comply with State and Federal laws relating to inspection for disease and insect control.
2. Plant material size and grades to conform to "American Standard for Nursery Stock." American Association of Nurserymen, Inc. Latest approved revision, ANSI Z-60-1.
3. Plant material nomenclature to conform to:
   a. "Standardized Plant Names" as adopted by the Joint Committee of Horticulture Nomenclature, latest revision.
   b. Names not listed in the above standard to comply with those most commonly used in the trade.
   c. In all cases, botanical names take precedence over common names.

B. Qualification of Personnel: Use adequate numbers of skilled workmen trained and experienced in the Work and familiar with requirements and methods needed for performance of the Work. At all times during planting operations, have on the site in a supervisory role a man knowledgeable in horticultural practices as defined in 3.08 Maintenance D.1 a-c herein.

C. Inspection and Approval:

1. All plant material is subject to inspection and approval in the field or nursery before digging, by the Contracting Officer.
2. All plant materials and other materials are subject to inspection and approval at the site before planting or placing or at any other time.
3. Attach secure, durable, legible waterproof labels, stating correct botanical and common names as specified, to at least one plant, bundle or container of each plant variety.
4. Immediately remove from the site plant materials or other materials not complying with specified requirements.
5. Approval is for visual qualities only and does not relieve the Contractor of his obligation to provide materials and workmanship in full compliance with all specifications.

1.4 SUBMITTALS

A. Materials Lists:

1. On the bid date, bidder shall be prepared to submit a complete list of materials demonstrating source, availability, and conformance with requirements specified.
2. For trees not specified as pre-selected and tagged, submit color photographs of representative plants with materials unit price list to the satisfaction of the Contracting Officer.
3. Substitutions not permitted unless proof is submitted to Contracting Officer's satisfaction that the material is unavailable as specified.

B. Maintenance Manual: In 3-ring binder, typewritten schedule and procedures for annual landscape maintenance, by Contractor to the Park and Contracting Officer.

1.5 PRECAUTIONS

A. Examine conditions under which Work is to be performed and notify the Contracting Officer of unsatisfactory conditions.

B. Determine locations of underground utilities and perform Work in a manner, which will avoid all possible damage. Hand excavate as required.

1.6 COORDINATION

A. Coordinate the Work of this Section with that of other trades.

B. Do not perform the Work until conditions are satisfactory and acceptable.

C. Maintain stakes set by others until all parties mutually agree upon removal.

D. Inform Contracting Officer in writing, prior to planting, of conditions existing which could be considered detrimental to the successful planting and growth of any plant material, including but not limited to subsurface drainage conditions, utility locations, subgrade compaction, percolation, rate and elevations.

1.7 HANDLING, DELIVERY AND STORAGE

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

B. Deliver all non-packaged or non-containerized materials to site in a manner that will prevent loss, damage, deterioration or contamination.

C. Store all materials in approved locations and to prevent loss, damage, deterioration or contamination.

D. Delivery, storage and handling of all plant materials shall conform to the following:

1. Do not prune prior to delivery.
2. Do not bend or bind trees or shrubs on such a manner as to damage bark, break branches or destroy natural shape.
3. Provide protective covering during delivery.
4. Deliver plants after preparations for planting have been completed and approved. Plant immediately.

1.8 SITE MAINTENANCE

A. Keep roads, paving and structures adjacent to planting operations clean and free of obstructions, mud and debris at all times.

B. Do not permit flushing of roads or disposal of dirt or debris into sewers or drainage ditches.

C. Control dust from planting operations.

D. Remove trash, debris and rejected materials from the site daily as the work progresses.

PART 2 - PRODUCTS

2.1 PLANT MATERIALS

A. Definition: trees, shrubs and groundcover listed in the Plant Schedule in the Drawing.

B. General:

1. Species, size, manner in which to be planted, and approximate quantities to complete planting as indicated are included in the Plant Schedule. It is the Contractor's responsibility to check these quantities to allow for the correct quantity of plants based on the plan. Any discrepancies should be pointed out to the Contracting Officer prior to bid.
2. Plants shall remain the property of the Contractor until Substantial Completion.
3. Scientific and common plant names conform to those given in Standardized Plant Names or are those generally accepted in the nursery trade.

C. Quality:

1. Grade No. 1 or better to name and type. Plants, which are not of the highest quality, will be rejected.
2. Nursery-grown, unless specified otherwise.
3. In compliance with State and Federal laws relating to disease.
4. Having normal, well-developed branches and vigorous root systems.
5. Healthy, vigorous, free from defects, decay and disfigurements, sunscald injuries, abrasions of the bark, plant disease, insect pests or eggs, borers, and all forms of infestations or objectionable disfigurements.
6. Reject plants lacking compactness or proper proportions, plants that are weak or thin or are injured by too close planting in nursery rows.
7. Plants which have been cut beck from larger grades to meet certain specified requirements will be rejected.
8. Plants with undersized, dry, cracked or broken balls, or which are loose in their balls will be rejected.
9. Container-grown material: Grown for one growing season in the container in which it is delivered; free from weeds and grasses. Root bound material will be rejected.

D. Size:

1. Sizes and proportions shall be equal to those recommended by the "American Standard for Nursery Stock" for specified grades.
2. Measure plants before pruning and with branches in normal position.
3. Equal or exceed measurements specified in Plant Schedule, which are the minimum acceptable.
4. Height and spread dimensions: General body mass of plant, not from branch tip to tip.
5. Well-proportioned as to height; reject plants which meet specified measurements but do not possess an overall balance.
6. Take caliper measurements on trunk 6 inches above natural ground level up to and including 4-inch caliper size; 12 inches above natural ground level for larger sizes.
7. Container-grown plants: conform to standards set forth in "American Standard for Nursery Stock for container-grown plants.

E. Quantity: Furnish plants in sufficient quantity to satisfy the intent of Drawings and Specifications. Locate in sufficient quantity so that time is not lost if some plants are rejected.

2.2 TOPSOIL MATERIALS AND AMENDMENTS

A. Topsoil: stockpiled by others on site for use in planting operation.

1. Characteristics of approved topsoil:
   a. Fertile, friable, naturally occurring topsoil, free of stones, subsoil, clay lumps, hardpan, roots, stumps, branches, sticks and other debris larger than two inches in any dimension; free of noxious weeds, grasses, seeds, plants, extraneous matter and any substance harmful to plant growth.
   b. PH 5.0 to 7.0
   c. Permeability Rate of 5 x 10 (-3) centimeters or greater at 85% compaction.

B. Testing for topsoil:

1. Sample and test minimum of three samples of stockpiled topsoil for compliance with specified characteristics. Tests to be performed by soil testing lab approved in advance by the Contracting Officer at the Contractor's expense. Amend per recommendations of Soil Test Report and as approved to meet specified characteristics.

C. Commercial Fertilizer:

1. Characteristics:
   a. Shall be approved by Park staff prior to installation of plant materials.
   b. Uniform in composition, dry and free flowing.
   c. Delivered in original, unopened containers each bearing the manufacturer's guaranteed analysis.
2. Of the formulation recommended in the Soil Test Report as specified.
3. Acceptable manufacturers:
   a. Sta-Green Plant Food Co.; Sta-Green
   b. O.M. Scott & Sons, Inc.; Scott's
   c. Approved equal

PART 3 EXECUTION

3.1 GRADING

A. Topsoil shall be spread and rough graded by others in all areas indicated in the Drawings to receive planting, mulch, seed or sod.

B. Fine grade topsoil to form smooth grades, eliminating irregulations and ponding.

C. Remove extraneous matter measuring 1" or larger in any dimension from top four inches (4") of placed topsoil.

D. Eliminate all unwanted vegetative growth from topsoil by approved means before planting is commenced.

E. Obtain approval of finished grades before proceeding with planting operations; eliminate irregularities and ponding.

3.2 TOPSOIL MIXES

A. Prepare topsoil mixes as specified in 2.02 (E & F) herein.

B. Obtain approval of topsoil mix before commencing planting operations. Do not mix in place with placed topsoil.

C. Remove extraneous matter measuring 1" or larger in any dimension within topsoil mix.

D. Place topsoil mix as backfill for tree and shrub pits and ground cover beds as drawn.

E. Protect topsoil mix from erosion by force of wind or water, or damage by traffic.

3.3 PLANT LAYOUT

A. Stake plant locations and areas for approval prior to planting.

B. Do not dig plant pits prior to obtaining Contracting Officer's approval of plant locations.

C. Make adjustments in plant locations as directed.

D. If underground obstructions are encountered in planting areas, alternate locations may be selected by the Contracting Officer at no additional cost to the Park.

3.4 PLANTING

A. Place plants which comprise a planting composition in approved staked locations for final approval by Contracting Officer.

B. Plant Pits and Beds:

1. Drainage:
   a. Landscape contractor is responsible for achieving and maintaining adequate drainage from all plant pits and beds. Use specified or other approved means.
   b. 48 hours prior to planting, test each plant pit for adequate drainage.
   c. Drainage is considered inadequate if pit or bed holds water for 24 hours or more.
   d. The Contracting Officer reserves the right to test tree or plant pits at any time for adequate drainage. Correct immediately any inadequate drainage encountered.
   e. Submit proposal for Contractor's preferred tree pit drainage method (s) with Bid Proposal.
2. Pits are generally circular in outline with vertical sides.
3. Tree pits 2' greater in diameter than ball or root spread.
4. Shrub pits 1' greater in diameter than ball or root spread.
5. Prepare as specified in detail Drawings.

C. Setting Plants:

1. Set plants uniformly 2" to 4" height than surrounding grade or as necessary to provide adequate positive drainage away from roots. Slope soil gradually from saucer.
2. Cut rope, wire or string from top of ball after plant has been set; turn down and bury burlap.

D. Backfilling Plants:

1. Backfill to 2/3 full with specified topsoil mix.
2. Water thoroughly to eliminate air pockets and settling before filling to grade.
3. Form shallow saucer at plant pit edge to hold water.
4. Water in thoroughly.

E. Staking and Wrapping:

1. Inspect tree trunks for injury, improper pruning and insect infestation; take corrective measure before wrapping.
2. Immediately after planting, stake and wrap trees as detailed.
3. Wind wrapping material spirally from the ground line of the trunk to the second branch, allowing 50% overlap. Tie at no less than five places, including bottom, middle and top.
4. Secure trees in rooftop planters via guys and turnbuckles to eyebolts provided with planters.

F. Pruning:

1. Do not prune plants without approval of the Contracting Officer.
2. Prune after plants are in place and ONLY at the direction of the Contracting Officer.
3. Main leaders of trees to remain intact.
4. Paint all cuts over 1/2" in diameter with approved tree wound dressing.

G. Finished Grading: Hand grade and rake planting areas so that grades conform to surrounding areas and surface water drains freely.

H. Mulching:

1. Mulch all plant pits and beds with specified mulch, uniform throughout.
2. Spread mulch solid in planting beds.

3.5 MAINTENANCE

A. Contractor to begin maintenance immediately after planting.

B. Continue maintenance through One-Year Guarantee Period following Substantial Completion.

C. Provide labor, materials, equipment and means for proper maintenance of all plant materials and sod areas.

D. Supervision:

1. Maintenance program, schedule and operations shall be supervised by a person (s) having one or more of the following qualifications:
   a. Is a Certified Nurseryman.
   b. Is a Licensed Horticulturist.
   c. Has a State Setting and Maintenance License.
2. Submit a written report and conduct joint inspection, with the Contracting Officer, of the maintenance program and procedures, at inspection for Substantial Completion and at end of Maintenance Period.

E. Maintenance of trees, shrubs and groundcovers:

1. Maintain all plants in a growing, well-formed, healthy condition by watering, fertilizing, pruning, weeding, spraying, wrapping, straightening, and replacement or by any other necessary maintenance operations.
2. Fertilizing:
   a. Shall be approved by Park staff prior to application.
   b. Apply fertilizer consistent with seasonal conditions, soil test and local application rates and ratios with a slow release nitrogen.
3. Pruning:
   a. Remove dead wood as it becomes evident.
   b. Remove living portions of plants only at the direction of the Contracting Officer.
4. Wilt-proofing: Apply approved anti-desiccant to all evergreen trees during first two weeks in December (except pines).
5. Spraying:
   a. Shall be approved by staff prior to application.
   b. For each spraying, combine approved insecticide and fungicide to provide maximum protection for all plant materials.
   c. Three sprayings annually
7. Weeding:
   a. Shall be approved by Park staff prior to application.
   b. Two applications (spring and fall) of approved insecticide and fungicide to provide maximum protection for all plant materials.
   c. Two applications of approved herbicide.
   d. Two days per month (every two weeks) manual weeding (by hand) during the spring and summer growing periods; remove all visible weeds.
8. Mulching:
   a. Keep planting areas neat and uniformly mulched as specified.
   b. In addition to replacing and respreading mulch as necessitated during the maintenance period, completely replenish mulch in all planting areas one time (*during the last month of the One-Year Guarantee Period).
9. Straightening:
   a. Maintain plants in their stable upright position and at the proper grade by straightening and tightening staking and guying apparatus, and by other necessary means.
   b. Remove staking and guying apparatus during the last month of the one-year guarantee period or earlier if guying begins to girdle tree.

F. Install and maintain temporary flags, signs, barricades, protection fences, and other precautions necessary to protect the Work and the general public, and as approved by the Contracting Officer.

G. Clean-Up:

1. Keep all planting areas neat, weeded and uniformly mulched on a continuous basis.
2. Clean-up adjacent walks, drives and other areas where littered as a result of landscape maintenance operations, on a continuous basis.

H. Submit request for payment monthly at end of month maintained.

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Date: 2026.07.07 10:23:37-04'00'

NO.	DESCRIPTION	DATE
	CITY SUBMITTAL	09/15/2025
	CITY RESUBMITTAL	12/09/2025
	CITY RESUBMITTAL	04/02/2026
	CITY RESUBMITTAL	07/07/2026

CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

DRAWING TITLE

LANDSCAPE SPECIFICATIONS

PROJECT NUMBER 20250116

DRAWING NUMBER L3.11

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L4.01

L4.02

VISIBILITY TRIANGLE; SHRUBS NOT TO EXCEED 4' HT.

STATE ROAD 524

100' R/W

TREE SPRAY VALVE #S-2 AREA

TREE SPRAY VALVE #S-1 AREA

TREE SPRAY VALVE #S-4 AREA

TREE SPRAY VALVE #S-3 AREA

N

0' 15' 30' 60' 90'

DRAWING SCALE (1"=30')

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CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

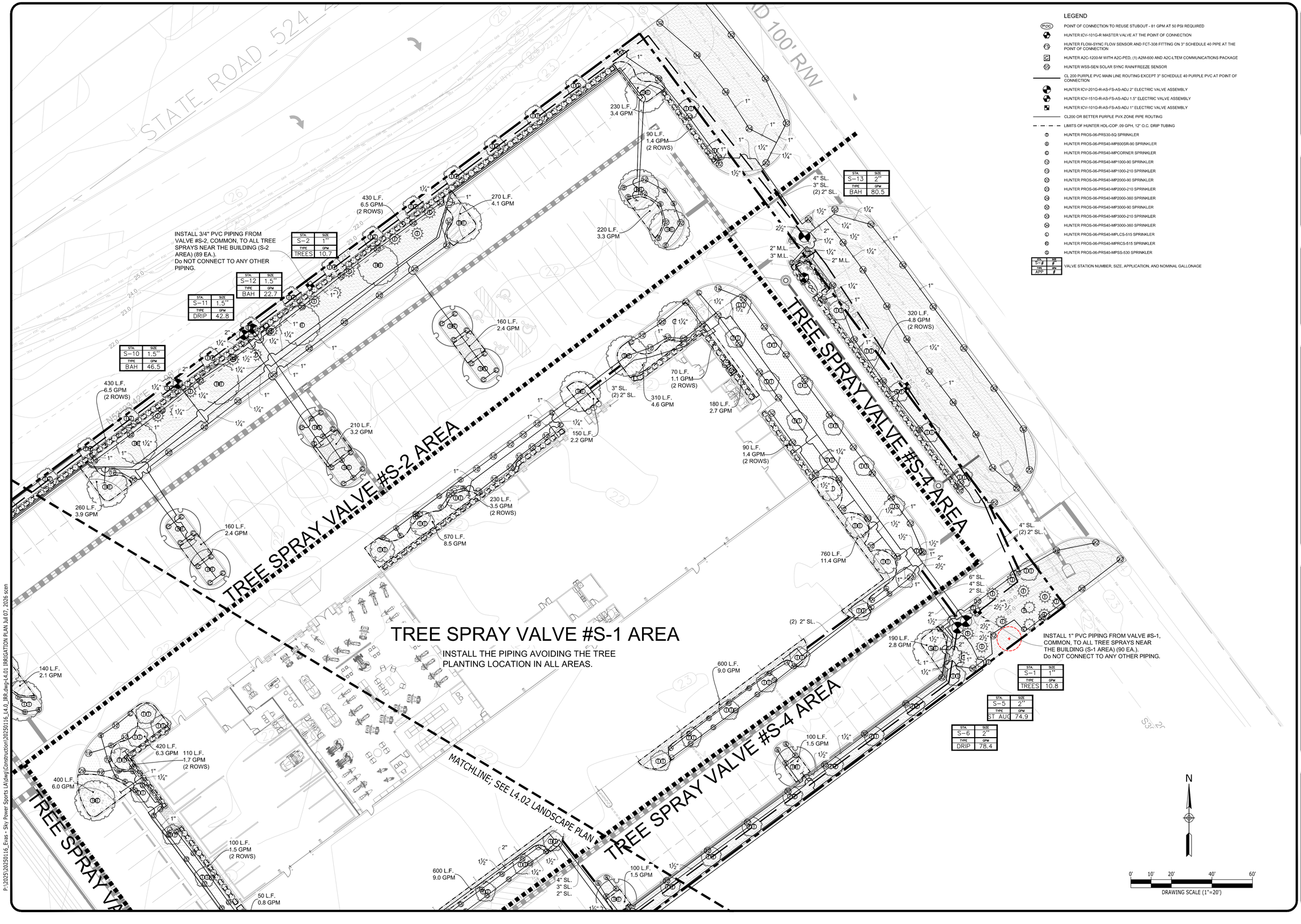
NO.	DATE	DESCRIPTION
	07/07/2026	CITY RESUBMITTAL
	04/02/2026	CITY RESUBMITTAL
	12/09/2025	CITY RESUBMITTAL
	09/15/2025	CITY SUBMITTAL

DRAWING TITLE

OVERALL IRRIGATION PLAN

PROJECT NUMBER
20250116

DRAWING NUMBER
L4.00



LEGEND

- POC — POINT OF CONNECTION TO REUSE STUBOUT - 81 GPM AT 50 PSI REQUIRED
- HUNTER ICV-101G-R MASTER VALVE AT THE POINT OF CONNECTION
- HUNTER FLOW-SYNC FLOW SENSOR AND FCT-308 FITTING ON 3" SCHEDULE 40 PIPE AT THE POINT OF CONNECTION
- HUNTER A2C-1200-M WITH A2C-PED, (1) A2M-600 AND A2C-LTEM COMMUNICATIONS PACKAGE
- HUNTER WSS-SEN SOLAR SYNC RAIN/FREEZE SENSOR
- CL 200 PURPLE PVC MAIN LINE ROUTING EXCEPT 3" SCHEDULE 40 PURPLE PVC AT POINT OF CONNECTION
- HUNTER ICV-201G-R-AS-FS-AS-ADJ 2" ELECTRIC VALVE ASSEMBLY
- HUNTER ICV-151G-R-AS-FS-AS-ADJ 1.5" ELECTRIC VALVE ASSEMBLY
- HUNTER ICV-101G-R-AS-FS-AS-ADJ 1" ELECTRIC VALVE ASSEMBLY
- CL200 OR BETTER PURPLE PVX ZONE PIPE ROUTING
- LIMITS OF HUNTER HDL-COP .09 GPH, 12" O.C. DRIP TUBING
- HUNTER PROS-06-PRS30-5Q SPRINKLER
- HUNTER PROS-06-PRS40-MP800SR-90 SPRINKLER
- HUNTER PROS-06-PRS40-MPCORNER SPRINKLER
- HUNTER PROS-06-PRS40-MP1000-90 SPRINKLER
- HUNTER PROS-06-PRS40-MP1000-210 SPRINKLER
- HUNTER PROS-06-PRS40-MP2000-90 SPRINKLER
- HUNTER PROS-06-PRS40-MP2000-210 SPRINKLER
- HUNTER PROS-06-PRS40-MP2000-360 SPRINKLER
- HUNTER PROS-06-PRS40-MP3000-90 SPRINKLER
- HUNTER PROS-06-PRS40-MP3000-210 SPRINKLER
- HUNTER PROS-06-PRS40-MP3000-360 SPRINKLER
- HUNTER PROS-06-PRS40-MPLCS-515 SPRINKLER
- HUNTER PROS-06-PRS40-MPRCS-515 SPRINKLER
- HUNTER PROS-06-PRS40-MPSS-530 SPRINKLER
- STA. / SIZE / TYPE / GPM — VALVE STATION NUMBER, SIZE, APPLICATION, AND NOMINAL GALLONAGE

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CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

NO.	DATE	DESCRIPTION
	07/07/2026	CITY RESUBMITTAL
	04/02/2026	CITY RESUBMITTAL
	12/09/2025	CITY RESUBMITTAL
	09/15/2025	CITY SUBMITTAL

DRAWING TITLE
IRRIGATION PLAN

PROJECT NUMBER
20250116

DRAWING NUMBER
L4.01

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TREE SPRAY VALVE #S-1 AREA

INSTALL THE PIPING AVOIDING THE TREE PLANTING LOCATION IN ALL AREAS.

TREE SPRAY VALVE #S-3 AREA

MATCHLINE; SEE L4.01 LANDSCAPE PLAN

260 L.F.
3.9 GPM

160 L.F.
2.4 GPM

230 L.F.
3.5 GPM
(2 ROWS)

570 L.F.
8.5 GPM

370 L.F.
5.6 GPM

140 L.F.
2.1 GPM

420 L.F.
6.3 GPM

110 L.F.
1.7 GPM
(2 ROWS)

400 L.F.
6.0 GPM

100 L.F.
1.5 GPM
(2 ROWS)

50 L.F.
0.8 GPM

3" SL.
(2) 2" SL.

380 L.F.
5.7 GPM

(2) 3" SL.
2" SL.

400 L.F.
6.0 GPM

600 L.F.
9.0 GPM

4" SL.
3" SL.
2" SL.

100 L.F.
1.5 GPM

100 L.F.
1.5 GPM

80 L.F.
1.2 GPM

STA.	SIZE
S-9	2''
TYPE	GPM
BAH	80.1

INSTALL 3/4" PVC PIPING FROM VALVE #S-3, COMMON, TO ALL TREE SPRAYS IN THE S-3 AREA (71 EA.). Do NOT CONNECT TO ANY OTHER PIPING.

STA.	SIZE
S-3	1''
TYPE	GPM
TREES	8.5

STA.	SIZE
S-4	1''
TYPE	GPM
TREES	12.1

STA.	SIZE
S-8	2''
TYPE	GPM
BAH	78.6

STA.	SIZE
S-7	1''
TYPE	GPM
DRIP	9.5

INSTALL 3/4" PVC PIPING FROM VALVE #S-3, COMMON, TO ALL TREE SPRAYS NEAR THE BUILDING (S-3 AREA). (101 EA.). Do NOT CONNECT TO ANY OTHER PIPING.

N36°36'18"W 330.46

N36°36'18"W 330.46

N65°23'42"E 609.08

LEGEND

- POC — POINT OF CONNECTION TO REUSE STUBOUT - 81 GPM AT 50 PSI REQUIRED
- HUNTER ICV-101G-R MASTER VALVE AT THE POINT OF CONNECTION
- HUNTER FLOW-SYNC FLOW SENSOR AND FCT-308 FITTING ON 3" SCHEDULE 40 PIPE AT THE POINT OF CONNECTION
- HUNTER A2C-1200-M WITH A2C-PED, (1) A2M-600 AND A2C-LTEM COMMUNICATIONS PACKAGE
- HUNTER WSS-SEN SOLAR SYNC RAIN/FREEZE SENSOR
- CL 200 PURPLE PVC MAIN LINE ROUTING EXCEPT 3" SCHEDULE 40 PURPLE PVC AT POINT OF CONNECTION
- HUNTER ICV-201G-R-AS-FS-AS-ADJ 2" ELECTRIC VALVE ASSEMBLY
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- LIMITS OF HUNTER HDL-COP .09 GPH, 12" O.C. DRIP TUBING
- HUNTER PROS-06-PRS30-5Q SPRINKLER
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- HUNTER PROS-06-PRS40-MP2000-90 SPRINKLER
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- HUNTER PROS-06-PRS40-MPLCS-515 SPRINKLER
- HUNTER PROS-06-PRS40-MPRCS-515 SPRINKLER
- HUNTER PROS-06-PRS40-MPSS-530 SPRINKLER

STA.	SIZE
S-#	#
TYPE	GPM
TYPE	#

VALVE STATION NUMBER, SIZE, APPLICATION, AND NOMINAL GALLONAGE

N

0' 10' 20' 40' 60'

DRAWING SCALE (1"=20')

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CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

NO.	DESCRIPTION	DATE
1	CITY SUBMITTAL	09/15/2025
2	CITY RESUBMITTAL	12/09/2025
3	CITY RESUBMITTAL	04/02/2026
4	CITY RESUBMITTAL	07/07/2026

DRAWING TITLE

IRRIGATION PLAN

PROJECT NUMBER
20250116

DRAWING NUMBER
L4.02

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PART 1 – GENERAL

DESCRIPTION

FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND TRANSPORTATION, UNLESS OTHERWISE SPECIFIED, NECESSARY TO PROVIDE A REUSE FED AUTOMATIC IRRIGATION SYSTEM FOR LANDSCAPE PLANT MATERIALS AND TURF AREAS.

APPLICABLE STANDARDS

AMERICAN SOCIETY OF AGRICULTURAL ENGINEERS S376.1, "DESIGN, INSTALLATION AND PERFORMANCE OF UNDERGROUND, THERMOPLASTIC IRRIGATION PIPELINES."

ASTM D2774, "UNDERGROUND INSTALLATION OF THERMOPLASTIC PRESSURE PIPING."

ASTM D1785, POLY (VINYL CHLORIDE) (PVC) PLASTIC PIPE, SCHEDULES 40, 80, AND 120.

SUBSTITUTIONS

WHEREVER BRAND NAMES ARE USED IN THESE SPECIFICATIONS, USE ONLY THE BRAND SPECIFIED. MAKE NO SUBSTITUTIONS AS A PART OF THIS BID PACKAGE.

PART 2 – MATERIALS

PIPE

FURNISH ALL UNDERGROUND PIPING AS PVC EXCEPT FOR THE FLEXIBLE POLYETHYLENE (POLY PIPE) PIPING THAT IS TO BE USED BETWEEN THE LATERALS AND SPRINKLER HEADS. ALL MAIN LINE PVC PIPE SHALL BE PURPLE SCHEDULE 40 PVC AND ALL ZONE PIPE SHALL BE CL200 PURPLE PVC OR BETTER.

SIZE EACH SLEEVE TO ACCOMMODATE THE PIPES AND WIRES BEING ROUTED THROUGH IT. CONSULT WITH THE OWNER OR OWNER'S REPRESENTATIVE FOR THE LOCATION, DEPTH, NUMBER AND SIZE OF ANY AVAILABLE EXISTING SLEEVES.

PIPE FITTINGS

FOR MAIN LINE PVC PIPE FITTINGS, USE PVC SCH. 40 FITTINGS AND USE THREADED FITTINGS FOR CONNECTION TO VALVES.

