CITY OF GREEN COVE SPRINGS
PLANNING & ZONING BOARD MEETING

321 WALNUT STREET, GREEN COVE SPRINGS, FLORIDA
TUESDAY, JANUARY 23, 2024 – 5:00 PM

AGENDA

GENERAL INFORMATION

Anyone wishing to address the Planning and Zoning Board regarding any topic on this evening's agenda is requested to complete a card available at the Clerk's desk. Speakers are respectfully requested to limit their comments to three (3) minutes.

The Planning and Zoning Board prohibits the use of cell phones and pagers which emit an audible sound during all meetings with the exception of Law Enforcement, Fire and Rescue, or Health Care Professionals on call. Persons in violation will be requested to leave the meeting.

ROLL CALL

APPROVAL OF MINUTES

1. Approval of the Minutes of the November 26, 2023 Meeting

PUBLIC HEARINGS

2. Special Exception for a Warehouse use in a C-2 Zoning District for property located on the south side of the 800 block of Cooks Lane for approximately 7.8 acres of parcel #016564-002-00.

3. Large Scale Future Land Use Map Amendment for property located at the Southeast corner of US 17 and SR 16 for approximately 58.12 acres of parcel #016451-000-00 and a portion of parcel #016451-003-00.

   Future Land Use Amendment: from: Mixed Use to: Industrial

4. Large Scale Future Land Use Text Amendment for property located at the Southeast corner of US 17 and SR 16 for approximately 58.12 acres of parcel #016451-000-00 and a portion of parcel #016451-003-00.

   Future Land Use Amendment: from: Mixed Use to: Industrial

5. Ordinance O-36-2023, Adding Street Walls as an alternative design standard in the Gateway Corridor District as a special exception.

ACTION ITEMS

6. Review of Site Development application for The Vineyard Transitional Center located at 518 N Pine Ave

BOARD BUSINESS

Board Discussion / Comments

Staff Comments

ADJOURNMENT

NEXT MEETING: TUESDAY, FEBRUARY 27, 2024

Minutes of the Planning & Zoning Board Meeting can be obtained from the City Clerk's office. The Minutes are recorded, but are not transcribed verbatim.

Persons requiring a verbatim transcript may make arrangements with the City Clerk to duplicate the recordings, or arrange to have a court reporter present at the meeting. The cost of duplication and/or court reporter will be at the expense of the requesting party.

ADA NOTICE

In accordance with Section 286.26, Florida Statutes, persons with disabilities needing special accommodations to participate in this meeting should contact the City Clerk's office no later than 5:00 p.m. on the day prior to the meeting.

EXPARTE COMMUNICATIONS

Oral or written exchanges (sometimes referred to as lobbying or information gathering) between a Planning and Zoning Board member and others, including staff, where there is a substantive discussion regarding a quasi-judicial decision by the Planning and Zoning Board. The exchanges must be disclosed by the Planning and Zoning Board.

CITY OF GREEN COVE SPRINGS
PLANNING & ZONING BOARD MEETING

321 WALNUT STREET, GREEN COVE SPRINGS, FLORIDA
TUESDAY, NOVEMBER 28, 2023 – 5:00 PM

MINUTES

The meeting was called to order at 5:00pm by Chairman Hall.

Board Members Present: Board Member Brian Cook, Board Member Joshua Hobbs, Vice Chairman Josh Danley, Chairman Justin Hall

Board Member Absent: Board Member Henrietta Francis

Staff Members Present: L.J. Arnold, III, City Attorney, Steve Kennedy, City Manager, Michael Daniels, Development Services Director, Lyndie Knowles, Development Services Representative

APPROVAL OF MINUTES

1. **Approval of Minutes from October 24, 2023**

   Approval of the Minutes from the October 24, 2023 Meeting.

   Motion was made to approve the minutes from the October 24, 2023 meeting.
   Motion made by Board Member Cook, Seconded by Board Member Hobbs.
   Voting Yea: Board Member Cook, Board Member Hobbs, Vice Chairman Danley, Chairman Hall

PUBLIC HEARINGS

2. **Special Exception Request for a Home Occupation for Art / Sculpting Business, located at 301 Green Street.**

   Development Services Director Michael Daniels presented staff comments regarding the request for a special exception for a home occupation for an art business at 301 Green Street.

   Ms. Christina Bonner spoke on behalf of the applicant and shared that she thought it would be a positive addition to the neighborhood.

   Board discussion followed with applicant, Angela Hindle

   Motion was made to approve the special exception for a home occupancy at 301 Green Street.
   Motion made by Board Member Cook, Seconded by Board Member Hobbs.
   Voting Yea: Board Member Cook, Board Member Hobbs, Vice Chairman Danley, Chairman Hall

3. **Ordinance O-36-2023, Adding Street Walls as an alternative design standard in the Gateway Corridor District**

   Development Services Michael Daniels presented Ordinance O-36-2023 to add street walls as an alternative design standard in the Gateway Corridor District.

   Board discussion followed.

   Motion made to recommend approval City County for Ordinance O-36-2023 to add street walls as an alternative design standard in the Gateway Corridor District. Motion made by Board Member Cook, Seconded by Board Member Hobbs. Voting Yea: Board Member Cook, Board Member Hobbs, Vice Chairman Danley, Chairman Hall

BOARD BUSINESS

There was further board discussion with staff regarding updates on the Walnut Street project, the Rivers House and other Downtown Master Plan projects.

In addition, Mr. Daniels presented information regarding the plan to begin the citywide tree survey project. Any board members who would like to volunteer to assist would be welcome to join the effort.

The meeting was adjourned at 5:35pm.

NEXT MEETING: Tuesday, January 23, 2024 at 5:00PM

CITY OF GREEN COVE SPRINGS, FLORIDA

J. Justin Hall, Chairman

Attest:

Lyndie Knowles, Development Services Rep.

STAFF REPORT

CITY OF GREEN COVE SPRINGS, FLORIDA

TO: Planning and Zoning Commission **MEETING DATE:** January 23, 2024

FROM: Michael Daniels, AICP, Development Services Director

SUBJECT: Special Exception for a Warehouse use in a C-2 Zoning District for property located on the south side of the 800 block of Cooks Lane for approximately 7.8 acres of parcel #016564-002-00.

PROPERTY DESCRIPTION

APPLICANT: Quoc Mai, Mai Engineering Services, Inc. **OWNER:** William Kreig

PROPERTY LOCATION: 800 Block of Cooks Lane

PARCEL NUMBER: 016564-002-00

FILE NUMBER: SE-23-003

CURRENT ZONING*:* C-2, General Commercial/M-2 Heavy Industrial

FUTURE LAND USE DESIGNATION*:* Mixed Use/Industrial

SURROUNDING LAND USE

NORTH: **FLU**: Neighborhood
Z: R-3, R-2
Use: Apartments/Single Family

SOUTH: **FLU**: INDUSTRIAL
Z: MUH
Use: Undeveloped

EAST: **FLU**: Mixed Use
Z: C-2
Use: Undeveloped

WEST: **FLU**: INDUSTRIAL/Mixed Use
Z: M-2/R-3
Use: Industrial / Undeveloped

BACKGROUND

The applicant has applied for a Special Exception for the subject property for the construction of commercial / warehouse development. The applicant has previously submitted a site development plan (SPL-22-006) which is currently under review.

PROPERTY DESCRIPTION

The property has approximately is located within Energy Cove however it only has access to Cooks Lane. The property is heavily wooded with a mixture of hardwood and pine trees.

Figure 1. Aerial Map

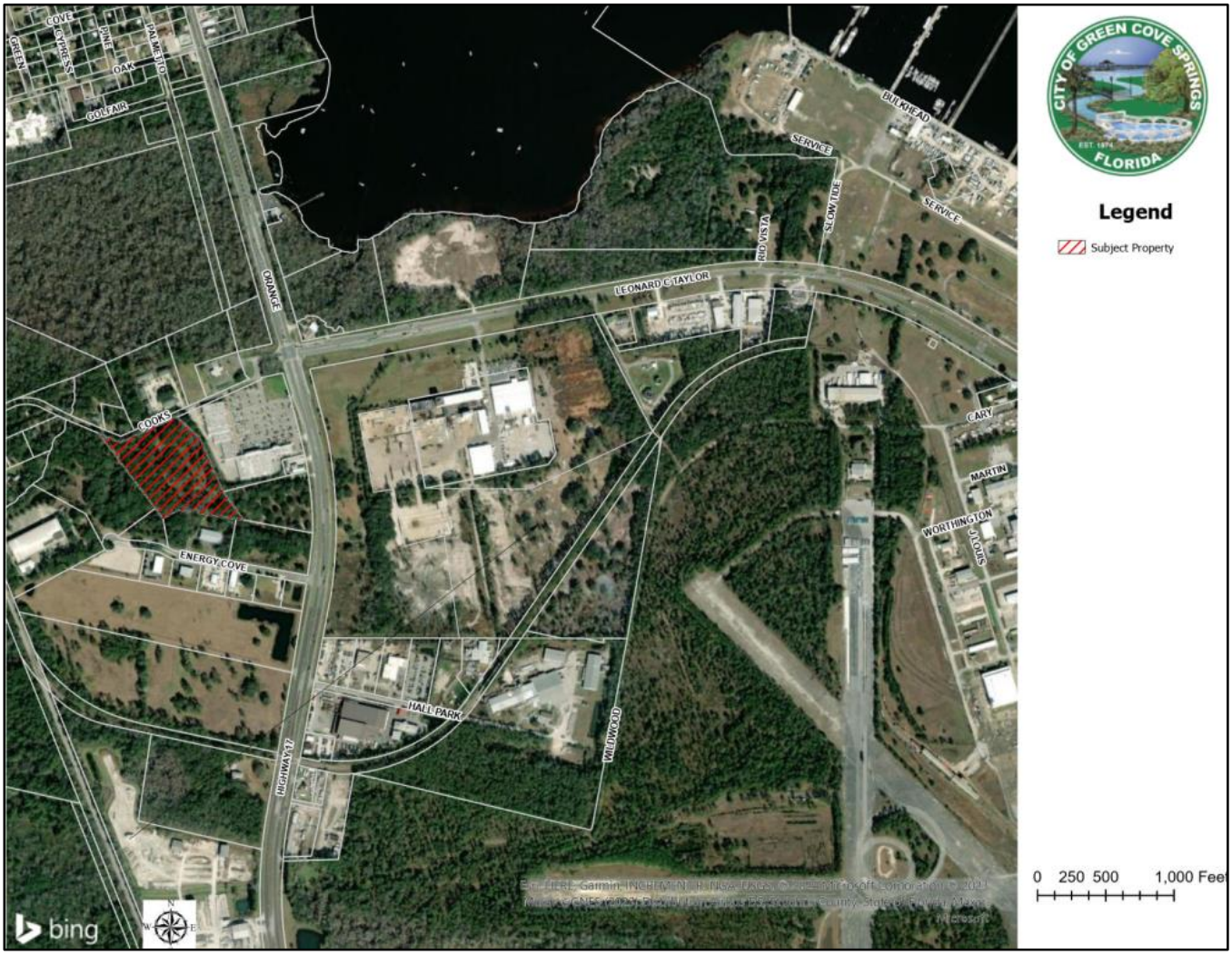


Figure 2. Future Land Use

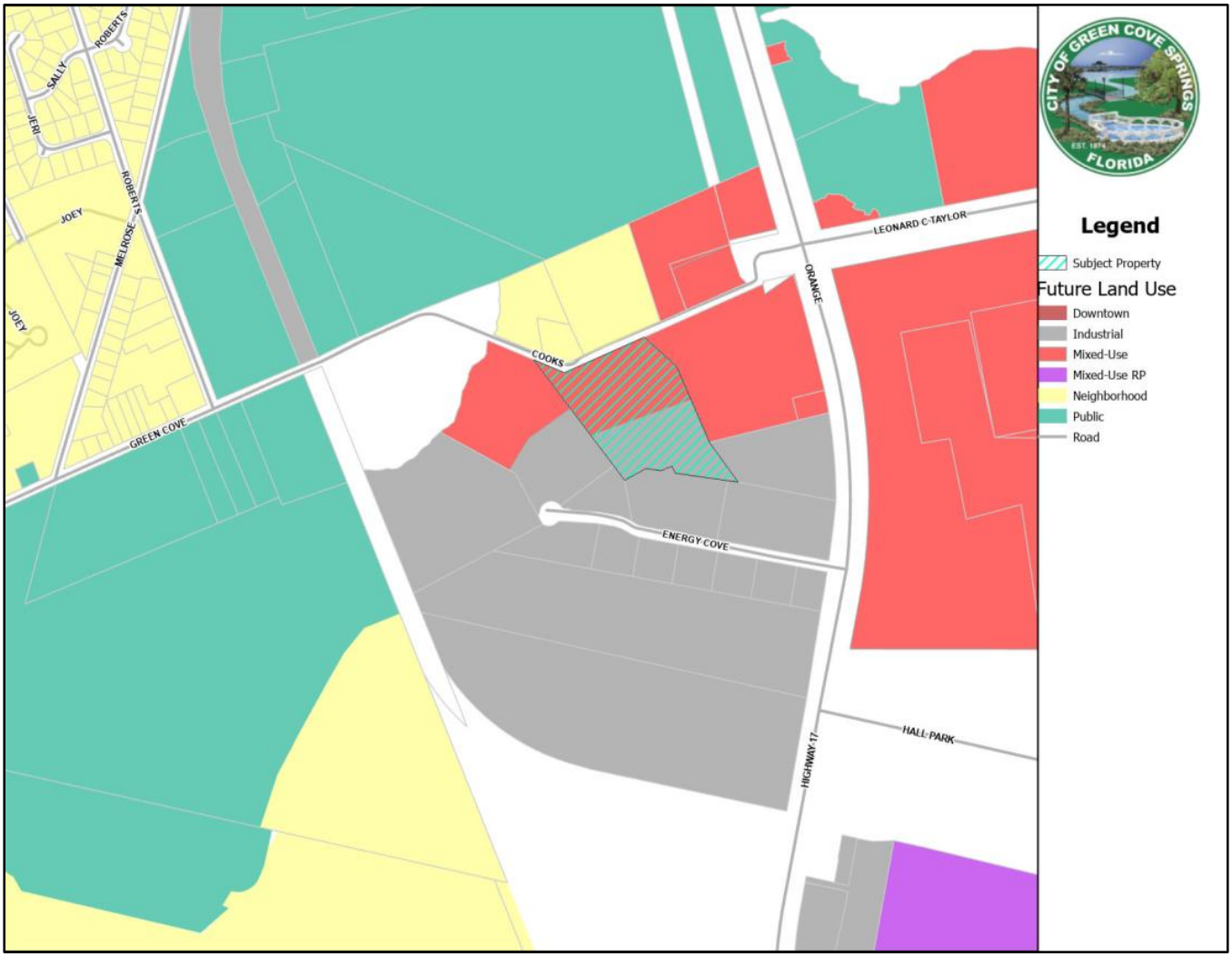
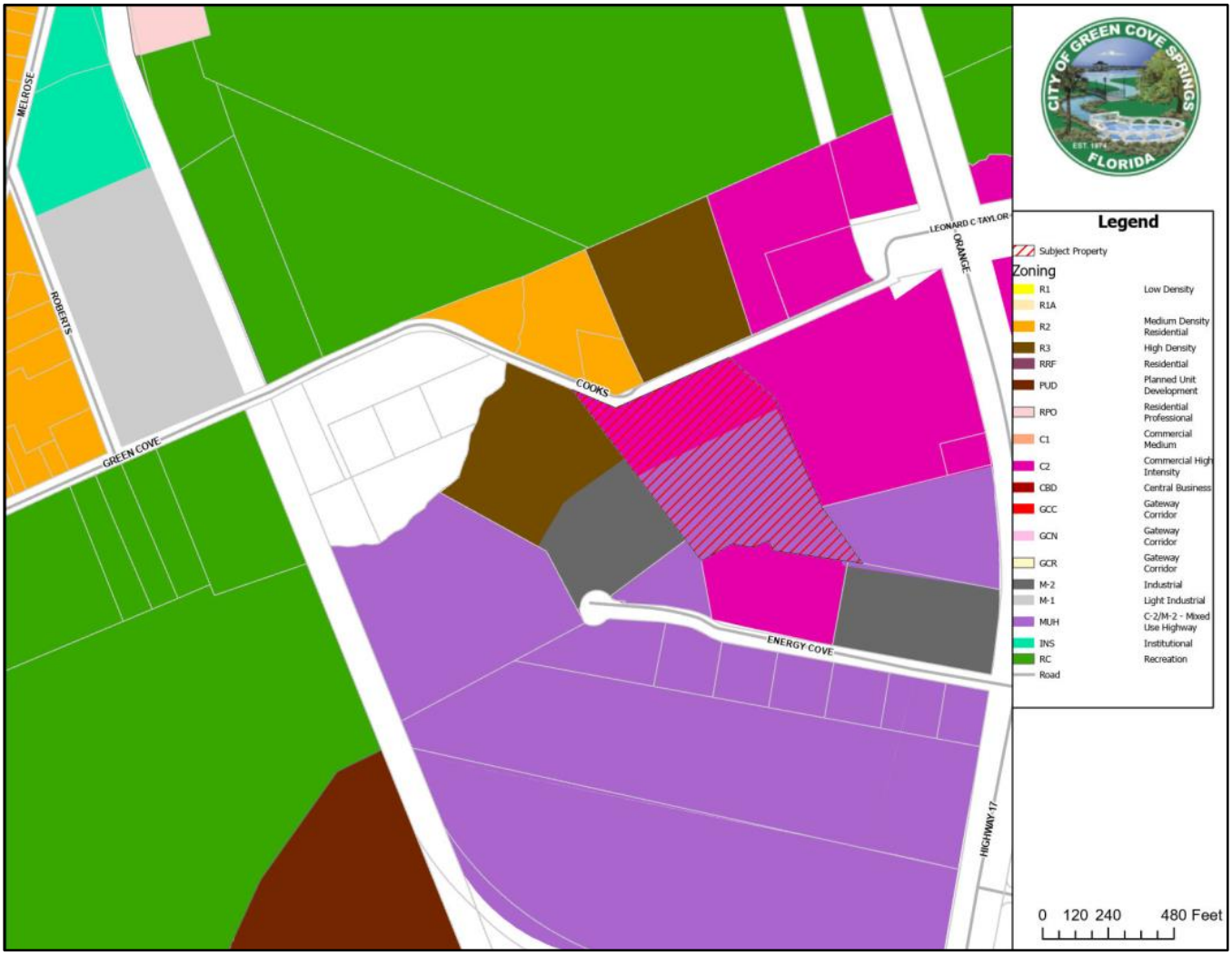


Figure 3. Zoning



DEVELOPMENT DESCRIPTION

The applicant has submitted a site development plan for 4 warehouse buildings totaling 76,000 square feet. A portion of the existing property was annexed in 2008 and given a Future Land Use District of industrial for the rear 6 acres but never given a zoning designation. The Zoning Designation shall be changed prior to development approval. The northerly 2 acres are zoned C-2, General Commercial.

PARKING, LOADING, & STACKING

The plan shows 182 onsite parking spaces and 9 handicapped spaces. City Parking requirements require 114 parking spaces.

DRAINAGE RETENTION

A drainage retention plan has been provided showing that a drainage retention system will drain to a proposed retention pond onsite. within Energy Cove Court. In addition, the applicant is required to secure a stormwater permit from the St Johns River Water Management District prior to moving forward with project development. The drainage retention plan has been submitted and shall comply with City staff and our consulting engineer's requirements prior to approval. The drainage plan will be designed to ensure that no additional runoff is sent to adjacent properties.

TRAFFIC AND ACCESS

The plan shows one vehicular access point on Cooks Lane.

Pursuant to the attached traffic study, the project will generate 176 total trips and 33 pm peak hour trips. Pursuant to the attached traffic study, they are showing failures of several turning movements at the intersection of US 17 and SR 16. However, with signal timing adjustments the intersection can operate at an acceptable Level of Service. These trip thresholds are typically below the requirements required for a traffic study.

Truck traffic is limited to ingress and egress off of US 17, pursuant to the 5-ton weight limit to the west of the site on Cooks Lane.

LANDSCAPE AND SCREENING REQUIREMENTS

The current landscape plan is showing that 962 inches of trees onsite shall be saved as well as the planting of an additional 400 inches shall be planted.

In addition to the site plan requirements for tree planting, staff is recommending a 40' landscape buffer along Cooks Lane with the following landscape buffer meeting the requirements set forth in Sec. 113-244(d)(3).

- 1 canopy tree a minimum of every 50' lineal feet,
- 2 understory trees every 50' lineal feet
- A continuous hedge row.

PUBLIC FACILITIES IMPACT

Potable Water Impacts

System Category	Gallons Per Day (GPD)
Current Permitted Capacity[1]	4,200,000
Less actual Potable Water Flows[1]	1,013,000
Residual Capacity[1]	3,187,000
Projected Potable Water Demand from Proposed Project[2]	10,034
Residual Capacity after Proposed Project	3,176,966

1. *Source: City of Green Cove Springs Public Works Department*
2. *Source: City of Green Cove Springs Comprehensive Plan. Formula Used: .11 gallons per 1,000 sq ft.*

Sanitary Sewer Impacts – South Plant WWTP

System Category	Gallons Per Day (GPD)
Current Permitted Capacity[1]	350,000
Current Loading[1]	264,000
Committed Loading [1]	62,000
Residual Capacity[1]	46,000
Percentage of Permitted Design Capacity Utilized[1]	103%
Projected Sewer Demand from Proposed Project[2]	8,360
Residual Capacity after Proposed Project	37,640

1. *Source: City of Green Cove Springs Public Works Department*
2. *Source: City of Green Cove Springs Comprehensive Plan. Formula Used: .11 gallons per 1,000 square feet*

Conclusion: The project site is served by the South Plant Wastewater Treatment Plant (WWTP). As shown in the table above, when factoring in the current loading and the committed loading, this WWTP has the capacity to handle the estimated impacts resulting from the proposed application. When the committed flows for the Rookery are going to be served by Clay County utility Authority there will be adequate capacity for this project.

Solid Waste Impacts

Conclusion: The City of Green Cove Springs does not provide solid waste for nonresidential users. Private providers subject to the franchise requirements set forth in Sec 66-10 of the City Code.

STAFF COMMENTS

This property is part of the Energy Cove Industrial Park. The surrounding uses within the Park are industrial uses. However this property borders existing and proposed residential uses to the north and west. In order to make this use compatible additional conditions have been placed on the property to ensure that the look and function of the property is compatible with the surrounding area. These include a landscape buffer, traffic improvements, right of way dedication, building material requirements to address compatibility with the surrounding area.

Attachments include:

1. Site Plan
2. Property Rendering
3. Traffic Study
4. Application
5. Site Plan Deficiency Report

STAFF RECOMMENDATION

Staff recommends approval of the special exception subject to the following conditions:

1. Provide a 40’ landscape buffer with required landscaping as set forth in the City LDC Section
2. Limit truck traffic to ingress and egress from US 17 by requiring access limitation.
3. All outdoor storage must be screened from public view.
4. Corrugated Metal, Styrofoam, and other foam-based products are prohibited on building exteriors.
5. Signal timing improvements as set forth in the Traffic Study Report shall be implemented prior to development approval.
6. Additional Right of Way as shown on the attached draft site plan shall be dedicated to the City prior to development approval.

RECOMMENDED MOTIONS:

Motion to recommend approval to City Council of recommendation of approval of Special Exception subject to the following conditions:

1. Provide a 40’ landscape buffer consisting of landscaping as required by City LDC Sec. 113-244(d)(3).
2. Provide signage to limit truck traffic to ingress and egress from US 17 by requiring access limitation.
3. All outdoor storage must be completely screened from public view.
4. Corrugated Metal, Styrofoam, and other foam-based products are prohibited on building exteriors.
5. Signal timing improvements as set forth in the Traffic Study Report shall be implemented prior to development approval.
6. Additional Right of Way as shown on the attached draft site plan shall be dedicated to the City prior to development approval.

FOR OFFICE USE ONLY

P Z File #_____

Application Fee:_____

Filing Date: _____ Acceptance Date:_____

Review Type: SDRT ☐ P & Z ☐

City of Green Cove Springs
Special Exception Application

A. PROJECT

1. Project Name: RIVER OAKS DEVELOPMENT
2. Address of Subject Property: 1609 S ORANGE AVE
3. Parcel ID Number(s) 38-06-26-016564-002
4. Existing Use of Property: VACANT
5. Future Land Use Map Designation : MUH-MIXED USE HIGHWAY
6. Zoning Designation: MUH-MIX USE HIGHWAY
7. Acreage: 7.84 AC

B. APPLICANT

1. Applicant's Status ☐ Owner (title holder) ☐ Agent
2. Name of Applicant(s) or Contact Person(s): QUOC MAI Title: PRESIDENT

   Company (if applicable): MAI ENGINEERING SERVICES, INC

   Mailing address: 2510 US1 S, SUITE D

   City: ST AUGUSTINE State: FL ZIP: 32086

   Telephone: (___) 904-794-176 FAX: (___)_____ e-mail: QUOC@MAIENGINEER.COM
3. If the applicant is agent for the property owner*:

   Name of Owner (title holder): WILLIAM KRIEG

   Company (if applicable): 1609 SOUTH ORANGE AVE, LLC

   Mailing address: PO BOX 7902

   City: JACKSONVILLE State: FL ZIP: 32204

   Telephone: (___) 904-234-1551 FAX: (___)_____ e-mail:_____

* Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.

C. ADDITIONAL INFORMATION

1. Is there any additional contact for sale of, or options to purchase, the subject property? ☐ Yes ☐ No

   If yes, list names of all parties involved: NA

   If yes, is the contract/option contingent or absolute? ☐ Contingent ☐ Absolute

D. STATEMENT OF SPECIAL EXCEPTION SOUGHT

1. Requested Special Exception: CHI-COMMERCIAL ZONING
2. Section of Land Development Regulations under which the Special Exception is sought 117-254 (6)
3. Reason Special Exception is requested: AS REQUIRED BY CITY
4. Statement of Facts for Requested Special Exception (Use additional pages if necessary)

(PLEASE ANSWER THE FOLLOWING QUESTIONS TO THE BEST OF YOUR ABILITY. THESE FACTS WILL BE USED BY THE STAFF TO MAKE A RECOMMENDATION AND THE PLANNING AND ZONING BOARD IN MAKING THEIR DECISION)

a. Is this exception in compliance with all elements of the Comprehensive Plan?

YES

b. Is the establishment, maintenance or operation of the special exception detrimental to or endanger the public health, safety or general welfare, or contrary to established standards, regulations or ordinances of other governmental agencies?

NO

c. Is the structure or improvement so designed and constructed that it is not unsightly, undesirable or obnoxious in appearance to the extent that it will hinder the orderly and harmonious development of Green Cove Springs and zoning district in which it is proposed?

NO

d. Will the special exception adversely impact the permitted use in the zoning district or unduly restrict the enjoyment of the other property in the immediate vicinity nor substantially diminish or impair property values within the area?

NO

e. Will the establishment of the special exception impede the orderly development and improvement of the surrounding property for uses permitted in the zoning district?

NO

f. Are adequate water and sewage disposal facilities provided?

YES

g. Are access roads adequate, on-site parking, on-site loading and loading berths, and drainage have been or will be provided where required?

YES

h. Have adequate measures been taken to provide ingress and egress to the property and design in a manner to minimize traffic congestion on local roads?

YES

i. Is adequate screening and buffering signs of the special exception provided, if needed??

YES

j. Will the special exception require signs or exterior lighting, which will cause glare, adversely impact area traffic safety or have a negative economic effect on the area? Any signs or exterior lighting required by the special exception shall be compatible with development in the zoning district?

NO, SIGNS AND LIGHTING WILL BE MINIMAL AND ACCEPTABLE. YES, THEY WILL BE COMPATIBLE.

k. Will the special exception conform to all applicable regulations of the zoning district in which it is proposed?

YES

E. ATTACHMENTS (One hard copy or one copy in PDF format)

1. **Copy of Warranty Deed or other proof of ownership**
2. **Legal description**

F. FEE.

Home Occupation - $150
Residential property - $250
Non- residential - $500

a. The Cost of postage, signs, advertisements, and outside consultants are in addition to the application fee.

b. The applicant is responsible to pay the cost of the advertisement and signs.

c. All applications are subject 10% administrative fee and must pay the cost of any outside consultants' fees.

No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any fees for advertising, signs, necessary technical review or additional reviews of the application by a consultant will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any action of any kind on the development application.

Both attachments are required for a complete application. A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge:

Signature of Applicant

Signature of Co-applicant

☒ physical presence

QUOC H. MAI

Typed or printed name and title of applicant

Typed or printed name of co-applicant

11/15/23

Date

Date

State of _____ County of _____

Please See Attached

The foregoing application is acknowledged before me this _____ day of _____, 20__, by _____

_____, who is/are personally known to me, or who has/have produced _____

as identification.

NOTARY SEAL

Signature of Notary Public, State of _____

Clear/Reset

Acknowledgment by Individual

State of Florida

County of **St Johns**

The foregoing instrument was acknowledged before me this **15th** day

of **November**, 20 **23**, by means of ☒ physical presence or ☐ online notarization

Quoc H Mai (name of person acknowledging).

☐ Personally known to me
☒ Produced Identification
Type of Identification Produced **FLDL**

Notary signature Michelle Berman

Notary name (typed or printed) **Michelle Berman**

Title (e.g., Notary Public) **Notary**

Place Seal Here

MICHELLE BERMAN
Notary Public - State of Florida
Commission # HH 408932
My Comm. Expires Jun 11, 2027

For Bank Purposes Only Description of Attached Document

Type or Title of Document
GCS Special Exception

Document Date
11/15/2023

Number of Pages
4

Signer(s) Other Than Named Above

Account Number (if applicable)

1369-River Oaks Development Renderings

OWNER:

WILL KRIEG
P.O. BOX 7902
JACKSONVILLE, FL 32210
OFFICE 904-379-9242
WWW.RIVEROAKSOUTDOOR.COM
WILL@RIVEROAKSOUTDOOR.COM

ENGINEER:

MAI ENGINEERING SERVICES, INC
2510 US 1 S, SUITE D
ST. AUGUSTINE, FL 32086
PHONE: (904) 794-1760
FAX: (904)-794-1768
ATTN. QUOC H. MAI, P.E.

TOPO SURVEYOR

FRANK JONES & ASSOCIATES
6015 CHESTER CIRCLE
JACKSONVILLE, FLORIDA 32217
PH: (904) 448-5424

GEOTECHNICAL ENGINEER

ELLIS - ECS FLORIDA
7064 DAVIS CREEK RD.
JACKSONVILLE, FLORIDA 32256
PH: (904) 880-0960
FX: (904) 880-0970

ELECTRIC:

GREEN COVE SPRINGS ELECTRIC
321 WALNUT ST.
GREEN COVE SPRINGS, FL 32043
PHONE: (904)-297-7500

COMMUNICATION

AT&T
8171 BAYMEADOWS WAY W. 3RD FLOOR
JACKSONVILLE, FL 32256
PHONE: (904) 407-2549
ATTN:KEVIN DOW

WATER & SEWER:

CITY OF GREEN COVE SPRINGS UTILITIES
321 WALNUT ST
GREEN COVE SPRINGS, FL 32043

THE CITY OF GREEN COVE SPRINGS

321 WALNUT ST
GREEN COVE SPRINGS, FL 32043
904-297-7500

ST JOHNS RIVER WATER MANAGEMENT DISTRICT

7775 BAYMEADOWS WAY, SUITE 102
JACKSONVILLE, FL 32256
904-730-6270
800-852-1563

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION:

FDEP-NORTHEAST DISTRICT
8800 BAYMEADOWS WAY WEST, SUITE 100
JACKSONVILLE, FLORIDA 32256
(904) 256-1700

SITE DEVELOPMENT PLANS FOR

RIVER OAKS INDUSTRIAL PARK

PARCEL ID. NO. : 38-06-26-016564-002

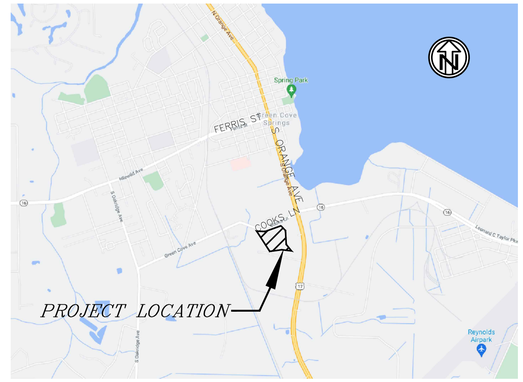
SITE ADDRESS: 1609 COOKS LANE., GREEN COVE SPRINGS, FLORIDA

PREPARED BY:

MAI ENGINEERING SERVICES, INC.
2510 US 1 SOUTH SUITE D
ST. AUGUSTINE, FL 32086
PHONE (904)794-1760
FAX (904)794-1768
quoc@maiengineer.com

DRAWING INDEX

LOCATION MAP (NTS)



PROJECT LOCATION

ARIAL MAP (NTS)

Sunshine 811

2510 US 1 SOUTH SUITE D
ST. AUGUSTINE, FL 32086
PHONE (904)794-1760
FAX (904)794-1768
quoc@maiengineer.com

MAI ENGINEERING SERVICES, INC.

Quoc H Mai, P.E. 64006, State of Florida
Digitally signed by Quoc H Mai
Date: 2024.01.08 16:09:33 -05'00'

Quoc H. Mai, State of Florida, Professional Engineer, License No. 64006.
This item has been digitally signed and sealed by Quoc H. Mai, P.E., on January 08, 2024 using a Digital Signature.
Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

REVISIONS

#	DATE	REVISION
0	10/17/22	REVISION PER CITY REVIEST
1	04/20/2023	REVISION PER CITY AND WMD RAI
2	06/30/2023	REVISION PER CITY COMMENTS
3		
4		
5		

SHEET TITLE: COVER SHEET

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA

PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	8/10/2023
JOB No.:	1369
SHEET No.:	1

GENERAL NOTES:

1. ALL WORK SHALL BE COMPLETED IN CONFORMANCE AS APPLICABLE WITH FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," LATEST EDITION

2. SHOP DRAWINGS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURE.

3. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ANY EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL LINE AND GRADE STAKES IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCIES MUST BE REPORTED IMMEDIATELY TO THE ENGINEER OR THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY ERRORS.

5. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO START OF CONSTRUCTION FOR LOCATION OF EXISTING UTILITIES, IN ORDER TO PREVENT DAMAGE AND COORDINATE ADJUSTMENT AND/OR RELOCATION OF SAME IF REQUIRED.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER AND OWNER OF ANY CHANGES OR DEVIATIONS FROM THE ORIGINAL PLANS PRIOR TO CONSTRUCTION OF SAID CHANGE OR DEVIATION.

7. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING STRUCTURES AND UTILITIES. ANY DAMAGES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

8. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY INSURANCE AND BONDS REQUESTED BY THE OWNER FOR THIS PROJECT.

9. THE OWNER WILL PROVIDE THE SELECTED CONTRACTOR WITH COPIES OF ALL PERMITS RECEIVED FOR THE PROJECT.

10. THE CONTRACTOR SHALL PROTECT AND USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES OR UNDERGROUND UTILITIES.

11. ALL PROPERTY CORNERS AND SURVEY MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED. IF A MONUMENT IS IN DANGER OF BEING DESTROYED, THE PROJECT ENGINEER AND OWNER SHOULD BE NOTIFIED IMMEDIATELY IN ORDER THAT THE COUNTY MAY HAVE A SURVEYOR REFERENCE SAID POINT PRIOR TO DISTURBANCE. ALSO, ALL G.P.S. CONTROL POINTS ARE TO BE PROTECTED. IF DESTROYED DURING CONSTRUCTION IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO REPLACE THE CONTROL POINT(S) AT THEIR EXPENSE.

12. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE, AT ALL TIMES, ONE COPY OF APPROVED CONSTRUCTION PLANS, SPECIFICATIONS ANY SPECIAL PROVISIONS, AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS IN COMPLIANCE WITH THE TOWN OF MARINELAND LAND DEVELOPMENT CODE.

13. SUBMITTAL OF AS-BUILT SITE SURVEY, INCLUDING BENCH MARKS, IS REQUIRED.

14. THE CONTRACTOR SHALL CONTACT THE TOWN OF MARINELAND DEVELOPMENT SERVICES INSPECTOR 24 HOURS PRIOR TO ALL NECESSARY SITE WORK INSPECTIONS AND 5 DAYS PRIOR TO THE FINAL INSPECTION.

15. ANY CHANGES TO THE EXISTING BUILDING (INCLUDING BUT NOT LIMITED TO RE-ROOF AND PAINT COLOR CHANGES) LANDSCAPING, AND FENCES/WALL REQUIRES THE APPROVAL BY THE TOWN OF MARINELAND.

EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION CONTROL WITHIN BEST MANAGEMENT PRACTICES FOR THE DURATION OF THE PROJECT UNTIL SUCH TIME AS THE PROJECT HAS BEEN CERTIFIED AS COMPLETE.

2. THE CONTRACTOR SHALL SEED & MULCH OR SOD ALL OPEN SPACE AREAS TO BE GRASSED IMMEDIATELY FOLLOWING FINAL GRADING AND COMPLETION OF ALL UNDERGROUND UTILITIES.

3. SILT FENCES SHALL BE INSTALLED ALONG LIMITS OF CONSTRUCTION .

4. SILT FENCES SHALL BE INSPECTED AFTER EACH RAINFALL AND REPAIRED IMMEDIATELY IF DAMAGED.

5. ALL SIDE SLOPES OF STORM WATER MANAGEMENT AREAS SHALL BE SODDED UPON COMPLETION OF FINAL GRADING.

6. ALL INLETS SHALL BE PROTECTED FROM COLLECTION OF ERODED MATERIALS BY INSTALLATION OF TEMPORARY FILTER FABRIC AND/OR HAYBALES.

7. FLOATING TURBIDITY BARRIERS SHALL BE INSTALLED WITHIN ALL WATER BODIES DOWNSTREAM OF CONSTRUCTION ACTIVITIES WHERE PROTECTION AGAINST TURBID WATERS DISCHARGE MAY OCCUR.

MAINTENANCE OF TRAFFIC NOTES:

1. ADVANCE CONSTRUCTION SIGNAGE INDEX 602 SHALL BE POSTED.

2. TRAFFIC SHALL BE RESTRICTED TO A SINGLE LANE WHEN ANY WORK ENCROACHES THE AREA BETWEEN THE CENTERLINE AND 2 FEET OUTSIDE THE EDGE OF PAVEMENT. ONE-LANE CLOSURES SHALL BE IN ACCORDANCE WITH F.D.O.T. STANDARD INDEX No. 603.

3. ALL WORK WITHIN THE FDOT RIGHT OF WAY SHALL CONFORM TO THE MOST CURRENT FDOT STANDARDS AND SPECIFICAATIONS.

4. ALL CONSTRUCTION EQUIPMENT AND MATERIALS SHALL BE STORED A MINIMUM OF 30 FEET FROM THE EDGE OF EXISTING PAVEMENT AND SHALL BE PROTECTED BY TYPE II BARRICADES WITH FLASHING YELLOW LIGHTS.

5. THERE SHALL BE NO EXCAVATIONS LEFT OPEN AFTER DARK.

6. CONTRACTOR SHALL NOTIFY CITY OF GREEN COVE SPRINGS PERMITTING OFFICE.

7. IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT THE SUNSHINE STATE ONE CALL SYSTEM AT (800)-432-4770 FOR LOCATION OF UNDERGROUND UTILITIES.

TRAFFIC CONTROL/STRIPING NOTES:

1. SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE FLORIDA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE JURISDICTIONAL TRAFFIC DEPARTMENT TYPICAL DRAWINGS FOR ROADWAY SIGNING, STRIPING & GEOMETRICS

2. ALL PAVEMENT MARKINGS ARE TO CONSIST OF 90 MIL. THERMOPLASTIC.

3. REPLACE ALL EXISTING RPM'S REMOVED OR DAMAGED BY THIS PROJECT, TO MEET 2015 FDOT STANDARDS.

4. SIGNS THAT REQUIRE RELOCATION TO BE RELOCATED PER CURRENT STANDARDS 11860 AND 17302.

SITE PREPARATION NOTES:

1. NORMAL, GOOD PRACTICE SITE PREPARATION PROCEDURES SHALL BE USED FOR THIS PROJECT. THESE PROCEDURES INCLUDE: STRIPPING THE SITE OF EXISTING VEGETATION AND TOPSOIL, COMPACTING THE SUBGRADE AND PLACING NECESSARY FILL OR BACKFILL TO GRADE WITH ENGINEERED FILL. A MORE DETAILED SYNOPSIS OF THIS WORK IS AS FOLLOWS:

2. PRIOR TO CONSTRUCTION, THE LOCATION OF ANY EXISTING UNDERGROUND UTILITY LINES WITHIN THE CONSTRUCTION AREA SHOULD BE ESTABLISHED. PROVISIONS SHOULD THEN BE MADE TO RELOCATE INTERFERING UTILITIES TO APPROPRIATE LOCATIONS. ABANDONED PIPES SHALL BE PROPERLY REMOVED OR PLUGGED, AS THEY MAY SERVE AS CONDUITS FOR SUBSURFACE EROSION WHICH MAY SUBSEQUENTLY LEAD TO EXCESSIVE SETTLEMENT OF OVERLAY STRUCTURE(S).

3. STRIP THE PROPOSED CONSTRUCTION LIMITS OF ALL GRASS, ROOTS, TOPSOIL AND OTHER DELETERIOUS MATERIALS WITHIN AND FOR 3 FEET BEYOND THE PERIMETER OF THE PROPOSED PAVED AREAS. SOME ISOLATED AREAS MAY REQUIRE MORE THAN 12 INCHES OF STRIPPING OR UNDERCUTTING. TYPICAL STRIPPING AT THIS SITE TO DEPTHS OF 6 TO 12 INCHES.

4. IT IS RECOMMENDED THE TOP OF THE CLAYEY SANDS BE MAINTAINED A MINIMUM OF 2 FEET BELOW THE PROPOSED BOTTOM OF THE BASE MATERIAL OR CONCRETE PAVEMENT. IF THE SITE GRADING IS SUCH THAT THE MINIMUM SEPARATION DOES NOT EXIST, WE RECOMMEND UNDERCUTTING THE CLAYEY MATERIALS TO MAINTAIN THIS SEPARATION AND BACKFILLING WITH CLEAN STRUCTURAL FILL, AS DESCRIBED BELOW.

5. THE SEASONAL HIGH GROUNDWATER LEVEL IS ESTIMATED TO BE ONE FOOT BELOW THE EXISTING GROUND. FOR PLANNING PURPOSES, GROUNDWATER CONTROL MEASURES (DEWATERING) SHOULD BE ANTICIPATED FOR THE STRIPPING AND EARTHWORK OPERATIONS. TEMPORARY GROUNDWATER CONTROL MAY BE ACHIEVED BY PUMPING FROM SUMPS LOCATED IN PERIMETER DITCHES. EACH SUMP SHOULD BE LOCATED OUTSIDE THE ROADWAY AREAS TO AVOID LOOSENING OF THE FINE SANDY SUBGRADE SOILS.

6. COMPACT THE SUBGRADE FROM THE SURFACE WITH A LIGHT WEIGHT VIBRATORY ROLLER (A 2 TO 3 TON ROLLER, STATIC WEIGHT AND 3 FOOT DRUM DIAMETER) OR TRACKED DOZER EQUIPMENT UNTIL A MINIMUM DENSITY OF AT LEAST 98 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557), TO A DEPTH OF 12 INCHES BELOW THE COMPACTED SURFACE IS OBTAINED. A MINIMUM OF EIGHT (8) COMPLETE COVERAGES SHOULD BE MADE IN THE PAVEMENT CONSTRUCTION AREA WITH A ROLLER TO IMPROVE THE UNIFORMITY AND INCREASE THE DENSITY OF THE UNDERLYING SANDY SOILS. THE USE OF HEAVY VIBRATORY COMPACTION EQUIPMENT SHALL NOT BE UTILIZED DUE TO THE POTENTIAL FOR PUMPING OF THE NEAR-SURFACE CLAYEY SOILS ENCOUNTERED, UNLESS APPROVED BY THE ENGINEER.

7. SHOULD THE SUBGRADE SOILS EXPERIENCE PUMPING AND SOIL STRENGTH LOSS DURING THE COMPACTION OPERATIONS, COMPACTION WORK SHOULD BE IMMEDIATELY TERMINATED AND (1) THE DISTURBED SOILS REMOVED AND BACKFILLED WITH DRY STRUCTURAL FILL SOILS WHICH ARE THEN COMPACTED, OR (2) THE EXCESS PORE PRESSURES WITHIN THE DISTURBED SOILS ALLOWED TO DISSIPATE BEFORE RECOMPACTING.

8. TO AVOID PUMPING OF THE UNDERLAYING CLAYEY SOILS, SELF PROP-ELLED VIBRATING EQUIPMENT SHALL REMAIN A MINIMUM OF 2 FEET ABOVE THE CLAYEY SOILS. THE SANDY SOILS WITHIN 2 FEET OF THE CLAYEY SOILS MAY BE COMPACTED WITH A VIBRATORY ROLLER.

9. OPERATE IN THE STATIC MODE OR WITH A TRACK-MOUNTED DOZER TO AVOID DISTURBING THE CLAYEY SOILS. A MINIMUM OF 18 INCHES OF SAND SHALL OVERLAY THE CLAYEY SOILS PRIOR TO OPERATION OF ANY TYPE OF CONSTRUCTION EQUIPMENT. EXCESS DISTURBANCE OF THE CLAYEY SOILS WILL DEGRADE THE STRENGTH CHARACTERISTICS OF THE SOIL AND MAY RESULT IN AN UNSUITABLE SOIL WHICH WILL REQUIRE OVER-EXCAVATION AND SUBSEQUENT BACKFILLING WITH CLEAN FINE SAND FILL MATERIAL. IN AREAS WHERE CLAYEY SOILS ARE ENCOUNTERED NEAR THE GROUND SURFACE OR ARE EXPOSED BY OVER EXCAVATION, AN INITIAL LIFT OF STRUCTURAL FILL MAY BE PLACED PRIOR TO COMPACTION OF THE SUBGRADE SOILS.

10. DUE TO THE PRESENCE OF THE NEAR SURFACE CLAYEY SOILS, THE SITE MAY BECOME DIFFICULT TO WORK DURING WET WEATHER. IF CONSTRUCTION IS BEGUN DURING WET WEATHER, IT IS RECOMMENDED THE BUILDING AND PAVEMENT SUBGRADES NOT BE DISTURBED OTHER THAN TO STRIP VEGETATION. FILL AND GRADING OPERATIONS SHOULD BE PERFORMED WITH A MINIMUM DISTURBANCE TO THE SURFICIAL SOILS. IN THIS REGARD, IT IS RECOMMENDED THAT TRACK-MOUNTED EQUIPMENT BE USED ON SITE.

11. TEST THE SUBGRADE FOR COMPACTION AT A FREQUENCY OF NOT LESS THAN ONE TEST PER 10,000 SQUARE FEET.

12. PLACE FILL MATERIAL, AS REQUIRED. THE FILL SHOULD CONSIST OF CLEAN, FINE SAND WITH LESS THAN 10 PERCENT SOIL FINES. PLACE FILL IN UNIFORM 10 TO 12 INCH LOOSE LIFTS AND COMPACT EACH LIFT TO A MINIMUM DENSITY OF 98 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY.

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MAI ENGINEERING SERVICES, INC.

LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

REVISIONS

#	REVISION	BY
0	12/21/22	REVISION PER CITY REVISET
1	04/28/2023	REVISION PER CITY AND RND RAI
2	06/26/2023	REVISION PER CITY COMMENTS
3		
4		
5		

SHEET TITLE: GENERAL NOTES

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA

PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	8/10/2023
JOB No.:	1369
SHEET No.:	2

THIS SPACE INTENTIONALLY LEFT BLANK

(904) 998-9733
www.landmarktitle.com

THIS SPACE INTENTIONALLY LEFT BLANK

PROPERTY ADDRESS: 1609 SOUTH ORANGE AVENUE, GREEN COVE SPRINGS, FLORIDA 32043

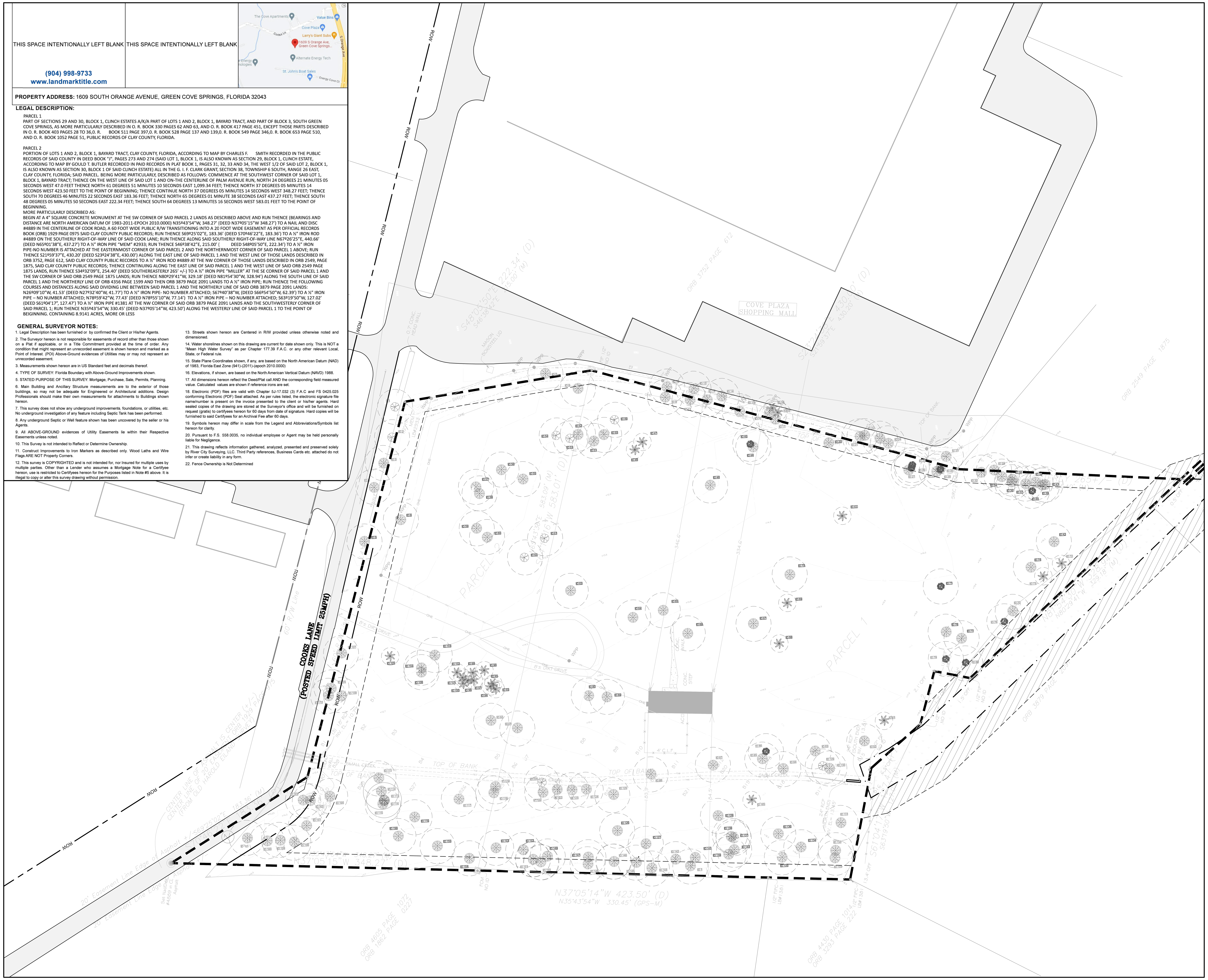
LEGAL DESCRIPTION:

PARCEL 1
PART OF SECTIONS 29 AND 30, BLOCK 1, CLINCH ESTATES A/K/A PART OF LOTS 1 AND 2, BLOCK 1, BAYARD TRACT, AND PART OF BLOCK 3, SOUTH GREEN COVE SPRINGS, AS MORE PARTICULARLY DESCRIBED IN O. R. BOOK 330 PAGES 62 AND 63, AND O. R. BOOK 417 PAGE 451, EXCEPT THOSE PARTS DESCRIBED IN O. R. BOOK 403 PAGES 28 TO 36,0. R. BOOK 511 PAGE 397,0. R. BOOK 528 PAGE 137 AND 139,0. R. BOOK 549 PAGE 346,0. R. BOOK 653 PAGE 510, AND O. R. BOOK 1052 PAGE 51, PUBLIC RECORDS OF CLAY COUNTY, FLORIDA.

PARCEL 2
PORTION OF LOTS 1 AND 2, BLOCK 1, BAYARD TRACT, CLAY COUNTY, FLORIDA, ACCORDING TO MAP BY CHARLES F. SMITH RECORDED IN THE PUBLIC RECORDS OF SAID COUNTY IN DEED BOOK "J", PAGES 273 AND 274 (SAID LOT 1, BLOCK 1, IS ALSO KNOWN AS SECTION 29, BLOCK 1, CLINCH ESTATE, ACCORDING TO MAP BY GOULD T. BUTLER RECORDED IN PAID RECORDS IN PLAT BOOK 1, PAGES 31, 32, 33 AND 34, THE WEST 1/2 OF SAID LOT 2, BLOCK 1, IS ALSO KNOWN AS SECTION 30, BLOCK 1 OF SAID CLINCH ESTATE) ALL IN THE G. I. F. CLARK GRANT, SECTION 38, TOWNSHIP 6 SOUTH, RANGE 26 EAST, CLAY COUNTY, FLORIDA; SAID PARCEL. BEING MORE PARTICULARLY, DESCRIBED AS FOLLOWS: COMMENCE AT THE SOUTHWEST CORNER OF SAID LOT 1, BLOCK 1, BAYARD TRACT; THENCE ON THE WEST LINE OF SAID LOT 1 AND ON-THE CENTERLINE OF PALM AVENUE RUN, NORTH 24 DEGREES 21 MINUTES 05 SECONDS WEST 47.0 FEET THENCE NORTH 61 DEGREES 51 MINUTES 10 SECONDS EAST 1,099.34 FEET; THENCE NORTH 37 DEGREES 05 MINUTES 14 SECONDS WEST 423.50 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 37 DEGREES 05 MINUTES 14 SECONDS WEST 348.27 FEET; THENCE SOUTH 70 DEGREES 46 MINUTES 22 SECONDS EAST 183.36 FEET; THENCE NORTH 65 DEGREES 01 MINUTE 38 SECONDS EAST 437.27 FEET; THENCE SOUTH 48 DEGREES 05 MINUTES 50 SECONDS EAST 222.34 FEET; THENCE SOUTH 64 DEGREES 13 MINUTES 16 SECONDS WEST 583.01 FEET TO THE POINT OF BEGINNING.
MORE PARTICULARLY DESCRIBED AS:
BEGIN AT A 4" SQUARE CONCRETE MONUMENT AT THE SW CORNER OF SAID PARCEL 2 LANDS AS DESCRIBED ABOVE AND RUN THENCE (BEARINGS AND DISTANCE ARE NORTH AMERICAN DATUM OF 1983-2011-EPOCH 2010.0000) N35º43'54"W, 348.27' (DEED N37º05'15"W 348.27') TO A NAIL AND DISC #4889 IN THE CENTERLINE OF COOK ROAD, A 60 FOOT WIDE PUBLIC R/W TRANSITIONING INTO A 20 FOOT WIDE EASEMENT AS PER OFFICIAL RECORDS BOOK (ORB) 1929 PAGE 0975 SAID CLAY COUNTY PUBLIC RECORDS; RUN THENCE S69º25'02"E, 183.36' (DEED S70º46'22"E, 183.36') TO A ½" IRON ROD #4889 ON THE SOUTHERLY RIGHT-OF-WAY LINE OF SAID COOK LANE; RUN THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE N67º26'25"E, 440.66' (DEED N65º01'38"E, 437.27') TO A ½" IRON PIPE "MEM" #2933; RUN THENCE S46º38'42"E, 215.00' (DEED S48º05'50"E, 222.34') TO A ½" IRON PIPE-NO NUMBER IS ATTACHED AT THE EASTERNMOST CORNER OF SAID PARCEL 2 AND THE NORTHERNMOST CORNER OF SAID PARCEL 1 ABOVE; RUN THENCE S21º59'37"E, 430.20' (DEED S23º24'38"E, 430.00') ALONG THE EAST LINE OF SAID PARCEL 1 AND THE WEST LINE OF THOSE LANDS DESCRIBED IN ORB 3752, PAGE 612, SAID CLAY COUNTY PUBLIC RECORDS TO A ½" IRON ROD #4889 AT THE NW CORNER OF THOSE LANDS DESCRIBED IN ORB 2549, PAGE 1875, SAID CLAY COUNTY PUBLIC RECORDS; THENCE CONTINUING ALONG THE EAST LINE OF SAID PARCEL 1 AND THE WEST LINE OF SAID ORB 2549 PAGE 1875 LANDS, RUN THENCE S34º32'09"E, 254.40' (DEED SOUTHEREASTERLY 265' +/-) TO A ½" IRON PIPE "MILLER" AT THE SE CORNER OF SAID PARCEL 1 AND THE SW CORNER OF SAID ORB 2549 PAGE 1875 LANDS; RUN THENCE N80º29'41"W, 329.18' (DEED N81º54'30"W, 328.94') ALONG THE SOUTH LINE OF SAID PARCEL 1 AND THE NORTHERLY LINE OF ORB 4356 PAGE 1599 AND THEN ORB 3879 PAGE 2091 LANDS TO A ½" IRON PIPE; RUN THENCE THE FOLLOWING COURSES AND DISTANCES ALONG SAID DIVIDING LINE BETWEEN SAID PARCEL 1 AND THE NORTHERLY LINE OF SAID ORB 3879 PAGE 2091 LANDS: N26º09'10"W, 41.53' (DEED N27º32'40"W, 41.77') TO A ½" IRON PIPE- NO NUMBER ATTACHED; S67º40'38"W, (DEED S66º54'50"W, 62.39') TO A ½" IRON PIPE – NO NUMBER ATTACHED; N78º59'42"W, 77.43' (DEED N78º55'10"W, 77.14') TO A ½" IRON PIPE – NO NUMBER ATTACHED; S63º19'50"W, 127.02' (DEED S61º04'17", 127.47') TO A ½" IRON PIPE #1381 AT THE NW CORNER OF SAID ORB 3879 PAGE 2091 LANDS AND THE SOUTHWESTERLY CORNER OF SAID PARCEL 1; RUN THENCE N35º43'54"W, 330.45' (DEED N37º05'14"W, 423.50') ALONG THE WESTERLY LINE OF SAID PARCEL 1 TO THE POINT OF BEIGINNING. CONTAINING 8.9141 ACRES, MORE OR LESS

GENERAL SURVEYOR NOTES:

1. Legal Description has been furnished or by confirmed the Client or His/her Agents.
2. The Surveyor hereon is not responsible for easements of record other than those shown on a Plat if applicable, or in a Title Commitment provided at the time of order. Any condition that might represent an unrecorded easement is shown hereon and marked as a Point of Interest. (POI) Above-Ground evidences of Utilities may or may not represent an unrecorded easement.
3. Measurements shown hereon are in US Standard feet and decimals thereof.
4. TYPE OF SURVEY: Florida Boundary with Above-Ground Improvements shown.
5. STATED PURPOSE OF THIS SURVEY: Mortgage, Purchase, Sale, Permits, Planning.
6. Main Building and Ancillary Structure measurements are to the exterior of those buildings, so may not be adequate for Engineered or Architectural additions. Design Professionals should make their own measurements for attachments to Buildings shown hereon.
7. This survey does not show any underground improvements, foundations, or utilities, etc. No underground investigation of any feature including Septic Tank has been performed.
8. Any underground Septic or Well feature shown has been uncovered by the seller or his Agents.
9. All ABOVE-GROUND evidences of Utility Easements lie within their Respective Easements unless noted.
10. This Survey is not intended to Reflect or Determine Ownership.
11. Construct Improvements to Iron Markers as described only. Wood Laths and Wire Flags ARE NOT Property Corners.
12. This survey is COPYRIGHTED and is not intended for, nor Insured for multiple uses by multiple parties. Other than a Lender who assumes a Mortgage Note for a Certifyee hereon, use is restricted to Certifyees hereon for the Purposes listed in Note #5 above. It is illegal to copy or alter this survey drawing without permission.
13. Streets shown hereon are Centered in R/W provided unless otherwise noted and dimensioned.
14. Water shorelines shown on this drawing are current for date shown only. This is NOT a "Mean High Water Survey" as per Chapter 177.39 F.A.C. or any other relevant Local, State, or Federal rule.
15. State Plane Coordinates shown, if any, are based on the North American Datum (NAD) of 1983, Florida East Zone (941)-(2011)-(epoch 2010.0000)
16. Elevations, if shown, are based on the North American Vertical Datum (NAVD) 1988.
17. All dimensions hereon reflect the Deed/Plat call AND the corresponding field measured value. Calculated values are shown if reference irons are set.
18. Electronic (PDF) files are valid with Chapter 5J-17.032 (3) F.A.C and FS 0425.025 conforming Electronic (PDF) Seal attached. As per rules listed, the electronic signature file name/number is present on the invoice presented to the client or his/her agents. Hard sealed copies of the drawing are stored at the Surveyor's office and will be furnished on request (gratis) to certifyees hereon for 60 days from date of signature. Hard copies will be furnished to said Certifyees for an Archival Fee after 60 days.
19. Symbols hereon may differ in scale from the Legend and Abbreviations/Symbols list hereon for clarity.
20. Pursuant to F.S. 558.0035, no individual employee or Agent may be held personally liable for Negligence.
21. This drawing reflects information gathered, analyzed, presented and preserved solely by River City Surveying, LLC. Third Party references, Business Cards etc. attached do not infer or create liability in any form.
22. Fence Ownership is Not Determined



GRAPHIC SCALE

50 0 50 100 200

(IN FEET)
1 inch = 50 ft.

ID	TYPE	DBH (IN)
1	sweetgum	12.0
2	sweetgum	15.0
3	laurel oak	26.0
4	live oak	28.0
5	live oak	48.0
6	live oak	38.0
7	live oak	17.0
8	laurel oak	15.0
9	laurel oak	13.0
10	laurel oak	12.0
11	laurel oak	15.0
12	laurel oak	16.0
13	laurel oak	16.0
14	laurel oak	15.0
15	laurel oak	14.0
16	laurel oak	20.0
17	laurel oak	20.0
18	cabbage palm	17.0
19	cabbage palm	12.0
20	live oak	25.0
21	laurel oak	17.0
22	laurel oak	14.0
23	laurel oak	37.0
24	laurel oak	14.0
25	red maple	17.0
26	red maple	13.0
27	live oak	19.0
28	laurel oak	23.0
29	red maple	13.0
30	laurel oak	16.0
31	laurel oak	25.0
32	laurel oak	13.0
33	laurel oak	15.0
34	laurel oak	16.0
35	laurel oak	14.0
36	laurel oak	14.0
37	laurel oak	26.0
38	laurel oak	15.0
39	laurel oak	24.0
40	red maple	16.0
41	laurel oak	14.0
42	live oak	64.0
43	cabbage palm	13.0
44	american elm	15.0
45	red maple	22.0
46	live oak	38.0
47	cabbage palm	13.0
48	cabbage palm	13.0
49	southern magnolia	13.0
50	live oak	23.0
51	live oak	16.0
52	live oak	25.0
53	sweetgum	15.0
54	southern magnolia	17.0
55	live oak	15.0
56	laurel oak	12.0
57	laurel oak	16.0
58	live oak	15.0
59	water oak	14.0
60	laurel oak	33.0
61	sweetgum	13.0
62	sweetgum	13.0
63	live oak	33.0
64	live oak	63.0
65	live oak	28.0
66	live oak	47.0
67	live oak	45.0
68	cabbage palm	12.0
69	cabbage palm	12.0
70	laurel oak	14.0
71	red maple	23.0
72	cabbage palm	16.0
73	cabbage palm	13.0
74	american elm	13.0
75	laurel oak	24.0
76	red maple	15.0
77	laurel oak	24.0
78	american elm	15.0
79	red maple	33.0
80	red maple	23.0
81	cabbage palm	13.0
82	laurel oak	23.0

ID	TYPE	DBH (IN)
83	live oak	20.0
84	live oak	54.0
85	laurel oak	16.0
86	red maple	14.0
87	laurel oak	13.0
88	laurel oak	27.0
89	live oak	56.0
90	live oak	28.0
91	live oak	24.0
92	live oak	37.0
93	cabbage palm	13.0
94	cabbage palm	12.0
95	cabbage palm	12.0
96	laurel oak	13.0
97	cabbage palm	13.0
98	cabbage palm	13.0
99	cabbage palm	13.0
100	cabbage palm	14.0
101	cabbage palm	12.0
102	live oak	19.0
103	live oak	27.0
104	live oak	23.0
105	cabbage palm	12.0
106	live oak	25.0
107	live oak	80.0
108	live oak	27.0
109	laurel oak	19.0
110	laurel oak	24.0
111	live oak	37.0
112	laurel oak	33.0
113	live oak	24.0
114	live oak	16.0
115	laurel oak	18.0
116	laurel oak	16.0
117	live oak	48.0
118	laurel oak	23.0
119	live oak	13.0
120	live oak	13.0
121	southern magnolia	16.0
122	live oak	26.0
123	live oak	26.0
124	live oak	26.0
125	laurel oak	20.0
126	laurel oak	18.0
127	laurel oak	13.0
128	laurel oak	12.0
129	southern magnolia	14.0
130	live oak	45.0
131	live oak	15.0
132	live oak	34.0
133	laurel oak	29.0
134	live oak	22.0
135	live oak	38.0
136	live oak	28.0
137	laurel oak	14.0
138	laurel oak	21.0
139	laurel oak	14.0
140	laurel oak	18.0
141	laurel oak	22.0
142	laurel oak	15.0
143	laurel oak	16.0
144	live oak	24.0
145	laurel oak	13.0
146	laurel oak	14.0
147	laurel oak	14.0
148	laurel oak	26.0
149	laurel oak	18.0
150	laurel oak	17.0
151	laurel oak	30.0
152	laurel oak	14.0
153	laurel oak	21.0
154	laurel oak	28.0
155	laurel oak	27.0
156	laurel oak	14.0
157	laurel oak	13.0
158	laurel oak	12.0
159	laurel oak	15.0
160	laurel oak	14.0
161	laurel oak	14.0
162	live oak	16.0
163	live oak	24.0
164	live oak	48.0
165	cabbage palm	13.0

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MAI ENGINEERING SERVICES, INC.

LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

REVISIONS

#	DATE	REVISION
1	12/17/22	REVISION PER CITY REQUEST
2	04/12/2023	REVISION PER CITY AND WAD RAI
3	06/28/2023	REVISION PER CITY COMMENTS
4		
5		

SHEET TITLE

TREE SURVEY

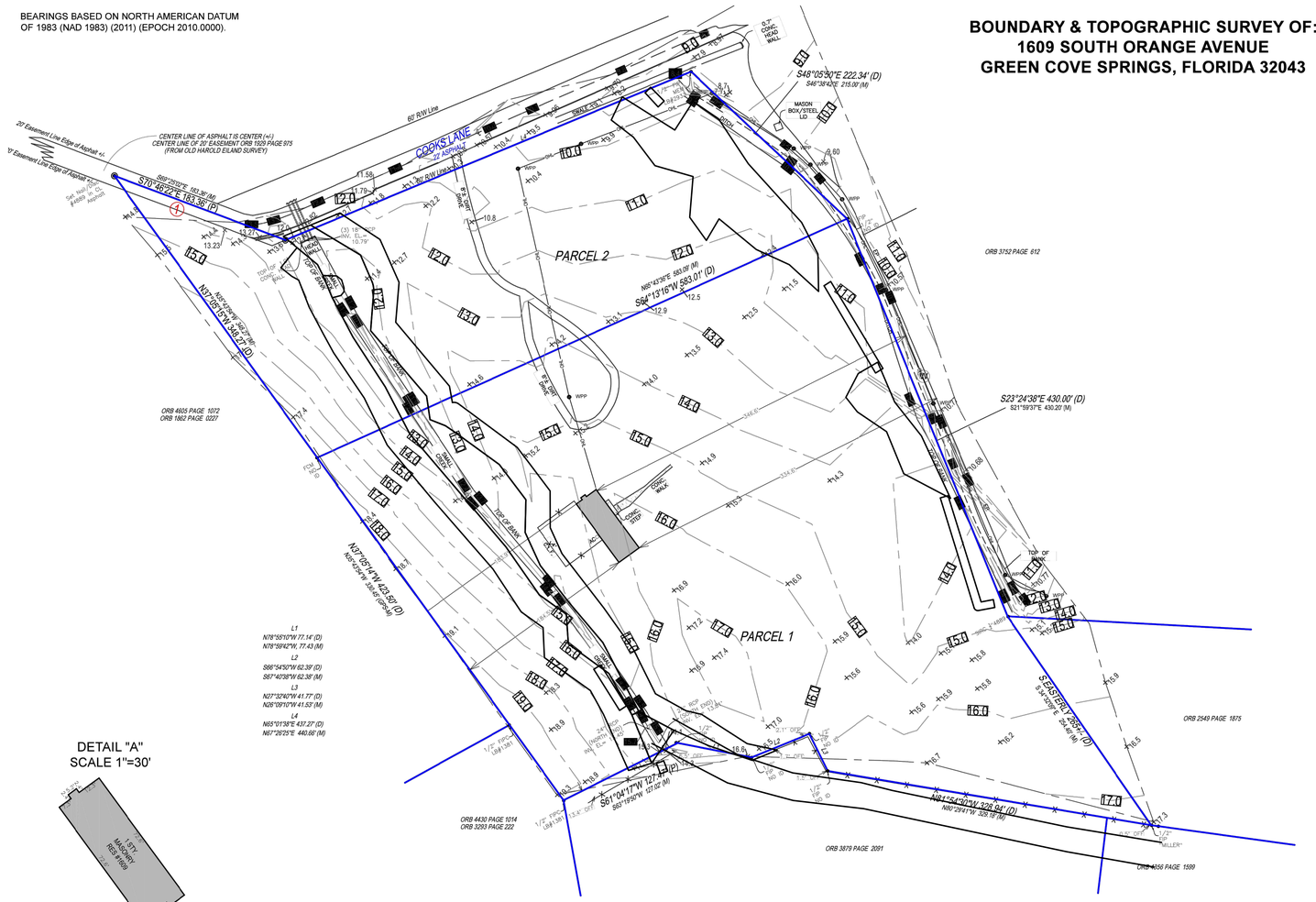
RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA

PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY: QHM
DWG BY: GMG
CHK BY: QHM
DATE: 8/10/2023
JOB No.: 1369
SHEET No.: 3

BEARINGS BASED ON NORTH AMERICAN DATUM OF 1983 (NAD 1983) (2011) (EPOCH 2010.0000).

BOUNDARY & TOPOGRAPHIC SURVEY OF: 1609 SOUTH ORANGE AVENUE GREEN COVE SPRINGS, FLORIDA 32043



DETAIL "A"
SCALE 1"=30'

L1
N78°55'10"W 77.14' (D)
N78°39'42"W, 77.43 (M)

L2
S66°54'50"W 62.39' (D)
S67°40'38"W 62.38' (M)

L3
N27°32'40"W 41.77' (D)
N26°09'10"W 41.53' (M)

L4
N65°01'38"E 437.27' (D)
N67°28'25"E 440.66' (M)

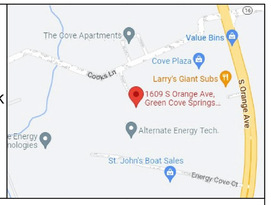
SURVEYOR'S LEGEND

AC = Air Conditioner	Δ = Delta or Central Angle	RCP = Reinforced Concrete Pipe
BLDG = Building	RAD = Radius	CL = Centerline
BRL = Building Restriction Line	CH = Chord Bearing Distance	INV. = Invert
CM = Concrete Monument	L = Arc Length	EL. = Elevation
C/P = Covered Porch	ID = Identification	R/W = Right -Of -Way Line
CONC = Concrete	(P) = Plat Call	SQ = Square
D.B. = Deed Book	(M) = Field Measured Value	STY = Story
D.&A.E. = Drainage & Access Easement	(C) = Calculated Value	S = Section
EC = Edge of Concrete	(D) = Deed Call	T = Township
EP = Edge of Asphalt/Pavement	IP = Iron Pipe	R = Range
ESMT = Easement	IR = Iron Rod	PF = Pool Filter/Machinery on Pad
FT. = Feet	LB = Licensed Survey Business	AC = Air Conditioner/ Heat Pump on Pad
F.I.P. = Found Iron Pipe (Size Delineated)	LS = Licensed Surveyor	WPP = Wood Power Pole
F.I.R = Found Iron Rod (Size Delineated)	RLS = Registered Licensed Surveyor	= Guy Anchor (If - Dimension to Ground Entry Point - Underground Extent not Determined)
LS = Licensed Surveyor	PLS = Professional Licensed Surveyor	= Water Meter
nof = now or formerly (owened by)	PSM = Professional Licensed Mapper	= Fire Hydrant
OHL = Overhead Wire/Line	CCEC = Clay County Electric Cooperative	= Sanitary Sewer Manhole
ORB = Official Records Book	COJ = City of Jacksonville	= Stormwater Drainange Manhole
ORV = Official Record Volume	JEA = Jacksonville Electric Authority	= JEA Manhole
PC = Point of Curvature	FCM = Found Concrete Monument	= Well
PCPt = Permanent Control Point	F.A.C. = Florida Administrative Code	= SIRC 1/2" 4889
Pg = Page	F = Face Side of Wood Fence	
PI = Point Of Intersection	FPLE = Florida Power & Light Easement	
PK = Parker- Kalon or Mag Nail	P = Past Side of Wood Fence	
POB = Point Of Beginning	POI = Point Of interest	
POC = Point Of commencement	PRC = Point of Reverse Curvature	
POI = Point Of interest	PRM = Permanent Reference Monument	
PRC = Point of Reverse Curvature	PT = Point Of Tangency	
MF = Metal Fence	RBL = Reference Bearing Line	
WF = Wood Fence	PVC = PVC/Plastic Fence	
CLF = Chain Link Fence	EL. = Elevation	
RES. = Residence		

N

60 0 30 60

GRAPHIC SCALE (In Feet)
1 inch = 60' ft.

THIS SPACE INTENTIONALLY LEFT BLANK	THIS SPACE INTENTIONALLY LEFT BLANK	

(904) 998-9733
www.landmarktitle.com

PROPERTY ADDRESS: 1609 SOUTH ORANGE AVENUE, GREEN COVE SPRINGS, FLORIDA 32043

LEGAL DESCRIPTION:

PARCEL 1
PART OF SECTIONS 29 AND 30, BLOCK 1, CLINCH ESTATES A/K/A PART OF LOTS 1 AND 2, BLOCK 1, BAYARD TRACT, AND PART OF BLOCK 3, SOUTH GREEN COVE SPRINGS, AS MORE PARTICULARLY DESCRIBED IN O. R. BOOK 330 PAGES 62 AND 63, AND O. R. BOOK 417 PAGE 451, EXCEPT THOSE PARTS DESCRIBED IN O. R. BOOK 403 PAGES 28 TO 36.0. R. BOOK 511 PAGE 397,O. R. BOOK 528 PAGE 137 AND 139,O. R. BOOK 549 PAGE 346,O. R. BOOK 653 PAGE 510, AND O. R. BOOK 1052 PAGE 51, PUBLIC RECORDS OF CLAY COUNTY, FLORIDA.

PARCEL 2
PORTION OF LOTS 1 AND 2, BLOCK 1, BAYARD TRACT, CLAY COUNTY, FLORIDA, ACCORDING TO MAP BY CHARLES F. SMITH RECORDED IN THE PUBLIC RECORDS OF SAID COUNTY IN DEED BOOK "J", PAGES 273 AND 274 (SAID LOT 1, BLOCK 1, IS ALSO KNOWN AS SECTION 29, BLOCK 1, CLINCH ESTATE, ACCORDING TO MAP BY GOULD T. BUTLER RECORDED IN PAID RECORDS IN PLAT BOOK 1, PAGES 31, 32, 33 AND 34, THE WEST 1/2 OF SAID LOT 2, BLOCK 1, IS ALSO KNOWN AS SECTION 30, BLOCK 1 OF SAID CLINCH ESTATE) ALL IN THE G. I. F. CLARK GRANT, SECTION 38, TOWNSHIP 6 SOUTH, RANGE 26 EAST, CLAY COUNTY, FLORIDA; SAID PARCEL. BEING MORE PARTICULARLY, DESCRIBED AS FOLLOWS: COMMENCE AT THE SOUTHWEST CORNER OF SAID LOT 1, BLOCK 1, BAYARD TRACT; THENCE ON THE WEST LINE OF SAID LOT 1 AND ON-THE CENTERLINE OF PALM AVENUE RUN, NORTH 24 DEGREES 21 MINUTES 05 SECONDS WEST 47.0 FEET THENCE NORTH 61 DEGREES 51 MINUTES 10 SECONDS EAST 1,099.34 FEET; THENCE NORTH 37 DEGREES 05 MINUTES 14 SECONDS WEST 423.50 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 37 DEGREES 05 MINUTES 14 SECONDS WEST 348.27 FEET; THENCE SOUTH 70 DEGREES 46 MINUTES 22 SECONDS EAST 183.36 FEET; THENCE NORTH 65 DEGREES 01 MINUTE 38 SECONDS EAST 437.27 FEET; THENCE SOUTH 48 DEGREES 05 MINUTES 50 SECONDS EAST 222.34 FEET; THENCE SOUTH 64 DEGREES 13 MINUTES 16 SECONDS WEST 583.01 FEET TO THE POINT OF BEGINNING.
MORE PARTICULARLY DESCRIBED AS:
BEGIN AT A 4" SQUARE CONCRETE MONUMENT AT THE SW CORNER OF SAID PARCEL 2 LANDS AS DESCRIBED ABOVE AND RUN THENCE (BEARINGS AND DISTANCE ARE NORTH AMERICAN DATUM OF 1983-2011-EPOCH 2010.0000) N35º43'54"W, 348.27' (DEED N37º05'15"W 348.27') TO A NAIL AND DISC #4889 IN THE CENTERLINE OF COOK ROAD, A 60 FOOT WIDE PUBLIC R/W TRANSITIONING INTO A 20 FOOT WIDE EASEMENT AS PER OFFICIAL RECORDS BOOK (ORB) 1929 PAGE 0975 SAID CLAY COUNTY PUBLIC RECORDS; RUN THENCE S69º25'02"E, 183.36' (DEED S70º46'22"E, 183.36') TO A ½" IRON ROD #4889 ON THE SOUTHERLY RIGHT-OF-WAY LINE OF SAID COOK LANE; RUN THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE N67º26'25"E, 440.66' (DEED N65º01'38"E, 437.27') TO A ½" IRON PIPE "MEM" #2933; RUN THENCE S46º38'42"E, 215.00' (DEED S48º05'50"E, 222.34') TO A ½" IRON PIPE-NO NUMBER IS ATTACHED AT THE EASTERNMOST CORNER OF SAID PARCEL 2 AND THE NORTHERNMOST CORNER OF SAID PARCEL 1 ABOVE; RUN THENCE S21º59'37"E, 430.20' (DEED S23º24'38"E, 430.00') ALONG THE EAST LINE OF SAID PARCEL 1 AND THE WEST LINE OF THOSE LANDS DESCRIBED IN ORB 3752, PAGE 612, SAID CLAY COUNTY PUBLIC RECORDS TO A ½" IRON ROD #4889 AT THE NW CORNER OF THOSE LANDS DESCRIBED IN ORB 2549, PAGE 1875, SAID CLAY COUNTY PUBLIC RECORDS; THENCE CONTINUING ALONG THE EAST LINE OF SAID PARCEL 1 AND THE WEST LINE OF SAID ORB 2549 PAGE 1875 LANDS, RUN THENCE S34º32'09"E, 254.40' (DEED SOUTHEREASTERLY 265' +/-) TO A ½" IRON PIPE "MILLER" AT THE SE CORNER OF SAID PARCEL 1 AND THE SW CORNER OF SAID ORB 2549 PAGE 1875 LANDS; RUN THENCE N80º29'41"W, 329.18' (DEED N81º54'30"W, 328.94') ALONG THE SOUTH LINE OF SAID PARCEL 1 AND THE NORTHERLY LINE OF ORB 4356 PAGE 1599 AND THEN ORB 3879 PAGE 2091 LANDS TO A ½" IRON PIPE; RUN THENCE THE FOLLOWING COURSES AND DISTANCES ALONG SAID DIVIDING LINE BETWEEN SAID PARCEL 1 AND THE NORTHERLY LINE OF SAID ORB 3879 PAGE 2091 LANDS:
N26º09'10"W, 41.53' (DEED N27º32'40"W, 41.77') TO A ½" IRON PIPE- NO NUMBER ATTACHED; S67º40'38"W, (DEED S66º54'50"W, 62.39') TO A ½" IRON PIPE – NO NUMBER ATTACHED; N78º55'42"W, 77.43' (DEED N78º55'10"W, 77.14') TO A ½" IRON PIPE – NO NUMBER ATTACHED; S63º19'50"W, 127.02' (DEED S61º04'17", 127.47') TO A ½" IRON PIPE #1381 AT THE NW CORNER OF SAID ORB 3879 PAGE 2091 LANDS AND THE SOUTHWESTERLY CORNER OF SAID PARCEL 1; RUN THENCE N35º43'54"W, 330.45' (DEED N37º05'14"W, 423.50') ALONG THE WESTERLY LINE OF SAID PARCEL 1 TO THE POINT OF BEIGINNING. CONTAINING 8.9141 ACRES, MORE OR LESS

GENERAL SURVEYOR NOTES:

1. Legal Description has been furnished or by confirmed the Client or His/her Agents.
2. The Surveyor hereon is not responsible for easements of record other than those shown on a Plat if applicable, or in a Title Commitment provided at the time of order. Any condition that might represent an unrecorded easement is shown hereon and marked as a Point of Interest. (POI) Above-Ground evidences of Utilities may or may not represent an unrecorded easement.
3. Measurements shown hereon are in US Standard feet and decimals thereof.
4. TYPE OF SURVEY: Florida Boundary with Above-Ground Improvements shown.
5. STATED PURPOSE OF THIS SURVEY: Mortgage, Purchase, Sale, Permits, Planning.
6. Main Building and Ancillary Structure measurements are to the exterior of those buildings, so may not be adequate for Engineered or Architectural additions. Design Professionals should make their own measurements for attachments to Buildings shown hereon.
7. This survey does not show any underground improvements, foundations, or utilities, etc. No underground investigation of any feature including Septic Tank has been performed.
8. Any underground Septic or Well feature shown has been uncovered by the seller or his Agents.
9. All ABOVE-GROUND evidences of Utility Easements lie within their Respective Easements unless noted.
10. This Survey is not intended to Reflect or Determine Ownership.
11. Construct Improvements to Iron Markers as described only. Wood Laths and Wire Flags ARE NOT Property Corners.
12. This survey is COPYRIGHTED and is not intended for, nor Insured for multiple uses by multiple parties. Other than a Lender who assumes a Mortgage Note for a Certifyee hereon, use is restricted to Certifyees hereon for the Purposes listed in Note #5 above. It is illegal to copy or alter this survey drawing without permission.
13. Streets shown hereon are Centered in R/W provided unless otherwise noted and dimensioned.
14. Water shorelines shown on this drawing are current for date shown only. This is NOT a "Mean High Water Survey" as per Chapter 177.39 F.A.C. or any other relevant Local, State, or Federal rule.
15. State Plane Coordinates shown, if any, are based on the North American Datum (NAD) of 1983, Florida East Zone (941)-(2011)-(epoch 2010.0000)
16. Elevations, if shown, are based on the North American Vertical Datum (NAVD) 1988.
17. All dimensions hereon reflect the Deed/Plat call AND the corresponding field measured value. Calculated values are shown if reference irons are set.
18. Electronic (PDF) files are valid with Chapter 5J-17.032 (3) F.A.C and FS 0425.025 conforming Electronic (PDF) Seal attached. As per rules listed, the electronic signature file name/number is present on the invoice presented to the client or his/her agents. Hard sealed copies of the drawing are stored at the Surveyor's office and will be furnished on request (gratis) to certifyees hereon for 60 days from date of signature. Hard copies will be furnished to said Certifyees for an Archival Fee after 60 days.
19. Symbols hereon may differ in scale from the Legend and Abbreviations/Symbols list hereon for clarity.
20. Pursuant to F.S. 558.0035, no individual employee or Agent may be held personally liable for Negligence.
21. This drawing reflects information gathered, analyzed, presented and preserved solely by River City Surveying, LLC. Third Party references, Business Cards etc. attached do not infer or create liability in any form.
22. Fence Ownership is Not Determined

TIMOTHY L. BLACKMON LICENSE NUMBER 4889 STATE OF FLORIDA PROFESSIONAL SURVEYOR & MAPPER

SURVEYORS CERTIFICATION:

REPRODUCTIONS OF THIS SKETCH ARE NOT VALID UNLESS SEALED WITH FLORIDA PSM EMBOSSED SEAL. THE SKETCH OF SURVEY DEPICTED HEREON CONFORMS TO THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF LAND SURVEYORS IN ACCORDANCE WITH CHAPTER 5J-17.050-17.053, PURSUANT TO CHAPTER 472, FLORIDA STATUTES, AND WAS DONE UNDER MY DIRECT SUPERVISION.

Timothy L. Blackmon
State of Florida Professional Surveyor and Mapper
License Number 4889
RIVER CITY SURVEYING & MAPPING I LB#8484

POINTS OF INTEREST:
① ASPHALT STREET IN EASEMENT ALONG NORTH LINE IN THIS AREA

DATE SIGNED: 08/17/2022
FIELD WORK DATE: 08/01/2022
REVISION DATE(S): 08/17/2022
SURVEY NUMBER: 051722.1

RIVER CITY SURVEYING & MAPPING
LB#8484
904-487-9054 | F. 904-998-9736
7220 FINANCIAL WAY | JACKSONVILLE, FL 32256

CERTIFIED TO:

FIDELITY NATIONAL TITLE INSURANCE COMPANY
BARWICK BANKING COMPANY, ISAOA ATIMA
LANDMARK TITLE

2510 US 1 SOUTH SUITE D
ST. AUGUSTINE, FL 32086
PHONE (904)794-1768
FAX (904)794-1768
quoc@maiengineer.com

MAI ENGINEERING SERVICES, INC.

LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

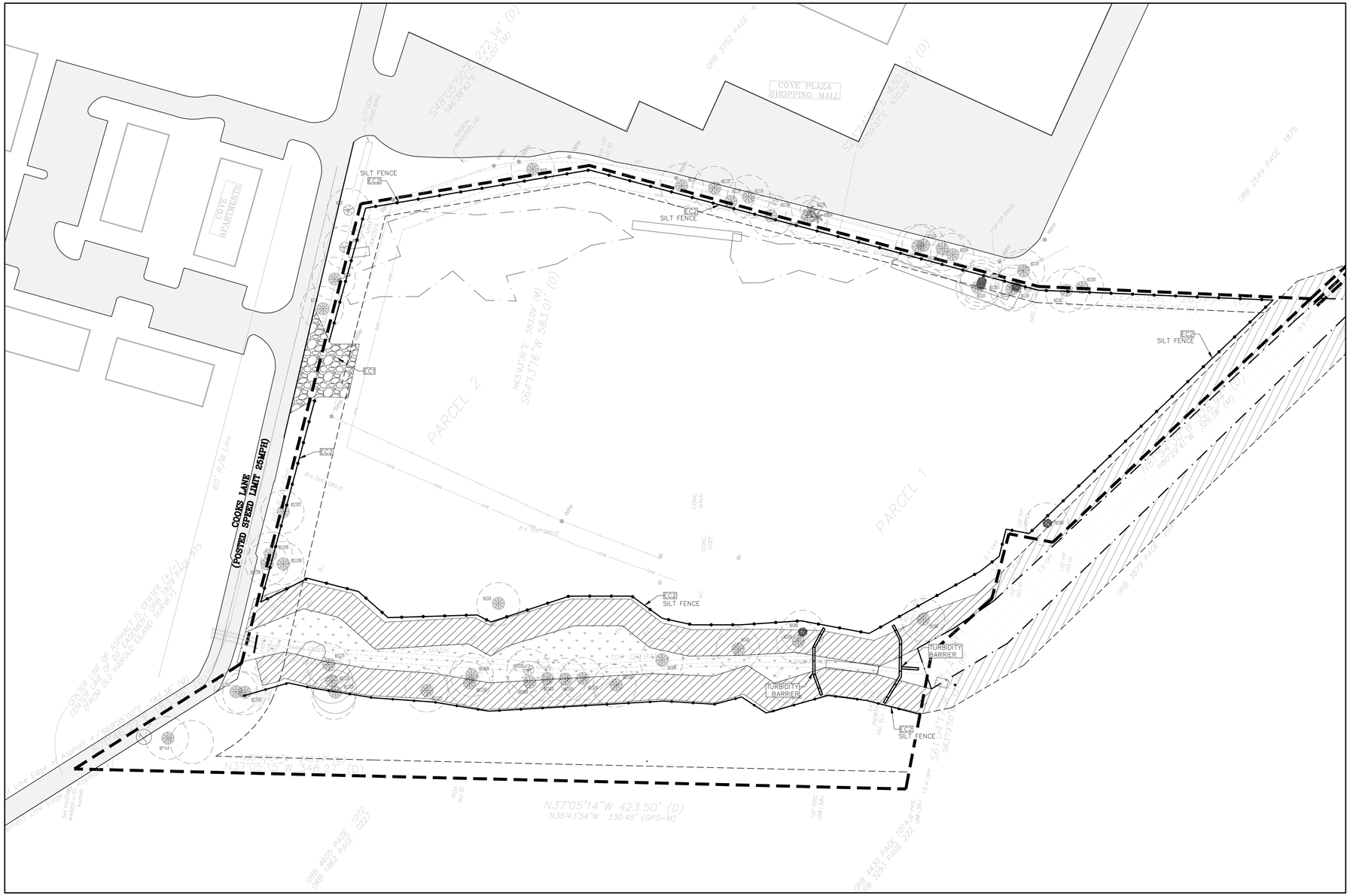
REVISIONS

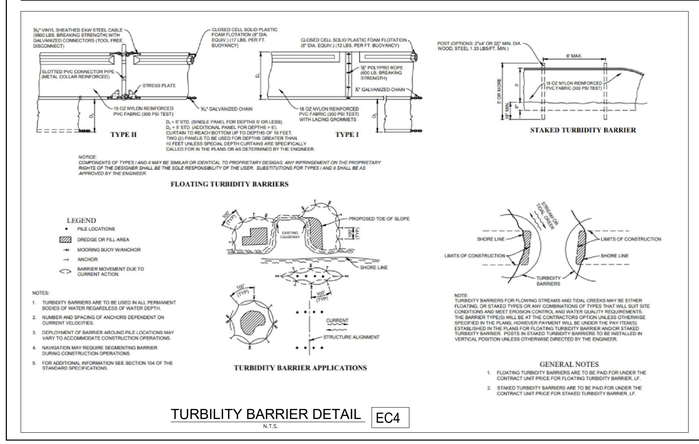
#	DATE	REMARK
1	08/17/22	REVISION PER CITY REVISED
2	04/26/2023	REVISION PER CITY AND RIVER
3	06/26/2023	REVISION PER CITY COMMENTS

SHEET TITLE: TOPO SURVEY

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA
PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	8/10/2023
JOB No.:	1369
SHEET No.:	4





TURBILITY BARRIER DETAIL EC4
N.T.S.

GRAPHIC SCALE

50 0 50 100 200

(IN FEET)
1 inch = 50 ft.

EROSION CONTROL DETAILS

EC1	STABILIZED CONSTRUCTION ENTRANCE
EC2	TYPE III SILT FENCE
EC3	WATTLE INLET PROTECTION
EC4	TURBIDITY BARRIER

LEGEND

- PROPERTY LINE
- ROADWAY CENTERLINE
- DRAINAGE EASEMENT
- PROPOSED PAVEMENT
- PROPOSED CONCRETE
- PROPOSED GRAVEL
- TURBIDITY BARRIER
- SILT FENCE

EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION CONTROL WITHIN BEST MANAGEMENT PRACTICES FOR THE DURATION OF THE PROJECT UNTIL SUCH TIME AS THE PROJECT HAS BEEN CERTIFIED AS COMPLETE.

2. THE CONTRACTOR SHALL SEED & MULCH OR SOD ALL OPEN SPACE AREAS TO BE GRASSED IMMEDIATELY FOLLOWING FINAL GRADING AND COMPLETION OF ALL UNDERGROUND UTILITIES.

3. SILT FENCES SHALL BE INSTALLED ALONG LIMITS OF CONSTRUCTION .

4. SILT FENCES SHALL BE INSPECTED AFTER EACH RAINFALL AND REPAIRED IMMEDIATELY IF DAMAGED.

5. ALL SIDE SLOPES OF STORM WATER MANAGEMENT AREAS SHALL BE SODDED UPON COMPLETION OF FINAL GRADING.

6. ALL INLETS SHALL BE PROTECTED FROM COLLECTION OF ERODED MATERIALS BY INSTALLATION OF TEMPORARY FILTER FABRIC AND/OR HAYBALES.

7. FLOATING TURBIDITY BARRIERS SHALL BE INSTALLED WITHIN ALL WATER BODIES DOWNSTREAM OF CONSTRUCTION ACTIVITIES WHERE PROTECTION AGAINST TURBID WATERS DISCHARGE MAY OCCUR.

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quoc@maiengineer.com

MAI ENGINEERING SERVICES, INC.

LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

REVISIONS

#	DATE	REVISION
3	12/21/22	REVISION PER CITY REVISIT
2	04/20/2023	REVISION PER CITY AND RMD RAI
1	06/20/2023	REVISION PER CITY COMMENTS

SHEET TITLE: EROSION CONTROL PLAN

RIVER OAKS INDUSTRIAL PARK

GREEN COVE SPRINGS, FLORIDA

PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	8/10/2023
JOB No.:	1369
SHEET No.:	5

GRAPHIC SCALE

50 0 50 100 200

(IN FEET)
1 inch = 50 ft.

DEMOLITION NOTES

D02 PRESERVED WETLANDS.

D03 TO BE REMOVED.

D06 EXISTING DITCHES ARE TO BE FULLY CLEARED AND DEMUCKED UNTIL SOLID SOILS REACHED, FILL DITCH WITH SUITABLE MATERIAL AND COMPACT TO 95% DENSITY IN MAXIMUM 12" LIFTS.

D07 100' X 50' GRAVEL CONSTRUCTION ENTRANCE.

LEGEND

- SILT FENCE
- DOUBLE ROW SILT FENCE
- X-XX GEOTECH BORING LOCATION
- NGWL NATURAL GROUND WATER LEVEL
- SHGWL SEASONAL HIGH GROUND WATER LEVEL.

GENERAL NOTES

1. FOR DEMO/PRESERVED TREES AND TREE PROTECTION SEE LANDSCAPE PLAN SHEET.
2. ALL DISCHARGE POINTS SHALL RECEIVE RIP RAP AND/OR TURBIDITY BARRIERS TO PREVENT OFFSIDE EROSION.
3. ALL ROAD CUTS MUST BE RESTORED BY MILLING AND RESURFACING A MINIMUM OF 25 FEET FROM EACH SIDE OF CUT.
4. EXISTING CONCRETE/ASPHALT PAVEMENT AREA: 4,288.52 SF, TO BE REMOVED
5. WETLAND IMPACT AND ANALYSIS FOR MITIGATION, PLEASE SEE THE ENVIRONMENTAL CONSULTANT REPORT.

HATCH LEGEND

PRESERVED WETLANDS	
IMPACTED WETLANDS	
TO BE REMOVED	
UPLAND BUFFER	
ISOLATED WETLAND	
UPLAND CUT DITCH IMPACT	
WETLAND REMAIN	
OUTFALL IMPACT	
100 YR FLOOD PLAIN	

SUMMARY TABLE

	AREA (AC.)
PROJECT AREA	± 8.92 AC.
WETLAND IMPACT	± 0.40 AC.
OUTFALL IMPACT	± 0.01 AC.
WETLAND REMAINING	± 0.34 AC.
ISOLATED	< 0.50-ACRE ±0.02 AC.
UPLAND BUFFER	± 8.92 AC.
UPLAND CUT DITCH IMPACT	± 8.92 AC.

Total existing impervious Area

match Ryan

REMOVED TREES TABLE

ID#	TYPE	DBH (IN)	REPLACE CREDIT
5	LIVE OAK	48.0	48.0
6	LIVE OAK	38.0	38.0
11	LAUREL OAK	15.0	5.0
17	LAUREL OAK	20.0	6.67
34	LAUREL OAK	16.0	5.33
35	LAUREL OAK	14.0	4.67
36	LAUREL OAK	14.0	4.67
37	LAUREL OAK	26.0	8.67
38	LAUREL OAK	15.0	5.0
39	LAUREL OAK	24.0	8.0
40	RED MAPLE	16.0	5.33
41	LAUREL OAK	14.0	4.67
42	LIVE OAK	64.0	64.0
43	CABBAGE PALM	13.0	4.33
44	AMERICAN ELM	15.0	5.00
45	RED MAPLE	22.0	7.33
46	LIVE OAK	38.0	38.0
47	CABBAGE PALM	13.0	4.33
48	CABBAGE PALM	13.0	4.33
49	SOUTHERN MAGNOLIA	13.0	4.33
50	LIVE OAK	23.0	23.0
51	LIVE OAK	16.0	16.0
52	LIVE OAK	25.0	25.0
53	SWEETGUM	15.0	5.0
54	SOUTHERN MAGNOLIA	17.0	5.67
55	LIVE OAK	15.0	15.0
56	LAUREL OAK	12.0	4.0
57	LAUREL OAK	16.0	5.33
58	LIVE OAK	15.0	15.0
59	WATER OAK	14.0	4.67
60	LAUREL OAK	33.0	11.0
61	SWEETGUM	13.0	4.33
62	SWEETGUM	13.0	4.33
63	LIVE OAK	33.0	33.0
64	LIVE OAK	63.0	63.0
65	LIVE OAK	28.0	28.0
66	LIVE OAK	47.0	47.0
67	LIVE OAK	45.0	45.0
68	CABBAGE PALM	12.0	4.0
69	CABBAGE PALM	12.0	4.0
70	LAUREL OAK	14.0	4.67
71	RED MAPLE	23.0	7.67
74	AMERICAN ELM	13.0	4.33
75	LAUREL OAK	24.0	8.0
76	RED MAPLE	15.0	5.0
77	LAUREL OAK	24.0	8.0

REMOVED TREES TABLE

ID#	TYPE	DBH (IN)	REPLACE CREDIT
78	AMERICAN ELM	15.0	5
83	LIVE OAK	20.0	20.0
84	LIVE OAK	54.0	54.0
89	LIVE OAK	56.0	56.0
90	LIVE OAK	28.0	28.0
92	LIVE OAK	37.0	37.0
93	CABBAGE PALM	13.0	4.33
94	CABBAGE PALM	12.0	4
95	CABBAGE PALM	12.0	4
96	LAUREL OAK	13.0	4.33
97	CABBAGE PALM	13.0	4.33
98	CABBAGE PALM	13.0	4.33
99	CABBAGE PALM	13.0	4.33
100	CABBAGE PALM	14.0	4.67
101	CABBAGE PALM	12.0	4
102	LIVE OAK	19.0	19.0
103	LIVE OAK	27.0	27.0
104	LIVE OAK	23.0	23.0
105	CABBAGE PALM	12.0	4
106	LIVE OAK	25.0	25.0
116	LAUREL OAK	16.0	5.33
126	LAUREL OAK	18.0	6
127	LAUREL OAK	13.0	4.33
128	LAUREL OAK	12.0	4
129	SOUTHERN MAGNOLIA	14.0	4.67
130	LIVE OAK	45.0	45.0
134	LIVE OAK	22.0	22.0
135	LIVE OAK	38.0	38.0
136	LIVE OAK	28.0	28.0
137	LAUREL OAK	14.0	4.67
138	LAUREL OAK	21.0	7
139	LAUREL OAK	14.0	4.67
140	LAUREL OAK	18.0	6
141	LAUREL OAK	22.0	7.33
147	LAUREL OAK	14.0	4.67
149	LAUREL OAK	18.0	6
152	LAUREL OAK	14.0	4.67
153	LAUREL OAK	21.0	7
154	LAUREL OAK	28.0	9.33
155	LAUREL OAK	27.0	9
156	LAUREL OAK	14.0	4.67
8	LAUREL OAK	15.0	5
9	LAUREL OAK	13.0	4.33
20	LIVE OAK	25.0	25.0
131	LIVE OAK	15.0	15.0

REMOVED TREES TABLE

ID#	TYPE	DBH (IN)	REPLACE CREDIT
132	LIVE OAK	34.0	34.0
133	LAUREL OAK	29.0	9.67
142	LAUREL OAK	15.0	5
143	LAUREL OAK	16.0	5.33
144	LIVE OAK	24.0	24.0
145	LAUREL OAK	13.0	4.33
146	LAUREL OAK	14.0	4.67
148	LAUREL OAK	26.0	8.67
150	LAUREL OAK	17.0	5.67
151	LAUREL OAK	30.0	10
164	LIVE OAK	48.0	48.0
157	LAUREL OAK	13.0	4.33
158	LAUREL OAK	12.0	4
159	LAUREL OAK	15.0	5
160	LAUREL OAK	14.0	4.67
114	LIVE OAK	16.0	16.0
115	LAUREL OAK	18.0	6
81	CABBAGE PALM	13.0	4.33
TOTAL	118	2328	1,497.32

NOTES:

1) PER CITY ORDINANCE SECTION 113-279 (a), TREE REPLACEMENT REQUIRED FOR ALL REMOVED TREES. REPLACE TOTAL INCHES FOR LIVE OAKS TREES. REPLACE ONE THIRD FOR ALL OTHER TREES THAT ARE 12 INCH DBH.

TOTAL TREE INCHES OF REMOVED TREES ARE: 2,328 INCHES
TOTAL OF REPLACEMENT CREDIT INCHES REQUIRED: 1,497 INCHES

2) SAVED TREES PER CITY ORDINANCE SECTION 113-279 (b). TREES ARE PRESERVED SHALL RECEIVED CREDIT AGAINST THE LANDSCAPE REQUIREMENTS ACCORDING TO THE FOLLOWING SCHEDULE:
TREES 12 TO 18 INCH DBH: LIVE OAK, ONE INCH CREDIT, OTHERS 50%
TREES 19 TO 30 INCH DBH: LIVE OAK, 1.25 INCH CREDIT, OTHERS 75%
TREES ABOVE 30 INCH DBH: LIVE OAK, 1.5 INCH CREDIT, OTHER 100%

TOTAL TREE INCHES OF SAVED TREES: 1,166 INCH
TOTAL SAVED TREES CREDIT INCHES: 1,519.75 INCH

SAVED TREES TABLE

ID#	TYPE	DBH	TREE CREDIT
1	SWEETGUM	12.0	12.0
2	SWEETGUM	15.0	15.0
3	LAUREL OAK	26.0	32.5
4	LIVE OAK	28.0	37.5
7	LIVE OAK	17.0	17.0
10	LAUREL OAK	12.0	12.0
12	LAUREL OAK	16.0	16.0
13	LAUREL OAK	16.0	16.0
14	LAUREL OAK	15.0	15.0
15	LAUREL OAK	14.0	14.0
16	LAUREL OAK	20.0	25.0
18	CABBAGE PALM	17.0	17.0
19	CABBAGE PALM	12.0	12.0
21	LAUREL OAK	17.0	17.0
22	LAUREL OAK	14.0	14.0
23	LAUREL OAK	37.0	55.5
24	LAUREL OAK	14.0	14.0
25	RED MAPLE	17.0	17.0
26	RED MAPLE	13.0	13.0
27	LIVE OAK	19.0	23.75
28	LAUREL OAK	23.0	28.75
29	RED MAPLE	13.0	13.0
30	LAUREL OAK	16.0	16.0
31	LAUREL OAK	25.0	31.25
32	LAUREL OAK	13.0	13.0
33	LAUREL OAK	15.0	15.0
72	CABBAGE PALM	16.0	16.0
73	CABBAGE PALM	13.0	13.0
79	RED MAPLE	33.0	49.5
80	RED MAPLE	23.0	28.75
82	LAUREL OAK	23.0	28.75
85	LAUREL OAK	16.0	16.0
86	RED MAPLE	14.0	14.0
87	LAUREL OAK	13.0	13.0
88	LAUREL OAK	27.0	33.75
91	LIVE OAK	24.0	30
107	LIVE OAK	80.0	120
108	LIVE OAK	27.0	33.75
109	LAUREL OAK	19.0	23.75
110	LAUREL OAK	24.0	30.0
111	LIVE OAK	37.0	55.5
112	LAUREL OAK	33.0	49.5
113	LIVE OAK	24.0	30.0
117	LIVE OAK	48.0	72.0
118	LAUREL OAK	23.0	28.75
119	LIVE OAK	13.0	13.0
120	LIVE OAK	13.0	13.0
121	SOUTHERN MAGNOLIA	16.0	16.0
122	LIVE OAK	26.0	32.5
123	LIVE OAK	26.0	32.5
124	LIVE OAK	26.0	32.5
125	LAUREL OAK	20.0	25.0
161	LAUREL OAK	14.0	14.0
162	LIVE OAK	16.0	16.0
163	LIVE OAK	24.0	30.0
165	CABBAGE PALM	13.0	13.0
TOTAL	47	1,166	1,519.75

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LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

REVISIONS

#	DATE	REMARK
0	12/17/22	REVISION PER CITY REVIEW
1	04/12/2023	REVISION PER CITY AND RJ
2	06/20/2023	REVISION PER CITY COMMENTS
3		
4		
5		
6		

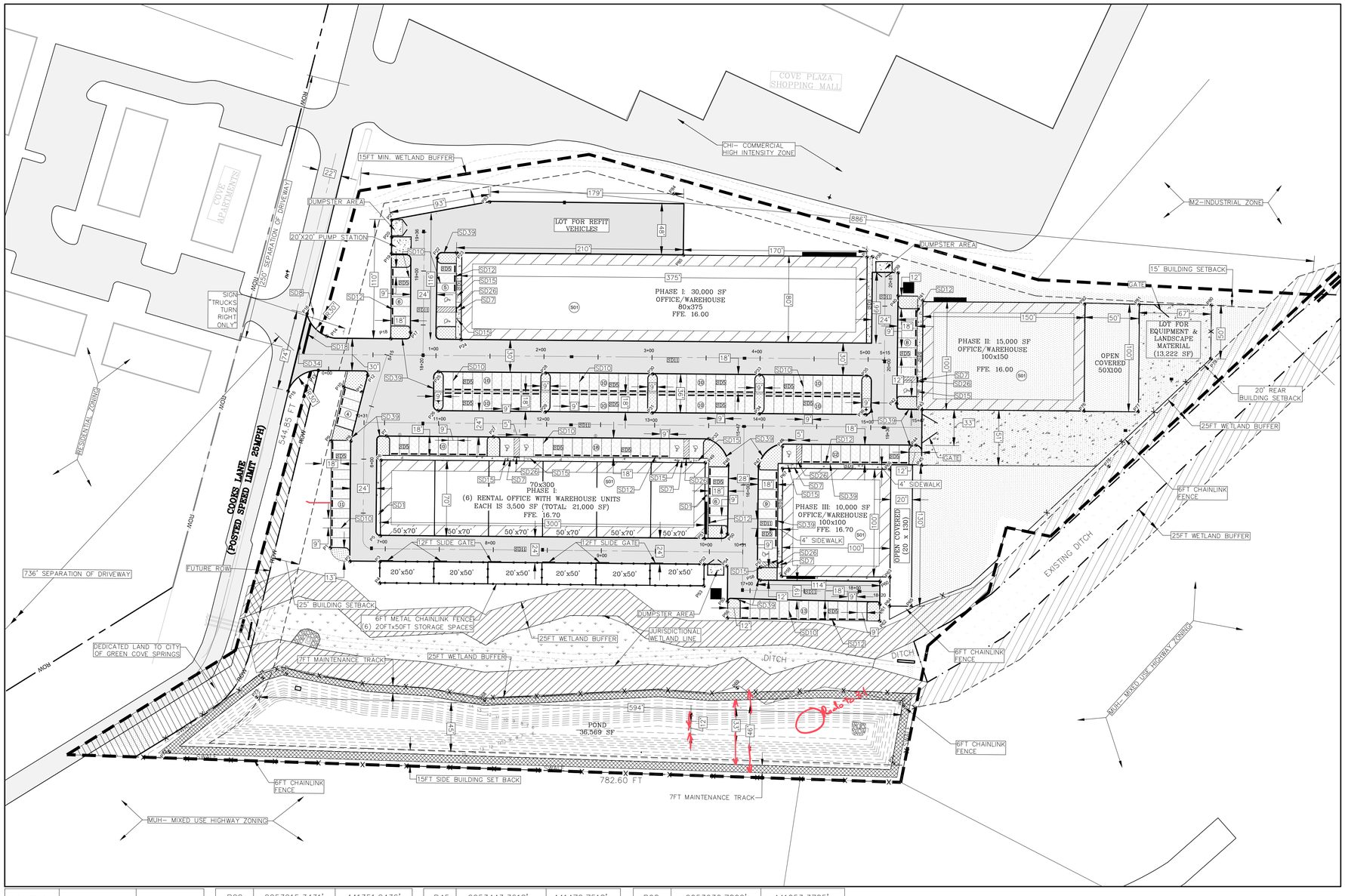
SHEET TITLE: DEMOLITION PLAN

RIVER OAKS INDUSTRIAL PARK

GREEN COVE SPRINGS, FLORIDA

PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	8/10/2023
JOB No.:	1369
SHEET No.:	6



GRAPHIC SCALE

50 0 50 100 200

(IN FEET)
1 inch = 50 ft.

SITE DETAILS

	SD1	CONCRETE SIDEWALK DETAIL
	SD4	18" STANDARD CURB & GUTTER (REVERSE PITCH)
	SD5	PAVERS PARKING DETAIL
	SD7	WHEELCHAIR RAMP IN SIDEWALK
	SD8	STOP SIGN
	SD9	WHEELCHAIR RAMP IN SIDEWALK AT CURB RETURN
	SD10	PARKING PAINT STRIPPING
	SD11	TYPICAL PAVEMENT SECTION
	SD12	PRECAST CONCRETE WHEEL STOP
	SD15	ACCESSIBLE PARKING SIGN
	SD16	VALLEY CURB
	SD18	STOP BAR
	SD26	DETECTABLE WARNING DETAIL
	SD34	CONNECTION TO EXISTING PAVEMENT
	SD36	CONCRETE PAVEMENT SECTION
	SD39	HEADER CURB
	SD45	HEAVY PAVEMENT SECTION
		WETLAND BUFFER

SITE NOTES

S01 BUILDING – SEE ARCHITECTURAL PLANS (TBD BY OTHERS)

DEVELOPMENT DATA

MAX ALLOWABLE IMPERVIOUS COVERAGE: 70%
PROPOSED IMPERVIOUS COVERAGE: 56.6%
BUILDING SETBACK: FRONT 25FT, SIDE 15FT, REAR 20FT
ROAD DRIVEWAY CONNECTION POSTED SPEED LIMIT 25MPH
MINIMUM DRIVEWAY CONNECTION SPACING: 245FT.

TOTAL SITE AREA = 342,102SF = 7.84 ACRES
TOTAL PROJECT AREA = 295,516SF = 6.784 ACRES
TOTAL PROPOSED BUILDING AREA = 76,000SF
TOTAL PROPOSED CONCRETE AREA = 21,342SF
TOTAL PROPOSED ASPHALT DRIVE = 66,177SF
TOTAL PROPOSED PAVERS AREA = 30,173SF
TOTAL PROPOSED POND = 42,032SF
TOTAL PERVIOUS AREA = 164,834SF

TOTAL PROPOSED IMPERVIOUS AREA = 193,691SF (INCLUDE BUILDING)
IMPERVIOUS COVERAGE = 65.5 %

FAR = 14.9%

PHASE I:
PROPOSED BUILDING AREA: 51,000SF
(WAREHOUSE: 35,000SF; OFFICE: 16,000SF)
PROPOSED TOTAL PAVEMENT AREA: 62,993SF

PHASE II:
PROPOSED BUILDING AREA: 15,000SF
(WAREHOUSE: 10,000SF; OFFICE: 5,000SF)
PROPOSED TOTAL PAVEMENT AREA: 0SF

PHASE III:
PROPOSED BUILDING AREA: 10,000SF
(WAREHOUSE: 5,000SF; OFFICE: 5,000SF)
PROPOSED TOTAL PAVEMENT AREA: 1,814SF

GENERAL PROJECT INFORMATION

PARCEL #: 38-06-26-016564-002
ADDRESS: 1609 COOKES LANE.
FUTURE LAND USE: MUH- MIXED USE HIGHWAY
ZONING: MUH-MIXED USE HIGHWAY

STATEMENT OF USE: OFFICE AND INDUSTRIAL WAREHOUSE AND OFFICES.

PARCEL AREA: 8.88 ACRES

CURRENT LAND OWNER:
WILLIAM KRIEG
RIVER OAKS OUTDOOR, LLC
P.O. BOX 7902
JACKSONVILLE, FL 32238

DESIGN ENGINEER AGENT:
QUOC H. MAI, P.E. #64006
MAI ENGINEERING SERVICES, INC.
2510 US 1 S, SUITE D
ST. AUGUSTINE, FL 32086

This area included in the 8.88 acres

GENERAL NOTES

1. ALL DIMENSIONS ARE LISTED TO THE EDGE OF PAVEMENT AND/OR FACE OF CURB.
2. ALL RADII ARE 5' UNLESS OTHERWISE NOTED.
3. SCREENING OF ALL MECHANICAL EQUPMENT SHALL BE IN ACCORDANCE WITH SJC LDC SEC.6.01.03.H.2. AND 6.06.04.B.9.
4. DUMPSTER/SOLID WASTE SCREENINGS STANDARDS SHALL BE IN ACCORDANCE WITH SJC LDC SEC 6.06.04.B.8.
5. SCREENING OF OUTDOOR STORAGE AREAS SHALL BE IN ACCORDANCE WITH SJC LDC SEC 6.06.04.B.7.

PARKING CALCULATIONS

PARKING REQUIREMENT PER CITY CODE:
OFFICE: 1/250SF
WAREHOUSE: 1/5,000SF

TOTAL PARKING REQUIRED = 114 SPACES
TOTAL PARKING PROVIDED = 182 SPACES
TOTAL ACCESSIBLE SPACES = 9 SPACES

PHASE I:
OFFICE PARKING REQUIRED = 16,000/250 = 64 SPACES
WAREHOUSE PARKING REQUIRED = 35,000/5,000 = 7 SPACES
TOTAL PARKING REQUIRED = 71 SPACES

PHASE II:
OFFICE PARKING REQUIRED = 5,000/250 = 20 SPACES
WAREHOUSE PARKING REQUIRED = 10,000/5,000 = 2 SPACES
TOTAL 2 PHASES REQUIRED = 22 SPACES

PHASE III:
OFFICE PARKING REQUIRED = 5,000/250 = 20 SPACES
WAREHOUSE PARKING REQUIRED = 5,000/5,000 = 1 SPACES
TOTAL 3 PHASES REQUIRED = 21 SPACES

CONTROL POINTS	NORTHING	EASTING
P1	2053829.7530'	441078.3390'
P2	2053807.7833'	441079.3086'
P3	2053785.7026'	441096.0842'
P4	2053773.6287'	441080.1495'
P5	2053800.0255'	441115.3316'
P6	2053842.2841'	441171.1035'
P7	2053851.9267'	441191.9111'
P8	2053875.1778'	441168.0834'
P9	2053889.5192'	441157.2169'
P10	2053910.8277'	441203.8682'
P11	2053894.6946'	441210.5554'
P12	2053899.9784'	441225.8337'
P13	2053938.8971'	441201.5802'
P14	2053952.1576'	441231.4576'
P15	2053949.3069'	441169.2324'
P16	2053979.3698'	441236.8019'
P17	2053892.8736'	441281.5256'
P18	2053903.7278'	441265.7247'
P19	2053951.2340'	441328.5103'
P20	2053960.5348'	441340.8026'
P21	2053970.3393'	441353.0499'
P22	2053915.3431'	441351.2436'
P23	2053904.3045'	441365.9445'
P24	2053851.8037'	441304.8678'
P25	2053850.1847'	441268.5630'
P26	2053828.3554'	441239.8420'
P27	2053772.9789'	441251.8751'
P28	2053771.0675'	441327.9579'
P29	2053749.2592'	441299.2377'
P30	2053692.1583'	441387.7452'
P31	2053670.3804'	441359.0020'
P32	2053614.1223'	441371.9846'
P33	2053613.3103'	441447.4862'
P34	2053591.3751'	441418.8621'
P35	2053534.4316'	441507.2504'
P36	2053512.6383'	441478.5188'
P37	2053601.1990'	441594.6123'
P38	2053597.1056'	441597.9929'
P39	2053569.3763'	441600.7375'
P40	2053556.3091'	441583.8693'
P41	2053535.6819'	441594.2421'
P42	2053496.3604'	441503.9591'
P43	2053474.4336'	441513.7295'
P44	2053458.9450'	441484.1944'
P45	2053443.3618'	441472.7518'
P46	2053556.0350'	441407.9687'
P47	2053562.2387'	441380.0460'
P48	2053585.0864'	441363.0662'
P49	2053603.3180'	441352.4809'
P50	2053546.6093'	441312.7032'
P51	2053561.0031'	441296.4400'
P52	2053546.6650'	441277.2041'
P53	2053534.5911'	441261.2693'
P54	2053529.1221'	441288.7655'
P55	2053508.3315'	441263.1408'
P56	2053499.2464'	441251.0104'
P57	2053503.6747'	441307.0519'
P58	2053496.7214'	441297.2651'
P59	2053483.0759'	441312.4028'
P60	2053408.0554'	441364.2246'
P61	2053395.2910'	441347.3548'
P62	2053385.8988'	441334.9421'
P63	2053403.4104'	441372.7657'
P64	2053387.1896'	441351.3555'
P65	2053371.1024'	441363.5435'
P66	2053464.4466'	441451.6728'
P67	2053543.3189'	441391.9101'
P68	2053630.7802'	441053.3785'
P69	2053452.5399'	441205.3965'
P70	2053320.6526'	441286.3369'
P71	2053295.6615'	441238.7795'
P72	2053853.9050'	440818.0001'
P73	2053864.7296'	440825.0223'
P74	2053816.6146'	440934.2707'
P75	2053794.9556'	440959.2810'
P76	2053355.0943'	441604.3206'
P77	2053315.0018'	441634.5083'
P78	2053305.5596'	441577.8028'
P79	2053291.6956'	441714.3631'
P80	2053321.6384'	441753.8516'
P81	2053374.8675'	441713.5217'
P82	2053414.9811'	441682.9824'
P83	2053908.7076'	441421.8677'
P84	2053778.4236'	441532.1004'
P85	2053736.6999'	441492.3702'

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MAI ENGINEERING SERVICES, INC.

LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#2816

REVISIONS

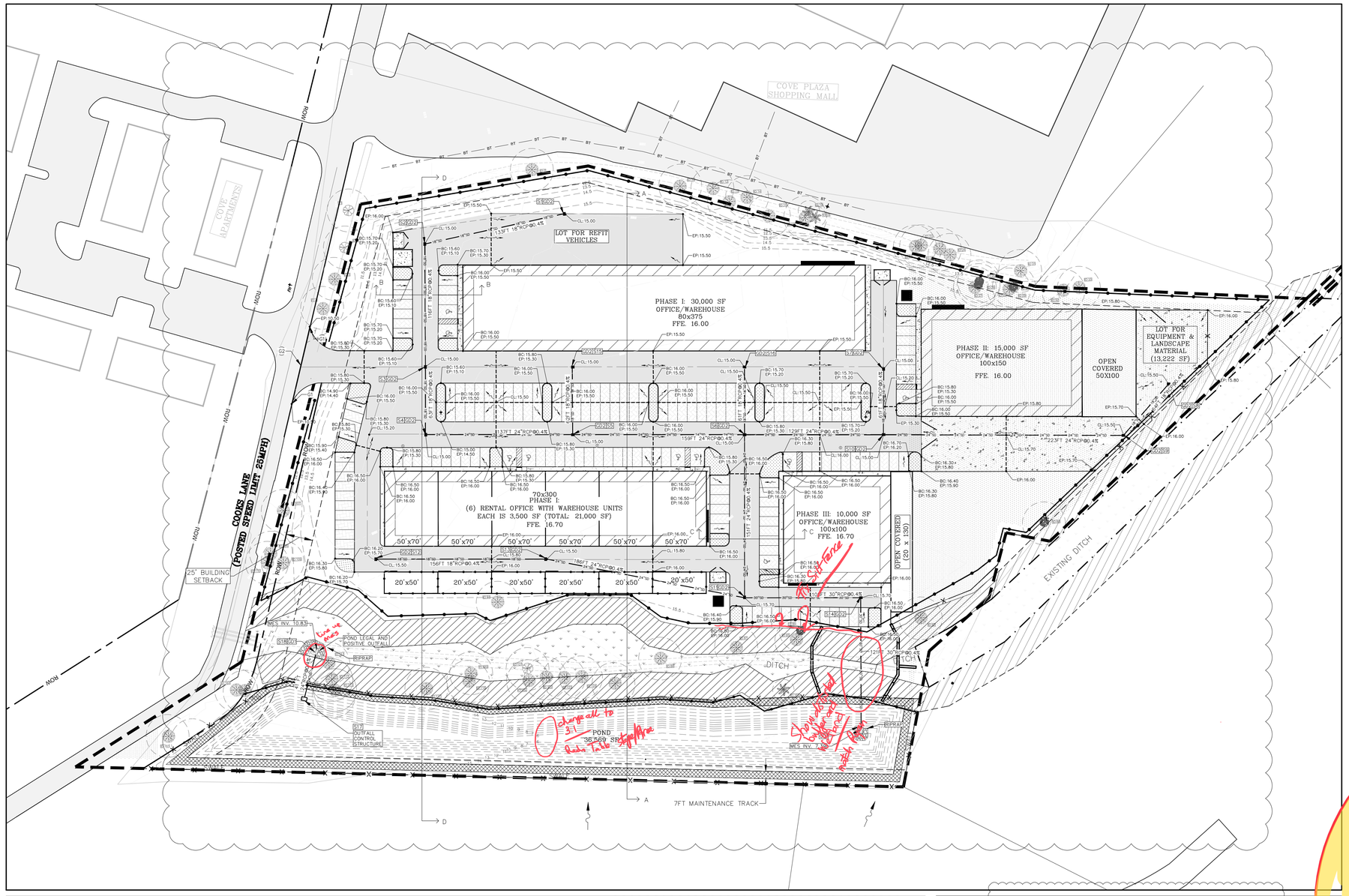
#	DATE	DESCRIPTION
1	12/17/22	RESUBMIT PER CITY REQUEST
2	04/26/2023	RESUBMIT PER CITY AND WMD RAI
3	06/06/2023	RESUBMIT PER CITY COMMENTS
4		
5		

SHEET TITLE: SITE PLAN

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA

PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY: QHM
DWG BY: GMG
CHK BY: QHM
DATE: 8/10/2023
JOB No.: 1369
SHEET No.: 7



GRAPHIC SCALE

50 0 50 100 200

(IN FEET)
1 inch = 50 ft.

GRADING DETAILS

GD1 MITERED END SECTION
GD2 PRECAST TYPE "C" INLET
FLOW AROW

GRADING NOTES

G1 MATCH EXISTING ASPHALT
G2 CONNECT TO ACCESS ROAD (TO BE DESIGNED AND PERMITTED WITH SEPARATE PLAN SET)

SIDEWALK & ADA ACCESS NOTES

REQUIREMENTS ALONG ADA ACCESSIBLE ROUTES

1. CROSS SLOPES SHALL NOT EXCEED 2%
2. RUNNING SLOPES SHALL NOT EXCEED 5%
3. SLOPES BETWEEN 5% & 8.33% SHALL MEET THE RAMP REQUIREMENTS OF ADA.
4. ACCESSIBLE PARKING AND ACCESS AISLES SHALL NOT EXCEED 2% IN ANY DIRECTION.
5. INTERSECTING SIDEWALKS SHALL NOT EXCEED 2% IN ANY DIRECTION.
6. ANY SLOPE GREATER THAN 8.33% SHALL NOT BE PART OF AN ACCESSIBLE ROUTE.

STRUCTURE TABLE

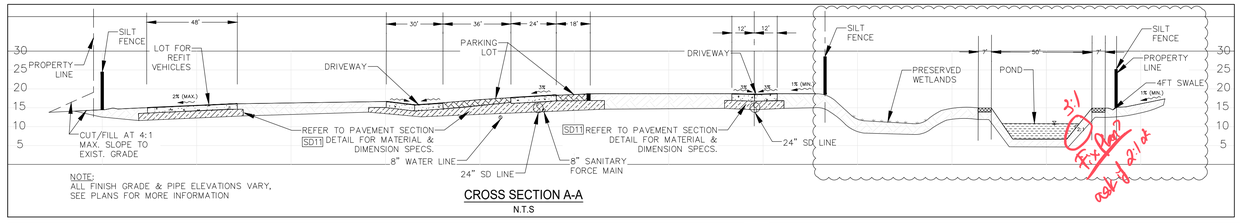
STRUCTURE	TYPE	RIM	INV. IN	INV. OUT
S1	INLET	15.00		12.50 (W)
S2	INLET	15.00	11.97 (E)	11.87 (S)
S3	INLET	15.00	11.40 (N)	11.30 (S)
S4	INLET	15.00	11.05 (N)	10.95 (E)
S5	INLET	15.00	10.40 (W) 12.25 (N)	10.30 (E)
S6	INLET	15.00	12.25 (N) 11.14 (E) 9.67 (W)	9.57 (S)
S7	INLET	15.00		12.50 (S)
S8	INLET	15.00		13.00 (W)
S9	INLET	15.50	12.74 (E)	12.64 (W)
S10	INLET	15.00	12.25 (N) 11.75 (E)	11.65 (W)
S11	INLET	15.50	11.53(W) 8.96 (N)	8.86 (S)
S12	INLET	15.50		13.00 (E)
S13	INLET	15.50	12.38 (W)	12.28 (E)
S14	INLET	15.00	8.43 (N)	8.33 (S)
S15	INLET	15.00		12.50 (W)
S16	INLET	15.00		12.50 (W)
S17	POND CONTROL STRUCTURE	14.95	12.73	11.50

POND AREA TABLE

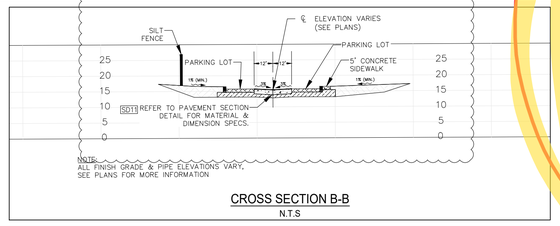
ELEVATION	AREA (SF)
15	36,570
14	32,365
13	28,355
12	24,233
11	20,305
10	17,737
9	15,210
8	12,725
7	10,280
6	7,875

STORM STAGES SUMMARY

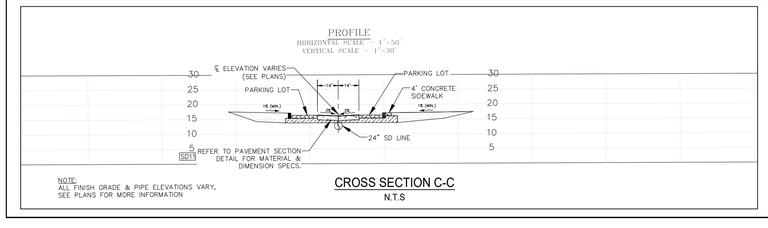
STORM EVENT	POND STAGES
ANNUAL	13.37
5YR24HR	13.74
25YR24HR	14.40



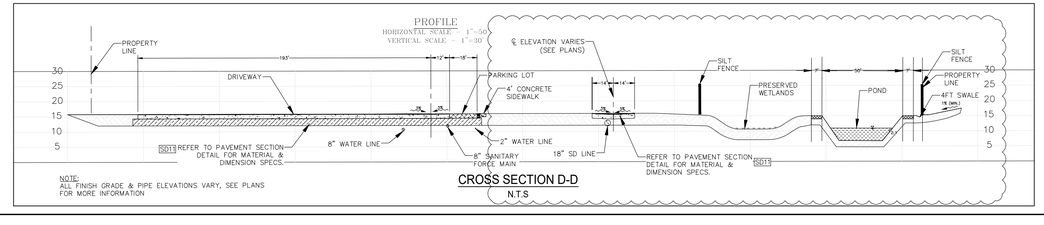
CROSS SECTION A-A
N.T.S



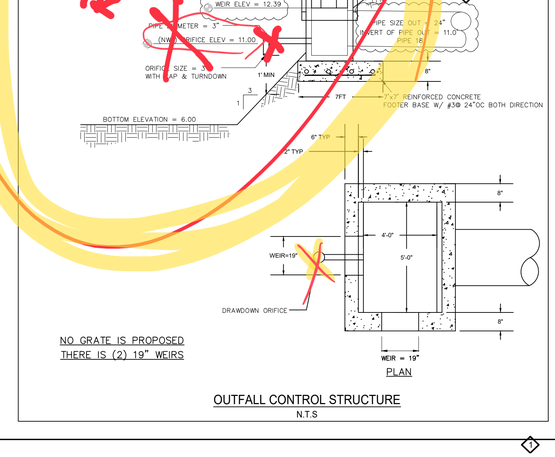
CROSS SECTION B-B
N.T.S



CROSS SECTION C-C
N.T.S



CROSS SECTION D-D
N.T.S



NO GRATE IS PROPOSED
THERE IS (2) 19" WEIRS

OUTFALL CONTROL STRUCTURE
N.T.S

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quoc@maiengineer.com

MAI ENGINEERING SERVICES, INC.

LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

REVISIONS

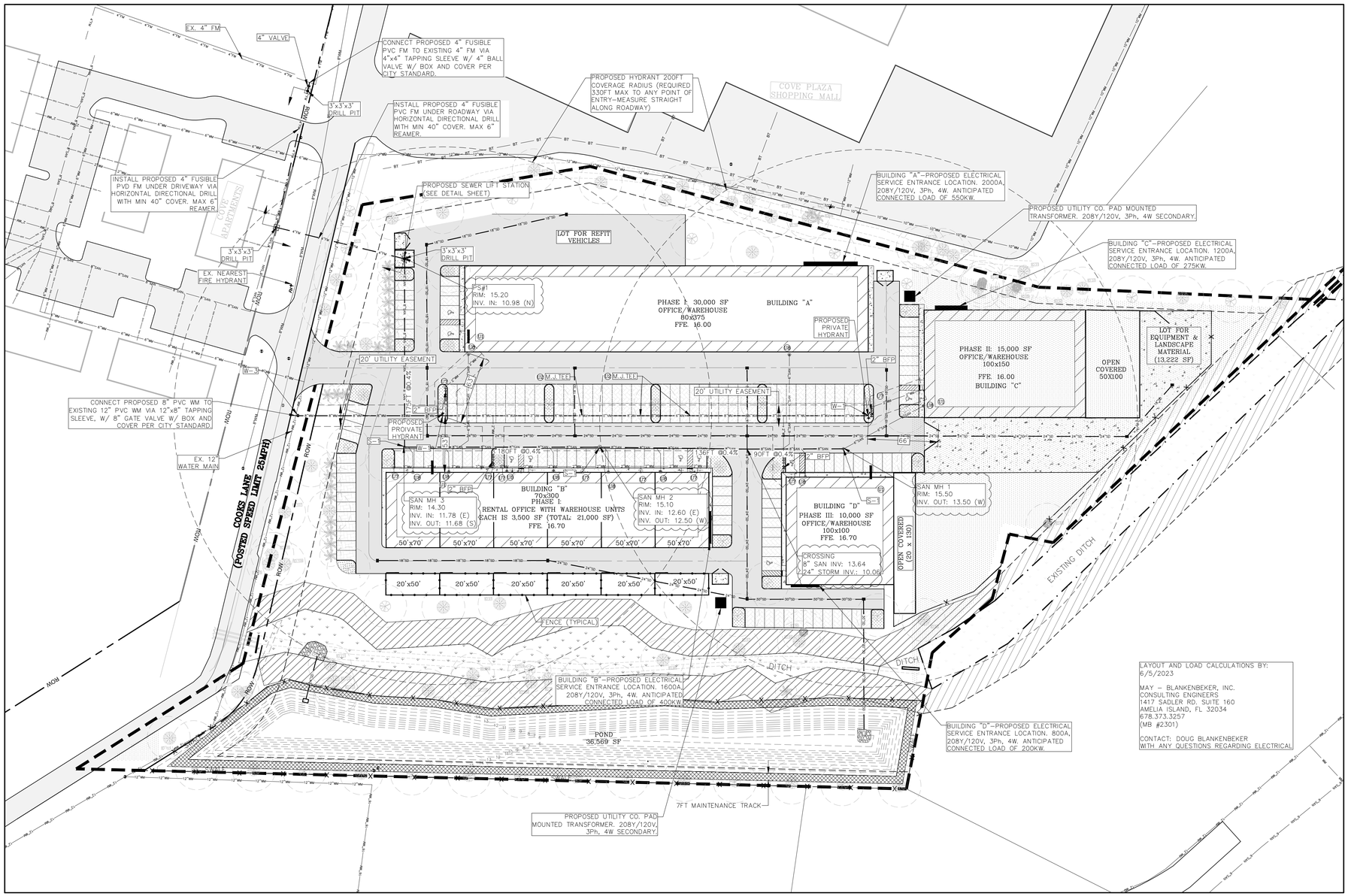
#	DATE	REVISION
1	12/21/22	REVISION PER CITY REQUEST
2	04/28/2023	REVISION PER CITY AND END PLI
3	06/26/2023	REVISION PER CITY COMMENTS
4		
5		
6		

SHEET TITLE: GRADING PLAN

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA

PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	8/10/2023
JOB No.:	1369
SHEET No.:	8



GRAPHIC SCALE

50 0 50 100 200

(IN FEET)
1 inch = 50 ft.

UTILITY DETAILS-WATER & SEWER

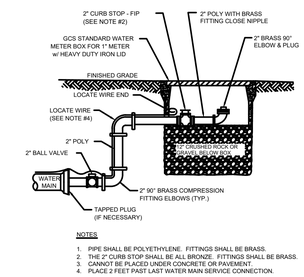
S-1 SANITARY SEWER MANHOLE FRAME & COVER
W-1 FIRE HYDRANT INSTALLATION
W-3 GATE VALVE AND BOX

UTILITY NOTES

U1 FDC CONNECTION TO BUILDING, AT MAX 100FT FROM HYDRANT.
U2 M.J. TEE
U7 PROPOSED LOCATION FOR WATER SERVICE LATERAL TO TIE INTO BUILDING.
U8 PROPOSED LOCATION FOR SANITARY SERVICE LATERAL TO TIE INTO BUILDING.

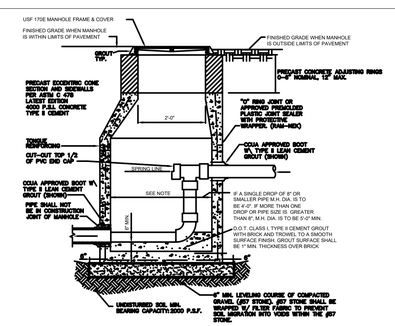
SANITARY SEWER STRUCTURE TABLE

ID	RIM	INV. IN	INV. OUT	NORTHING	EASTING
MH1	15.50		13.50 (W)	2053513.2381'	441436.0417'
MH2	15.10	12.60 (E)	12.50 (W)	2053694.7740'	441300.5134'
MH3	14.30	11.78 (E)	11.68 (N)	2053839.8280'	441190.9021'



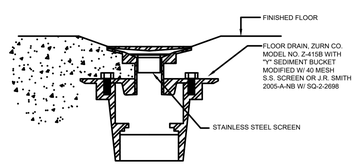
NOTES
1. PIPE SHALL BE POLYETHYLENE. FITTINGS SHALL BE BRASS.
2. THE 2" CURB STOP SHALL BE ALL BRONZE. FITTINGS SHALL BE BRASS.
3. CANNOT BE PLACED UNDER CONCRETE OR PAVEMENT.
4. PLACE 2 FEET PAST LAST WATER MAIN SERVICE CONNECTION.

FLUSHING VALVE BELOW GRADE



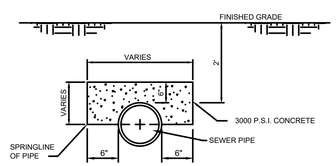
NOTE: FOR ADDITIONAL MANHOLE SPECIFICATIONS, SEE "SANITARY SEWER MANHOLE" DETAIL THIS SHEET. MAXIMUM ALLOWABLE DIFFERENCE IN INVERT ELEVATION WITHOUT INTERNAL DROP CONNECTION IS 24". SEE "ELEVATION DIFFERENCE ACROSS MANHOLE" THIS SHEET.

TYPICAL GRAVITY SEWER DROP PIPE CONNECTION TO MANHOLE



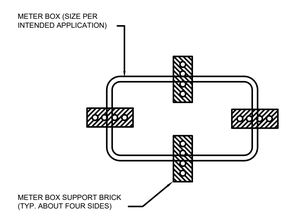
NOTE:
FACILITIES WITH FLOOR DRAINS AND WITHOUT A GREASE TRAP SHALL INSTALL THIS MODEL FLOOR DRAIN AND ONLY WITH PRIOR APPROVAL FROM THE CLAY COUNTY UTILITY AUTHORITY.

FLOOR DRAIN WITH STRAINER DETAIL



REQUIRED WHERE TOP OF SEWER PIPE IS WITHIN 2' OF FINISHED GRADE UNLESS ALTERNATE DETAIL IS APPROVED BY THE CLAY COUNTY UTILITY AUTHORITY.

CONCRETE CAP FOR SEWER PIPES



METER BOX SUPPORT DETAIL

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MAI ENGINEERING SERVICES, INC.

LICENSED ENGINEER
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FL.#64006 CA#28162

REVISIONS

#	DATE	REVISION
1	12/11/22	REVISION PER CITY REQUEST
2	04/26/2023	REVISION PER CITY AND SJRWMD
3	06/26/2023	REVISION PER CITY COMMENTS
4		
5		

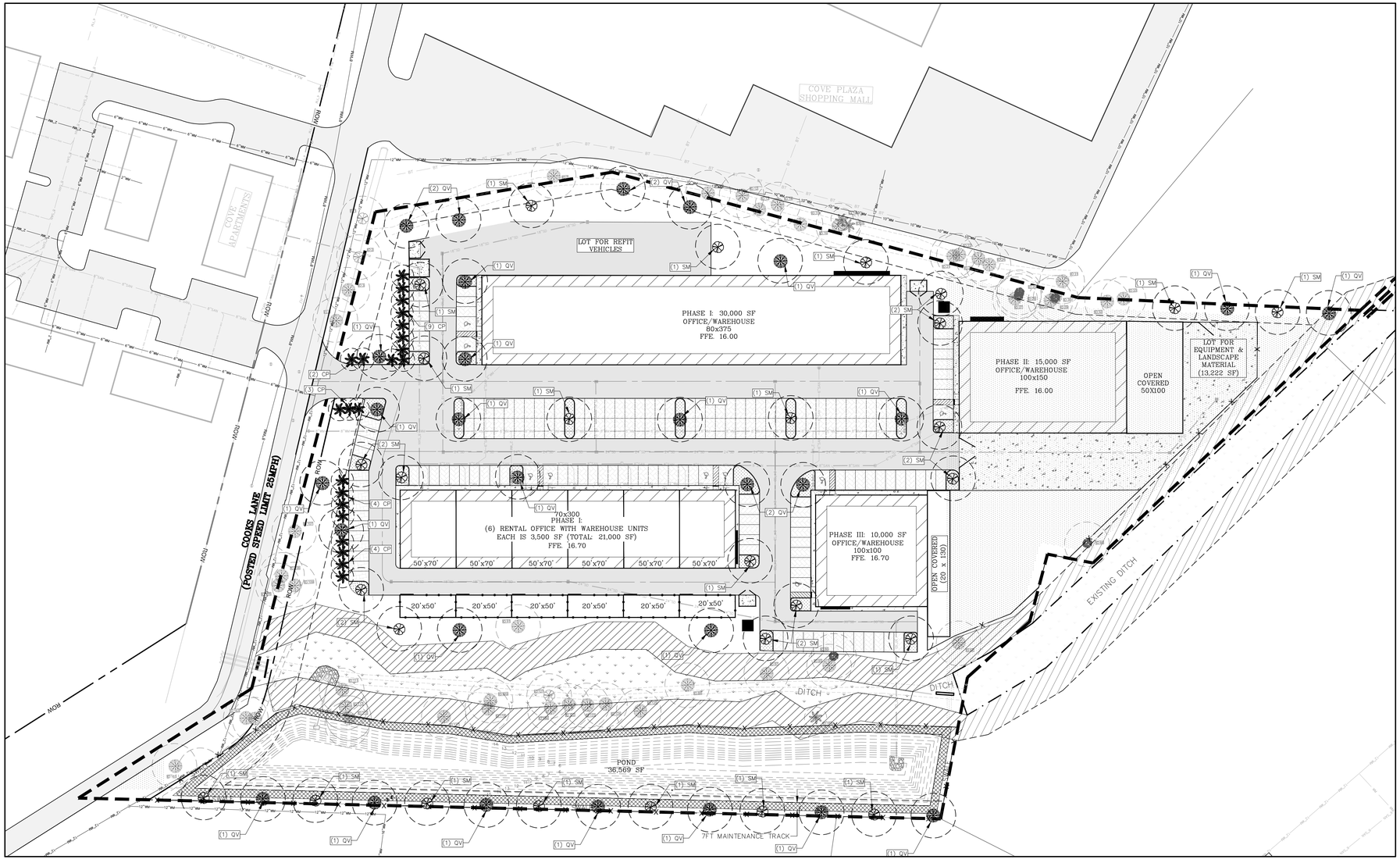
UTILITIES PLAN

SHEET TITLE

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA

PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	8/10/2023
JOB No.:	1369
SHEET No.:	9



GRAPHIC SCALE

50 0 50 100 200

(IN FEET)
1 inch = 50 ft.

GENERAL LANDSCAPE NOTES

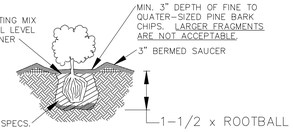
1. THIS LANDSCAPE PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH THE CLAY COUNTY LDC.
2. LOCATE ALL UTILITIES AND SITE LIGHTING CONDUITS BEFORE LANDSCAPE CONSTRUCTION BEGINS.
3. NOTIFY LANDSCAPE ARCHITECT OR DESIGNATED REPRESENTATIVE OF ANY LAYOUT DISCREPANCIES PRIOR TO ANY PLANTING. SINGLE TREES OR SHRUBS SHALL BE MULCHED TO THE OUTSIDE EDGE OF THE SAUCER OR LANDSCAPE ISLAND (SEE PLANTING DETAILS).
4. WEEDS ARE TO BE ADEQUATELY AND PROPERLY TREATED AND REMOVED PRIOR TO LANDSCAPE INSTALLATION. ALL SOIL AMENDMENTS SHOULD BE CERTIFIED AS WEED-FREE FROM THE SUPPLIER.
5. ALL TREES AND SHRUBS ARE TO BE POSITIONED VERTICALLY REGARDLESS OF THE SLOPE OF THE GROUND IN WHICH THEY ARE PLANTED. BERMS ARE TO CONSTRUCTED AT RIGHT ANGLES TO THE TREE OR SHRUB OR IN A MANNER IN WHICH THEY WILL MOST EFFECTIVELY SERVE THE PURPOSE OF RETAINING WATER AT THE BASE OF THE PLANT.
6. FERTILIZE ALL PLANTS AT THE TIME OF PLANTING WITH TIME RELEASE FERTILIZER. A QUALITY COMPOST / LEAF DEBRIS FROM A RELIABLE SOURCE IS RECOMMENDED IN ALL PLANTING AREAS.
7. MULCH ALL LANDSCAPE AREAS WITH 3" OF PINE STRAW MULCH UNLESS SPECIFIED OTHERWISE.
8. PLANT MATERIAL SHALL CONFORM TO THE STANDARDS FOR GRADE #1 OR BETTER AS GIVEN IN THE LATEST "GRADES AND STANDARDS FOR NURSERY PLANTS, PARTS I AND II", FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES OR TO THE STANDARDS AS GIVEN IN THE LATEST "AMERICAN AGRICULTURE AND CONSUMER SERVICES OR TO THE STANDARDS AS GIVEN IN THE LATEST "AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN NATIONAL STANDARDS INSTITUTE".
9. PLANT SIZE IS TO TAKE PRECEDENCE OVER CONTAINER SIZE.
10. PRUNE ALL EXISTING SAVED TREES ON SITE TO A HEIGHT OF 15' ABOVE GRADE, AND REMOVE ALL DEAD WOOD, PRUNE TREES ACCORDING TO THE PRUNING GUIDELINES BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE, 1995 EDITION, IF ARBORIST BELIEVES A LIMB SHOULD NOT BE REMOVED THE ARBORIST SHALL CONTACT THE LANDSCAPE ARCHITECT. REMOVE ALL DEBRIS FROM THE SITE TO AN APPROVED OFF-SITE LOCATION. FOLLOW THE "AMERICAN NATIONAL STANDARDS FOR TREE CARE OPERATIONS" AND ANSI Z133.1 GUIDELINES.
11. ALL TREES MUST MEET MINIMUM 2" CALIPER SIZE, AND SHRUB LINE PLANT HEIGHT (18"MIN.).
12. ALL DISTURBED AREAS MUST BE STABILIZED BY MEANS OF MULCH, SEEDING, OR SOD AS CALLED OUT ON THIS PLAN. IF DISTURBED AREA IS OUTSIDE OF THE LIMITS OF THIS PLAN, AREAS MUST BE STABILIZED WITH EXISTING MATERIAL OR BETTER. I.E. SEEDED OR SODDED.
13. LANDSCAPE MATERIAL IS TO BE MAINTAINED BY THE LANDSCAPE CONTRACTOR (INCLUDING MOWING, PRUNING, AND WEEDING). THE LANDSCAPE CONTRACTOR MUST PROVIDE: (A.) A WARRANTY ON ALL TREES AND PALMS FOR A PERIOD OF (1) ONE YEAR. (B.) A WARRANTY ON ALL SHRUBS AND GROUND COVERS FOR A PERIOD OF (1) ONE YEAR. (C.) GUIDELINES FOR PROPER MAINTENANCE.
14. ALL LANDSCAPE AREAS SHALL BE PROVIDED WITH AN IRRIGATION SYSTEM THAT SUPPLIES HOSE BIBS LOCATED WITHIN 75' OF ANY LANDSCAPED AREAS. IF AUTOMATIC SYSTEM IS INSTALLED (OPTIONAL), SYSTEM SHALL BE WATER EFFICIENT AND SHALL ACHIEVE 100% COVERAGE. NOTE THAT SUCH A SYSTEM SHALL ALSO SEPARATELY IRRIGATE TURF VS. SHRUBS. A RAIN SENSOR SHALL BE INSTALLED WITH SUCH A SYSTEM.
15. MINIMUM OF 10 FEET SEPARATION SHALL BE MAINTAINED BETWEEN TREES AND OVERHEAD UTILITIES AND MINIMUM OF 5 FEET SEPARATION TO UNDERGROUND LINES.
16. WHEN ANY ROOT OF EXISTING TREES ARE ENCOUNTERED DURING CONSTRUCTION, THE ROOTS MUST BE CUT OFF EVENLY WITH SHARP CLEAN PRUNING TOOL.
17. ANY PROPOSED TREE LOCATED BETWEEN THE BUILDING AND RIGHT OF WAY SHALL BE A MINIMUM OF FOUR INCHED IN CALIPER AT THE TIME OF PLANTING.
18. SHRUBS/HEDGES SHALL BE A MINIMUM OF 30 INCHES IN HEIGHT WITHIN ONE YEAR OF PLANTING AND A MINIMUM OF OF 30 INCHES ON CENTER.
19. GUYING, PROPPING AND STAKING SHALL BE PROVIDED PER 14-2-94(E)(4)(b).
20. UPLAND BUFFER WILL REMAIN NATURAL AND UNDISTURBED AND WILL BE FULLY RESTORED IF IMPACTED.
21. NO TREE OR SHRUB SHALL BE PLANTED IN SUCH A MANNER THAT AT THE TIME OF PLANTING THE BASE OF THE TREE IS WITHIN THREE FEET OF ANY PUBLIC SIDEWALK OR BIKEWAY FOR SMALL TREES OR FIVE FEET FOR LARGE TREES.
22. LANDSCAPING MUST BE INCORPORATED AT A MINIMUM DEPTH OF 36 INCHES AROUND THE BASE OF ALL GROUND SIGNS TO INCLUDE LOW GROWING SHRUBS AND GROUND COVER AND/OR FLOWERING ANNUAL TO PROMOTE COLOR.

LANDSCAPE CALCULATION:

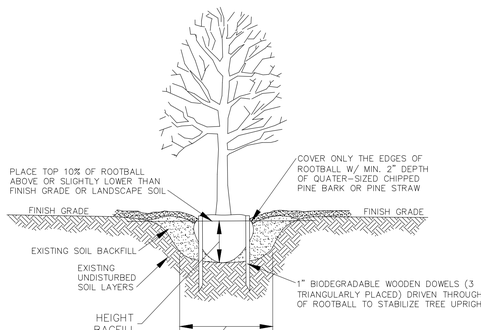
INTERIOR TREE REQUIREMENT: 1 TREE FOR EVERY 1,500SF, FOR FIRST 10500SF (7 TREES), THEN 1 TREE FOR EVERY 4,000SF FOR THE REMAINING, TREES SHALL BE 50% CANOPY AND 50% UNDERSTORY TREES.
PROJECT INTERIOR AREA = 342,102SF REQUIRED TOTAL: 90 TREES, 50% (45 TREES SHALL BE CANBOPY)
REQUIRED CANOPY TREES = 45 TREES, PROVIDED = 56 CANOPY TREES

PROJECT TOTAL SAVED TREES: 55 TREES, 1,419.75 CREDIT INCHES (SEE TABLE BELOW)
PROJECT TOTAL PROPOSED NEW TREES: 78 TREES, 400 INCHES DBH (SEE PLANTED TABLE BELOW)
PROJECT TOTAL PROVIDED TREES: 133 TREES, 1,819.75 INCHES DBH (EXCEED REQUIRED 90 TREES)

TOTAL OF REMOVED TREE REPLACEMENT INCHES REQUIRED: 1,497 INCHES (SEE TABLE BELOW)
TOTAL PROPOSED PLANTED TREES INCHES: 400 INCHES (SEE PLANTED TABLE BELOW)
TOTAL REMAINING REMOVED TREE INCHES FOR MITIGATION: 1,097 INCHES TO BE PAID TO CITY TREE MITIGATION FUND.



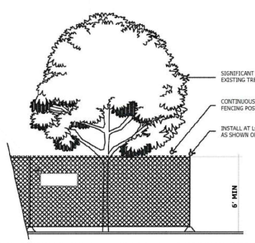
SHRUB PLANTING
N.T.S.



NOTES:

1. TREES SHALL NOT BE HANDLED BY THE TRUNK.
2. CAREFULLY POSITION THE ROOTBALL IN HOLE AND STRAIGHTEN TREE VERTICALLY BEFORE BACKFILLING WITH EXISTING SOIL.
3. DO NOT PLACE ADDITIONAL SOIL OR MULCH OVER THE TOP OF THE ROOTBALL.
4. IN POORLY DRAINED SOILS, POSITION THE ROOTBALL SHALLOWER THAN INDICATED TO FIT SITE CONDITIONS.
5. UNFASTEN STRING/BURLAP FROM TRUCK AND TOP OF ROOTBALL.

TREE PLANTING
N.T.S.



1. MINIMUM SIX (6) FOOT HIGH TEMPORARY CHAINLINK FENCE SHALL BE PLACED AT THE CRITICAL ROOT ZONE OR DESIGNATED LIMIT OF DISTURBANCE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIRCLE TREE(S). INSTALL FENCE POSTS USING PIER BLOCK ONLY. AVOID POST OR STAKES INTO MAJOR ROOTS. MODIFICATIONS TO FENCING MATERIAL AND LOCATION MUST BE APPROVED BY PLANNING OFFICIAL.
2. TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION: FOR ROOTS OVER ONE (1) INCH DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING AND COVERED WITH SOIL AS SOON AS POSSIBLE.
3. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING. FENCING SHALL NOT BE MOVED OR REMOVED UNLESS APPROVED BY THE CITY PLANNING OFFICIAL. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY UNDER THE SUPERVISION OF THE ON-SITE ARBORIST AND WITH PRIOR APPROVAL BY THE CITY PLANNING OFFICIAL.
4. FENCING SIGNAGE AS DETAILED ABOVE MUST BE POSTED EVERY FIFTEEN (15) FEET ALONG THE FENCE.

TREE PROTECTION FENCING DETAIL
(for public and private trees)

LANDSCAPE PLANTING SCHEDULE

	KEY	QTY	SYMBOL	BOTANICAL/COMMON NAME	SPECIFICATION	NATIVE
PALM	CP	22 (176 INCH)		Cabbage Palm Sabal Palmetto	12'-14' h x 5' spd., 8"OD	Native/ Florida Friendly
OAK	QV	28 (112 INCH)		Quercus virginiana (Southern Live Oak)	4" Cal., 10'-12" h x 5' spd., 45 gal. matched heights	Native/ Florida Friendly
MAGNOLIA	SM	28 (112 INCH)		(Southern Magnolia)	4" Cal., 10'-12" h x 5' spd., 45 gal. matched heights	Native/ Florida Friendly

ADDITIONAL LANDSCAPE NOTES:

a. VEGETATION THAT EXCEEDS TWENTY-FIVE (25) FEET IN HEIGHT AT MATURITY SHOULD NOT BE PLANTED CLOSER THAN FIFTEEN (15) FEET OF THE VERTICAL PLANE OF AN EXISTING POWER LINE, EXCLUDING SERVICE WIRES.

b. BALLED AND BURLAPPED STRAPPING WIRE, AND ANY SYNTHETIC MATERIAL SHALL BE REMOVED PRIOR TO FINAL INSPECTION. WIRE BASKETS SHOULD BE CUT AWAY FROM TOP ONE-THIRD OF ROOT BALL.

c. NON-CANOPY TREES SHALL NOT BE PLANTED CLOSER THAN 10 FEET FROM OTHER TREES AND CANOPY TREES NO CLOSER THAN 20-30 FEET, DEPENDING ON SPECIES.

d. PLANT MATERIAL SHALL CONFORM TO THE STANDARDS FOR GRADE #1 OR BETTER AS GIVEN IN THE LATEST "GRADES AND STANDARDS FOR NURSERY PLANTS, PARTS I AND II," FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES OR TO THE STANDARDS AS GIVEN IN THE LATEST "AMERICAN STANDARD FOR NURSERY STOCK," AMERICAN NATIONAL STANDARDS INSTITUTE.

e. PINE BARK OR PINE STRAW MULCH SHALL BE PROVIDED A MINIMUM OF TWO TO THREE INCHES IN DEPTH AROUND ALL NEWLY PLANTED LANDSCAPING.

f. A MULCH RING FOR ALL NEWLY PLANTED TREES SHALL BE PROVIDED AT LEAST FIVE (5) FEET IN DIAMETER AND NOT CLOSER THAN SIX (6) INCHES FROM THE TREE TRUNK.

g. IRRIGATION WILL BE PROVIDED WITH AN AUTOMATIC IRRIGATION SYSTEM.

h. TREES SHALL HAVE A MINIMUM HEIGHT OF (8) EIGHT TO (10) FEET AND (2) TWO INCHES OF CALIPER.

i. SHRUB LINES ARE TO BE PLANTED AT THE REQUIRED MINIMUM HEIGHT, NOT BY CONTAINER SIZE.

j. SOIL IN TREE ISLANDS SHALL HAVE AT LEAST 12" OF SUITABLE SOIL FOR TREE PLANTINGS, AND BE VOID OF ANY CONSTRUCTION DEBRIS OR UNSUITABLE MATERIALS.

k. TREES SHALL NOT BE PLANTED CLOSER THAN 7.5' FROM THE CENTERLINE OF UNDERGROUND UTILITIES.

REMOVED TREES TABLE

ID#	TYPE	DBH (IN)	REPLACE CREDIT
5	LIVE OAK	48.0	48.0
6	LIVE OAK	38.0	38.0
11	LAUREL OAK	15.0	5.0
17	LAUREL OAK	20.0	6.67
34	LAUREL OAK	16.0	5.33
35	LAUREL OAK	14.0	4.67
36	LAUREL OAK	14.0	4.67
37	LAUREL OAK	26.0	8.67
38	LAUREL OAK	15.0	5.0
39	LAUREL OAK	24.0	8.0
40	RED MAPLE	16.0	5.33
41	LAUREL OAK	14.0	4.67
42	LIVE OAK	64.0	64.0
43	CABBAGE PALM	13.0	4.33
44	AMERICAN ELM	15.0	5.00
45	RED MAPLE	22.0	7.33
46	LIVE OAK	38.0	38.0
47	CABBAGE PALM	13.0	4.33
48	CABBAGE PALM	13.0	4.33
49	SOUTHERN MAGNOLIA	13.0	4.33
50	LIVE OAK	23.0	23.0
51	LIVE OAK	16.0	16.0
52	LIVE OAK	25.0	25.0
53	SWEETGUM	15.0	5.0
54	SOUTHERN MAGNOLIA	17.0	5.67
55	LIVE OAK	15.0	15.0
56	LAUREL OAK	12.0	4.0
57	LAUREL OAK	16.0	5.33
58	LIVE OAK	15.0	15.0
59	WATER OAK	14.0	4.67
60	LAUREL OAK	33.0	11.0
61	SWEETGUM	13.0	4.33
62	SWEETGUM	13.0	4.33
63	LIVE OAK	33.0	33.0
64	LIVE OAK	63.0	63.0
65	LIVE OAK	28.0	28.0
66	LIVE OAK	47.0	47.0
67	LIVE OAK	45.0	45.0
68	CABBAGE PALM	12.0	4.0
69	CABBAGE PALM	12.0	4.0
70	LAUREL OAK	14.0	4.67
71	RED MAPLE	23.0	7.67
74	AMERICAN ELM	13.0	4.33
75	LAUREL OAK	24.0	8.0
76	RED MAPLE	15.0	5.0
77	LAUREL OAK	24.0	8.0

REMOVED TREES TABLE

ID#	TYPE	DBH (IN)	REPLACE CREDIT
78	AMERICAN ELM	15.0	5
83	LIVE OAK	20.0	20.0
84	LIVE OAK	54.0	54.0
89	LIVE OAK	56.0	56.0
90	LIVE OAK	28.0	28.0
92	LIVE OAK	37.0	37.0
93	CABBAGE PALM	13.0	4.33
94	CABBAGE PALM	12.0	4
95	CABBAGE PALM	12.0	4
96	LAUREL OAK	13.0	4.33
97	CABBAGE PALM	13.0	4.33
98	CABBAGE PALM	13.0	4.33
99	CABBAGE PALM	13.0	4.33
100	CABBAGE PALM	14.0	4.67
101	CABBAGE PALM	12.0	4
102	LIVE OAK	19.0	19.0
103	LIVE OAK	27.0	27.0
104	LIVE OAK	23.0	23.0
105	CABBAGE PALM	12.0	4
106	LIVE OAK	25.0	25.0
116	LAUREL OAK	16.0	5.33
126	LAUREL OAK	18.0	6
127	LAUREL OAK	13.0	4.33
128	LAUREL OAK	12.0	4
129	SOUTHERN MAGNOLIA	14.0	4.67
130	LIVE OAK	45.0	45.0
134	LIVE OAK	22.0	22.0
135	LIVE OAK	38.0	38.0
136	LIVE OAK	28.0	28.0
137	LAUREL OAK	14.0	4.67
138	LAUREL OAK	21.0	7
139	LAUREL OAK	14.0	4.67
140	LAUREL OAK	18.0	6
141	LAUREL OAK	22.0	7.33
147	LAUREL OAK	14.0	4.67
149	LAUREL OAK	18.0	6
152	LAUREL OAK	14.0	4.67
153	LAUREL OAK	21.0	7
154	LAUREL OAK	28.0	9.33
155	LAUREL OAK	27.0	9
156	LAUREL OAK	14.0	4.67
8	LAUREL OAK	15.0	5
9	LAUREL OAK	13.0	4.33
20	LIVE OAK	25.0	25.0
131	LIVE OAK	15.0	15.0

REMOVED TREES TABLE

ID#	TYPE	DBH (IN)	REPLACE CREDIT
132	LIVE OAK	34.0	34.0
133	LAUREL OAK	29.0	9.67
142	LAUREL OAK	15.0	5
143	LAUREL OAK	16.0	5.33
144	LIVE OAK	24.0	24.0
145	LAUREL OAK	13.0	4.33
146	LAUREL OAK	14.0	4.67
148	LAUREL OAK	26.0	8.67
150	LAUREL OAK	17.0	5.67
151	LAUREL OAK	30.0	10
164	LIVE OAK	48.0	48.0
157	LAUREL OAK	13.0	4.33
158	LAUREL OAK	12.0	4
159	LAUREL OAK	15.0	5
160	LAUREL OAK	14.0	4.67
114	LIVE OAK	16.0	16.0
115	LAUREL OAK	18.0	6
81	CABBAGE PALM	13.0	4.33
TOTAL	118	2328	1,497.32

NOTES:

1) PER CITY ORDINANCE SECTION 113-279 (a), TREE REPLACEMENT REQUIRED FOR ALL REMOVED TREES. REPLACE TOTAL INCHES FOR LIVE OAKS TREES. REPLACE ONE THIRD FOR ALL OTHER TREES THAT ARE 12 INCH DBH.

TOTAL TREE INCHES OF REMOVED TREES ARE: 2,328 INCHES
TOTAL OF REPLACEMENT CREDIT INCHES REQUIRED: 1,497 INCHES

2) SAVED TREES PER CITY ORDINANCE SECTION 113-279 (b). TREES ARE PRESERVED SHALL RECEIVED CREDIT AGAINST THE LANDSCAPE REQUIREMENTS ACCORDING TO THE FOLLOWING SCHEDULE:
TREES 12 TO 18 INCH DBH: LIVE OAK, ONE INCH CREDIT, OTHERS 50%
TREES 19 TO 30 INCH DBH: LIVE OAK, 1.25 INCH CREDIT, OTHERS 75%
TREES ABOVE 30 INCH DBH: LIVE OAK, 1.5 INCH CREDIT, OTHER 100%

TOTAL TREE INCHES OF SAVED TREES: 1,166 INCH
TOTAL SAVED TREES CREDIT INCHES: 1,519.75 INCH

SAVED TREES TABLE

ID#	TYPE	DBH	TREE CREDIT
1	SWEETGUM	12.0	12.0
2	SWEETGUM	15.0	15.0
3	LAUREL OAK	26.0	32.5
4	LIVE OAK	28.0	37.5
7	LIVE OAK	17.0	17.0
10	LAUREL OAK	12.0	12.0
12	LAUREL OAK	16.0	16.0
13	LAUREL OAK	16.0	16.0
14	LAUREL OAK	15.0	15.0
15	LAUREL OAK	14.0	14.0
16	LAUREL OAK	20.0	25.0
18	CABBAGE PALM	17.0	17.0
19	CABBAGE PALM	12.0	12.0
21	LAUREL OAK	17.0	17.0
22	LAUREL OAK	14.0	14.0
23	LAUREL OAK	37.0	55.5
24	LAUREL OAK	14.0	14.0
25	RED MAPLE	17.0	17.0
26	RED MAPLE	13.0	13.0
27	LIVE OAK	19.0	23.75
28	LAUREL OAK	23.0	28.75
29	RED MAPLE	13.0	13.0
30	LAUREL OAK	16.0	16.0
31	LAUREL OAK	25.0	31.25
32	LAUREL OAK	13.0	13.0
33	LAUREL OAK	15.0	15.0
72	CABBAGE PALM	16.0	16.0
73	CABBAGE PALM	13.0	13.0
79	RED MAPLE	33.0	49.5
80	RED MAPLE	23.0	28.75
82	LAUREL OAK	23.0	28.75
85	LAUREL OAK	16.0	16.0
86	RED MAPLE	14.0	14.0
87	LAUREL OAK	13.0	13.0
88	LAUREL OAK	27.0	33.75
91	LIVE OAK	24.0	30
107	LIVE OAK	80.0	120
108	LIVE OAK	27.0	33.75
109	LAUREL OAK	19.0	23.75
110	LAUREL OAK	24.0	30.0
111	LIVE OAK	37.0	55.5
112	LAUREL OAK	33.0	49.5
113	LIVE OAK	24.0	30.0
117	LIVE OAK	48.0	72.0
118	LAUREL OAK	23.0	28.75
119	LIVE OAK	13.0	13.0
120	LIVE OAK	13.0	13.0
121	SOUTHERN MAGNOLIA	16.0	16.0
122	LIVE OAK	26.0	32.5
123	LIVE OAK	26.0	32.5
124	LIVE OAK	26.0	32.5
125	LAUREL OAK	20.0	25.0
161	LAUREL OAK	14.0	14.0
162	LIVE OAK	16.0	16.0
163	LIVE OAK	24.0	30.0
165	CABBAGE PALM	13.0	13.0
TOTAL	55	1,166	1,419.75

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MAI ENGINEERING SERVICES, INC.

LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

REVISIONS

#	DATE	REVISION
2	12/27/22	REVISION PER CITY REQUEST
3	04/26/2023	REVISION PER CITY AND IND TAI
4	06/26/2023	REVISION PER CITY COMMENTS
5		
6		

SHEET TITLE: LANDSCAPE PLAN

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA

PREPARED FOR
RIVER OAKS OUTDOOR, LLC

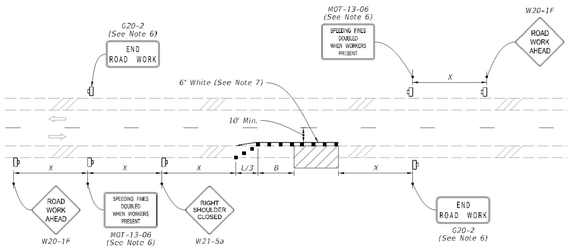
DSGN BY: QHM
DWG BY: GMG
CHK BY: QHM
DATE: 8/10/2023
JOB No.: 1369
SHEET No.: 10

NOTE:

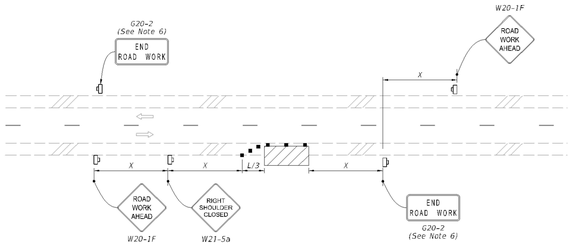
1. This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work on the shoulder.
2. L = Taper Length
   X = Work Zone Sign Spacing
   B = Buffer Length
   See Index 102-600 for "L", "X", "B", and channelizing device spacing values.
3. Where work activities are between 2' and 15' from the edge of traveled way, the Engineer may omit signs and channelizing devices for work operations 60 minutes or less.
4. When four or more work vehicles enter the through traffic lanes in a one hour period (excluding establishing and terminating the work area), use a flagger or lane closure to accommodate work vehicle ingress and egress.
5. For work less than 2' from the traveled way and work zone speed is greater than 45 MPH, use a lane closure.
6. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" Signs (G20-2) along with the associated work zone sign spacing distances may be omitted when the work operation is in place for 24 hours or less.
7. Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.
8. Omit "Shoulder Closed" signs (W21-5a) along with associated work zone sign spacing distances for work on the median.
9. When there is no paved shoulder, the "Worker" sign (W21-1) may be used instead of the "Shoulder Closed" sign (W21-5a).

SYMBOLS:

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

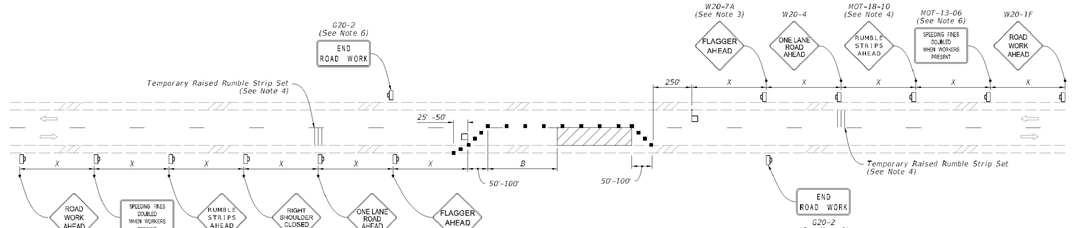


TWO-LANE ROADWAY
SHOULDER WORK LESS THAN 2' FROM THE TRAVELED WAY
WITH WORK ZONE SPEED OF 45 MPH OR LESS



TWO-LANE ROADWAY
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER	INDEX	SHEET
11/01/21						102-602	1 of 2



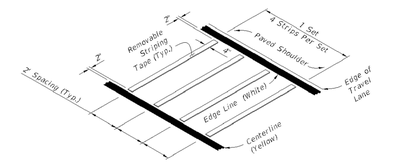
NOTES:

1. This Index applies to Two-Lane, Two-Way Roadways with work within the traveled way.
2. L = Taper Length
   B = Buffer Length
   X = Work Zone Sign Spacing
   See Index 102-600 for "L", "B", "X" and channelizing device spacing values.
3. Optionally, use "Flagger Ahead" sign with symbol (W20-7) instead of "Flagger Ahead" sign with text (W20-7A).
4. Use temporary raised rumble strips when the existing posted speed is 55 mph or greater and the work duration is greater than 60 minutes. If temporary raised rumble strips are not used, omit "Rumble Strips Ahead" signs (MOT-18-10) and associated work zone sign spacing.
5. Additional one-way control may be provided by the following means:
   a. Flag-carrying vehicle
   b. Official vehicle
   c. Pilot vehicles
   d. Traffic signals

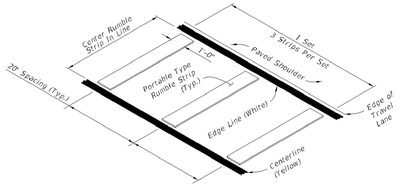
   When flaggers are the sole means of one-way control, the flaggers must be in sight of each other or in direct communication at all times.
6. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign spacing, may be omitted when the work operation will be in place for 24 hours or less.
7. Automated Flagger Assistance Devices (AFADs) may be used in accordance with Specification Sections 102, 990 and the APL vendor drawings.
8. Railroad Crossings:
   a. If an active railroad crossing is located closer to the Work Area than the queue length plus 300 feet, extend the Buffer Space as shown on Sheet 2.
   b. If the queuing of vehicles across an active railroad crossing cannot be avoided, provide a uniformed traffic control officer or flagger at the highway-rail grade crossing to prevent vehicles from stopping within the highway-rail grade crossing, even if automatic train warning devices are in place.

SYMBOLS:

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



OPTION - 1
REMOVABLE STRIPING TYPE



OPTION - 2
PORTABLE TYPE

RUMBLE STRIP SETS

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX	SHEET
11/01/21						102-603	1 of 2

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REVISIONS

#	DATE	REVISION
0	10/17/22	REVISION PER CITY REVIEW
1	04/20/2023	REVISION PER CITY AND RAD RAI
2	06/20/2023	REVISION PER CITY COMMENTS
3		
4		
5		

SHEET TITLE: MOT INDEX

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA
PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	8/10/2023
JOB No.:	1369
SHEET No.:	11

STORM WATER POLLUTION PREVENTION PLAN

GENERAL NOTES

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE CLEARING AND EROSION CONTROL PLAN. IN ADDITION THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS.

SEQUENCE OF MAJOR ACTIVITIES

THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
2. INSTALL SILT FENCES, SYNTHETIC BALES AND OTHER EROSION/SEDIMENTATION CONTROLS AS REQUIRED.
3. CLEAR AND GRUB FOR DIVERSION SWALES/DIKES AND SEDIMENT BASIN IF REQUIRED.
4. CONSTRUCT SEDIMENTATION BASIN IF REQUIRED.
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 STORM SEWER, WATER, SEWER AND IRRIGATION.
10. COMPLETE GRADING AND INSTALL PERMANENT SEEDING/SOD AND PLANTING.
11. REMOVE ACCUMULATED SEDIMENT FROM BASIN.
12. 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 AND SYNTHETIC BALES, 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 CLEARING AND EROSION CONTROL PLAN.

CONTROLS

IT IS THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE PLANS. 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 PLANS 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 PLANS AND AS REQUIRED TO MEET THE EROSION AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES.

STABILIZED CONSTRUCTION ENTRANCE:

1. CONTRACTOR SHALL INSTALL AND MAINTAIN FOR THE DURATION OF THE CONSTRUCTION A STONE STABILIZED PAD LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS TO THE CONSTRUCTION SITE. AGGREGATE SHALL BE FDOT SIZE NO. 1 COARSE AGGREGATE.

EROSION AND SEDIMENT CONTROLS STABILIZATION PRACTICES:

1. SYNTHETIC BALE BARRIER: SYNTHETIC BALE 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.
   C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS.
   D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF SYNTHETIC BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE AGAINST WASHOUT.
   E. REFER TO THE DETAILS FOR CONSTRUCTING THE SYNTHETIC BALE BARRIER. ALSO, REFER TO THE DETAILS FOR PROPER LOCATION, MATERIAL AND USAGE.
2. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   F. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   G. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
   H. REFER TO THE DETAILS FOR PROPER CONSTRUCTION OF THE FILTER FABRIC BARRIER.
3. 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.
4. 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. LEVEL SPREADER SHALL BE CONSTRUCTED IN ACCORDANCE TO THE DETAILS.
5. 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.
6. 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.
7. 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.
8. TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 7 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.
9. 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.
10. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED OR HYDRO MULCHED 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 AND AMOUNT REQUIRED FOR PERMANENT GRASSING IN THE CONTRACT SPECIFICATIONS.
11. TEMPORARY REGRASSING: IF AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.
12. 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.
13. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.
14. 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.

CONTROLS *(CONTINUED)*

STRUCTURAL PRACTICES:

1. TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY AND IT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS.
2. TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP SHALL BE INSTALLED IN A DRAINAGE WAY 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 AND 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. REFER TO THE DETAILS FOR CONSTRUCTION OF A CURB INLET SEDIMENT FILTER, AND FOR CONSTRUCTION OF A DROP INLET SEDIMENT FILTER.
   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 AND UNPROTECTED SEDIMENT TRAP.
   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. REFER TO THE DETAILS FOR CONSTRUCTION OF SYNTHETIC BALE AND FABRIC SEDIMENT FILTER.
3. OUTLET PROTECTION: APPLICABLE TO THE OUTLETS OF ALL PIPES AND PAVED CHANNEL SECTIONS WHERE THE FLOW COULD CAUSE EROSION AND SEDIMENT PROBLEM TO THE RECEIVING WATER BODY. SILT FENCES AND SYNTHETIC BALES 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 PONDS) 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. THE 3,600 CUBIC FEET OF STORAGE 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:

WASTE MATERIALS:
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 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.

MAINTENANCE / INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTIONS 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 REPORT.
- 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.
- 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.
- DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
- 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.
- 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, 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. ALL SUCH DISCHARGES SHALL MEET STATE WATER QUALITY STANDARDS AND ALL NECESSARY PERMITS SHALL BE OBTAINED.

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.

GENERAL:

- 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, ORDERLY 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.

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 PREVENTATIVE 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 MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS:

CONCRETE TRUCKS SHALL BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONLY AT DISCHARGE POINT PROVIDED. NO OFFSITE DISCHARGE WILL BE PERMITTED.

SPILL CONTROL PRACTICES:

IN ADDITION TO 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:

MANUFACTURER'S 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 INCLUDE BUT ARE NOT 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.

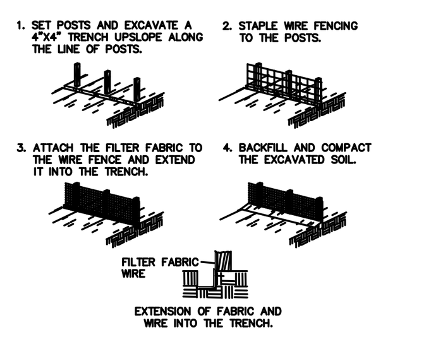
ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

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

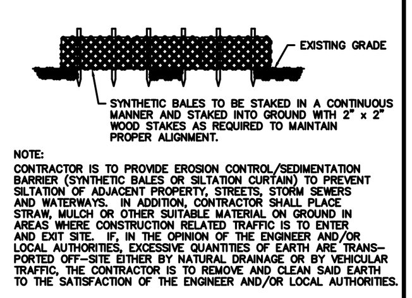
SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL.

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.

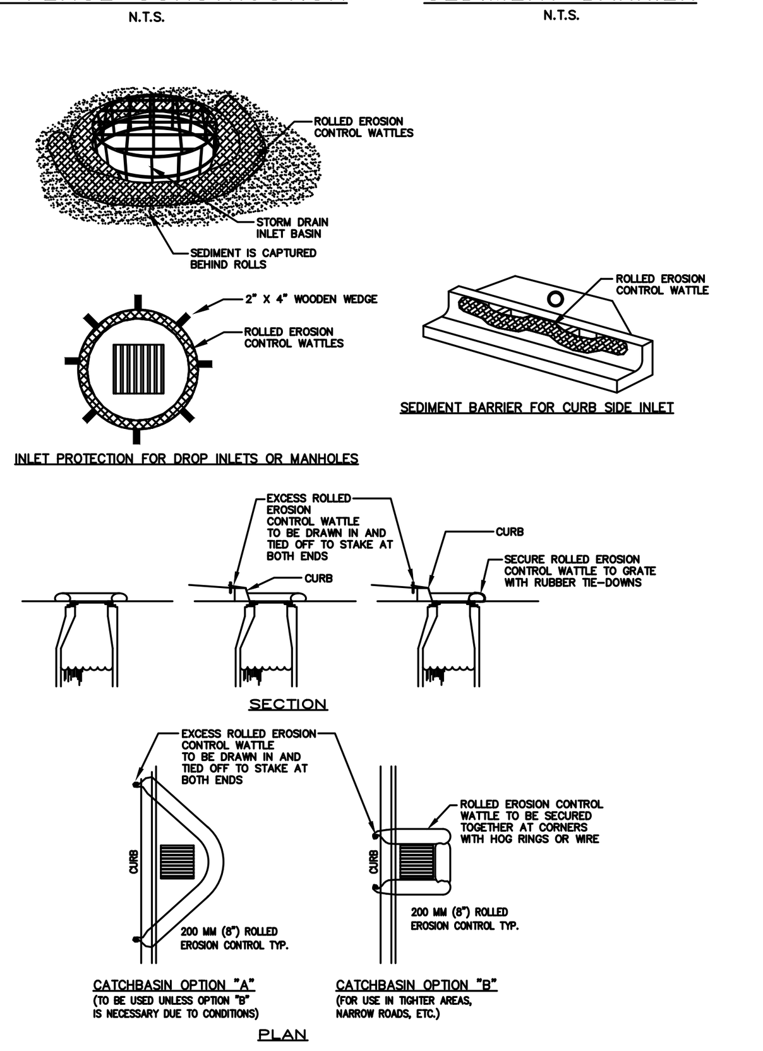


SILT FENCE CONSTRUCTION
N.T.S.



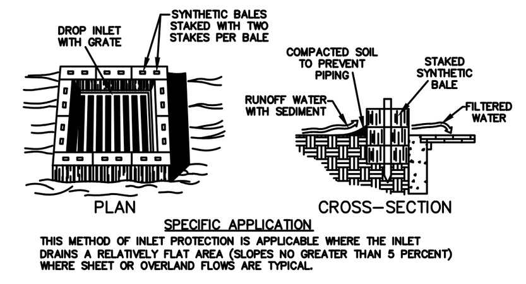
NOTE:
CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (SYNTHETIC BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION, CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE AND CLEAN SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR LOCAL AUTHORITIES.

SEDIMENT BARRIER
N.T.S.



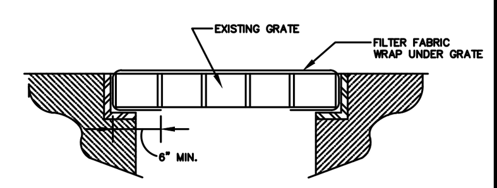
NOTES
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. SECURE ROLLED EROSION CONTROL PRODUCT TO GROUND AT EACH END.
3. ROLLS SHOULD BE INSPECTED AFTER EVERY SIGNIFICANT STORM EVENT TO CLEAN AND DISPOSE OF SEDIMENT AND DEBRIS.
4. USE 12" DIAMETER, 20' LONG WATTLE ROLLS FOR STANDARD CIRCULAR DRAINAGE STRUCTURES. PLACE THE ROLL AROUND THE STRUCTURE AND JOIN THE ENDS TOGETHER WITH HOG RINGS OR WIRE. USE 2"x2"x24" WOODEN WEDGES TO HOLD DOWN WATTLE ROLLS.

ROLLED EROSION AND SEDIMENTATION CONTROL PRODUCTS
N.T.S.

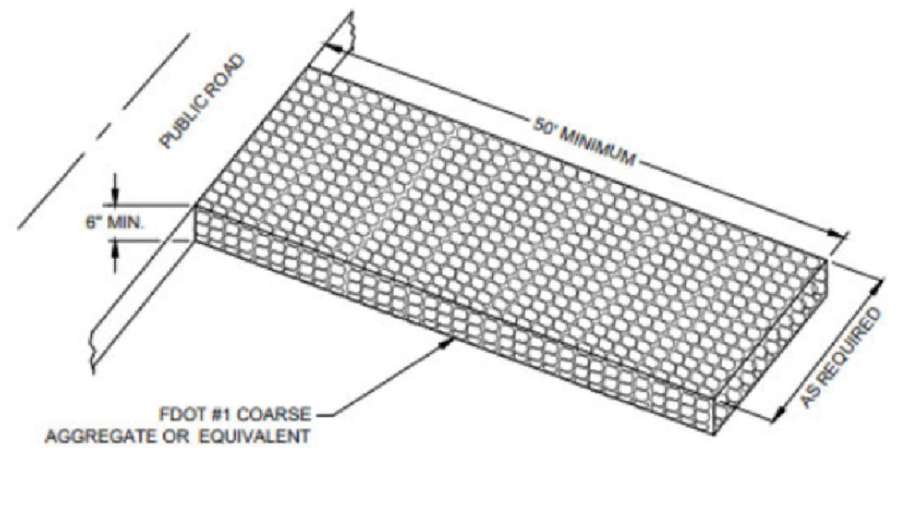


SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5 PERCENT) WHERE SHEET OR OVERLAND FLOWS ARE TYPICAL.

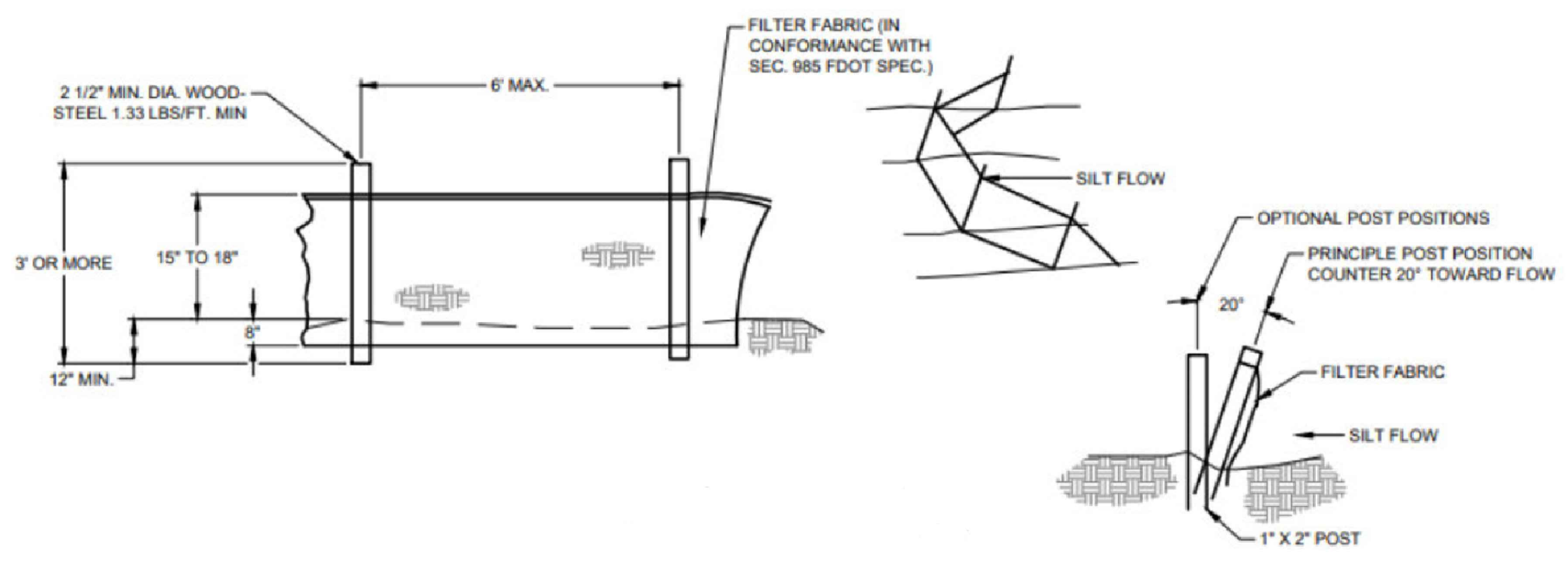
SYNTHETIC BALE DROP INLET SEDIMENT FILTER
N.T.S.



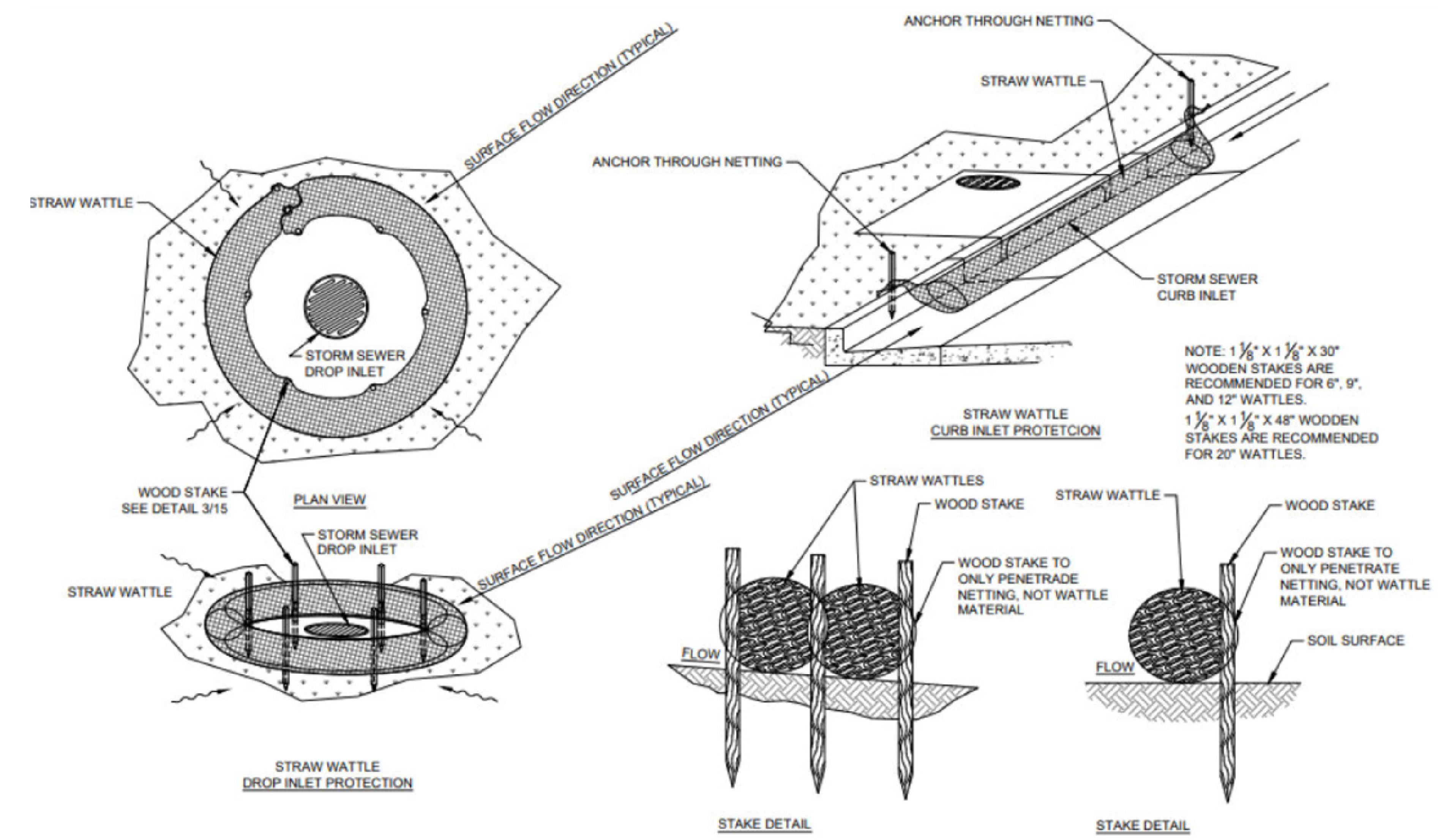
CATCH BASIN SEDIMENT PROTECTION DETAIL
N.T.S.



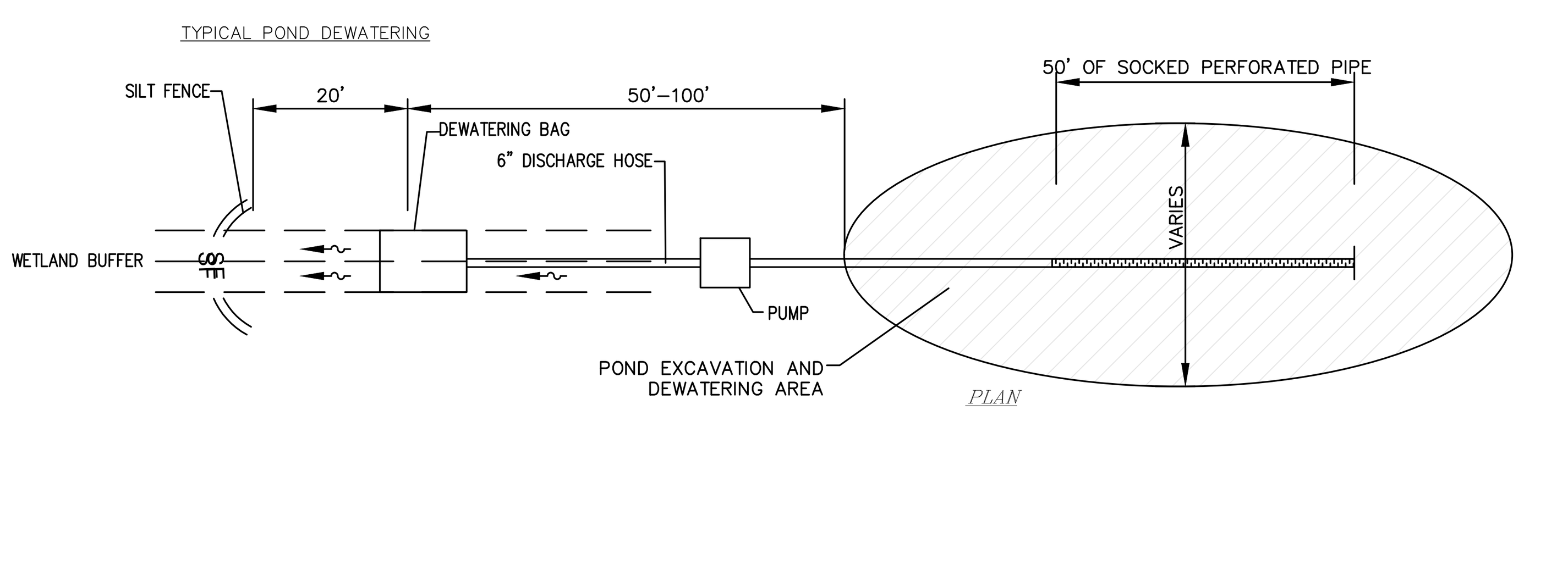
STABILIZED CONSTRUCTION ENTRANCE EC1
N.T.S

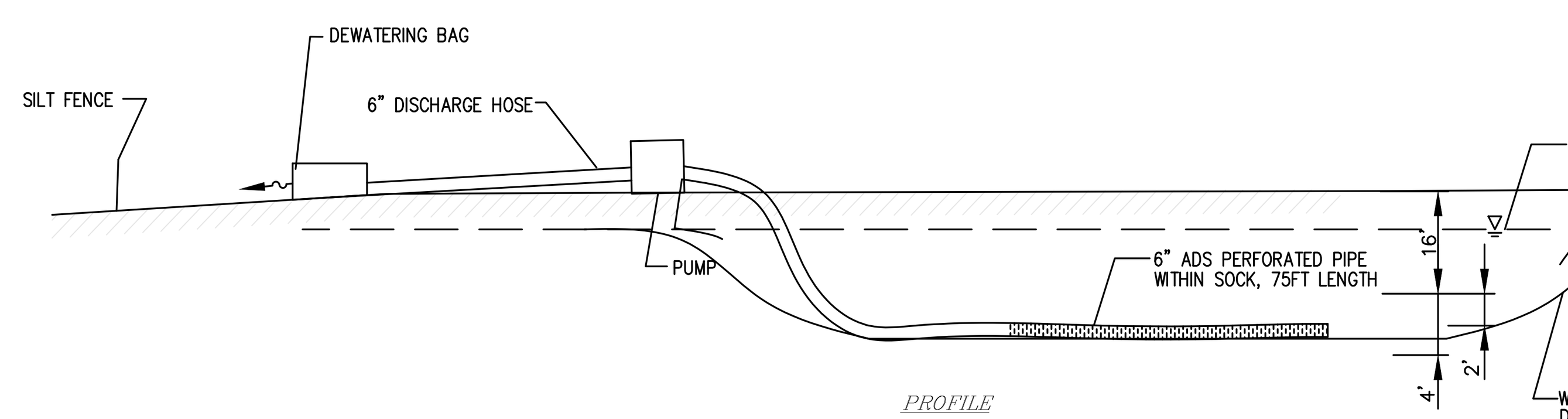


TYPE III SILT FENCE EC2
N.T.S

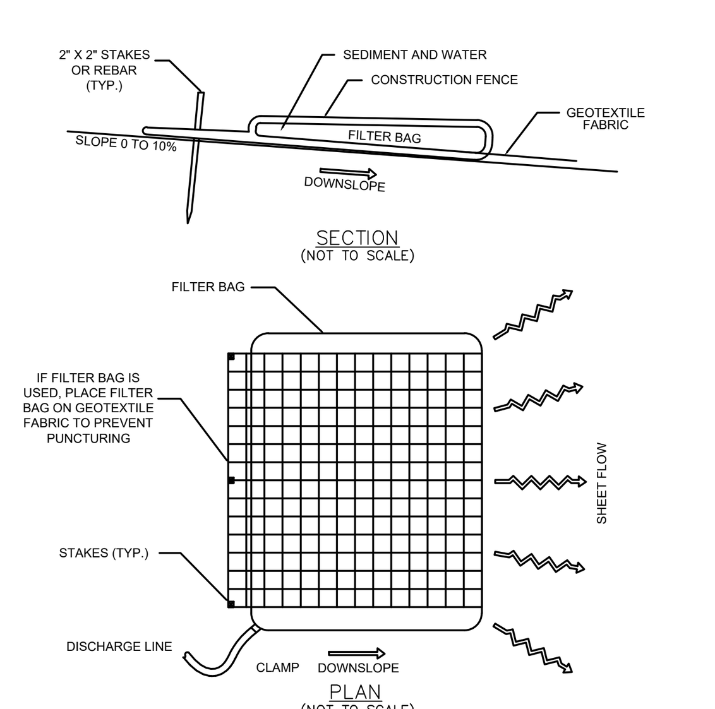


WATTLE INLET PROTECTION EC3
N.T.S





TYPICAL PIT DEWATERING PLAN & PROFILE



DEWATERING. IF USED FILTER BAGS SHALL BE INSTALLED AS SPECIFIED BY THE MANUFACTURER OR AS MODIFIED BY NOTE 2.