FOR PVC ZONE PIPE, USE SCHEDULE 40, SOLVENT WELD FITTINGS, MANUFACTURED FROM PVC 12454–B COMPOUND AND TESTED IN ACCORDANCE WITH ASTM D2466, EXCEPT FOR THREADED FITTINGS. FOR THREADED APPLICATIONS, USE SCHEDULE 80 FITTINGS MANUFACTURED FROM PVC 12454– B COMPOUND AND TESTED IN ACCORDANCE WITH ASTM D2467.

DO NOT USE MALE ADAPTERS FOR ANY APPLICATIONS. INSTEAD, USE A "TOE" NIPPLE GLUED INTO A SCHEDULE 40 COUPLER.

SEE DETAILS FOR SPRINKLER TO PIPE CONNECTIONS. NO "FLEX PVC"

SOLVENT CEMENT AND PRIMER

USE A MEDIUM OR HEAVY BODY GRAY SOLVENT CEMENT MANUFACTURED IN ACCORDANCE WITH ASTM D2564 AND PRIMER MANUFACTURED IN ACCORDANCE WITH ASTM F656.

SPRINKLERS

INSTALL HUNTER PROS–06–PRS30 SPRINKLERS WITH APPROPRIATE SCREENS AND NOZZLES FOR ALL TREE SPRAY APPLICATIONS. PURPLE INDICATORS

INSTALL HUNTER PROS–06–PRS40 SPRINKLERS WITH APPROPRIATE SCREENS AND RVAN NOZZLES FOR ALL BAHIAGRASS AND ST. AUGUSTINE TURF APPLICATIONS EXCEPT FOR ROTOR AREAS.

POINT OF CONNECTION

CONNECT TO THE THE REUSE STUBOUT FROM THE METER (BY OTHERS) CAPABLE OF 80 GPM AT 55 PSI.

NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES AS TO GALLONAGE AND PRESSURE BEFORE COMMENCING WITH THE INSTALLATION.

DRIP TUBING

INSTALL HUNTER HDL–COP .9 GPH, 12" O.C. TUBING FOR ALL DRIP LINE APPLICATIONS.

DRIP TUBING FITTINGS

INSTALL HUNTER TUBING FITTINGS FOR ALL DRIP LINE APPLICATIONS.

VALVE BOXES

USE 12 X 18 VALVE BOXES FOR ALL APPLICATIONS. PURPLE LIDS

ELECTRIC VALVES

INSTALL ELECTRIC VALVES PER THE LEGEND WITH PRESSURE REGULATORS FOR ALL APPLICATIONS. PURPLE KNOBS

INSTALL FILTRATION ON ALL DRIP ZONE VALVES.

CONTROLLER

USE A CONTROLLER PER LEGEND AND NOTES. ASSURE THAT THE SYSTEM IS INTERFACED WITH A SOLAR SYNC RAIN/FREEZE SENSOR FOR THIS SYSTEM.

WIRE

USE U.F. WIRE APPROVED FOR DIRECT BURIAL UNDERGROUND FOR ALL 24 VAC APPLICATIONS.

USE RED #14 AWG WIRE FOR ALL VALVE POWER WIRES.

USE WHITE #14 AWG WIRE FOR ALL VALVE COMMON WIRES.

GROUNDING

GROUND THE CONTROLLER LOCATION IN ACCORDANCE WITH THE DETAIL AND THE MANUFACTURER'S RECOMMENDATIONS.

PART 3 – EXECUTION

A. GENERAL

INSTALL PVC PIPE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. REVIEW CONSTRUCTION PLANS WITH THE OWNER OR OWNER'S REPRESENTATIVE BEFORE ANY WORK BEGINS. THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT/OWNER PRIOR TO INSTALLATION IF THERE IS ANY DOUBT AS TO HEAD LINE OR ZONE PLACEMENT.

INSPECT THE CONSTRUCTION SITE BEFORE ANY WORK BEGINS AND FLAG LOCATIONS OF MAINLINE PIPE, SLEEVES, HEADS AND VALVES FOR REVIEW BY THE LANDSCAPE ARCHITECT/OWNER. FLAGS SHALL BE CLEARLY MARKED OR COLORED TO DESIGNATE THE TYPE OF EQUIPMENT TO BE INSTALLED AT THAT POINT. INSTALLATION SHALL NOT COMMENCE UNTIL THE STAKING/ FLAGGING HAS BEEN APPROVED.

COORDINATE THE INSTALLATION OF THE IRRIGATION SYSTEM WITH THE LANDSCAPE CONTRACTOR TO PROVIDE FOR CORRECT APPLICATION OF WATER TO THE PLANT MATERIAL.

PIPE TRENCH CONSTRUCTION

PROVIDE FOR A MINIMUM DEPTH OF COVER OF 18" FOR ALL MAIN LINE PIPE AND 12" OF COVER FOR ALL ZONE PIPE AS MEASURED FROM FINISHED GRADE.

PROVIDE THE MINIMUM DEPTH OF COVER, AS SPECIFIED ABOVE, OVER THE TOP OF THE PIPE BEFORE THE TRENCH IS WHEEL–LOADED.

BACK FILL

PROVIDE INITIAL BACK FILL MATERIAL THAT IS FINE–GRAINED MATERIAL FREE FROM COMPACTED EARTH GREATER THAN TWO INCHES IN DIAMETER, ROCKS, OR STONES.

TAMP THE BACK FILL IN LAYERS NOT TO EXCEED SIX INCHES. LIFT AND COMPACT FIRMLY AROUND THE PIPE AND UP TO AT LEAST SIX INCHES ABOVE THE TOP OF THE PIPE. SUFFICIENTLY MOISTEN THE BACK FILL TO PERMIT THOROUGH COMPACTION UNDER AND ON EACH SIDE OF THE PIPE TO PROVIDE SUPPORT FREE FROM VOIDS. AVOID DEFORMING, DISPLACING, OR DAMAGING PIPE DURING THIS PHASE OF THE OPERATION. ASSURE THAT WHEN FINISHED, THE SOIL COMPACTION EQUALS THE ORIGINAL CONDITION.

FITTING AND PIPE CONNECTIONS

SQUARE CUT, CLEAN AND PRIME ALL JOINTS BEFORE CEMENTING.

FULLY ENGAGE ALL JOINTS WHILE CEMENTING.

PVC FITTINGS – MAKE ALL SOLVENT WELD JOINTS IN ACCORDANCE WITH ASTM D2855. PRIME ALL FITTINGS WITH PURPLE PRIMER BEFORE MAKING SOLVENT WELD CONNECTIONS. ALLOW SOLVENT WELDED JOINTS AT LEAST ONE (1) HOUR TO SET UP BEFORE MOVING OR HANDLING. DO NOT PERMIT WATER IN THE PIPE FOR AT LEAST TWENTY–FOUR HOURS AFTER MAKING A SOLVENT WELD ON THAT PIPE UNLESS RECOMMENDED OTHERWISE BY THE SOLVENT CEMENT MANUFACTURER. SEAL ALL THREADED PVC FITTINGS WITH LIQUID TEFLON EXCEPT SPRINKLER HEADS, ELECTRIC VALVE CONNECTIONS AND SWING JOINTS. INSTALL ALL OF THESE EXCEPTIONS USING ONE INCH TEFLON TAPE.

FLUSHING PIPELINES

FLUSH ALL PIPELINES BEFORE SPRINKLERS ARE INSTALLED. MAINTAIN A MINIMUM PIPE VELOCITY OF THREE FEET PER SECOND AND FLUSH FOR A MINIMUM TIME OF:

T = 2L/3 WHERE T = TIME IN SECONDS
& L = PIPE LENGTH IN FEET FROM INLET POINT TO MOST DISTANT POINT IN PIPELINE.

INSTALLING ELECTRIC VALVE CONTROL WIRING

INSTALL WIRING IN THE SAME TRENCH AND ALONG THE SAME ROUTE AS, AND UNDERNEATH THE MAIN LINE EXCEPT IN LOCATIONS WHERE THE WIRE WILL PASS UNDER PAVING. AT THOSE LOCATIONS INSTALL THE WIRE INSIDE OF A PVC SLEEVE. INSTALL CONTROL WIRING THROUGH WALLS, FLOORS, AND SLABS IN PVC SLEEVES. INSTALL (2) EXTRA WIRES POWER FROM EACH CONTROLLER TO THE FARTHEST VALVE IN EACH DIRECTION OPERATED BY THAT CONTROLLER.

TAPE WIRING TOGETHER AT INTERVALS OF TEN FEET, USING 1/4 INCH FIBER REINFORCED TAPE.

USE A CONTINUOUS WIRE BETWEEN THE CONTROLLER AND VALVE. MAKE AN EXPANSION LOOP OF A MINIMUM 12 INCHES DIAMETER AT EACH WIRE CONNECTION. PROVIDE EXPANSION COILS OF WIRE AT NO MORE THAN 100 FOOT INTERVALS AND AT EACH DIRECTION CHANGE IN THE WIRE ROUTING.

ATTACH PERMANENT MARKINGS AT EACH END OF EACH WIRE TO IDENTIFY IT BY VALVE NUMBER.

PROVIDE A SEPARATE POWER WIRE FOR EACH CONTROL VALVE.

AUTOMATIC CONTROLLER INSTALLATION

LOCATION – VERIFY LOCATION WITH OWNER OR OWNER'S REPRESENTATIVE BEFORE INSTALLATION.

VERIFY THAT SUFFICIENT SLEEVING EXISTS TO ALLOW ROUTING OF THE VALVE WIRING FROM THE CONTROLLER TO EACH VALVE.

VALVE INSTALLATION

INSTALL ALL AUTOMATIC ZONE VALVES AND GATE VALVES IN VALVE BOXES. NUMBER EACH ZONE VALVE BOX ON THE UNDERSIDE AND TOPSIDE OF EACH VALVE BOX COVER WITH BLACK WATERPROOF MARKER FOR REFERENCE.

INSTALL ANY MAIN LINE ISOLATION VALVES AND QUICK COUPLING VALVES IN VALVE BOXES.

INSTALLATION OF SPRAY HEADS.

INSTALLATION SCHEDULE – INSTALL SPRAY HEADS AFTER THE SPRINKLER BODY ASSEMBLIES HAVE BEEN CLEANLY FLUSHED.

ORIENTATION – INSTALL POP–UP UNITS IN A PLUMB POSITION AND FIELD ADJUST SPRINKLER HEADS TO OBTAIN COMPLETE COVERAGE OF IRRIGATED AREA WITH MINIMUM OVER SPRAY ONTO PAVED SURFACES. HEADS ARE TO BE LOCATED ON A MAXIMUM SPACING OF 55% OF THE SPRINKLER COVERAGE DISTANCE AND CLOSER WHERE INDICATED. ADJUST NOZZLE DISTANCE AS NEEDED TO COVER PLANT MATERIALS AND MINIMIZE OVER SPRAY ON STRUCTURES AND PAVEMENT. ALIGN POP–UP SPRAY HEADS IN A VERTICAL ORIENTATION AS SHOWN IN THE DETAILS. ADJUST AS NECESSARY TO PROVIDE THE BEST COVERAGE IN SLOPED AREAS.

TESTING

PRESSURE TEST THE SYSTEM MAIN LINE BEFORE APPRECIABLY BACKFILLING.

PRESSURE TEST THE SYSTEM MAIN LINE, IN THE PRESENCE OF THE OWNER OR OWNER'S REPRESENTATIVE, FOR A PERIOD OF NO LESS THAN FOUR HOURS, CONTINUOUSLY, AT A PRESSURE OF NO LESS THAN 100 PSI WITH NO LEAKS AND ASSURE THAT ANY TESTS OF THE SYSTEM MAIN LINE MEET THE APPLICABLE COUNTY PLUMBING CODES. IF LEAKAGE OCCURS, REMEDY THE LEAKAGE PROBLEM AND RETEST. REPEAT THIS PROCESS AS MANY TIMES AS NECESSSARY UNTIL A SUCCESSFUL TEST IS PERFORMED.

INSPECTIONS

THE FOLLOWING INSPECTIONS ARE REQUIRED. NOTIFY OWNER OR OWNER'S REPRESENTATIVE IN ADVANCE THAT EACH ITEM IS READY FOR INSPECTION AS INDICATED BELOW:

INSPECTION OF FLAGGED UNDERGROUND MAINLINE PIPING, SLEEVES, SPRINKLER AND VALVE LOCATIONS PRIOR TO BEGINNING CONSTRUCTION – NOTIFY 48 HOURS IN ADVANCE.

SPRINKLER COVERAGE TEST – NOTIFY 48 HOURS IN ADVANCE.

FINAL INSPECTION – NOTIFY 48 HOURS IN ADVANCE.

TESTING

COVERAGE TESTS – CONDUCT SPRINKLER COVERAGE TESTS UNDER NORMAL OPERATING PRESSURE CONDITIONS BEFORE ANY GROUND COVER OR TURF IS PLANTED. CORRECT AND FIELD ADJUST SPRINKLER ORIENTATION TO PROVIDE UNIFORM PRECIPITATION OVER THE IRRIGATED AREA AND MINIMIZE OVER SPRAY ONTO PAVED SURFACES AND BUILDINGS.

WARRANTY

THE CONTRACTOR SHALL ISSUE TO THE OWNER OR OWNER'S REPRESENTATIVE A CERTIFICATE OF WARRANTY OF THE IRRIGATION SYSTEM FOR A PERIOD OF NOT LESS THAN ONE YEAR ON ALL SPRINKLERS, VALVES, THE CONTROLLER, AND HIS LABOR.

DRAWING OF RECORD

THE CONTRACTOR SHALL SUPPLY TO THE OWNER A DRAFTED, SCALED, REPRODUCIBLE PLAN SHOWING ALL CHANGES MADE TO THE EXISTING IRRIGATION SYSTEM AND ALL NEWLY INSTALLED COMPONENTS INCLUDING ALL SPRINKLERS, INCLUDING BODY TYPES AND NOZZLES, PIPE, INCLUDING SIZES AND THE ENDS OF SLEEVING LOCATIONS AS MEASURED FROM AT LEAST TWO FIXED OBJECTS, CONTROLLER, AND WIRE ROUTING. THIS PLAN MAY BE AN ADAPTATION OF THE IRRIGATION DESIGN WITH ANY CHANGES DRAFTED ON THIS PLAN. THE DRAWING SHALL ALSO PROVIDE A MINIMUM OF TWO (2) DIMENSIONS TAKEN FROM FIXED OBJECTS TO EACH AUTOMATIC VALVE AND MANUAL CONTROL VALVE.

ADDITIONAL SUBMITTALS

SUPPLY TO THE OWNER ALL INSTRUCTION SHEETS AND PARTS LISTS COVERING ALL OPERATING AND ELECTRICAL–RELATED EQUIPMENT, BOUND IN ONE FOLDER. FURNISH THE OWNER WITH ANY KEYS FOR LOCKABLE ITEMS ON THIS SYSTEM.

RAIN GAUGE

ASSURE THAT EACH CONTROLLER IS INTERFACED WITH A RAIN SWITCH WHICH WILL SHUT THE SYSTEM OFF IN CASE OF RAIN OR FREEZING WEATHER.

MISCELLANEOUS

ANY IRRIGATION ITEMS NORMALLY INSTALLED IN LANDSCAPE AREAS THAT ARE SHOWN OUTSIDE OF LANDSCAPE AREAS OR OUTSIDE OF THE PROPERTY LINES ARE SHOWN AS SUCH FOR GRAPHIC CLARITY ONLY. INSTALL THESE ITEMS INSIDE OF PROPERTY LINES AND IN LANDSCAPE AREAS. CONTACT THE OWNER OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION IF IN ANY DOUBT OF HEAD, LINE OR ZONE PLACEMENT.

ASSURE THAT THE SYSTEM PROVIDES 100% COVERAGE OF ALL LANDSCAPED AREAS. REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT BEFORE COMMENCING WITH THE INSTALLATION.

ALL APPLICABLE CODES SHALL TAKE PRECEDENCE OVER THESE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL APPLICABLE CODES.

THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO MAKE MINOR FIELD CHANGES.

FIELD ADJUST NOZZLE SELECTION LOCATIONS AND PLUMB OF SPRINKLERS TO PROVIDE PROPER COVERAGE.

GOVERNING REGULATIONS

INSTALL THE IRRIGATION SYSTEM IN ACCORDANCE WITH LOCAL CURRENT IRRIGATION REGULATIONS AND REQUIREMENTS.

WATER STAR INSTALLATION REQUIREMENTS

ASSURE THAT THE SYSTEM IS INSTALLED WITHIN THE FOLLOWING PARAMETERS:

GENERAL

IRRIGATION ZONES FOR TURF GRASS AND LANDSCAPE BEDS ARE SEPARATE.
SPRINKLERS AND EMITTERS ARE LOCATED A MINIMUM OF 2 FEET FROM STRUCTURES.
IRRIGATION SYSTEM IS FREE FROM LEAKS.
SPRINKLERS IN LOW–LYING AREAS HAVE CHECK VALVES.
SPRINKLERS RISE ABOVE TURF GRASS HEIGHT.
APPLICATION OCCURS IN CORRECT SPRAY PATTERNS, MINIMIZING OVERSPRAY ON IMPERVIOUS SURFACES.

UNIFORMITY

PIPES ARE SIZED TO PREVENT VELOCITIES GREATER THAN 5 FEET PER SECOND.
PRECIPITATION RATES FOR ALL SPRINKLERS WITHIN A ZONE ARE MATCHED.
HEAD SPACING DOES NOT EXCEED 50% OF THE NOZZLE THROW DIAMETER.
ALL ZONES ARE PRESSURE REGULATED AT THE MANUFACTURER'S SPECIFIED PRESSURE FOR THE SPRINKLERS/EMITTERS INSTALLED WITHIN THE ZONE.
VARIABLE–ARC NOZZLES (VANS) ARE ONLY USED TO IRRIGATE UNEVENLY SHAPED TURF GRASS AREAS THAT CANNOT BE EFFECTIVELY IRRIGATED WITH FIXED–SPRAY NOZZLES.

OPERATION AND SCHEDULING

A DEVICE WITH RAIN SHUT–OFF CAPABILITIES IS INSTALLED IN AN OPERABLE LOCATION AND IS
FUNCTIONING.

THE IRRIGATION SCHEDULE FOR MAINTENANCE DOES NOT EXCEED 25 INCHES (15.5 GALLONS) PER
SQUARE FOOT ANNUALLY, AND THE CONTROLLER IS SET IN COMPLIANCE WITH WATER MANAGEMENT DISTRICT WATERING RESTRICTIONS.

WATER BUDGET COMPLIANCE

CONTRACTOR TO PROVIDE THE OWNER WITH A WATER BUDGET COMPLIANCE REPORT. IT IS RECOMMENDED THAT THE FLORIDA WATER STAR SM WATER BUDGET CALCULATOR BE USED. FOR MORE INFORMATION, SEE THE FLORIDA WATER STAR SM TECHNICAL MANUAL WEB PAGES.

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CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

NO.	DESCRIPTION	DATE
	CITY RESUBMITTAL	07/07/2026
	CITY RESUBMITTAL	04/02/2026
	CITY RESUBMITTAL	12/09/2025
	CITY SUBMITTAL	09/15/2025

DRAWING TITLE

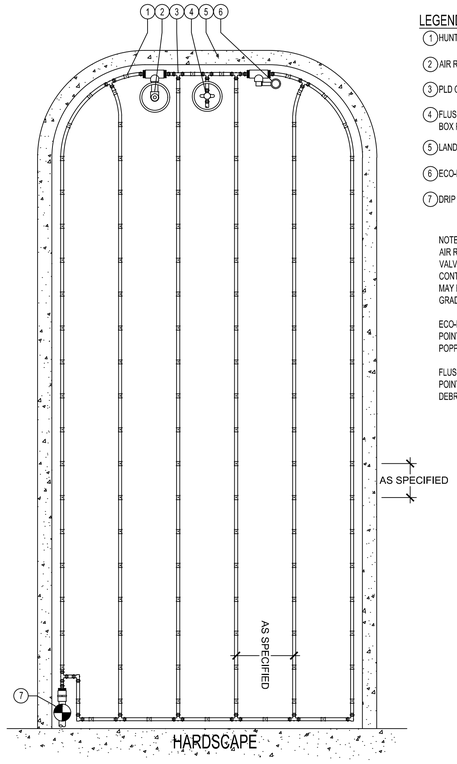
IRRIGATION NOTES

PROJECT NUMBER
20250116

DRAWING NUMBER

L5.00

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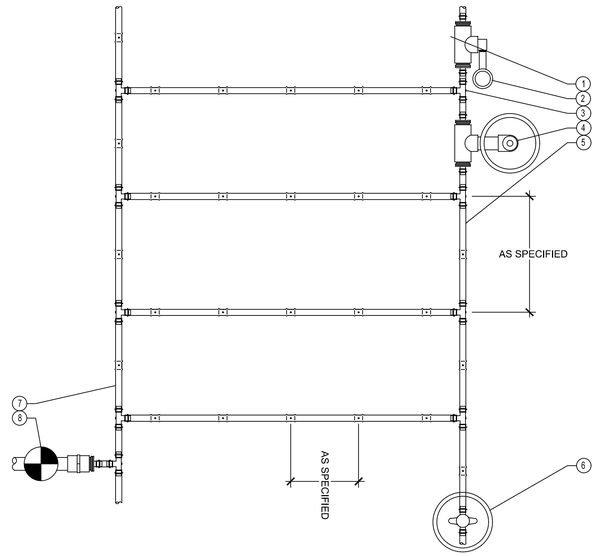
1. HUNTER DRIPLINE (HDL) PER PLAN
2. AIR RELIEF VALVE IN VALVE BOX
3. PLD OR PLD-LOC FITTINGS TYP.
4. FLUSH POINT (PLD-BV) IN SUBTERRANEAN BOX PER PLAN
5. LANDSCAPE ISLAND CURB
6. ECO-INDICATOR ON SWING ARM
7. DRIP CONTROL ZONE KIT PER PLAN

NOTES
AIR RELIEF VALVE (PLD-AVR) INSTALLED IN VALVE BOX AT OPTIMAL HIGHEST POINT FROM CONTROL ZONE KIT. MULTIPLE AIR RELIEF VALVES MAY BE NEEDED TO ACCOMMODATE DIFFERENCES IN GRADE.

ECO-INDICATOR TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT IN CLEAR VIEW WHEN POPPED UP.

FLUSH POINT TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT TO ALLOW FOR MAXIMUM DEBRIS FLUSH IN SYSTEM.

1 HUNTER DRIPLINE - PARKING LOT ISLAND
Hunter HM.HDL.03
NOT TO SCALE



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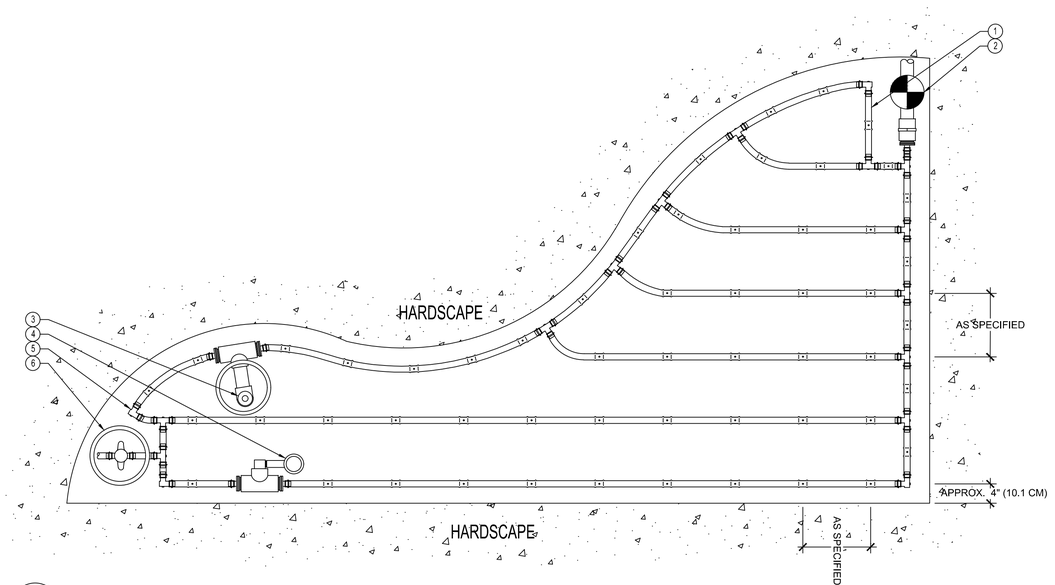
1. HUNTER DRIPLINE (HDL) PER PLAN
2. ECO-INDICATOR ON SWING ARM
3. PLD OR PLD-LOC FITTINGS TYP.
4. AIR RELIEF VALVE IN VALVE BOX
5. HDL TUBING EXHAUST HEADER
6. FLUSH POINT (PLD-BV) IN SUBTERRANEAN BOX PER PLAN
7. HDL TUBING SUPPLY HEADER
8. DRIP CONTROL ZONE KIT PER PLAN

NOTES
AIR RELIEF VALVE (PLD-AVR) INSTALLED IN VALVE BOX AT OPTIMAL HIGHEST POINT FROM CONTROL ZONE KIT. MULTIPLE AIR RELIEF VALVES MAY BE NEEDED TO ACCOMMODATE DIFFERENCES IN GRADE.

ECO-INDICATOR TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT IN CLEAR VIEW WHEN POPPED UP.

FLUSH POINT TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT TO ALLOW FOR MAXIMUM DEBRIS FLUSH IN SYSTEM.

2 HUNTER DRIPLINE - PLANTING BED
Hunter HM.HDL.01
NOT TO SCALE



LEGEND:

1. HUNTER DRIPLINE PER PLAN
2. DRIP CONTROL ZONE KIT PER PLAN
3. AIR RELIEF VALVE IN VALVE BOX
4. ECO-INDICATOR ON SWING ARM
5. PLD OR PLD-LOCK FITTING (TYP.)
6. FLUSH POINT (PLD-BV) IN SUBTERRANEAN BOX PER PLAN

NOTES
AIR RELIEF VALVE (PLD-AVR) INSTALLED IN VALVE BOX AT OPTIMAL HIGHEST POINT FROM CONTROL ZONE KIT. MULTIPLE AIR RELIEF VALVES MAY BE NEEDED TO ACCOMMODATE DIFFERENCES IN GRADE.

ECO-INDICATOR TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT IN CLEAR VIEW WHEN POPPED UP.

FLUSH POINT TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT TO ALLOW FOR MAXIMUM DEBRIS FLUSH IN SYSTEM.

3 HUNTER DRIPLINE - IRREGULAR PLANTED AREA
Hunter HM.HDL.02
NOT TO SCALE

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CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

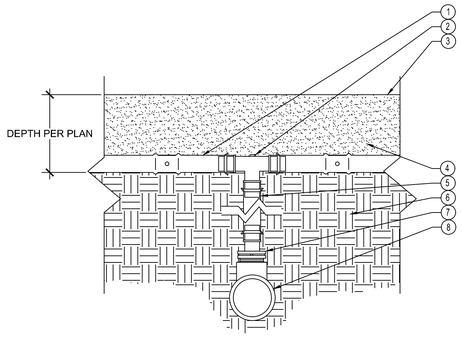
NO.	DATE	DESCRIPTION
	07/07/2026	CITY RESUBMITTAL
	04/02/2026	CITY RESUBMITTAL
	12/09/2025	CITY RESUBMITTAL
	09/15/2025	CITY SUBMITTAL

DRAWING TITLE
IRRIGATION DETAILS

PROJECT NUMBER
20250116

DRAWING NUMBER
L5.01

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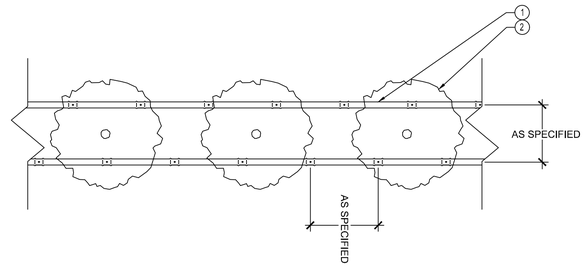
LEGEND:

1. HUNTER DRIPLINE (HDL) PER PLAN
2. PLD OR PLD-LOC FITTING
3. FINISHED GRADE
4. MULCH (AS SPECIFIED)
5. HDL RISER - LENGTH AS REQUIRED
6. SOIL
7. PLD OR PLD-LOC FITTING
8. PVC SUPPLY HEADER - SIZE PER PLAN

1 HUNTER DRIPLINE - CONNECTION WITH DRIPLINE AND TEE

Hunter HM.HDL.06

NOT TO SCALE



LEGEND:

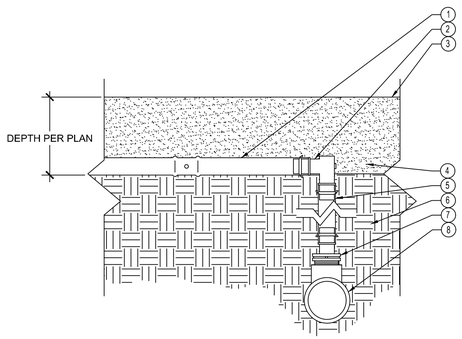
1. HUNTER DRIPLINE (HDL) PER PLAN
2. HEDGE ROW (SEE PLANTING PLAN)

NOTES
TRIANGULATE EMITTERS TO MAXIMIZE COVERAGE

2 HUNTER DRIPLINE - HEDGE ROW

Hunter HM.HDL.11

NOT TO SCALE



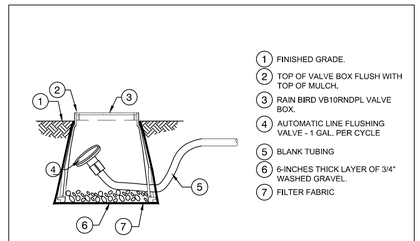
LEGEND:

1. HUNTER DRIPLINE (HDL) PER PLAN
2. PLD OR PLD-LOC FITTING
3. FINISHED GRADE
4. MULCH (AS SPECIFIED)
5. HDL RISER - LENGTH AS REQUIRED
6. SOIL
7. PLD OR PLD-LOC FITTING
8. PVC SUPPLY HEADER - SIZE PER PLAN

3 HUNTER DRIPLINE - CONNECTION WITH DRIPLINE AND ELBOW

Hunter HM.HDL.04

NOT TO SCALE



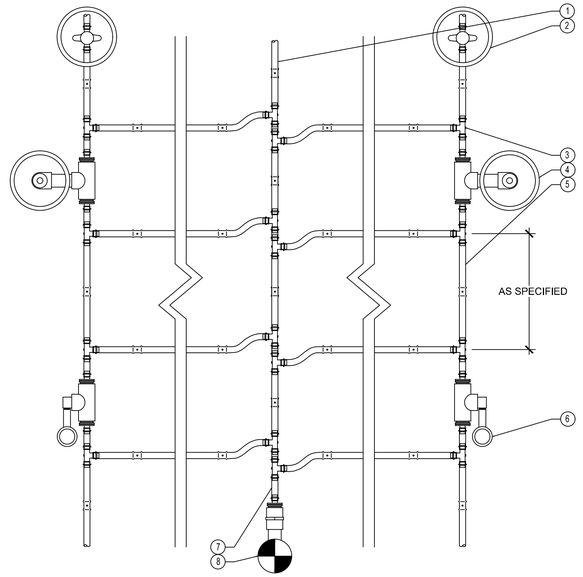
1. FINISHED GRADE.
2. TOP OF VALVE BOX FLUSH WITH TOP OF MULCH.
3. RAIN BIRD VB10RNDPL VALVE BOX.
4. AUTOMATIC LINE FLUSHING VALVE - 1 GAL. PER CYCLE
5. BLANK TUBING
6. 6-INCHES THICK LAYER OF 3/4" WASHED GRAVEL.
7. FILTER FABRIC

CONTRACTOR MUST PLACE (1) FLUSHING ADAPTER FOR EVERY (7) GPM FLOW PER DRIP GRID, MINIMUM (1) PER DRIP GRID.

NOTE:
1. INSTALL A MINIMUM OF 6-INCHES OF DRIPLINE TUBING IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

4 AUTOMATIC DRIP FLUSHING VALVE

NTS



LEGEND:

1. HUNTER DRIPLINE (HDL) PER PLAN
2. FLUSH POINT (PLD-BV) IN SUBTERRANEAN BOX PER PLAN
3. PLD OR PLD-LOC FITTINGS TYP.
4. AIR RELIEF VALVE IN VALVE BOX
5. PLD TUBING EXHAUST HEADER
6. ECO-INDICATOR ON SWING ARM
7. HDL TUBING SUPPLY HEADER
8. DRIP CONTROL ZONE KIT PER PLAN

NOTES
AIR RELIEF VALVE (PLD-AVR) INSTALLED IN VALVE BOX AT OPTIMAL HIGHEST POINT FROM CONTROL ZONE KIT. MULTIPLE AIR RELIEF VALVES MAY BE NEEDED TO ACCOMMODATE DIFFERENCES IN GRADE.

ECO-INDICATOR TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT IN CLEAR VIEW WHEN POPPED UP.

FLUSH POINT TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT TO ALLOW FOR MAXIMUM DEBRIS FLUSH IN SYSTEM.

5 HUNTER DRIPLINE - PLANTING BED CENTER FEED

Hunter HM.HDL.02

NOT TO SCALE

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CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

NO.	DESCRIPTION	DATE
	CITY SUBMITTAL	09/15/2025
	CITY RESUBMITTAL	12/09/2025
	CITY RESUBMITTAL	04/02/2026
	CITY RESUBMITTAL	07/07/2026

DRAWING TITLE

IRRIGATION DETAILS

PROJECT NUMBER
20250116

DRAWING NUMBER

L5.02

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DETAIL NOTES:

INSTALL AUTOMATIC DRIP LINE FLUSHING VALVES THAT WILL FLUSH APPROXIMATELY ONE GALLON OF IRRIGATION WATER AT THE BEGINNING OF EACH IRRIGATION CYCLE.

INSTALL HUNTER AFV-B AUTOMATIC FLUSH VALVE OR EQUAL AUTOMATIC LINE FLUSHING VALVE.

INSTALL A LINE FLUSHING VALVE AND A DRIP AIR RELIEF VALVE AT THE SUPPLY MANIFOLD, AT THE FAR ENDS OF THE DRIP TUBING AND AT EVERY 7 GPM INTERVAL OR PART THEREOF OF DRIP TUBING.

INSTALL A HUNTER PROS-12-PRS30 WITH A CLOSED NOZZLE AT THE END(S) OF DRIP AREAS.

INSTALL LANDSCAPE STAPLES EVERY 2-4 FEET OF DRIP TUBING TO STABILIZE THE TUBING.

INSTALL A FILTER BETWEEN THE ISOLATION VALVE AND ANY DRIP ZONE VALVE(S). INSTALL FILTER(S) RATED FOR AT LEAST 125 PERCENT OF THE DRIP ZONE GALLONAGE STATED ON THE PLANS AND THE DRIP ZONE GALLONAGE INSTALLED.

INSTALL THE FILTER(S) IN AN ORIENTATION THAT ALLOWS THE MAINTENANCE PERSONNEL EASY ACCESS TO THE FILTER FOR FLUSHING AND SUPPLY THE OWNER WITH ALL ITEMS NECESSARY FOR FLUSHING THE FILTERS, INCLUDING ANY SHUT-OFF VALVES AND HOSES.

1 DETAIL VARIATION NOTES
12/19/2012
N.T.S.

20250116_L5.0_IRR DET

ANY IRRIGATION ITEMS NORMALLY INSTALLED IN LANDSCAPE AREAS THAT ARE SHOWN OUTSIDE OF LANDSCAPE AREAS OR OUTSIDE OF THE PROPERTY LINES ARE SHOWN AS SUCH FOR GRAPHIC CLARITY ONLY. INSTALL THESE ITEMS INSIDE OF PROPERTY LINES AND IN LANDSCAPE AREAS.

PROVIDE PROOF TO THE LANDSCAPE ARCHITECT THAT ALL AVAILABLE MAINTENANCE MANUALS FOR EACH OF THE PRODUCTS INCLUDED IN THIS INSTALLATION HAVE BEEN PROVIDED TO THE OWNER OR OWNER'S REPRESENTATIVE.

ANY EXISTING TREE ROOTS, WHEN ENCOUNTERED DURING INSTALLATION OF UTILITIES, SHALL BE CUT OFF EVENLY WITH CLEAN SHARP PRUNING TOOLS AND COVERED WITH SOIL AS SOON AS POSSIBLE TO REDUCE DEHYDRATION. THE CONTRACTOR/DEVELOPER SHALL MINIMIZE THE DAMAGE TO EXISTING TREE ROOT SYSTEMS.

INSTALL THE SYSTEM IN ACCORDANCE WITH THE LOCAL CODES REGARDING IRRIGATION SYSTEMS.

CONNECT TO THE BACKFLOW PREVENTER WHERE SHOWN ON THE PLANS FOR THE POINT OF CONNECTION.

2 GENERAL IRRIGATION NOTES
N.T.S.

INSTALL HUNTER HDL-COP TUBING WITH ALL FITTINGS AS NECESSARY FOR ALL DRIP TUBING (GROUND COVER AND SHRUB) APPLICATIONS.

INSTALL A LINE OF TUBING 2" TO 4" FROM HARDSCAPE AND BEDLINES.

INSTALL A MINIMUM OF 2 ROWS OF TUBING IN ANY AREA.

INSTALL TUBING ROWS ON 12" SPACING MAXIMUM.

4 DRIP TUBING NOTES
N.T.S.

HDL-COP DRIPLINE MAXIMUM LATERAL LENGTHS (FEET)

PSI	.9 GPH
15	155
20	169
30	230
40	255
50	285
60	290

3 XFS DRIPLINE MAXIMUM LENGTHS
12/19/2012
N.T.S.

20250116_L5.0_IRR DET

INSTALL TUBING AT FINISHED GRADE UNDER THE MULCH.

LOOP ALL RUNS OF TUBING WITH A MAXIMUM LOOP DISTANCE FROM THE SUPPLY MANIFOLD OF 350'.

INSTALL ONE PROPERLY SIZED FILTER WITH A STAINLESS STEEL 150 TO 200 MESH SCREEN FOR EACH VALVE.

INSTALL A VACUUM/AIR RELIEF VALVE AT THE OPPOSITE ENDS OF THE LOOPED DRIP NETWORK AND AT THE TERMINATION OF THE SUPPLY MANIFOLD FROM THE AUTOMATIC VALVE.

INSTALL AN AUTOMATIC LINE FLUSHING VALVE AT ALL AIR/VACUUM RELIEF VALVE LOCATIONS WITH ALL FITTINGS AS NECESSARY TO FLUSH THE SYSTEM INTO THE LANDSCAPE, WHEN THE ZONE COMMENCES OPERATION..

INSTALL A DRIP OPERATION INDICATOR AT THE END(S) OF THE DRIP TUBING LIMITS.

DRIP TUBING QUANTITIES AND GALLONAGES ON PLANS ARE APPROXIMATE. CONTRACTOR TO VERIFY EXACT QUANTITIES AND GALLONAGES AND CONFIRM THE SYSTEM CAPABILITY TO PROVIDE THOSE GALLONAGES. CONTRACTOR TO BE PAID FOR ACTUAL QUANTITY OF DRIP TUBING AND BLANK TUBING INSTALLED UP TO A MAXIMUM QUANTITY AS SHOWN ON THE PLANS.

QUANTITIES ON PLANS DO NOT INCLUDE BLANK TUBING, LINE FLUSHING VALVES, AIR RELIEF VALVES OR PVC HEADERS. INCLUDE THESE ITEMS AND ANY OTHER ITEMS NECESSARY FOR A FULLY FUNCTIONING AUTOMATIC SYSTEM IN BID AND INSTALLATION.

INSTALL LANDSCAPE STAPLES 6' O.C. AND ANYWHERE ELSE NECESSARY TO SECURE TUBING TO THE GROUND.

FOLLOW THE MANUFACTURER'S INSTALLATION GUIDELINES INCLUDED WITH THE PRODUCTS.

DO NOT CURVE TUBING TO LOOP AT THE ENDS OF RUNS. INSTEAD USE (2) 90 DEG. FITTINGS AND A SHORT PIECE OF TUBING.

5 DRIP TUBING NOTES (CONTINUED)
N.T.S.

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CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

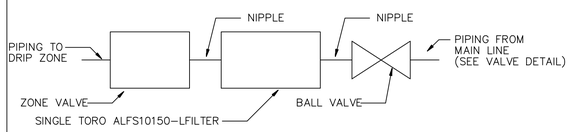
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	CITY RESUBMITTAL	12/09/2025
	CITY RESUBMITTAL	04/02/2026
	CITY RESUBMITTAL	07/07/2026

DRAWING TITLE
IRRIGATION DETAILS

PROJECT NUMBER
20250116

DRAWING NUMBER
L5.03

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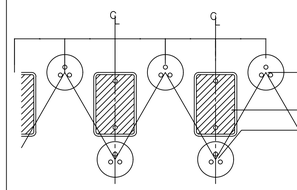
NOTES:

INSTALL A SEPARATE VALVE BOX FOR EACH VALVE AND FILTER. (3) JUMBO VALVE BOXES

INSTALL THE FILTER IN ORIENTATION THAT ALLOWS REMOVAL OF CAP FOR FLUSHING (UPWARDS).

IZE THE FILTER FOR AT LEAST 125% OF INSTALLED ZONE GALLONAGE

1 VALVE W/ FILTER SCHEMATIC
N.T.S.



ALIGN EDGE OF VALVE BOX PARALLEL TO PLANT ROW, WHERE APPLICABLE. TYP.

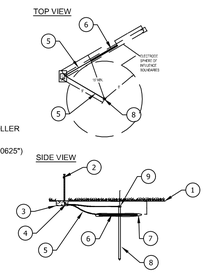
IRRIGATION VALVE BOX

SHRUB/GROUNDCOVER PLANTING AREA PLANT LOCATIOIN (TRIANGULAR SPACING OR SINGLE ROW SPACING)

NOTE:
VERIFY ALL VALVE BOX LOCATIONS WITH LANDSCAPE ARCHITECT

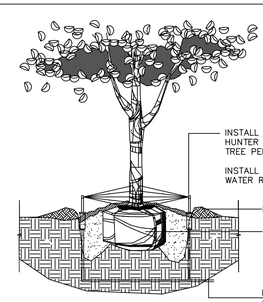
2 TYPICAL VALVE BOX GROUPING
N.T.S.

1. IRRIGATED LANDSCAPE AREA
2. CONTROLLER MOUNTED ON DUMPSTER ENCLOSURE WALL
3. CONCRETE PAD
4. 1.5" SCH-40 PVC SWEEP ELL
5. 6 AWG SOLID BARE COPPER WIRES. CONNECTED DIRECTLY TO CONTROLLER GRD BAR.
6. COPPER GROUND PLATE (4" x 96" x .0625") WITH MINIMUM 50 LB GROUND ENHANCEMENT MATERIAL (PAIGE).
7. SPHERE OF INFLUENCE.
8. 5/8" x 8' COPPER CLAD GROUND ROD.
9. CADWELD CONNECTION.



NOTE:
1. DO NOT INSTALL ANY OTHER WIRE OR CABLE WITHIN THE SPHERE OF INFLUENCE.
2. INSTALL GROUNDING PLATE MINIMUM 30" BELOW FINISHED GRADE, OR BELOW FROSTLINE, WHICHEVER IS DEEPER.
3. MEGGAR TEST GROUNDING GRID, MINIMUM 10 OHMS OR LESS REQUIRED, CONTRACTOR TO PROVIDE ON HIS LETTER HEAD, TIME, DATE, AND TEST RESULT. SUBMIT A COPY TO OWNER OR OWNERS REP. PRIOR TO FINAL WALK THROUGH

3 CONTROLLER GROUNDING DETAIL
NTS



NOTE:
FOR APPLICATIONS OF TREES ON SLOPES, INSTALL SPRINKLERS ON UPHILL SIDE OF TREE AT 120 DEGREES FROM EACH OTHER AIMED AT THE TREE TRUNK INSTEAD OF OPPOSING EACH OTHER.

INSTALL 6" SPRINKLERS WITH HUNTER 5Q NOZZLES AT EACH TREE PER THE PLANS.

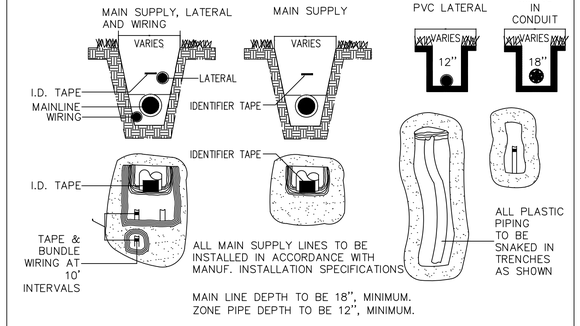
INSTALL SPRINKLERS WITHIN TREE WATER RETAINING SAUCERS.

MOUNDED SOIL FOR "SAUCER"

ROOT BALL

IRRIGATION LINE FROM TREE SPRAY VALVE OR PIPING (SEE IRRIGATION PLANS)

4 TREE SPRINKLER LOCATIONS
N.T.S.

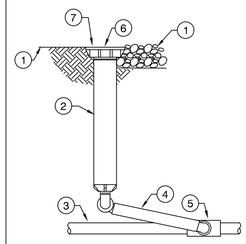


ALL MAIN SUPPLY LINES TO BE INSTALLED IN ACCORDANCE WITH MANUF. INSTALLATION SPECIFICATIONS

MAIN LINE DEPTH TO BE 18", MINIMUM.
ZONE PIPE DEPTH TO BE 12", MINIMUM.

5 PIPE AND WIRE TRENCH CONFIGURATION
N.T.S.

SPRAY HEAD INSTALLATION



1. FINISHED GRADE / TOP OF MULCH.
2. SPRAY BODY. SET IN CLEAN SOIL WITH NO ROCKS OR DEBRIS IN CONTACT WITH SPRINKLER BODY.
3. PVC LATERAL PIPE. SEE LEGEND/SPECIFICATIONS FOR TYPE.
4. SWING PIPE ASSEMBLY; SA-125050.
5. PVC SERVICE TEE. SEE SPECIFICATIONS FOR TYPE.
6. NOZZLE PER LEGEND. SEE PLAN FOR NOZZLE BRAND AND TYPE.
7. WIPER SEAL

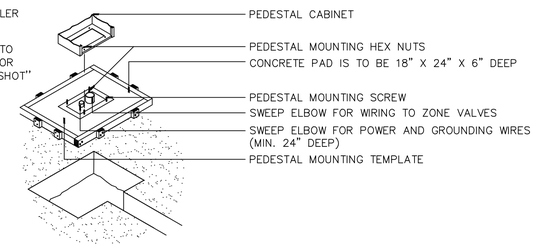
NOTES:
1. COMPACT SOIL AROUND POP-UP HEAD TO 95% OF SURROUNDING SOIL DENSITY.
2. INSTALL POP-UP HEAD PERPENDICULAR AND FLUSH TO FINISHED GRADE.
3. PLACE POP-UP HEAD MINIMUM 6-INCHES OFF TREE ROOT BALL.

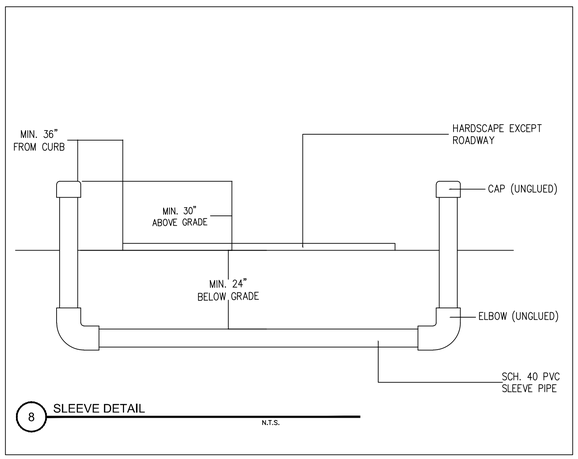
6 Sprinkler Installation
NTS 6" Pop-Up Sprinklers

NOTE:
CONNECT CONTROLLER GROUND TO A GROUNDING ELEMENT WITH A MAXIMUM RESISTANCE AS RECOMMENDED BY THE CONTROLLER MANUFACTURER AND NOT MORE THAN 10 OHMS.
CONNECT THE GROUNDING WIRE TO THE GROUNDING ELEMENT (ROD OR PLATE) WITH A CADWELD "ONE SHOT" CONNECTOR, NOT A CLAMP.

WIRE PER LOCAL CODES

ASSURE THAT THE SYSTEM OR CONTROLLER IS INTERFACED WITH A RAIN / FREEZE SWITCH MOUNTED IN THE WEATHER.

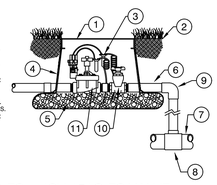




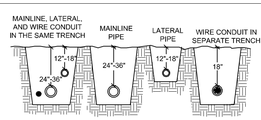
8 SLEEVE DETAIL
N.T.S.

1. VALVE BOX WITH LID FLUSH WITH FINISHED GRADE
2. FINISHED GRADE
3. WIRE SPLICE KIT (1) OF (2)
4. FILTER FABRIC
5. 6-INCH THICK LAYER OF WASHED 3/4" GRAVEL
6. SCH-80 NIPPLES (1) OF (4), LENGTH AS REQUIRED.
7. MAINLINE, SEE SPECIFICATIONS FOR TYPE.
8. MAINLINE FITTING, SEE SPECIFICATIONS FOR TYPE.
9. SCH-80 FITTING.
10. NIBCO T-113 GATE VALVE, SAME SIZE AS SOLENOID VALVE.
11. HUNTER ICV-101G-FS or ICV-151G-FS VALVE

NOTES:
1. IF SCH-80 PVC FITTINGS ARE SPECIFIED FOR MAINLINE, CONTRACTOR MAY USE SOLVENT WELD FITTING RATHER THAN STANDARD SLIP BY THEAD SERVICE TEE.
2. COIL MINIMUM 30" ADDITIONAL WIRE IN VALVE BOX.
3. SEAL VALVE BOX SIDE WALL OPENINGS PRIOR TO BACK FILLING. COMPACT SOIL TO 95% DENSITY.
4. USE TEFLON TAPE ON ALL TREADED FITTINGS.
5. FLUSH MAINLINE PRIOR TO INSTALLING VALVES.
6. SEE VALVE W/ FILTER SCHEMATIC DETAIL FOR FURTHER INFORMATION.
7. USE PURPLE VALVE BOX COVERS.



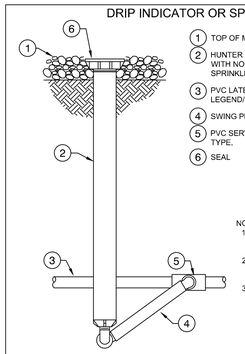
9 HUNTER ICV-101G-FS or ICV-151G-FS VALVE
NTS WITH GATE VALVE



NOTE:
1. MINIMUM PIPE DEPTH SHALL BE PER DETAIL / LOCAL / STATE CODES, FROSTLINE, WITCH EVER IS MOST STRINGENT.
2. MAINLINE AND LATERAL PIPE, TYPE AND DEPTH UNLESS OTHERWISE NOTED IN SPECIFICATIONS.
3. PIPE IN THE SAME TRENCH SHALL HAVE MINIMUM 6" HORIZONTAL & VERTICAL SEPARATION.
4. IF ROCK OR OTHER DEBRIS IS ENCOUNTERED, CONTRACTOR SHALL SHALL HAVE MINIMUM IMBED PIPE 3/4"-2" IN 4" OF SAND, AND 3"- 4" IN 6" OF SAND. FOR LARGER PIPE. SEE SPECIFICATIONS
5. COMPACT BACKFILL TO 95% DENSITY.
6. CONTRACTOR TO REPAIR ALL SINK HOLES AND DEPRESSIONS UNDER WARRANTY PERIOD AT NO COST TO OWNER.
7. LATERAL PIPE IN R.O.W. SHALL HAVE MINIMUM 18" COVER.

10 PIPE TRENCH DETAIL
NTS

DRIP INDICATOR OR SPRAY HEAD



1. TOP OF MULCH.
2. HUNTER PROS-12 BODY SET IN CLEAN SOIL WITH NO ROCKS OR DEBRIS IN CONTACT WITH SPRINKLER BODY.
3. PVC LATERAL PIPE. SEE LEGEND/SPECIFICATIONS FOR TYPE.
4. SWING PIPE ASSEMBLY
5. PVC SERVICE TEE. SEE SPECIFICATIONS FOR TYPE.
6. SEAL

NOTES:
1. COMPACT SOIL AROUND POP-UP HEAD TO 95% OF SURROUNDING SOIL DENSITY.
2. INSTALL POP-UP HEAD PERPENDICULAR AND FLUSH TO FINISHED GRADE.
3. PLACE POP-UP HEAD A MINIMUM OF 24" OFF OF BUILDING STRUCTURES, 4" OFF OF SIDE WALKS AND 6" OFF OF FENCES.

11 12" Indicator or Spray Head Installation
NTS Pop-Up Sprinkler

Catalyst DESIGN GROUP
1061 W MORSE BLVD, WINTER PARK, FL 32789
(689) 219-8900 | WWW.CATALYST-DG.COM
BRUCE HALL, PLA LA 0001367
Florida Firm Registration No.: 33093

Digitally signed by Bruce C Hall
Date: 2026.07.07 10:25:48-04'00'

CONSTRUCTION DOCUMENTS

SKY POWER SPORTS

CITY OF COCOA, FLORIDA

NO.	DESCRIPTION	DATE
	CITY SUBMITTAL	09/15/2025
	CITY RESUBMITTAL	12/09/2025
	CITY RESUBMITTAL	04/02/2026
	CITY RESUBMITTAL	07/07/2026

DRAWING TITLE
IRRIGATION DETAILS

PROJECT NUMBER
20250116

DRAWING NUMBER
L5.04

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ENVIRONMENTAL RESOURCE PERMIT APPLICATION
ENVIRONMENTAL CONSIDERATIONS REPORT

SKY POWER SPORT

Submitted to: **ST. JOHNS WATER MANAGEMENT DISTRICT**
525 COMMUNITY COLLEGE PARKWAY SE
PALM BAY, FL 32909

Prepared for: **MCKEE CONSTRUCTION**
717 MONROE ROAD
SANFORD, FL 32771

Prepared by: **MONTROSE ENVIRONMENTAL SOLUTIONS, INC.**

July 2025

9400 Southpark Center Loop
Orlando, FL 32819
www.montrose-env.com

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APPENDIX

Appendix A – Environmental Consideration Plan

1 INTRODUCTION

Montrose Environmental Solutions, Inc. (Montrose) has completed an ecological assessment (EA) for an approximately 5-acre project located at 995 Friday Road in Cocoa, Florida. Specifically, the project area is located west of I-95, and south of SR-524 in Brevard County, Florida (**Figures 1** and **2**). The purpose of this EA was to identify ecological features within the project area which include wetland and/or other surface water communities, and the occurrence or potential for occurrence of federal- and/or state-protected wildlife species and their habitats, and the likelihood of such features involvement during project implementation.