SITE CONDITIONS.

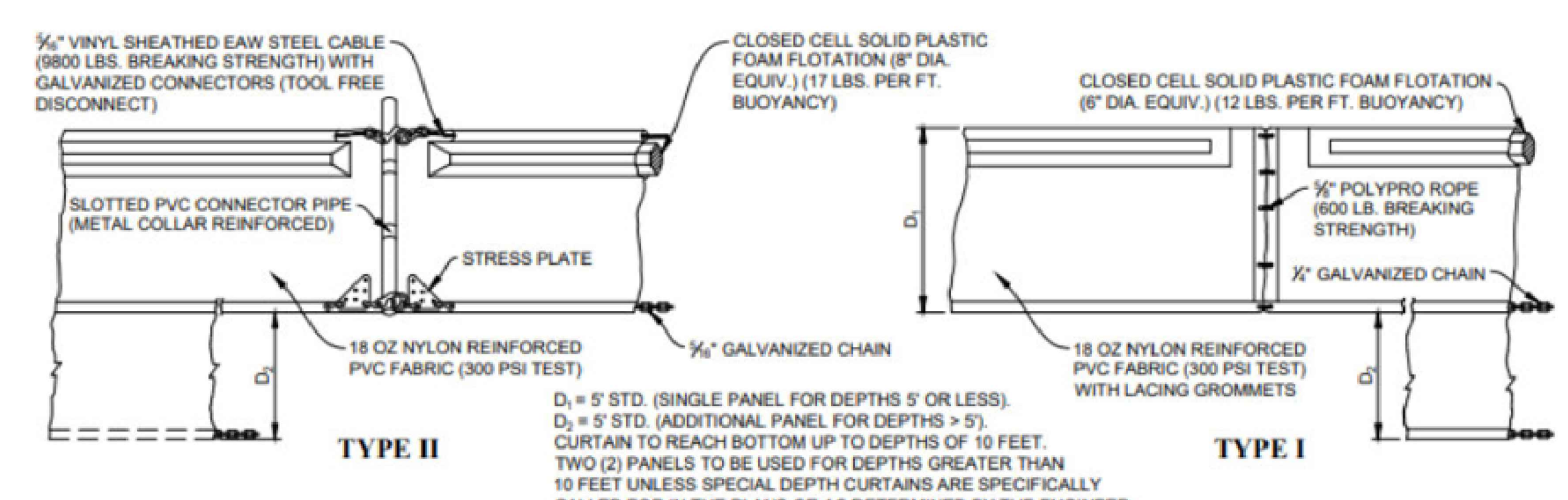
DEWATERING BAG DETAIL

DEWATERING SUMMARY

EST. GROUNDWATER DEPTH	FROM EXISTING SURFACE TO APPROXIMATELY 36" DEEP.
REQUIRED DEWATERING DEPTH	APPROXIMATELY 15 FEET BELOW EXISTING GROUND
DEWATERING AREA	2'x75'x15'
DURATION OF PUMPING	1–3 DAYS FOR EACH EXCAVATION
PUMPS	THOMPSON PUMP MODEL 6TSV–DJDS–45T–M, 6" VACUUM ASSISTED DRY PRIME PUMP(OR EQUIVALENT)
DISCHARGE LOCATIONS	ALL PUMPS DISCHARGE TO GRASS SWALE ALONG THE ROAD
EST. GROUNDWATER EXTRACTION	43.7 GPM TOTAL FOR 75FT OF 6"PERORATED PIPE
EROSION CONTROL	PROPOSED SILT FENCE, AND DEWATERING FILTER BAG

GENERAL NOTES:

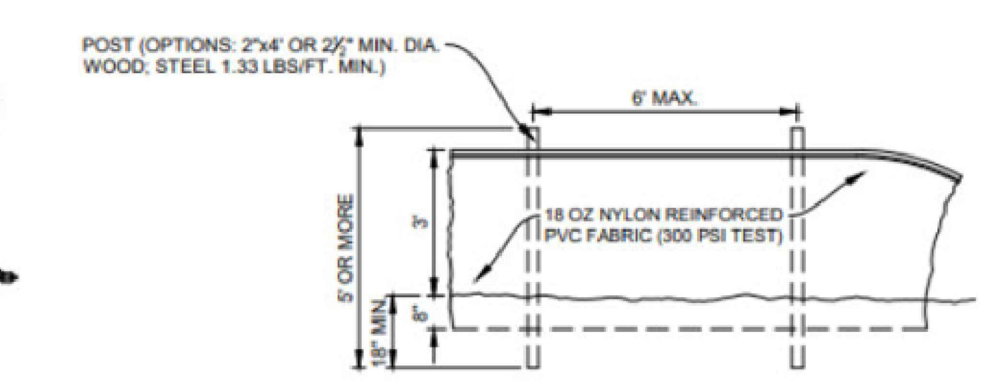
1. IF REQUIRED, CONTRACTOR SHALL APPLY DEWATERING PLAN WHEN WATER TABLE IS ENCOUNTERED AT TIME OF CONSTRUCTION.
2. IF DEWATERING IS REQUIRED THIS DEWATERING PLAN REPRESENTS THE MAX. PUMP CAPACITY THE CONTRACTOR MAY USE.
3. THE DISCHARGE PIPE LENGTH IS APPROXIMATELY 100FT FROM PUMP TO THE FILTER BAG. THE DIRECTIONS FOR THE DISCHARGE PIPE IS TOWARD THE EAST.
4. ADDITIONAL SILTFENCE SHALL BE INSTALLED PRIOR TO ENTERING WETLAND BUFFER.
5. LOCATION OF THE DEWATERING PERFORATED PIPE SHALL IN INSTALLED EITHER DIRECTLY AT THE BOTTOM OF THE EXCAVATION PIT.



D_1 = 5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS).
D_2 = 5' STD. (ADDITIONAL PANEL FOR DEPTHS > 5').
CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET.
TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS ARE SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTICE:
COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

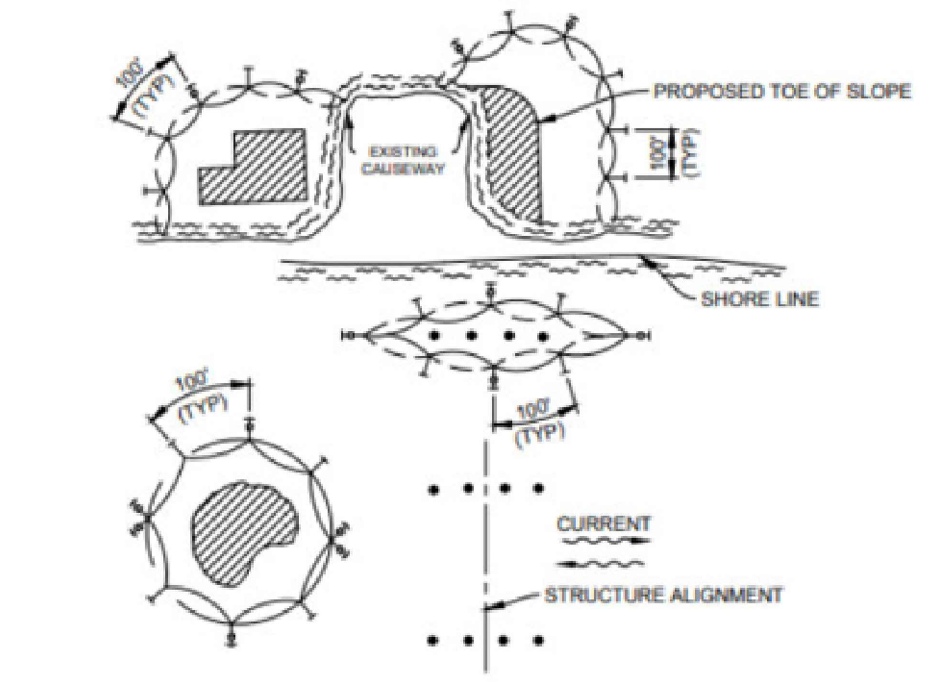
FLOATING TURBIDITY BARRIERS



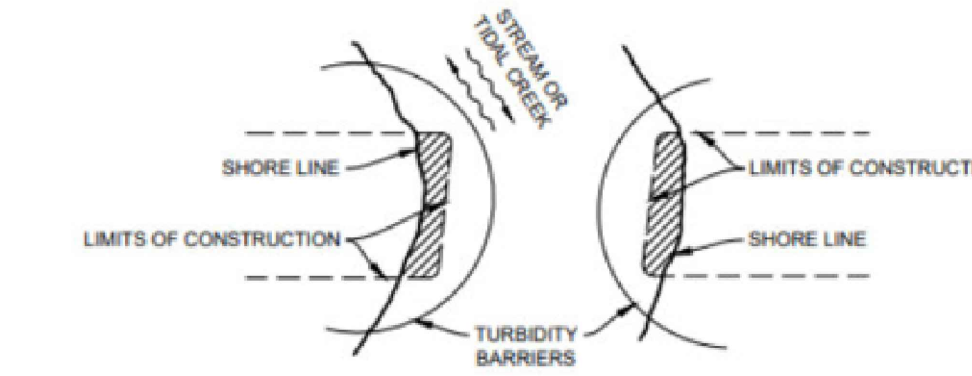
STAKED TURBIDITY BARRIER

LEGEND
- PILE LOCATIONS
- DREDGE OR FILL AREA
- MOORING BUOY W/ANCHOR
- ANCHOR
- BARRIER MOVEMENT DUE TO CURRENT ACTION

NOTES:
1. TURBIDITY BARRIERS ARE TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH.
2. NUMBER AND SPACING OF ANCHORS DEPENDENT ON CURRENT VELOCITIES.
3. DEPLOYMENT OF BARRIER AROUND PILE LOCATIONS MAY VARY TO ACCOMMODATE CONSTRUCTION OPERATIONS.
4. NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION OPERATIONS.
5. FOR ADDITIONAL INFORMATION SEE SECTION 104 OF THE STANDARD SPECIFICATIONS.



TURBIDITY BARRIER APPLICATIONS



NOTE:
TURBIDITY BARRIERS FOR FLOWING STREAMS AND TIDAL CREEKS MAY BE EITHER FLOATING, OR STAKED TYPES OR ANY COMBINATIONS OF TYPES THAT WILL SUIT SITE CONDITIONS AND MEET EROSION CONTROL AND WATER QUALITY REQUIREMENTS. THE BARRIER TYPE(S) WILL BE AT THE CONTRACTORS OPTION UNLESS OTHERWISE SPECIFIED IN THE PLANS, HOWEVER PAYMENT WILL BE UNDER THE PAY ITEM(S) ESTABLISHED IN THE PLANS FOR FLOATING TURBIDITY BARRIER AND/OR STAKED TURBIDITY BARRIER. POSTS IN STAKED TURBIDITY BARRIERS TO BE INSTALLED IN VERTICAL POSITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

GENERAL NOTES
1. FLOATING TURBIDITY BARRIERS ARE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR FLOATING TURBIDITY BARRIER, LF.
2. STAKED TURBIDITY BARRIERS ARE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED TURBIDITY BARRIER, LF.

TURBIDITY BARRIER EC4
N.T.S

2510 US 1 SOUTH SUITE D
ST. AUGUSTINE, FL 32086
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quoc@maiengineer.com
MAI ENGINEERING SERVICES, INC.
LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

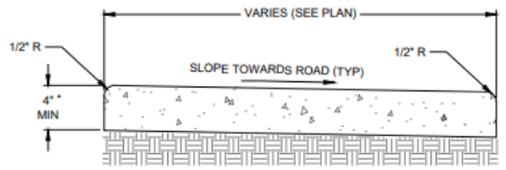
REVISIONS

	DATE	REVISION
1	12/17/22	REVISION PER CITY REQUEST
2	04/12/2023	REVISION PER CITY AND WMD RAI
3	06/28/2023	REVISION PER CITY COMMENTS
4		
5		

SHEET TITLE: EROSION CONTROL DETAILS

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA
PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY: QHM
DWG BY: GMG
CHK BY: QHM
DATE: 8/10/2023
JOB No.: 1369
SHEET No.: 12

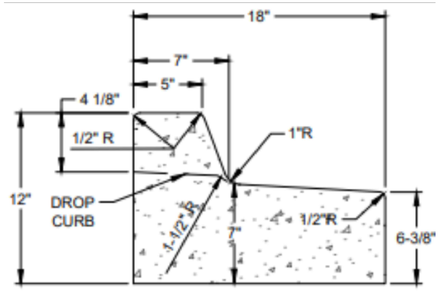


NOTES:

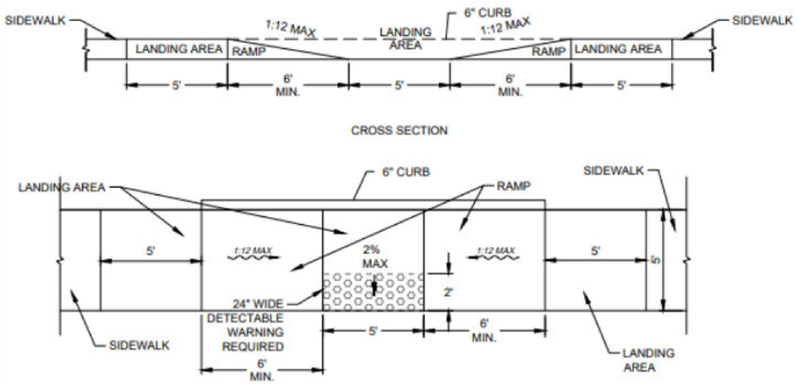
1. DISTANCE BETWEEN SCORE LINE NOT TO EXCEED 5' IN LONGITUDINAL & TRAVERSE DIRECTION IN SIDEWALK.
2. SIDEWALK IS TO BE CONCRETE WITH A MINIMUM STRENGTH OF 3,000 PSI.
3. MAX 2% CROSS SLOPE PER ADA

* SIDEWALK SHALL BE 6" THICK AT DRIVEWAY.

CONCRETE SIDEWALK DETAIL SD1
N.T.S



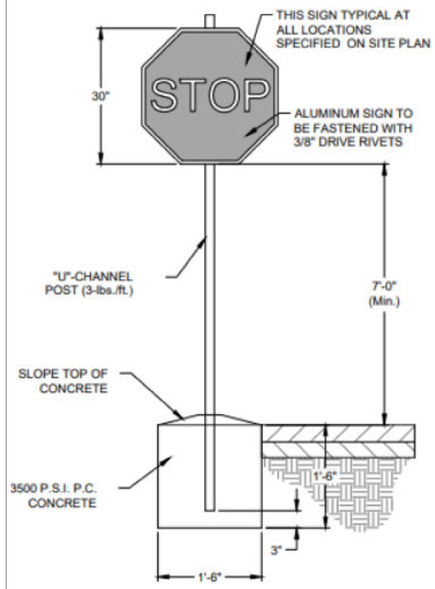
18" STANDARD CURB & GUTTER DETAIL (REVERSE PITCH) SD4
N.T.S



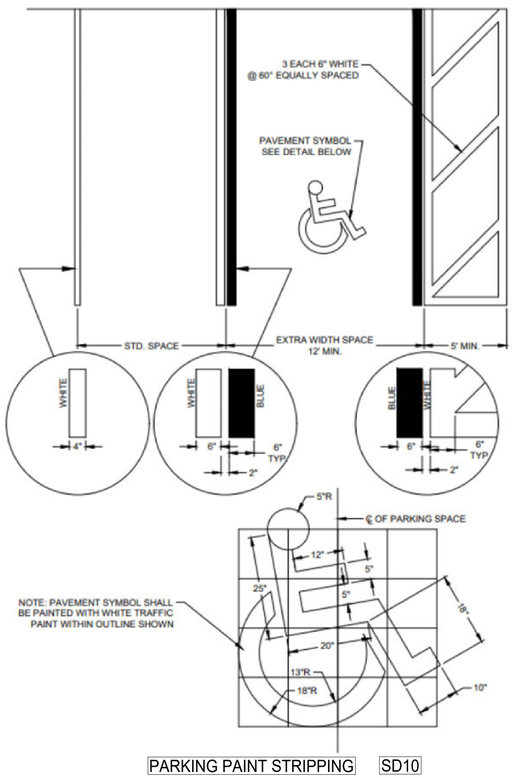
NOTES:

1. THE SURFACE OF RAMP SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE ROUGHER THAN THE SURROUNDING SIDEWALK.
2. RAMP SIDE SLOPE VARIES UNIFORMLY FROM A MAXIMUM OF UP TO 8% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO TOP OF THE RAMP.
3. CONSTRUCT PER A.D.A. STANDARDS.
4. DETECTABLE WARNING SURFACE SHALL BE "SAFETY YELLOW" COMPOSITE MATERIAL ANCHORED IN THE RAMP. WARNING SURFACE SHALL BE SET INTO THE CONCRETE AND BE FLUSH WITH CONCRETE SURFACE ALONG ALL FOUR SIDES.
5. DETECTABLE WARNING SURFACE TO BE CAST IN PLACE COMPOSITE TACTILE BY ADA SOLUTIONS, INC. OR CAST IN PLACE DETECTABLE WARNING PANEL BY ARMORCAST.
6. DETECTABLE WARNING AREA SHALL CONFORM TO FDOT STANDARD INDEX 522-002 AND 28 CFR PART 36 APPENDIX A, LATEST REVISION.

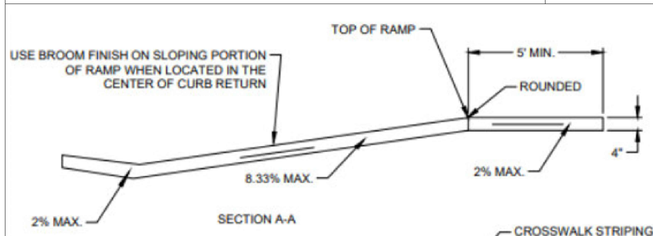
WHEELCHAIR RAMP IN SIDEWALK SD7
N.T.S

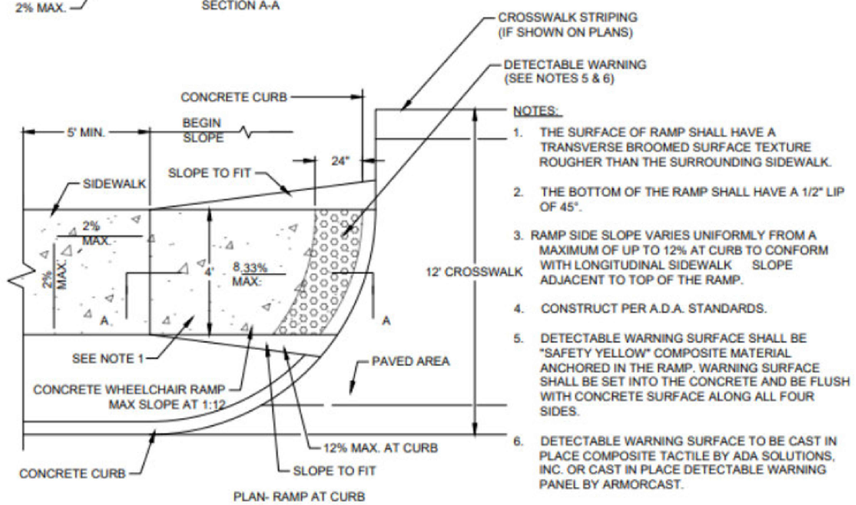


STOP SIGN SD8
N.T.S



PARKING PAINT STRIPPING SD10
N.T.S

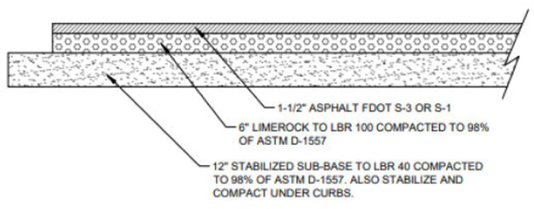




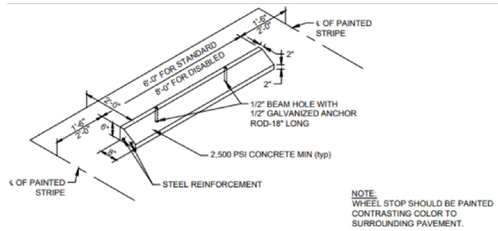
NOTES:

1. THE SURFACE OF RAMP SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE ROUGHER THAN THE SURROUNDING SIDEWALK.
2. THE BOTTOM OF THE RAMP SHALL HAVE A 1/2" LIP OF 45°.
3. RAMP SIDE SLOPE VARIES UNIFORMLY FROM A MAXIMUM OF UP TO 12% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO TOP OF THE RAMP.
4. CONSTRUCT PER A.D.A. STANDARDS.
5. DETECTABLE WARNING SURFACE SHALL BE "SAFETY YELLOW" COMPOSITE MATERIAL ANCHORED IN THE RAMP. WARNING SURFACE SHALL BE SET INTO THE CONCRETE AND BE FLUSH WITH CONCRETE SURFACE ALONG ALL FOUR SIDES.
6. DETECTABLE WARNING SURFACE TO BE CAST IN PLACE COMPOSITE TACTILE BY ADA SOLUTIONS, INC. OR CAST IN PLACE DETECTABLE WARNING PANEL BY ARMORCAST.
7. DETECTABLE WARNING AREA SHALL CONFORM TO FDOT STANDARD INDEX 304 AND 28 CFR PART 36 APPENDIX A, LATEST REVISION.

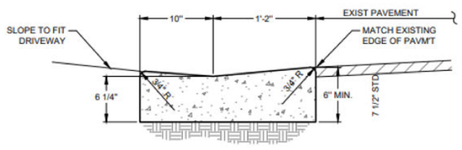
WHEELCHAIR RAMP IN SIDEWALK AT CURB RETURN SD9
N.T.S



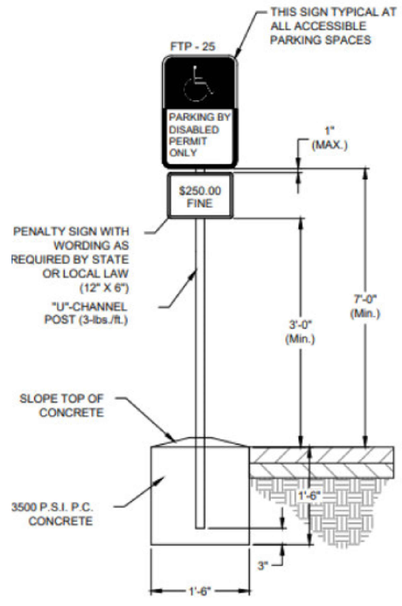
TYPICAL PAVEMENT SECTION SD11
N.T.S



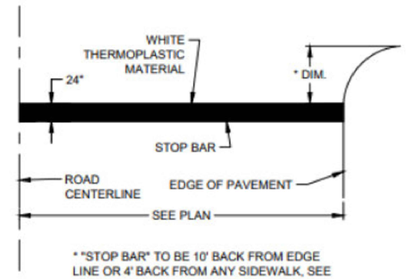
PRECAST CONCRETE WHEEL STOP SD12
N.T.S



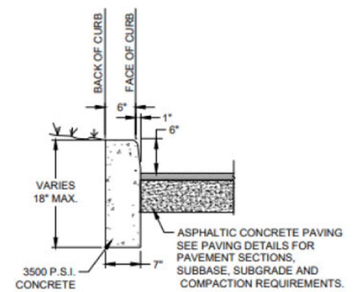
VALLEY CURB SD16
N.T.S



ACCESSIBLE PARKING SIGN SD15
N.T.S



STOP BAR SD18
N.T.S



HEADER CURB SD39
N.T.S

2510 US 1 SOUTH SUITE D
ST. AUGUSTINE, FL 32086
PHONE (904)794-1760
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MAI ENGINEERING SERVICES, INC.
LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

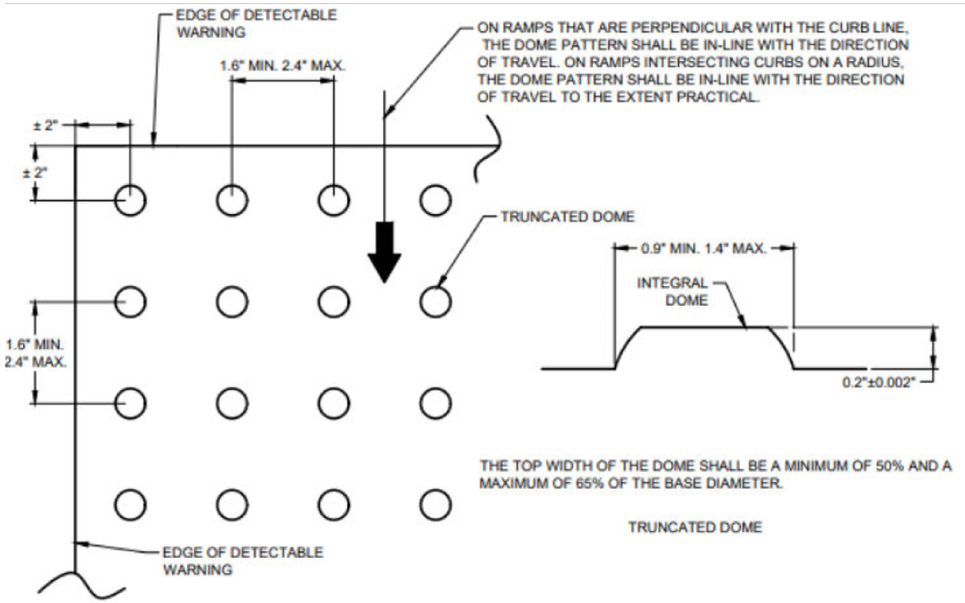
REVISIONS

#	DATE	DESCRIPTION
1	10/17/22	REVISION PER CITY REVISIT
2	04/28/2023	REVISION PER CITY AND RJJ
3	06/29/2023	REVISION PER CITY COMMENTS
4		
5		

SHEET TITLE: GENERAL DETAILS

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA
PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	8/10/2023
JOB No.:	1369
SHEET No.:	13



BASE-TO BASE SPACING SHALL BE 0.65" MINIMUM BETWEEN DOMES.

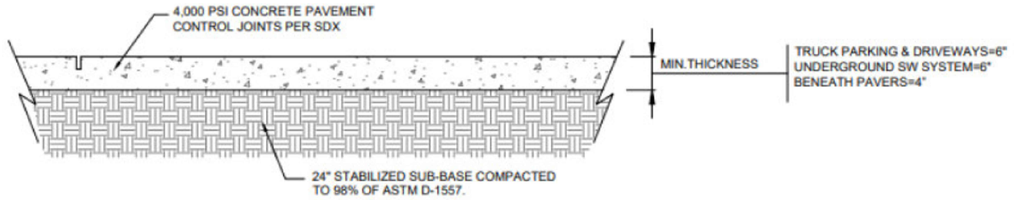
PLAN VIEW

NOTES:

1. ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24 INCHES FROM THE BACK OF CURB.
2. SEE FDOT STANDARD INDEX 522-002, LATEST EDITION FOR MORE DETAILS.
3. DETECTABLE WARNING SURFACE SHALL BE "SAFETY YELLOW" COMPOSITE MATERIAL ANCHORED IN THE RAMP. WARNING SURFACE SHALL BE SET INTO THE CONCRETE AND BE FLUSH WITH CONCRETE SURFACE ALONG ALL FOUR SIDES.
4. DETECTABLE WARNING SURFACE TO BE CAST IN PLACE COMPOSITE TACTILE BY ADA SOLUTIONS, INC. OR CAST IN PLACE DETECTABLE WARNING PANEL BY ARMORCAST.

DETECTABLE WARNING DETAIL SD26

N.T.S



RECOMMENDED MAX. JOINT SPACINGS

PAVEMENT THICKNESS (INCHES)	RECOMMENDED MAXIMUM JOINT SPACING (FEET)
3.5 (FOR WHITETOPPING ONLY)	6
4.0	10
4.5	10
5.0	12
5.5	12
6.0	15
OVER 6.0	15

CURBS:

1. ALL CURBING SHALL BE CONSTRUCTED OF CONCRETE THAT WILL OBTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
2. ALL CONCRETE CURBS SHALL BE SPACED WITH A FULL-DEPTH, ½" WIDTH ISOLATION JOINT MATERIAL (UNLESS OTHERWISE NOTED) PRIOR TO PLACEMENT OF ADJACENT CONCRETE PAVEMENT.
3. THERE SHALL BE CONTROL JOINTS, EITHER TOOL OR SAW-CUT, MATCH PAVEMENT JOINTS, UNLESS OTHERWISE SPECIFIED; JOINTS SHALL BE FORMED WITHIN 12 HOUR OF PLACEMENT.
4. ALL CURB ENDS THAT DO NOT TIE INTO OTHER FACILITIES SHALL TRANSITION DOWN TO PAVEMENT GRADE IN 24 INCHES.
5. CONSTRUCTION JOINT SHALL BE TIED WITH A No.4 TIE BAR EXTENDED 6 INCHES INTO EACH CURB SECTION AND SHALL BE SPACED WITH A FULL-DEPTH ½" WIDTH ISOLATION JOINT MATERIAL.

GENERAL NOTES:

1. USE ACI 330 GUIDE FOR DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS.
2. USE ACI 330.1 STANDARD SPECIFICATION FOR PLAIN CONCRETE PARKING LOTS.
3. ALL CONCRETE USED IN PARKING LOT, UNLESS OTHERWISE INDICATED, SHALL HAVE A COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
4. PREPARE THE SUBGRADE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEEER'S RECOMMENDATIONS FOR RIGID PAVEMENTS. SUBGRADE SOIL DENSITY TESTING MUST BE COMPLETED AND VERIFIED BY THE GEOTECHNICAL ENGINEER PRIOR TO CONCRETE PLACEMENT.
5. IMPORTED SOIL USE FOR BACK FILL SHOULD BE FREE OF HEAVY CLAY, SILTS, STONES, PLANT ROOT OR OTHER FOREIGN MATERIAL GREATER THAN 1½" IN DIAMETER IN ORDER TO ACHIEVE ADEQUATE COMPACTION AROUND ANY FIXED OBJECT IN GROUND. ALTERNATE WILL BE TO USE FLOWABLE FILL.
6. CURE CONCRETE IMMEDIATELY AFTER FINISHING OPERATION IS COMPLETED BY USING ONE OF THE FOLLOWING METHODS: WATER, PIGMENTED WATER-BASED CURING COMPOUND OR VISQUEEN AND BURLAP.

JOINT SPACING DETERMINATION:

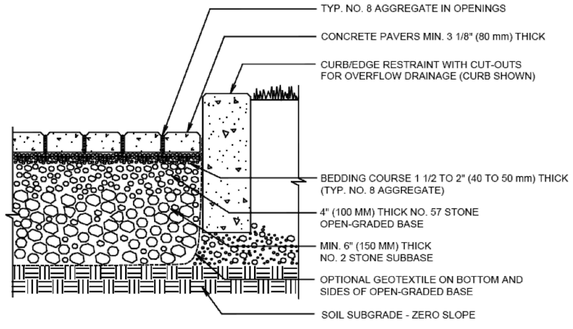
1. LAYOUT CONTROL JOINT BY STARTING WITH ANY DRAINAGE INLET WITHIN THE PAVEMENT SECTION AND WORK TOWARD EDGE OF PAVEMENT.
2. KEEP ALL JOINTS CONTINUOUS.
3. CONTROL JOINTS SHALL BE FORMED OR SAWED WITHIN 12 HOURS FROM TIME OF PLACEMENT;
   A. SIDEWALK-SPACING SHALL BE SAME AS WIDTH OF PAVEMENT AND LESS THAN 5 FEET IN LENGTH.
   B. PAVEMENT-MAXIMUM SPACING SHALL BE 2.5 TIMES THICKNESS IN UNIT OF FEET AND LESS THAN 15 FEET IN LENGTH (E.G. D=5 INCHES, SPACING AT 12'x12').

COMPACTED SUBGRADE:

1. SUBGRADE FOR PAVEMENT AREAS SHALL BE COMPACTED TO A MINIMUM OF 98% OF MAXIMUM DRY DENSITY USING STANDARD EFFORT AS DETERMINED BY ASTM D 698 FOR A MINIMUM DEPTH OF 12 INCHES.

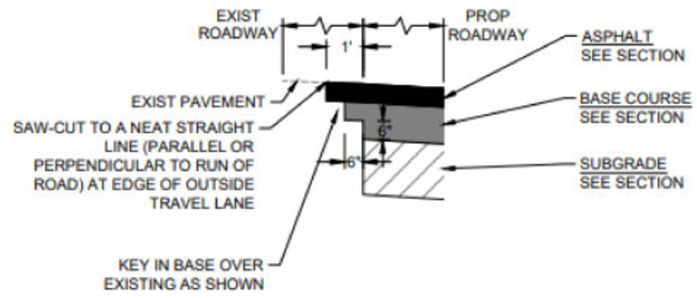
CONCRETE PAVEMENT SECTION SD36

N.T.S



PARKING STALL PAVER DETAIL SD5

N.T.S



CONNECT TO EXISTING PAVEMENT SD34

N.T.S

2510 US 1 SOUTH SUITE D
ST. AUGUSTINE, FL 32086
PHONE (904)794-1760
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MAI ENGINEERING SERVICES, INC.

LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

REVISIONS

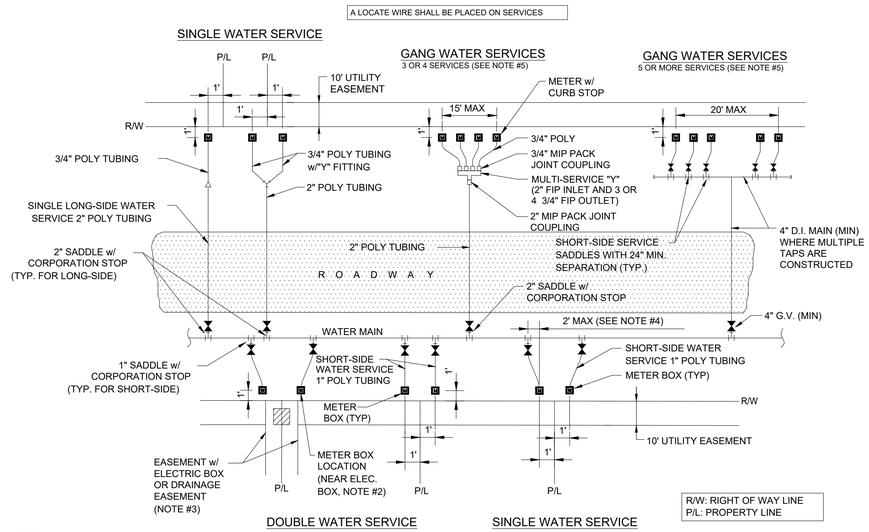
#	DATE	REVISION
0	10/17/22	REVISION PER CITY REVISIONS
1	04/24/2023	REVISION PER CITY AND RJ
2	06/26/2023	REVISION PER CITY COMMENTS

SHEET TITLE: GENERAL DETAILS

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA

PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	8/10/2023
JOB No.:	1369
SHEET No.:	14



NOTES

1. THE SKETCHES ABOVE INDICATE TYPICAL WATER SERVICE AND METER BOX LOCATIONS. ACTUAL LOCATIONS OF BOXES MAY VARY SLIGHTLY ACCORDING TO FIELD CONDITIONS ENCOUNTERED. TYPICALLY, THE METER BOX SHALL BE LOCATED 1.0' OFF OF THE R/W LINE.

2. UNLESS SPECIFIED OTHERWISE BY THE CITY OF GREEN COVE SPRINGS, THE METER BOX SHALL BE LOCATED 1.0' OFF OF THE R/W LINE, AND 1.0' FOOT INSIDE OF THE PROLONGATION OF ONE OF THE SIDE PROPERTY LINES. IF A CONFLICT EXISTS WITH OTHER UTILITIES, THE METER BOX MAY BE ADJUSTED TO FOUR FEET (MAX.) INSIDE PROPERTY LINES (IN LIEU OF 1.0' FEET), UNLESS APPROVED OTHERWISE BY THE CITY, THE WATER METER BOX SHALL BE LOCATED IN NON-TRAFFIC AREAS (NOT IN SIDEWALKS OR DRIVEWAYS). IF AN UNAPPROVED METER BOX IS IDENTIFIED BY THE CITY, THEN THE CONTRACTOR OR CUSTOMER SHALL BE RESPONSIBLE FOR THE COST OF RELOCATING ANY METER BOX WHICH IS LOCATED IN THE SIDEWALK OR DRIVEWAY OR THE COST TO PROVIDE THE CORRECT METER BOX. THE CITY SHALL APPROVE ALL DEVIATIONS TO THE ABOVE PRIOR TO CONSTRUCTION.

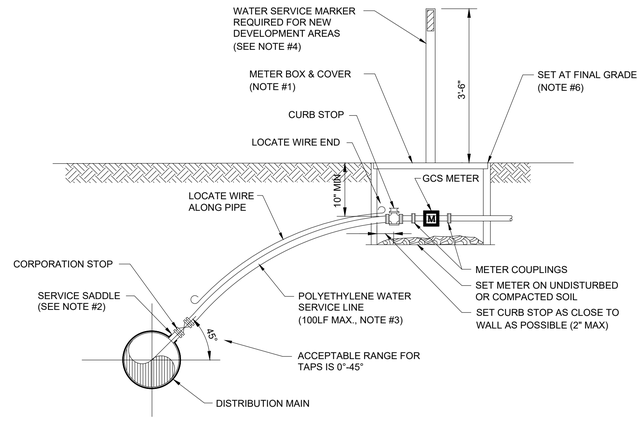
3. IF DRAINAGE OR OTHER EASEMENT IS LOCATED BETWEEN LOTS, METER BOXES SHALL BE LOCATED AT THE EASEMENT LINE BUT OUTSIDE THE EASEMENT AREA.

4. FOR SINGLE SERVICES, THE HORIZONTAL DISTANCE (PERPENDICULAR TO THE MAIN) BETWEEN THE SERVICE'S SADDLE AND THE METER BOX SHALL BE 2 FEET MAXIMUM. FOR DOUBLE 3/4 " SERVICES, THE 2 " POLY MAIN SHALL BE LOCATED CENTERED BETWEEN THE TWO METER BOXES. LOCATE WIRE IS REQUIRED ON ALL SERVICES. THE WIRE SHALL RUN FROM THE METER BOX TO THE MAIN (WITH NO CONNECTION TO MAIN WIRE WITH THE LAST 24 INCHES STRIPPED OF INSULATION/BARE WIRE AS GROUND). ALL EXCEPTIONS TO THIS REQUIREMENT MUST BE APPROVED BY THE CITY OF GREEN COVE SPRINGS. THIS WILL ASSIST IN LOCATING EXISTING SERVICE LINES IN THE FUTURE.

5. GANG WATER SERVICES: FOR 3 OR 4 SERVICES IN ONE AREA, A DUCTICLE IRON PIPE (D.I.P.) WATER MAIN EXTENSION W/LOCATE WIRE MAY BE UTILIZED ON EITHER SHORT-SIDE OR LONG-SIDE SERVICES WHERE SHOWN ON THE DRAWINGS. LOCATE WIRE SHALL EXTEND FROM ONE METER BOX TO CURB STOP AT WATER MAIN. FOR 5 OR MORE SERVICES IN ONE AREA, A WATER MAIN EXTENSION W/LOCATE WIRE MAY BE UTILIZED ON EITHER SHORT-SIDE OR LONG-SIDE SERVICES WHERE SHOWN ON THE DRAWINGS (TAPS STAGGERED AND AT 2 FEET ON CENTER (MIN). FOR WATER SUPPLY HEADERS WHERE 5 OR MORE TAPS ARE CONSTRUCTED, THE HEADER PIPE SHALL BE 4" AT A MINIMUM. EXAMPLE: CONSTRUCT A 4" MAIN D.I. CROSSING THE STREET FOR 5 RESIDENTIAL CUSTOMERS, UTILIZING 4" G.V., 4" PIPE, 4"X1" SADDLES AND 1" CURB STOPS (NO GLUED TEE FITTINGS). THE 4" OR LARGER D.I.P. WATER MAIN MUST BE SIZED AND DESIGNED BY THE ENGINEER.

6. ALL COMMERCIAL WATER SERVICES SHALL BE 2" POLYETHYLENE PIPING CONNECTED TO 2" CURB STOP IN METER BOX, UNLESS OTHERWISE APPROVED BY THE CITY.

WATER SERVICE INSTALLATIONS 2" AND SMALLER METER



NOTES

1. SEE CITY OF GREEN COVE SPRINGS APPROVED MATERIALS MANUAL AND SYSTEM DETAILS FOR REQUIREMENTS.

2. SINGLE BAND SADDLES MAYBE UTILIZED ON NEW 1" WATER SERVICES WHICH ARE INSTALLED ON A DRY 10" SIZE OR SMALLER WATER MAIN (NEW WATER MAIN CONSTRUCTION). FOR WET TAPS OR WATER MAINS 12" SIZE AND LARGER, A DOUBLE BAND SADDLE IS REQUIRED.

3. NO OPEN CUT UNDER ROADWAY PAVING ALLOWED UNLESS THE ROADWAY IS BEING RECONSTRUCTED OR IF DIRECTED OTHERWISE BY CITY OF GREEN COVE SPRINGS. CONSTRUCT POLY LINE WITH 36" (MIN.) COVER UNDER ROADWAYS. THE POLY WATER SERVICE LINE SHALL BE SAME SIZE AS THE METER (3/4" MINIMUM) AND BE INSTALLED PERPENDICULAR TO THE MAIN AND NOT EXCEED 100LF UNLESS OTHERWISE APPROVED BY CITY OF GREEN COVE SPRINGS.

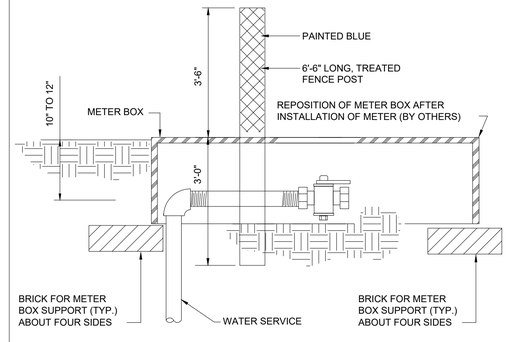
4. INSTALL PVC PLUG IN ALL CURB STOPS IF WATER SERVICE IS "NOT IN USE" (I.E.: IF NO METER IS INSTALLED). IN ADDITION, INSTALL A 6', 6" P.T. FENCE POST (TOP PAINTED BLUE) 12" OFF SIDE OF METER BOX. THE REMOVAL OR TRANSFER OF A WATER SERVICE SHALL INCLUDE BRASS METER COUPLINGS (HEX ON BARREL TYPE).

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF THE BOXES, METERS OR ELECTRONIC DEVICES IF DAMAGED BY THE CONTRACTOR DURING THE CONSTRUCTION PERIOD.

6. METER BOX AND TOP SHALL BE CLEAR OF ALL DEBRIS TO ALLOW FULL ACCESS TO BOX (I.E., NO DIRT, TRASH OR OTHER DEBRIS PLACED ON TOP OF BOX).

7. LOCATE WIRING REQUIRED ON ALL LONG AND SHORT SERVICES.

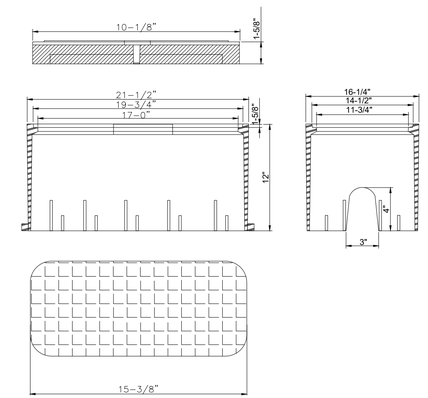
WATER SERVICE DETAIL- 2" AND SMALLER METER



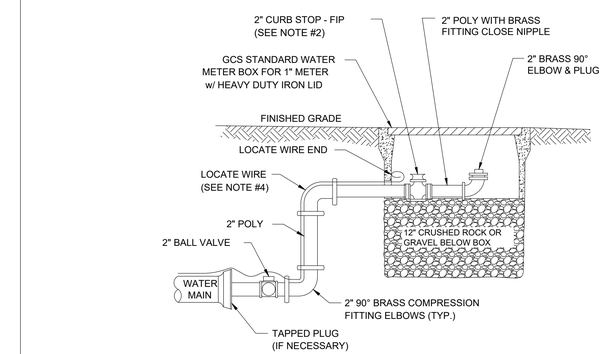
WATER SERVICE MARKER POST

NOTE:
ALL SERVICES ARE TO BE CLEARLY MARKED BY A TREATED 6'-6" LONG MARKER POST PAINTED BLUE. ALL SERVICES ARE TO BE EXTENDED ABOVE GRADE UNTIL COMPLETION OF ALL GRADING ACTIVITIES. ONCE FINAL ROAD GRADING IS COMPLETE, LOWER SERVICES BY CUTTING OFF RISER 10" TO 12" BELOW FINAL GRADE AND INSTALL 90° BEND, NIPPLE AND LW BALL VALVE AT THAT ELEVATION. SET METER BOX OVER ENTIRE HORIZONTAL SECTION OF SERVICE LINE FROM LAST 90° BEND TO THE END OF THE CURB STOP. BOX TO BE REPOSITIONED WHEN THE METER IS INSTALLED. MARKER POST TO BE INSTALLED ADJACENT TO AND LOCATED AT THE MID SECTION OF THE METER BOX.

NOTE:
MIN. WALL THIKNESS: .25"
DOUBLE WALL BODY w/STRUCTURAL SUPPORT RIBS
w/MIN. THINCKNESS: 3/16"
1" BOTTOM FLANGE
BOX IS INJECTED MOLDED STRUCTURAL FOAM RECYCLED POLYPROPYLENE MATERIAL



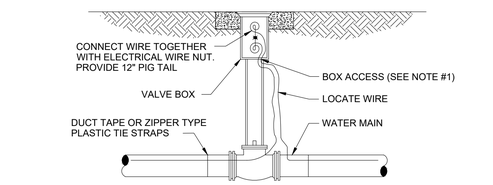
METER BOX & SOLID BLUE LID



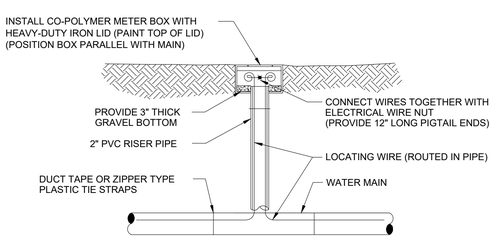
NOTES

1. PIPE SHALL BE POLYETHYLENE. FITTINGS SHALL BE BRASS.
2. THE 2" CURB STOP SHALL BE ALL BRONZE. FITTINGS SHALL BE BRASS.
3. CANNOT BE PLACED UNDER CONCRETE OR PAVEMENT.
4. PLACE 2 FEET PAST LAST WATER MAIN SERVICE CONNECTION.

FLUSHING VALVE BELOW GRADE



LOCATE WIRE BOX UTILIZING VALVE BOX

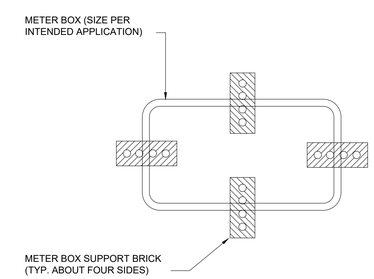


LOCATE WIRE BOX UTILIZING METER BOX

NOTES

1. LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A "V" CUT IN THE 6" PVC RISER PIPE.

LOCATE WIRE BOX



METER BOX SUPPORT DETAIL

2510 US 1 SOUTH SUITE D
ST. AUGUSTINE, FL 32086
PHONE (904)794-1760
FAX (904)794-1768
quoc@maiengineer.com
MAI ENGINEERING SERVICES, INC.
LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

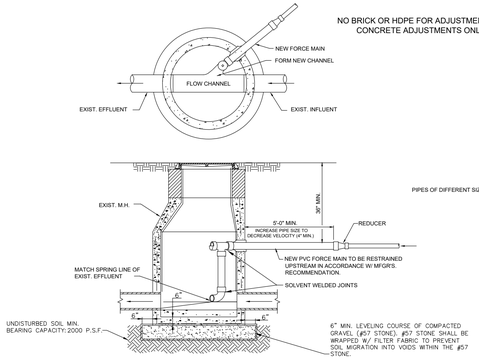
REVISIONS

#	DATE	REVISION
0	12/21/22	REVISION PER CITY REVIEW
1	04/28/2023	REVISION PER CITY AND RWD RVI
2	06/20/2023	REVISION PER CITY COMMENTS
3		
4		
5		

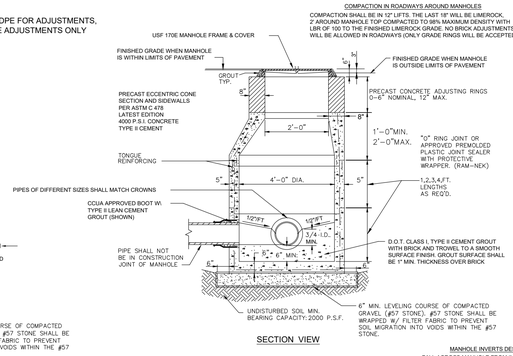
SHEET TITLE: WATER SERVICE DETAILS

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA
PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	8/10/2023
JOB No.:	1369
SHEET No.:	15

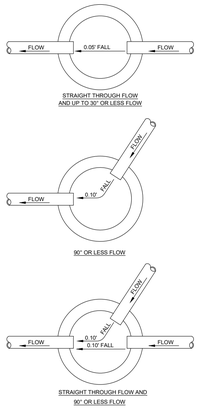


TYP. FORCE MAIN CONNECTION TO MANHOLE

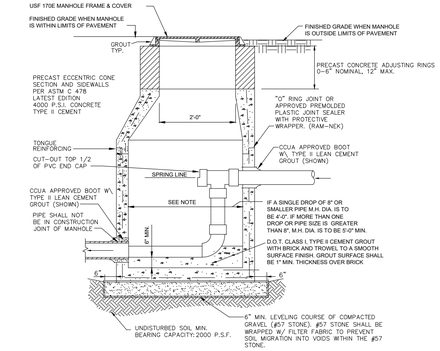


SECTION VIEW

SANITARY SEWER MANHOLE

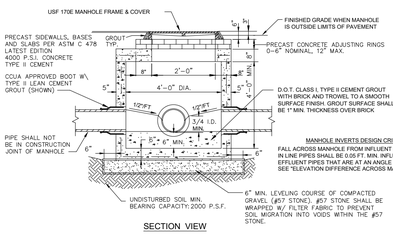


ELEVATION DIFFERENCE ACROSS MANHOLE



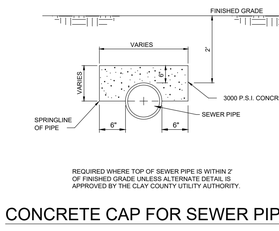
NOTE: FOR ADDITIONAL MANHOLE SPECIFICATIONS, SEE "SANITARY SEWER MANHOLE" DETAIL THIS SHEET.
MAXIMUM ALLOWABLE DIFFERENCE IN INVERT ELEVATION WITHOUT INTERNAL DROP CONNECTION IS 24".
SEE "ELEVATION DIFFERENCE ACROSS MANHOLE" THIS SHEET.

TYPICAL GRAVITY SEWER DROP PIPE CONNECTION TO MANHOLE



CLEANOUT DETAIL

N.T.S.



STANDARD STUBOUT SURVEY ACCESSIBLE CLEANOUT

N.T.S.

NOTE:
1. THIS MANHOLE AND THE NEXT TWO MANHOLES DOWNSTREAM (AS REQUIRED BY UTILITY) ARE TO HAVE POLYETHYLENE LINER AS MANUFACTURED BY STANDARD PRECAST CO. (AGRU SURE GRIP) OR APPROVED EQUAL.
2. IF CONNECTION IS BEING MADE TO AN EXISTING MANHOLE, THAT MANHOLE AND THE NEXT TWO MANHOLES DOWNSTREAM (AS REQUIRED BY UTILITY), SHALL BE LINED WITH "SPECTRASHIELD" OR APPROVED EQUAL.
3. SIZE OF DROP PIPE CONNECTION TO MANHOLE SHALL BE DESIGNED BY THE PROJECT ENGINEER. MINIMUM SIZE SIZE SHALL BE 4". CONNECTION AND DROP PIPE SHALL BE SIZED TO REDUCE THE VELOCITY AND PREVENT "SPLASHOVER" WITHIN THE MANHOLE. 5'-0" MINIMUM DISTANCE FROM MANHOLE TO REDUCER MAY BE INCREASED TO ASSIST IN THIS VELOCITY REDUCTION.

SECTION VIEW

SHALLOW SANITARY SEWER MANHOLE

REQUIRED WHERE TOP OF SEWER PIPE IS WITHIN 2' OF FINISHED GRADE UNLESS ALTERNATE DETAIL IS APPROVED BY THE CLAY COUNTY UTILITY AUTHORITY.

CONCRETE CAP FOR SEWER PIPES

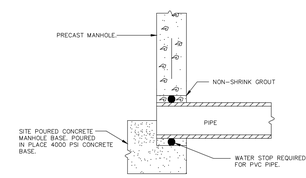
NOTE:
FACILITIES WITH FLOOR DRAINS AND WITHOUT A GREASE TRAP SHALL INSTALL THIS MODEL FLOOR DRAIN AND ONLY WITH PRIOR APPROVAL FROM THE CLAY COUNTY UTILITY AUTHORITY.

FLOOR DRAIN WITH STRAINER DETAIL

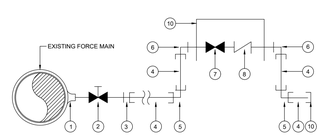
NOTE: 1) FOR ADDITIONAL MANHOLE SPECIFICATIONS, SEE "SANITARY SEWER MANHOLE" DETAIL THIS SHEET.
MAXIMUM ALLOWABLE DIFFERENCE IN INVERT ELEVATION WITHOUT INTERNAL DROP CONNECTION IS 24".

SADDLE MANHOLE DETAIL

THIS DETAIL IS ONLY TO BE USED WITH SPECIFIC APPROVAL BY CITY OF GCS.

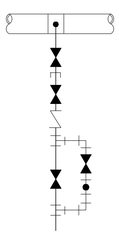


SADDLE MANHOLE DETAIL SECTION

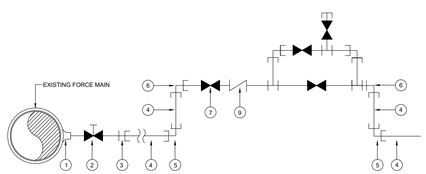


NOTE: ENGINEER TO VERIFY THAT THE SIZE OF SERVICE IS ADEQUATE AND IS TO ADJUST ACCORDING TO HIS FINDING.

2" SEWAGE FORCE MAIN MANIFOLD SERVICE CONNECTION DETAIL FOR MEDIUM TO HIGH PRESSURE CONNECTION SYSTEMS

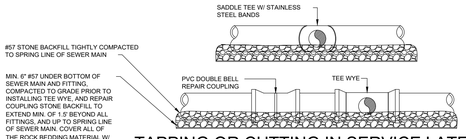


TOP VIEW

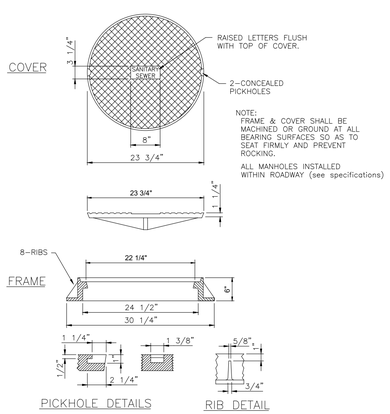


NOTE: ENGINEER TO VERIFY THAT THE SIZE OF SERVICE IS ADEQUATE AND IS TO ADJUST ACCORDING TO HIS FINDING.

" SEWAGE FORCE MAIN MANIFOLD SERVICE CONNECTION / WITH PRESSURE GAUGE FITTING / FOR LOW PRESSURE RECEIVING SYSTEMS FOR CREATING ARTIFICIAL HEAD PRESSURE



TAPPING OR CUTTING IN SERVICE LATERAL TO EXISTING SEWER MAIN



MANHOLE FRAME AND COVER SHALL BE USF CO. MOD. NO. 170E

SANITARY SEWER MANHOLE FRAME & COVER

S-1

2510 US 1 SOUTH SUITE D
ST. AUGUSTINE, FL 32086
PHONE (904)794-1760
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quoc@maiengineer.com
MAI ENGINEERING SERVICES, INC.
LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

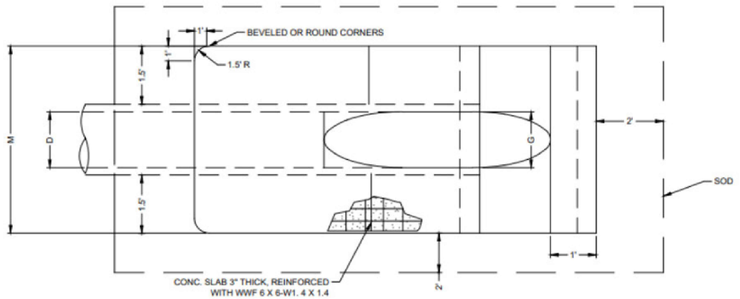
REVISIONS

#	DATE	REVISION PER CITY REQUEST
3	12/17/22	REVISION PER CITY AND RWD RAI
4	04/26/2023	REVISION PER CITY COMMENTS
5	06/26/2023	
6		

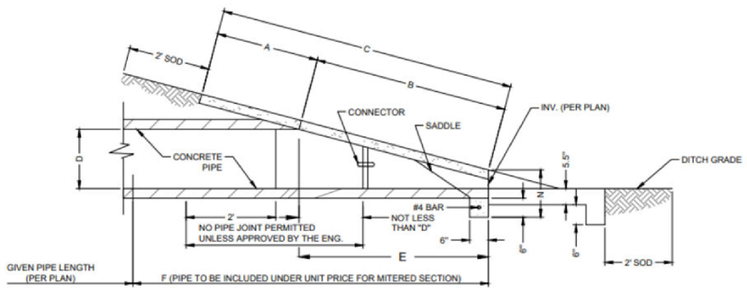
SHEET TITLE: SEWER SYSTEM DETAILS

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA
PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	8/10/2023
JOB No.:	1369
SHEET No.:	16



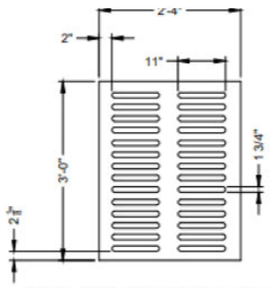
TOP VIEW - SINGLE PIPE



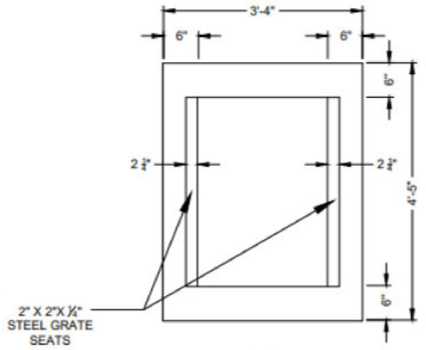
SECTION

D	A	B	C	E	F	G	M	N	X	CONC. (CY)	SOD (SY)
8"	2.5'	0.72'	3.22'	0.7'	4.0'	0.58'	3.75'	1.04'	-	.52	7
15"	2.5'	3.09'	5.59'	3.0'	7.0'	1.23'	4.33'	1.04'	-	.64	8
18"	2.5'	4.12'	6.62'	4.0'	8.0'	1.41'	4.58'	1.04'	-	.69	9
24"	2.5'	6.18'	8.68'	6.0'	10.0'	1.73'	5.08'	1.04'	-	.83	10
30"	2.5'	8.25'	10.75'	8.0'	12.0'	2.00'	5.58'	1.04'	-	.96	11
36"	2.5'	10.31'	12.81'	10.0'	14.0'	2.24'	6.08'	1.04'	-	1.08	12

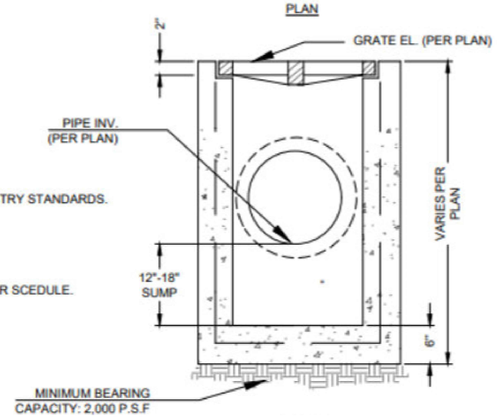
MITERED END SECTION | GD1
N.T.S.



GRATE - APPROXIMATE WEIGHT = 235 LBS.



PLAN



NOTES:
1.PRECAST IN ACCORDANCE WITH LATEST INDUSTRY STANDARDS.
2. GROUT OR "RAM-NEK" JOINTS AS REQUIRED.
3. CONCRETE DESIGN STRENGTH: 4,000 PSI
4. PIPE MUST NOT BE IN CONSTRUCTION JOINT.
5. TYPE II CEMENT TO BE USED.
6.PIPES SHALL BE FLUSH WITH INSIDE WALL.
7. SEE FDOT INDEX 201 FOR REINFORCEMENT BAR SCEDULE.

RECOMMENDED MAXIMUM PIPE SIZE:
2'-0" WALL-18" PIPE
3'-1" WALL-24" PIPE

PRECAST TYPE "C" INLET | GD2
N.T.S.

2510 US 1 SOUTH SUITE D
ST. AUGUSTINE, FL 32086
PHONE (904)794-1760
FAX (904)794-1768
quoc@maiengineer.com
MAI ENGINEERING SERVICES, INC.
LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

Item # 2.

REVISIONS

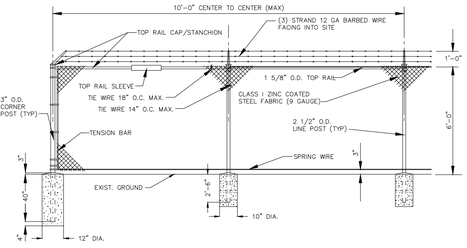
#	DATE	REVISION
2	12/17/202	REVISION PER CITY REQUEST
3	04/25/2023	REVISION PER CITY AND RWD RAI
4	06/29/2023	REVISION PER CITY COMMENTS
5		
6		

DRAINAGE DETAILS

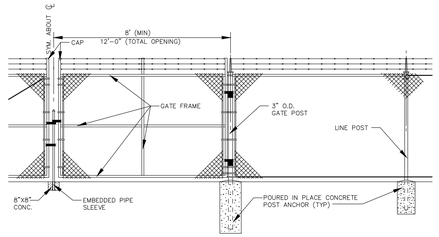
SHEET TITLE

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA
PREPARED FOR
RIVER OAKS OUTDOOR, LLC

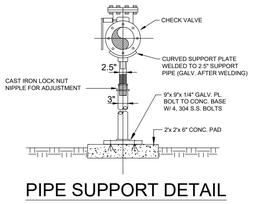
DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	8/10/2023
JOB No.:	1369
SHEET No.:	17



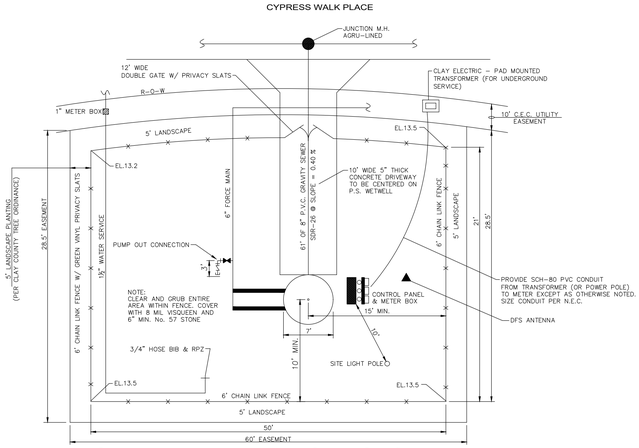
CHAIN LINK FENCE+CORNER POST DETAIL



GATE DETAIL



PIPE SUPPORT DETAIL



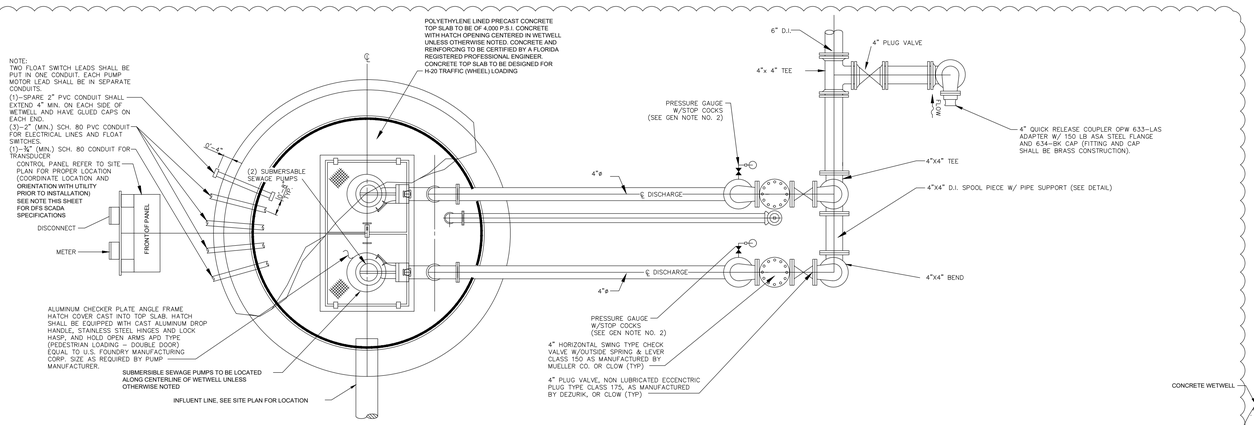
TYPICAL PERMANENT PUMP STATION SITE PLAN

N.T.S.

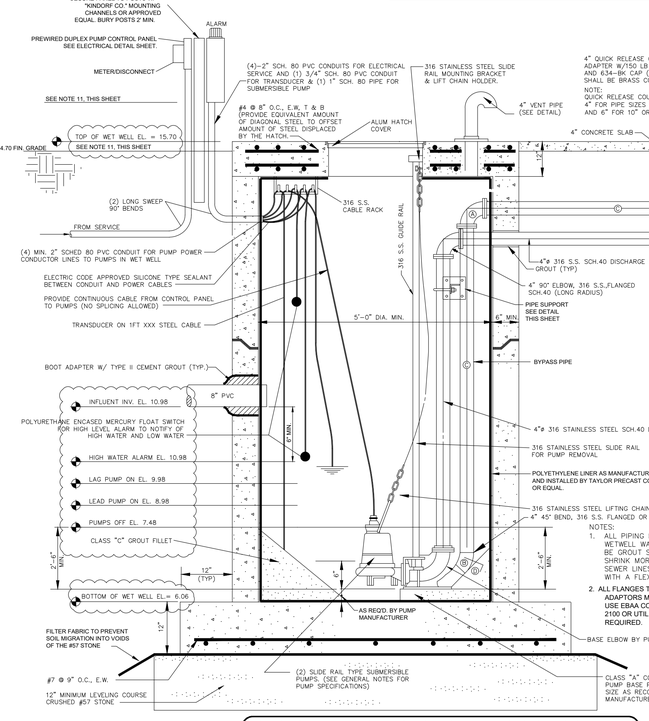
GENERAL NOTES:

1. PUMPS: TWO (2) OR THREE (3) TOTALLY SUBMERSIBLE FLYGT (OR APPROVED SUBSTITUTE) SEWAGE PUMPS WITH INTEGRAL MOTORS. DISCHARGE CONNECTION AND ELECTRICAL REQUIREMENTS AS DETERMINED.
2. GAUGES: GAUGES SHALL BE FURNISHED WHERE SHOWN MOUNTED FACE UP. GAUGES SHALL BE 4" N DIAMETER BOURDON TUBE TYPE WITH BRASS MOVEMENTS, COMPLETELY SEALED UNBREAKABLE PLEXIGLASS CRYSTAL, WITH NOT LESS THAN 90% GLYCERIN-FILLED STAINLESS STEEL CASES. EACH GAUGE SHALL HAVE A BRONZE SCREW TYPE GAUGE COCK. GAUGE RANGE SHALL BE APPROXIMATELY TWICE THE NORMAL RANGE. GAUGES SHALL BE EQUIPPED WITH A SAFELY BLOW-OUT PLUG AND DAMPENING SCREW. GAUGES SHALL BE MOUNTED USING ¾" (NPT) STEEL PIPE WITH DIAPHRAM PROTECTORS WITH STAINLESS STEEL DIAPHRAGM AND STOP COCKS BETWEEN DISCHARGE PIPES AND GAUGES. GAUGES SHALL BE EQUAL TO THOSE MANUFACTURED BY THE LENZ COMPANY.
3. FENCING: ALL PARTS FOR CONSTRUCTION OF THE FENCE AND NECESSARY TO MAKE A COMPLETE INSTALLATION SHALL BE FURNISHED AND INSTALLED. FENCING SHALL COMPLY WITH ASTM A392–68T LATEST SPECIFICATIONS FOR ZINC COATED STEEL CHAIN LINK FENCE FABRIC AND AS DETAILED ON THE DRAWING. FITTINGS SHALL BE MALLEABLE IRON OR PRESSED STEEL FORGINGS. ALL FERROUS MATERIALS SHALL BE THOROUGHLY GALVANIZED BY THE HOT-DIP METHOD.
   A. PRIVACY SLATS: SLATS SHALL BE FLAT,TUBULAR IN SHAPE, THERMOPLASTIC WITH A WALL THICKNESS F 0.030" ±(0.003"). LENGTH AND WIDTH OF SLATS SHALL BE PROVIDED TO ACCOMMODATE CHAIN–LINK FENCE FABRIC AS SPECIFIED HEREIN. SLATS SHALL HAVE A HORIZONTAL LOCKING STRIP TO PROVIDE SECURE ATTACHMENT TO CHAIN–LINK FABRIC, AND PROVIDE A PRIVACY FACTOR OF 89 %. THE MINIMUM WIDTH SLAT SHALL BE 1–1/8". ACCEPTABLE MANUFACTURER: PATRICIAN PRODUCTS, OR EQUAL.
   B. PRIVACY SCREENING: ENVIRONMENTAL PRIVACY SCREENING SHALL BE 86 TO 90% KNIT RASCHEL, 100% POLYETHYLENE UV STABILIZED FIBER, COLOR GREEN. SCREENING SHALL BE ATTACHED TO THE FENCE FABRIC WITH SUFFICIENT TIES TO SECURE THE SCREEN. ACCEPTABLE SCREEN: PRIVACY PLUS OR EQUAL.
4. ALL PRECAST REINFORCED CONCRETE PRODUCTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C478 (LATEST), WITH CLASS A. CONCRETE UNLESS OTHERWISE NOTED. ALL CONCRETE AND REINFORCING SHALL BE CERTIFIED BY AN ENGINEER REGISTERED WITH THE STATE OF FLORIDA.
5. ALL DISCHARGE PIPING FROM THE PUMPS THROUGH TO THE VALVE VAULT SHALL BE 316 GRADE, SCH.40 STAINLESS STEEL. THIS **INCLUDES ALL FITTINGS WITHIN THIS PRESCRIBED LIMIT.**
6. ALL DISCHARGE PIPE FITTINGS 6" AND LARGER (AFTER THE VALVE VAULT) SHALL BE POLY-LINED (40 MIL THICKNESS DUCTILE IRON. ALL DISCHARGE PIPE FITTING 4" AND SMALLER SHALL BE EPOXY LINED OR POLY-LINED (40 MIL THICKNESS) DUCTILE IRON.
7. PUMP STATION SITE SHALL BE COVERED (INSIDE OF FENCED AREA) WITH NO. 57 LIMESTONE 6" THICK WITH 8 MIL VISQUEEN BETWEEN ROCK AND GRADE. DRIVEWAY SHALL BE 5"–2500 PSI CONCRETE.
8. ALL DUCTILE IRON FITTINGS AND PIPE SHALL BE HOLIDAY TESTED PRIOR TO INSTALLATION.
9. DUCTILE IRON PIPE, FITTINGS AND BOLTS SHALL RECEIVE A THOROUGH EXTERIOR COATING OF BITUMINOUS COATING AS SPECIFIED IN A.N.S.I. SPECIFICATIONS A21.51.
10. ALL EXTERIOR JOINTS OF PRECAST CONCRETE WETWELLS SHALL BE SEALED WITH A RUBBERIZED ASPHALT MEMBRANE TAPE. TAPE SHALL BE PERM–A–BARRIER BY W.R. GRACE, ELASTOPLY BY KARNAK OR EQUAL.
11. ENGINEERS SHALL PROVIDE VERIFICATION THAT THE TOP OF THE WETWELL BOTTOM OF CONTROL PANELS, GENERATOR RECEPTACLE AND GENERATOR SLAB ARE ALL ABOVE THE 100 YR. FLOOD ELEVATION. THEREFORE, I DO HEREBY CERTIFY THAT THE ABOVE ELEVATIONS HAVE BEEN MET.
12. ALL PUMP STATIONS SHALL BE CONTROLLED BY DATA FLOW SYSTEMS SCADA, OR OTHERWISE APPROVED BY THE CITY OF GREEN COVE SPRINGS.

(PROFESSIONAL ENGINEERS SIGNATURE)



WETWELL AND VALVE VAULT PLAN VIEW



BYPASS PIPE AND FITTINGS SCHEDULE
A. 4" – 90° BEND 316 S.S. (FLANGED)
B. 4" – 45° BEND 316 S.S. (WELDED OR FLANGED)
C. 4" 316 S.S SCH–40 PIPE
D. (1) 316 S.S. ANCHOR STRAP AND ¾" 316 S.S. ANCHOR BOLTS AND NUTS

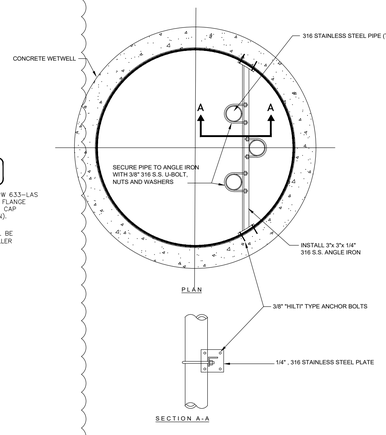
NOTE: BYPASS PIPE DIAMETER TO MATCH DISCHARGE PIPE SIZE, EXCEPT THAT THE MINIMUM SHALL BE 4 INCHES.

NOTES:
1. ALL PIPING PORTS EXCEPT INFLUENT SEWER LINES IN WETWELL WALL ABOVE HIGH WATER ELEVATION SHALL BE GROUT SEALED WITH EMBECO NO. 167 OR NO. 381 NON–SHRINK MORTOR OR THERMOSET GROUT. ALL INFLUENT SEWER LINES SHALL BE SEALED IN WETWELL WALL WITH A FLEXIBLE PIPE TYPE MANHOLE CONNECTOR.
2. ALL FLANGES TO BE FACTORY MADE. RESTRAINED FLANGE ADAPTORS MAY BE USED OUTSIDE OF WETWELL ONLY. USE EBAA CO. "MEGA FLANGE-FLANGE ADAPTOR" NO. 2100 OR UTILITY APPROVED EQUAL. 316 S.S. FASTENERS REQUIRED.

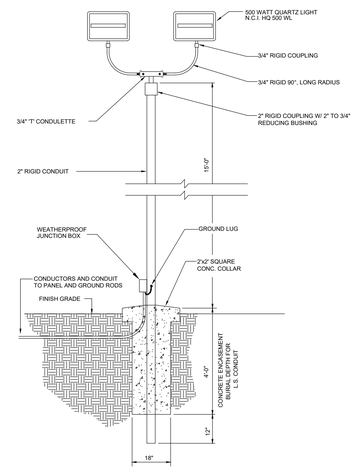
NOTE TO ENGINEER: THE TYPE OF PUMP STATION ALLOWED AND THE SPECIFIC PUMPS TO BE USED WILL BE MUTUALLY AGREED TO BY ENGINEER AND UTILITY AT THE TIME OF DESIGN DEPENDING ON THE SPECIFIC APPLICATION. ALSO PIPE SIZES AND SPACING DIMENSIONS ARE TO BE DETERMINED FOR EACH SPECIFIC PUMP STATION INSTALLATION.

PERMANENT POLYETHYLENE LINED SUBMERSIBLE PUMP STATION WITH VALVE PIT - ELEVATION

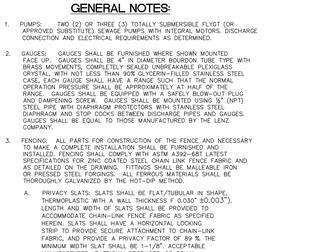
(NOTE: PIPE SIZES, WETWELL SIZES AND INSIDE DIMENSIONS OF VALVE PIT TO BE VERIFIED BY ENGINEER AND MODIFIED AS NECESSARY.)



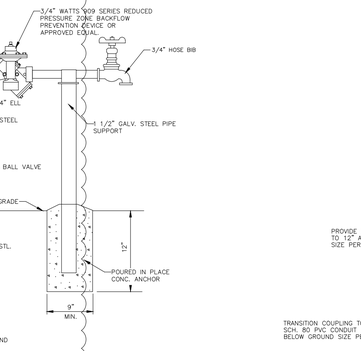
PIPE ATTACHMENT TO WALL DETAIL



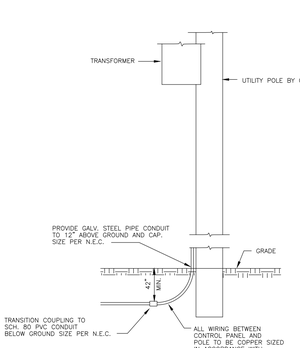
SITE LIGHT STANDARD DETAIL



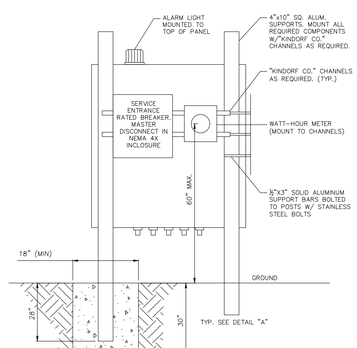
VENT PIPE DETAIL



WATER SERVICE



POWER RISER DETAIL



DETAIL "A"

TYPICAL DISCONNECT PANEL

2510 US 1 SOUTH SUITE D
ST. AUGUSTINE, FL 32086
PHONE (904)794–1760
FAX (904)794–1768
quoc@maiengineer.com

MAI ENGINEERING SERVICES, INC.

LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#2162

REVISIONS

#	DATE	DESCRIPTION
4	12/17/22	REVISION PER CITY REQUEST
3	04/26/2023	REVISION PER CITY AND FDEP
2	06/26/2023	REVISION PER CITY COMMENTS
1		

PUMP STATION DETAILS

RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA
PREPARED FOR
RIVER OAKS OUTDOOR, LLC

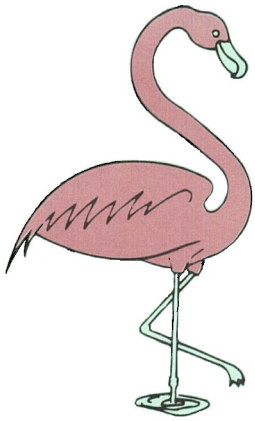
SHEET TITLE

DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	8/10/2023
JOB No.:	1362
SHEET No.:	18

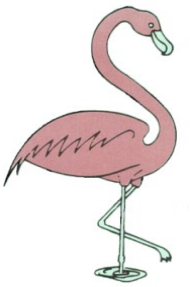
RIVER OAKS OFFICE-WAREHOUSE TRAFFIC STUDY

CLAY COUNTY, FLORIDA

November 2023



BUCKHOLZ TRAFFIC



BUCKHOLZ TRAFFIC
3585 KORI ROAD
JACKSONVILLE, FLORIDA 32257
(904) 886-2171 jwbuckholz@aol.com

November 1, 2023

Ms. Quoc H. Mai, P.E.
MAI Engineering Services, Inc.
2510 US 1 South / Suite D
St. Augustine, Florida 32086

Re: **New River Oaks Office-Warehouse Traffic Study**

Dear Ms. Roth:

Attached is the new traffic study for the revised development. If there are any questions or comments regarding this study, please contact me.

Sincerely,

PRELIMINARY – FOR INTERNAL REVIEW ONLY

Jeffrey W. Buckholz, P.E., PTOE
Principal

INTRODUCTION

The revised River Oaks development will contain four buildings totaling 76,000 sf of commercial space. Building sizes will be 30,000 sf, 21,000 sf, 15,000 sf and 10,000 sf. These buildings will be located on the south side of Cove Lane approximately ¼ mile west of the US 17/SR 16/Cooks Lane intersection in Clay County, Florida. Two existing businesses will be relocated to the site. Van Up-Fitter will occupy the 30,000 sf building and River Oaks Outdoor will occupy the 15,000 sf building. The 21,000 sf building will be composed of warehouse space whereas the 10,000 sf building will contain 5000 sf of warehouse space and 5000 sf of office space.

Access to the development will be provided via one full access driveway on Cooks Lane. Cooks Lane is a two lane undivided major collector with a posted speed limit of 25 mph. US 17 and SR 16 are both urban principal arterials with an FDOT access management classification of 3. The posted speed limit on SR 16 and US 17 to the south of SR 16 is 45 mph while the posted speed limit on US 17 to the north of SR 16 is 45 mph northbound and 35 mph southbound.

Figure 1 shows the site location and surrounding road network while Appendix A contains the proposed site plan. The development is expected to be constructed and fully occupied by the end of 2026, therefore 2026 was chosen as the design year for this study.

EXISTING TRAFFIC VOLUMES

Weekday peak period manual turning movement counts were conducted by Buckholz Traffic personnel during December of 2022 with school in session at the US 17/SR 16/Cove Lane intersection. These counts, which are provided in Appendix B, were conducted during the weekday AM peak period (6:30 to 8:30 AM) and the weekday PM peak period (3:45 – 6:00 PM). The data was recorded at 15-minute intervals and includes a separate tabulation for trucks and pedestrians. Figure 2 graphically summarizes the AM and PM peak hour counts while Figure 3 summarizes the AM and PM peak period counts.

Appendix C provides daily traffic volumes for four nearby FDOT traffic counting stations. The current Average Daily Traffic (ADT) on Cooks lane is approximately 1600 vehicles per day. Also included in Appendix C are the FDOT seasonal adjustment factors for Clay County.

TRIP GENERATION

Trip generation calculations for the warehouse and office space were carried out using the 11th edition of ITE's Trip Generation Manual and referencing land use codes 150 (Warehousing) and 710 (Office). Tables 1 and 2 contain the associated daily, AM peak hour, and PM peak hour trip generation calculations. Trip generation calculations for the two relocated businesses are provided in Tables 3 and 4. The calculations are based on client-provided activity data. During an average weekday, the development is expected to generate 176 total trips (88 entering and 88 exiting) with 31 trips (23 entering and 8 exiting) occurring during the AM peak hour and 33 trips (8 entering and 25 exiting) occurring during the PM peak hour. All of these trips will be new trips.

SITE TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

Weekday AM and PM peak hour site trips were directionally distributed based on peak period turning movement counts and engineering judgment as shown in Figure 4.

FUTURE TRAFFIC VOLUMES

The expected weekday 2026 peak hour background (No Build) traffic volumes and total (Build) traffic volumes at intersections of interest are graphically depicted in Figures 5 and 6. The No Build traffic volumes were obtained by multiplying the existing traffic volumes by the appropriate FDOT seasonal adjustment factor (1.00) and then by a median annual growth rate of 1.8%. A linear regression analysis of recent FDOT daily traffic counts at nearby traffic counting stations was used to identify this rate (see graphs C-1, C-2, C-3 and C-4 in Appendix C). The 2026 Build traffic volumes were obtained by adding the traffic generated by the new development to the 2026 No Build traffic volumes.

TURN LANE EVALUATION

A formal analysis was made to determine if a right turn lane is warranted on eastbound Cooks Lane at the new Site Driveway. The methodology contained in NCHRP Report 279 was used to conduct this analysis. As is indicated in Figure 7, right turn volumes into the site will not be high enough to warrant an exclusive right turn lane. This result is supported by NCHRP Report 420 which requires 80 right turns per hour to warrant a right turn lane on a 2-lane roadway with a posted speed less than 45 mph.

A formal analysis was also made to determine if an exclusive left turn lane is warranted on westbound Cooks Lane at the Site Drive. The methodology contained in a paper written by M.D. Harmelink entitled: "Volume Warrants for Left Turn Storage Lanes at Unsignalized Grade Intersections" was used to conduct this evaluation. The results indicate that left turn volumes under 2026 Build conditions will not be high enough to warrant an exclusive left turn lane at this location. The supporting analysis is provided in Figures 8 and 9.

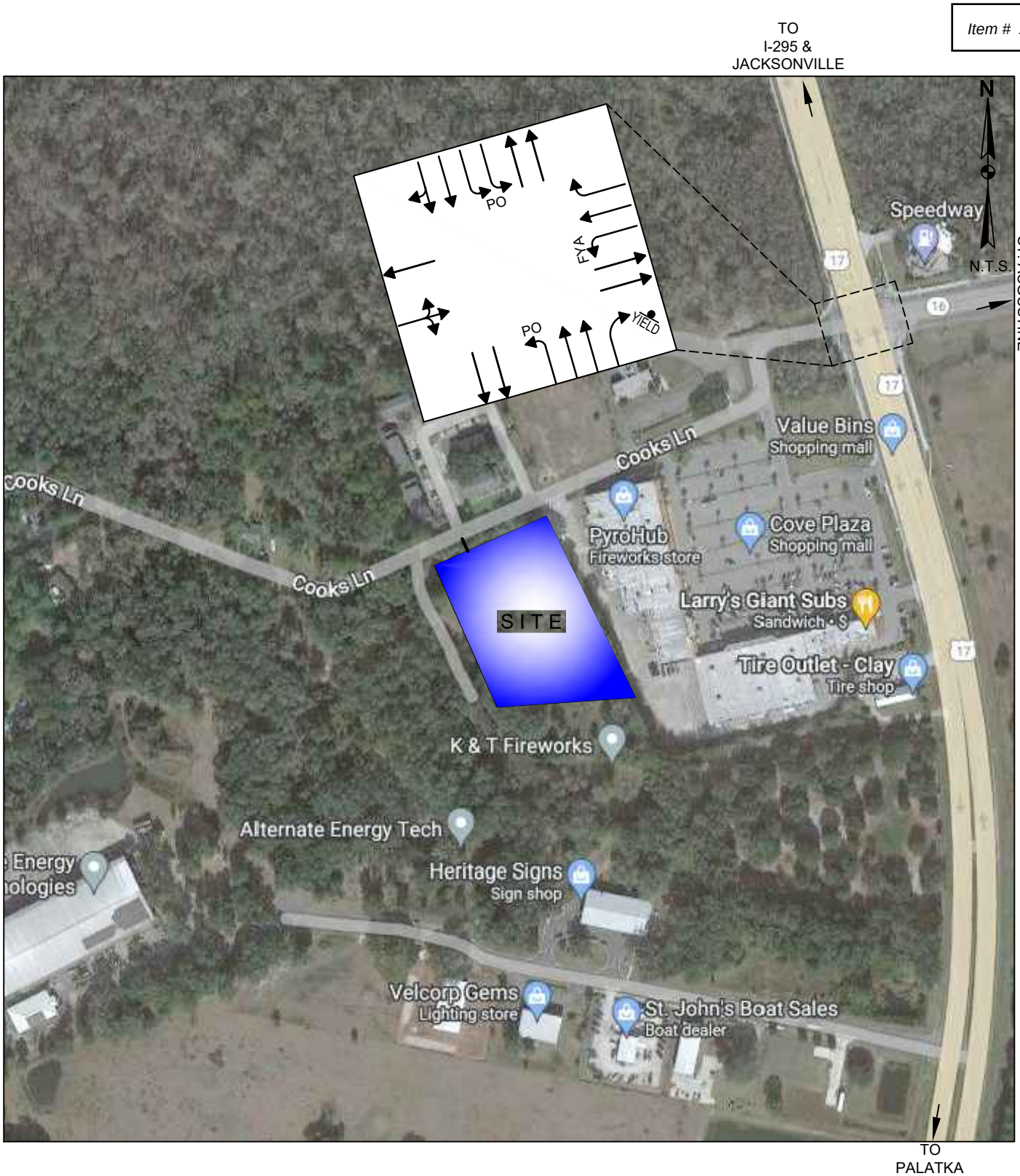
UNSIGNALIZED INTERSECTION CAPACITY ANALYSIS

The unsignalized Cooks Lane/Site Drive intersection was analyzed using the two-way stop control methodology contained in the 2023 version of the Highway Capacity Software. Table 3 summarizes the capacity analysis results under 2026 Build conditions with the supporting calculations provided in Appendix D. All minor movements at the Cooks Lane/Site Drive intersection are expected to operate at level of service A or better during both weekday peak hours with minimal queuing and a volume-to-capacity ratio of well less than one.

SIGNALIZED INTERSECTION CAPACITY ANALYSIS

The signalized US 17/SR 16/Cooks Lane intersection was analyzed using the operational methodology contained in the 2023 version of the Highway Capacity Software. The existing traffic signal timings are provided in Appendix E. Table 4 summarizes the capacity analysis results with the supporting calculations provided in Appendix F.

The US 17/SR 16/Cooks Lane intersection currently operates at level of service C during the weekday AM peak hour and level of service D during the PM peak hour and is expected to continue to operate at these levels of service under 2026 Build conditions. With a more balanced set of timings implemented to even-out individual movement levels of service the overall intersection level of service under 2026 Build conditions is expected to be D for both weekday peak hours.



FYA = FLASHING YELLOW ARROW
PO = PROTECTED ONLY LEFT TURN

FIGURE 1

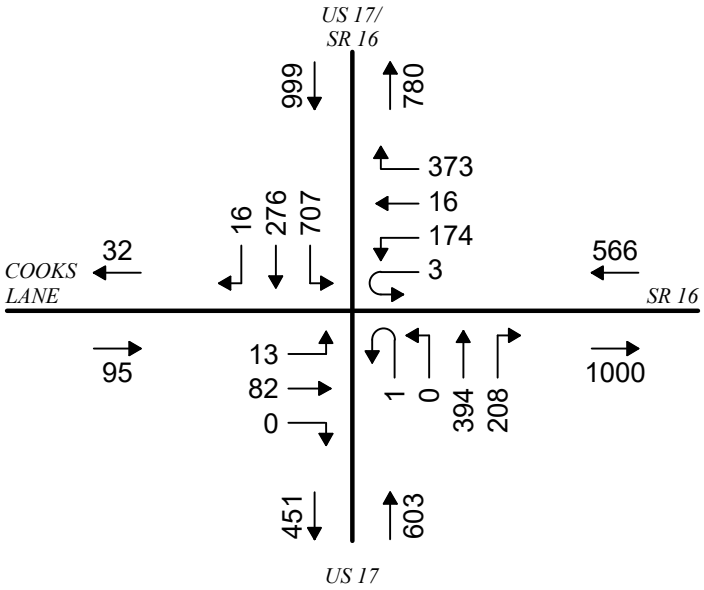
SITE LOCATION

Buckholz Traffic

E:\22-1805\CAD\FIG 01.DWG

N.T.S.

6:45-7:45 AM



4:30-5:30 PM

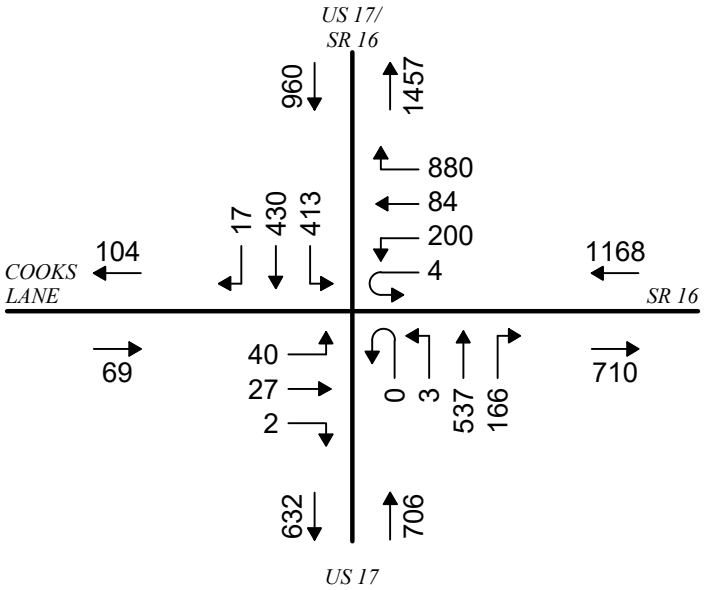


FIGURE 2

TRAFFIC
COUNTS

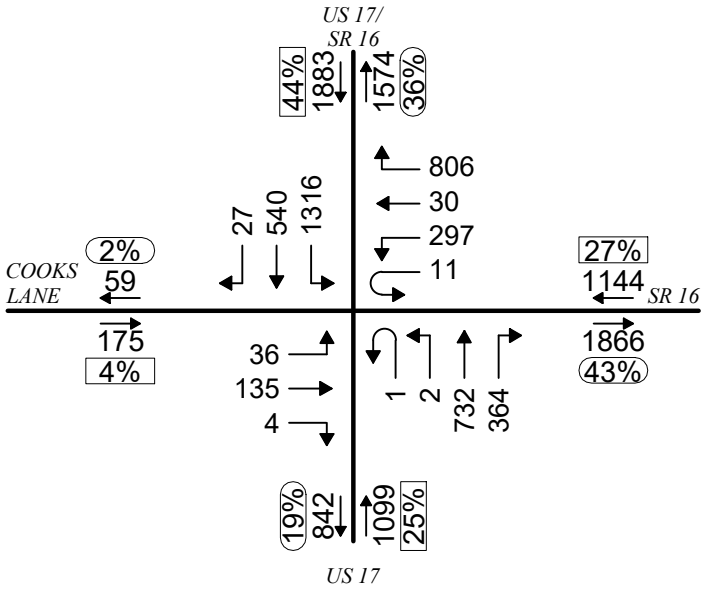
WEEKDAY PEAK HOURS

Buckholz Traffic

E:\22-1805\CAD\FIG_02.DWG

N.T.S.

6:30-8:30 AM



3:45-6:00 PM

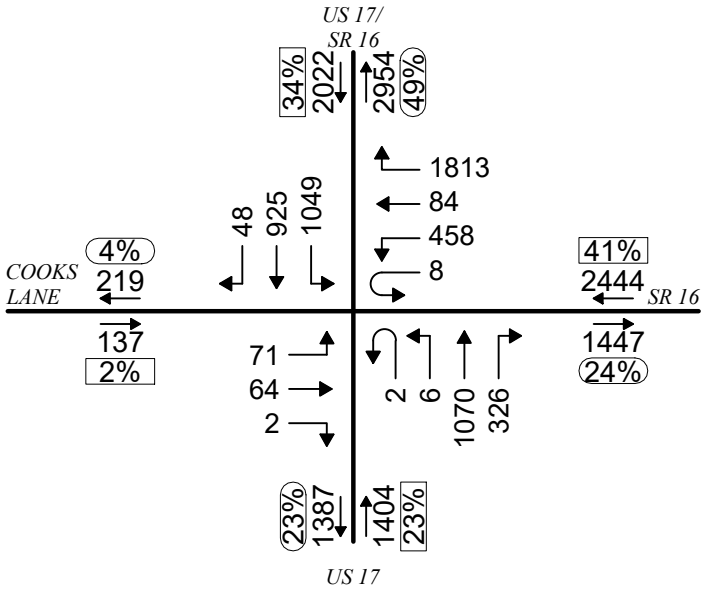


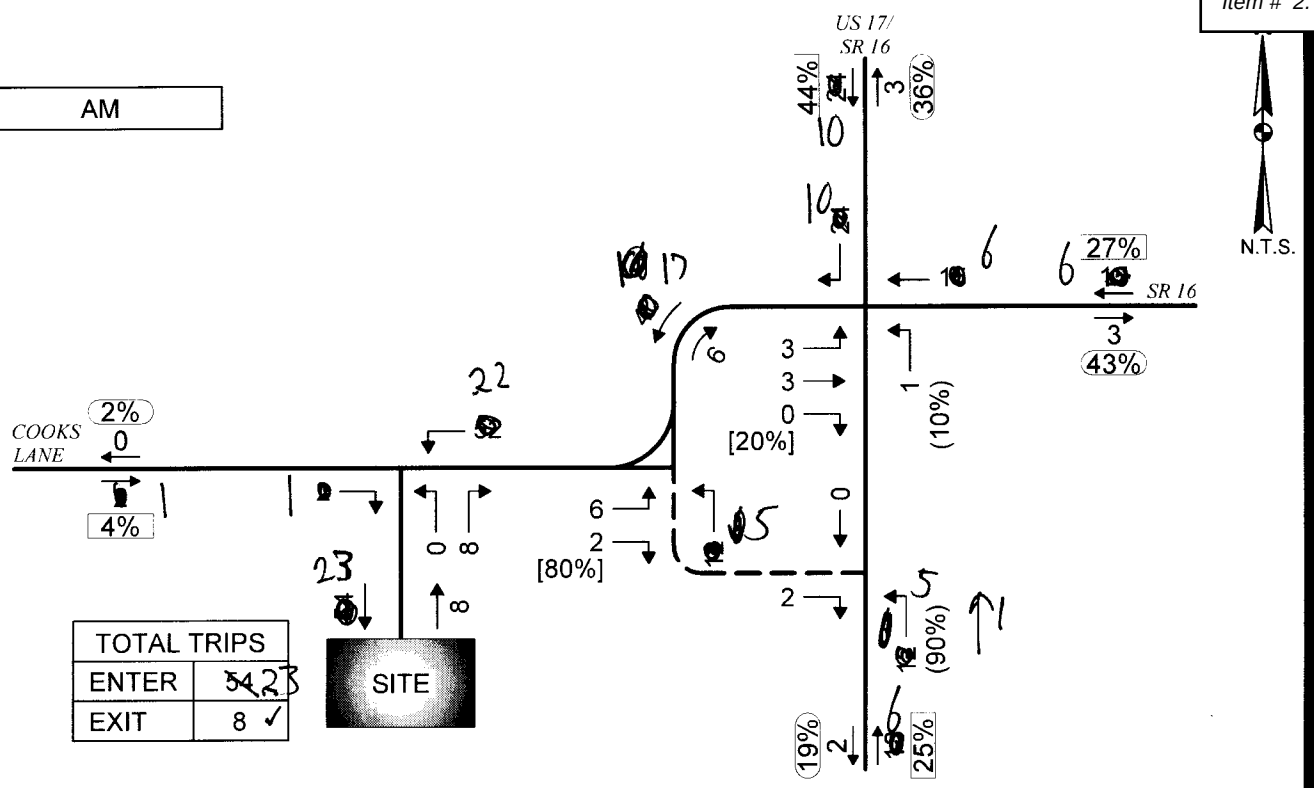
FIGURE 3

TRAFFIC
COUNTS

WEEKDAY PEAK PERIODS

Buckholz Traffic

E:\22-1805\CAD\FIG_03.DWG



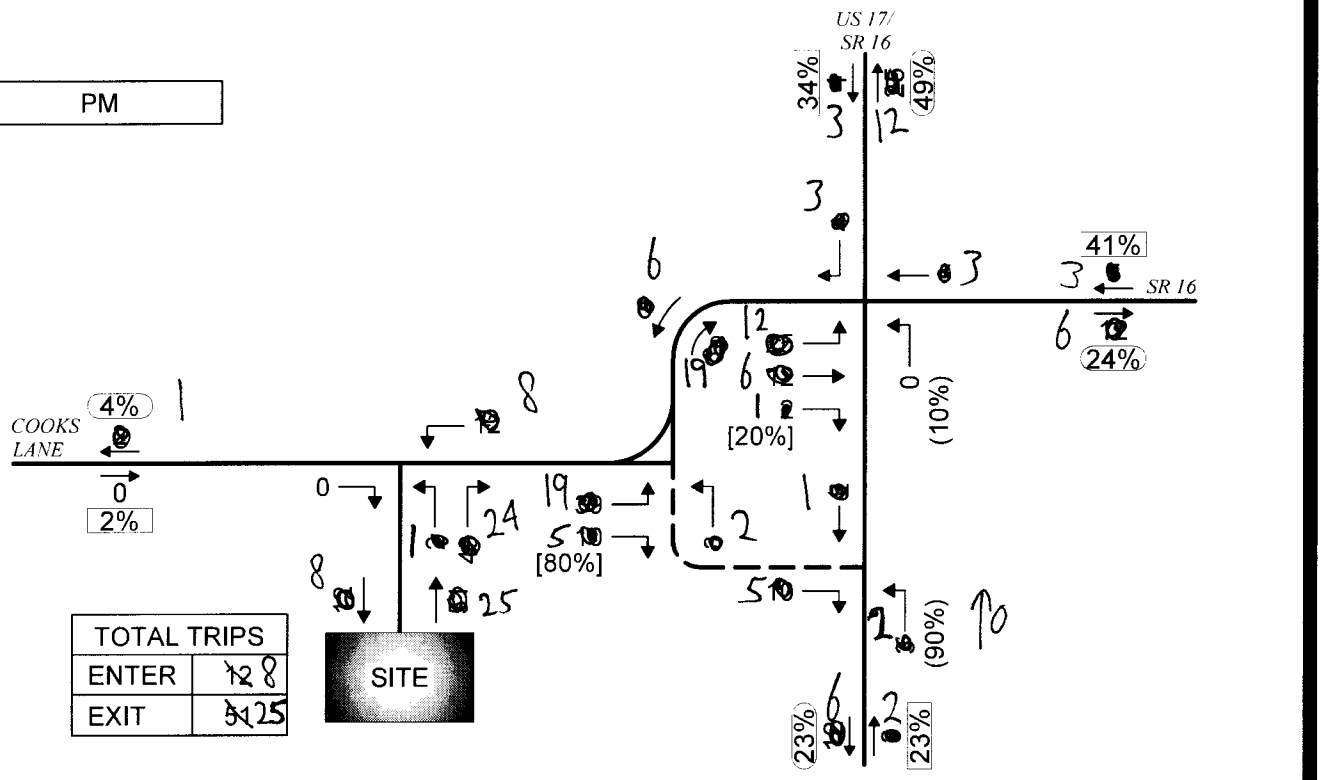


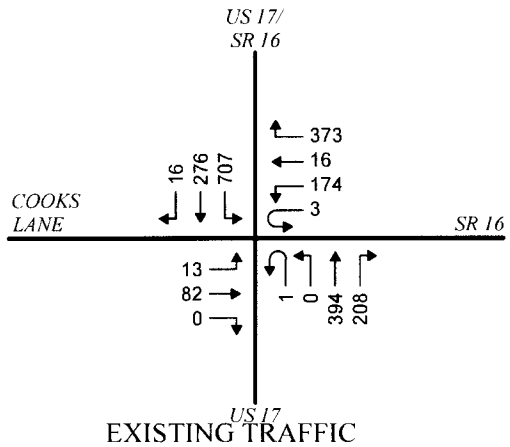
FIGURE 4

SITE TRAFFIC ASSIGNMENT

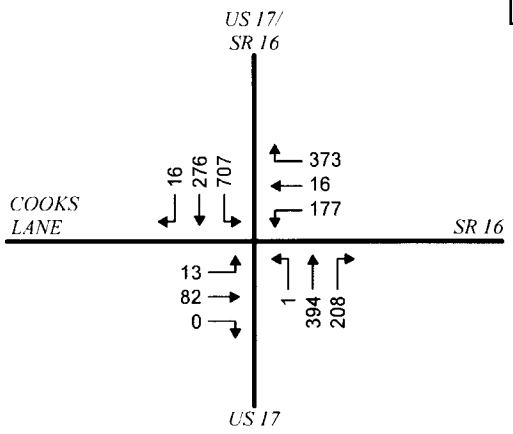
WEEKDAY PEAK HOURS

Buckholz Traffic

E:\22-1805\CAD\FG_04.DWG

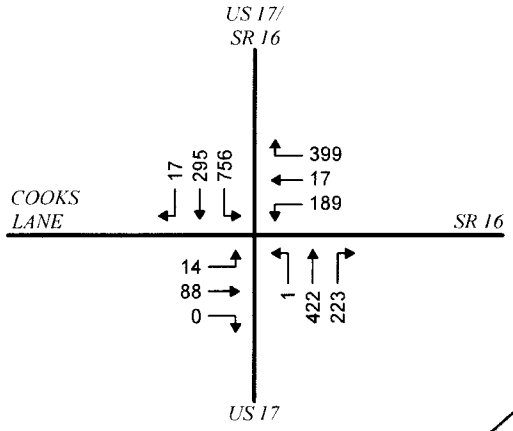


EXISTING TRAFFIC
12/15/22
6:45-7:45 AM

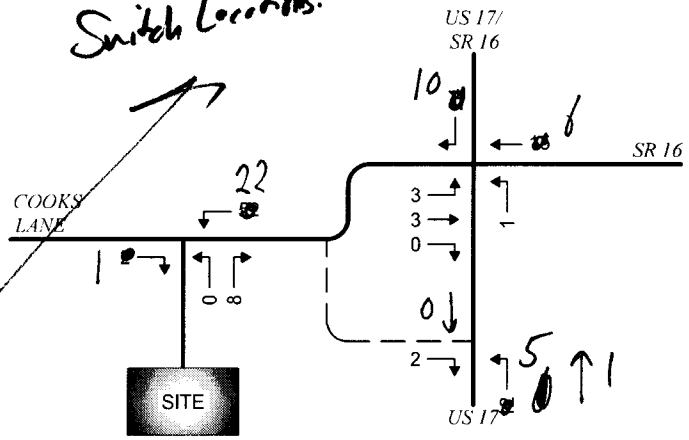


N.T.S.

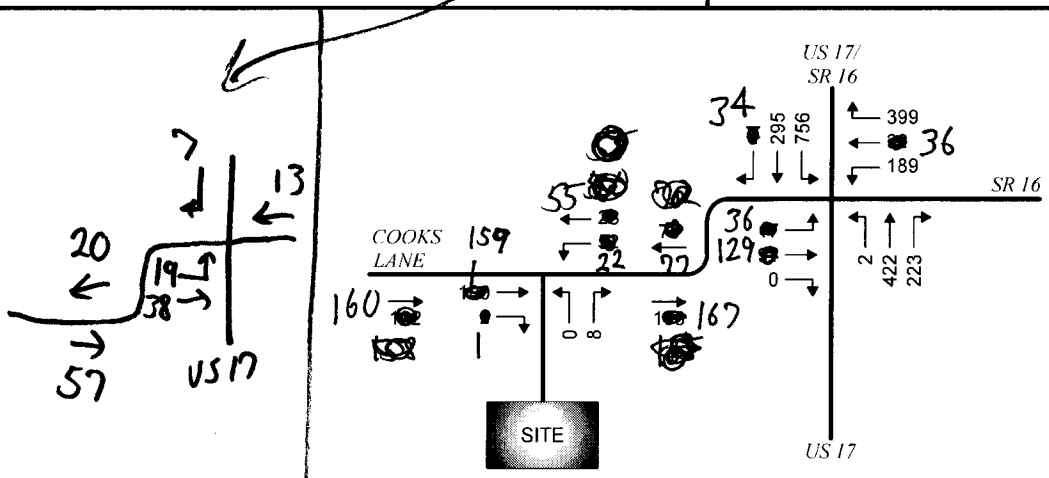
2022 SEASONALLY ADJUSTED TRAFFIC
FDOT SEASONAL CORRECTION FACTOR = 1.00



2026 NO BUILD TRAFFIC
AVERAGE ANNUAL GROWTH RATE = 1.8% (GE=1.07)



SITE TRAFFIC



2026 BUILD TRAFFIC

AYRSHIRE PUD
Phases I & II
TRAFFIC

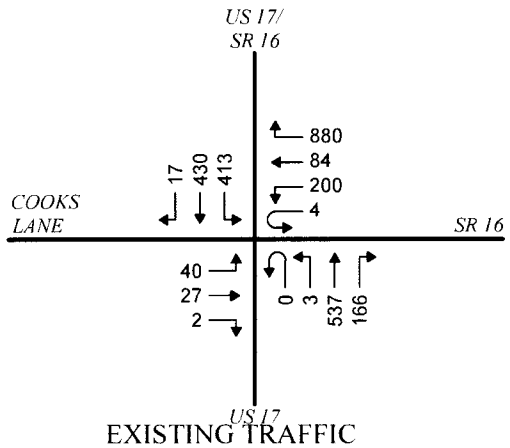
Buckholz Traffic

FIGURE 5

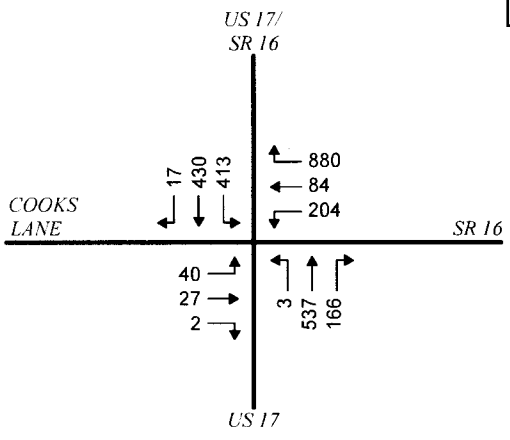
2026 BUILD TRAFFIC
US 17 / SR 16

WEEKDAY AM PEAK HOUR

E:\22-1805\CAD\FG_05.DWG

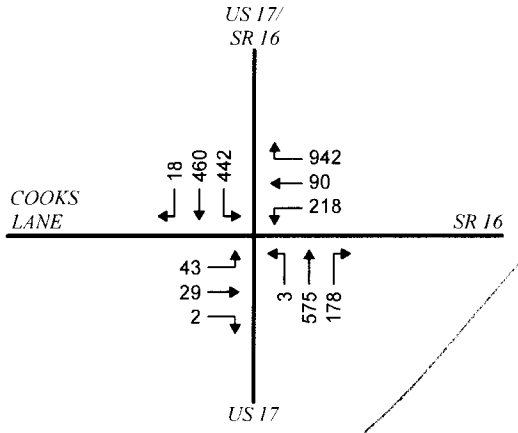


EXISTING TRAFFIC
12/12/22
4:30-5:30 PM



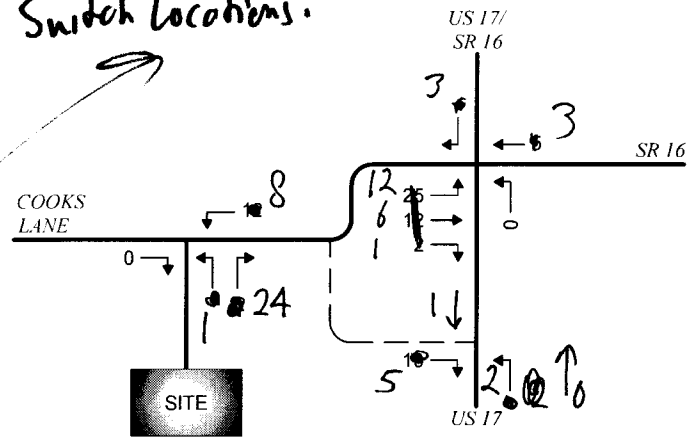
2022 SEASONALLY ADJUSTED TRAFFIC
FDOT SEASONAL CORRECTION FACTOR = 1.00

N.T.S.

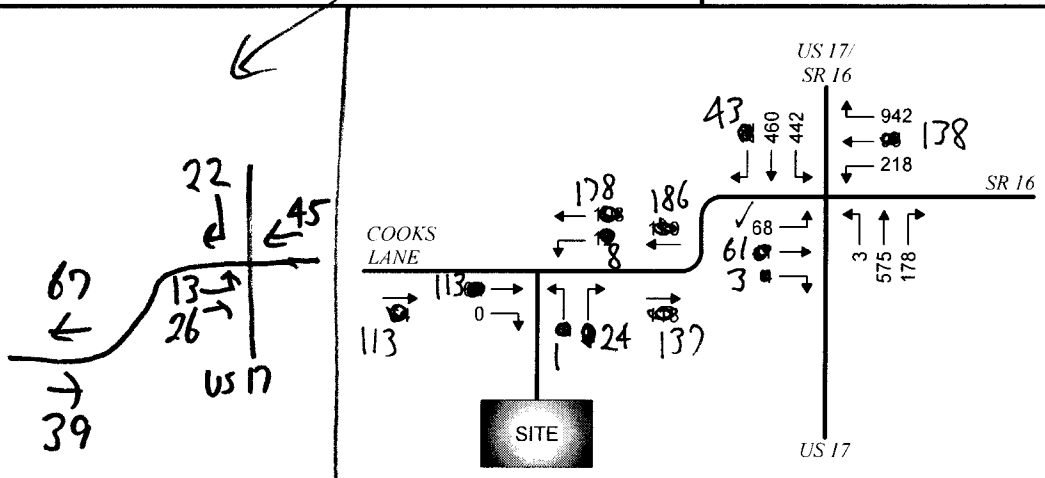


2026 NO BUILD TRAFFIC
AVERAGE ANNUAL GROWTH RATE = 1.8% (GF=1.07)

Switch locations!



SITE TRAFFIC



2026 BUILD TRAFFIC

AYRSHIRE PUD
Phases I & II
TRAFFIC

Buckholz Traffic

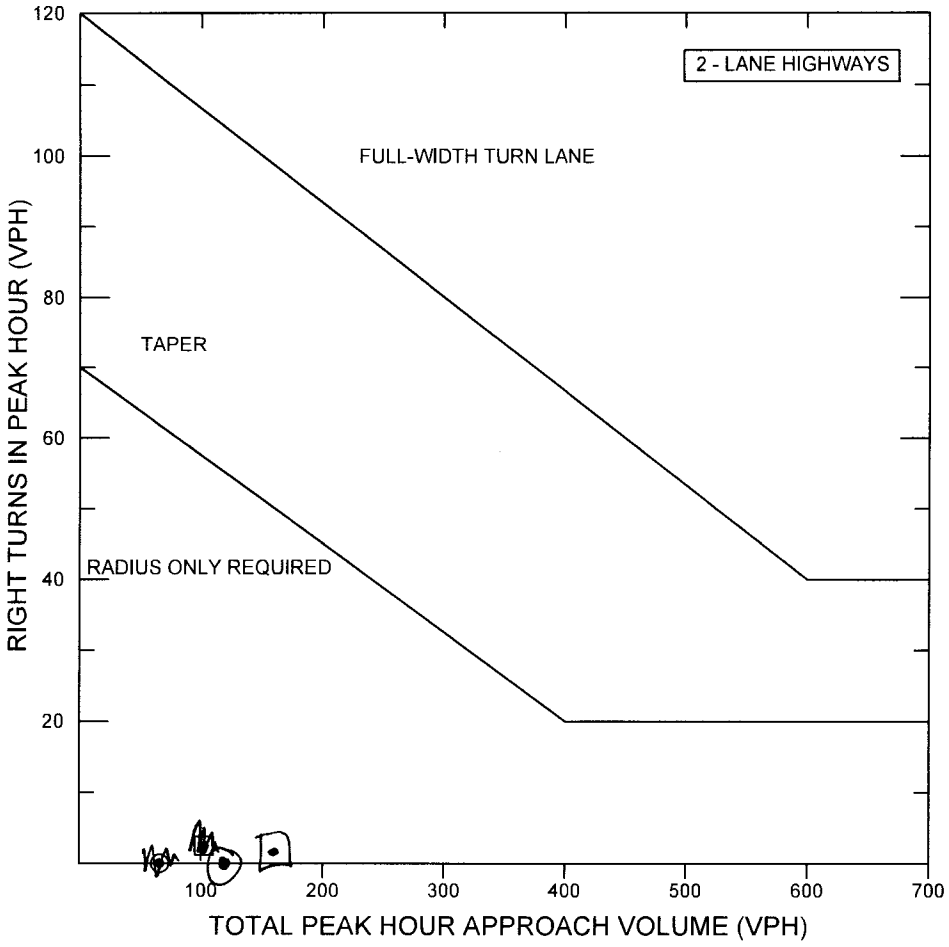
FIGURE 6

2026 BUILD TRAFFIC
US 17 / SR 16

WEEKDAY PM PEAK HOUR

E:\22-1805\CAD\FG_06.DWG

EASTBOUND COOKS LANE @ SITE DRIVEWAY



NOMOGRAPH FOR RIGHT TURN LANES

SOURCE: TRANSPORTATION RESEARCH BOARD NCHRP REPORT #279

☐ WEEKDAY AM PEAK HOUR

V_A	160
V_R	1

◉ WEEKDAY PM PEAK HOUR

V_A	113
V_R	0

NCHRP 420	
2 LANE	≤ 45 MPH

& 0 < 80 REQUIRED

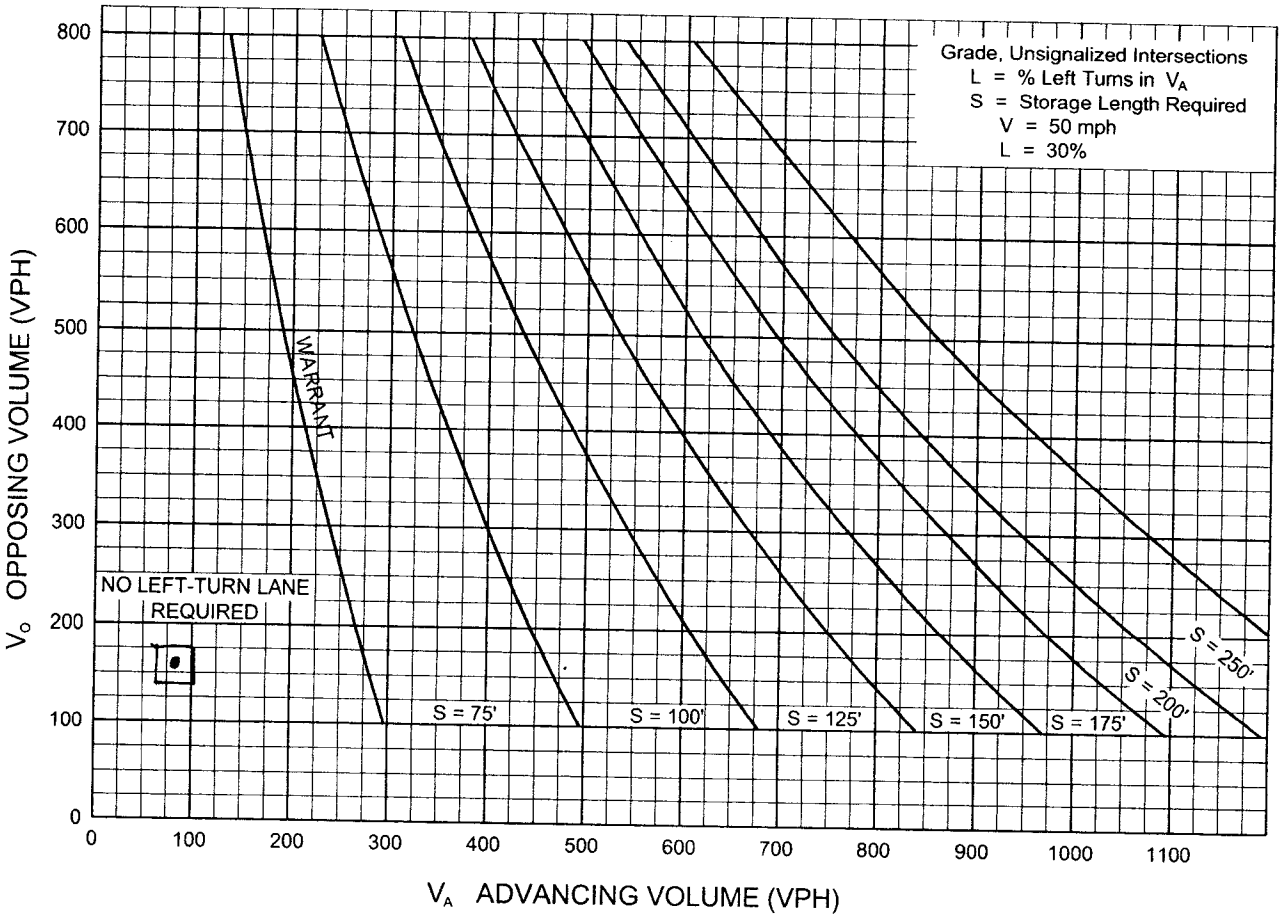
FIGURE 7

RIGHT TURN LANE ANALYSIS

2025 BUILD TRAFFIC

E:\22-1805\CAD\FIG_07.DWG

WESTBOUND COOKS LANE AT SITE DRIVEWAY



WARRANT FOR LEFT-TURN LANES ON TWO-LANE HIGHWAYS

☑ AM PEAK HOUR	⊙ PM PEAK HOUR
V_A = - 77	V_A = -
V_o = - 168	V_o = -
V_L = - 22	V_L = -
%LT = $\frac{V_L}{V_A}$ = 29 %	%LT = $\frac{V_L}{V_A}$ = __ %

FIGURE 8

LEFT TURN LANE ANALYSIS

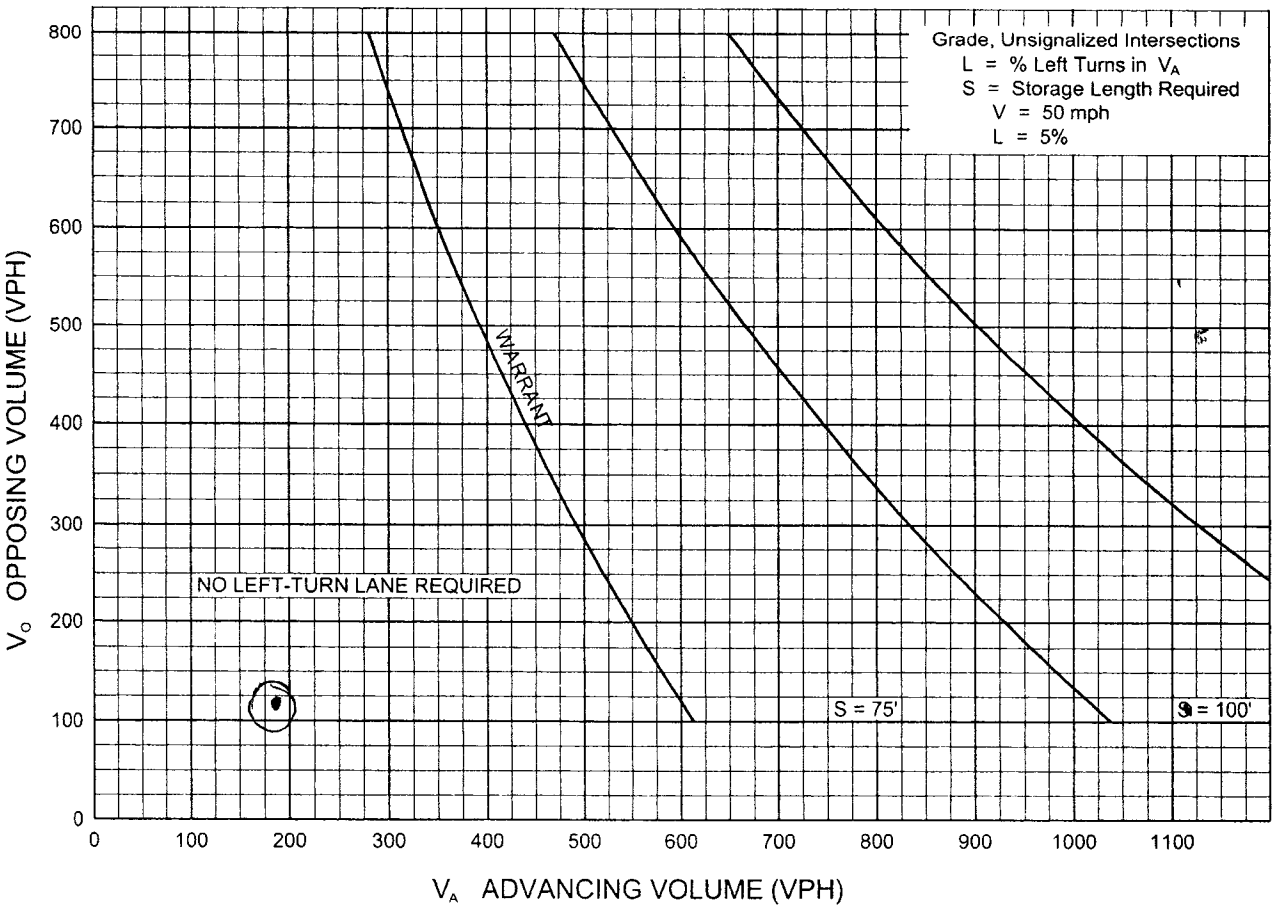
SOURCE: HARMELINK

2025 BUILD TRAFFIC

J:\SYM\WAR_LTL5.dwg Date: 10-27-15 T: 14: 04 By: AVDelacruz

Buckholz Traffic

WESTBOUND COOKS LANE AT SITE DRIVEWAY



WARRANT FOR LEFT-TURN LANES ON TWO-LANE HIGHWAYS

⊡ AM PEAK HOUR	◬ MIDDAY PEAK HOUR	⊙ PM PEAK HOUR
V_A = -	V_A = -	V_A = 186
V_O = -	V_O = -	V_O = 113
V_L = -	V_L = -	V_L = 8
%LT = $\frac{V_L}{V_A}$ = $\frac{-}{-}$ = 0.0%	%LT = $\frac{V_L}{V_A}$ = $\frac{-}{-}$ = 0.0%	%LT = $\frac{V_L}{V_A}$ = $\frac{8}{186}$ = 4%

FIGURE 9

LEFT TURN
LANE ANALYSIS

2025 BUILD TRAFFIC

SOURCE: HARMELINK

TABLE 1

TRIP GENERATION CALCULATIONS

WAREHOUSING

Land Use Code 150

T = Number of Vehicle Trip Ends

Size of Building = 26,000 gsf (X = 26)

TIME PERIOD	TOTAL TRIP GENERATION EQUATION	TOTAL TRIP ENDS	PERCENT ENTERING	PERCENT EXITING	TOTAL TRIP ENDS ENTERING	TOTAL TRIP ENDS EXITING
AVERAGE WEEKDAY						
Daily	T = 1.71 (X)	44	50%	50%	22	22
AM Peak Hour	T = 0.17 (X)	4	77%	23%	3	1
PM Peak Hour	T = 0.18 (X)	5	28%	72%	1	4

SOURCE: Institute of Transportation Engineers, "Trip Generation", 11th Edition (2021)

BUCKHOLZ TRAFFIC

TABLE 2

TRIP GENERATION CALCULATIONS

GENERAL OFFICE BUILDING

Land Use Code 710

T = Number of Vehicle Trip Ends

Size of Building = 5000 gsf (X = 5)

TIME PERIOD	TOTAL TRIP GENERATION EQUATION	TOTAL TRIP ENDS	PERCENT ENTERING	PERCENT EXITING	TOTAL TRIP ENDS ENTERING	TOTAL TRIP ENDS EXITING
AVERAGE WEEKDAY						
Daily	Ln(T) = 0.87 Ln(X) + 3.05	86	50%	50%	43	43
AM Peak Hour	Ln(T) = 0.86 Ln(X) + 1.16	13	88%	12%	11	2
PM Peak Hour	Ln(T) = 0.83 Ln(X) + 1.29	14	17%	83%	2	12

SOURCE: Institute of Transportation Engineers, "Trip Generation", 11th Edition (2021)

BUCKHOLZ TRAFFIC

TABLE 3
VAN UP-FITTER
TRIP GENERATION CALCULATIONS

TRIPS	On-Site Employees 5	Customers 5 per month	Package Delivery 12 per month	Vehicle Pick-Up/Drop-Off 5 per month	EXISTING TOTAL	Expected Percentage Increase	**FUTURE TOTAL**
Daily	5 x 4 = 20 10 ENTER, 10 EXIT	2 1 ENTER, 1 EXIT	2 1 ENTER, 1 EXIT	2 1 ENTER, 1 EXIT	22 11 ENTER, 11 EXIT	10'%	**24** **12 ENTER, 12 EXIT**
AM Peak	5 x 1 = 5 ENTER	0	0	0	5 5 ENTER, 0 EXIT	10'%	**6** **6 ENTER, 0 EXIT**
PM Peak	5 x 1 = 5 EXIT	0	0	0	5 0 ENTER, 5 EXIT	10'%	**6** **0 ENTER, 6 EXIT**

BUCKHOLZ TRAFFIC

TABLE 4
RIVER OAKS OUTDOOR
TRIP GENERATION CALCULATIONS

TRIPS	On-Site Employees 2	Customers 0	Package Delivery 5 per month	Company Vehicles 5 per day	EXISTING TOTAL	Expected Percentage Increase	**FUTURE TOTAL**
Daily	2 x 4 = 8 4 ENTER, 4 EXIT	0	2 1 ENTER, 1 EXIT	10 5 ENTER, 5 EXIT	20 10 ENTER, 10 EXIT	10'%	**22** **11 ENTER, 11 EXIT**
AM Peak	2 x 1 = 2 ENTER	0	0	4 EXIT	6 2 ENTER, 4 EXIT	10'%	**8** **3 ENTER, 5 EXIT**
PM Peak	2 x 1 = 2 EXIT	0	0	4 ENTER	6 4 ENTER, 2 EXIT	10'%	**8** **5 ENTER, 3 EXIT**

BUCKHOLZ TRAFFIC

TABLE 5

UNSIGNALIZED INTERSECTION CAPACITY RESULTS

COOKS LANE / SITE DRIVE

2026 BUILD CONDITIONS	WEEKDAY AM PEAK HOUR			
Movement	LOS	Delay	v/c Ratio	95th % Queue (vehicles)
Westbound Left Turn	A	7.6 sec/veh	0.02	1
Northbound Approach	A	9.1 sec/veh	0.01	1

2026 BUILD CONDITIONS	WEEKDAY PM PEAK HOUR			
Movement	LOS	Delay	v/c Ratio	95th % Queue (vehicles)
Westbound Left Turn	A	7.5 sec/veh	0.01	1
Northbound Approach	A	9.1 sec/veh	0.03	1

BUCKHOLZ TRAFFIC

TABLE 6
SUMMARY OF SIGNALIZED INTERSECTION CAPACITY RESULTS
US 17 / SR 16 / COOKS LANE

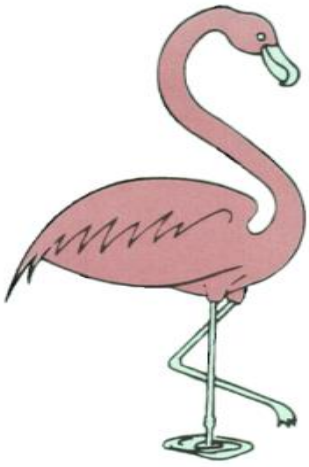
		EXISTING CONDITIONS				
	Highest v/c Ratio	Highest Queue Storage Ratio	Worst Movement Delay & LOS	Intersection Delay & LOS	Approach LOS	Cycle Length
AM PEAK HOUR	0.82 NBRT	0.99 NBRT	NBLT 168.5 sec/veh **LOS F**	30.8 sec/veh LOS C	NB/SB: D/C EB/WB: D/C	99 sec
PM PEAK HOUR	0.97 WBRT	0.52 NBRT	NBLT 106.3 sec/veh **LOS F**	37.9 sec/veh LOS D	NB/SB: D/C EB/WB: D	106 sec

		2026 BUILD CONDITIONS				
	Highest v/c Ratio	Highest Queue Storage Ratio	Worst Movement Delay & LOS	Intersection Delay & LOS	Approach LOS	Cycle Length
AM PEAK HOUR	0.82 SBLT	0.83 NBRT	NBLT 125.6 sec/veh **LOS F**	32.9 sec/veh LOS C	NB/SB: D/C EB/WB: D/C	105 sec
PM PEAK HOUR	**1.02** WBRT	0.95 EBT	NBLT 112.9 sec/veh **LOS F** WBRT 58.3 sec/veh **LOS F**	44.7 sec/veh LOS D	NB/SB: D/C EB/WB: D	117 sec

		2026 BUILD CONDITIONS – BALANCED TIMINGS				
	Highest v/c Ratio	Highest Queue Storage Ratio	Worst Movement Delay & LOS	Intersection Delay & LOS	Approach LOS	Cycle Length
AM PEAK HOUR	0.78 SBLT	**1.23** NBRT	WBLT 69.5 sec/veh **LOS E**	53.8 sec/veh LOS D	NB/SB: **E** EB/WB: **E**/D	193 sec
PM PEAK HOUR	0.99 WBRT	**1.07** EBT	NBT 55.4 sec/veh **LOS E**	50.0 sec/veh LOS D	NB/SB: D EB/WB: **E**/D	140 sec

APPENDIX A

SITE PLAN



LOCATION MAP

Legend

Proposed Location

N
W
E
S

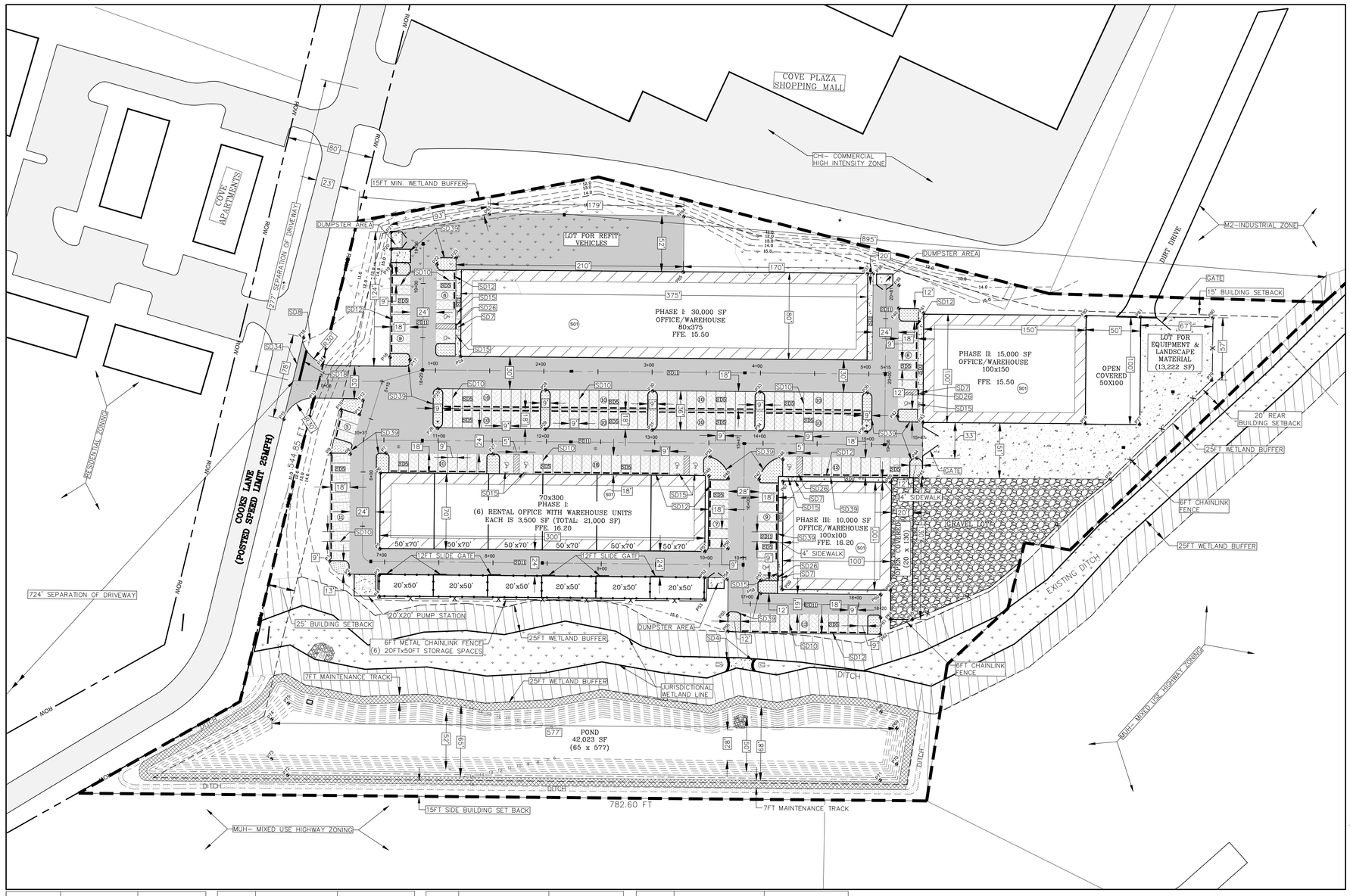
MAI ENGINEERING SERVICES, INC.