2 METHODOLOGY

Montrose biologists conducted a desktop assessment followed by ground-truthing activities in locating ecological features within the project area. Our assessment identified and documented the presence of natural habitats, including jurisdictional wetlands and other surface waters; wildlife species categorized as endangered (E), threatened (T), or species of special concern (SSC) by state and federal regulations; and such species' habitat. This assessment included review and analysis of the following public record databases, handbooks, and manuals:

- Audubon Florida EagleWatch Public Nest App Database (AEW)
- Florida Fish and Wildlife Conservation Commission (FWC) Wildlife Databases
- Florida Department of Environmental Protection (FDEP) Statewide Land Use Database
- U.S. Fish and Wildlife Service (FWS) Information for Planning and Consultation (IPaC)
- Florida Natural Inventory (FNAI) Rare Species and Communities Database
- St. Johns River Water Management District (SJRWMD) Database
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey
- U.S. Geological Survey (USGS) Topographic Quadrangle Map (**Figure 3**)
- U.S. Army Corps of Engineers (USACE) Wetland Delineation manual

2.1 Wetlands and Other Surface Waters

The jurisdictional extent of wetlands and other surface water systems were field delineated in general accordance with the *Corps of Engineers Wetlands Delineation Manual* (Technical Report Y-87-1) (USACE 1987), the *November 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic Gulf Coastal Plan Region* (USACE 2010), and the State of Florida's *Delineation of the Landward Extent of Wetlands and Surface Waters* (Chapter 62-340, Florida Administrative Code [FAC]) (State of Florida 1994). If wetland boundaries differ between the two methods, the more "wetland inclusive" extent is used to designate that wetland system boundary. The landward extent of other surface water systems is recognized to be at the top-of-bank for ditches with side slopes of 1-foot vertical to 4-feet horizontal or steeper, or the seasonal high level for swales with side slopes flatter than 1-foot vertical to 4-feet horizontal. Wetlands and other surface waters observed were classified using FDEP's Statewide Land Use type data, and revised, if necessary, based on site observations.

Ground-truthing activities were conducted within the project area in September 2023. The following were evaluated:

- On-site vegetative communities
- Jurisdictional wetlands and/or other surface waters

2.2 Protected Wildlife Species and Their Habitat

Database queries were conducted to evaluate the occurrence or potential for occurrence of protected wildlife species identified as T, E, or SSC by governing regulatory agencies, followed by field review activities. Pedestrian transects were conducted within the project area in locating federal- and/or state-protected wildlife species and their habitat. Wildlife observations included direct (visual observation of species, scat, nests, etc.), and audible detection.

3 SOILS

The USDA NRCS Soil Survey is a relied upon source for comprehensive information and data regarding near-surface soil and depth-to-groundwater conditions. The NRCS Soil Survey of Brevard County, Florida (NRCS 2024), was reviewed for its interpretation of near-surface soil conditions (e.g., soil unit types) within the project area (**Figure 4**). **Table 1** summarizes the soil unit types found within limits of the project area.

Table 1: NRCS Soil Survey Data for Sky Power Sports Project Area, Cocoa, Florida

Map Unit	Soil Name	Hydric Status	Depth to Water Table	Drainage
6	Basinger sand, depressional	Yes	0 inches	Very poorly drained
36	Myakka sand, 0 to 2% slopes	No	6 to 18 inches	Poorly drained

Source: NRCS Web Soil Survey (NRCS 2024)

4 LAND USE

The FDEP statewide land use database (FDEP 2023) was used to characterize and describe land use types within the project area. Land use types were field verified, and revised, if necessary, based on physical observations (**Figure 5**). A description of dominant land uses is provided below.

4.1 Uplands

FLUCFCS 4340 – Upland Mixed – Coniferous / Hardwood – The land use class best classifies the upland forested area. The vegetative community consists of pine (*Pinus* spp.), oaks (*Quercus* spp.), wax myrtle (*Morella cerifera*), red maple (*Acer rubrum*), cabbage palm (*Sabal palmetto*), dwarf palmetto (*Sabal minor*), Brazilian pepper (*Schinus terebinthifolia*), beautyberry (*Callicarpa americana*), and muscadine grapevine (*Vitis rotundifolia*).

4.2 Wetlands and Other Surface Waters

FLUCFCS 5120 – Streams and Waterways – Upland-Cut Ditch – This land use best describes the linear non-wetland water, which traverses the west boundary of the project area. This system outfalls into a stormwater management system located south of the project area.

FLUCFCS 6410 – Freshwater Marsh – This land use best describes the wetland system found within the project area. This land use consists of chalky bluestem (*Andropogon virginicus*), Carolina redroot (*Lachnanthes caroliana*), Virginia chain fern (*Woodwardia virginica*), pickerelweed (*Pontederia cordata*), and open water, with scattered sweetbay (*Magnolia virginiana*) and red bay (*Persea borbonia*) within the canopy.

5 FEDERAL- AND STATE-PROTECTED WILDLIFE SPECIES

Literature reviews and database queries were conducted to identify federal- and/or state-protected wildlife species known to occur in Brevard County, Florida, and the potential occurrence of such species within the project area. Federal- and/or state-protected wildlife species are those categorized by FWS and/or FWC as T, E, or SSC, thereby receiving a level of protection due to their listed status. The potential occurrence of protected wildlife species within the project area is based on the type/quality of vegetative communities present and the surrounding land uses. The probability of each wildlife species occurring within the project area was ranked using the following requirements:

- **No –** Indicates no suitable habitat is present. Suitable habitat is defined as intact natural land that is typically used by a species under consideration.
- **Low –** Indicates marginally suitable habitat may exist within the project area, but the species was not observed during field observations. Marginal describes natural land that a species under consideration could inhabit though the land has been altered from its native state due to human activity, ecological succession, or conversion.
- **Moderate –** Indicates suitable habitat exists within the project area, but the species was not observed during field observations.
- **High –** Indicates suitable habitat exists within the project area and that the species of interest was observed in the field.

Table 2 summarizes federal- and/or state-protected species known to occur in Brevard County, Florida, and with potential for occurrence within the project area. Wildlife species with an occurrence potential of moderate or high, or species for which the project area is within their consultation area, are discussed in detail below.

Table 2: Federal- and/or State-Protected Wildlife Species with Potential for Occurrence within the Project Area.

Scientific Name	Common Name	Protection Status	Occurrence Potential	Consultation Area	Habitat
Federal-Protected - Reptiles					
Alligator mississippiensis	American alligator	T(S/A)	Moderate	--	Various aquatic habitats
State-Protected - Reptiles					
Gopherus polyphemus	Gopher tortoise	T	Low	--	Sandhills, scrub, hammocks, dry prairies, flatwoods, mixed forests
Pituophis melanoleucus mugitus	Florida pine snake	ST	No	--	Sandhills, scrubby flatwoods, xeric hammocks, ruderal areas
Federal-Protected Birds					
Haliaeetus leucocephalus	*Bald eagle	--	Moderate	--	Forested areas adjacent to bodies of water
Aphelocoma coerulescens	Florida scrub-jay	T	No	Yes	Fire dominated, low-growing, oak scrub habitat
Polyborus plancus audubonii	Audubon's crested caracara	T	No	Yes	Open country, dry prairie, ruderal areas

Laterallus jamaicensis	Eastern black rail	T	Moderate	--	Salt and freshwater marshes
Mycteria americana	Wood stork	T	Moderate	--	Fresh and brackish forested wetlands, swamps, ponds, marshes
Rostrhamus sociabilis plumbeus	Everglade snail kite	E	Moderate	Yes	Shallow freshwater marshes and the vegetated edges of lakes
State-Protected Birds					
Antigone canadensis pratensis	Florida sandhill crane	T	Moderate	--	Shallow wetlands, freshwater marshes, wet prairies
Athene cunicularia floridana	Florida burrowing owl	T	No	--	High, sparsely vegetated, sandy ground. Dry prairie and sandhill
Egretta tricolor	Tricolored heron	T	Moderate	--	Marshes, ponds, rivers
Egretta caerulea	Little blue heron	T	Moderate	--	Shallow freshwater, brackish, and saltwater habitats
Egretta rufescens	Reddish egret	T	Moderate	--	Exclusively coastal
Haematopus palliates	American oystercatcher	T	No	--	Sparsely vegetated, sandy areas, beaches, sandbars, and mudflats
Platalea ajaja	Roseate spoonbill	T	Low	--	Coastal mangrove islands, man-made dredge spoil islands
Rynchops niger	Black skimmer	T	No	--	Coastal waters, including beaches, bays, estuaries, sandbars, tidal creeks, and inland waters
Sternula antillarum	Least tern	T	No	--	Coastal areas including beaches, lagoons, bays, and estuaries
Federal-Protected Insects					
Danaus Plexippus	Monarch butterfly	PT	Moderate	--	Various open areas including fields, roadsides, urban gardens with milkweed and flowering plants
Federal - Protected Mammals					
Perimyotis subflavus	Tricolored bat	PE	Moderate	--	Caves, culverts, bridges, trees, and buildings.

Occurrence Potential = No, Low, Moderate, High
Consultation Area = Identified within consultation area as depicted by FWS and/or FWC GIS Data
Code Key: E = Endangered, T = Threatened, T S/A = Threatened due to Similar in Appearance, PT = Proposed Threatened, PE = Proposed Endangered
Data Source: FWS ECOS (FWS n.d.) ; FNAI (FNAI 2020-2024)
Florida's Endangered and Threatened Species (FWC 2022)
*Protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act

5.1 Bald Eagles

Although the bald eagle (*Haliaeetus leucocephalus*) is delisted, the species remains protected through the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Florida has one of the densest

concentrations of nesting bald eagles in the lower 48 states, with several clustered around significant lake, river, and coastal systems throughout the state (FWC 1999-2021). Bald eagles typically nest and roost in forested habitats consisting of mature canopy trees along habitat edges, allowing an unobstructed view of surrounding areas. Daytime roosts are often found in the highest trees and adjacent to shorelines. High-quality foraging habitat for bald eagles has a diversity and abundance of prey, access to shallow water, and tall trees or structures (FWC 1999-2021).

The National Audubon Society EagleWatch Program (AEW) works closely with FWC to document and map known bald eagle nest sites. The AEW Program monitors nest sites during nesting season. Data provided on their website is updated through the 2022–2024 nesting season (Audubon Society 2024).

The AEW database was queried for known bald eagle nest sites within a 1-mile radius of the project corridor which identified one bald eagle nest (**Figure 6**); however, the project area does not fall within the primary (330 feet) or secondary (660 feet) protection zones.

- **Nest ID BE082** – This nest was monitored by AEW during the 2024 season and was documented as successful and occupied. This nest is approximately 0.39 miles northeast of the project area.

No nest sites were observed during the site review. It is anticipated that the proposed project will not adversely impact the bald eagle or nesting trees.

5.2 Federal-Protected Wildlife Species

5.2.1 American Alligator

FWS considers the American alligator (*Alligator mississippiensis*) threatened due to similarity in appearance to the federally endangered American crocodile (*Crocodylus acutus*). The American alligator inhabits fresh and brackish marshes, ponds, lakes, rivers, swamps, bayous, and large spring runs and is found in salt marsh and estuarine habitats in some parts of the state (Scott 2004). Alligators play a vital role in creating and maintaining microhabitats (gator holes), which can benefit a host of species for refuge in water source habitats. A nest consists of a mound of compacted earth and vegetation, usually 4–7 feet in diameter (Scott 2004). The nesting season occurs in the spring. The alligator has a wide variety of food sources, including fish, ducks, wading birds, raccoons, and turtles.

The American alligator is known to inhabit a wide variety of aquatic habitats, including stormwater management ponds. Although this species was not observed during ground-truth activities, there is potential for the species to cross between wetland systems under Tiny Road through drainage culverts.

The proposed project includes stormwater management systems which will allow continued movement of this species throughout the area. The proposed project is not likely to adversely affect the American alligator or its habitat.

5.2.2 Florida Scrub-Jay

FWS lists the Florida scrub-jay (*Aphelocoma coerulescens*) as threatened. This species is typically found in oak-dominated scrub, or xeric oak scrub with sandy soils and fire-dominated habitat. Optimal habitat consists of oak 1 to 3 meters high, interspersed with 10 to 50% unvegetated, sandy openings, and sand pine (*Pinus clausa*) with

less than 20% canopy cover (Woolfenden 1996). The scrub-jay's diet consists mainly of acorns, arthropods, berries, seeds, and a wide variety of insects (Woolfenden 1996).

The project area lies within the consultation area for the Florida scrub-jay (**Figure 7**); however, suitable habitat was not observed during ground-truthing activities. The proposed project is not likely to adversely affect the Florida scrub-jay or its habitat.

5.2.3 Audubon's Crested Caracara

FWS lists the crested caracara (*Polyborus plancus audubonii*) as T. This species is typically found in dry or wet prairies with scattered cabbage palms and improved/unimproved pasturelands (FWS 2019a). Nest sites are typically found in the tallest cabbage palm in the area or other structures free of dense vegetation. Caracara birds are opportunistic feeders, with their diets consisting of insects, fish, snakes, turtles, birds, and mammals (rabbits, skunks, prairie dogs).

The project area lies within the northern limits of FWS's consultation area for this species (**Figure 8**); however, this area does not support suitable habitat. The proposed project will not adversely affect this species or its habitat.

5.2.4 Wood Stork

FWS lists the wood stork (*Mycteria americana*) as T. This species is typically found in freshwater marshes, swamps, lagoons, ponds, flooded fields, depressions in marshes, and brackish wetlands. The core foraging areas (CFA) for this species include areas of very shallow water, generally 6–10 inches in depth, where there is an abundance of small fishes and other aquatic life. These small fish may include mosquitofish, sailfin mollies, flagfish, and several species of sunfish. Wood storks may also prey on frogs, salamanders, snakes, crayfish, insects, and baby alligators (Scott 2004). Suitable foraging habitat is defined in The Corps of Engineers, Jacksonville District, U.S. Fish and Wildlife Service, Jacksonville Ecological Services Field Office, and State of Florida Effect Determination Key for the Wood Stork in Central and North Peninsular Florida (USACE, FWS, FWC 2018) as, "any area containing patches of relatively open (25% aquatic vegetation), calm water, and having a permanent or seasonal water depth between 2 and 15 inches."

FWS has identified a 15-mile radius CFA around known wood stork colonies within Central Florida. This CFA is deemed essential for reproductive success. The project area is located within the 15-mile CFA of two wood stork colonies (**Figure 9**):

- **Lake Poinsett** – last known active 2019 (FWS 2010-2019); located approximately 0.56 miles southwest of the project area.
- **Brevard County Maintenance Shop** – last known active 2018 (FWS 2010-2019); located approximately 1.36 miles southeast of the project area.

Using the "*Effect Determination Key for the Wood Stork in Central and North Peninsular Florida*" (USACE, FWS, FWC 2018) to evaluate the project's effect on the wood stork, the following were concluded.

- The project is more than 2,500 feet from a colony.
- Suitable foraging habitat is present within the project area.

Suitable foraging habitat may be present within the project area; however, this species was not observed during ground-truth activities; therefore, it is likely that the proposed project will not adversely affect the wood stork.

5.2.5 Everglade Snail Kite

FWS lists the Everglade snail kite (*Rostrhamus sociabilis plumbeus*) as E. The snail kite is found near extensive, open freshwater marshes and lakes with shallow water and a low density of emergent vegetation of natural and artificial systems (FWS 1986). The apple snail (*Pomacea paludosa*) is the snail kite's primary food source, making the snail kite's survival dependent on the hydrology and water quality of watersheds associated with the Everglades, Lake Okeechobee, and Kissimmee Valley, and upper St. Johns River (FWS 1986). This species nests throughout the year with peak nesting between February and July.

The project area is within the FWS consultation area for this species; however, it is outside of FWS's designated "critical habitat" (**Figure 10**). Neither the snail kite, nor the apple snail were observed within the project area, therefore, it is anticipated that the project will not adversely affect the snail kite or its habitat.

5.2.6 Eastern Black Rail

FWS lists the eastern black rail (*Laterallus jamaicensis*) as T. This species requires dense vegetation cover that allows movement under the canopy and is found in a variety of salt, brackish, and freshwater marsh habitats (FWS n.d.). Their diet includes aquatic beetles, spiders, snails, and small crustaceans. No critical habitat has been established for this species.

The on-site wetland system does not support the dense vegetation habitat typically required by the eastern black rail. It is anticipated that the proposed project will not adversely affect the species or its habitat.

5.3 Federal Candidate Species

Candidate species are those species for which the FWS has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act of 1973 (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities. Candidate species do not hold statutory protection under the ESA. The FWS encourages cooperative conservation efforts for these species because they are, by definition, species that may warrant future protection under the ESA.

5.3.1 Tricolored Bat

FWS lists the tricolored bat (*Perimyotis subflavus*) as a candidate species. The tricolored bat is one of the smallest bats native to North America (FWS 2025a). During the winter, tricolored bats are often found roosting in road-associated culverts. During the spring, summer and fall, tricolored bats are found in forested habitats where they roost in trees, primarily among leaves.

5.3.2 Monarch Butterfly

FWS lists the Monarch butterfly (*Danaus plexippus*) as a candidate species (FWS 2022). The monarch butterfly can be found in a wide variety of habitat including fields, roadside ditches, wetlands, and urban gardens. Florida is home to non-migratory monarchs that remain year-round at the southern end of their breeding (FWS 2025b). Adult monarchs feed on the nectar of many flowers during breeding and migration, but they lay eggs on milkweed plants as that is the only food the caterpillars can eat.

5.4 State-Protected Wildlife Species

5.4.1 Florida Sandhill Crane

FWC lists the Florida sandhill crane (*Grus canadensis*) as T. The Florida sandhill crane is a non-migratory bird found in freshwater marshes, prairies, and pastures. Florida sandhill cranes tend to avoid areas with taller vegetation or dense forest canopies and prefer habitats with short vegetation (e.g., less than 20 inches high in uplands (Stys 1997). The sandhill crane is often found foraging in a variety of open habitats, including roadsides. Their diet consists of berries, seeds, insects, mice, small birds, snakes, lizards, and frogs. Nesting typically occurs between February and April, and shallow freshwater marshes with an average water depth of 4–13 inches are critical for nesting and roosting (L. Walkinshaw 1973). Additionally, uplands adjacent to a nesting marsh are important for young until they can fly (L. H. Walkinshaw 1997).

Although suitable foraging, resting and nesting sandhill crane habitat may be present within the southeast portion of the project area, sandhill cranes were not observed during ground-truthing activities. Based on limited impacts proposed, it is anticipated that the proposed project will not adversely impact this species.

5.4.2 Wading Birds

FWC lists the little blue heron (*Egretta caerulea*), tricolored heron (*Egretta tricolor*), reddish egret (*Egretta rufescens*), and roseate spoonbill (*Platalea ajajaj*) as T. These species are typically found in marshes, ponds, lakes, meadows, mudflats, lagoons, streams, mangrove lagoons, and other bodies of shallow water. Their diet consists of various types of fish, amphibians, and invertebrates. Nesting generally occurs in both coastal and freshwater environments in swamps and mangrove forests. They share nesting sites with other wading birds to form rookery colonies (Rodgers II February 1995).

Suitable foraging and nesting habitat are present within the southeast portion of the project area; however, these species were not observed during field review. Based on limited impacts proposed, it is anticipated that the proposed project will not adversely impact these species.

5.4.3 Gopher Tortoise

FWC lists the gopher tortoise (*Gopherus polyphemus*) as T. The gopher tortoise inhabits subterranean burrows in dry upland habitats and vegetative communities including longleaf pine sandhills, xeric oak hammocks, scrub, pine flatwoods, dry prairies, and coastal dunes. Gopher tortoises can also be found in pastures, ruderal fields, and grassy roadsides. To be suitable for gopher tortoises, the habitat must have well-drained sandy soils for digging burrows, herbaceous plants, and open sunny areas for nesting and basking.

Periodic natural fires play an essential role in maintaining tortoise habitat by opening the canopy and promoting the growth of herbaceous plants used for forage. If natural fires are suppressed, the habitat becomes unsuitable for gopher tortoises (Cox, Inkley and Kautz December 1987). Gopher tortoise burrows are an important habitat to many native species. It is estimated that 39 invertebrates and 42 vertebrate species use the gopher tortoise burrow to some degree (Cox, Inkley and Kautz December 1987). Of those species, protected species that frequently inhabit gopher tortoise burrows include the Florida pine snake, eastern indigo snake, and burrowing owl. This commensal relationship warrants field investigation for such species within the project boundary.

No potentially occupied burrows or potentially abandoned burrows were observed within the project area. Based on final design, and prior to construction activities, it is recommended that a gopher tortoise survey be conducted in accordance with FWC's "Gopher Tortoise Permitting Guidelines" (FWC 2008/Revised Effective April 2023). If gopher tortoise burrows are identified and cannot be avoided by a minimum of 25 feet, coordination with FWC will be required.

6 PUBLIC INTEREST

6.1 Public Health, Safety, and Welfare

The project was designed and will be constructed using best management practices (BMPs) under federal and state guidelines. It is anticipated that the project will not cause adverse effects to human health, safety, welfare, or the property of others through the implementation of BMPs.

6.2 Conservation of Fish and Wildlife

It is anticipated that there will be no overall adverse impacts to the abundance of fish, wildlife, protected species, and their habitats. Appropriate measures have been taken to minimize impacts to protected wildlife species, as previously discussed in this document.

6.3 Fishing, Recreational, and Marine Productivity

The proposed project is not anticipated to adversely affect the fishing, recreation, and/or marine productivity within the vicinity of the project. The proposed project is completely inland of any marine estuarine or tidally influenced areas. As required by SJRWMD permitting criteria, there will be no significant adverse changes in flows and volumes of water leaving the project site. Additionally, appropriate BMPs will be implemented to protect off-site resources.

6.4 Temporary or Permanent Nature

The proposed project will be permanent. The current layout and configuration for the proposed project provide for a single and complete project that meets engineering design and safety standards.

6.5 Historical and Archeological Resources

The proposed project is not anticipated to adversely affect any known historical or archeological resources within the project area or its immediate vicinity. Montrose requested a master file review from the Florida Department of State, Division of Historical Resources (DHR). Based on DHR's review, no historical or archeological resources have been documented within the project area.

In the event any historical and/or archeological resources are discovered during construction, construction-related activities will cease immediately, and the DHR will be notified.

6.6 Secondary Impacts

It is anticipated that the proposed project will not have adverse secondary impacts on historical and/or archeological resources, as there are no related projects closely linked or that will affect these resources. Additionally, it is anticipated that the proposed project will not have unacceptable secondary impacts to the foraging, nesting, or resting habitat for aquatic or wetland-dependent species as described above.

7 WATER QUALITY

The proposed project is located within the St. Johns River (Canaveral Marshes to Wekiva) drainage basin and was designed and will be constructed using BMPs under federal and state guidelines. Following BMPs, the proposed project will not adversely affect the quality of waters regulated under Chapter 62, FAC. In addition, appropriate pollution, abatement, stormwater attenuation, and flood control will be provided pursuant to SJRWMD criteria. There will be no impacts to water quality in the post-development condition.

7.1 Wetlands and/or Jurisdictional Surface Waters Impact Assessment

Jurisdictional wetlands and/or other surface waters were identified within the limits of the project area (**Figure 10**). The current layout and configuration for the project provide for a single and complete project that meets engineering design and safety standards.

7.2 Direct Impacts

On-site wetland and non-wetland systems proposed for impact were reviewed and concluded to be of low-to-moderate quality for providing foraging, nesting, resting, and denning habitat for a variety of wetland-dependent wildlife species. Direct impacts associated with the project are identified in **Table 3** and depicted in **Appendix A** – Environmental Consideration Plan.

Table 3: Direct Wetland and Non-Wetland Impacts Associated with the Proposed Project

Wetland ID	Wetland Type	Direct Impacts
W1	6400	0.21
SW1	5210	0.17

7.3 Secondary Impacts

Pursuant to Section 10.1.1(f) of the ERP Applicant's Handbook (AH) (General and Environmental) Volume 1 (FDEP 2020), an applicant must ensure that a regulated activity will not cause adverse secondary impacts to the water resources. Secondary impact criterion consists of the following four parts, in which an applicant must provide reasonable assurance that secondary impacts from construction, alteration, and intended or reasonable expected uses of a proposed project (Section 10.2.7 AH V1):

- Will not cause violations of water quality standards or adverse impacts to the functions of wetlands or other surface waters.
- Will not adversely impact the ecological value of uplands to federal- and/or state-protected aquatic and wetland-dependent wildlife species by enabling existing nesting or denning by these species (excluding areas needed for foraging or wildlife corridors).
- Will not impact any significant historical or archeological resources.
- Will not cause adverse impacts in later phases that are very closely linked and casually related to the intended project.

Secondary impacts are not considered if an undisturbed 15-foot minimum and 25-foot average upland buffer remain. If an undisturbed buffer cannot be maintained applicants may propose mitigation measures to offset secondary impacts.

The proposed project will comply with all regulated water quality standards. The design is such that no future phases are expansion will be necessary in meeting its mission.
Secondary wetland impacts associated with the proposed project will be evaluated as part of the permitting process during the regulatory agency review.

7.4 Cumulative Impacts

Cumulative impacts are considered unacceptable when a proposed project, in combination with past, present, or reasonably foreseeable future activities, would result in violations of water quality standards or cause substantial adverse effects to the functions of wetlands and other surface waters within the same basin.

The proposed project includes the filling of approximately 0.21 acres of a wetland system, which extends off site. Post-development, the remaining portion of the off-site system will continue to provide wetland functions, including water quality treatment, stormwater attenuation, and habitat for wetland-dependent species.

To offset the direct wetland impacts, mitigation credits are anticipated to be purchased from an approved mitigation bank located within the same drainage basin—St. Johns River (Canaveral Marshes to Wekiva)—as the proposed project. Use of a mitigation bank within the same basin ensures that compensatory mitigation occurs within a similar ecological and hydrologic context, thereby replacing lost wetland functions and values.

While the project results in a net loss of on-site wetland area, the proposed mitigation provides functional compensation within the same watershed. Additionally, the remaining off-site wetland system ensures continued ecological connectivity and function. Based on these factors, the project is not anticipated to contribute to unacceptable cumulative impacts within the basin.

8 ELIMINATION AND REDUCTION OF IMPACTS

When wetland or other surface waters are proposed for impacts, subsection 10.2.1 of the A.H., Volume I, suggests that the applicant explore design modifications to reduce or eliminate adverse impacts. Subsection 10.2.1 of the A.H. goes on to state, “The following factors are considered in determining whether an application will be approved by the Agency: the degree of impact to wetland and other surface water functions caused by a proposed activity; whether the impact to these functions can be mitigated; and the practicability of design modifications for the site that could eliminate or reduce impacts to these functions; including alignment alternatives for a proposed linear system.”

The design on the proposed project has been set to minimize the wetland impacts while meeting SJRWMD criteria. The proposed improvements provide for a single and complete project that meets engineering design and safety standards while reducing wetland impacts to the fullest practical extent.

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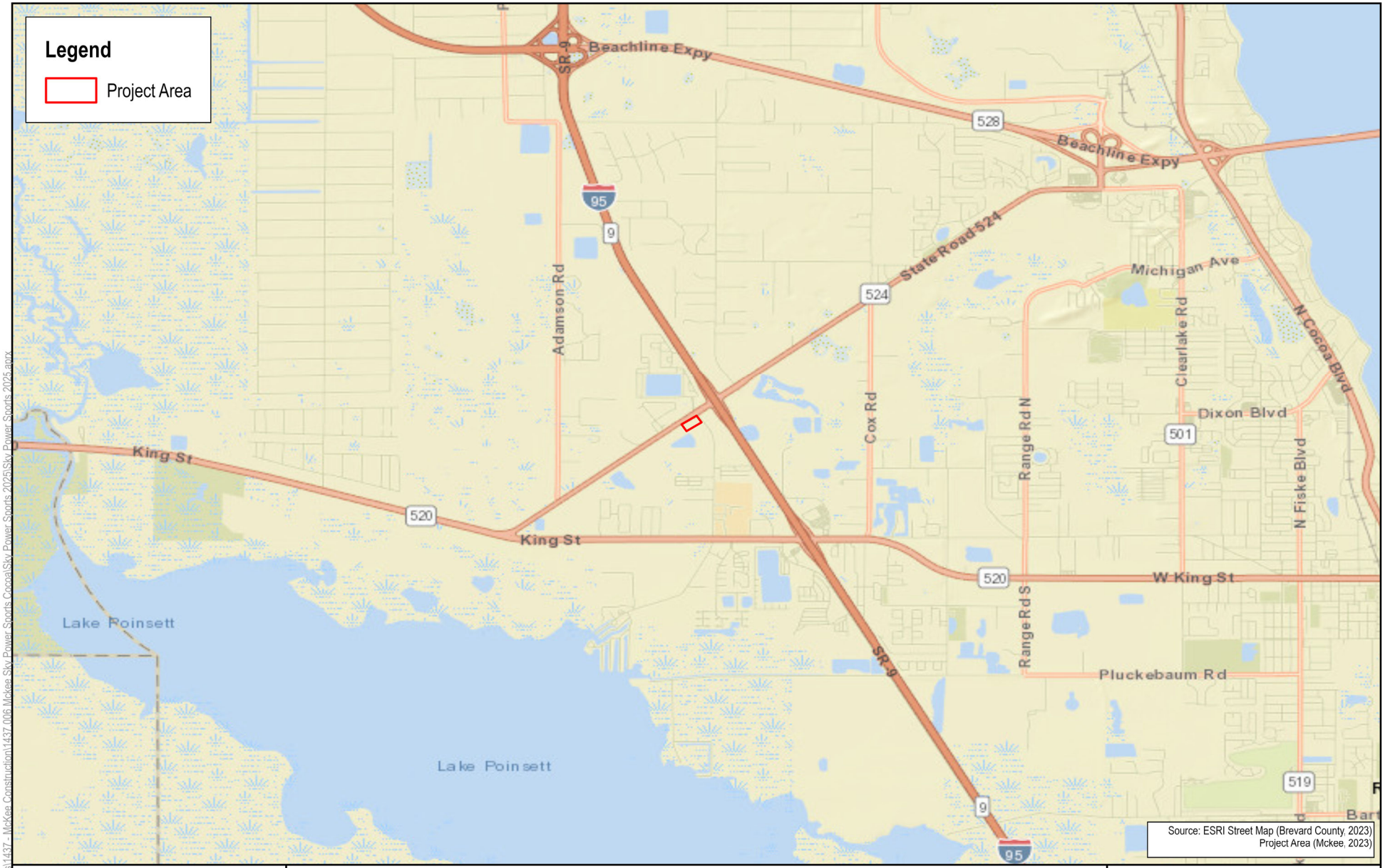
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Figures



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DATE: 4.7.2025	PN: 1437.006

Sky Power Sports Cocoa
Location Map
Brevard County, Florida

MONTROSE ENVIRONMENTAL

Figure 1

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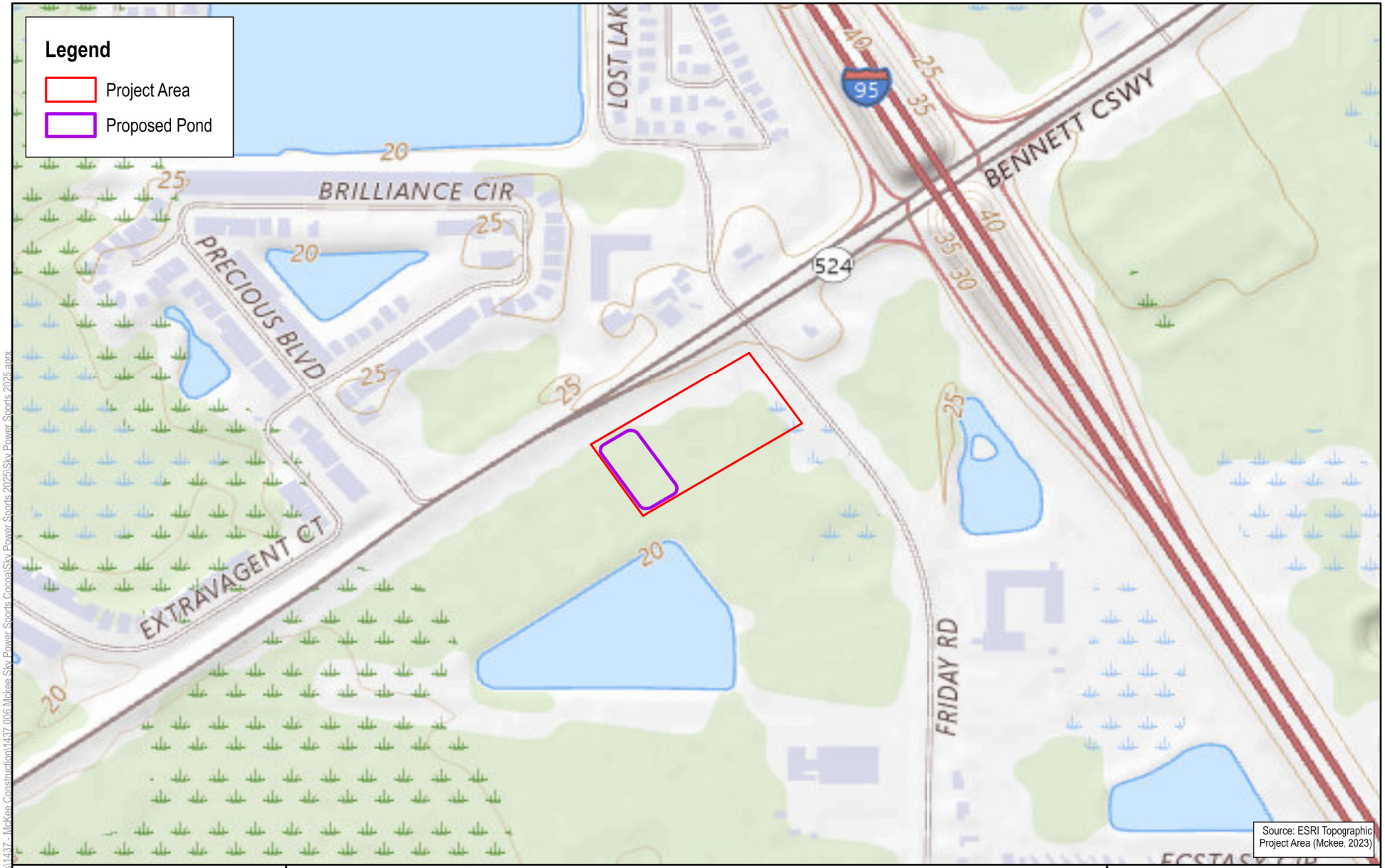
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Sky Power Sports Cocoa
Aerial Map
Brevard County, Florida

MONTROSE ENVIRONMENTAL

Figure 2

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Sky Power Sports Cocoa
USGS Topographic Quadrangle Map
Brevard County, Florida

MONTROSE ENVIRONMENTAL

Figure 3

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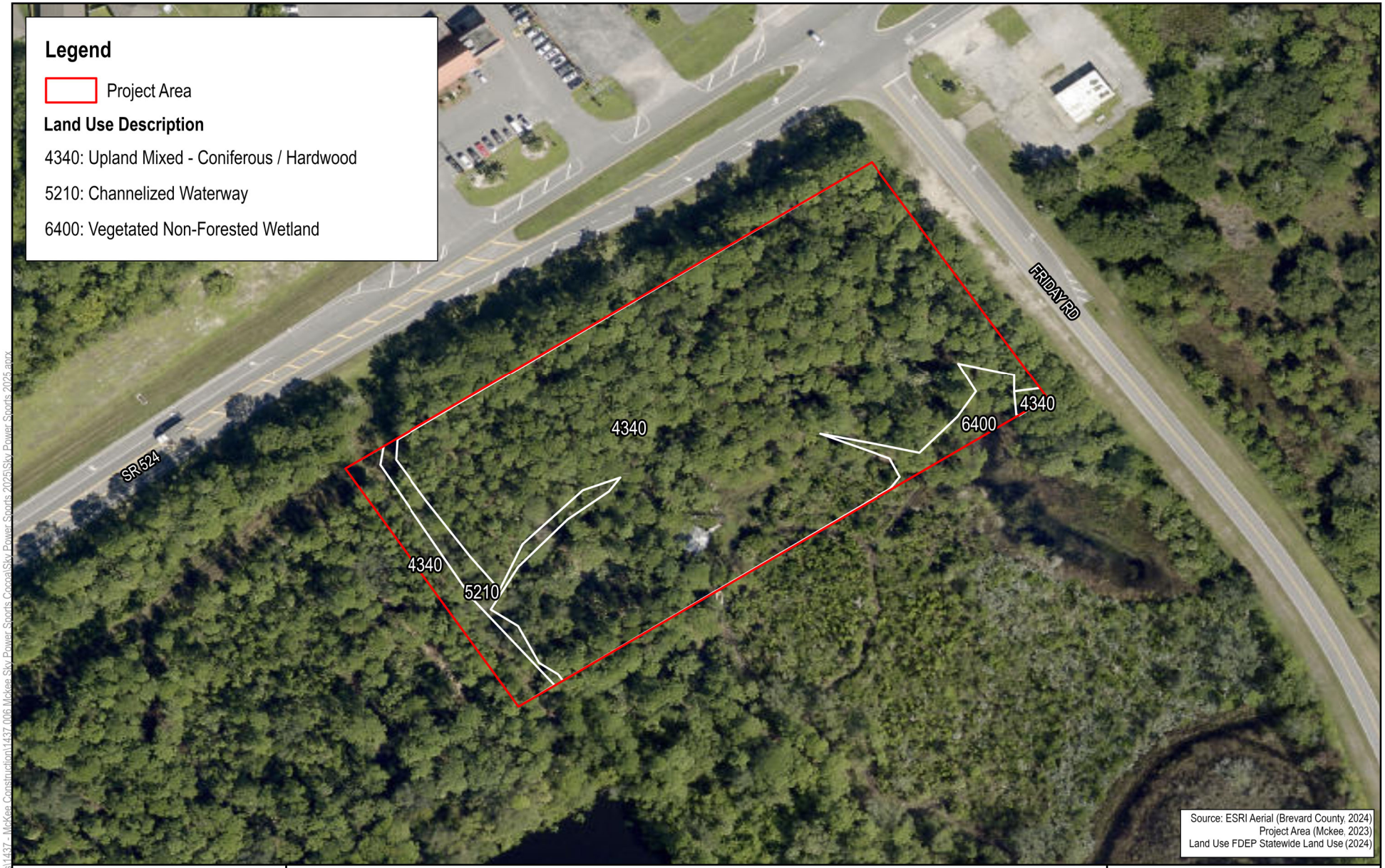
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Sky Power Sports Cocoa
NRCS Soil Survey Map
Brevard County, Florida

MONTROSE ENVIRONMENTAL

Figure 4

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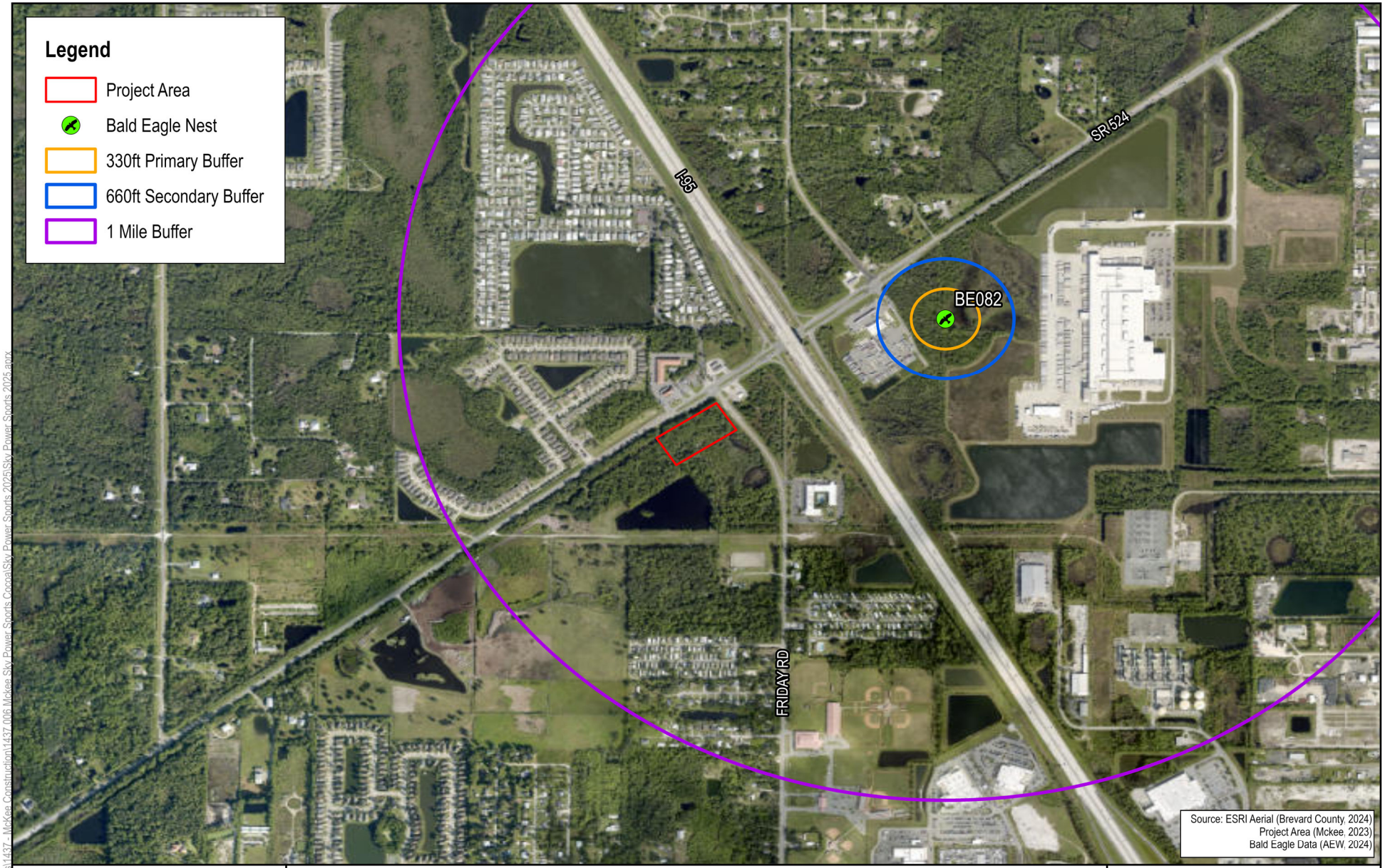
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Sky Power Sports Cocoa
Land Use Map
Brevard County, Florida

MONTROSE ENVIRONMENTAL

Figure 5

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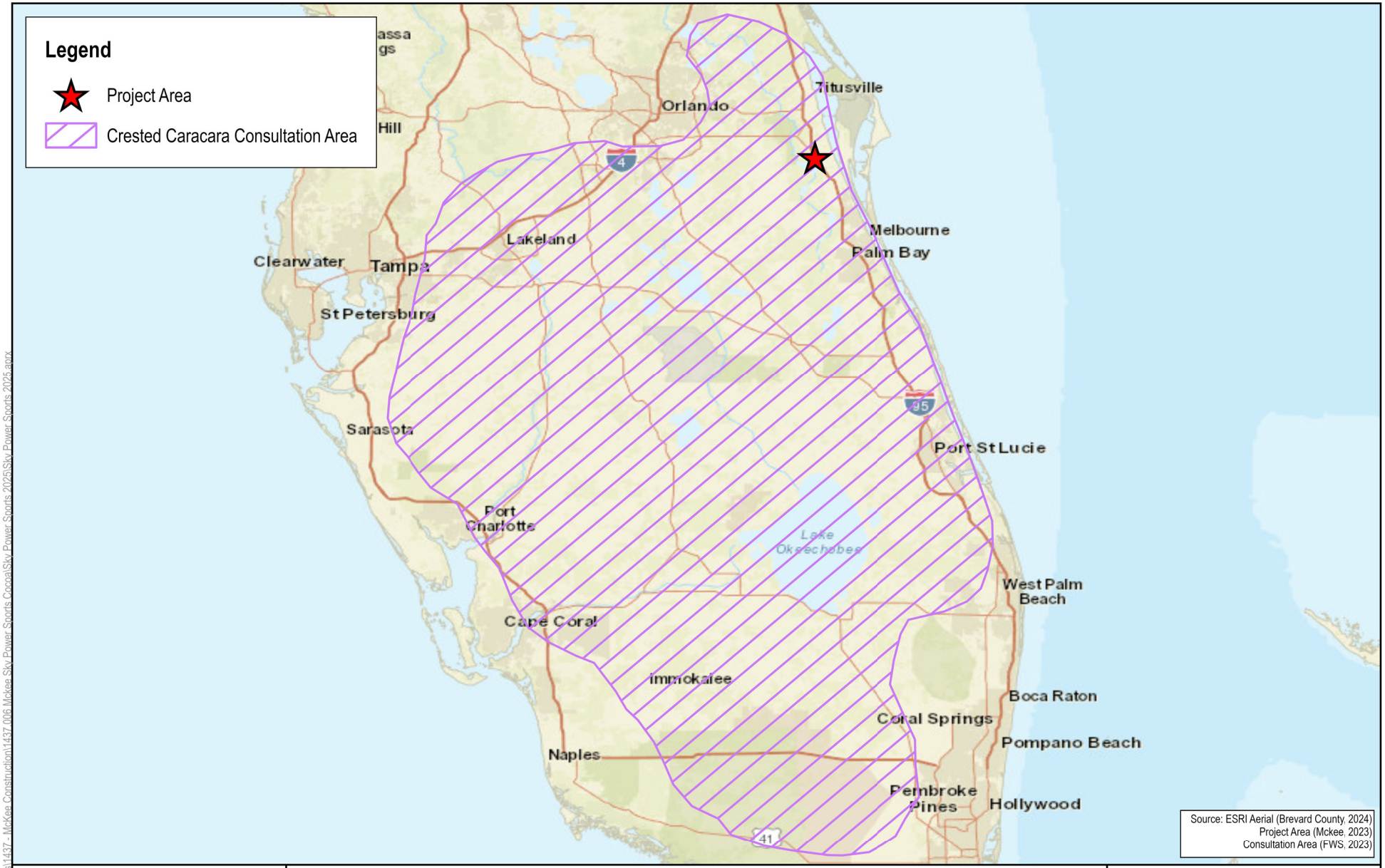
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Sky Power Sports Cocoa
Bald Eagle Nesting Site Map
Brevard County, Florida

MONTROSE ENVIRONMENTAL

Figure 6

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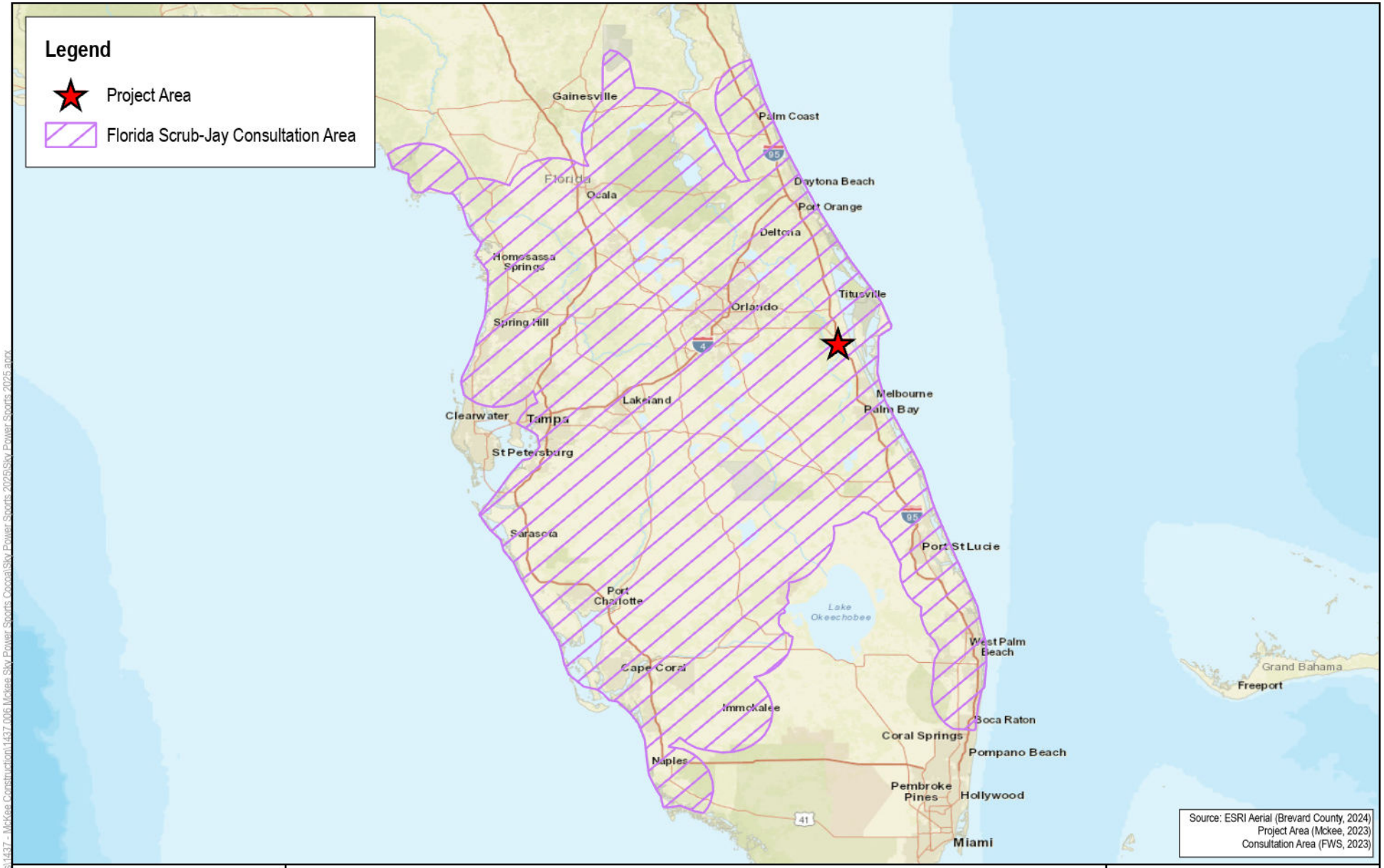
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Sky Power Sports Cocoa
Audubon's Crested Caracara Consultation Area Map
Brevard County, Florida

MONTROSE ENVIRONMENTAL

Figure 7

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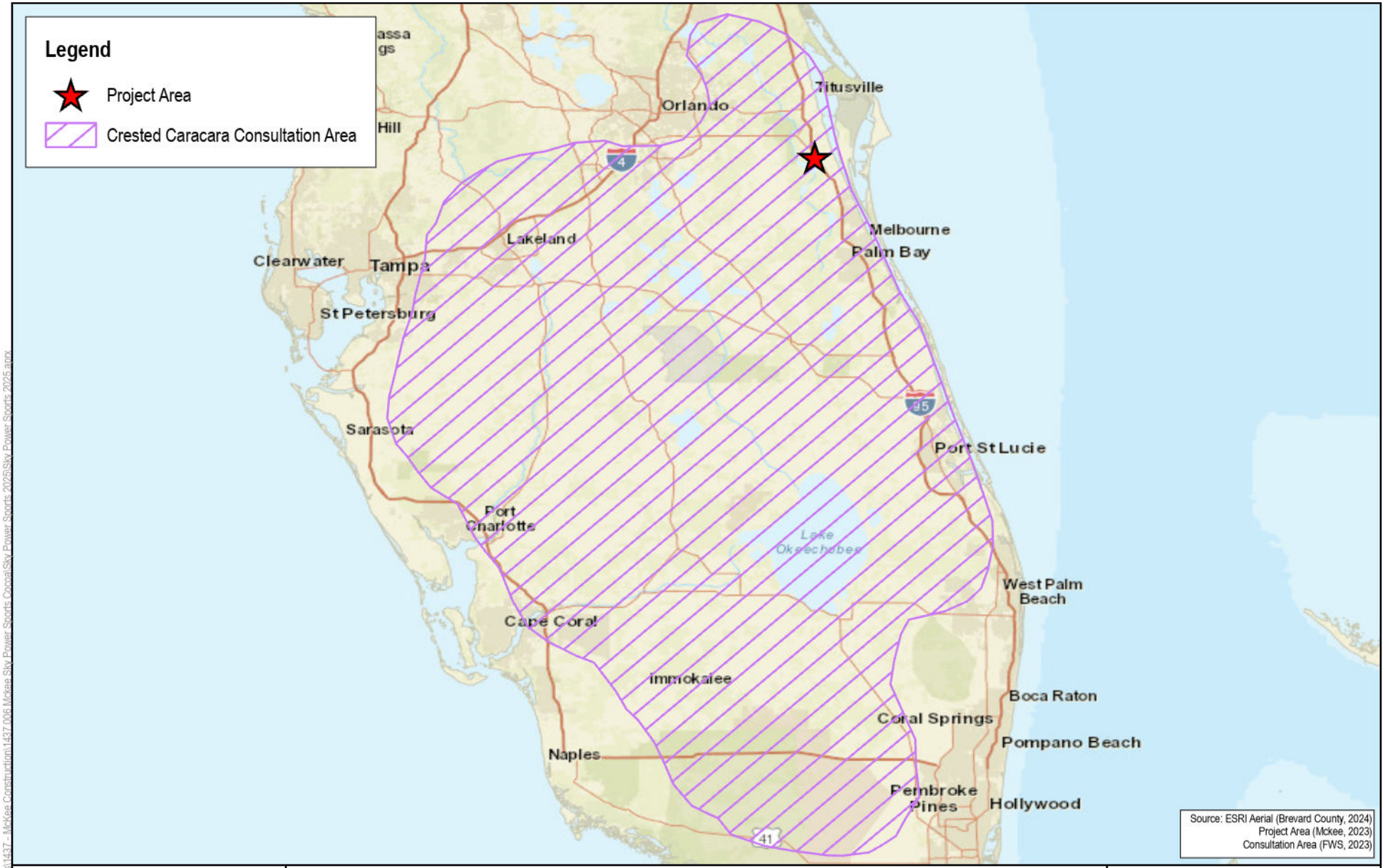
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Sky Power Sports Cocoa
Florida Scrub-Jay Consultation Area Map
Brevard County, Florida