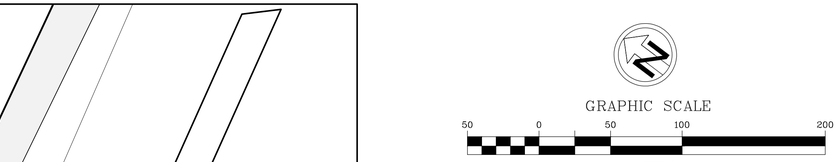
2510 U.S. Highway 1, Ste. D
St. Augustine, FL 32086
Ph: (904) 794-1760 • Fax: (904) 794-1768
E-mail: quoc@maiengineer.com

LOCATION MAP

1609 S ORANGE AVE.

GREEN COVE SPRINGS, FL.





SITE DETAILS

	SD1	CONCRETE SIDEWALK DETAIL
	SD4	18" STANDARD CURB & GUTTER (REVERSE PITCH)
	SD5	PAVERS PARKING DETAIL
	SD7	WHEELCHAIR RAMP IN SIDEWALK
	SD8	STOP SIGN
	SD9	WHEELCHAIR RAMP IN SIDEWALK AT CURB RETURN
	SD10	PARKING PAINT STRIPPING
	SD11	TYPICAL PAVEMENT SECTION
	SD12	PRECAST CONCRETE WHEEL STOP
	SD15	ACCESSIBLE PARKING SIGN
	SD16	VALLEY CURB
	SD18	STOP BAR
	SD26	DETECTABLE WARNING DETAIL
	SD34	CONNECTION TO EXISTING PAVEMENT
	SD36	CONCRETE PAVEMENT SECTION
	SD39	HEADER CURB
	SD45	HEAVY PAVEMENT SECTION

SITE NOTES

S01 BUILDING – SEE ARCHITECTURAL PLANS (TBD BY OTHERS)

DEVELOPMENT DATA

MAX ALLOWABLE IMPERVIOUS COVERAGE: 70%
PROPOSED IMPERVIOUS COVERAGE: 49.6%
BUILDING SETBACK: FRONT 25FT, SIDE 15FT, REAR 20FT
ROAD DRIVEWAY CONNECTION POSTED SPEED LIMIT 25MPH
MINIMUM DRIVEWAY CONNECTION SPACING: 245FT.

TOTAL SITE AREA = 342,102SF = 7.84 ACRES
TOTAL PROPOSED IMPERVIOUS AREA = 161,811SF (INCLUDE BUILDING)
IMPERVIOUS COVERAGE = 47.30 %
TOTAL PROPOSED BUILDING AREA = 76,000SF
TOTAL PROPOSED CONCRETE AREA = 19,497SF
FAR = 14.9%

PHASE I:
PROPOSED BUILDING AREA: 51,000SF
(WAREHOUSE: 35,000SF; OFFICE: 16,000SF)
PROPOSED TOTAL PAVEMENT AREA: 62,733SF

PHASE II:
PROPOSED BUILDING AREA: 15,000SF
(WAREHOUSE: 10,000SF; OFFICE: 5,000SF)
PROPOSED TOTAL PAVEMENT AREA: 0SF

PHASE III:
PROPOSED BUILDING AREA: 10,000SF
(WAREHOUSE: 5,000SF; OFFICE: 5,000SF)
PROPOSED TOTAL PAVEMENT AREA: 1,806SF

GENERAL PROJECT INFORMATION

PARCEL #: 38–06–26–016564–002
ADDRESS: 1609 S ORANGE AVE.
FUTURE LAND USE: MUH–MIXED USE HIGHWAY
ZONING: MUH–MIXED USE HIGHWAY

STATEMENT OF USE: OFFICE AND INDUSTRIAL WAREHOUSE AND OFFICES.

PARCEL AREA: 8.88 ACRES

CURRENT LAND OWNER:
WILLIAM KRIEG
RIVER OAKS OUTDOOR, LLC
P.O. BOX 7902
JACKSONVILLE, FL 32238

DESIGN ENGINEER AGENT:
QUOC H. MAI, P.E. #64006
MAI ENGINEERING SERVICES, INC.
2510 US 1 S, SUITE D
ST. AUGUSTINE, FL 32086

GENERAL NOTES

1. ALL DIMENSIONS ARE LISTED TO THE EDGE OF PAVEMENT AND/OR FACE OF CURB.
2. ALL RADII ARE 5' UNLESS OTHERWISE NOTED.
3. SCREENING OF ALL MECHANICAL EQUPMENT SHALL BE IN ACCORDANCE WITH SJC LDC SEC.6.01.03.H.2. AND 6.06.04.B.9.
4. DUMPSTER/SOLID WASTE SCREENINGS STANDARDS SHALL BE IN ACCORDANCE WITH SJC LDC SEC 6.06.04.B.8.
5. SCREENING OF OUTDOOR STORAGE AREAS SHALL BE IN ACCORDANCE WITH SJC LDC SEC 6.06.04.B.7.

PARKING CALCULATIONS

PARKING REQUIREMENT PER CITY CODE:
OFFICE: 1/250SF
WAREHOUSE: 1/5,000SF

TOTAL PARKING REQUIRED = 114 SPACES
TOTAL PARKING PROVIDED = 186 SPACES
TOTAL ACCESSIBLE SPACES = 9 SPACES

PHASE I:
OFFICE PARKING REQUIRED = 16,000/250 = 64 SPACES
WAREHOUSE PARKING REQUIRED = 35,000/5,000 = 7 SPACES
TOTAL PARKING REQUIRED = 71 SPACES

PHASE II:
OFFICE PARKING REQUIRED = 5,000/250 = 20 SPACES
WAREHOUSE PARKING REQUIRED = 10,000/5,000 = 2 SPACES
TOTAL 2 PHASES REQUIRED = 22 SPACES

PHASE III:
OFFICE PARKING REQUIRED = 5,000/250 = 20 SPACES
WAREHOUSE PARKING REQUIRED = 5,000/5,000 = 1 SPACES
TOTAL 3 PHASES REQUIRED = 21 SPACES

CONTROL POINTS	NORTHING	EASTING
P1	2053825.617'	441068.556'
P2	2053803.647'	441069.5256'
P3	2053781.566'	441086.3012'
P4	2053769.493'	441070.3665'
P5	2053795.889'	441105.5487'
P6	2053838.148'	441161.3206'
P7	2053845.377'	441178.9383'
P8	2053871.042'	441158.3004'
P9	2053885.383'	441147.4339'
P10	2053902.706'	441185.4675'
P11	2053886.526'	441192.3233'
P12	2053892.066'	441204.7332'
P13	2053928.702'	441178.3726'
P14	2053941.648'	441207.3143'
P15	2053939.184'	441146.2791'
P16	2053970.784'	441217.1793'
P17	2053880.379'	441260.6959'
P18	2053896.435'	441251.6423'
P19	2053948.00'	441318.6799'
P20	2053956.288'	441331.0936'
P21	2053966.203'	441343.2669'
P22	2053920.019'	441352.290'
P23	2053901.236'	441357.5684'
P24	2053850.863'	441299.2665'
P25	2053846.498'	441259.3833'
P26	2053824.751'	441230.6171'
P27	2053766.429'	441318.9023'
P28	2053767.65'	441319.1244'
P29	2053745.841'	441290.4042'
P30	2053688.741'	441378.9117'
P31	2053666.963'	441350.1685'
P32	2053606.567'	441359.2422'
P33	2053609.893'	441438.6527'
P34	2053587.957'	441410.0286'
P35	2053531.014'	441498.4169'
P36	2053509.221'	441469.6853'
P37	2053600.195'	441588.9686'
P38	2053580.517'	441567.6369'
P39	2053565.24'	441590.9545'
P40	2053552.173'	441574.0863'
P41	2053531.546'	441584.4591'
P42	2053492.224'	441494.1761'
P43	2053470.297'	441503.9465'
P44	2053454.809'	441474.4115'
P45	2053439.226'	441462.9688'
P46	2053551.899'	441398.1857'
P47	2053558.103'	441370.263'
P48	2053580.95'	441353.2832'
P49	2053596.50'	441344.4181'
P50	2053541.742'	441301.9651'
P51	2053556.867'	441286.657'
P52	2053542.529'	441267.4212'
P53	2053530.455'	441251.4863'
P54	2053524.986'	441278.9825'
P55	2053504.195'	441253.3578'
P56	2053495.11'	441241.2275'
P57	2053499.539'	441297.2689'
P58	2053492.585'	441287.4821'
P59	2053478.94'	441302.6199'
P60	2053403.919'	441354.4416'
P61	2053391.155'	441337.5718'
P62	2053381.763'	441325.1591'
P63	2053399.274'	441362.9827'
P64	2053383.053'	441341.5725'
P65	2053366.966'	441353.7605'
P66	2053460.31'	441441.8898'
P67	2053539.183'	441382.1271'
P68	2053337.854'	441268.7599'
P69	2053316.924'	441265.807'
P70	2053297.001'	441239.5135'
P71	2053299.897'	441218.507'
P72	2053735.694'	440888.3013'
P73	2053756.701'	440891.1971'
P74	2053778.717'	440920.2538'
P75	2053775.746'	440941.3175'
P76	2053350.958'	441594.5376'
P77	2053310.866'	441624.7254'
P78	2053301.423'	441568.0198'
P79	2053283.074'	441697.6143'
P80	2053317.502'	441744.0686'
P81	2053370.731'	441703.7387'
P82	2053410.845'	441673.1995'
P83	2053904.571'	441412.0847'
P84	2053761.217'	441520.0993'
P85	2053735.642'	441486.3443'

2510 US 1 SOUTH SUITE D
ST. AUGUSTINE, FL 32086
PHONE (904)794–1760
FAX (904)794–1768
quoc@maiengineer.com

MAI ENGINEERING SERVICES, INC.

LICENSED ENGINEER
QUOC H. MAI
FL.#64006 CA#28162

REVISIONS

1	2	3	4	5	6

SHEET TITLE: SITE PLAN

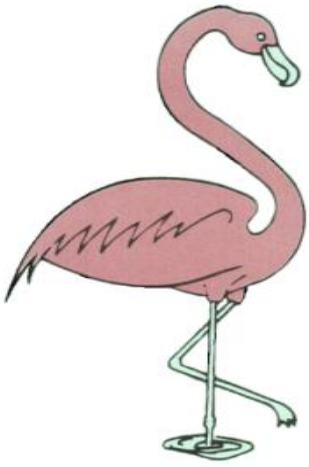
RIVER OAKS INDUSTRIAL PARK
GREEN COVE SPRINGS, FLORIDA

PREPARED FOR
RIVER OAKS OUTDOOR, LLC

DSGN BY:	QHM
DWG BY:	GMG
CHK BY:	QHM
DATE:	12/9/2022
JOB No.:	1369
SHEET No.:	7

APPENDIX B

TURNING MOVEMENT COUNTS



JW BUCKHOLZ TRAFFIC ENGINEERING INC.

DAY: THURSDAY
DATE: 12/15/22
WEATHER: CLOUDY & LT RAIN
BEGIN TIME (MILITARY): 06:30 Hrs

MANUAL TURNING MOVEMENTS COUNT
US 17 @ SR 16/COOKS LANE
CLAY COUNTY, FLORIDA

Site Code
Start Dat
File I.D. : 12152203
Page : 1

AUTOMOBILES, COMMERCIAL VEHICLES

	US 17 From North				SR 16 From East				US 17 From South				COOKS LANE From West				
	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Total
Date 12/15/22																	
06:30	170	65	1	0	28	2	89	5	0	83	64	0	3	25	0	0	535
06:45	194	83	2	0	37	5	76	0	0	98	73	0	2	20	0	0	590
07:00	186	47	4	0	44	5	75	1	0	111	51	0	5	27	0	0	556
07:15	180	77	7	0	40	3	114	2	0	85	42	1	3	25	0	0	579
Hr Total	730	272	14	0	149	15	354	8	0	377	230	1	13	97	0	0	2260
07:30	147	69	3	0	53	3	108	0	0	100	42	0	3	10	0	0	538
07:45	166	78	1	0	39	8	105	1	0	86	34	0	7	8	1	0	534
08:00	139	65	5	0	32	2	113	1	0	94	34	0	7	9	2	0	503
08:15	134	56	4	0	24	2	126	1	2	75	24	0	6	11	1	0	466
Hr Total	586	268	13	0	148	15	452	3	2	355	134	0	23	38	4	0	2041
TOTAL	1316	540	27	0	297	30	806	11	2	732	364	1	36	135	4	0	4301

Peak Hour Analysis By Entire Intersection for the Period: 06:45 to 07:45 on 12/15/22

Peak start	06:45				06:45				06:45				06:45				
Volume	707	276	16	0	174	16	373	3	0	394	208	1	13	82	0	0	
Percent	71%	28%	2%	0%	31%	3%	66%	1%	0%	65%	34%	0%	14%	86%	0%	0%	
Pk total	999				566				603				95				
Highest	06:45				07:30				06:45				07:00				
Volume	194	83	2	0	53	3	108	0	0	98	73	0	5	27	0	0	
Hi total	279				164				171				32				
PHF	.90				.86				.88				.74				

JW BUCKHOLZ TRAFFIC ENGINEERING INC.

DAY: THURSDAY
DATE: 12/15/22
WEATHER: CLOUDY & LT RAIN
BEGIN TIME (MILITARY): 06:30 Hrs

MANUAL TURNING MOVEMENTS COUNT
US 17 @ SR 16/COOKS LANE
CLAY COUNTY, FLORIDA

Site Code
Start Dat
File I.D. : 12152203
Page : 1

AUTOMOBILES

	US 17 From North				SR 16 From East				US 17 From South				COOKS LANE From West				
	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Total
Date 12/15/22																	
06:30	153	59	0	0	24	2	84	5	0	75	55	0	3	23	0	0	483
06:45	184	72	1	0	30	5	71	0	0	87	61	0	2	20	0	0	533
07:00	166	42	4	0	29	2	72	1	0	103	39	0	5	26	0	0	489
07:15	161	71	6	0	31	3	106	2	0	79	30	1	3	24	0	0	517
Hr Total	664	244	11	0	114	12	333	8	0	344	185	1	13	93	0	0	2022
07:30	129	54	2	0	47	3	91	0	0	91	35	0	3	9	0	0	464
07:45	148	71	1	0	33	7	93	1	0	74	24	0	6	7	1	0	466
08:00	128	47	5	0	24	2	95	0	0	80	32	0	6	7	1	0	427
08:15	118	49	3	0	21	2	108	1	2	63	15	0	6	11	0	0	399
Hr Total	523	221	11	0	125	14	387	2	2	308	106	0	21	34	2	0	1756
TOTAL	1187	465	22	0	239	26	720	10	2	652	291	1	34	127	2	0	3778

Peak Hour Analysis By Entire Intersection for the Period: 06:45 to 07:45 on 12/15/22

Peak start	06:45				06:45				06:45				06:45				
Volume	640	239	13	0	137	13	340	3	0	360	165	1	13	79	0	0	
Percent	72%	27%	1%	0%	28%	3%	69%	1%	0%	68%	31%	0%	14%	86%	0%	0%	
Pk total	892				493				526				92				
Highest	06:45				07:15				06:45				07:00				
Volume	184	72	1	0	31	3	106	2	0	87	61	0	5	26	0	0	
Hi total	257				142				148				31				
PHF	.87				.87				.89				.74				

JW BUCKHOLZ TRAFFIC ENGINEERING INC.

DAY: THURSDAY
DATE: 12/15/22
WEATHER: CLOUDY & LT RAIN
BEGIN TIME (MILITARY): 06:30 Hrs

MANUAL TURNING MOVEMENTS COUNT
US 17 @ SR 16/COOKS LANE
CLAY COUNTY, FLORIDA

Site Code
Start Dat
File I.D. : 12152203
Page : 1

COMMERCIAL VEHICLES

	US 17 From North				SR 16 From East				US 17 From South				COOKS LANE From West				
	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Total
Date 12/15/22																	
06:30	17	6	1	0	4	0	5	0	0	8	9	0	0	2	0	0	52
06:45	10	11	1	0	7	0	5	0	0	11	12	0	0	0	0	0	57
07:00	20	5	0	0	15	3	3	0	0	8	12	0	0	1	0	0	67
07:15	19	6	1	0	9	0	8	0	0	6	12	0	0	1	0	0	62
Hr Total	66	28	3	0	35	3	21	0	0	33	45	0	0	4	0	0	238
07:30	18	15	1	0	6	0	17	0	0	9	7	0	0	1	0	0	74
07:45	18	7	0	0	6	1	12	0	0	12	10	0	1	1	0	0	68
08:00	11	18	0	0	8	0	18	1	0	14	2	0	1	2	1	0	76
08:15	16	7	1	0	3	0	18	0	0	12	9	0	0	0	1	0	67
Hr Total	63	47	2	0	23	1	65	1	0	47	28	0	2	4	2	0	285
TOTAL	129	75	5	0	58	4	86	1	0	80	73	0	2	8	2	0	523

Peak Hour Analysis By Entire Intersection for the Period: 06:45 to 07:45 on 12/15/22

Peak start	06:45				06:45				06:45				06:45				
Volume	67	37	3	0	37	3	33	0	0	34	43	0	0	3	0	0	
Percent	63%	35%	3%	0%	51%	4%	45%	0%	0%	44%	56%	0%	0%	100%	0%	0%	
Pk total	107				73				77				3				
Highest	07:30				07:30				06:45				07:00				
Volume	18	15	1	0	6	0	17	0	0	11	12	0	0	1	0	0	
Hi total	34				23				23				1				
PHF	.79				.79				.84				.75				

JW BUCKHOLZ TRAFFIC ENGINEERING INC.

DAY: THURSDAY
DATE: 12/15/22
WEATHER: CLOUDY & LT RAIN
BEGIN TIME (MILITARY): 06:30 Hrs

MANUAL TURNING MOVEMENTS COUNT
US 17 @ SR 16/COOKS LANE
CLAY COUNTY, FLORIDA

Site Code
Start Dat
File I.D. : 12152203
Page : 1

PEDESTRIAN & BICYCLES

	US 17 From North				SR 16 From East				US 17 From South				COOKS LANE From West				
	Left	Thru	Right	PEDS	Left	Thru	Right	PEDS	Left	Thru	Right	PEDS	Left	Thru	Right	PEDS	Total
Date 12/15/22																	
06:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1

Peak Hour Analysis By Entire Intersection for the Period: 06:45 to 07:45 on 12/15/22

Peak start	06:45				06:45				06:45				06:45				
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Pk total	0				0				0				0				
Highest	06:30				06:30				06:30				06:30				
Volume	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
Hi total	0				0				0				0				
PHF	.0				.0				.0				.0				

JW BUCKHOLZ TRAFFIC ENGINEERING INC.

DAY: MONDAY
DATE: 12/12/22
WEATHER: CLEAR & DRY
BEGIN TIME (MILITARY): 15:45 Hrs

MANUAL TURNING MOVEMENTS COUNT
US 17 @ SR 16/COOKS LANE
CLAY COUNTY, FLORIDA

Site Code
Start Dat
File I.D. : 12122203
Page : 1

AUTOMOBILES, COMMERCIAL VEHICLES

	US 17 From North				SR 16 From East				US 17 From South				COOKS LANE From West				
	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Total
Date 12/12/22																	
15:45	119	109	8	0	48	12	188	1	0	109	40	2	5	8	0	0	649
16:00	114	101	9	0	56	16	194	0	2	102	26	0	7	5	0	0	632
16:15	112	94	12	0	60	23	180	1	1	105	28	0	8	13	0	0	637
16:30	114	112	2	0	50	20	199	1	1	164	41	0	13	4	1	0	722
Hr Total	459	416	31	0	214	71	761	3	4	480	135	2	33	30	1	0	2640
16:45	148	111	5	0	40	15	222	1	1	99	47	0	8	11	0	0	708
17:00	139	108	4	0	59	22	244	2	1	151	45	0	9	3	0	0	787
17:15	112	99	6	0	51	27	215	0	0	123	33	0	10	9	1	0	686
17:30	122	98	1	0	53	20	197	0	0	103	30	0	7	4	0	0	635
Hr Total	521	416	16	0	203	84	878	3	2	476	155	0	34	27	1	0	2816
17:45	69	93	1	0	41	10	174	2	0	114	36	0	4	7	0	0	551
Hr Total	69	93	1	0	41	10	174	2	0	114	36	0	4	7	0	0	551
TOTAL	1049	925	48	0	458	165	1813	8	6	1070	326	2	71	64	2	0	6007

Peak Hour Analysis By Entire Intersection for the Period: 16:30 to 17:30 on 12/12/22

Peak start	16:30				16:30				16:30				16:30				
Volume	513	430	17	0	200	84	880	4	3	537	166	0	40	27	2	0	
Percent	53%	45%	2%	0%	17%	7%	75%	0%	0%	76%	24%	0%	58%	39%	3%	0%	
Pk total	960				1168				706				69				
Highest	16:45				17:00				16:30				17:15				
Volume	148	111	5	0	59	22	244	2	1	164	41	0	10	9	1	0	
Hi total	264				327				206				20				
PHF	.91				.89				.86				.86				

JW BUCKHOLZ TRAFFIC ENGINEERING INC.

DAY: MONDAY
DATE: 12/12/22
WEATHER: CLEAR & DRY
BEGIN TIME (MILITARY): 15:45 Hrs

MANUAL TURNING MOVEMENTS COUNT
US 17 @ SR 16/COOKS LANE
CLAY COUNTY, FLORIDA

Site Code
Start Dat
File I.D. : 12122203
Page : 1

AUTOMOBILES

	US 17 From North				SR 16 From East				US 17 From South				COOKS LANE From West				
	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Total
Date 12/12/22																	
15:45	112	104	8	0	36	10	166	1	0	99	36	2	5	6	0	0	585
16:00	103	90	9	0	44	11	173	0	2	91	24	0	7	5	0	0	559
16:15	108	88	12	0	49	21	164	1	1	93	25	0	8	13	0	0	583
16:30	109	105	2	0	42	17	182	1	1	153	38	0	9	3	1	0	663
Hr Total	432	387	31	0	171	59	685	3	4	436	123	2	29	27	1	0	2390
16:45	140	104	4	0	38	12	200	1	1	88	40	0	8	11	0	0	647
17:00	135	102	4	0	51	21	225	2	1	137	43	0	8	3	0	0	732
17:15	108	93	6	0	48	26	202	0	0	114	32	0	10	7	1	0	647
17:30	117	90	1	0	52	19	192	0	0	98	29	0	7	4	0	0	609
Hr Total	500	389	15	0	189	78	819	3	2	437	144	0	33	25	1	0	2635
17:45	65	86	1	0	39	10	162	2	0	103	33	0	4	7	0	0	512
Hr Total	65	86	1	0	39	10	162	2	0	103	33	0	4	7	0	0	512
TOTAL	997	862	47	0	399	147	1666	8	6	976	300	2	66	59	2	0	5537

Peak Hour Analysis By Entire Intersection for the Period: 16:30 to 17:30 on 12/12/22

Peak start	16:30				16:30				16:30				16:30				
Volume	492	404	16	0	179	76	809	4	3	492	153	0	35	24	2	0	
Percent	54%	44%	2%	0%	17%	7%	76%	0%	0%	76%	24%	0%	57%	39%	3%	0%	
Pk total	912				1068				648				61				
Highest	16:45				17:00				16:30				16:45				
Volume	140	104	4	0	51	21	225	2	1	153	38	0	8	11	0	0	
Hi total	248				299				192				19				
PHF	.92				.89				.84				.80				

JW BUCKHOLZ TRAFFIC ENGINEERING INC.

DAY: MONDAY
DATE: 12/12/22
WEATHER: CLEAR & DRY
BEGIN TIME (MILITARY): 15:45 Hrs

MANUAL TURNING MOVEMENTS COUNT
US 17 @ SR 16/COOKS LANE
CLAY COUNTY, FLORIDA

Site Code
Start Dat
File I.D. : 12122203
Page : 1

COMMERCIAL VEHICLES

	US 17 From North				SR 16 From East				US 17 From South				COOKS LANE From West				
	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Left	Thru	Right	U-TURN	Total
Date 12/12/22																	
15:45	7	5	0	0	12	2	22	0	0	10	4	0	0	2	0	0	64
16:00	11	11	0	0	12	5	21	0	0	11	2	0	0	0	0	0	73
16:15	4	6	0	0	11	2	16	0	0	12	3	0	0	0	0	0	54
16:30	5	7	0	0	8	3	17	0	0	11	3	0	4	1	0	0	59
Hr Total	27	29	0	0	43	12	76	0	0	44	12	0	4	3	0	0	250
16:45	8	7	1	0	2	3	22	0	0	11	7	0	0	0	0	0	61
17:00	4	6	0	0	8	1	19	0	0	14	2	0	1	0	0	0	55
17:15	4	6	0	0	3	1	13	0	0	9	1	0	0	2	0	0	39
17:30	5	8	0	0	1	1	5	0	0	5	1	0	0	0	0	0	26
Hr Total	21	27	1	0	14	6	59	0	0	39	11	0	1	2	0	0	181
17:45	4	7	0	0	2	0	12	0	0	11	3	0	0	0	0	0	39
Hr Total	4	7	0	0	2	0	12	0	0	11	3	0	0	0	0	0	39
TOTAL	52	63	1	0	59	18	147	0	0	94	26	0	5	5	0	0	470

Peak Hour Analysis By Entire Intersection for the Period: 16:30 to 17:30 on 12/12/22

Peak start	16:30				16:30				16:30				16:30				
Volume	21	26	1	0	21	8	71	0	0	45	13	0	5	3	0	0	
Percent	44%	54%	2%	0%	21%	8%	71%	0%	0%	78%	22%	0%	62%	38%	0%	0%	
Pk total	48				100				58				8				
Highest	16:45				16:30				16:45				16:30				
Volume	8	7	1	0	8	3	17	0	0	11	7	0	4	1	0	0	
Hi total	16				28				18				5				
PHF	.75				.89				.81				.40				

JW BUCKHOLZ TRAFFIC ENGINEERING INC.

DAY: MONDAY
DATE: 12/12/22
WEATHER: CLEAR & DRY
BEGIN TIME (MILITARY): 15:45 Hrs

MANUAL TURNING MOVEMENTS COUNT
US 17 @ SR 16/COOKS LANE
CLAY COUNTY, FLORIDA

Site Code
Start Dat
File I.D. : 12122203
Page : 1

PEDESTRIAN & BICYCLES

	US 17 From North				SR 16 From East				US 17 From South				COOKS LANE From West				
	Left	Thru	Right	PEDS	Left	Thru	Right	PEDS	Left	Thru	Right	PEDS	Left	Thru	Right	PEDS	Total
Date 12/12/22																	
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Hr Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2

Peak Hour Analysis By Entire Intersection for the Period: 16:30 to 17:30 on 12/12/22

Peak start	16:30				16:30				16:30				16:30				
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Percent	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Pk total	0				0				0				0				
Highest	15:45				15:45				15:45				15:45				
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hi total	0				0				0				0				
PHF	.0				.0				.0				.0				

APPENDIX C

FDOT TRAFFIC DATA

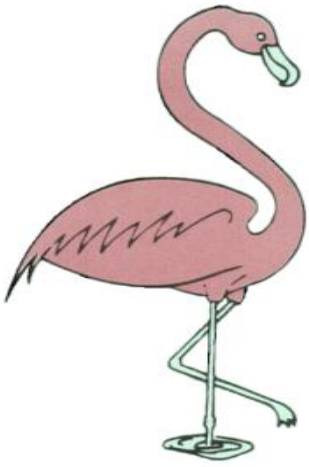
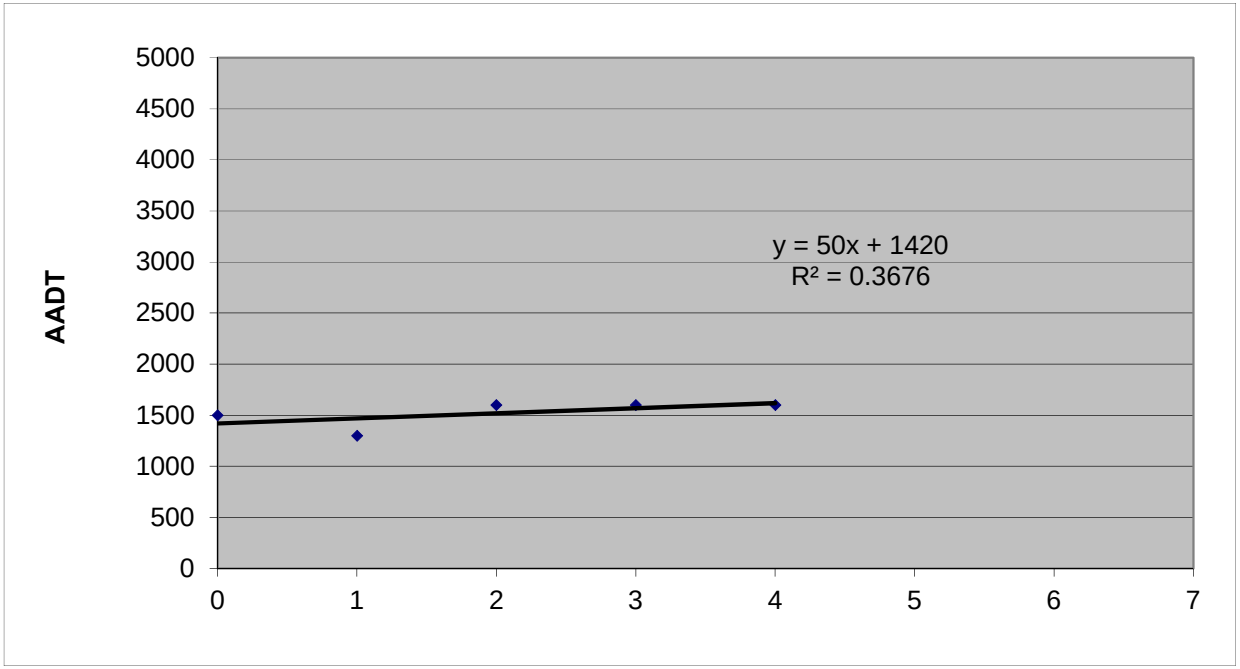


TABLE C-1
LINEAR REGRESSION ANALYSIS

Cooks Lane, West of US 17

Year	X	Actual AADT (Y)	**Predicted AADT**
2017	0	1500	**1420**
2018	1	1300	1470
2019	2	1600	1520
2020	3	1600	1570
2021	4	1600	1620
2022	5		1670
2023	6		1720
2024	7		**1770**

i = 3.2%



BUCKHOLZ TRAFFIC

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 71 - CLAY

SITE: 9115 - GREEN COVE AVE. .1 MI. W. OF US 17

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
2021	1600 C	E	0	W	0	9.00	53.50	1.40
2020	1600 C	E	0	W	0	9.00	54.50	1.30
2019	1600 C	E	0	W	0	9.00	54.10	1.30
2018	1300 C	E	0	W	0	9.00	54.20	1.20
2017	1500 C	E	0	W	0	9.00	54.50	1.10
2016	1400 C	E	0	W	0	9.00	54.30	1.70
2015	1300 C	E	0	W	0	9.00	54.50	1.40
2014	1100 C	E		W		9.00	54.50	1.60
2013	1300 S		0		0	9.00	55.10	1.50
2012	1300 F		0		0	9.00	54.60	2.00
2011	1300 C	E	0	W	0	9.00	54.70	1.50

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

COUNTY: 71
STATION: 9115
DESCRIPTION: GREEN COVE AVE. .1 MI. W. OF US 17
START DATE: 11/09/2021
START TIME: 0000

DIRECTION: B

TIME	1ST	2ND	3RD	4TH	TOTAL
0000	0	3	0	0	3
0100	1	1	1	0	3
0200	2	1	0	1	4
0300	1	1	1	3	6
0400	1	8	10	9	28
0500	6	6	9	21	42
0600	29	43	43	50	165
0700	46	38	35	26	145
0800	41	16	20	31	108
0900	31	16	16	15	78
1000	14	16	17	23	70
1100	24	22	24	18	88
1200	27	18	23	23	91
1300	15	9	17	23	64
1400	16	13	30	22	81
1500	22	24	43	34	123
1600	37	43	49	39	168
1700	55	35	40	31	161
1800	27	24	26	14	91
1900	14	9	9	11	43
2000	12	4	11	5	32
2100	3	6	4	7	20
2200	2	4	3	4	13
2300	4	2	3	2	11
24-HOUR TOTALS:					1638

PEAK VOLUME INFORMATION

	HOUR	VOLUME
A.M.	645	169
P.M.	1615	186
DAILY	1615	186

GENERATED BY SPS 5.0.57P

TABLE C-2
LINEAR REGRESSION ANALYSIS

SR 16, East of US 17

Year	X	Actual AADT (Y)	**Predicted AADT**
2017	0	18300	**17920**
2018	1	18300	18160
2019	2	17800	18400
2020	3	17900	18640
2021	4	19700	18880
2022	5		19120
2023	6		19360
2024	7		**19600**

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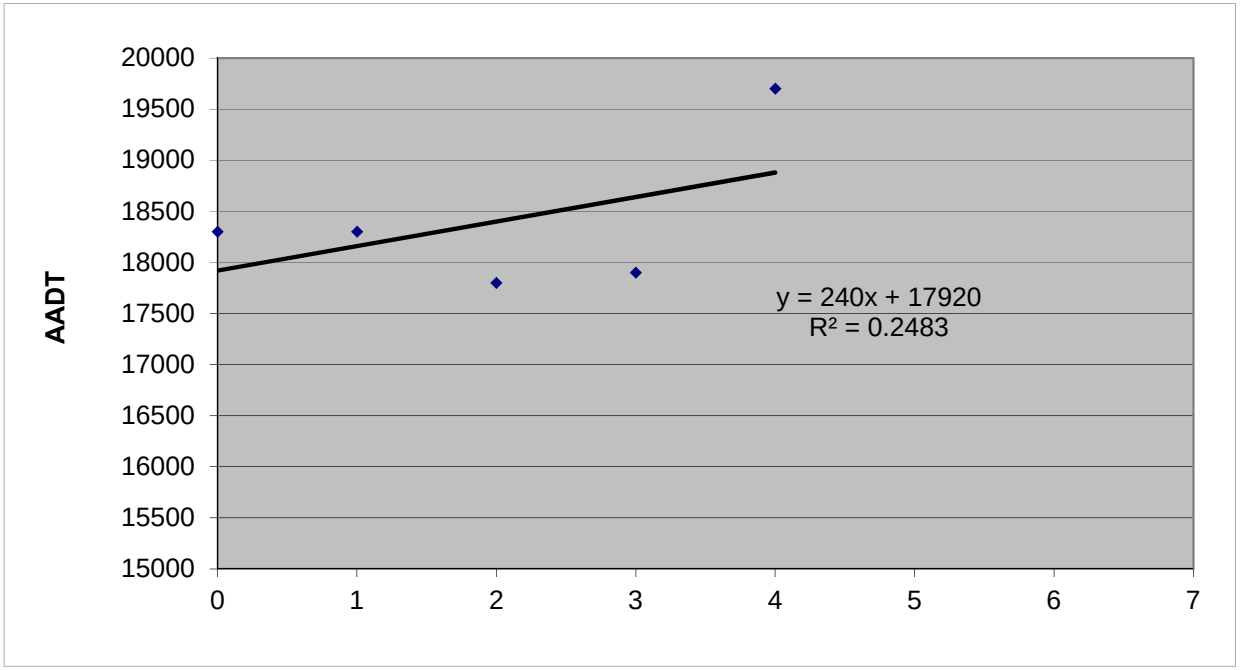

BUCKHOLZ TRAFFIC

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 71 - CLAY

SITE: 0113 - SR 16 .75 MI. E. OF SR 15

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	19700 C	E 9700	W 10000	9.00	53.50	9.50
2020	17900 C	E 8800	W 9100	9.00	54.50	9.30
2019	17800 C	E 8600	W 9200	9.00	54.10	7.00
2018	18300 C	E 9100	W 9200	9.00	54.20	8.10
2017	18300 C	E 9000	W 9300	9.00	54.50	6.50
2016	16200 C	E 7900	W 8300	9.00	54.30	5.80
2015	14400 C	E 7100	W 7300	9.00	54.50	5.70
2014	14300 C	E 7200	W 7100	9.00	54.50	5.50
2013	13700 C	E 6800	W 6900	9.00	55.10	6.20
2012	12400 C	E 6200	W 6200	9.00	54.60	5.50
2011	12300 C	E 6100	W 6200	9.00	54.70	5.40
2010	13300 C	E 6600	W 6700	9.86	54.07	5.40
2009	14300 C	E 7100	W 7200	9.76	54.11	6.50
2008	15400 C	E 7600	W 7800	9.71	55.26	7.60
2007	15500 C	E 7800	W 7700	9.36	55.25	8.80
2006	16600 C	E 8300	W 8300	9.36	55.56	9.20

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

COUNTY: 71
STATION: 0113
DESCRIPTION: SR 16 .75 MI. E. OF SR 15
START DATE: 11/17/2021
START TIME: 0000

	DIRECTION: E					DIRECTION: W					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	3	5	3	4	15	7	13	12	3	35	50
0100	1	4	1	1	7	7	2	1	6	16	23
0200	8	2	10	5	25	2	0	5	4	11	36
0300	6	7	5	10	28	2	3	5	5	15	43
0400	12	23	28	32	95	10	6	16	14	46	141
0500	53	74	85	126	338	22	30	64	63	179	517
0600	205	261	274	304	1044	81	115	142	158	496	1540
0700	273	256	230	210	969	170	158	181	165	674	1643
0800	161	173	196	139	669	149	180	144	171	644	1313
0900	129	143	144	140	556	136	127	147	119	529	1085
1000	132	135	131	133	531	101	109	145	113	468	999
1100	106	135	125	137	503	128	149	134	150	561	1064
1200	161	142	151	148	602	162	127	166	172	627	1229
1300	149	153	112	159	573	131	151	160	128	570	1143
1400	157	165	160	154	636	163	148	168	179	658	1294
1500	136	135	168	178	617	209	229	227	270	935	1552
1600	172	180	206	198	756	260	244	256	276	1036	1792
1700	223	180	181	124	708	306	274	283	266	1129	1837
1800	113	102	77	88	380	239	211	142	97	689	1069
1900	82	57	71	47	257	90	81	65	57	293	550
2000	34	38	37	42	151	45	47	61	58	211	362
2100	38	25	27	26	116	48	32	35	36	151	267
2200	19	18	15	17	69	30	19	24	22	95	164
2300	9	9	5	8	31	20	13	12	15	60	91
24-HOUR TOTALS:					9676					10128	19804

PEAK VOLUME INFORMATION

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	645	1063	730	675	645	1730
P.M.	1615	807	1645	1139	1645	1921
DAILY	615	1112	1645	1139	1645	1921

TRUCK PERCENTAGE 9.02 9.89 9.47

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
E	67	5433	3303	5	179	211	30	69	243	130	1	5	0	0	0	873	9676
W	60	5522	3544	5	232	231	19	101	336	68	3	3	4	0	0	1002	10128

GENERATED BY SPS 5.0.57P

TABLE C-3
LINEAR REGRESSION ANALYSIS

US 17, South of SR 16

Year	X	Actual AADT (Y)	**Predicted AADT**
2017	0	13800	**13860**
2018	1	14500	14190
2019	2	14100	14520
2020	3	15000	14850
2021	4	15200	15180
2022	5		15510
2023	6		15840
2024	7		**16170**

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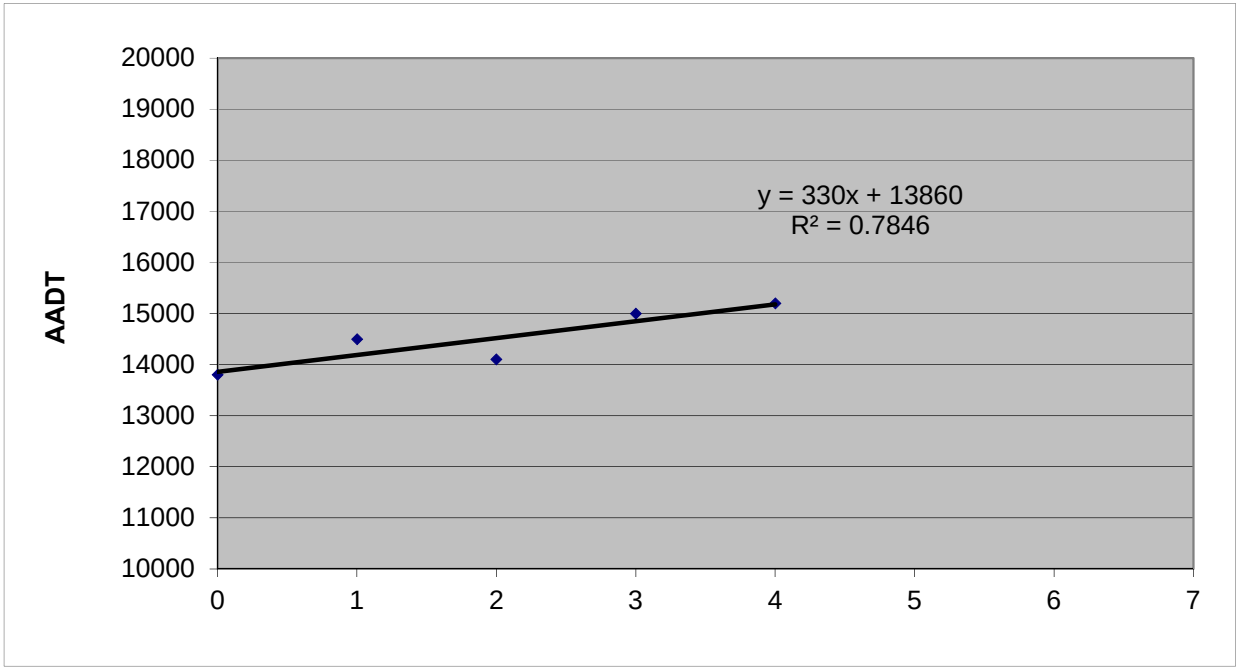

BUCKHOLZ TRAFFIC

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 71 - CLAY

SITE: 0196 - SR 15/US 17 .3 MI. S. OF SR 16 TO E.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	15200 C	N 7600	S 7600	9.00	53.50	12.10
2020	15000 C	N 7500	S 7500	9.00	54.50	14.00
2019	14100 C	N 7100	S 7000	9.00	54.10	10.70
2018	14500 C	N 7200	S 7300	9.00	54.20	11.80
2017	13800 C	N 6900	S 6900	9.00	54.50	9.70
2016	12900 C	N 6500	S 6400	9.00	54.30	10.50
2015	11600 C	N 5800	S 5800	9.00	54.50	11.20
2014	11100 C	N 5600	S 5500	9.00	54.50	10.90
2013	11200 C	N 5700	S 5500	9.00	55.10	12.30
2012	11400 C	N 5800	S 5600	9.00	54.60	11.10
2011	11400 C	N 5700	S 5700	9.00	54.70	11.80
2010	11600 C	N 5800	S 5800	9.86	54.07	11.10
2009	11800 C	N 5900	S 5900	9.76	54.11	10.90
2008	12400 C	N 6700	S 5700	9.71	55.26	13.00
2007	13500 C	N 6800	S 6700	9.36	55.25	12.50
2006	14400 C	N 7200	S 7200	9.36	55.56	14.80

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

COUNTY: 71
STATION: 0196
DESCRIPTION: SR 15/US 17 .3 MI. S. OF SR 16 TO E.
START DATE: 11/17/2021
START TIME: 0000

	DIRECTION: N					DIRECTION: S					COMBINED
TIME	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL
0000	2	5	5	3	15	9	8	7	3	27	42
0100	4	9	2	17	32	9	5	2	4	20	52
0200	26	5	3	4	38	1	2	6	1	10	48
0300	4	5	32	10	51	5	4	8	14	31	82
0400	21	22	38	43	124	16	28	41	83	168	292
0500	39	65	63	85	252	41	50	105	93	289	541
0600	128	148	163	154	593	89	120	131	148	488	1081
0700	141	153	154	135	583	112	112	130	128	482	1065
0800	116	111	100	97	424	126	126	129	92	473	897
0900	113	127	101	96	437	107	91	123	88	409	846
1000	127	114	109	107	457	100	77	96	96	369	826
1100	105	133	123	134	495	83	116	111	130	440	935
1200	151	109	118	92	470	132	125	123	150	530	1000
1300	110	102	107	101	420	115	127	122	106	470	890
1400	110	96	124	119	449	116	107	110	128	461	910
1500	102	115	206	164	587	129	160	152	169	610	1197
1600	130	132	186	162	610	177	134	152	169	632	1242
1700	217	150	198	128	693	171	163	136	146	616	1309
1800	143	98	89	63	393	137	108	76	90	411	804
1900	63	44	49	26	182	66	67	46	57	236	418
2000	38	31	45	29	143	43	49	79	58	229	372
2100	23	20	19	21	83	37	23	30	28	118	201
2200	17	16	9	14	56	17	18	15	13	63	119
2300	11	5	4	5	25	15	16	8	8	47	72
24-HOUR TOTALS:					7612					7629	15241

PEAK VOLUME INFORMATION

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	645	602	730	510	645	1104
P.M.	1645	727	1515	658	1630	1370
DAILY	1645	727	1515	658	1630	1370

TRUCK PERCENTAGE 11.78 12.32 12.05

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	67	4155	2493	5	131	197	17	105	418	22	0	1	1	0	0	897	7612
S	34	4076	2579	6	128	216	15	85	404	82	1	1	2	0	0	940	7629

GENERATED BY SPS 5.0.57P

TABLE C-4
LINEAR REGRESSION ANALYSIS

US 17, North of SR 16

Year	X	Actual AADT (Y)	**Predicted AADT**
2017	0	22500	**23160**
2018	1	23000	22120
2019	2	21500	21080
2020	3	19200	20040
2021	4	19200	19000
2022	5		17960
2023	6		16920
2024	7		**15880**

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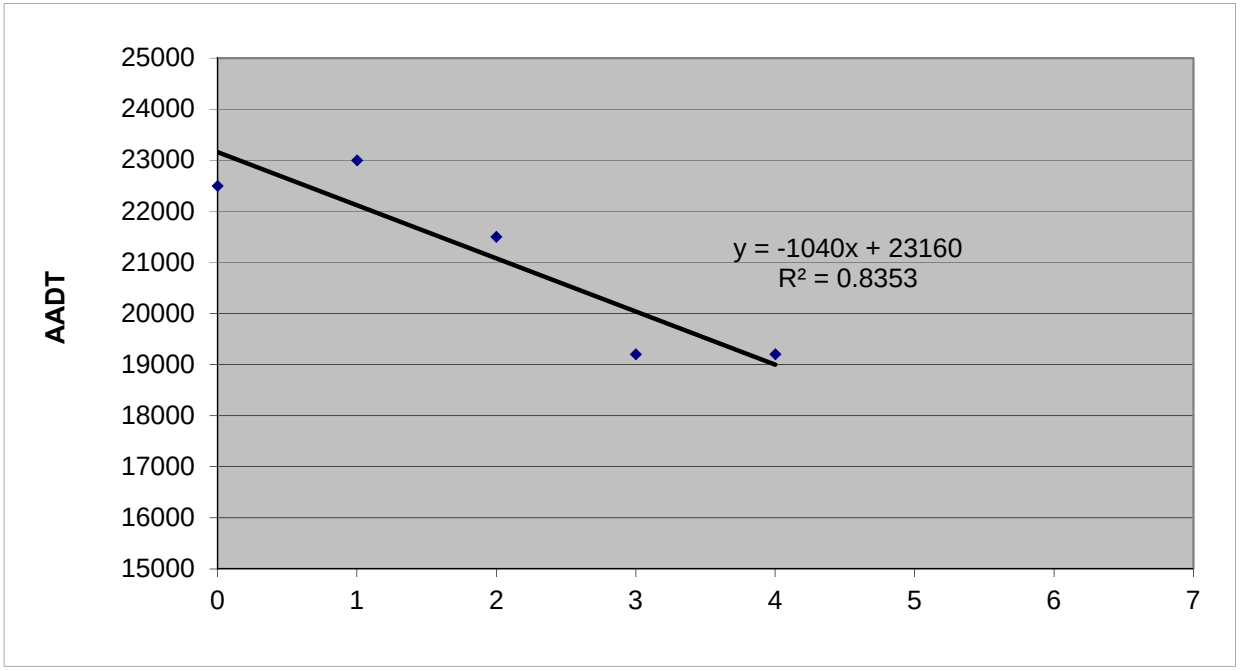


BUCKHOLZ TRAFFIC

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 71 - CLAY

SITE: 0142 - SR 15 .1 MI. N. OF SR 16 TO E.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	19200 F	N 9700	S 9500	9.00	53.50	12.10
2020	19200 C	N 9700	S 9500	9.00	54.50	21.90
2019	21500 C	N 11000	S 10500	9.00	54.10	18.10
2018	23000 C	N 11500	S 11500	9.00	54.20	11.80
2017	22500 C	N 11000	S 11500	9.00	54.50	9.70
2016	20000 C	N 10000	S 10000	9.00	54.30	10.50
2015	19100 C	N 9700	S 9400	9.00	54.50	11.20
2014	17900 C	N 9000	S 8900	9.00	54.50	10.90
2013	17500 C	N 8800	S 8700	9.00	55.10	12.30
2012	16600 C	N 8400	S 8200	9.00	54.60	11.10
2011	17900 C	N 9200	S 8700	9.00	54.70	11.80
2010	18100 C	N 9200	S 8900	9.86	54.07	11.10
2009	18500 C	N 9300	S 9200	9.76	54.11	10.90
2008	19600 C	N 9900	S 9700	9.71	55.26	13.00
2007	21000 C	N 10500	S 10500	9.36	55.25	12.50
2006	23000 C	N 11500	S 11500	9.36	55.56	14.80

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

2021 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 7100 CLAY COUNTYWIDE

MOCF: 0.96

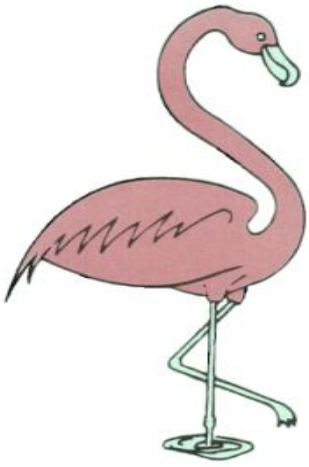
WEEK	DATES	SF	PSCF
1	01/01/2021 - 01/02/2021	1.00	1.04
2	01/03/2021 - 01/09/2021	1.06	1.10
3	01/10/2021 - 01/16/2021	1.11	1.16
4	01/17/2021 - 01/23/2021	1.11	1.16
5	01/24/2021 - 01/30/2021	1.10	1.15
6	01/31/2021 - 02/06/2021	1.09	1.14
7	02/07/2021 - 02/13/2021	1.09	1.14
8	02/14/2021 - 02/20/2021	1.08	1.13
9	02/21/2021 - 02/27/2021	1.05	1.09
10	02/28/2021 - 03/06/2021	1.02	1.06
11	03/07/2021 - 03/13/2021	1.00	1.04
12	03/14/2021 - 03/20/2021	0.97	1.01
*13	03/21/2021 - 03/27/2021	0.96	1.00
*14	03/28/2021 - 04/03/2021	0.96	1.00
*15	04/04/2021 - 04/10/2021	0.96	1.00
*16	04/11/2021 - 04/17/2021	0.96	1.00
*17	04/18/2021 - 04/24/2021	0.95	0.99
*18	04/25/2021 - 05/01/2021	0.95	0.99
*19	05/02/2021 - 05/08/2021	0.95	0.99
*20	05/09/2021 - 05/15/2021	0.95	0.99
*21	05/16/2021 - 05/22/2021	0.96	1.00
*22	05/23/2021 - 05/29/2021	0.96	1.00
*23	05/30/2021 - 06/05/2021	0.96	1.00
*24	06/06/2021 - 06/12/2021	0.97	1.01
*25	06/13/2021 - 06/19/2021	0.97	1.01
26	06/20/2021 - 06/26/2021	0.98	1.02
27	06/27/2021 - 07/03/2021	0.99	1.03
28	07/04/2021 - 07/10/2021	1.00	1.04
29	07/11/2021 - 07/17/2021	1.01	1.05
30	07/18/2021 - 07/24/2021	1.02	1.06
31	07/25/2021 - 07/31/2021	1.02	1.06
32	08/01/2021 - 08/07/2021	1.02	1.06
33	08/08/2021 - 08/14/2021	1.02	1.06
34	08/15/2021 - 08/21/2021	1.03	1.07
35	08/22/2021 - 08/28/2021	1.02	1.06
36	08/29/2021 - 09/04/2021	1.01	1.05
37	09/05/2021 - 09/11/2021	1.01	1.05
38	09/12/2021 - 09/18/2021	1.00	1.04
39	09/19/2021 - 09/25/2021	0.99	1.03
40	09/26/2021 - 10/02/2021	0.98	1.02
41	10/03/2021 - 10/09/2021	0.97	1.01
42	10/10/2021 - 10/16/2021	0.96	1.00
43	10/17/2021 - 10/23/2021	0.97	1.01
44	10/24/2021 - 10/30/2021	0.98	1.02
45	10/31/2021 - 11/06/2021	0.99	1.03
46	11/07/2021 - 11/13/2021	0.99	1.03
47	11/14/2021 - 11/20/2021	1.00	1.04
48	11/21/2021 - 11/27/2021	1.00	1.04
49	11/28/2021 - 12/04/2021	1.00	1.04
50	12/05/2021 - 12/11/2021	1.00	1.04
51	12/12/2021 - 12/18/2021	1.00	1.04
52	12/19/2021 - 12/25/2021	1.06	1.10
53	12/26/2021 - 12/31/2021	1.11	1.16

* PEAK SEASON

08-MAR-2022 12:36:24 830UPD 2_7100_PKSEASON.TXT

APPENDIX D

CAPACITY CALCULATIONS
UNSIGNALIZED INTERSECTIONS



HCS Two-Way Stop-Control Report

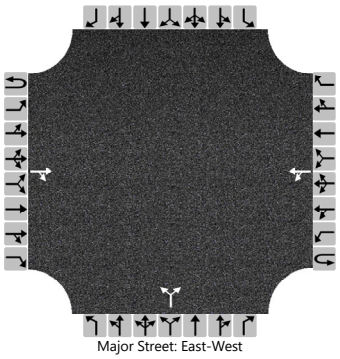
General Information

Analyst	J. Buckholz
Agency/Co.	BUCKHOLZ TRAFFIC
Date Performed	10/30/2023
Analysis Year	2026
Time Analyzed	AM Peak Hr. BUILD Traffic
Intersection Orientation	East-West
Project Description	#22-1805

Site Information

Intersection	Cooks Lane / Site Driveway
Jurisdiction	Clay County
East/West Street	Cooks Lane
North/South Street	Site Driveway
Peak Hour Factor	0.96
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			159	1		22	55			0		8				
Percent Heavy Vehicles (%)						2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.12				6.42		6.22				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						23					8					
Capacity, c (veh/h)						1411					878					
v/c Ratio						0.02					0.01					
95% Queue Length, Q_{95} (veh)						0.0					0.0					
Control Delay (s/veh)						7.6	0.1				9.1					
Level of Service (LOS)						A	A				A					
Approach Delay (s/veh)						2.3				9.1						
Approach LOS						A				A						

HCS Two-Way Stop-Control Report

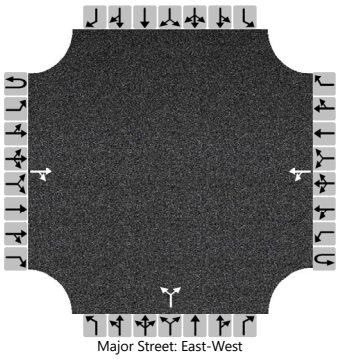
General Information

Analyst	J. Buckholz
Agency/Co.	BUCKHOLZ TRAFFIC
Date Performed	10/30/2023
Analysis Year	2026
Time Analyzed	PM Peak Hr. BUILD Traffic
Intersection Orientation	East-West
Project Description	#22-1805

Site Information

Intersection	Cooks Lane / Site Driveway
Jurisdiction	Clay County
East/West Street	Cooks Lane
North/South Street	Site Driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			113	0		8	178			1		24				
Percent Heavy Vehicles (%)						2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

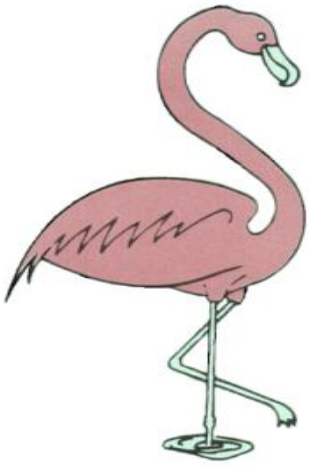
Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.12				6.42		6.22				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						9					27					
Capacity, c (veh/h)						1464					913					
v/c Ratio						0.01					0.03					
95% Queue Length, Q_{95} (veh)						0.0					0.1					
Control Delay (s/veh)						7.5	0.0				9.1					
Level of Service (LOS)						A	A				A					
Approach Delay (s/veh)						0.4				9.1						
Approach LOS						A				A						

APPENDIX E

TRAFFIC SIGNAL TIMINGS



Location Details			
Signal ID:	**45**	Date:	**November 19, 2022**
Major Street:	**US 17**	Orientation:	**N-S**
Minor Street:	**Cooks Ln-SR 16**	Orientation:	**E-W**

Controller Timings (seconds)

Movement # (Controller Phase Ø)	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Notes
Direction	NBLT	SB		WB	SBLT	NB	WBLT	EB									
Turn Type	Prot				Prot		FYA										
Min Green	4	18		6	4	18	4	6									
Ext	3.0	4.0		6.0	4.0	4.0	4.0	3.0									
Yellow	4.9	4.9		4.8	4.9	4.9	4.8	4.8									
All Red	2.0	2.0		2.5	2.0	2.0	2.0	2.5									
Max I	15	50		40	55	35	25	30									
Max II	15	50		40	55	35	25	30									
Walk		7		7		7		7									
Flashing Don't Walk		21		34		26		30									
Detector Memory																	
Det. Switching to:																	
Recall		MIN				MIN											
CNA																	

Coordination Timings (seconds)

Pattern	C-S-O	Cycle Length	Splits																Offset	Seq	Coord Ø
			Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16			