MONTROSE ENVIRONMENTAL

Figure 7

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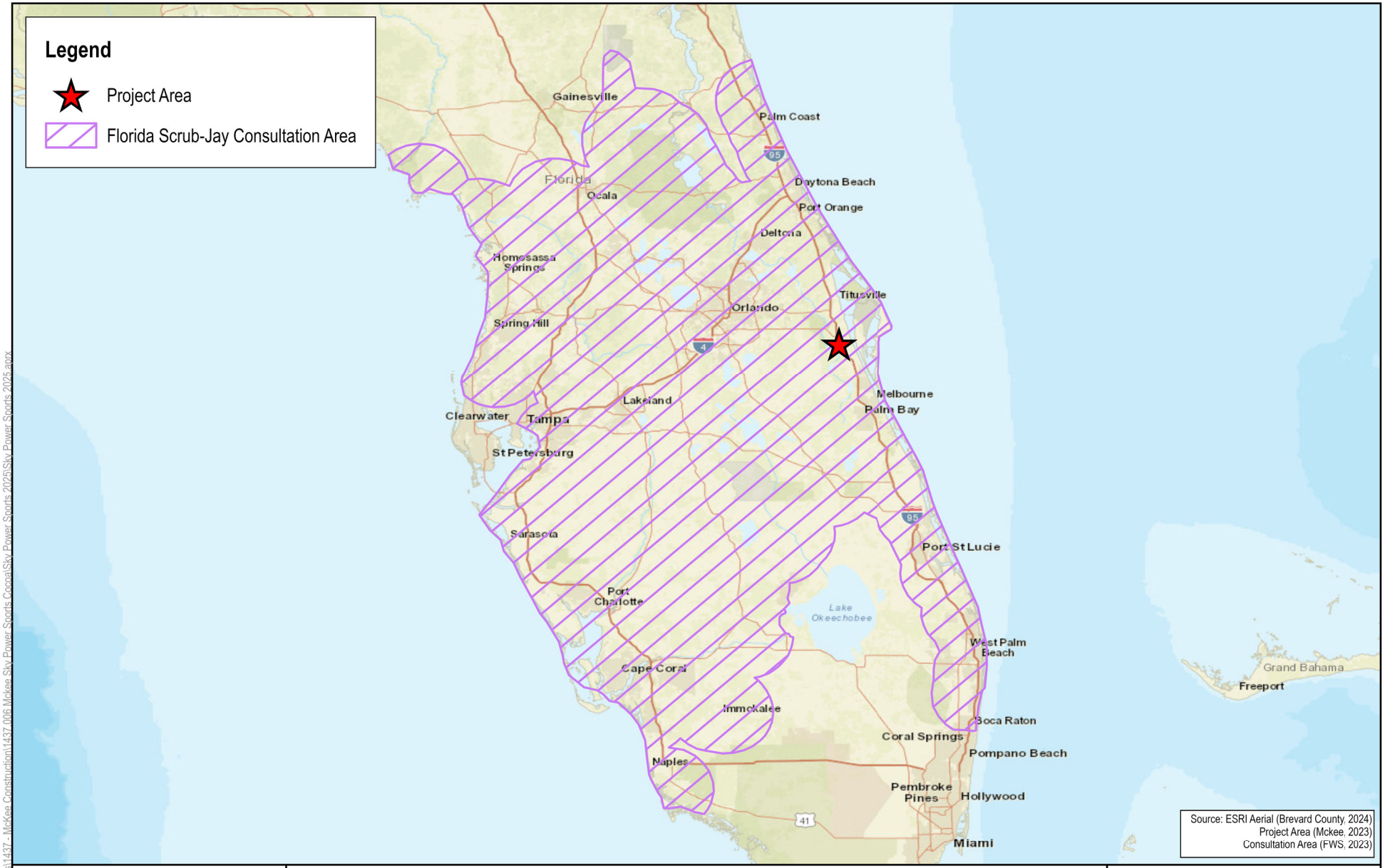
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Sky Power Sports Cocoa
Audubon's Crested Caracara Consultation Area Map
Brevard County, Florida

MONTROSE ENVIRONMENTAL

Figure 8

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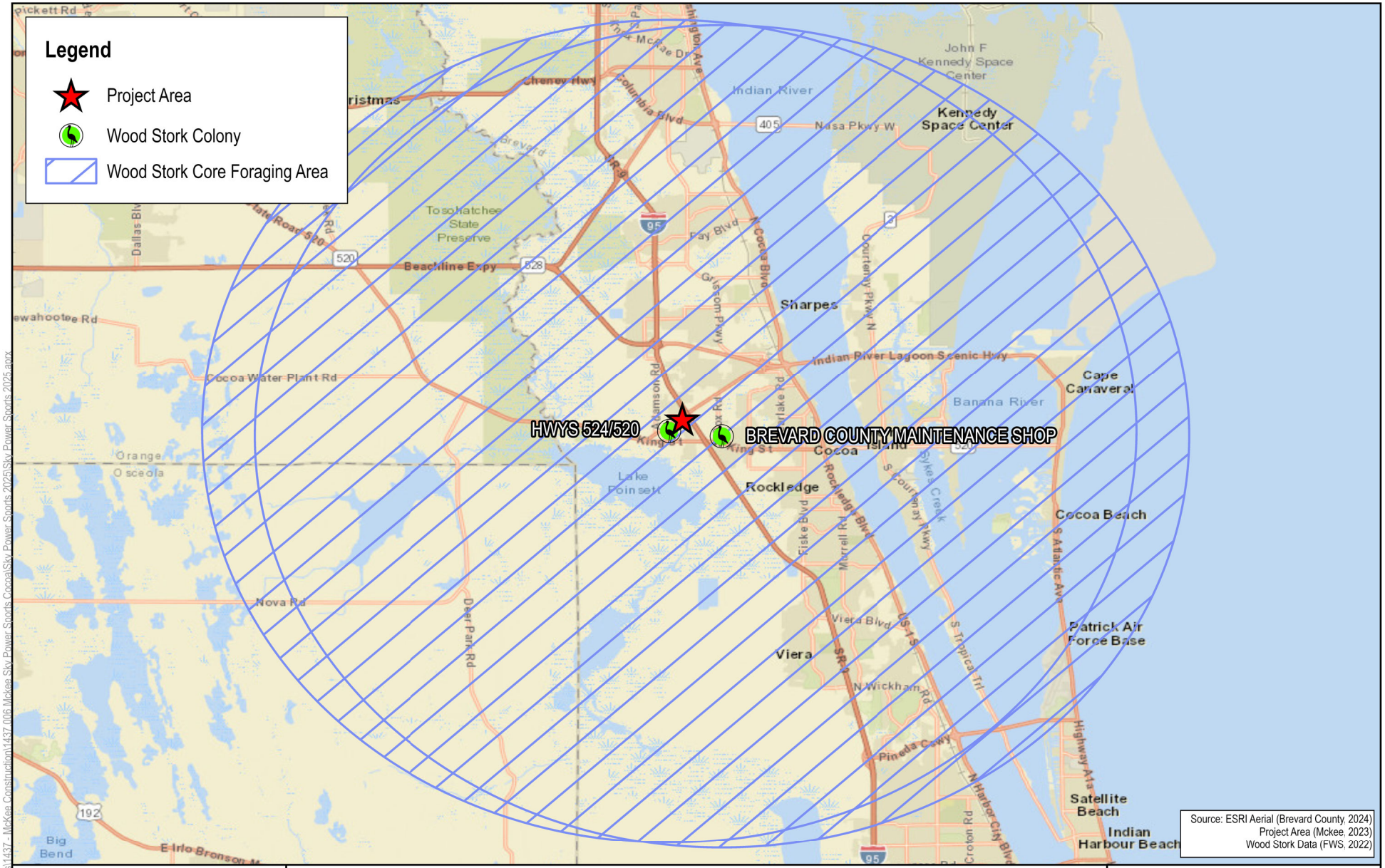
DRN: VMV	APR: KJT
DATE: 4.7.2025	PN: 1437.006

Sky Power Sports Cocoa
Florida Scrub-Jay Consultation Area Map
Brevard County, Florida

MONTROSE ENVIRONMENTAL

Figure 8

Document Path: T:\GIS_Client Files\1437 - McKee Construction\1437.006 Mckee Sky Power Sports Cocoa\Sky Power Sports 2025\Sky Power Sports 2025.aprx



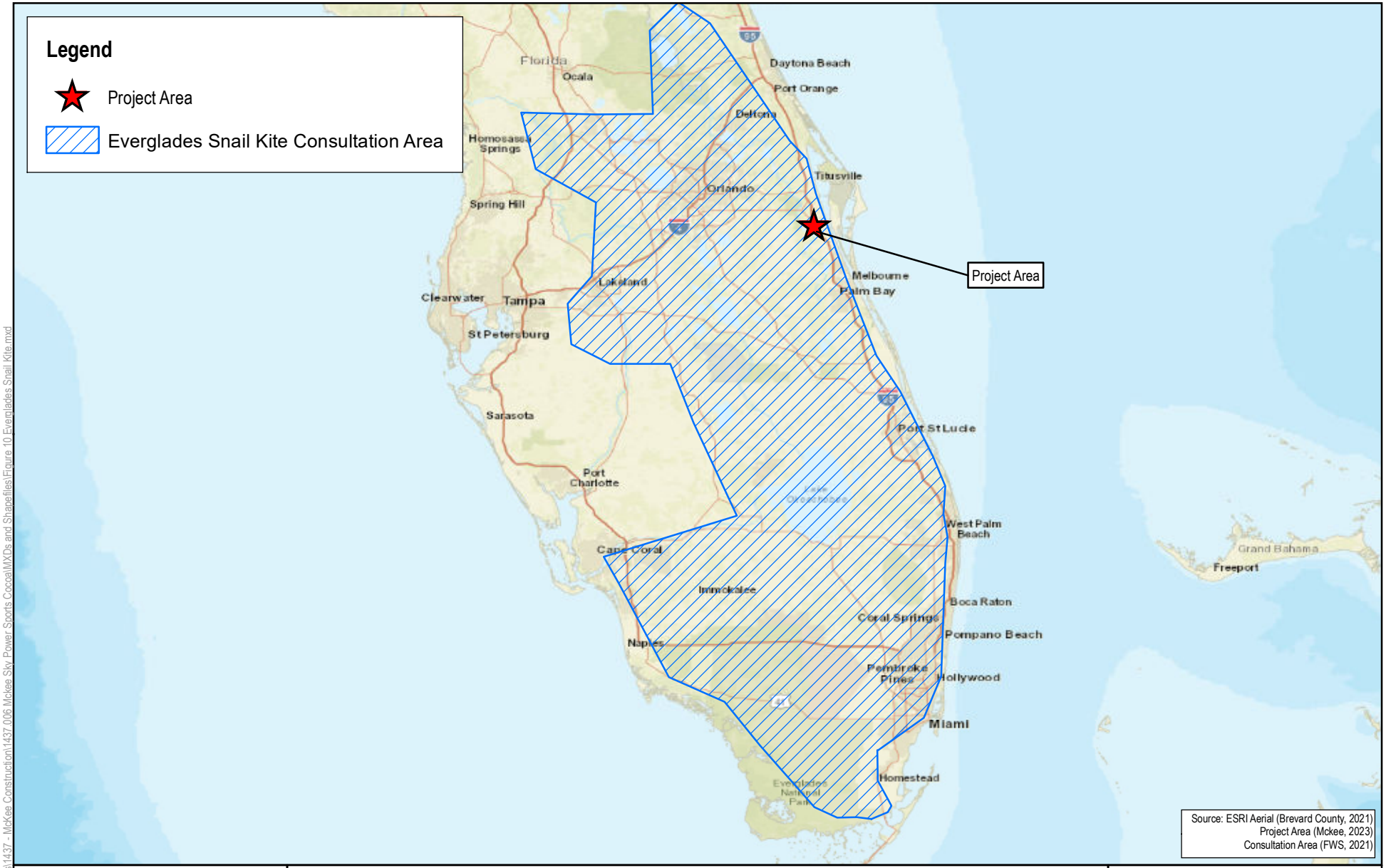
DRN: VMV	APR: KJT
DATE: 4.7.2025	PN: 1437.006

Sky Power Sports Cocoa
Wood Stork Colonies and Core Foraging Area Map
Brevard County, Florida

MONTROSE ENVIRONMENTAL

Figure 9

Document Path: T:\GIS_Client Files\1437 - McKee Construction\1437.006 Mckee Sky Power Sports Cocoa\Sky Power Sports 2025\Sky Power Sports 2025.aprx



N

0 25 50 Miles

DRN: VMV	APR: KJT
DATE: 10.2.2024	PN: 1437.006

Sky Power Sports Cocoa

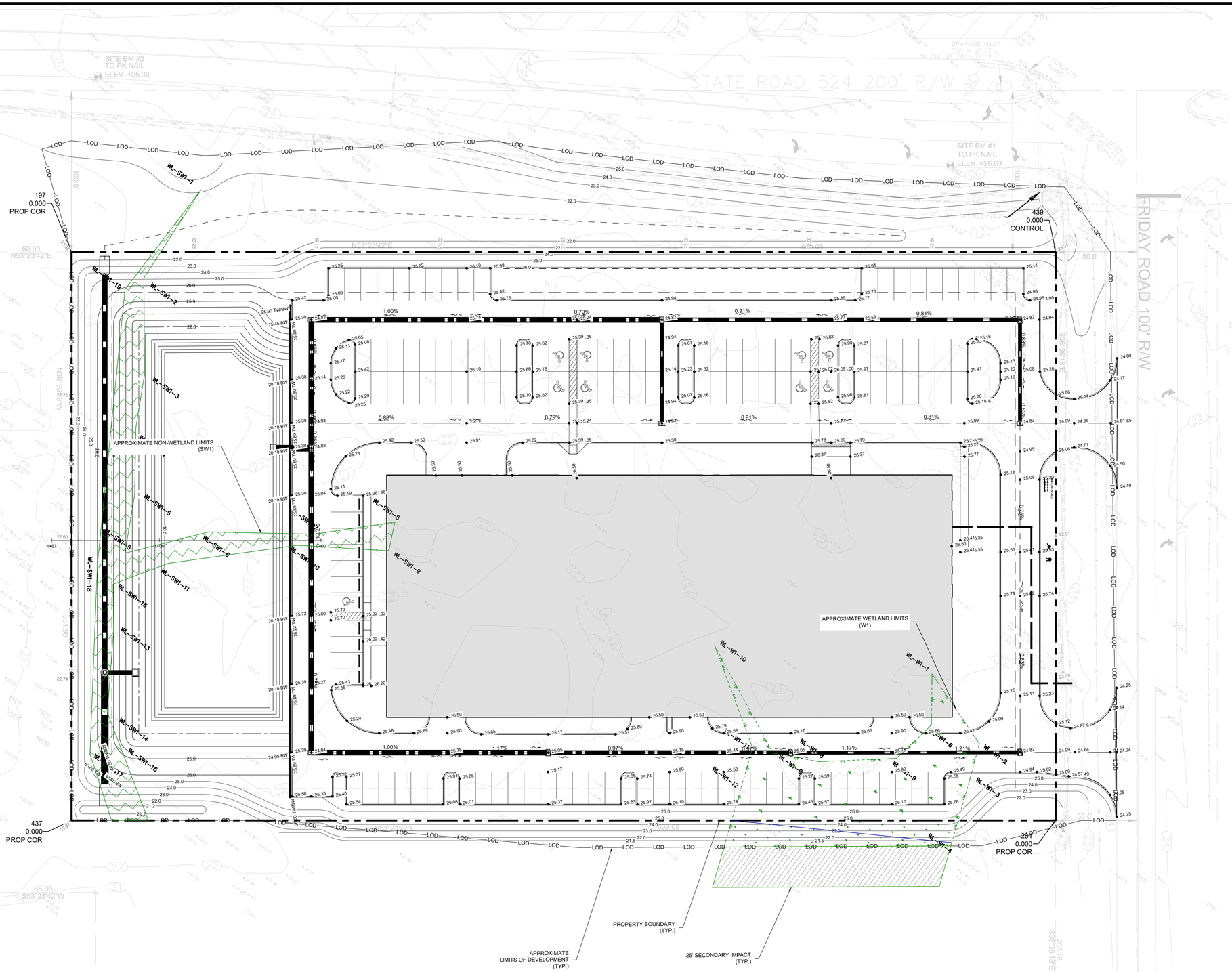
Everglades Snail Kite Consultation Area Map
Brevard County, Florida

MONTROSE ENVIRONMENTAL

Figure 10

Document Path: T:\GIS\ Client Files\1437 - McKee Construction\1437.006 Mckee Sky Power Sports Cocoa\MXDs and Shapefiles\Figure 10 Everglades Snail Kite.mxd

Appendix A – Environmental Consideration Plan



NOTES:

1. SURFACE COURSE: MINIMUM OF 1.5" (COMPACTED THICKNESS) OF ASPHALT CONFORMING TO FDOT SPECIFICATIONS FOR 12.5MM OR 9.5MM OF TRAFFIC LEVEL "C" ASPHALTIC CONCRETE.
2. BASE COURSE: LIMEROCK SHOULD CONSIST OF 6" (COMPACTED THICKNESS). COMPACTION TO A MINIMUM RELATIVE COMPACTION OF 98%OF THE MATERIAL'S MODIFIED PROCTOR (ASTM D-1557, AASHTO T-180)LABORATORY MAXIMUM DRY DENSITY.
3. SUBGRADE : SHOULD CONSIST OF 6" MIN. (COMPACTED THICKNESS) OF GRANULAR FILL OR NATIVE SOILS MIXED WITH A QUANTITY OF SUITABLE STABILIZATION MATERIAL SUFFICIENT TO ARCHIVE A MINIMUM LIMEROCK BEARING RATIO OF 40% (LBR 40). MINIMUM RELATIVE COMPACTION OF 98% OF THE MATERIAL'S MODIFIED PROCTOR (ASTM D-1 557, AASHTO T-1 80) LABORATORY MAXIMUM DRY DENSITY.

WETLAND & SURFACE WATER	WETLAND DIRECT IMPACT	SURFACE WATER DIRECT IMPACT	25' SECONDARY IMPACT
	(ac)		(ac)
NON-WETLAND WATERS (SW1)	0	0.17	0
WETLAND (W1)	0.21	0	0.08

EVANS ENGINEERING, INC.
CIVIL ENGINEERING LAND PLANNING PERMITTING SERVICES
719 IRMA AVENUE
ORLANDO, FLORIDA 32803
(407) 872-1515
www.evansenginc.com
CERTIFICATE OF AUTHORIZATION NO. 00006788

EVANS ENGINEERING, INC.

CERTIFICATE OF AUTHORIZATION NO. 6788

DAVID L. EVANS
FLORIDA P.E. NO. 46586

DATE:

SKY POWERSPORTS OF COCOA

COCOA, FLORIDA

ENVIRONMENTAL CONSIDERATION SHEET

REVISIONS			
DATE	NO.	DETAIL	BY

DRAWN BY:	DATE:
-	12/9/24
CHECKED BY:	JOB #:
DE	31604

GRAPHIC SCALE

30' 0 15' 30' 60'

FEET
1 Inch = 30 Ft.

SHEET #:

EXHIBIT

A:\EES_SUN... by Trent Jones - Saved:12/6/2024 Plotted: Brian 12/9/2024 SkyPower WETLAND EXHIBIT.dwg

Gmail

Permit Mailbox <permitting@evansenginc.com>

SJRWMD - MB Credit Transaction Application Confirmation # 994175

appnotify@sjrwmd.com <appnotify@sjrwmd.com> Tue, Sep 30, 2025 at 11:29 AM
Reply-To: applicationsupport@sjrwmd.com
To: brody@mitigationmarketing.com
Cc: jdahl@sjrwmd.com, e-reg-mail@sjrwmd.com, dfuechtman@miami-corp.com, permitting@evansenginc.com

Thank you for your application to modify a mitigation bank ledger.

Confirmation Number:	994175
Applicant(s):	Miami Alternatives, LLC
Ledger permit number:	76185-5
New application number:	
Mitigation bank credit transaction name:	Sky Powersports Cocoa
Compliance number:	1534463, 1534464

Following are the application details for your records:

Mitigation Bank:	Farmton South - UMAM
Basin:	18
Community type:	Herbaceous Freshwater
Applicant:	Miami Alternatives, LLC
Transaction type:	Reservation
Who issued?:	District Permit
Permit #	15666-10
Transfer permit #	Transfer Seq #
Project ID:	Project date:
Agency name:	
Project name:	Sky Powersports Cocoa
Credits:	.13 Transaction date: 30-Sep-2025
Comments:	

The District has received your request to reserve credits for the above mitigation bank ledger, and the request is being evaluated by staff. The associated compliance item numbers are listed above. Please include the mitigation bank credit transaction name and compliance item numbers on any additional correspondence with the District regarding your submittal. Please address all email correspondence to ApplicationSupport@sjrwmd.com

Sincerely,
Reid Hilliard
Environmental Resource Program Manager

PLEASE NOTE: The appnotify@sjrwmd.com and e-reg-mail@sjrwmd.com mailboxes are not monitored. Use one of the following email addresses if you need to respond:
Pending applications: ApplicationSupport@sjrwmd.com; Permitted Projects: ComplianceSupport@sjrwmd.com

St. Johns River Water Management District
4049 Reid Street • Palatka, FL 32177
Website: www.sjrwmd.com
Connect with us: Newsletter, Facebook, Twitter, Instagram, YouTube, Pinterest



September 30, 2025

R & R Cocoa, LLC
Charles Northey
1638 Kathleen Road
Lakeland, FL 33805

Subject: **Reservation Letter for Farmton Mitigation Bank - South (18)**
Sky Powersports Cocoa
SJRWMD Application No. 15666-10

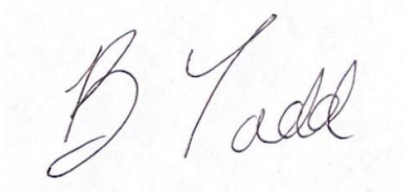
Charles Northey,

I am writing in reference to your need for mitigation credits for the **Sky Powersports Cocoa** project in Brevard County, Florida. This letter confirms that **Farmton Mitigation Bank - South (18)**; SJRWMD permit number 4-127-76185-25, has the following credits reserved for this project:

- 0.13 Freshwater State Herbaceous (UMAM)

It is agreed that the credits will be reserved until the final permits are received and credits paid for in full at which time the credits will be transferred on the ledgers. Should you have questions or require additional information, please do not hesitate to contact me.

Sincerely,



Brody Larsen
Mitigation Marketing, LLC
Phone: 407-481-0677 Fax: 407-648-3866
brody@mitigationmarketing.com
Providing Mitigation Solutions Throughout Florida

cc:**Kendra Tremain, MES Group**

St. Johns River
Water Management District
Michael A. Register, P.E., Executive Director

4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • 386-329-4500 • www.sjrwmd.com

October 03, 2025

Charles Northey
R&R Cocoa LLC
1638 Kathleen Rd
Lakeland, FL 33805-3435

SUBJECT: 15666-10
Sky Powersports Cocoa

Dear Sir/Madam:

Enclosed is your individual permit issued by the St. Johns River Water Management District on October 03, 2025. This permit is a legal document and should be kept with your other important documents. Permit issuance does not relieve you from the responsibility of obtaining any necessary permits from any federal, state, or local agencies for your project.

Technical Staff Report:
If you wish to receive a copy of a Technical Staff Report (TSR) that provides the District staff's analysis of the permit application, go to our ePermit portal on the District's website at https://permitting.sjrwmd.com/ep/#/ep, and then click on "Regulatory Search" from the Search option on the blue bar. From the search page, enter the Application/Permit #, and the Sequence # in the appropriate boxes and then click on Search. Click on the application/permit number hyperlink, to take you to a listing of all documents, including the TSR, for this permit.

Noticing Your Permit:
For noticing instructions, please refer to the noticing materials in this package regarding closing the point of entry for someone to challenge the issuance of your permit. Please note that if a timely petition for administrative hearing is filed, your permit will become non-final and any activities that you choose to undertake pursuant to your permit will be at your own risk. Please refer to the attached Notice of Rights to determine any legal rights you may have concerning the District's agency action.

Compliance with Permit Conditions:
To submit your required permit compliance information, go to our ePermit portal on the District's website at https://permitting.sjrwmd.com/ep/#/ep. Once you have logged in to your account go to the "Processed Applications" panel and click on the hyperlink in the "Items Due" column. If you don't see your permit on this panel, you can add it as a "Favorite" by clicking on the "Favorite" icon at the top of the dashboard. This hyperlink will take you to a list of pending submittals due, and choose the appropriate submittal and click on the "Edit" icon to add necessary documents or information, and then submit. You can also submit this compliance data from the "Services" menu after logging in to your account. You will find the link under "Miscellaneous" services

GOVERNING BOARD

Rob Bradley, CHAIR FLEMING ISLAND
Maryam H. Ghyabi-White, VICE CHAIR ORMOND BEACH
J. Chris Peterson, SECRETARY WINTER PARK
Cole Oliver, TREASURER MERRITT ISLAND
Ryan Atwood MOUNT DORA
Doug Bournique VERO BEACH
Douglas Burnett ST. AUGUSTINE
Ron Howse COCOA
Janet Price FERNANDINA BEACH

menu. The associated compliance forms to comply with your permit conditions are available at https://www.sjrwmd.com/documents/permitting/ .

Transferring Your Permit:
Your permit requires you to notify the District within 30 days of any change in ownership or control of the project or activity covered by the permit, or within 30 days of any change in ownership or control of the real property on which the permitted project or activity is located or occurs. You will need to provide the District with the information specified in rule 62-330.340, Florida Administrative Code (F.A.C.). Generally, this will require you to complete and submit Form 62-330.340(1), "Request to Transfer Permit," available at https://www.sjrwmd.com/documents/permitting/. You can apply for a permit transfer on our the District's ePermit portal at https://permitting.sjrwmd.com/ep/#/ep. Once you have logged in, click on "Transfer Request" from the "SWERP/ERP Applications" Services menu.

Thank you and please let us know if you have additional questions. For general questions contact e-permit@sjrwmd.com or (386) 329-4570.

Sincerely,



Jeff Prather, Division Director
Division of Regulatory Services
St. Johns River Water Management District
2501 S. Binion Rd
Apopka, Fl 32703
321-676-6609

Enclosures: Permit
Notice of Rights
List of Newspapers for Publication

cc: District Permit File

Robert Von Herbulis
McKee Construction
717 Monroe Rd
Sanford, FL 32771-8816

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
Post Office Box 1429
Palatka, Florida 32178-1429

PERMIT NO: 15666-10 **DATE ISSUED:** October 03, 2025
PROJECT NAME: Sky Powersports Cocoa
A PERMIT AUTHORIZING:
Construction and operation of a Stormwater Management System for a 4.92-acre project known as Sky Powersports Cocoa as per plans received by the District on September 5, 2025.

LOCATION:
Section(s): 27 Township(s): 24S Range(s): 35E
Brevard County

Receiving Water Body:

Name	Class
Sabal Trails Primary Drainage System	III Fresh, IW

ISSUED TO:
R&R Cocoa LLC
1638 Kathleen Rd
Lakeland, FL 33805-3435

The permittee agrees to hold and save the St. Johns River Water Management District and its successors harmless from any and all damages, claims, or liabilities which may arise from permit issuance. Said application, including all plans and specifications attached thereto, is by reference made a part hereof.

This permit does not convey to the permittee any property rights nor any rights or privileges other than those specified herein, nor relieve the permittee from complying with any law, regulation or requirement affecting the rights of other bodies or agencies. All structures and works installed by permittee hereunder shall remain the property of the permittee.

This permit may be revoked, modified or transferred at any time pursuant to the appropriate provisions of Chapter 373, Florida Statutes.

PERMIT IS CONDITIONED UPON:
See conditions on attached “Exhibit A”, dated October 03, 2025

AUTHORIZED BY: St. Johns River Water Management District
Division of Regulatory Services

By: _____
Kirstin Leiendecker
Supervising Professional Engineer

"EXHIBIT A"
CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 15666-10
Sky Powersports Cocoa
DATED October 03, 2025

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.

2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the District staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation June 2007), and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), which are both incorporated by reference in subparagraph 62-330.050(9)(b)5, F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.