Offset Reference Point	Phase Mode
End of Green of first through movement	STD8

SEQ 1

Ring - 1	1	2	4	
Ring - 2	5	6	7	8

Notes:
1) Use 'Max I' during FREE Operation.
2) 3 second delay on FYA

Signal ID:	**45**
Major Street:	**US 17**
Minor Street:	**Cooks Ln-SR 16**

Day Plans

Monday-Friday			
Day Plan 1			
Hr	Min	Patt	Cycl
00	00	254	Free

Saturday			
Day Plan 2			
Hr	Min	Patt	Cycl
00	00	254	Free

Sunday			
Day Plan 3			
Hr	Min	Patt	Cycl
00	00	254	Free

Day Plan 4			
Hr	Min	Patt	Cycl

Day Plan 5			
Hr	Min	Patt	Cycl

Day Plan 6			
Hr	Min	Patt	Cycl

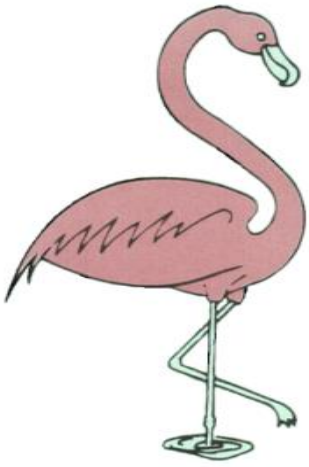
Day Plan 7			
Hr	Min	Patt	Cycl

Day Plan 8			
Hr	Min	Patt	Cycl

Patt	Force Mode	Alt Opt Table	Alt Time Table	Coord Max Plan	Alt Time Table Max Values (Seconds)														
					Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16

APPENDIX F

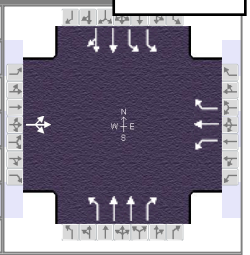
SIGNALIZED INTERSECTION CAPACITY CALCULATIONS



AM PEAK HOUR

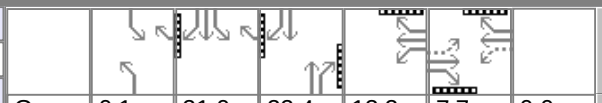
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	BUCKHOLZ TRAFFIC			Duration, h	0.250
Analyst	J. Buckholz	Analysis Date	Jan 24, 2023	Area Type	Other
Jurisdiction	Clay County	Time Period	AM Peak Hour	PHF	0.96
Urban Street	US 17	Analysis Year	2022	Analysis Period	1> 6:45
Intersection	SR 16 / Cooks Lane	File Name	2022_AM_US17_SR16_CoveLn.xus		
Project Description	2022 AM Peak Hr Traffic				

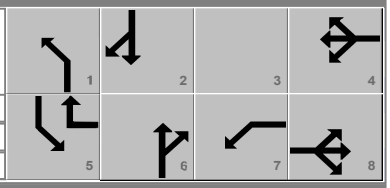


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	13	82	0	177	16	373	1	394	298	707	276	16

Signal Information			
Cycle, s	99.3	Reference Phase	2
Offset, s	110	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	Off
Force Mode	Fixed	Simult. Gap N/S	Off



Green	0.1	21.0	22.4	13.2	7.7	0.0
Yellow	4.9	4.9	4.9	4.8	4.8	0.0
Red	2.0	2.0	2.0	2.0	2.5	0.0



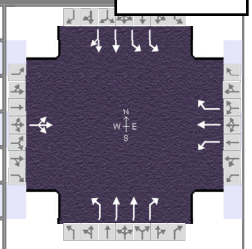
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8	7	4	1	6	5	2
Case Number		8.3	1.0	3.0	2.0	3.0	2.0	4.0
Phase Duration, s		15.0	20.0	35.1	7.0	29.3	35.0	57.2
Change Period, ($Y+R_c$), s		7.3	6.8	7.3	6.9	6.9	6.9	6.9
Max Allow Headway (*MAH*), s		4.1	4.9	7.1	3.9	4.5	4.9	4.4
Queue Clearance Time (g_s), s		7.5	12.6	15.3	2.1	19.4	22.8	6.9
Green Extension Time (g_e), s		0.3	0.6	4.1	0.0	2.9	5.2	1.3
Phase Call Probability		1.00	0.99	1.00	0.03	1.00	1.00	1.00
Max Out Probability		0.00	0.01	0.03	0.00	0.05	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h		99		184	17	350	1	410	248	736	153	151
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1735		1513	1618	1497	1810	1682	1346	1634	1693	1660
Queue Service Time (g_s), s		2.6		10.6	0.7	13.3	0.1	10.7	17.4	20.8	4.9	4.9
Cycle Queue Clearance Time (g_c), s		5.5		10.6	0.7	13.3	0.1	10.7	17.4	20.8	4.9	4.9
Green Ratio (*g/C*)		0.08		0.23	0.28	0.56	0.00	0.23	0.23	0.28	0.51	0.51
Capacity (*c*), veh/h		177		300	453	842	2	758	304	924	858	842
Volume-to-Capacity Ratio (*X*)		0.560		0.614	0.037	0.416	0.495	0.541	0.817	0.797	0.178	0.180
Back of Queue (*Q*), ft/ln (95 th percentile)		116.6		207.6	15.1	201.4	4.3	205.2	297.1	347.4	90.1	83.6
Back of Queue (*Q*), veh/ln (95 th percentile)		4.6		7.1	0.5	7.5	0.2	7.7	10.2	13.0	3.2	3.2
Queue Storage Ratio (*RQ*) (95 th percentile)		0.52		0.44	0.00	0.00	0.02	0.00	0.99	0.51	0.00	0.00
Uniform Delay (d_1), s/veh		44.8		33.8	26.1	12.4	49.7	34.0	36.6	33.1	13.3	13.3
Incremental Delay (d_2), s/veh		2.8		2.9	0.1	1.2	118.8	0.9	8.2	2.3	0.1	0.1
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		47.5		36.7	26.2	13.6	168.5	34.9	44.8	35.3	13.4	13.4
Level of Service (LOS)		D		D	C	B	F	C	D	D	B	B
Approach Delay, s/veh / LOS	47.5	D		21.7	C		38.8	D		28.9	C	
Intersection Delay, s/veh / LOS	30.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

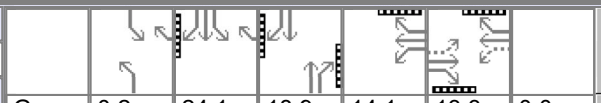
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	BUCKHOLZ TRAFFIC			Duration, h	0.250
Analyst	J. Buckholz	Analysis Date	Oct 30, 2023	Area Type	Other
Jurisdiction	Clay County	Time Period	AM Peak Hour	PHF	0.96
Urban Street	US 17	Analysis Year	2026	Analysis Period	1> 6:45
Intersection	SR 16 / Cooks Lane	File Name	2026_B_AM_US17_SR16_CooksLn.xus		
Project Description	2026 AM Peak Hr BUILD Traffic				

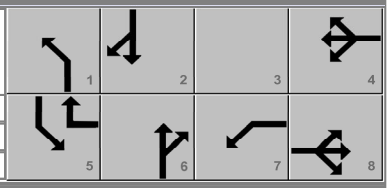


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	36	129	0	189	36	399	2	422	223	756	295	34

Signal Information			
Cycle, s	105.4	Reference Phase	2
Offset, s	110	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	Off
Force Mode	Fixed	Simult. Gap N/S	Off



Green	0.2	24.1	18.9	14.1	13.3	0.0
Yellow	4.9	4.9	4.9	4.8	4.8	0.0
Red	2.0	2.0	2.0	2.0	2.5	0.0



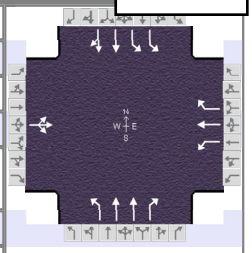
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8	7	4	1	6	5	2
Case Number		8.3	1.0	3.0	2.0	3.0	2.0	4.0
Phase Duration, s		20.6	20.9	41.5	7.1	25.8	38.1	56.8
Change Period, (*Y+R c*), s		7.3	6.8	7.3	6.9	6.9	6.9	6.9
Max Allow Headway (*MAH*), s		4.2	4.9	7.1	3.9	4.5	4.9	4.4
Queue Clearance Time (*g s*), s		12.8	13.4	15.3	2.1	15.9	25.6	8.5
Green Extension Time (*g e*), s		0.5	0.7	4.7	0.0	2.9	5.5	1.5
Phase Call Probability		1.00	1.00	1.00	0.06	1.00	1.00	1.00
Max Out Probability		0.00	0.02	0.05	0.00	0.01	0.01	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h		172		197	38	374	2	440	186	788	173	170
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1624		1513	1618	1497	1810	1682	1346	1634	1693	1631
Queue Service Time (*g s*), s		7.4		11.4	1.7	13.3	0.1	13.0	13.9	23.6	6.3	6.5
Cycle Queue Clearance Time (*g c*), s		10.8		11.4	1.7	13.3	0.1	13.0	13.9	23.6	6.3	6.5
Green Ratio (*g/C*)		0.13		0.28	0.32	0.62	0.00	0.18	0.18	0.30	0.47	0.47
Capacity (*c*), veh/h		247		296	525	930	4	603	241	969	802	772
Volume-to-Capacity Ratio (*X*)		0.696		0.665	0.071	0.402	0.506	0.729	0.772	0.813	0.216	0.219
Back of Queue (*Q*), ft/ln (95 th percentile)		209.3		223.8	33.9	194.5	6.2	246.7	250.2	387.5	121.3	111.3
Back of Queue (*Q*), veh/ln (95 th percentile)		8.2		7.7	1.2	7.3	0.2	9.2	8.6	14.5	4.4	4.3
Queue Storage Ratio (*RQ*) (95 th percentile)		0.93		0.47	0.00	0.00	0.03	0.00	0.83	0.57	0.00	0.00
Uniform Delay (*d 1*), s/veh		44.8		32.5	24.7	10.1	52.7	40.9	41.3	34.5	16.3	16.3
Incremental Delay (*d 2*), s/veh		3.5		3.6	0.2	1.0	72.9	2.4	7.3	2.4	0.2	0.2
Initial Queue Delay (*d 3*), s/veh		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		48.3		36.1	24.9	11.1	125.6	43.4	48.6	36.9	16.5	16.5
Level of Service (LOS)		D		D	C	B	F	D	D	D	B	B
Approach Delay, s/veh / LOS	48.3	D		20.1	C		45.2	D		30.7	C	
Intersection Delay, s/veh / LOS	32.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

HCS Signalized Intersection Results Summary

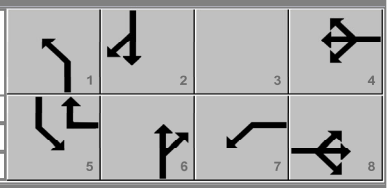
General Information				Intersection Information	
Agency	BUCKHOLZ TRAFFIC			Duration, h	0.250
Analyst	J. Buckholz	Analysis Date	Oct 30, 2023	Area Type	Other
Jurisdiction	Clay County	Time Period	AM Peak Hour	PHF	0.96
Urban Street	US 17	Analysis Year	2026 w/ Balanced Timings	Analysis Period	1> 6:45
Intersection	SR 16 / Cooks Lane	File Name	BAL_2026_B_AM_US17_SR16_CooksLn.xus		
Project Description	2026 AM Peak Hr BUILD Traffic				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	36	129	0	189	36	399	2	422	223	756	295	34

Signal Information			
Cycle, s	192.9	Reference Phase	2
Offset, s	110	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	Off
Force Mode	Fixed	Simult. Gap N/S	Off

Green	30.0	23.1	50.0	15.0	40.0	0.0
Yellow	4.9	4.9	4.9	4.8	4.8	0.0
Red	2.0	2.0	2.0	2.0	2.5	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8	7	4	1	6	5	2
Case Number		8.3	1.0	3.0	2.0	3.0	2.0	4.0
Phase Duration, s		47.3	21.8	69.1	36.9	56.9	66.9	86.9
Change Period, ($Y+R_c$), s		7.3	6.8	7.3	6.9	6.9	6.9	6.9
Max Allow Headway (*MAH*), s		4.2	4.9	7.1	3.9	4.5	4.9	4.4
Queue Clearance Time (g_s), s		19.5	17.0	25.7	2.2	25.0	44.2	15.1
Green Extension Time (g_e), s		0.5	0.0	3.6	0.0	3.1	4.5	1.4
Phase Call Probability		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Max Out Probability		0.00	1.00	0.29	0.00	0.00	0.13	0.00

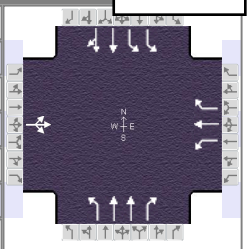
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h		172		197	38	374	2	440	186	788	173	170
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1601		1513	1618	1497	1810	1682	1346	1634	1693	1631
Queue Service Time (g_s), s		10.4		15.0	3.1	23.7	0.2	21.5	23.0	42.2	12.9	13.1
Cycle Queue Clearance Time (g_c), s		17.5		15.0	3.1	23.7	0.2	21.5	23.0	42.2	12.9	13.1
Green Ratio (*g/C*)		0.21		0.30	0.32	0.63	0.16	0.26	0.26	0.31	0.41	0.41
Capacity (*c*), veh/h		355		279	518	945	281	872	349	1016	702	676
Volume-to-Capacity Ratio (*X*)		0.485		0.705	0.072	0.396	0.007	0.504	0.534	0.775	0.247	0.251
Back of Queue (*Q*), ft/ln (95 th percentile)		314.3		184.5	67	350	4	380.3	369.9	672.5	260.1	239.5
Back of Queue (*Q*), veh/ln (95 th percentile)		12.3		6.3	2.3	13.1	0.2	14.2	12.7	25.1	9.4	9.2
Queue Storage Ratio (*RQ*) (95 th percentile)		1.40		0.39	0.00	0.00	0.02	0.00	1.23	1.00	0.00	0.00
Uniform Delay (d_1), s/veh		67.2		60.9	45.6	17.5	68.9	60.9	61.4	60.3	36.8	36.9
Incremental Delay (d_2), s/veh		1.0		8.6	0.2	1.0	0.0	0.7	2.1	4.0	0.3	0.3
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		68.2		69.5	45.8	18.4	68.9	61.5	63.5	64.4	37.1	37.1
Level of Service (LOS)		E		E	D	B	E	E	E	E	D	D
Approach Delay, s/veh / LOS	68.2	E		36.7	D		62.2	E		56.1	E	
Intersection Delay, s/veh / LOS	53.8						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

PM PEAK HOUR

HCS Signalized Intersection Results Summary

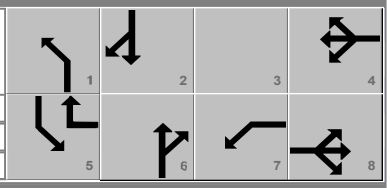
General Information				Intersection Information	
Agency	BUCKHOLZ TRAFFIC			Duration, h	0.250
Analyst	J. Buckholz	Analysis Date	Jan 24, 2023	Area Type	Other
Jurisdiction	Clay County	Time Period	PM Peak Hour	PHF	0.92
Urban Street	US 17	Analysis Year	2022	Analysis Period	1> 16:30
Intersection	SR 16 / Cooks Lane	File Name	2022_PM_US17_SR16_CoveLn.xus		
Project Description	2022 PM Peak Hr Traffic				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	40	27	2	204	84	880	3	537	166	513	430	17

Signal Information			
Cycle, s	105.8	Reference Phase	2
Offset, s	110	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	Off
Force Mode	Fixed	Simult. Gap N/S	Off

Green	0.4	14.9	22.6	13.7	19.5	0.0
Yellow	4.9	4.9	4.9	4.8	4.8	0.0
Red	2.0	2.0	2.0	2.0	2.5	0.0



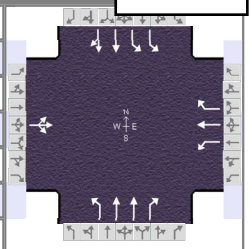
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8	7	4	1	6	5	2
Case Number		8.3	1.0	3.0	2.0	3.0	2.0	4.0
Phase Duration, s		26.8	20.5	47.3	7.3	29.5	29.1	51.3
Change Period, ($Y+R_c$), s		7.3	6.8	7.3	6.9	6.9	6.9	6.9
Max Allow Headway (*MAH*), s		6.0	4.9	7.1	3.9	4.4	4.9	4.4
Queue Clearance Time (g_s), s		9.4	12.9	42.0	2.2	19.3	18.4	11.6
Green Extension Time (g_e), s		0.4	0.8	0.0	0.0	3.2	3.8	2.2
Phase Call Probability		1.00	1.00	1.00	0.09	1.00	1.00	1.00
Max Out Probability		0.00	0.02	1.00	0.00	0.05	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h		75		222	91	861	3	584	145	558	244	242
Adjusted Saturation Flow Rate (*s*), veh/h/ln		831		1654	1752	1510	1810	1696	1510	1702	1811	1786
Queue Service Time (g_s), s		6.0		10.9	3.6	40.0	0.2	17.3	8.8	16.4	9.6	9.6
Cycle Queue Clearance Time (g_c), s		7.4		10.9	3.6	40.0	0.2	17.3	8.8	16.4	9.6	9.6
Green Ratio (*g/C*)		0.18		0.33	0.38	0.59	0.33	0.21	0.21	0.21	0.42	0.42
Capacity (*c*), veh/h		207		427	662	887	6	723	322	713	759	749
Volume-to-Capacity Ratio (*X*)		0.363		0.519	0.138	0.971	0.519	0.807	0.449	0.782	0.322	0.323
Back of Queue (*Q*), ft/ln (95 th percentile)		88		208.5	72	821.4	8	309.6	155.6	292	189.3	186
Back of Queue (*Q*), veh/ln (95 th percentile)		3.2		7.7	2.7	30.9	0.3	11.6	5.8	11.3	7.2	7.2
Queue Storage Ratio (*RQ*) (95 th percentile)		0.39		0.44	0.00	0.00	0.04	0.00	0.52	0.43	0.00	0.00
Uniform Delay (d_1), s/veh		37.8		27.8	21.6	21.0	52.7	39.6	36.2	39.6	20.6	20.6
Incremental Delay (d_2), s/veh		1.1		1.4	0.3	23.7	53.6	3.4	1.4	2.7	0.3	0.4
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		38.8		29.1	22.0	44.7	106.3	42.9	37.6	42.3	21.0	21.0
Level of Service (LOS)		D		C	C	D	F	D	D	D	C	C
Approach Delay, s/veh / LOS	38.8	D		40.0	D		42.2	D		32.4	C	
Intersection Delay, s/veh / LOS	37.9						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

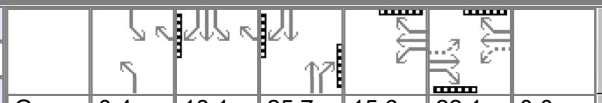
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	BUCKHOLZ TRAFFIC			Duration, h	0.250
Analyst	J. Buckholz	Analysis Date	Oct 30, 2023	Area Type	Other
Jurisdiction	Clay County	Time Period	PM Peak Hour	PHF	0.92
Urban Street	US 17	Analysis Year	2026	Analysis Period	1> 16:30
Intersection	SR 16 / Cooks Lane	File Name	2026_B_PM_US17_SR16_CooksLn.xus		
Project Description	2026 PM Peak Hr BUILD Traffic				

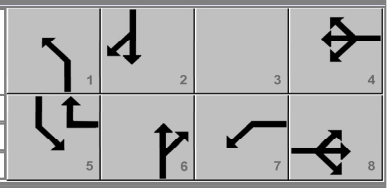


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	68	61	3	218	138	942	3	575	178	549	460	43

Signal Information			
Cycle, s	116.6	Reference Phase	2
Offset, s	110	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	Off
Force Mode	Fixed	Simult. Gap N/S	Off



Green	0.4	18.1	25.7	15.6	22.1	0.0
Yellow	4.9	4.9	4.9	4.8	4.8	0.0
Red	2.0	2.0	2.0	2.0	2.5	0.0



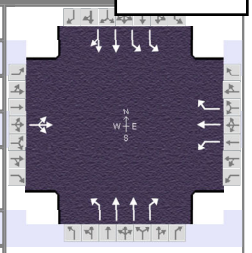
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8	7	4	1	6	5	2
Case Number		8.3	1.0	3.0	2.0	3.0	2.0	4.0
Phase Duration, s		29.4	22.4	51.8	7.3	32.6	32.3	57.5
Change Period, (*Y+R c*), s		7.3	6.8	7.3	6.9	6.9	6.9	6.9
Max Allow Headway (*MAH*), s		6.1	4.9	7.1	3.9	4.4	4.9	4.4
Queue Clearance Time (*g s*), s		21.6	14.9	46.4	2.2	22.5	21.4	14.0
Green Extension Time (*g e*), s		0.5	0.8	0.0	0.0	3.2	4.0	2.5
Phase Call Probability		1.00	1.00	1.00	0.10	1.00	1.00	1.00
Max Out Probability		0.34	0.07	1.00	0.00	0.15	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h		143		237	150	922	3	625	154	597	277	270
Adjusted Saturation Flow Rate (*s*), veh/h/ln		826		1654	1752	1510	1810	1696	1510	1702	1811	1756
Queue Service Time (*g s*), s		17.7		12.9	6.7	44.4	0.2	20.5	10.3	19.4	11.9	12.0
Cycle Queue Clearance Time (*g c*), s		19.6		12.9	6.7	44.4	0.2	20.5	10.3	19.4	11.9	12.0
Green Ratio (*g/C*)		0.19		0.34	0.38	0.60	0.00	0.22	0.22	0.22	0.43	0.43
Capacity (*c*), veh/h		203		309	668	904	6	746	332	741	786	762
Volume-to-Capacity Ratio (*X*)		0.707		0.768	0.225	1.020	0.525	0.837	0.465	0.806	0.352	0.354
Back of Queue (*Q*), ft/ln (95 th percentile)		214.1		252.8	136.7	1052.2	8.5	365.6	184.7	337.6	228.9	223.1
Back of Queue (*Q*), veh/ln (95 th percentile)		7.8		9.3	5.1	39.6	0.3	13.7	6.9	13.1	8.7	8.6
Queue Storage Ratio (*RQ*) (95 th percentile)		0.95		0.53	0.00	0.00	0.04	0.00	0.62	0.50	0.00	0.00
Uniform Delay (*d 1*), s/veh		45.3		32.0	24.4	23.4	57.9	43.4	39.5	43.2	22.0	22.0
Incremental Delay (*d 2*), s/veh		6.5		6.5	0.6	35.0	55.0	5.4	1.4	3.0	0.4	0.4
Initial Queue Delay (*d 3*), s/veh		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		51.8		38.5	25.0	58.3	112.9	48.8	40.9	46.2	22.4	22.4
Level of Service (LOS)		D		D	C	F	F	D	D	D	C	C
Approach Delay, s/veh / LOS	51.8	D		50.9	D		47.5	D		34.8	C	
Intersection Delay, s/veh / LOS	44.7						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

HCS Signalized Intersection Results Summary

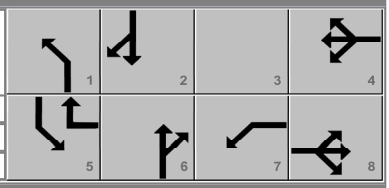
General Information				Intersection Information	
Agency	BUCKHOLZ TRAFFIC			Duration, h	0.250
Analyst	J. Buckholz	Analysis Date	Oct 30, 2023	Area Type	Other
Jurisdiction	Clay County	Time Period	PM Peak Hour	PHF	0.92
Urban Street	US 17	Analysis Year	2026 w/ Balanced Timings	Analysis Period	1> 16:30
Intersection	SR 16 / Cooks Lane	File Name	BAL_2026_B_PM_US17_SR16_CooksLn.xus		
Project Description	2026 PM Peak Hr BUILD Traffic				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	68	61	3	218	138	942	3	575	178	549	460	43

Signal Information			
Cycle, s	139.9	Reference Phase	2
Offset, s	110	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	Off
Force Mode	Fixed	Simult. Gap N/S	Off

Green	20.0	6.1	33.0	14.0	32.0	0.0
Yellow	4.9	4.9	4.9	4.8	4.8	0.0
Red	2.0	2.0	2.0	2.0	2.5	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8	7	4	1	6	5	2
Case Number		8.3	1.0	3.0	2.0	3.0	2.0	4.0
Phase Duration, s		39.3	20.8	60.1	26.9	39.9	39.9	52.9
Change Period, ($Y+R_c$), s		7.3	6.8	7.3	6.9	6.9	6.9	6.9
Max Allow Headway (*MAH*), s		6.1	4.9	7.1	3.9	4.4	4.9	4.4
Queue Clearance Time (g_s), s		24.8	16.0	54.8	2.2	26.1	24.7	19.1
Green Extension Time (g_e), s		0.5	0.0	0.0	0.0	2.2	2.3	2.4
Phase Call Probability		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Max Out Probability		0.60	1.00	1.00	0.00	0.56	0.43	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (*v*), veh/h		143		237	150	922	3	625	154	597	277	270
Adjusted Saturation Flow Rate (*s*), veh/h/ln		800		1654	1752	1510	1810	1696	1359	1702	1811	1756
Queue Service Time (g_s), s		20.9		14.0	8.2	52.8	0.2	24.1	13.7	22.7	16.9	17.1
Cycle Queue Clearance Time (g_c), s		22.8		14.0	8.2	52.8	0.2	24.1	13.7	22.7	16.9	17.1
Green Ratio (*g/C*)		0.23		0.34	0.38	0.61	0.14	0.24	0.24	0.24	0.33	0.33
Capacity (*c*), veh/h		222		298	661	926	259	800	320	803	595	578
Volume-to-Capacity Ratio (*X*)		0.647		0.794	0.227	0.996	0.013	0.781	0.482	0.743	0.465	0.467
Back of Queue (*Q*), ft/ln (95 th percentile)		240		317.7	170	1173	4.4	423.7	219.3	393.9	318.8	310.5
Back of Queue (*Q*), veh/ln (95 th percentile)		8.8		11.7	6.3	44.1	0.2	15.9	8.2	15.3	12.2	11.9
Queue Storage Ratio (*RQ*) (95 th percentile)		1.07		0.67	0.00	0.00	0.02	0.00	0.73	0.58	0.00	0.00
Uniform Delay (d_1), s/veh		49.4		39.8	29.7	26.9	51.5	50.1	46.1	49.5	37.2	37.2
Incremental Delay (d_2), s/veh		6.4		14.4	0.6	28.5	0.0	5.3	1.6	4.0	0.8	0.8
Initial Queue Delay (d_3), s/veh		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh		55.8		54.1	30.3	55.4	51.5	55.4	47.7	53.6	38.0	38.1
Level of Service (LOS)		E		D	C	E	D	E	D	D	D	D
Approach Delay, s/veh / LOS	55.8	E		52.3	D		53.8	D		46.1	D	
Intersection Delay, s/veh / LOS	50.7						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

STAFF REPORT

CITY OF GREEN COVE SPRINGS, FLORIDA

TO: Planning and Zoning Commission **MEETING DATE:** January 23, 2024

FROM: Michael Daniels, AICP, Development Services Director

SUBJECT: Large Scale Future Land Use Map Amendment for property located at the Southeast corner of US 17 and SR 16 for approximately 58.12 acres of parcel #016451-000-00 and a portion of parcel #016451-003-00.

Future Land Use Amendment: from: Mixed Use

to: Industrial

PROPERTY DESCRIPTION

APPLICANT: David Smith, Louis L Huntley Enterprises **OWNER:** Louis Ward Huntley

PROPERTY LOCATION: 965 Leonard C Taylor Highway

PARCEL NUMBER: 016451-000-00

FILE NUMBER: FLUS-24-001

CURRENT ZONING*:* C-2 General Commercial

FUTURE LAND USE DESIGNATION*:* Mixed Use

SURROUNDING LAND USE

NORTH: **FLU**: MIXED USE
Z: C-2
Use: Undeveloped

SOUTH: **FLU**: MIXED USE
Z: C-2
Use: Undeveloped

EAST: **FLU**: MIXED USE
Z: C-2
Use: Undeveloped

WEST: **FLU**: MIXED USE
Z: C-2
Use: Undeveloped

BACKGROUND

The applicant has applied for a Future Land Use and Zoning Change for the subject property for the construction of industrial development. There is an existing building on the site that had been used for manufacturing plant which has been closed in 2010. However industrial businesses such as Woodford Plywood, Meever USA and Front Runner Boatworks have been located at this location as nonconforming industrial uses.

The property is surrounded by the HLM property on all sides. Property access to SR 16 is provided through a vehicular and utility easement.

To the south and east of the property there is an extension of the CSX rail line that is owned by the City and has fallen into disrepair. The applicant has expressed an interest in entering an agreement with the City to repair the existing Rail line and add a Railroad spur to serve potential future Industrial users on the property. These actions would require a separate agreement to be approved by the City.

All proposed new development will be required to meet the City's Site Development Plan code requirements and be submitted to the Planning Commission and City Council for approval.

The site is located within the City's Water, Sewer, and Electric Service Boundaries. It will be served by the City's sanitation services.

Additionally, the applicant has previously submitted the following future land use and rezoning requests:

Application #	Description
FLUS-23-005	Future Land Use Application from Mixed Use to Industrial
ZON-23-007	Rezoning Application from C-2 General Business to M-2 Heavy Industrial
FLUS-23-006	Future Land Use Application from Mixed Use to Industrial
ZON-23-007	Rezoning Application from C-2 General Business to M-2 Heavy Industrial

These previous cases were approved at the Planning Commission in August of 2023 and table by the City Council on the September 19, 2023 meeting due to concerns by Council regarding the impact of approving additional industrial development along a key gateway corridor coming into the City. The applicant agreed to submit a Future Land Use text amendment to address the following issues:

- Land uses
- Site Design
- Buffering
- Traffic

The text amendment will be required to be a large-scale amendment, so as a result, the map amendment will now be taken as a large-scale amendment as well.

Site Specific Text Amendment

Objective 1.8 The City shall adopt, as necessary, Future Land Use Map Amendments with specific development conditions that are consistent with the City's adopted Level of Service (LOS) standards and Future Land Use Element, and compatible with the surrounding uses.
Policy 1.8.1: Future Land Use Map (FLUM) Amendment adopted by Ordinance Number O-01-2024 on XXX,XX, 2024 changes the future land use on the amendment area from Mixed Use to Industrial. Development shall meet the requirements of all applicable goals, objectives and policies of the Comprehensive Plan; however, the land use and development potential made available by the FLUM Amendment Ordinance O-01-2024 is hereby limited based on the following:

1. Prior to the approval of a subsequent development order such as but not limited to a subdivision or site development plan, the property owner/developer must submit a developer's agreement addressing the following development requirements for the Amendment parcels that is currently owned by HLM Investments that is adjacent to SR 16 and US 17:
    a) Address screening and buffering requirements between the Amendment parcels or portion thereof and the remaining portion of parcel 016451-0000 and SR 16 and US 17.
    b) Address Building, site and streetscape design requirements for the Amendment parcels or portion thereof and the remaining portion of parcel 016451-0000 adjacent to SR 16 and US 17. These requirements shall include but are not limited to:
        a. Block Standards
        b. Building Placement
        c. Building Typology and Massing
        d. Building Frontage Design
        e. Façade Articulation
        f. Entrances
        g. Building Materials
        h. Lighting
        i. Service Area and Mechanical Equipment Screening
        j. Signage
2. Prior to approval of a subsequent development order, such as but not limited a zoning, subdivision or site development plan, the property owner/developer will be required to provide an Access Management Plan and Traffic Impact Analysis and to address site access and traffic capacity, the plan must be developed in cooperation with Florida Department of Transportation, Clay County and the City of Green Cove Springs. The Access Management Plan and traffic capacity plan shall be completed prior to the approval of a subsequent development order such as a Zoning, Subdivision or Site Development Plan for the Amendment Parcels that is currently owned by HLM Investments that is adjacent to SR 16 and US 17;
3. Limit uses on the Amendment Parcels by allowing M-1 Uses by right and M-2 uses as a special exception.

4. Property shall be rezoned to a Planned Unit Development (PUD). A conceptual plan and written description shall be included with the PUD submittal.

Aerial

Environmental Conditions Analysis

Maps of Environmental Features

Wetlands

There are Riverines or Riparian wetlands located in the northeast area of the property.

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Floodplain

A portion of the subject property is located in Flood zone A which are areas subject to inundation by the 1 percent annual chance flood event generally determined using approximate methodologies.

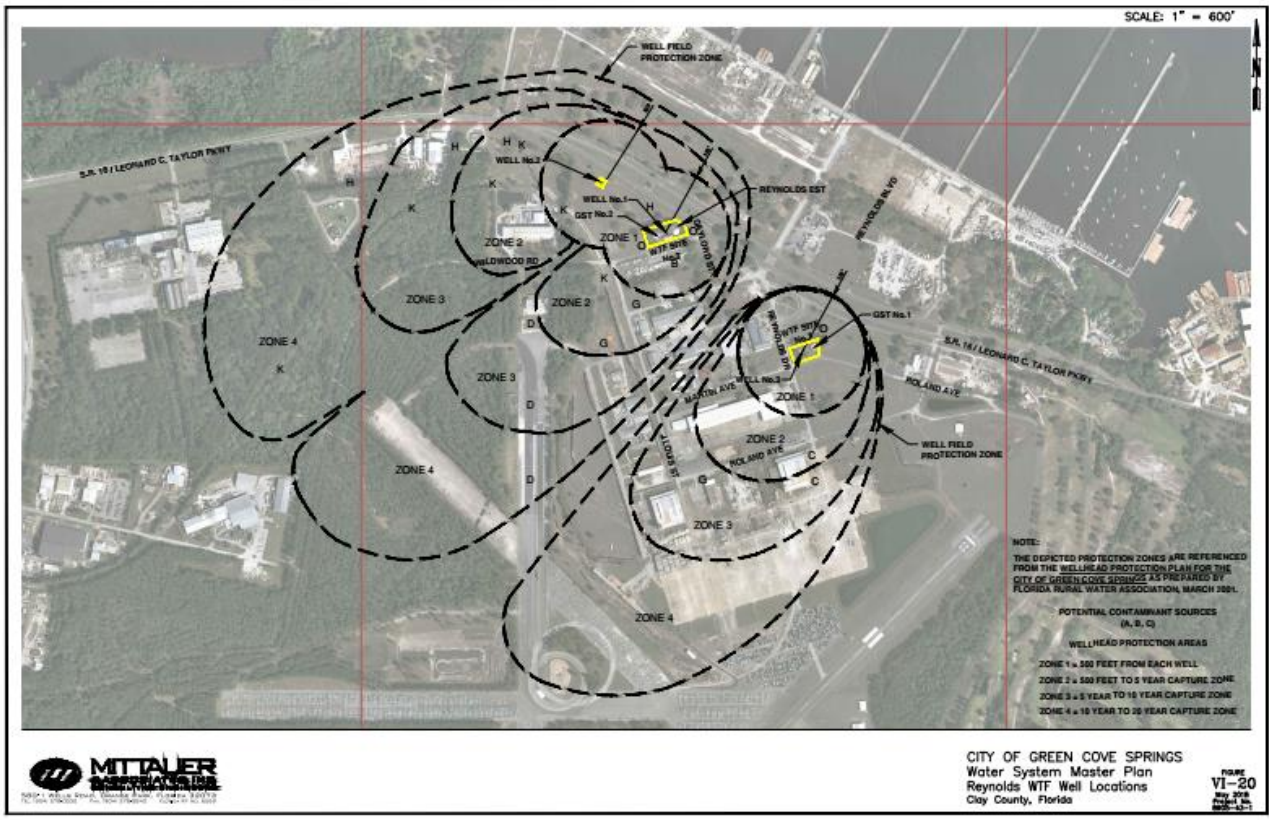
Additional Environmental Issues:

The Florida Department of Environmental Protection (FDEP) became aware of groundwater contamination on the property in July 2015 and subsequently provided a Declaration of Restrictive Covenant on the property which was recorded with the Clay County Clerk of Court in March 2020 and is attached for your review. Pursuant to FDEP's investigation chlorinated hydorcarbons were detected on the subject property and adjacent property as set forth in Exhibit D of the 1st Amendment to the DRCGCS Town Center which is enclosed. In April of 2022, a Conditional Site Rehabilitation Completion Order was approved by FDEP that limited the contamination issue to the groundwater. As a result, the following improvements are prohibited without meeting the requirements set forth in the Completion Order:

a) Dewatering activities
b) Stormwater management systems (including swales and ditches) can be constructed.
c) Drinking, irrigation or monitoring well installation.

<u>Wellfield Protection Zone</u>

The project site is located within Zone 4 of the wellfield protection zone. They are outside of the 500' requirement which limits the types of uses on this site.



URBAN SPRAWL ANALYSIS

Section 163.3177, Florida Statutes, requires that any amendment to the Future Land Use Element to discourage the proliferation of urban sprawl. Section 163.3177(6)(a)9.a., Florida Statutes, identifies 13 primary urban sprawl indicators and states that, "[t]he evaluation of the presence of these indicators shall consist of an analysis of the plan or plan amendment within the context of features and characteristics unique to each locality…"

An evaluation of each primary indicator is provided below.

(I) Promotes, allows, or designates for development substantial areas of the jurisdiction to develop as low-intensity, low-density, or single-use development or uses.

Evaluation & Findings: The proposed amendment will revise the FLUM designation to Industrial. The area along the US 17 and SR 16 Corridors will remain as Mixed Use allowing for a mix of uses but at the same time allowing for increased employment opportunities.

(II) Promotes, allows, or designates significant amounts of urban development to occur in rural areas at substantial distances from existing urban areas while not using undeveloped lands that are available and suitable for development.

Evaluation & Findings: The project site is located within the US 17 Corridor that is currently Land Used and Zoned for predominantly commercial/industrial development The project site is located within the City's water and sewer and electric urban service areas.

(III) Promotes, allows, or designates urban development in radial, strip, isolated, or ribbon patterns generally emanating from existing urban developments.

Evaluation & Findings: The proposed Industrial designation allows for industrial uses, thereby providing a balance of uses to complement the Mixed Use designation adjacent along the US 17 and SR 16 Corridors.

(IV) Fails to adequately protect and conserve natural resources, such as wetlands, floodplains, native vegetation, environmentally sensitive areas, natural groundwater aquifer recharge areas, lakes, rivers, shorelines, beaches, bays, estuarine systems, and other significant natural systems.

Evaluation & Findings: The site has existing wetlands, floodplains and is within the wellhead protection area. In order to ensure that natural resources are protected, a site specific land use amendment requiring future development to comply with Development Restrictions regarding protecting groundwater.

(V) Fails to adequately protect adjacent agricultural areas and activities, including silviculture, active agricultural and silvicultural activities, passive agricultural activities, and dormant, unique, and prime farmlands and soils.

Evaluation & Findings: The project site is located within an urban area with surrounding commercial development. There are no adjacent agricultural areas and activities.

(VI) Fails to maximize use of existing public facilities and services.

Evaluation & Findings: With the project site being located within an area with existing development, the proposed development will utilize existing public facilities and services.

(VII) Allows for land use patterns or timing which disproportionately increase the cost in time, money, and energy of providing and maintaining facilities and services, including roads, potable

water, sanitary sewer, stormwater management, law enforcement, education, health care, fire and emergency response, and general government.

Evaluation & Findings: The project site is located within an existing commercial area with existing public facilities and services. The proposed development will utilize existing public facilities and services and shall mitigate for the increase in time, money, and energy for providing and maintaining these facilities through the payment of impact fees for utilities including roads, government services, and on-going ad valorem taxes.

(VIII) Fails to provide a clear separation between rural and urban uses.

Evaluation & Findings: The site is located within the City's water and sewer and electric urban service areas and is not adjacent to any rural zoned properties.

(X) Discourages or inhibits infill development or the redevelopment of existing neighborhoods and communities.

Evaluation & Findings: The proposed application will not discourage infill development and is located within an existing developed area.

(XI) Fails to encourage a functional mix of uses.

Evaluation & Findings: The project site will allow for industrial uses in an area that is suitable for industrial development.

(XII) Results in poor accessibility among linked or related land uses.

Evaluation & Findings: The project site shall have access via an easement to SR 16.

(XIII) Results in the loss of significant amounts of functional open space.

Evaluation & Findings: All proposed development shall comply with the City's landscape ordinance to ensure there shall be open space provided within the development.

In addition to the preceding urban sprawl indicators, Florida Statutes Section 163.3177 also establishes eight (8) "Urban Form" criteria. An amendment to the Future Land Use Map is presumed to not be considered urban sprawl if it meets four (4) of the (8) urban form criteria. These urban form criteria, and an evaluation of each as each may relate to this application, are provided below. The applicant has provided an analysis of the application's consistency with Section 163.3177 within the application materials and contends that the proposed amendment will not encourage urban sprawl by showing it meets four of the eight urban form criteria.

1. Directs or locates economic growth and associated land development to geographic areas of the community in a manner that does not have an adverse impact on and protects natural resources and ecosystems.

Evaluation & Findings: The project site is located within the City's water and sewer and electric urban service areas which have been planned to accommodate growth which allows for the preservation of the natural resources of outlying areas. In addition, all new development shall comply with the City's landscaping, tree preservation and resource protection ordinances.

2. Promotes the efficient and cost-effective provision or extension of public infrastructure and services.

Evaluation & Findings: This application, as well as the companion rezoning application, will result in utilizing existing public infrastructure and existing services.

3. Promotes walkable and connected communities and provides for compact development and a mix of uses at densities and intensities that will support a range of housing choices and a multimodal transportation system, including pedestrian, bicycle, and transit, if available.

Evaluation & Findings: Sidewalks are provided along US 17 and shall be provided as part of future development along SR 16.

Promotes conservation of water and energy.

Evaluation & Findings: The project site is located within an urban area with surrounding commercial development. Development in core urban areas reduces the pressure to develop in areas further outside of the urban areas.

5. Preserves agricultural areas and activities, including silviculture, and dormant, unique, and prime farmlands and soils.

Evaluation & Findings: The project site is located within an urban area with surrounding development. There are no adjacent agricultural areas and activities. Development in core urban areas reduces the pressure to develop in agricultural areas.

6. Preserves open space and natural lands and provides for public open space and recreation needs.

Evaluation & Findings: All proposed development shall comply with the City's landscape ordinance to ensure there shall be open space provided within the development.

7. Creates a balance of land uses based upon demands of the residential population for the nonresidential needs of an area.

Evaluation & Findings: The proposed site is located within close proximity to a variety of nonresidential uses. The proposed development will provide additional employment opportunities to the residents of this community, providing a balance of land uses to the area.

8. Provides uses, densities, and intensities of use and urban form that would remediate an existing or planned development pattern in the vicinity that constitutes sprawl or if it provides for an innovative development pattern such as transit-oriented developments or new towns as defined in s. 163.3164.

Evaluation & Findings: N/A

CONSISTENCY WITH THE COMPREHENSIVE PLAN

The following Goals, Objectives, and Policies (GOPs) support the proposed amendment to the Future Land Use Map of the City of Green Cove Springs Comprehensive Plan:

FUTURE LAND USE ELEMENT

Goal 1: To develop and maintain land use programs and activities to provide for the most appropriate use of the land and direct growth to suitable areas while protecting the public, health, safety and welfare of the public.

Objective 1.1. New development and Redevelopment shall be directed to appropriate areas of the City.

e. Industrial (IND): This FLUC is intended to accommodate primarily light and heavy manufacturing, distribution, and storage, in addition to heavy commercial and professional office uses. Maximum Intensity: 0.6 FAR

Objective 1.2. The City shall strive to cultivate a sustainable land use pattern by preventing the proliferation of urban sprawl, ensuring the efficient provision of services, and implementing smart growth principles.

Policy 1.2.1. The location and timing of new development and the issuance of permits shall be coordinated with the availability of public facilities through implementation of various smart growth management measures.

Policy 1.2.6. The City shall require new development to connect to the City's centralized potable water and sanitary sewer system.

Policy 1.2.7. The City shall condition development orders upon the provision of essential facilities and services which meet and would not result in the failure of each service's established level of service (LOS).

Policy 1.2.8. The City shall ensure the availability and protection of lands designated for the future expansion of public infrastructure.

Objective 1.4. The City shall strive to preserve its natural resources.

Policy 1.4.5. Development orders shall not be issued in areas where soils conditions are not adequate for building construction, drainage, roads, and other development-related facilities.

TRANSPORTATION ELEMENT

Policy 2.3.1. The City shall rely on level of service (LOS) standards adopted in the Capital Improvements Element to ensure that acceptable traffic conditions are maintained*.

*The City is in the process of implementing a mobility plan and fee for new development to ensure that needed transportation improvements are provided to ensure that the City is addressing transportation congestion issues and providing for multimodal improvements.

Policy 2.5.3. The City shall review development applications to ensure that adequate capacity is available to serve the proposed project. The latest version of Trip Generation Manual published by the
Institute of Transportation Engineers (ITE) shall be used to determine the number of trips that the
proposed development will produce or attract.

SANITARY SEWER, SOLID WASTE, DRAINAGE, POTABLE WATER, AND AQUIFER RECHARGE ELEMENT

Objective 4.2. The City shall continue to provide safe and adequate sanitary sewer service to all existing and future developments located within the City limits. Existing Sanitary Sewer deficiencies shall be scheduled for correction in the Capital Improvements Element.

Policy 4.2.1 All Future Development shall be required to connect to the City's Sanitary Sewer Collection

Policy 4.2.1. All Future Development shall be required to connect to the City's Sanitary Sewer Collection.

Objective 4.6. Future Development shall be required to connect with central water systems and provide stormwater facilities which maximize the use of existing facilities and discourage urban sprawl.

Policy 4.6.1. The City shall annually monitor the condition of level of service standards for solid waste, potable water, wastewater, and stormwater facilities. The Planning and Zoning Department shall be assigned the task of reviewing all development orders to determine their current and future impacts on the capacities of existing public facilities.

Policy 4.6.2. No permit shall be issued for new development which will result in an increase in demand on deficient capacities or if adequate facility capacities for solid waste, potable water, sanitary sewer, and drainage facilities are not available prior to or concurrent with the development's impact.

CONSERVATION ELEMENT

Policy 5.3.2. The City shall ensure that public potable water wellfields will be located in areas where they will be least impacted by development and contamination.

INTERGOVERNMENTAL COORDINATION ELEMENT

Objective 7.1. The City shall act to ensure that all planning and development related activities are coordinated with the comprehensive plan or any other plans of Clay County, the Northeast Florida Regional Council (NEFRC), and the School Board.

Policy 7.1.1. Maintain procedures to review comprehensive plans and comprehensive plan amendments of the County and the plans of the Clay County School Board and the Northeast Florida Regional Council.

ECONOMIC DEVELOPMENT ELEMENT

Policy 9.1.6. Continue collaboration through the Clay County EDC and the Clay County Chamber of Commerce with Florida Chamber of Commerce and Enterprise Florida Inc for sector strategy development, regional incentive updates and statewide attraction and site selection programs.

Objective 9.5. The City shall collaborate economic development efforts with state, regional and local partners to foster a system of enhanced communication and partnerships within the Northeast Florida region.

PRIVATE PROPERTY RIGHTS ELEMENT

Objective 10.1. The City shall recognize that each property owner has constitutionally protected private property rights and shall consider these property rights in local decision making by referring to a set of statement of rights identified in this element.

Policy 10.1.1. The following rights shall be considered in local decision making:

a. The right of a property owner to physically possess and control his or her interests in the property, including easements, leases, or mineral rights.

b. The right of a property owner to use, maintain, develop, and improve his or her property for personal use or for the use of any other person, subject to state law and local ordinances.

c. The right of the property owner to privacy and to exclude others from the property to protect the owner's possessions and property.

d. The right of a property owner to dispose of his or her property through sale or gift.

PUBLIC FACILITIES IMPACT

Traffic Impacts

Land Use[1] (ITE)	Square Footage/Dwelling Units	Daily		AM Peak		PM Peak	
		Rate	Trips	Rate	Trips	Rate	Trips
Industrial	2,531	6.83	3,554	.82	476	.85	496

1. *Source: Institute of Transportation Engineers: Trip Generation Manual 9th Edition*

Conclusion: There are no development plans at this time as a result, the traffic impacts were calculated on the total acreage of the proposed industrial park.

Potable Water Impacts
Industrial

System Category	Gallons Per Day (GPD)
Current Permitted Capacity[1]	4,200,000
Less actual Potable Water Flows[1]	1,013,000
Residual Capacity[1]	3,187,000
Projected Potable Water Demand from Proposed Project[2]	167,092
Residual Capacity after Proposed Project	3,019,907

1. *Source: City of Green Cove Springs Public Works Department*
2. *Source: City of Green Cove Springs Comprehensive Plan. Formula Used: .11 x sq ft (based on historical data)*

Conclusion: The impact was calculated based on potential industrial uses. As shown in the table above, there is adequate capacity this use type. The City has existing water lines installed at this location.

Sanitary Sewer Impacts – South Plant WWTP
Industrial

System Category	Gallons Per Day (GPD)
Current Permitted Capacity[1]	350,000
Current Loading[1]	270,000
Committed Loading [1]	330,000
Projected Sewer Demand from Proposed Project[2]	167,092
Residual Capacity after Proposed Project	-321,874

1. *Source: City of Green Cove Springs Public Works Department*
2. *Source: City of Green Cove Springs Comprehensive Plan. Formula Used: .11 x sq ft (based on historical data)*

Conclusion: The impact was calculated based on potential commercial or residential uses. The project site is served by the South Plant Wastewater Treatment Plant (WWTP). As shown in the table above, when factoring in the current loading and the committed loading, this WWTP is over capacity to handle the estimated impacts resulting from the proposed application. The committed loading is related to the Rookery Development which will be completed in two years prior to the commencement of this project. At such time, the Rookery capacity will be served by a new wastewater treatment facility provided by the Clay County Utility Authority. Once the facility is built, the capacity temporarily reserved to the Rookery shall be available for this development. In addition, the remaining demand will be sent via force main to the Harbor Road plant, where the City has an excess capacity of approximately 700,000 gallons per day. As a result, there is adequate capacity. The City has existing sewer lines at this location.

Solid Waste Impacts
Industrial

System Category	LBs Per Day / Tons per Year
Solid Waste Generated by Proposed Project[1]	None
Solid Waste Facility Capacity[2]	Minimum 3 Years Capacity

1. *Source: City of Green Cove Springs does not provide commercial sanitation services, prospective sanitation collection franchisees shall comply with City Code Section 66-10.*

Solid Waste Impacts

The City of Green Cove Springs' solid waste is disposed of at the Rosemary Hill Solid Waste Management Facility operated by Clay County. Per the Clay County Comprehensive Plan, a minimum of three (3) years capacity shall be maintained at the County's solid waste management facility. For commercial developments, the City does not provide Curbside Service; commercial locations must instead contract with an approved franchisee for containerized collection.

Conclusion: The proposed future land use amendment and rezoning are not expected to negatively impact the City's adopted LOS or exceed the County solid waste management facility's capacity.

Compatibility

The Subject Property is located adjacent to a Mixed Use Land Use District to the north and west and to the east the property is the Reynolds AirPark which is zoned Industrial. The properties to the south along Hall Park Road are also Zoned Industrial. In addition, the subject property is in close proximity to a Railroad which is conducive for Industrial Development and had previously been used as a Manufacturing facility. The property along US 17 and SR 16 shall remain as commercial properties in keeping with providing a commercial gateway into the City. As a result, the proposed Future Land Use and Zoning application is suitable for the property and compatible with the surrounding uses.

Intent of Existing Future Land Use District

This Designation encompasses lands along major transportation corridors and is intended to accommodate primarily nonresidential uses including light and heavy commercial uses, lodging, and professional offices, interspersed with medium density residential uses and public/semi-public facilities.

Intent of Proposed Future Land Use District

This Designation is intended to accommodate primarily light and heavy manufacturing, distribution, and storage, in addition to heavy commercial and professional office uses.

Existing Future Land Use

Proposed Future Land Use

STAFF RECOMMENDATION

Staff recommends approval of the Future Land Use designation from Mixed Use to Industrial subject to the Site-Specific Text Amendment with the following conditions:

1. Provide a comprehensive traffic study meeting the City Traffic Impact Analysis (TIA) for new development prior to approval of a subsequent development order.
2. Limit Uses within the amendment parcels to permitted uses in the M-1 Light Industrial Zoning Classification.

RECOMMENDED MOTIONS:

Future Land Use

Recommend to City Council approval of ordinance O-01-2024, to amend the Future Land Use of the property described therein from Mixed Use to Industrial

Recommend to City Council approval of ordinance O-02-2024, regarding a site-specific text amendment regarding the Future Land Use of the property described therein from Mixed Use to Industrial

1. Provide a comprehensive traffic study meeting the City Traffic Impact Analysis (TIA) for new development prior to approval of a subsequent development order.
2. Limit Uses within the amendment parcels to permitted uses in the M-1 Light Industrial Zoning Classification.

FOR OFFICE USE ONLY

Received Date_____

Application #:_____

Acceptance Date:_____

Review Date: SRDT_____ P & Z _____ CC _____

Small Scale Future Land Use Map Amendment Application

A. PROJECT

1. Project Name: LLHE INDUSTRIAL REZONE
2. Address of Subject Property: 965 LEONARD C. TAYLOR PARKWAY
3. Parcel ID Number(s): 38-06-26-016451-000-00
4. Existing Use of Property: INDUSTRIAL MANUFACTURING 7/6/23
5. Future Land Use Map Designation : ~~INDUSTRIAL LAND USE~~ MIXED USE
6. Existing Zoning Designation: ~~CH: COMMERCIAL HIGH INTENSITY~~ C2 GENERAL COMMERCIAL
7. Proposed Future Land Use Map Designation: INDUSTRIAL (IND) 7/6/23
8. Acreage (must be 50 acres or less): 15

B. APPLICANT

1. Applicant's Status ☐ Owner (title holder) ☑ Agent
2. Name of Applicant(s) or Contact Person(s): DAVID SMITH Title: MANAGER
   Company (if applicable): LOUIS L. HUNTLEY ENTERPRISES, INC.
   Mailing address: 1890 KINGSLEY AVE., STE 102
   City: ORANGE PARK State: FL ZIP: 32073
   Telephone: (904) 272-0435 e-mail: A.VAUGHN@MMSEJAX.COM
3. If the applicant is agent for the property owner*
   Name of Owner (title holdor): LOUIS WARD HUNTLEY
   Mailing address: 1890 KINGSLEY AVE., STE. 102
   City: ORANGE PARK State: FL ZIP: 32073
   Telephone: (904) 631-0124 e-mail: JFFYJOE@AOL.COM

* Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.

C. ADDITIONAL INFORMATION

1. Is there any additional contact for sale of, or options to purchase, the subject property?
   ☐ Yes ☑ No If yes, list names of all parties involved:

   If yes, is the contract/option contingent or absolute?
   ☐ Contingent ☐ Absolute

D. ATTACHMENTS

1. Statement of proposed change, including a map showing the proposed Future Land Use Map change and Future Land Use Map designations on surrounding properties
2. A map showing the zoning designations on surrounding properties
3. A current aerial map (Maybe obtained from the Clay County Property Appraiser.)
4. Legal description with tax parcel number.
5. Boundary survey
6. Warranty Deed or the other proof of ownership
7. Fee.

    a. $750, plus

    b. All applications are subject 10% administrative fee and must pay the cost of postage, signs, advertisements and the fee for any outside consultants.

No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any fees necessary for technical review or additional reviews of the application by a consultant will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any action of any kind on the development application.

All attachments are required for a complete application. A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge:

Manager
Signature of Applicant

Signature of Co-applicant

DAVID E. SMITH
Typed or printed name and title of applicant

Typed or printed name of co-applicant

Date

Date

State of FL County of CLAY

The foregoing application is acknowledged before me this 30TH day of MAY, 2023, by DAVID SMITH, who is/are personally known to me, or who has/have produced _____ as identification.

NOTARY SEAL

AMY V. DEWEY
Commission # HH 247227
Expires June 11, 2026

Signature of Notary Public, State of FL

FOR OFFICE USE ONLY

Received Date_____

Application #:_____

Acceptance Date:_____

Review Date: SRDT_____ P & Z _____ CC _____

Small Scale Future Land Use Map Amendment Application

A. PROJECT

1. Project Name: HLM INDUSTRIAL REZONE
2. Address of Subject Property: LEONARD C TAYLOR PKWY
3. Parcel ID Number(s): (A PORTION OF) 38-06-26-016451-003-00
4. Existing Use of Property: INDUSTRIAL MANUFACTURING
5. Future Land Use Map Designation : ~~INDUSTRIAL LAND USE~~ MIXED USE
6. Existing Zoning Designation: ~~CHI: COMMERCIAL HIGH INTENSITY~~ C2 GENERAL COMMERCIAL
7. Proposed Future Land Use Map Designation: INDUSTRIAL (IND)
8. Acreage (must be 50 acres or less): 31+/- + 11+/- = 43.21

B. APPLICANT

1. Applicant's Status ☑ Owner (title holder) ☐ Agent
2. Name of Applicant(s) or Contact Person(s): WARD HUNTLEY Title: OWNER

   Company (if applicable): HLM INVESTMENTS

   Mailing address: 1890 KINGSLEY AVE., STE. 102

   City: ORANGE PARK State: FL ZIP: 32073

   Telephone: (904) 272-0435 e-mail: A.VAUGHN@MMSEJAX.COM

3. If the applicant is agent for the property owner*

   Name of Owner (title holder):_____

   Mailing address: _____

   City: _____ State:_____ ZIP:_____

   Telephone: (___)_____ e-mail:_____

* Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.

C. ADDITIONAL INFORMATION

1. Is there any additional contact for sale of, or options to purchase, the subject property?
   ☐ Yes ☑ No If yes, list names of all parties involved:

   If yes, is the contract/option contingent or absolute?
   ☐ Contingent ☐ Absolute

D. ATTACHMENTS

1. Statement of proposed change, including a map showing the proposed Future Land Use Map change and Future Land Use Map designations on surrounding properties
2. A map showing the zoning designations on surrounding properties
3. A current aerial map (Maybe obtained from the Clay County Property Appraiser.)
4. Legal description with tax parcel number.
5. Boundary survey
6. Warranty Deed or the other proof of ownership
7. Fee.

    a. $750, plus

    b. All applications are subject 10% administrative fee and must pay the cost of postage, signs, advertisements and the fee for any outside consultants.

No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any fees necessary for technical review or additional reviews of the application by a consultant will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any action of any kind on the development application.

All attachments are required for a complete application. A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.

Signature of Applicant

Signature of Co-applicant

Ward Huntley

Typed or printed name and title of applicant

Typed or printed name of co-applicant

6-5-23

Date

Date

State of FL County of Clay

The foregoing application is acknowledged before me this 5TH day of JUNE, 2023 by WARD HUNTLEY, who is/are personally known to me, or who has/have produced _____ as identification.

NOTARY SEAL

AMY V. DEWEY
Commission # HH 247227
Expires June 11, 2026

Signature of Notary Public, State of FL

Existing Future Land Use

- Downtown
- Industrial
- Mixed-Use
- Mixed-Use RP
- Neighborhood
- Public

0 375 750

Subject Property

Proposed Future Land Use

- Downtown
- Industrial
- Mixed-Use
- Mixed-Use RP
- Neighborhood
- Public

0 375 750

STAFF REPORT

CITY OF GREEN COVE SPRINGS, FLORIDA

TO: Planning and Zoning Commission **MEETING DATE:** January 23, 2024

FROM: Michael Daniels, AICP, Development Services Director

SUBJECT: Large Scale Future Land Use Text Amendment for property located at the Southeast corner of US 17 and SR 16 for approximately 58.12 acres of parcel #016451-000-00 and a portion of parcel #016451-003-00.

Future Land Use Amendment: from: Mixed Use

to: Industrial

PROPERTY DESCRIPTION

APPLICANT: David Smith, Louis L Huntley Enterprises **OWNER:** Louis Ward Huntley

PROPERTY LOCATION: 965 Leonard C Taylor Highway

PARCEL NUMBER: 016451-000-00

FILE NUMBER: FLUS-24-001

CURRENT ZONING*:* C-2 General Commercial

FUTURE LAND USE DESIGNATION*:* Mixed Use

SURROUNDING LAND USE

NORTH: **FLU**: MIXED USE
Z: C-2
Use: Undeveloped

SOUTH: **FLU**: MIXED USE
Z: C-2
Use: Undeveloped

EAST: **FLU**: MIXED USE
Z: C-2
Use: Undeveloped

WEST: **FLU**: MIXED USE
Z: C-2
Use: Undeveloped

BACKGROUND

The applicant has applied for a Future Land Use and Zoning Change for the subject property for the construction of industrial development. There is an existing building on the site that had been used for manufacturing plant which has been closed in 2010. However industrial businesses such as Woodford Plywood, Meever USA and Front Runner Boatworks have been located at this location as nonconforming industrial uses.

The property is surrounded by the HLM property on all sides. Property access to SR 16 is provided through a vehicular and utility easement.

To the south and east of the property there is an extension of the CSX rail line that is owned by the City and has fallen into disrepair. The applicant has expressed an interest in entering an agreement with the City to repair the existing Rail line and add a Railroad spur to serve potential future Industrial users on the property. These actions would require a separate agreement to be approved by the City.

All proposed new development will be required to meet the City's Site Development Plan code requirements and be submitted to the Planning Commission and City Council for approval.

The site is located within the City's Water, Sewer, and Electric Service Boundaries. It will be served by the City's sanitation services.

Additionally, the applicant has previously submitted the following future land use and rezoning requests:

Application #	Description
FLUS-23-005	Future Land Use Application from Mixed Use to Industrial
ZON-23-007	Rezoning Application from C-2 General Business to M-2 Heavy Industrial
FLUS-23-006	Future Land Use Application from Mixed Use to Industrial
ZON-23-007	Rezoning Application from C-2 General Business to M-2 Heavy Industrial

These previous cases were approved at the Planning Commission in August of 2023 and table by the City Council on the September 19, 2023 meeting due to concerns by Council regarding the impact of approving additional industrial development along a key gateway corridor coming into the City. The applicant agreed to submit a Future Land Use text amendment to address the following issues:

- Land uses
- Site Design
- Buffering
- Traffic

The text amendment will be required to be a large-scale amendment, so as a result, the map amendment will now be taken as a large-scale amendment as well.

Site Specific Text Amendment

Objective 1.8 The City shall adopt, as necessary, Future Land Use Map Amendments with specific development conditions that are consistent with the City's adopted Level of Service (LOS) standards and Future Land Use Element, and compatible with the surrounding uses.
Policy 1.8.1: Future Land Use Map (FLUM) Amendment adopted by Ordinance Number O-01-2024 on XXX,XX, 2024 changes the future land use on the amendment area from Mixed Use to Industrial. Development shall meet the requirements of all applicable goals, objectives and policies of the Comprehensive Plan; however, the land use and development potential made available by the FLUM Amendment Ordinance O-01-2024 is hereby limited based on the following:

1. Prior to the approval of a subsequent development order such as but not limited to a subdivision or site development plan, the property owner/developer must submit a developer's agreement addressing the following development requirements for the Amendment parcels that is currently owned by HLM Investments that is adjacent to SR 16 and US 17:
    a) Address screening and buffering requirements between the Amendment parcels or portion thereof and the remaining portion of parcel 016451-0000 and SR 16 and US 17.
    b) Address Building, site and streetscape design requirements for the Amendment parcels or portion thereof and the remaining portion of parcel 016451-0000 adjacent to SR 16 and US 17. These requirements shall include but are not limited to:
        a. Block Standards
        b. Building Placement
        c. Building Typology and Massing
        d. Building Frontage Design
        e. Façade Articulation
        f. Entrances
        g. Building Materials
        h. Lighting
        i. Service Area and Mechanical Equipment Screening
        j. Signage
2. Prior to approval of a subsequent development order, such as but not limited a zoning, subdivision or site development plan, the property owner/developer will be required to provide an Access Management Plan and Traffic Impact Analysis and to address site access and traffic capacity, the plan must be developed in cooperation with Florida Department of Transportation, Clay County and the City of Green Cove Springs. The Access Management Plan and traffic capacity plan shall be completed prior to the approval of a subsequent development order such as a Zoning, Subdivision or Site Development Plan for the Amendment Parcels that is currently owned by HLM Investments that is adjacent to SR 16 and US 17;
3. Limit uses on the Amendment Parcels by allowing M-1 Uses by right and M-2 uses as a special exception.

4. Property shall be rezoned to a Planned Unit Development (PUD). A conceptual plan and written description shall be included with the PUD submittal.

Aerial

Environmental Conditions Analysis

Maps of Environmental Features

Wetlands

There are Riverines or Riparian wetlands located in the northeast area of the property.

.

Floodplain

A portion of the subject property is located in Flood zone A which are areas subject to inundation by the 1 percent annual chance flood event generally determined using approximate methodologies.