4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the District a fully executed Form 62-330.350(1), "Construction Commencement Notice," (October 1, 2013) (http://www.flrules.org/Gateway/reference.asp?No=Ref-02505), incorporated by reference herein, indicating the expected start and completion dates. A copy of this form may be obtained from the District, as described in subsection 62-330.010(5), F.A.C., and shall be submitted electronically or by mail to the Agency. However, for activities involving more than one acre of construction that also require a NPDES stormwater construction general permit, submittal of the Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities, DEP Form 62-621.300(4)(b), shall also serve as notice of commencement of construction under this chapter and, in such a case, submittal of Form 62-330.350(1) is not required.

5. Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.

6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:

    a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex — "Construction Completion and Inspection Certification for Activities Associated with a Private Single-Family Dwelling Unit" [Form 62-330.310(3)]; or

b. For all other activities — “As-Built Certification and Request for Conversion to Operation Phase” [Form 62-330.310(1)].

c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

7. If the final operation and maintenance entity is a third party:

   a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as-built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.4 of Volume I) as filed with the Florida Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.

   b. Within 30 days of submittal of the as- built certification, the permittee shall submit “Request for Transfer of Environmental Resource Permit to the Perpetual Operation and Maintenance Entity” [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

8. The permittee shall notify the District in writing of changes required by any other regulatory District that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:

   a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;

   b. Convey to the permittee or create in the permittee any interest in real property;

   c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or

   d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the District in writing:

    a. Immediately if any previously submitted information is discovered to be inaccurate; and

b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

13. Upon reasonable notice to the permittee, District staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

14. If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, stone tools, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section (DHR), at (850) 245-6333, as well as the appropriate permitting agency office. Project activities shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, F.S. For project activities subject to prior consultation with the DHR and as an alternative to the above requirements, the permittee may follow procedures for unanticipated discoveries as set forth within a cultural resources assessment survey determined complete and sufficient by DHR and included as a specific permit condition herein.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.

16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.

17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the District will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

19. This permit for construction will expire five years from the date of issuance.

20. At a minimum, all retention and detention storage areas must be excavated to rough grade prior to building construction or placement of impervious surface within the area to be served by those facilities. To prevent reduction in storage volume and percolation rates, all accumulated sediment must be removed from the storage area prior to final grading and stabilization.

21. All wetland areas or water bodies that are outside the specific limits of construction authorized by this permit must be protected from erosion, siltation, scouring or excess turbidity, and dewatering.

22. The operation and maintenance entity shall inspect the stormwater or surface water management system once within two years after the completion of construction and every two years thereafter to determine if the system is functioning as designed and permitted. The operation and maintenance entity must maintain a record of each required inspection, including the date of the inspection, the name and contact information of the inspector, and whether the system was functioning as designed and permitted, and make such record available for inspection upon request by the District during normal business hours. If at any time the system is not functioning as designed and permitted, then within 30 days the entity shall submit a report electronically or in writing to the District using Form 62-330.311(1), “Operation and Maintenance Inspection Certification,” describing the remedial actions taken to resolve the failure or deviation.

23. This permit does not authorize the permittee to cause any adverse impact to or “take” of state listed species and other regulated species of fish and wildlife. Compliance with state laws regulating the take of fish and wildlife is the responsibility of the owner or applicant associated with this project. Please refer to Chapter 68A-27 of the Florida Administrative Code for definitions of “take” and a list of fish and wildlife species. If listed species are observed onsite, FWC staff are available to provide decision support information or assist in obtaining the appropriate FWC permits. Most marine endangered and threatened species are statutorily protected and a “take” permit cannot be issued. Requests for further information or review can be sent to FWCConservationPlanningServices@MyFWC.com.

24. The proposed project must be constructed and operated as per plans received by the District on September 5, 2025.

25. Before the start of any construction, the permittee must provide the District with documentation demonstrating that 0.13 herbaceous freshwater UMAM mitigation credits have been debited from the Farmton South Mitigation Bank ledger.

26. In the event that the permittee does not successfully complete the transaction to obtain 0.13 herbaceous freshwater UMAM mitigation credits from Farmton South Mitigation Bank, the permittee must obtain a permit modification to provide alternative mitigation.

Notice Of Rights

1. A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed (received) either by delivery at the office of the District Clerk at District Headquarters, P. O. Box 1429, Palatka Florida 32178-1429 (4049 Reid St., Palatka, FL 32177) or by e-mail with the District Clerk at Clerk@sjrwmd.com, within twenty-six (26) days of the District depositing the notice of District decision in the mail (for those persons to whom the District mails actual notice), within twenty-one (21) days of the District emailing the notice of District decision (for those persons to whom the District emails actual notice), or within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Chapter 28-106, Florida Administrative Code. The District will not accept a petition sent by facsimile (fax), as explained in paragraph no. 4 below.

2. Please be advised that if you wish to dispute this District decision, mediation may be available and that choosing mediation does not affect your right to an administrative hearing. If you wish to request mediation, you must do so in a timely-filed petition. If all parties, including the District, agree to the details of the mediation procedure, in writing, within 10 days after the time period stated in the announcement for election of an administrative remedy under Sections 120.569 and 120.57, Florida Statutes, the time limitations imposed by Sections 120.569 and 120.57, Florida Statutes, shall be tolled to allow mediation of the disputed District decision. The mediation must be concluded within 60 days of the date of the parties' written agreement, or such other timeframe agreed to by the parties in writing. Any mediation agreement must include provisions for selecting a mediator, a statement that each party shall be responsible for paying its pro-rata share of the costs and fees associated with mediation, and the mediating parties' understanding regarding the confidentiality of discussions and documents introduced during mediation. If mediation results in settlement of the administrative dispute, the District will enter a final order consistent with the settlement agreement. If mediation terminates without settlement of the dispute, the District will notify all the parties in writing that the administrative hearing process under Sections 120.569 and 120.57, Florida Statutes, is resumed. Even if a party chooses not to engage in formal mediation, or if formal mediation does not result in a settlement agreement, the District will remain willing to engage in informal settlement discussions.

3. A person whose substantial interests are or may be affected has the right to an informal administrative hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes, where no material facts are in dispute. A petition for an informal hearing must also comply with the requirements set forth in Rule 28-106.301, Florida Administrative Code.

4. A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Palatka, Florida during the District's regular business hours. The District's regular business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Petitions received by the District Clerk after the District's regular business hours shall be deemed filed as of 8:00 a.m. on the District's next regular business day. The District's acceptance of petitions filed by e-mail is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation (issued pursuant to Rule 28-101.001, Florida Administrative Code), which is available for viewing at *sjrwmd.com*. These conditions include, but are not limited to, the petition being in the form of a PDF or TIFF file and being capable of being stored and printed by the District. Further, pursuant to the District's Statement of Agency Organization and Operation, attempting to file a petition by facsimile is prohibited and shall not constitute filing.

5. Failure to file a petition for an administrative hearing within the requisite timeframe shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, Florida Administrative Code).

6. The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40C-1.1007, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District's final action may be different from the position taken by it in this notice. A person whose substantial interests are or may be affected by the District's final action has the right to become a party to the proceeding, in accordance with the requirements set forth above.

7. Pursuant to Section 120.68, Florida Statutes, a party to the proceeding before the District who is adversely affected by final District action may seek review of the action in the District Court of Appeal by filing a notice of appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, within 30 days of the rendering of the final District action.

8. A District action is considered rendered, as referred to in paragraph no. 7 above, after it is signed on behalf of the District and filed by the District Clerk.

9. Failure to observe the relevant timeframes for filing a petition for judicial review as described in paragraph no. 7 above will result in waiver of that right to review.

NOR.Decision.DOC.001
Revised 12.7.11

NOTICING INFORMATION

Please be advised that the St. Johns River Water Management District will not publish a notice in the newspaper advising the public that it has issued a permit for this project.

Newspaper publication, using the District's notice form, notifies members of the public of their right to challenge the issuance of the permit. If proper notice is given by newspaper publication, then there is a 21-day time limit for someone to file a petition for an administrative hearing to challenge the issuance of the permit.

To close the point of entry for filing a petition, you may publish (at your own expense) a one-time notice of the District's decision in a newspaper of general circulation within the affected area as defined in Section 50.011 of the Florida Statutes. If you do not publish a newspaper notice to close the point of entry, the time to challenge the issuance of your permit will not expire and someone could file a petition even after your project is constructed.

A copy of the notice form and a partial list of newspapers of general circulation are attached for your convenience. However, you are not limited to those listed newspapers. If you choose to close the point of entry and the notice is published, the newspaper will return to you an affidavit of publication. In that event, it is important that you either submit a scanned copy of the affidavit by emailing it to *compliancesupport@sjrwmd.com* (preferred method) **or** send a copy of the original affidavit to:

Office of Records and Regulatory Support
4049 Reid Street
Palatka, FL 32177

If you have any questions, please contact the Office of Records and Regulatory Support at (386) 329-4570.

NOTICE OF AGENCY ACTION TAKEN BY THE
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

Notice is given that the following permit was issued on _____:

(Name and address of applicant) _____
permit#_____. The project is located in _____County, Section _____, Township _____ South, Range _____ East. The permit authorizes a surface water management system on _____ acres for _____ known as _____. The receiving water body is _____.

A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code (F.A.C.), the petition must be filed (received) either by delivery at the office of the District Clerk at District Headquarters, P.O. Box 1429, Palatka FL 32178-1429 (4049 Reid St, Palatka, FL 32177) or by e-mail with the District Clerk at Clerk@sjrwmd.com, within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes (F.S.), and Chapter 28-106, F.A.C. The District will not accept a petition sent by facsimile (fax). Mediation pursuant to Section 120.573, F.S., may be available and choosing mediation does not affect your right to an administrative hearing.

A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Palatka, Florida during the District's regular business hours. The District's regular business hours are 8 a.m. – 5 p.m., excluding weekends and District holidays. Petitions received by the District Clerk after the District's regular business hours shall be deemed filed as of 8 a.m. on the District's next regular business day. The District's acceptance of petitions filed by e-mail is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation (issued pursuant to Rule 28-101.001, Florida Administrative Code), which is available for viewing at www.sjrwmd.com. These conditions include, but are not limited to, the petition being in the form of a PDF or TIFF file and being capable of being stored and printed by the District. Further, pursuant to the District's Statement of Agency Organization and Operation, attempting to file a petition by facsimile (fax) is prohibited and shall not constitute filing.

The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40C-1.1007, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District's final action may be different from the position taken by it in this notice. **Failure to file a petition for an administrative hearing within the requisite time frame shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, F.A.C.).**

If you wish to do so, please visit http://www.sjrwmd.com/nor_dec/ to read the complete Notice of Rights to determine any legal rights you may have concerning the District's decision(s) on the permit application(s) described above. You can also request the Notice of Rights by contacting the Director of Office of Records and Regulatory Support, 4049 Reid St., Palatka, FL 32177-2529, tele. no. (386)329-4570.

NEWSPAPER ADVERTISING

ALACHUA
Gainesville Sun, Legal Advertising
2700 SW 13th Street
Gainesville, FL 32608
866-858-9652

BAKER
Baker County Press, Legal Advertising
P. O. Box 598
Maclenny, FL 3206 3
904-259-2400/ fax 904-259-6502

BRADFORD
Bradford County Telegraph, Legal Advertising
P. O. Drawer A
Starke, FL 32901
904-964-6305/ fax 904-964-8628

BREVARD
Florida Today, Legal Advertising
P. O. Box 419000
Melbourne, FL 32941-9000
321-242-3832/ fax 321-242-6618

CLAY
Clay Today, Legal Advertising
1560 Kinsley Ave., Suite 1
Orange Park, FL 32073
904-264-3200/ fax 904-264-3285

DUVAL
Daily Record, Legal Advertising
P. O. Box 1769
Jacksonville, FL 32201
904-356-2466 / fax 904-353-2628

FLAGLER
Flagler Tribune, c/o News Journal
P. O. Box 2831
Daytona Beach, FL 32120-2831
386- 681-2322

INDIAN RIVER
Treasure Coast News
760 NW Enterprise Dr.
Port St. Lucie, FL 34986
772-283-5252

LAKE
Daily Commercial, Legal Advertising
P. O. Drawer 490007
Leesburg, FL 34749
352-365-8235/fax 352-365-1951

MARION
Ocala Star Banner, Legal Advertising
2121 SW 19th Avenue Road
Ocala, FL 34474
352-867-4010/fax 352-867-4126

NASSAU
News-Leader, Legal Advertising
P. O. Box 766
Fernandina Beach, FL 32035
904-261-3696/fax 904-261-3698

OKEECHOBEE
Okeechobee News, Legal Advertising
P. O. Box 639
Okeechobee, FL 34973-0639
863-763-3134/fax 863-763-5901

ORANGE
Sentinel Communications, Legal Advertising
633 N. Orange Avenue
Orlando, FL 32801
407-420-5160/ fax 407-420-5011

OSCEOLA
Little Sentinel, Legal Advertising
633 N. Orange Avenue
Orlando, FL 32801
407-420-5160/ fax 407-420-5011

PUTNAM
Palatka Daily News, Legal Advertising
P. O. Box 777
Palatka, FL 32178
386-312-5200/ fax 386-312-5209

ST. JOHNS
St. Augustine Record, Legal Advertising
P. O. Box 1630
St. Augustine, FL 32085
904-819-3439

SEMINOLE
Sanford Herald, Legal Advertising
300 North French Avenue
Sanford, FL 32771
407-323-9408

VOLUSIA
News Journal Corporation, Legal Advertising
P. O. Box 2831
Daytona Beach, FL 32120-2831
(386) 681-2322

REQ. DATE: 11/19/25 11/19/25 10:30:56
CREW: WFO - HYDRANT HYD
EXT. ADDR.: REF NBR: 0
SCHED START: 11/19/25 SCHED COMPLETION:
GEN. LOC.: COCOA COMP DATE: 11/19/25
REQ DEPT: Utilities Department PRIORITY: High
REQUESTOR: MELINDA KEESEE ORIGIN: INTERNAL
REQ USER: COCOMMK AUTH USER:COCOMMK WRK TYPE:ROUTINE
HYDRANTS 0634 & 0635 @ FRIDAY ROAD, COCOA

ENTER REFERENCE/ACCT NO.? YES Y

PRIMARY CONTACT INFORMATION
MELINDA KEESEE ( ) ( ) ( ) ( )

HYDRANTS 0634 & 0635 @ FRIDAY ROAD, COCOA
CATEGORY: UT WFO MAINTENANCE OPS UTTD
TASK: HYDRANT FLOW/FLUSH FHFL READY
DEPT: Utilities Department UT
SCHED START: 11/19/25 SCHED COMPLETION: 11/19/25
CREW: WFO - HYDRANT HYD

Residual hydrant flow
0634 and 0635

START DATE: ____/____/____ COMPLETION DATE: ____/____/____
START TIME: ____:____:____ COMPLETION TIME: ____:____:____
UNIT OF PRODUCTION: _____ QUANTITY: _____.____

	--LABOR--			--EQUIPMENT--		-- MATERIAL --		
DATE	EMPLOYEE	HRS	OT	NUMBER	HRS	ITEM	QTY	COST
11/20/25	C. Daniels	1		Trk 350	1			
11/20/25	J. Winther	1		Trk 350	1			
11/20/25	M. Lewis	1		Trk 391	1			

City of Cocoa, Florida Utilities Department
Water Field Operations Division
351 Shearer Blvd. | Cocoa, FL 32922
Phone: (321) 433-8700 | Fax: (321) 433-8708

RECORDED FIRE HYDRANT FLOW INFORMATION

Hydrant Number Flowed:	0634	0635
Hydrant Location:	Friday Rd	Friday Rd
Recorded Static Pressure:	62 PSI	64 PSI
Recorded Residual Pressure:	62 PSI	64 PSI
Recorded Flow:	50 / 1190 PSI/GPM	50 / 1190 PSI/GPM
Residual Taken From Hydrant:	0635	0634

Date of Recording: 11/20/25 Completed By: C. Daniels, M. Lewis

Flow recorded from 2.5" nozzle unless otherwise specified.

IMPORTANT NOTE: The above information is supplied for use in calculation of available fire flow. The information is an instantaneous recording and does not reflect flow and pressure variations in the City of Cocoa potable water system. A minimum of a 5 PSI safety factor will be required for approval by the City. A larger safety factor may be required due to the location of the proposed project. Should you have any questions, please call the City of Cocoa, Utilities Engineering Division at (321) 433-8704.

MISCELLANEOUS RECEIPT

CITY OF COCOA
CUSTOMER SERVICE
65 STONE ST.
COCOA, FLORIDA 32922

\# 4126

FAX # NA

DATE November 18, 2025

PHONE # 407-872-1515

EMAIL: tditmer@evansenginc.com

RECEIVED FROM Evans Engineering
AMOUNT OF One Hundred Fifty DOLLARS
PROJECT: Sky Power Sports
HYDRANT #'S **0634 & 0635**

	QTY						
FOR	1	X	$ 150.00	**HYD RESIDUAL FLOW TEST.....421-0000-343-39-06**	**FT**	$	150.00
		X				$	-
		X				$	-
		X				$	-
		X				$	-
					TOTAL	$	150.00

BY: Lucecle Williams

NOTE: Average Turnaround Time for Flow Test results are three (3) weeks from the date of this receipt. If you have not received your results, via email, within the allotted time frame, please contact Utilities Development at 321-433-8797.

Melinda Keesee

From: Utilities Development
Sent: Tuesday, November 18, 2025 4:44 PM
To: Melinda Keesee; Indrawattie Schwartz
Subject: FW: Payment Receipt Flow Test - Sky Power Sports - Evans Engineering
Attachments: 4126 Evans Engineering Inc.pdf

Hi Melinda,

Please see hydrant flow test receipt attached.

Thanks,

Utilities Development
Engineering Division
351 Shearer Blvd., Cocoa, FL 32922
(321) 433-8797
utildevelopment@cocoafl.gov

From: Lucecle Williams <lwilliams@cocoafl.gov>
Sent: Tuesday, November 18, 2025 3:04 PM
To: Utilities Development <utildevelopment@cocoafl.gov>
Subject: Payment Receipt Flow Test - Sky Power Sports - Evans Engineering

Lucecle Williams

Senior Customer Service Representative
Phone: (321) 433-8437

E-Mail: lwilliams@cocoafl.gov

Address: 65 Stone Street • Cocoa, FL 32922

Website: www.CocoaFL.gov

Serving our community » with P.R.I.D.E.

Disclaimer: Florida has a very broad public records law (FS 119.01). As a result, any written communication created or received by the City of Cocoa Water Customer Service Division will be made available to the public and media, upon request, unless otherwise exempt. Under Florida Law, e-mail addresses are public record. If you do not want your e-mail address released in response to a public records request, do not send electronic mail to this office.

Sky Power Sports
Utility Report

January 2026

EVANS ENGINEERING, INC.
CIVIL ENGINEERING LAND PLANNING PERMITTING SERVICES

Digitally signed by David Evans
DN: CN=David Evans, dnQualifier=A01410C0000019B8FB699D8002B5746, O=Evans Engineering, C=US
Date: 2026.09.02 16:25:52-04'00'

DAVID L. EVANS LICENSE No. 46586 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been electronically signed and sealed by David L. Evans P.E.on the date and/or time stamp shown using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified by a 3rd Party Certificate of Authority on any electronic copy. FAC 61G15-23.004

David L. Evans, P.E.
Reg. # 46586

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PROPERTY INFORMATION

The project consists of a one story, ±52,550 SF proposed powersports vehicle dealership with associated infrastructure on a ±4.92 acre piece of property located in the City of Cocoa. The property is under the utility service area of the City of Cocoa Utilities who will supply potable water and sanitary sewer service to the project. Potable water will be supplied to the building, to the building's fire sprinkler system, to a private fire hydrant, and will be utilized for the on-site irrigation. The sanitary sewer system will serve the building, and will consist of a sanitary lateral, two private sanitary manholes, and a sanitary gravity main.

For utility demands, please see *Appendix A*.

APPENDICES

APPENDIX A: UTILITY DEMAND CALCULATIONS

Sky Power Sports Cocoa
Potable Water Demands

FIXTURE TYPE	QUANTITIY	ERC Factor	Total ERCs	ERC (GPD)	ADF DEMAND TOTAL (GPD)	MDF DEMAND TOTAL (GPD)	MDF DEMAND TOTAL (GPM)	PHF DEMAND TOTAL (GPD)	PHF DEMAND TOTAL (GPM)
Water Closet (Toilet)	7	0.500 per	3.500	350.00	1,225	2,450	1.7	4,900	3.4
Lavatory (Bathroom Sink)	7	0.083 per	0.581	350.00	203	407	0.3	813	0.6
Sink, two-compartment	1	0.250 per	0.250	350.00	88	175	0.1	350	0.2
Sink, service, mop/janitor	2	0.250 per	0.500	350.00	175	350	0.2	700	0.5
Drinking Fountain, high/low combination	1	0.042 per	0.042	350.00	15	29	0.0	59	0.0
Eyewash, 1-1/4" outlet	1	0.083 per	0.083	350.00	29	58	0.0	116	0.1
Irrigation[(1)]	1.33	19.4 / day / acre	25.80	350.00	9,031	18,061	12.5	36,123	25.1
		Total:	5.0		10,765	21,531	15.0	43,061	29.9

TOTAL FLOW SUMMARY

AVG DAILY	10,765	GPD	7.5 GPM
MAX DAY (x2)	21,531	GPD	15.0 GPM
PEAK HOUR (x4)	43,061	GPD	29.9 GPM

NFF + MD

PROPOSED POWERSPORTS VEHICLE SALES, DISPLAY, & MAINTENANCE FACILIITY: 1-STORY BUILDING, 52,550 GROSS SQUARE FEET, TYPE II (000) CONSTRUCTION TYPE; THE NEEDED FIRE FLOW IS 4,750 GPM FOR A DURATION OF 4 HOURS PER NFPA 1 (FFPC 7TH EDITION), TABLE 18.4.5.2.1.
THE BUILDING WILL HAVE AN AUTOMATIC SPRINKLER SYSTEM ALLOWING FOR A 75% REDUCTION TO THE NEEDED FIRE FLOW PER NFPA 1. THIS REDUCTION BRINGS THE NEEDED FIRE FLOW TO 1,188 GPM.

1,188 GPM + 15 GPM = 1,203 GPM

[(1)]Irrigation Calculation

1. Flow per acre per day = 1.00 inch/wk x 1 wk/4Days x 1ft/12 in x 43,560 sf/ac x 7.48 Gal/cf x 1 ERC/350 Gal= 19.39 ERC / day /acre

Sky Power Sports Cocoa
Wastewater Demands

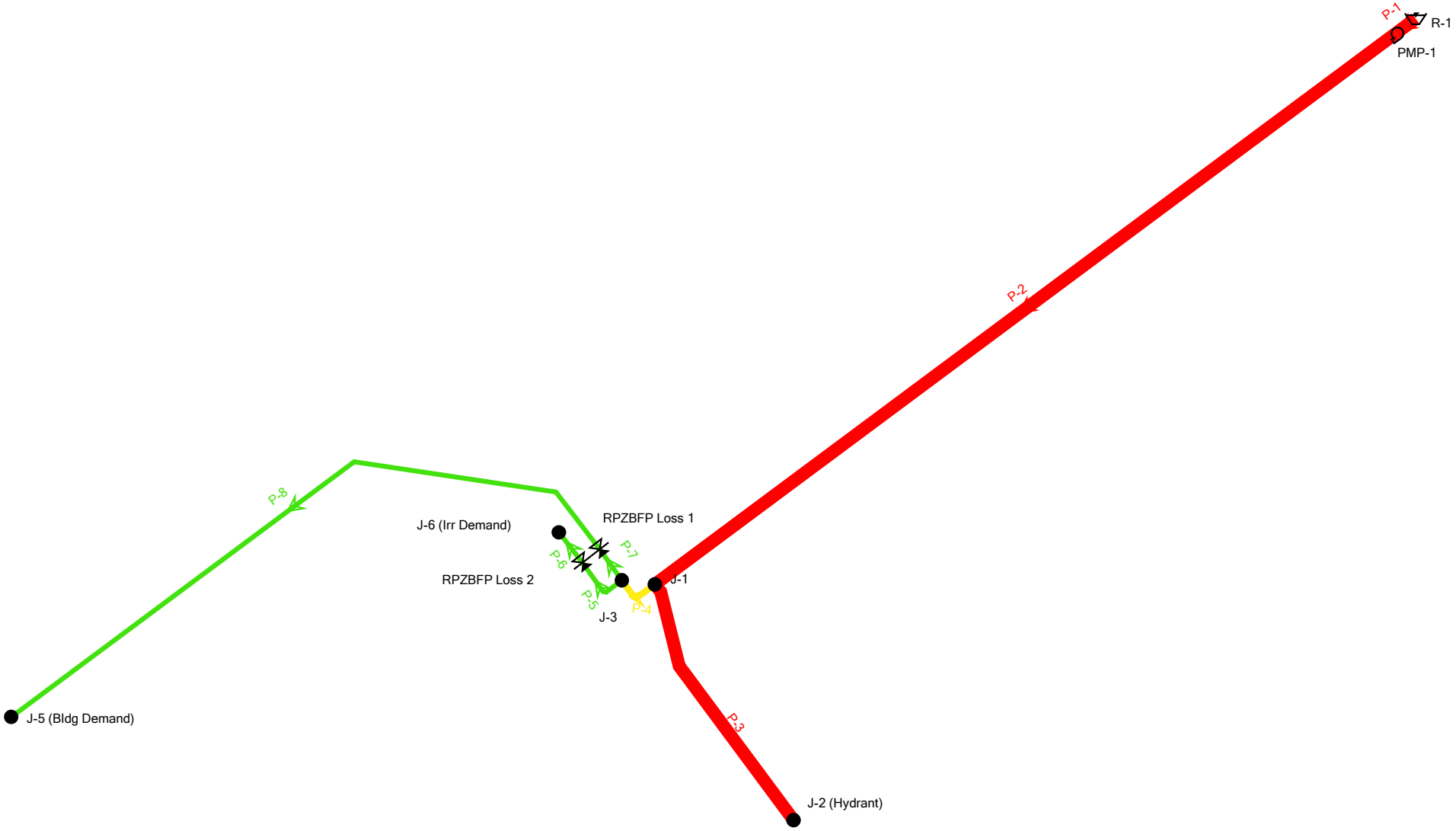
FIXTURE TYPE	QUANTITIY	ERU Factor	Total ERUs	ERU (GPD)	ADF DEMAND TOTAL (GPD)	MDF DEMAND TOTAL (GPD)	MDF DEMAND TOTAL (GPM)	PHF DEMAND TOTAL (GPD)	PHF DEMAND TOTAL (GPM)
Water Closet (Toilet)	7	0.500 per	3.500	300.00	1,050	2,100	1.5	4,200	2.9
Lavatory (Bathroom Sink)	7	0.083 per	0.581	300.00	174	349	0.2	697	0.5
Sink, two-compartment	1	0.250 per	0.250	300.00	75	150	0.1	300	0.2
Sink, service, mop/janitor	2	0.250 per	0.500	300.00	150	300	0.2	600	0.4
Drinking Fountain, high/low combination	1	0.042 per	0.042	300.00	13	25	0.0	50	0.0
Eyewash, 1-1/4" outlet	1	0.083 per	0.083	300.00	25	50	0.0	100	0.1
		Total:	5.0		1,050	2,100	1.5	4,200	2.9

TOTAL FLOW SUMMARY

AVG DAILY	1,050 GPD	0.7 GPM
MAX DAY (x2)	2,100 GPD	1.5 GPM
PEAK HOUR (x4)	4,200 GPD	2.9 GPM

APPENDIX B: POTABLE WATER PEAK HOUR FLOW (PHF) WATERCAD HYDRAULIC ANALYSIS

Scenario: ADF



FlexTable: Junction Table

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
31	J-1	21.85	0.0	167.37	63
33	J-2 (Hydrant)	22.27	0.0	167.37	63
35	J-3	21.90	0.0	167.37	63
39	J-5 (Bldg Demand)	22.78	4.8	135.01	49
41	J-6 (Irr Demand)	21.93	25.1	134.90	49

FlexTable: Pipe Table

Label	Start Node	Stop Node	Diameter (in)	Length (ft)	Material	Hazen-Williams C	Minor Loss Coefficient (Unified)	Flow (gpm)	Velocity (ft/s)
P-3	J-1	J-2 (Hydrant)	8.0	29	PVC	130.0	1.240	0.0	0.00
P-4	J-1	J-3	6.0	5	PVC	130.0	1.460	29.9	0.34
P-7	J-3	RPZBFP Loss 1	6.0	4	PE	130.0	0.600	4.8	0.05
P-8	RPZBFP Loss 1	J-5 (Bldg Demand)	6.0	73	PE	130.0	0.400	4.8	0.05
P-5	J-3	RPZBFP Loss 2	3.0	6	PE	130.0	1.340	25.1	1.14
P-6	RPZBFP Loss 2	J-6 (Irr Demand)	2.0	4	PE	130.0	0.000	25.1	2.56
P-1	R-1	PMP-1	8.0	3	PVC	130.0	0.000	29.9	0.19
P-2	PMP-1	J-1	8.0	96	PVC	130.0	1.940	29.9	0.19

Scenario: PHF
Current Time Step: 0.000 h
FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	19.59	29.9	19.59

\\evansnas\jobs-2000\JOBS\31604 - Sky Power Sports Cocoa\Utilities\Calcs & Models\WaterCAD\31604 Sky Power_Potable WaterCAD Model.wtg

Scenario: PHF
Current Time Step: 0.000 h
FlexTable: Pump Table

Label	Elevation (ft)	Pump Definition	Status (Initial)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	19.59	Pump Definition - 1	On	29.9	142.50

\\evansnas\jobs-2000\JOBS\31604 - Sky Power Sports Cocoa\Utilities\Calcs & Models\WaterCAD\31604 Sky Power_Potable WaterCAD Model.wtg

Pump Definition Detailed Report: Pump Definition - 1

Element Details			
ID	106	Notes	
Label	Pump Definition - 1		

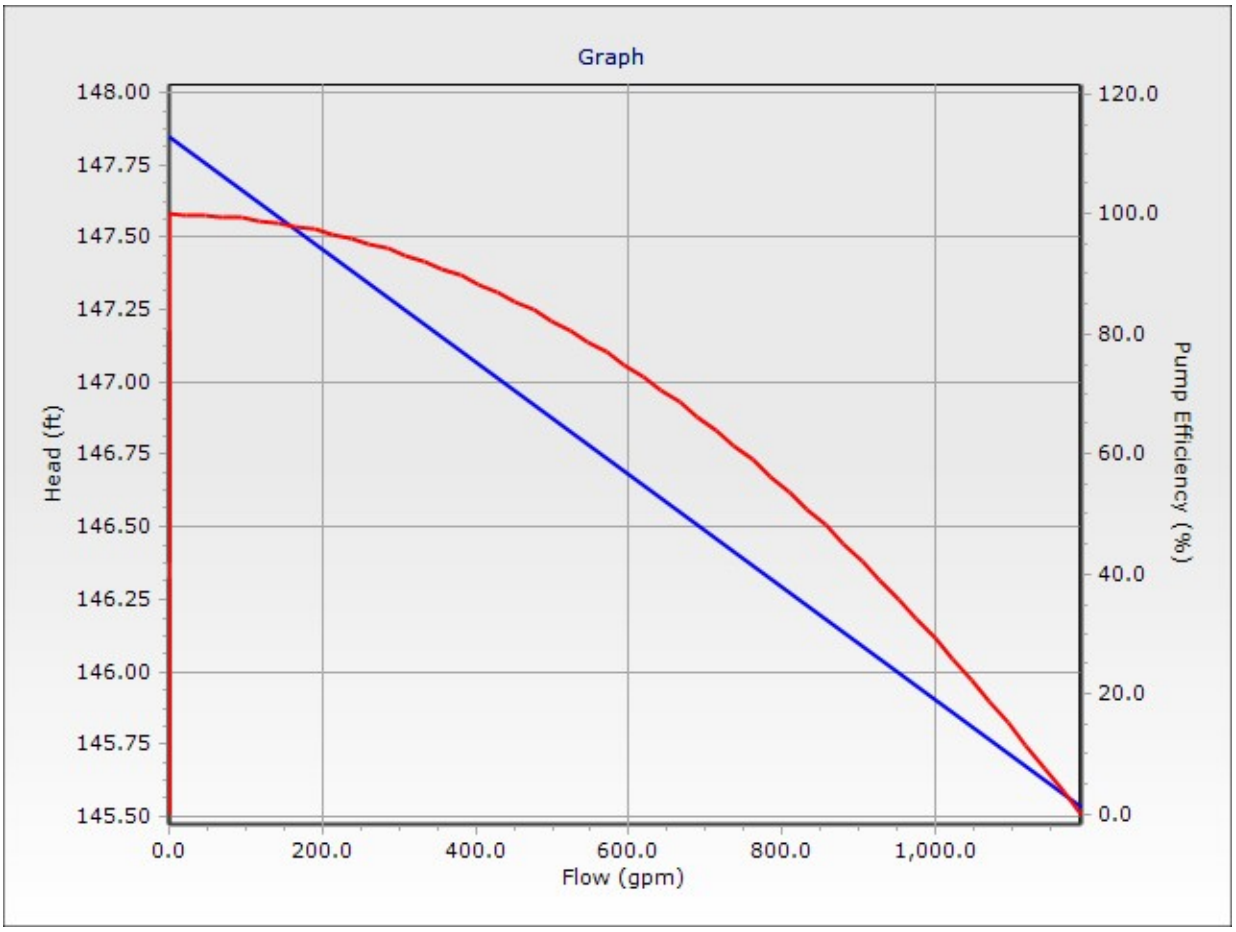
Pump Curve

Flow (gpm)	Head (ft)
0.0	147.85
1,190.0	145.53

Pump Efficiency Type			
Pump Efficiency Type	Best Efficiency Point	Motor Efficiency	100.0 %
BEP Efficiency	100.0 %	Is Variable Speed Drive?	False
BEP Flow	0.0 gpm		

Transient (Physical)			
Inertia (Pump and Motor)	0.000 lb·ft²	Specific Speed	SI=25, US=1280
Speed (Full)	0 rpm	Reverse Spin Allowed?	True

Pump Definition Detailed Report: Pump Definition - 1

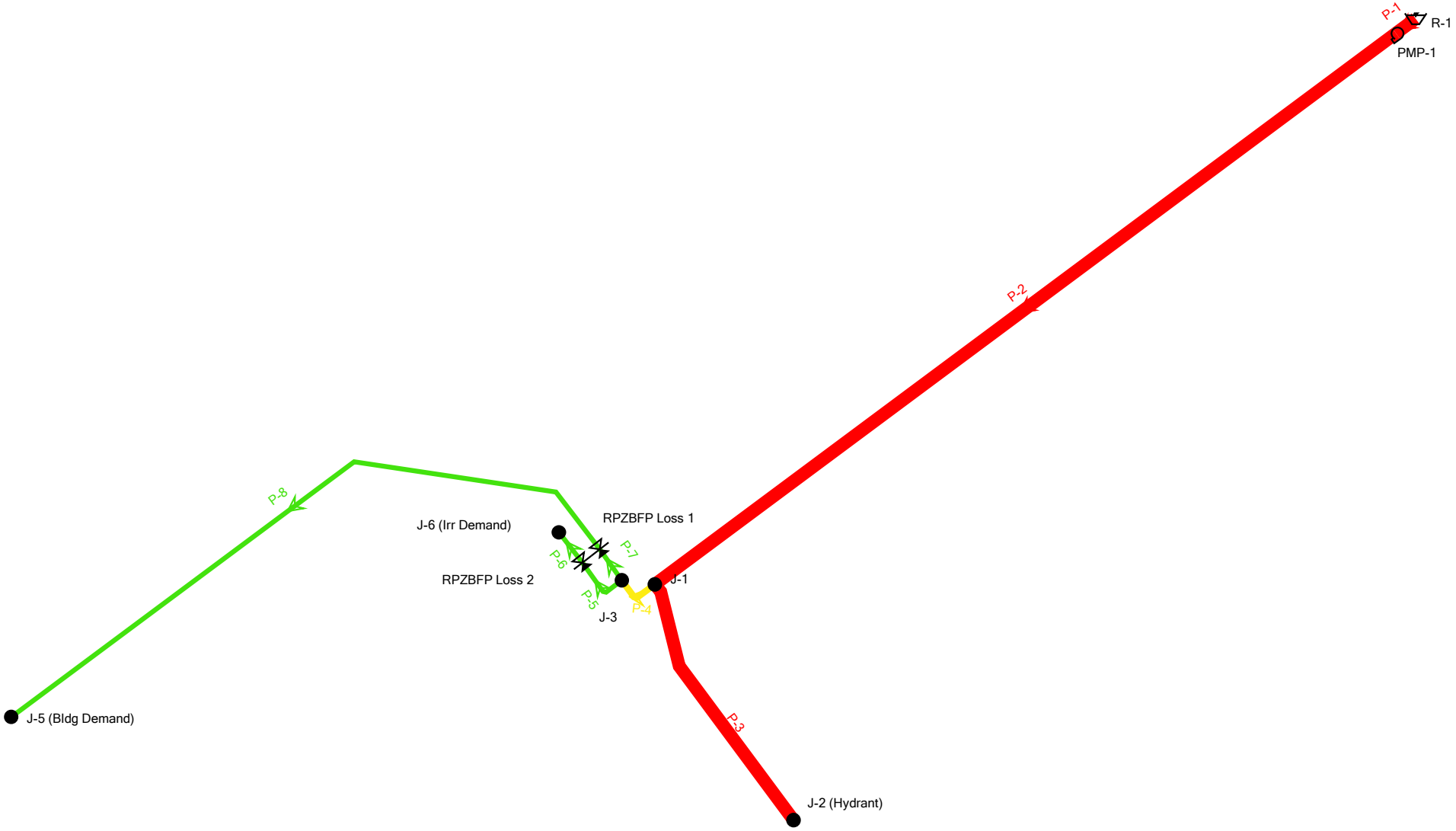


FlexTable: PBV Table

Label	Elevation (ft)	Diameter (Valve) (in)	Pressure Setting (Initial) (psi)	Headloss (ft)	Flow (gpm)	Minor Loss Coefficient (Local)	Hydraulic Grade (From) (ft)
RPZBFP Loss 1	21.90	6.0	14	32.36	4.8	0.000	167.37
RPZBFP Loss 2	21.95	3.0	14	32.36	25.1	0.000	167.33

APPENDIX C: POTABLE WATER MAX DAY + FIRE FLOW (MD+FF) WATERCAD HYDRAULIC ANALYSIS

Scenario: ADF



FlexTable: Junction Table

ID	Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
31	J-1	21.85	0.0	160.80	60
33	J-2 (Hydrant)	22.27	1,188.0	158.97	59
35	J-3	21.90	0.0	160.80	60
39	J-5 (Bldg Demand)	22.78	2.4	128.44	46
41	J-6 (Irr Demand)	21.93	12.5	128.41	46

FlexTable: Pipe Table

Label	Start Node	Stop Node	Diameter (in)	Length (ft)	Material	Hazen-Williams C	Minor Loss Coefficient (Unified)	Flow (gpm)	Velocity (ft/s)
P-3	J-1	J-2 (Hydrant)	8.0	29	PVC	130.0	1.240	1,188.0	7.58
P-4	J-1	J-3	6.0	5	PVC	130.0	1.460	14.9	0.17
P-7	J-3	RPZBFP Loss 1	6.0	4	PE	130.0	0.600	2.4	0.03
P-8	RPZBFP Loss 1	J-5 (Bldg Demand)	6.0	73	PE	130.0	0.400	2.4	0.03
P-5	J-3	RPZBFP Loss 2	3.0	6	PE	130.0	1.340	12.5	0.57
P-6	RPZBFP Loss 2	J-6 (Irr Demand)	2.0	4	PE	130.0	0.000	12.5	1.28
P-1	R-1	PMP-1	8.0	3	PVC	130.0	0.000	1,202.9	7.68
P-2	PMP-1	J-1	8.0	96	PVC	130.0	1.940	1,202.9	7.68

Scenario: MD+FF
Current Time Step: 0.000 h
FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	19.59	1,202.9	19.59

\\evansnas\jobs-2000\JOBS\31604 - Sky Power Sports Cocoa\Utilities\Calcs & Models\WaterCAD\31604 Sky Power_Potable WaterCAD Model.wtg

Scenario: MD+FF
Current Time Step: 0.000 h
FlexTable: Pump Table

Label	Elevation (ft)	Pump Definition	Status (Initial)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	19.59	Pump Definition - 1	On	1,202.9	115.20

\\evansnas\jobs-2000\JOBS\31604 - Sky Power Sports Cocoa\Utilities\Calcs & Models\WaterCAD\31604 Sky Power_Potable WaterCAD Model.wtg

Pump Definition Detailed Report: Pump Definition - 1

Element Details			
ID	106	Notes	
Label	Pump Definition - 1		

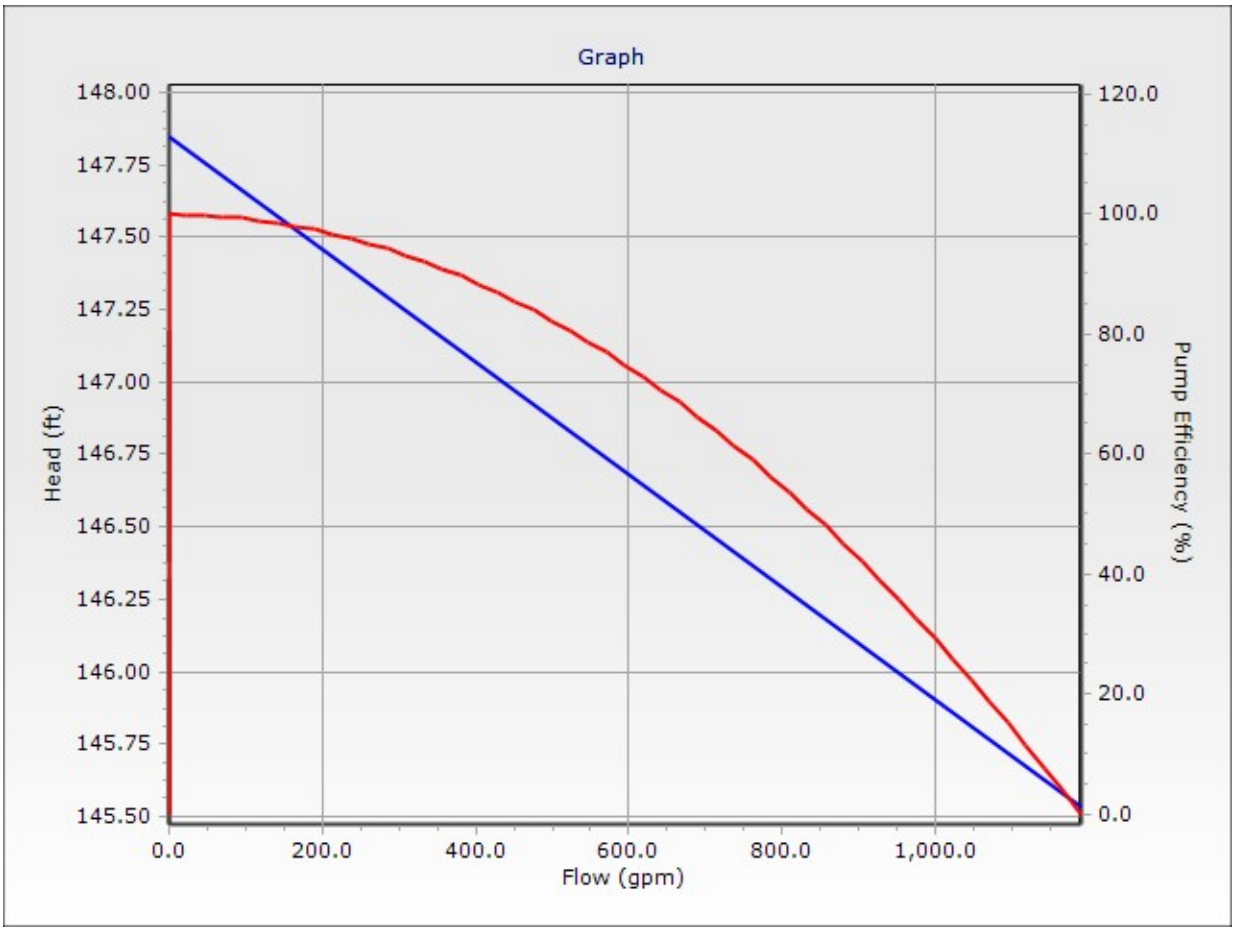
Pump Curve

Flow (gpm)	Head (ft)
0.0	147.85
1,190.0	145.53

Pump Efficiency Type			
Pump Efficiency Type	Best Efficiency Point	Motor Efficiency	100.0 %
BEP Efficiency	100.0 %	Is Variable Speed Drive?	False
BEP Flow	0.0 gpm		

Transient (Physical)			
Inertia (Pump and Motor)	0.000 lb·ft²	Specific Speed	SI=25, US=1280
Speed (Full)	0 rpm	Reverse Spin Allowed?	True

Pump Definition Detailed Report: Pump Definition - 1



FlexTable: PBV Table

Label	Elevation (ft)	Diameter (Valve) (in)	Pressure Setting (Initial) (psi)	Headloss (ft)	Flow (gpm)	Minor Loss Coefficient (Local)	Hydraulic Grade (From) (ft)
RPZBFP Loss 1	21.90	6.0	14	32.36	2.4	0.000	160.80
RPZBFP Loss 2	21.95	3.0	14	32.36	12.5	0.000	160.79

APPENDIX D: HYDRANT FLOW TEST

REQ. DATE: 11/19/25 11/19/25 10:30:56
CREW: WFO - HYDRANT HYD
EXT. ADDR.: REF NBR: 0
SCHED START: 11/19/25 SCHED COMPLETION:
GEN. LOC.: COCOA COMP DATE: 11/19/25
REQ DEPT: Utilities Department PRIORITY: High
REQUESTOR: MELINDA KEESEE ORIGIN: INTERNAL
REQ USER: COCOMMK AUTH USER:COCOMMK WRK TYPE:ROUTINE
HYDRANTS 0634 & 0635 @ FRIDAY ROAD, COCOA

ENTER REFERENCE/ACCT NO.? YES Y

PRIMARY CONTACT INFORMATION
MELINDA KEESEE ( ) ( ) ( ) ( )

HYDRANTS 0634 & 0635 @ FRIDAY ROAD, COCOA
CATEGORY: UT WFO MAINTENANCE OPS UTTD
TASK: HYDRANT FLOW/FLUSH FHFL READY
DEPT: Utilities Department UT
SCHED START: 11/19/25 SCHED COMPLETION: 11/19/25
CREW: WFO - HYDRANT HYD

Residual hydrant flow
0634 and 0635

START DATE: ____/____/____ COMPLETION DATE: ____/____/____
START TIME: ____:____:____ COMPLETION TIME: ____:____:____
UNIT OF PRODUCTION: _____ QUANTITY: _____.____

DATE	EMPLOYEE	LABOR HRS	LABOR OT	EQUIPMENT NUMBER	EQUIPMENT HRS	MATERIAL ITEM	MATERIAL QTY	MATERIAL COST
11/20/25	C. Daniels	1		Trk 350	1			
11/20/25	J. Winther	1		Trk 350	1			
11/20/25	M. Lewis	1		Trk 391	1			

City of Cocoa, Florida Utilities Department
Water Field Operations Division
351 Shearer Blvd. | Cocoa, FL 32922
Phone: (321) 433-8700 | Fax: (321) 433-8708

RECORDED FIRE HYDRANT FLOW INFORMATION

Hydrant Number Flowed:	0634	0635
Hydrant Location:	Friday Rd	Friday Rd
Recorded Static Pressure:	62 PSI	64 PSI
Recorded Residual Pressure:	62 PSI	64 PSI
Recorded Flow:	50 / 1190 PSI/GPM	50 / 1190 PSI/GPM
Residual Taken From Hydrant:	0635	0634

Date of Recording: 11/20/25 Completed By: C. Daniels, M. Lewis

Flow recorded from 2.5" nozzle unless otherwise specified.

IMPORTANT NOTE: The above information is supplied for use in calculation of available fire flow. The information is an instantaneous recording and does not reflect flow and pressure variations in the City of Cocoa potable water system. A minimum of a 5 PSI safety factor will be required for approval by the City. A larger safety factor may be required due to the location of the proposed project. Should you have any questions, please call the City of Cocoa, Utilities Engineering Division at (321) 433-8704.

BOARD OF COUNTY COMMISSIONERS

City of Palm Bay Fire Plan Review

Phone: 321-952-3400 ext. 6258

800 MHz COMMUNICATION ENHANCEMENT SYSTEM

AFFIDAVIT FORM

TO BE SUBMITTED: IF THE PROPERTY OWNER PREFERS TO WAIT FOR AN INITIAL IN-BUILDING RADIO COVERAGE TEST TO DETERMINE IF A SIGNAL BOOSTER/TWO-WAY RADIO ENHANCEMENT SYSTEM IS NEEDED, NO LATER THAN THE ABOVE CEILING INSPECTION

PROPERTY INFORMATION		
Site Address: 995 Friday Road	City/Town: Cocoa	Zip: 32926
Owner's Name: R & R Cocoa, LLC- Charles R. Northey, JR		
Owner's address: 1638 Kathleen Road	City: Lakeland	Zip: 33805

APPLICANT'S INFORMATION		
Company Name: R & R Cocoa, LLC- Charles R. Northey, JR	License #:	
Point of contact: David Evans, PE. License: 46586	Phone: 407-872-1515	
Address: 719 Irma Ave		
City: Orlando	State: Fl	Zip: 32803
Fax:	Email: Permitting@evansenginc.com	

OWNER'S STATEMENT

- ☐ I acknowledge that an initial in-building radio coverage test shall be requested to Brevard County Fire Plan Review no later than the Above Ceiling Inspection, to determine in-building radio coverage in compliance with the adopted NFPA 72.
- ☐ I acknowledge that if determined, during the in-building radio coverage test, that a signal booster/Two-Way Radio Enhancement System is needed; no Certificate of Occupancy, Certificates of Completion, or Project Finals will be issued or approved until the approved enhancement system is implemented and tested, and an Operating Permit is issued by Brevard County Emergency Management.
- ☐ I acknowledge that I shall comply with the adopted NFPA 72 and it is my responsibility to fund such requirement.

Total Bldg Sq Ft: 52,500

APPLICANT'S SIGNATURE	
Signature of applicant: CRT	Date: 12-5-2025
Print Name: Charles R. Northey Jr	

BREVARD COUNTY FIRE PLAN REVIEW ACKNOWLEDGEMENT (OFFICE USE)	
Signature of acknowledgement:	Date:
Notes:	

USA TODAY CO.

LocaliQ

PO Box 631244 Cincinnati, OH 45263-1244

AFFIDAVIT OF PUBLICATION

Trimaine Smith
Monica Arsenault
Cocoa City Hall
65 Stone Street
Cocoa FL 32922

STATE OF WISCONSIN, COUNTY OF BROWN

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

BRE Brevard Florida Today 09/25/2026
BRE floridatoday.com 09/25/2026

Affiant further says that the website or newspaper complies with all legal requirements for publication in chapter 50, Florida Statutes.
Subscribed and sworn to before me, by the legal clerk, who is personally known to me, on 09/25/2026

Legal Clerk

Notary, State of WI, County of Brown

8.25.30

My commission expires

Publication Cost:	$331.13	
Tax Amount:	$0.00	
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Order No:	12640670	# of Copies:
Customer No:	1127247	1
PO #:	P/Z Board & City	

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

MARIAH VERHAGEN
Notary Public
State of Wisconsin

Ad#12640670 09/25/2026

CITY OF COCOA
NOTICE OF PUBLIC HEARING
NOTICE IS HEREBY GIVEN THAT THE PLANNING & ZONING BOARD/ LOCAL PLANNING AGENCY PROPOSES TO CONSIDER THE FOLLOWING:
PLANNING & ZONING BOARD WILL BE HELD ON October 7, 2026
PZ 25-00200020 Sky Powersports Large-Scale Site Plan
Consider the large-scale site plan for Sky Powersports, consisting of a powersports vehicle display, sales, and maintenance facility. Generally located on State Road 524, west of Interstate 95 in Cocoa, Florida, and identified by Parcel ID: 24-35-27-00-16.
PZ 22-00100001 London Cove Site Plan and Preliminary Plat
Consider a large-scale site plan and preliminary plat for the London Cove subdivision, pursuant to Chapter 18, Subdivisions, of the City of Cocoa Code of Ordinances, subdividing three parcels into six parcels, including two commercial lots, two future development tracts, and associated open-space and stormwater tracts, totaling approximately 22.66 acres. Generally located south of State Road 524 and north of Range Road and identified by Parcel IDs: 24-36-18-00-506, 24-36-18-00-502, and 24-36-18-00-500.1.
NOTICE IS ALSO HEREBY GIVEN THAT THE CITY OF COCOA COUNCIL PROPOSES TO CONSIDER THE FOLLOWING:
CITY COUNCIL HEARING WILL BE HELD ON October 13, 2026
PZ 22-00100001 London Cove Site Plan and Preliminary Plat
Consider a large-scale site plan and preliminary plat for the London Cove subdivision, pursuant to Chapter 18, Subdivisions, of the City of Cocoa Code of Ordinances, subdividing three parcels into six parcels, including two commercial lots, two future development tracts, and associated open-space and stormwater tracts, totaling approximately 22.66 acres. Generally located south of State Road 524 and north of Range Road and identified by Parcel IDs: 24-36-18-00-506, 24-36-18-00-502, and 24-36-18-00-500.1.
ALL HEARINGS WILL TAKE PLACE AT 6:00 P.M. OR SOON THEREAFTER IN THE COCOA CITY HALL COUNCIL CHAMBERS LOCATED AT 65 STONE STREET, COCOA, FLORIDA 32922
General Notice Information:
This is a public meeting. Interested parties are hereby advised that they may appear at said meeting and be heard. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk of the City of Cocoa, listed below, at least 48 hours prior to the meeting: Monica Arsenault, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8488 or via email at marsenault@cocoafl.gov.
Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that if a person decides to appeal any decision made by the BOA, P&Z Board/LPA or City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made, and such record shall include the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.
The BOA or PZ Board/LPA meeting may include the attendance of one (1) or more members of the Cocoa City Council who may or may not participate in the Board discussions held at this public hearing. The BOA, PZ Board/LPA and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.
Public Participation Information:
Members of the public may view the meeting agenda, ordinances, project applications, supporting documents, and staff reports on the City's website at the following link prior to attending or commenting:
• City of Cocoa meeting calendar at https://www.cocoafl.gov/291/2033 8/City-Meetings
Documents pertaining to the above may also be inspected at the Community Services Department between 8:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8400.
Interested persons may submit their written comments or questions prior to the meeting through Email at cityclerk@cocoafl.gov or via E-comments through the online agenda at the link above. Any electronic comments submitted will be made part of the meeting record.
Viewing In Real Time. Interested persons are encouraged to view and listen to the hearings live by accessing the meetings at the following internet address:
• City of Cocoa meeting calendar at https://www.cocoafl.gov/291/2033 8/City-Meetings
However, the City is not responsible for technical difficulties that may occur while attempting to view or listen to the meeting on the internet.