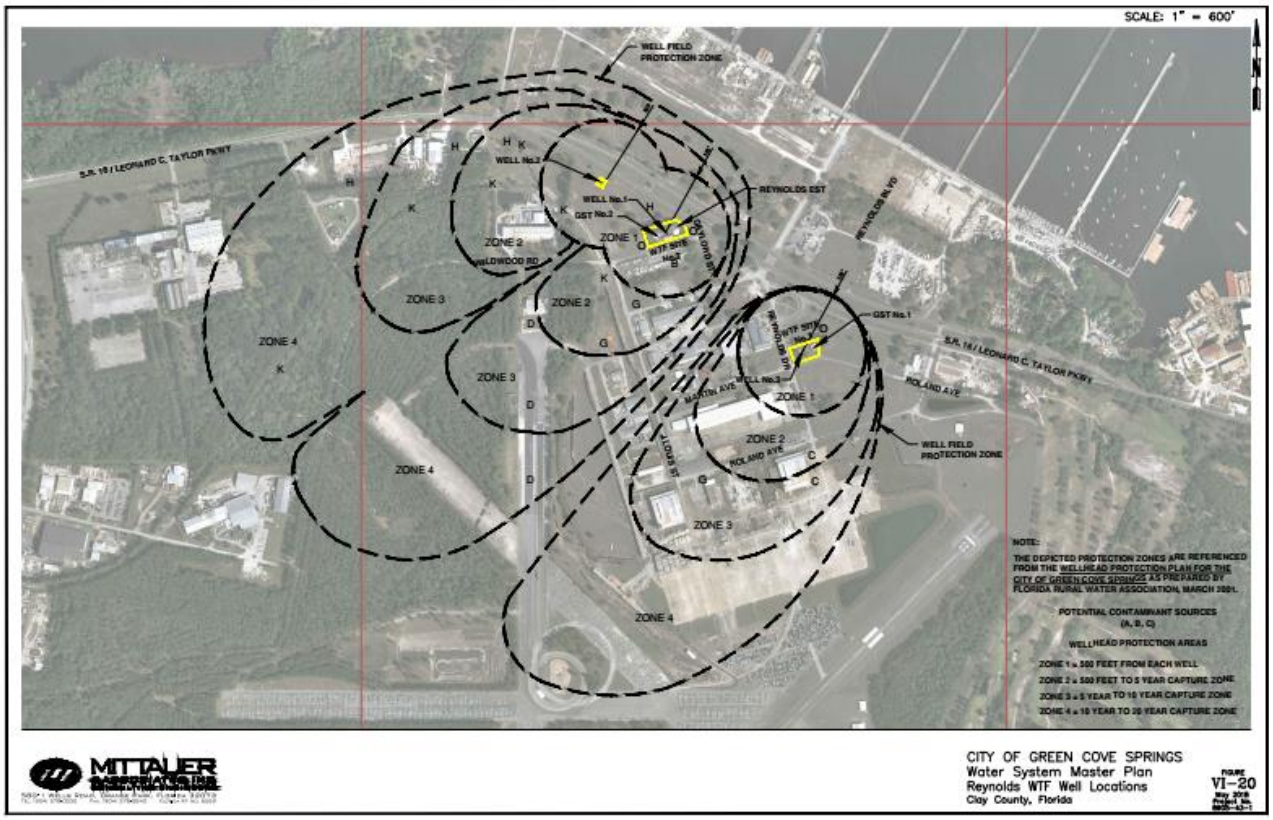
Additional Environmental Issues:

The Florida Department of Environmental Protection (FDEP) became aware of groundwater contamination on the property in July 2015 and subsequently provided a Declaration of Restrictive Covenant on the property which was recorded with the Clay County Clerk of Court in March 2020 and is attached for your review. Pursuant to FDEP's investigation chlorinated hydorcarbons were detected on the subject property and adjacent property as set forth in Exhibit D of the 1st Amendment to the DRCGCS Town Center which is enclosed. In April of 2022, a Conditional Site Rehabilitation Completion Order was approved by FDEP that limited the contamination issue to the groundwater. As a result, the following improvements are prohibited without meeting the requirements set forth in the Completion Order:

a) Dewatering activities
b) Stormwater management systems (including swales and ditches) can be constructed.
c) Drinking, irrigation or monitoring well installation.

<u>Wellfield Protection Zone</u>

The project site is located within Zone 4 of the wellfield protection zone. They are outside of the 500' requirement which limits the types of uses on this site.



URBAN SPRAWL ANALYSIS

Section 163.3177, Florida Statutes, requires that any amendment to the Future Land Use Element to discourage the proliferation of urban sprawl. Section 163.3177(6)(a)9.a., Florida Statutes, identifies 13 primary urban sprawl indicators and states that, "[t]he evaluation of the presence of these indicators shall consist of an analysis of the plan or plan amendment within the context of features and characteristics unique to each locality…"

An evaluation of each primary indicator is provided below.

(I) Promotes, allows, or designates for development substantial areas of the jurisdiction to develop as low-intensity, low-density, or single-use development or uses.

Evaluation & Findings: The proposed amendment will revise the FLUM designation to Industrial. The area along the US 17 and SR 16 Corridors will remain as Mixed Use allowing for a mix of uses but at the same time allowing for increased employment opportunities.

(II) Promotes, allows, or designates significant amounts of urban development to occur in rural areas at substantial distances from existing urban areas while not using undeveloped lands that are available and suitable for development.

Evaluation & Findings: The project site is located within the US 17 Corridor that is currently Land Used and Zoned for predominantly commercial/industrial development The project site is located within the City's water and sewer and electric urban service areas.

(III) Promotes, allows, or designates urban development in radial, strip, isolated, or ribbon patterns generally emanating from existing urban developments.

Evaluation & Findings: The proposed Industrial designation allows for industrial uses, thereby providing a balance of uses to complement the Mixed Use designation adjacent along the US 17 and SR 16 Corridors.

(IV) Fails to adequately protect and conserve natural resources, such as wetlands, floodplains, native vegetation, environmentally sensitive areas, natural groundwater aquifer recharge areas, lakes, rivers, shorelines, beaches, bays, estuarine systems, and other significant natural systems.

Evaluation & Findings: The site has existing wetlands, floodplains and is within the wellhead protection area. In order to ensure that natural resources are protected, a site specific land use amendment requiring future development to comply with Development Restrictions regarding protecting groundwater.

(V) Fails to adequately protect adjacent agricultural areas and activities, including silviculture, active agricultural and silvicultural activities, passive agricultural activities, and dormant, unique, and prime farmlands and soils.

Evaluation & Findings: The project site is located within an urban area with surrounding commercial development. There are no adjacent agricultural areas and activities.

(VI) Fails to maximize use of existing public facilities and services.

Evaluation & Findings: With the project site being located within an area with existing development, the proposed development will utilize existing public facilities and services.

(VII) Allows for land use patterns or timing which disproportionately increase the cost in time, money, and energy of providing and maintaining facilities and services, including roads, potable

water, sanitary sewer, stormwater management, law enforcement, education, health care, fire and emergency response, and general government.

Evaluation & Findings: The project site is located within an existing commercial area with existing public facilities and services. The proposed development will utilize existing public facilities and services and shall mitigate for the increase in time, money, and energy for providing and maintaining these facilities through the payment of impact fees for utilities including roads, government services, and on-going ad valorem taxes.

(VIII) Fails to provide a clear separation between rural and urban uses.

Evaluation & Findings: The site is located within the City's water and sewer and electric urban service areas and is not adjacent to any rural zoned properties.

(X) Discourages or inhibits infill development or the redevelopment of existing neighborhoods and communities.

Evaluation & Findings: The proposed application will not discourage infill development and is located within an existing developed area.

(XI) Fails to encourage a functional mix of uses.

Evaluation & Findings: The project site will allow for industrial uses in an area that is suitable for industrial development.

(XII) Results in poor accessibility among linked or related land uses.

Evaluation & Findings: The project site shall have access via an easement to SR 16.

(XIII) Results in the loss of significant amounts of functional open space.

Evaluation & Findings: All proposed development shall comply with the City's landscape ordinance to ensure there shall be open space provided within the development.

In addition to the preceding urban sprawl indicators, Florida Statutes Section 163.3177 also establishes eight (8) "Urban Form" criteria. An amendment to the Future Land Use Map is presumed to not be considered urban sprawl if it meets four (4) of the (8) urban form criteria. These urban form criteria, and an evaluation of each as each may relate to this application, are provided below. The applicant has provided an analysis of the application's consistency with Section 163.3177 within the application materials and contends that the proposed amendment will not encourage urban sprawl by showing it meets four of the eight urban form criteria.

1. Directs or locates economic growth and associated land development to geographic areas of the community in a manner that does not have an adverse impact on and protects natural resources and ecosystems.

Evaluation & Findings: The project site is located within the City's water and sewer and electric urban service areas which have been planned to accommodate growth which allows for the preservation of the natural resources of outlying areas. In addition, all new development shall comply with the City's landscaping, tree preservation and resource protection ordinances.

2. Promotes the efficient and cost-effective provision or extension of public infrastructure and services.

Evaluation & Findings: This application, as well as the companion rezoning application, will result in utilizing existing public infrastructure and existing services.

3. Promotes walkable and connected communities and provides for compact development and a mix of uses at densities and intensities that will support a range of housing choices and a multimodal transportation system, including pedestrian, bicycle, and transit, if available.

Evaluation & Findings: Sidewalks are provided along US 17 and shall be provided as part of future development along SR 16.

Promotes conservation of water and energy.

Evaluation & Findings: The project site is located within an urban area with surrounding commercial development. Development in core urban areas reduces the pressure to develop in areas further outside of the urban areas.

5. Preserves agricultural areas and activities, including silviculture, and dormant, unique, and prime farmlands and soils.

Evaluation & Findings: The project site is located within an urban area with surrounding development. There are no adjacent agricultural areas and activities. Development in core urban areas reduces the pressure to develop in agricultural areas.

6. Preserves open space and natural lands and provides for public open space and recreation needs.

Evaluation & Findings: All proposed development shall comply with the City's landscape ordinance to ensure there shall be open space provided within the development.

7. Creates a balance of land uses based upon demands of the residential population for the nonresidential needs of an area.

Evaluation & Findings: The proposed site is located within close proximity to a variety of nonresidential uses. The proposed development will provide additional employment opportunities to the residents of this community, providing a balance of land uses to the area.

8. Provides uses, densities, and intensities of use and urban form that would remediate an existing or planned development pattern in the vicinity that constitutes sprawl or if it provides for an innovative development pattern such as transit-oriented developments or new towns as defined in s. 163.3164.

Evaluation & Findings: N/A

CONSISTENCY WITH THE COMPREHENSIVE PLAN

The following Goals, Objectives, and Policies (GOPs) support the proposed amendment to the Future Land Use Map of the City of Green Cove Springs Comprehensive Plan:

FUTURE LAND USE ELEMENT

Goal 1: To develop and maintain land use programs and activities to provide for the most appropriate use of the land and direct growth to suitable areas while protecting the public, health, safety and welfare of the public.

Objective 1.1. New development and Redevelopment shall be directed to appropriate areas of the City.

e. Industrial (IND): This FLUC is intended to accommodate primarily light and heavy manufacturing, distribution, and storage, in addition to heavy commercial and professional office uses. Maximum Intensity: 0.6 FAR

Objective 1.2. The City shall strive to cultivate a sustainable land use pattern by preventing the proliferation of urban sprawl, ensuring the efficient provision of services, and implementing smart growth principles.

Policy 1.2.1. The location and timing of new development and the issuance of permits shall be coordinated with the availability of public facilities through implementation of various smart growth management measures.

Policy 1.2.6. The City shall require new development to connect to the City's centralized potable water and sanitary sewer system.

Policy 1.2.7. The City shall condition development orders upon the provision of essential facilities and services which meet and would not result in the failure of each service's established level of service (LOS).

Policy 1.2.8. The City shall ensure the availability and protection of lands designated for the future expansion of public infrastructure.

Objective 1.4. The City shall strive to preserve its natural resources.

Policy 1.4.5. Development orders shall not be issued in areas where soils conditions are not adequate for building construction, drainage, roads, and other development-related facilities.

TRANSPORTATION ELEMENT

Policy 2.3.1. The City shall rely on level of service (LOS) standards adopted in the Capital Improvements Element to ensure that acceptable traffic conditions are maintained*.

*The City is in the process of implementing a mobility plan and fee for new development to ensure that needed transportation improvements are provided to ensure that the City is addressing transportation congestion issues and providing for multimodal improvements.

Policy 2.5.3. The City shall review development applications to ensure that adequate capacity is available to serve the proposed project. The latest version of Trip Generation Manual published by the
Institute of Transportation Engineers (ITE) shall be used to determine the number of trips that the
proposed development will produce or attract.

SANITARY SEWER, SOLID WASTE, DRAINAGE, POTABLE WATER, AND AQUIFER RECHARGE ELEMENT

Objective 4.2. The City shall continue to provide safe and adequate sanitary sewer service to all existing and future developments located within the City limits. Existing Sanitary Sewer deficiencies shall be scheduled for correction in the Capital Improvements Element.

Policy 4.2.1 All Future Development shall be required to connect to the City's Sanitary Sewer Collection

Policy 4.2.1. All Future Development shall be required to connect to the City's Sanitary Sewer Collection.

Objective 4.6. Future Development shall be required to connect with central water systems and provide stormwater facilities which maximize the use of existing facilities and discourage urban sprawl.

Policy 4.6.1. The City shall annually monitor the condition of level of service standards for solid waste, potable water, wastewater, and stormwater facilities. The Planning and Zoning Department shall be assigned the task of reviewing all development orders to determine their current and future impacts on the capacities of existing public facilities.

Policy 4.6.2. No permit shall be issued for new development which will result in an increase in demand on deficient capacities or if adequate facility capacities for solid waste, potable water, sanitary sewer, and drainage facilities are not available prior to or concurrent with the development's impact.

CONSERVATION ELEMENT

Policy 5.3.2. The City shall ensure that public potable water wellfields will be located in areas where they will be least impacted by development and contamination.

INTERGOVERNMENTAL COORDINATION ELEMENT

Objective 7.1. The City shall act to ensure that all planning and development related activities are coordinated with the comprehensive plan or any other plans of Clay County, the Northeast Florida Regional Council (NEFRC), and the School Board.

Policy 7.1.1. Maintain procedures to review comprehensive plans and comprehensive plan amendments of the County and the plans of the Clay County School Board and the Northeast Florida Regional Council.

ECONOMIC DEVELOPMENT ELEMENT

Policy 9.1.6. Continue collaboration through the Clay County EDC and the Clay County Chamber of Commerce with Florida Chamber of Commerce and Enterprise Florida Inc for sector strategy development, regional incentive updates and statewide attraction and site selection programs.

Objective 9.5. The City shall collaborate economic development efforts with state, regional and local partners to foster a system of enhanced communication and partnerships within the Northeast Florida region.

PRIVATE PROPERTY RIGHTS ELEMENT

Objective 10.1. The City shall recognize that each property owner has constitutionally protected private property rights and shall consider these property rights in local decision making by referring to a set of statement of rights identified in this element.

Policy 10.1.1. The following rights shall be considered in local decision making:

a. The right of a property owner to physically possess and control his or her interests in the property, including easements, leases, or mineral rights.

b. The right of a property owner to use, maintain, develop, and improve his or her property for personal use or for the use of any other person, subject to state law and local ordinances.

c. The right of the property owner to privacy and to exclude others from the property to protect the owner's possessions and property.

d. The right of a property owner to dispose of his or her property through sale or gift.

PUBLIC FACILITIES IMPACT

Traffic Impacts

Land Use[1] (ITE)	Square Footage/Dwelling Units	Daily		AM Peak		PM Peak	
		Rate	Trips	Rate	Trips	Rate	Trips
Industrial	2,531	6.83	3,554	.82	476	.85	496

1. *Source: Institute of Transportation Engineers: Trip Generation Manual 9th Edition*

Conclusion: There are no development plans at this time as a result, the traffic impacts were calculated on the total acreage of the proposed industrial park.

Potable Water Impacts
Industrial

System Category	Gallons Per Day (GPD)
Current Permitted Capacity[1]	4,200,000
Less actual Potable Water Flows[1]	1,013,000
Residual Capacity[1]	3,187,000
Projected Potable Water Demand from Proposed Project[2]	167,092
Residual Capacity after Proposed Project	3,019,907

1. *Source: City of Green Cove Springs Public Works Department*
2. *Source: City of Green Cove Springs Comprehensive Plan. Formula Used: .11 x sq ft (based on historical data)*

Conclusion: The impact was calculated based on potential industrial uses. As shown in the table above, there is adequate capacity this use type. The City has existing water lines installed at this location.

Sanitary Sewer Impacts – South Plant WWTP
Industrial

System Category	Gallons Per Day (GPD)
Current Permitted Capacity[1]	350,000
Current Loading[1]	270,000
Committed Loading [1]	330,000
Projected Sewer Demand from Proposed Project[2]	167,092
Residual Capacity after Proposed Project	-321,874

1. *Source: City of Green Cove Springs Public Works Department*
2. *Source: City of Green Cove Springs Comprehensive Plan. Formula Used: .11 x sq ft (based on historical data)*

Conclusion: The impact was calculated based on potential commercial or residential uses. The project site is served by the South Plant Wastewater Treatment Plant (WWTP). As shown in the table above, when factoring in the current loading and the committed loading, this WWTP is over capacity to handle the estimated impacts resulting from the proposed application. The committed loading is related to the Rookery Development which will be completed in two years prior to the commencement of this project. At such time, the Rookery capacity will be served by a new wastewater treatment facility provided by the Clay County Utility Authority. Once the facility is built, the capacity temporarily reserved to the Rookery shall be available for this development. In addition, the remaining demand will be sent via force main to the Harbor Road plant, where the City has an excess capacity of approximately 700,000 gallons per day. As a result, there is adequate capacity. The City has existing sewer lines at this location.

Solid Waste Impacts
Industrial

System Category	LBs Per Day / Tons per Year
Solid Waste Generated by Proposed Project[1]	None
Solid Waste Facility Capacity[2]	Minimum 3 Years Capacity

1. *Source: City of Green Cove Springs does not provide commercial sanitation services, prospective sanitation collection franchisees shall comply with City Code Section 66-10.*

Solid Waste Impacts

The City of Green Cove Springs' solid waste is disposed of at the Rosemary Hill Solid Waste Management Facility operated by Clay County. Per the Clay County Comprehensive Plan, a minimum of three (3) years capacity shall be maintained at the County's solid waste management facility. For commercial developments, the City does not provide Curbside Service; commercial locations must instead contract with an approved franchisee for containerized collection.

Conclusion: The proposed future land use amendment and rezoning are not expected to negatively impact the City's adopted LOS or exceed the County solid waste management facility's capacity.

Compatibility

The Subject Property is located adjacent to a Mixed Use Land Use District to the north and west and to the east the property is the Reynolds AirPark which is zoned Industrial. The properties to the south along Hall Park Road are also Zoned Industrial. In addition, the subject property is in close proximity to a Railroad which is conducive for Industrial Development and had previously been used as a Manufacturing facility. The property along US 17 and SR 16 shall remain as commercial properties in keeping with providing a commercial gateway into the City. As a result, the proposed Future Land Use and Zoning application is suitable for the property and compatible with the surrounding uses.

Intent of Existing Future Land Use District

This Designation encompasses lands along major transportation corridors and is intended to accommodate primarily nonresidential uses including light and heavy commercial uses, lodging, and professional offices, interspersed with medium density residential uses and public/semi-public facilities.

Intent of Proposed Future Land Use District

This Designation is intended to accommodate primarily light and heavy manufacturing, distribution, and storage, in addition to heavy commercial and professional office uses.

Existing Future Land Use

Proposed Future Land Use

STAFF RECOMMENDATION

Staff recommends approval of the Future Land Use designation from Mixed Use to Industrial subject to the Site-Specific Text Amendment with the following conditions:

1. Provide a comprehensive traffic study meeting the City Traffic Impact Analysis (TIA) for new development prior to approval of a subsequent development order.
2. Limit Uses within the amendment parcels to permitted uses in the M-1 Light Industrial Zoning Classification.

RECOMMENDED MOTIONS:

Future Land Use

Recommend to City Council approval of ordinance O-01-2024, to amend the Future Land Use of the property described therein from Mixed Use to Industrial

Recommend to City Council approval of ordinance O-02-2024, regarding a site-specific text amendment regarding the Future Land Use of the property described therein from Mixed Use to Industrial

1. Provide a comprehensive traffic study meeting the City Traffic Impact Analysis (TIA) for new development prior to approval of a subsequent development order.
2. Limit Uses within the amendment parcels to permitted uses in the M-1 Light Industrial Zoning Classification.

FOR OFFICE USE ONLY

Received Date_____

Application #:_____

Acceptance Date:_____

Review Date: SRDT_____ P & Z _____ CC _____

Small Scale Future Land Use Map Amendment Application

A. PROJECT

1. Project Name: LLHE INDUSTRIAL REZONE
2. Address of Subject Property: 965 LEONARD C. TAYLOR PARKWAY
3. Parcel ID Number(s): 38-06-26-016451-000-00
4. Existing Use of Property: INDUSTRIAL MANUFACTURING 9/6/23
5. Future Land Use Map Designation : ~~INDUSTRIAL LAND USE~~ MIXED USE
6. Existing Zoning Designation: ~~CH: COMMERCIAL HIGH INTENSITY~~ C2 GENERAL COMMERCIAL
7. Proposed Future Land Use Map Designation: INDUSTRIAL (IND) 9/6/23
8. Acreage (must be 50 acres or less): 15

B. APPLICANT

1. Applicant's Status ☐ Owner (title holder) ☑ Agent
2. Name of Applicant(s) or Contact Person(s): DAVID SMITH Title: MANAGER
   Company (if applicable): LOUIS L. HUNTLEY ENTERPRISES, INC.
   Mailing address: 1890 KINGSLEY AVE., STE 102
   City: ORANGE PARK State: FL ZIP: 32073
   Telephone: (904) 272-0435 e-mail: A.VAUGHN@MMSEJAX.COM
3. If the applicant is agent for the property owner*
   Name of Owner (title holdor): LOUIS WARD HUNTLEY
   Mailing address: 1890 KINGSLEY AVE., STE. 102
   City: ORANGE PARK State: FL ZIP: 32073
   Telephone: (904) 631-0124 e-mail: JFFYJOE@AOL.COM

* Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.

C. ADDITIONAL INFORMATION

1. Is there any additional contact for sale of, or options to purchase, the subject property?
   ☐ Yes ☑ No If yes, list names of all parties involved:

   If yes, is the contract/option contingent or absolute?
   ☐ Contingent ☐ Absolute

D. ATTACHMENTS

1. Statement of proposed change, including a map showing the proposed Future Land Use Map change and Future Land Use Map designations on surrounding properties
2. A map showing the zoning designations on surrounding properties
3. A current aerial map (Maybe obtained from the Clay County Property Appraiser.)
4. Legal description with tax parcel number.
5. Boundary survey
6. Warranty Deed or the other proof of ownership
7. Fee.

    a. $750, plus

    b. All applications are subject 10% administrative fee and must pay the cost of postage, signs, advertisements and the fee for any outside consultants.

No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any fees necessary for technical review or additional reviews of the application by a consultant will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any action of any kind on the development application.

All attachments are required for a complete application. A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge:

Manager
Signature of Applicant

Signature of Co-applicant

DAVID E. SMITH
Typed or printed name and title of applicant

Typed or printed name of co-applicant

Date

Date

State of FL County of CLAY

The foregoing application is acknowledged before me this 30TH day of MAY, 2023, by DAVID SMITH, who is/are personally known to me, or who has/have produced _____ as identification.

NOTARY SEAL

AMY V. DEWEY
Commission # HH 247227
Expires June 11, 2026

Signature of Notary Public, State of FL

FOR OFFICE USE ONLY

Received Date_____

Application #:_____

Acceptance Date:_____

Review Date: SRDT_____ P & Z _____ CC _____

Small Scale Future Land Use Map Amendment Application

A. PROJECT

1. Project Name: HLM INDUSTRIAL REZONE
2. Address of Subject Property: LEONARD C TAYLOR PKWY
3. Parcel ID Number(s): (A PORTION OF) 38-06-26-016451-003-00
4. Existing Use of Property: INDUSTRIAL MANUFACTURING
5. Future Land Use Map Designation : ~~INDUSTRIAL LAND USE~~ MIXED USE
6. Existing Zoning Designation: ~~CHI: COMMERCIAL HIGH INTENSITY~~ C2 GENERAL COMMERCIAL
7. Proposed Future Land Use Map Designation: INDUSTRIAL (IND)
8. Acreage (must be 50 acres or less): 31+/- + 11+/- = 43.21

B. APPLICANT

1. Applicant's Status ☑ Owner (title holder) ☐ Agent
2. Name of Applicant(s) or Contact Person(s): WARD HUNTLEY Title: OWNER

   Company (if applicable): HLM INVESTMENTS

   Mailing address: 1890 KINGSLEY AVE., STE. 102

   City: ORANGE PARK State: FL ZIP: 32073

   Telephone: (904) 272-0435 e-mail: A.VAUGHN@MMSEJAX.COM

3. If the applicant is agent for the property owner*

   Name of Owner (title holder):_____

   Mailing address: _____

   City: _____ State:_____ ZIP:_____

   Telephone: (___)_____ e-mail:_____

* Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.

C. ADDITIONAL INFORMATION

1. Is there any additional contact for sale of, or options to purchase, the subject property?
   ☐ Yes ☑ No If yes, list names of all parties involved:

   If yes, is the contract/option contingent or absolute?
   ☐ Contingent ☐ Absolute

D. ATTACHMENTS

1. Statement of proposed change, including a map showing the proposed Future Land Use Map change and Future Land Use Map designations on surrounding properties
2. A map showing the zoning designations on surrounding properties
3. A current aerial map (Maybe obtained from the Clay County Property Appraiser.)
4. Legal description with tax parcel number.
5. Boundary survey
6. Warranty Deed or the other proof of ownership
7. Fee.

   a. $750, plus

   b. All applications are subject 10% administrative fee and must pay the cost of postage, signs, advertisements and the fee for any outside consultants.

No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any fees necessary for technical review or additional reviews of the application by a consultant will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any action of any kind on the development application.

All attachments are required for a complete application. A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.

Signature of Applicant

Signature of Co-applicant

Ward Huntley

Typed or printed name and title of applicant

Typed or printed name of co-applicant

6-5-23

Date

Date

State of FL County of Clay

The foregoing application is acknowledged before me this 5TH day of JUNE, 2023 by WARD HUNTLEY, who is/are personally known to me, or who has/have produced _____ as identification.

NOTARY SEAL

AMY V. DEWEY
Commission # HH 247227
Expires June 11, 2026

Signature of Notary Public, State of FL

Site Specific Text Amendment

Objective 1.8 The City shall adopt, as necessary, Future Land Use Map Amendments with
specific development conditions that are consistent with the City's adopted Level of Service (LOS) standards and Future Land Use Element, and compatible with the surrounding uses.

Policy 1.8.1: Future Land Use Map (FLUM) Amendment adopted by Ordinance Number O-01-2024 on XXX,XX, 2024 changes the future land use on the amendment area from Mixed Use to Industrial. Development shall meet the requirements of all applicable goals, objectives and policies of the Comprehensive Plan; however, the land use and development potential made available by the FLUM Amendment Ordinance O-01-2024 is hereby limited based on the following:

1. Prior to the approval of a subsequent development order such as but not limited to a subdivision or site development plan, the property owner/developer must submit a developer's agreement addressing the following development requirements for the Amendment parcels that is currently owned by HLM Investments that is adjacent to SR 16 and US 17:
    a) Address screening and buffering requirements between the Amendment parcels or portion thereof and the remaining portion of parcel 016451-0000 and SR 16 and US 17.
    b) Address Building, site and streetscape design requirements for the Amendment parcels or portion thereof and the remaining portion of parcel 016451-0000 adjacent to SR 16 and US 17. These requirements shall include but are not limited to:
        a. Block Standards
        b. Building Placement
        c. Building Typology and Massing
        d. Building Frontage Design
        e. Façade Articulation
        f. Entrances
        g. Building Materials
        h. Lighting
        i. Service Area and Mechanical Equipment Screening
        j. Signage
2. Prior to approval of a subsequent development order, such as but not limited a zoning, subdivision or site development plan, the property owner/developer will be required to provide an Access Management Plan to address site access, the plan must be developed in cooperation with Florida Department of Transportation, Clay County and the City of Green Cove Springs. The Access Management Plan and traffic capacity plan shall be completed prior to the approval of a subsequent development order such as a Zoning, Subdivision or Site Development Plan for the Amendment Parcels that is currently owned by HLM Investments that is adjacent to SR 16 and US 17;

3. Limit uses on the Amendment Parcels by allowing M-1 Uses by right and M-2 uses as a special exception.
4. Property shall be rezoned to a Planned Unit Development (PUD). A conceptual plan and written description shall be included with the PUD submittal.

STAFF REPORT

CITY OF GREEN COVE SPRINGS, FLORIDA

TO: Planning and Zoning Commission **MEETING DATE:** January 23, 2024

FROM: Michael Daniels, AICP, Development Services Director

SUBJECT: Ordinance O-36-2023, Adding Street Walls as an alternative design standard in the Gateway Corridor District as a special exception.

BACKGROUND

Staff is requesting an ordinance change to add street walls as an alternative design standard in the Gateway Corridor District. Currently the City requires that within the Gateway Corridor District which includes the Gateway Corridor Commercial, Neighborhood and Residential Districts, parking cannot be located between the primary building and the street frontage. As an alternative to this requirement, staff is proposing that the code be revised to allow a street wall to be placed at or near the property line between the street and parking area with specific design criteria designed to mask the parking areas as set forth in the ordinance. Examples of street walls are provided in the packet.

The Planning and Zoning Commission unanimously approved the proposed ordinance on 11/28/23.

At the 2nd City Council meeting on December 19, 2024, City Council voted to require the street wall ordinance be revised to be allowed as a special exception as opposed to a permitted use. As a result, the ordinance has been readvertised and brought back to the Planning and Zoning Commission for a recommendation.

FISCAL IMPACT

N/A

RECOMMENDATION

Motion to recommend approval of Ordinance O-36-2023, Adding Street Walls as an alternative design standard in the Gateway Corridor District as a special exception to City Council

ORDINANCE NO. O-36-2023

AN ORDINANCE OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, AMENDING CHAPTER 117, SEC 117-656 GATEWAY CORRIDOR DESIGN GUIDELINES OF THE CITY CODE TO ALLOW FOR PARKING TO BE LOCATED BETWEEN THE STREET FRONT AND BUILDING LOCATION SUBJECT TO THE INSTALLATION OF A STREET WALL; PROVIDING FOR CONFLICTS, SEVERABILITY AND SETTING AN EFFECTIVE DATE.

WHEREAS, the City Code was adopted to promote the health, safety, morals and general welfare of the community; and

WHEREAS, the City Code should be evaluated on an ongoing basis to determine if the allowable uses are consistent with the Comprehensive Plan; and

WHEREAS, the City desires to promote development and redevelopment of the U.S. Highway 17 and S.R. 16 corridor; and

WHEREAS, due to the existing space limitations within the district and its close proximity to established residential neighborhoods, there needs to be flexibility in design to allow efficient use of the land.

WHEREAS, the Green Cove Springs City Council has determined that this amendment is consistent with the Comprehensive Plan, is in the best interest of the public, and will promote the public health, safety and welfare of the city.

NOW, THEREFORE BE IT ENACTED BY THE CITY COUNCIL OF GREEN COVE SPRINGS, FLORIDA AS FOLLOWS:

Section 1. That Chapter 117, Sec. 117-656 shall be amended as follows:

Sec. 117-656. Design guidelines.

Compliance with all land development regulations as adopted is required for all properties located within the corridor. In addition to the requirements of this Code, development in the gateway corridor zoning categories shall meet the following design guidelines:

(1) Orient nonresidential uses to face the street with parking behind or to the sides of buildings or provide a street wall subject to the requirements set forth below:

a. Street walls are freestanding walls that are intended to mask parking areas from the street and shall have a minimum height of 3 feet and a maximum height of six feet (measured from the elevation of the public sidewalk). The portion of the street wall 3 feet and below shall be solid (e.g. brick and masonry or similar material). The portion of the street wall above 4 feet shall be transparent (e.g.,wrought iron or similar material). Street walls shall have columns/posts (one foot by one foot minimum) spaced every 24 feet.

b. Street walls shall have openings no larger than necessary to allow automobile and/or pedestrian access.

c. Street walls shall not be permitted within the right-of-way.

d. Street walls shall be constructed of wrought iron, brick, masonry, stone, powder-coated aluminum, or other decorative materials that complement the finish on the primary building. Chain link, wood and PVC street walls/fences shall be prohibited.

e. The area in front of a street wall/fences shall include a landscaped strip pursuant to the requirements forth in Sec. 117-626 and Sec. 113-244(d)(3).

f. Street walls shall be with clear site line requirements set forth in Sec. 113-76.

(2) In lieu of meeting onsite parking requirements, the developer may enter into an agreement with the city to reduce the required on-street parking. The reduction of on-street parking shall be approved if the developer agrees to improve the adjoining right-of-ways with landscaping and on-street parking or provides the city with funds to provide additional public parking.

(3) No commercial access, except for ingress and egress for office uses, shall be allowed on residential streets or streets where residential future land use categories exist. This includes access for service vehicles.

(4) Commercial land uses facing residential land uses or future land use categories must be residential in character, with residential elevations or facades.

(5) Density controls for buildings with both residential and commercial permitted uses and/or permissible by special exception shall be based on the density controls for the building use on the first story of the structure.

(6) Improvements to offsite parking spaces to develop on-street parking shall be counted to meet the minimum parking requirements and to meet the minimum landscape area and pervious surface requirements.

Section 2. Conflicts. If any portion of this Ordinance is in conflict with any other ordinance, then the provisions of this Ordinance shall govern.

Section 3. Severability. If any section, sentence, clause or phrase of this Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way affect the validity of the remaining portions of this Ordinance.

Section 4. Effective Date. Upon its adoption by the City Council, this ordinance shall become effective.

INTRODUCED AND APPROVED AS TO FORM ONLY ON THE FIRST READING BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, ON THIS 5th DAY OF DECEMBER 2023.

CITY OF GREEN COVE SPRINGS, FLORIDA

_____

Constance Butler, Mayor

ATTEST:

_____

Erin West, City Clerk

PASSED ON SECOND AND FINAL READING BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, THIS 19th DAY OF DECEMBER 2023.

CITY OF GREEN COVE SPRINGS, FLORIDA

_____

Constance Butler, Mayor

ATTEST:

_____

Erin West, City Clerk

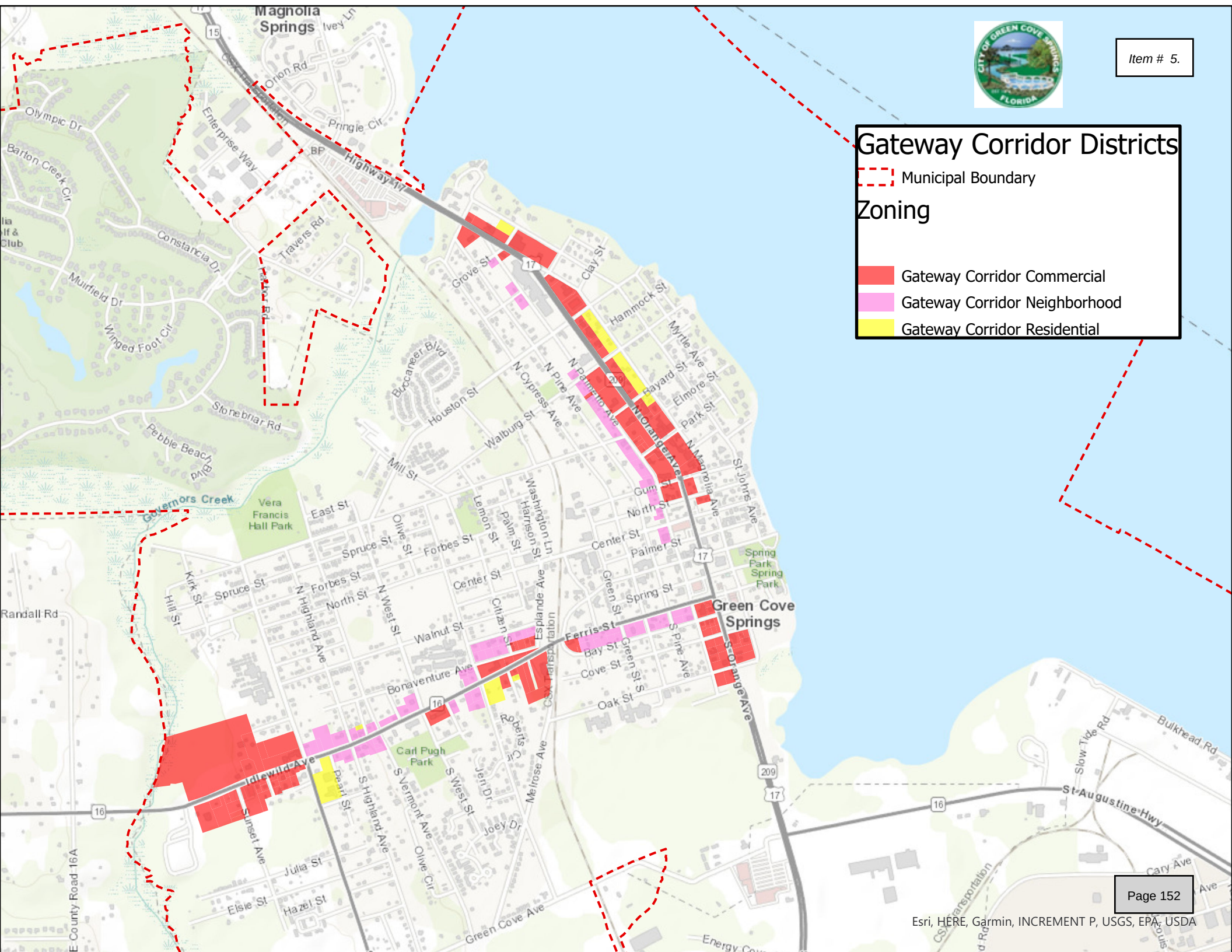
APPROVED AS TO FORM:

_____

L. J. Arnold, III, City Attorney

Street Wall Examples

Street Wall Examples


Gateway Corridor Districts
Municipal Boundary
Zoning
Gateway Corridor Commercial
Gateway Corridor Neighborhood
Gateway Corridor Residential
Magnolia Springs
Green Cove Springs
Governors Creek
Vera Francis Hall Park
Carl Pugh Park
Spring Park
Highway 17
St Augustine Hwy
Olympic Dr
Barton Creek Cir
Enterprise Way
Orion Rd
Pringle Cir
Constancia Dr
Travers Rd
Muirfield Dr
Winged Foot Cir
Stonebriar Rd
Pebble Beach Blvd
Buccaneer Blvd
Houston St
Walburg St
Mill St
Grove St
Clay St
Hammock St
Myrtle Ave
Bayard St
Elmore St
Park St
N Cypress Ave
N Pine Ave
N Palmetto Ave
N Orange Ave
N Magnolia Ave
St Johns Ave
Gum St
North St
Center St
Palmer St
Spring St
East St
Spruce St
Olive St
Forbes St
Lemon St
Palm St
Harrison St
Washington Ln
Kirk St
Hill St
N Highland Ave
N West St
Citizen Dr
Esplande Ave
Green St
Ferris St
Bay St
Cove St
Oak St
S Pine Ave
S Orange Ave
Walnut St
Bonaventure Ave
Idlewild Ave
Sunset Ave
Julia St
Elsie St
Hazel St
Pearl St
S Highland Ave
S Vermont Ave
Olive Cir
S West St
Jen Dr
Joey Dr
Melrose Ave
Roberts Cir
Green Cove Ave
Randall Rd
Bulkhead Rd
Slow Tide Rd
Cary Ave
CSX Transportation
Energy
County Road 16A
Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

STAFF REPORT

CITY OF GREEN COVE SPRINGS, FLORIDA

TO: Planning and Zoning Commission **MEETING DATE:** January 23, 2024

FROM: Michael Daniels, Planning and Zoning Director

SUBJECT: Review of Site Development application for The Vineyard Transitional Center located at 518 N Pine Ave

PROPERTY DESCRIPTION

APPLICANT: True Vine Fellowship **OWNER:** True Vine Fellowship

PROPERTY LOCATION: 518 N Pine Ave

PARCEL NUMBER: 017656-000-00 and 017659-000-00

FILE NUMBER: SPL-23-008

CURRENT ZONING*:* Institutional (INS)

FUTURE LAND USE DESIGNATION*:* Public

SURROUNDING LAND USE

NORTH: **FLU**: Neighborhood
ZONING: C-1
Use: Single Family Residential

SOUTH: **FLU**: CHI
Z: C-2
Use: Church

EAST: **FLU**: Mixed Use (CMI)
Z: Gateway Corridor Neighborhood (GCN)
Use: Undeveloped

WEST: **FLU**: Mixed Use
Z: C-2
Use: Undeveloped

BACKGROUND

The applicant was approved for a Special Exception in November 2021 to have an emergency shelter pursuant to the requirements in City Code Sec. 117-796 with conditions.

DEVELOPMENT DESCRIPTION

The property consists of 0.433 acres and is vacant. The applicant proposes to build a 3,300 square foot transitional living facility with 6 beds and a 1,000 square foot office. There will be two restrooms available from the hallway for any guests to use.

PARKING

The plan shows 10 parking spaces plus 1 handicapped parking space. Per code they are required to have 6 parking spaces and 1 handicapped space.

DRAINAGE RETENTION

Due to the size of the proposed development, the applicant's stormwater engineer has self-certified with the Florida Department of Environmental Protection, which is enclosed. That said, the applicant will provide a small retention pond in the rear of the property to ensure compliance with the City Comprehensive Plan requirements that post retention runoff shall be reduced from pre retention runoff.

TRAFFIC AND ACCESS

Access will be provided off Pine Avenue. There will be minimal traffic to this location. As part of the site development, a 6' sidewalk shall be constructed from the property line to the southwestern side office building as well as from the parking lot to the northeastern side of the office building.

UTILITY CONNECTIONS AND SOLID WASTE

The buildings are connected to City Water and Sewer. The existing septic tanks on the site are not active and shall be removed. An on-site dumpster shall be provided.

LANDSCAPE PLAN

The plan is showing the installation of 3 new trees. The existing landscape buffer at the north and northwest property line shall be preserved and shall count towards meeting exterior landscaping requirements.

COMPLIANCE WITH SEC. 117-796 – EMERGENCY SHELTERS

(a) An emergency shelter shall be permitted in the Institutional Zoning District as a special exception, subject to the following provisions:

(1) A minimum of 300 square feet of private indoor living space shall be provided for each occupant of a structure.

At the time of building permit submittal, the applicant will have to provide a finalized floor plan showing compliance with this item.

(2) Minimum parking requirements shall be as follows:

a. One parking space for each three beds; and

For 6 beds, they must have three parking spaces.

b. One parking space for each employee. There are four parking spaces available for employees.

There are 10 total parking spaces, two of which are required for the guests, leaving 8 spaces for employees, plus an ADA space.

(3) All structures shall meet the city building code requirements, life safety code requirements, and housing code requirements pertaining to the intended use.

This will be determined at the time of building permit.

(4) If a license to operate the facility is required by federal, state or local law, the applicant must either be in possession of such a license to operate such a facility or be in the posture to receive a license. Under no circumstances will permits or occupational licenses be issued by any city department until such license is presented to the building official.

The applicant must receive a license pursuant to Florida Administrative Code (FAC) G2.002, to the best of staff knowledge, as well as passing requisite county health department inspections. Minimally, a business tax receipt and possibly a Certificate of Occupancy shall not be provided until such items are complete. A temporary Certificate of Occupancy could be provided up to the point in time assurance is received that the license has been issued.

(5) No emergency shelter shall be located within 1,000 feet of any other emergency shelter. The distance requirements between two emergency shelters shall be measured from property line to property line.

No other emergency shelter exists in town at this time.

(6) The planning and zoning commission may place any reasonable special conditions, in addition to those provided in this subsection, on the special exception to ensure that the proposed use conforms with the character of the surrounding neighborhood; especially concerning: the prevailing dwelling unit density, the anticipated number of nonresident employees, lighting, service facilities, the background and history of the applicant/organization, approval can be limited to the owner/applicant, the type of activities and time limits regarding outdoor activities. In addition, the planning and zoning commission can evaluate and limit approval to the applicant/organization.

The following conditions are required:

1. Approval of the Special Exception is limited to the applicant / owner: John Sanders/The Vineyard. Any transfer of ownership will require a new Special Exception application.
2. Post the responsible party contact information at a visible location in the front interior of both buildings.
3. The maximum number of transitional housing units shall be limited to 8 units.
4. All outdoor activities shall be limited to no later than 8:00 pm.

(7) An emergency shelter shall adhere to all site plan requirements as per article IV of this chapter.

The site development plan has been reviewed by staff and the outstanding comments are enclosed.

(8) This special exception shall be limited to the proposed applicant or owner to whom the special exception is granted and shall be subject to the requirements of this subsection. Any changes in ownership or to the use of the property will require a new special exception application.

This requirement was a condition of the SE approval.

(b) *Emergency shelter responsible party.*

(1) The purpose of the responsible party is to respond to routine inspections, non-routine complaints, and other more immediate problems related to the emergency shelter of the property.

(2) The property owner shall serve in this capacity or shall otherwise designate in writing to the city an emergency shelter responsible party to act on the property owner's behalf. Any person 18 years of age or older may be so designated provided they can perform the duties listed in subsection (c).

(3) The duties of the emergency shelter responsible party, whether the party is a property owner or an agent, are to:

a. Be available at a listed phone number 24 hours a day, seven days a week and capable of legally handling any issues arising from the emergency shelter use;

b. Ensure all tenants have undergone a police background check. Individuals found guilty of violent crimes are prohibited from being tenants in an emergency shelter regardless of the length of stay. Failure to comply with this requirement shall result in revocation of the business tax receipt;

c. Ensuring sexual offenders/predators as defined in F.S. §§ 775.21, 943.0435, 944.607, or 985.4815 register at the Clay County Sheriff's Office and the Green Cove Springs Police Department, following the process set forth in F.S. § 775.21, 48 hours prior to arrival at an emergency shelter, regardless of the length of stay. The property owner or agent shall comply with F.S. § 775.215, as amended from time to time, pertaining to the distance separation of homes with a sexual offender/predator residing within the emergency shelter and any business, school, childcare facility, park, playground, or other places where children regularly congregate. Failure to comply with this requirement shall result in revocation of the business tax receipt.

The responsible party (John Sanders) will be noted in the Business Tax Receipt File and is in alignment with state requirements for licensing of the facility.

Attachments Include:

1. Special Exception Staff Report
2. Submitted Site Development Plan and Landscape Plan
3. Outstanding Staff Comments-Deficency Report

STAFF RECOMMENDATION

Staff recommends approval of the proposed Site Development Plan on the condition that the site plan is revised to address the outstanding staff comments.

RECOMMENDED MOTIONS:

Site Development Plan

Motion to recommend approval of the Vineyard Transitional Center Site Development Plan on the condition that the site plan is revised to address the outstanding staff comments noted in the attached deficiency report.

City of Green Cove Springs Site Plan Application

FOR OFFICE USE ONLY

P Z File #_____

Application Fee:_____

Filing Date: _____ Acceptance Date:_____

Review Type: SRDT ☐ P & Z ☐ CC ☐

A. PROJECT

1. Project Name: VINEYARD TRANSITIONAL CENTER
2. Address of Subject Property: 518 NORTH PINE AVE
3. Parcel ID Number(s): 017656-000-00
4. Existing Use of Property: EMPTY BUILDING SPACE
5. Future Land Use Map Designation : PUBLIC
6. Zoning Designation: INSTITUTIONAL
7. Acreage: 0.44

B. APPLICANT

1. Applicant's Status ☐ Owner (title holder) ☐ Agent
2. Name of Applicant(s) or Contact Person(s): JOHN SANDERS Title:_____

   Company (if applicable): THE VINEYARD TRANSITIONAL CENTER

   Mailing address: PO BOX 523

   City: GREEN COVE SPRINGS State: FL ZIP: 32043

   Telephone: (___) 904-305-4641 FAX: (___)_____ e-mail: johnsanders5728@yahoo.com
3. If the applicant is agent for the property owner*:

   Name of Owner (title holder): _____

   Company (if applicable): _____

   Mailing address: _____

   City: _____ State: _____ ZIP:_____

   Telephone: (___)_____ FAX: (___)_____ e-mail:_____

   * Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.

C. ADDITIONAL INFORMATION

1. Is there any contract for sale of, or options to purchase the subject property? ☐ Yes ☐ No

   If yes, list names of all parties involved: _____

   If yes, is the contract/option contingent or absolute? ☐ Contingent ☐ Absolute

D. ATTACHMENTS (One copy reduced to no greater than 11 x 17, plus one copy in PDF format)

1. Site Plan and Survey including but not limited to:
   a. Name, location, owner, and designer of the proposed development.
   b. Vicinity map - indicating general location of the site and all abutting streets and properties.
   d. Complete legal description.
   e. Statement of Proposed Uses.
   f. Location of the site in relation to adjacent properties, including the means of ingress and egress to such properties and any screening or buffers along adjacent properties.
   g. Location of nearest fire hydrant, adjacent pedestrian sidewalks and bicycle paths.
   h. Date, north arrow, and graphic scale (not to exceed one (1) inch equal to fifty (50) feet).
   i. Area and dimensions of site.
   j. Location of all property lines, existing right-of-way approaches, sidewalks, curbs, and gutters.
   k. Access and points of connection to utilities (electric, potable water, sanitary sewer, gas, etc.).
   m. Location and dimensions of all existing and proposed parking areas, loading areas, curb cuts.
   n. Location and size of any lakes, ponds, canals, or other waters and waterways.
   o. Structures and major features – fully dimensioned – including setbacks, distances between structures, floor area, width of driveways, parking spaces, proposed surface materials of driveways and parking areas, property or lot lines, and floor area ratio.
   p. Required buffers.
   q. Location of existing trees, identifying any trees to be removed.
   r. Landscaping plan depicting type, size, and design of landscaped areas, buffers, and tree mitigation calculations.
   s. Percent of pervious surface.
   t. Lighting plan.
   u. Location, design, height, and orientation of signs.
   v. Location of dumpsters and detail of dumpster enclosure.
   w. For development consisting of Multi-family residential;
      i. Tabulation of gross acreage.
      ii. Tabulation of density.
      iii. Number of dwelling units proposed.
      iv. Location and percent of total open space and recreation areas.
      v. Floor area of dwelling units.
      vi. Number of proposed parking spaces.
      vii. Street layout.
2. Stormwater management plan - including the following:
   a. Existing contours at one (1) foot intervals.
   b. Proposed finished floor elevation of each building site.
   c. Existing and proposed stormwater management facilities with size and grades.
   d. Proposed orderly disposal of surface water runoff.
   e. Centerline elevations along adjacent streets.
3. Legal description with tax parcel number.
4. Warranty Deed or other proof of ownership.
5. Permit or Letter of Exemption from the St. Johns River Water Management District.

6. Fee.

   a. Based on size of site:

      i. For sites <10,000 s.f. - $500

      ii. For sites >10,000 s.f.- $1,000 + $20 per acre

   b. All applications are subject 10% administrative fee and must pay the cost of any outside consultants' fees.

No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any fees necessary for technical review or additional reviews of the application by a consultant will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any action of any kind on the development application.

All 6 attachments are required for a complete application. A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge:

John Sanders
Signature of Applicant

Signature of Co-applicant

John Sander DIR
Typed or printed name and title of applicant

Typed or printed name of co-applicant

Dec 28 2023
Date

Date

State of Florida County of Clay

The foregoing application is acknowledged before me this 28 day of December, 2023 by John Sanders, who is/are personally known to me, or who has/have produced FL DL as identification.

NOTARY SEAL

JULIA ENNIS
Commission # HH 295823
Expires November 25, 2026

Julia Ennis
Signature of Notary Public, State of Florida

SITE IMPROVEMENTS

FOR

VINEYARD TRANSITIONAL CENTER

518 PINE AVE. N., GREEN COVE SPRINGS, FL 32043

CLAY COUNTY

SPECIAL EXCEPTIONS GRANTED ON 09/28/2021 BY PL
ZONING COMMISSION.

CONDITIONS:

A. APPROVAL OF SPECIAL EXCEPTION IS LIMITED TO THE APPLICANT / OWNER: JOHN SANDERS/THE VINEYARD. ANY TRANSFER OF OWNERSHIP WILL REQUIRE A NEW SPECIAL EXCEPTION APPLICATION
B. THE MAXIMUM NUMBER TRANSITIONAL HOUSING UNITS SHALL BE LIMITED TO 8 UNITS.
C. ALL OUTDOOR ACTIVITIES SHALL BE LIMITED TO NO LATER THAN 8:00 PM
D. APPROVAL OF THE SPECIAL EXCEPTION IS THE CONTINGENT UPON THE APPROVAL OF THE FUTURE LAND USE AND ZONING AMENDMENTS BY CITY COUNCIL.

PROJECT OWNER AND CONSULTANTS

OWNER: Vineyard Transitional Center
John Sanders
518 Pine Avenue North
Green Cove Springs, FL 32043
TEL: 904-305-4641

SURVEYOR: Eiland and Associates, Inc
Harold Eiland
615 Blanding Boulevard
Orange Park, FL 32073
TEL: (904) 272-1000

ENGINEER: Tocoi Engineering, LLC
Charles Sohm, P.E.
714 North Orange Avenue
Green Cove Springs, FL 32043
TEL: 904-215-1388

TE JOB NO: 20-367

LOCATION MAP
N.T.S.

N

INDEX OF DRAWINGS

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TOCOI Engineering, LLC

714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383
"TURNING YOUR IDEAS INTO REALITY"
www.tocoi.com

October 18, 2023

Charles Sohm, PE
Digitally signed by Charles Sohm, PE
Date: 2023.10.18 17:24:24 -04'00'

CHARLES SOHM, P.E.
FLA. REGISTERED ENGINEER, #79289

GENERAL NOTES:

1. ALL WORK AND MATERIALS SHALL BE IN COMPLETE ACCORDANCE WITH ALL RELATIVE SECTIONS OF THE CITY OF GREEN COVE SPRINGS (G.C.S.) & GREEN COVE SPRINGS PUBLIC WORKS (G.C.S.P.W.) STANDARDS, (LATEST REVISION) AND ALL CURRENT CITY & G.C.S.P.W. DETAILS AS WELL AS ALL APPLICABLE STATE AND LOCAL REGULATIONS. THE WORK SHALL ALSO BE PERFORMED AND TESTED IN ACCORDANCE WITH THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL INVESTIGATION REPORT PROVIDED BY JACKSON GEOTECHNICAL ENGINEERING, LLC PROJECT No. 23-414.1. IF MORE STRINGENT THAN CITY OF G.C.S. REQUIREMENTS.

2. ALL WORK SHALL BE PERFORMED IN A SAFE MANNER. ALL SAFETY RULES AND GUIDELINES OF O.S.H.A. SHALL BE FOLLOWED. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ANY INJURIES OF HIS EMPLOYEES, AND ANY DAMAGE TO PRIVATE PROPERTY OR PERSONS DURING THE COURSE OF THIS PROJECT. ALL COSTS ASSOCIATED WITH COMPLYING WITH O.S.H.A. REGULATIONS AND THE FLORIDA TRENCH SAFETY ACT MUST BE INCLUDED IN THE CONTRACTORS BID.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE JOB SITE PRIOR TO PREPARING THE BID FOR THE PURPOSE OF FAMILIARIZING HIMSELF WITH THE NATURE AND THE EXTENT OF THE WORK AND LOCAL CONDITIONS, EITHER SURFACE OR SUBSURFACE, WHICH MAY AFFECT THE WORK TO BE PERFORMED, AND THE EQUIPMENT, LABOR AND MATERIALS REQUIRED. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF COMPLETE PERFORMANCE UNDER THIS CONTRACT. THE CONTRACTOR IS ALSO URGED TO TAKE COLOR PHOTOGRAPHS ALONG THE ROUTE OF THE PROJECT TO RECORD EXISTING CONDITIONS PRIOR TO CONSTRUCTION, AND TO AID IN RESOLVING POSSIBLE FUTURE COMPLAINTS THAT MAY OCCUR DUE TO THE CONSTRUCTION OF THE PROJECT.

4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EITHER CONDUCT ANY FIELD EXPLORATION OR ACQUIRE ANY GEOTECHNICAL ASSISTANCE REQUIRED TO ESTIMATE THE AMOUNT OF UNSUITABLE MATERIAL THAT WILL REQUIRE REMOVAL AND/OR TO ESTIMATE THE AMOUNT OF OFF SITE BORROW THAT WILL BE REQUIRED.

5. ALL IMPROVEMENTS SHOWN ARE TO BE WARRANTED BY THE CONTRACTOR TO THE DEVELOPER AND CITY OF G.C.S. FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY THE OWNER AND CITY OF G.C.S.

6. ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929 (N.G.V.D.) UNITED STATES COASTAL AND GEODETIC SURVEY (U.S.C. & G.S.), AS DETERMINED BY EILAND AND ASSOCIATES, INC.

7. FOR BOUNDARY, ROADWAY AND LOT GEOMETRY INFORMATION SEE PLAT.

8. THE CONTRACTOR WILL CONTRACT WITH AN INDEPENDENT TESTING LABORATORY TO PERFORM MATERIAL TESTING AND SOIL TESTING IN ACCORDANCE WITH CITY OF G.C.S. AND/OR G.C.S.P.W. REQUIREMENTS. THIS SHALL INCLUDE DENSITY TESTS IN ALL PAVEMENT AREAS AND IN ALL UTILITY TRENCHES LOCATED IN PAVEMENT AREAS CONCRETE TESTING AND ALL OTHER MATERIAL TESTING. PRIOR TO LIMEROCK PLACEMENT, THE PROJECT GEOTECHNICAL ENGINEER SHALL MAKE RECOMMENDATION FOR UNDER DRAIN PLACEMENT.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE REQUIRED FOR THE PROJECT INCLUDING CITY RIGHT-OF-WAY PERMITS FOR WORK IN CITY OF G.C.S. RIGHT-OF-WAY OR EASEMENT.

10. THE CONTRACTOR SHALL COORDINATE THE WORK WITHIN CITY OF G.C.S. OR STATE RIGHT-OF-WAY WITH THE PROPER AGENCIES FOR MAINTENANCE OF TRAFFIC AND METHOD OF CONSTRUCTION AND REPAIR.

11. ALL PUBLIC DRAINAGE EASEMENTS SHALL BE "UNOBSTRUCTED" EASEMENTS. ALL "UNOBSTRUCTED" EASEMENTS TO BE CLEAR AND DRIVEABLE.

12. "AS-BUILT" DRAWINGS – AS-BUILTS TO CITY OF G.C.S. AND THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT ARE REQUIRED TO BE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR THEREFORE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTRACT WITH A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA FOR THE PREPARATION, FIELD LOCATIONS, CERTIFICATION AND SUBMITTAL OF "AS-BUILT" DRAWINGS IN ACCORDANCE WITH CURRENT CITY OF G.C.S. & G.C.S.P.W. STANDARDS AND SPECIFICATIONS AND SJRWMD REGULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROCESS THE "AS-BUILT" DRAWINGS FOR APPROVAL BY CITY OF G.C.S.

13. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION WITH ALL OTHER CONTRACTORS. IN THE EVENT OF ANY CONFLICT WHATSOEVER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.

14. ALL CLEARING AND GRUBBING REQUIRED FOR ALL ROADWAY, UTILITIES, DITCHES, AND BERMS INCLUDED IN THIS PROJECT AND THE CLEARING AND GRUBBING OF ALL RIGHT-OF-WAY OR EASEMENTS SHALL BE CONSIDERED AS PART OF THE PROJECT.

15. ALL AREAS SHOWN TO BE FILLED SHALL BE CLEARED AND GRUBBED IN ACCORDANCE WITH CITY OF G.C.S. STANDARDS AND SHALL BE FILLED WITH CLEAN STRUCTURAL FILL COMPACTED AND TESTED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION REPORT.

16. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL SURVEY AND PROPERTY MONUMENTS. IF A MONUMENT IS DISTURBED, THE CONTRACTOR SHALL CONTRACT WITH THE SURVEYOR OF RECORD FOR REINSTALLATION OF THE MONUMENT.

17. ALL DEBRIS RESULTING FROM ALL ACTIVITIES SHALL BE DISPOSED OF OFF-SITE BY CONTRACTOR.

18. ALL EXCESS SUITABLE AND UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR UNLESS DIRECTED OTHERWISE BY ENGINEER OR OWNER.

19. ALL EXISTING TREES TO REMAIN SHALL BE PRESERVED AND PROTECTED.

20. BURNING OF TREES, BRUSH AND OTHER MATERIAL SHALL BE APPROVED, PERMITTED AND COORDINATED WITH CITY OF G.C.S. FIRE MARSHAL.

21. ROADWAY UNDER DRAINS SHALL BE AS REQUIRED ON THE PLANS OR AS MAY BE DETERMINED NECESSARY BY THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF HIGH GROUND WATER CONDITIONS ARE PRESENT DURING THE PREPARATION OF THE ROADWAY SUB-BASE. CITY OF G.C.S. WILL RESERVE THE RIGHT TO REQUEST ADDITIONAL UNDER DRAIN AS DEEMED NECESSARY.
REPRESENTATIVE.

22. CONTRACTOR SHALL PROVIDE CONTRACTION JOINTS AT 10' INTERVALS AND EXPANSION JOINTS SHALL BE CONSTRUCTED AT 50' INTERVALS AND AT ALL RADIUS POINTS ON ALL CURBING.

23. CONTRACTOR SHALL PROVIDE EXPANSION JOINTS AT 18' INTERVALS AND CONTRACTION JOINTS SHALL BE SPACED AT 6' INTERVALS BETWEEN EXPANSION JOINTS.

24. MAINTENANCE OF TRAFFIC SHALL CONFORM TO F.D.O.T. STANDARD INDEX 600, LATEST EDITION.

25. ALL SIGNING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH F.D.O.T. STANDARD INDEXES 11860, 17346, AND 17352.

26. WHERE RCP IS CALLED OUT IN THE PLANS CONTRACTOR MAY SPECIFY RCP, OR HDPE FOR APPROVAL BY ENGINEER OF RECORD.

27. ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE PROPOSED ROADWAY/SITE DEVELOPMENT SHALL BE REMOVED BY THE CONTRACTOR UTILIZING THE HYDRO-BLASTING METHOD.

UTILITY NOTES:

1. THE LOCATION OF ALL EXISTING UTILITIES, STRUCTURES AND IMPROVEMENTS SHOWN ON THE DRAWINGS IS BASED ON LIMITED INFORMATION AND MAY NOT HAVE BEEN VERIFIED. THE LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY RESPECTIVE UTILITY OWNERS AND FIELD VERIFY LOCATIONS OF EXISTING UTILITIES AND OTHER IMPROVEMENTS PRIOR TO COMMENCING ANY CONSTRUCTION. IF THE LOCATIONS SHOWN ARE CONTRARY TO THE ACTUAL LOCATIONS, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER OF THE DISCREPANCY. THIS DISCREPANCY SHOULD BE RESOLVED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN AREAS NEAR EXISTING UTILITIES AND IMPROVEMENTS AND SHALL BE RESPONSIBLE FOR AND SHALL REPAIR OR PAY FOR ALL DAMAGE MADE TO EXISTING UTILITIES OR OTHER IMPROVEMENTS. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL GRADES, INVERTS AND TYPE OF MATERIAL OF EXISTING UTILITIES TO WHICH HE SHALL CONNECT.

2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL MATERIALS, IF REQUIRED, TO THE ENGINEER FOR REVIEW AND APPROVAL, PRIOR TO SUBMITTAL TO CITY OF G.C.S. & G.C.S.P.W., AND PRIOR TO PURCHASE OR CONSTRUCTION OF ANY UTILITY PIPE OR STRUCTURE.

3. ALL PIPE LENGTHS ARE SCALED DIMENSIONS. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED TO CONFORM WITH CITY OF G.C.S. REQUIREMENTS AND SHALL BE CONSTRUCTED TO CONFORM WITH CURBING, PROPERTY LINES AND LOW POINTS AS SHOWN ON THE PLANS.

4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEAN AND FUNCTIONING PROPERLY AT TIME OF ACCEPTANCE.

5. ALL DRAINAGE STRUCTURES TO HAVE TRAFFIC BEARING GRATES.

6. ALL DRAINAGE PIPE JOINTS IN CITY OF G.C.S. DRAINAGE EASEMENTS, DRAINAGE EASEMENTS BETWEEN PRIVATE LOTS, DRAINAGE RIGHT-OF-WAYS AND UNDER PAVED ROADS ARE TO BE FILTER-WRAPPED.

7. ALL INVERTS IN DRAINAGE STRUCTURES TO BE PRE CAST OR BRICK WITH LAYER OF MORTAR BETWEEN EACH LAYER OF BRICK, OR REDDI-MIX CONCRETE WITH #57 STONE.

8. UNSUITABLE MATERIALS UNDER WATER, SEWER PIPE, STORM PIPE OR STRUCTURES SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL, PROPERLY COMPACTED.

9. ALL UNDERGROUND UTILITIES MUST BE INSTALLED PRIOR TO PREPARATION OF SUB GRADE FOR PAVEMENT.

10. ALL WATER AND SEWER CONSTRUCTION WITHIN CITY OF G.C.S. SHALL BE ACCOMPLISHED BY AN UNDERGROUND UTILITY CONTRACTOR LICENSED UNDER THE PROVISIONS OF CHAPTER 489 FLORIDA STATUTES.

11. CONTRACTOR SHALL PROVIDE, TO THE ENGINEER, A SCHEDULE OF INVERT ELEVATIONS OF ALL SANITARY MANHOLES & DRAINAGE STRUCTURES PRIOR TO THE PLACEMENT OF THE LIME ROCK BASE COURSE. THIS SCHEDULE TO BE PROVIDED BY THE REGISTERED LAND SURVEYOR SUBMITTING THE "AS BUILT" DRAWINGS FOR THIS PROJECT.

12. WATER AND SEWER LINES ARE DESIGNATED TO FINISHED GRADES AND SHALL BE PROTECTED UNTIL FINISHED WORK IS COMPLETE. HORIZONTAL SEPARATION BETWEEN WATER MAINS, VALVES, FITTINGS AND SANITARY OR STORM SEWER SHALL BE A MINIMUM OF 10 FEET OR IN ACCORDANCE WITH THE F.D.E.P. REGULATIONS AND G.C.S.P.W. STANDARD DETAILS.

14. ALL WATER LINE CROSSINGS SHALL HAVE A FULL LENGTH OF PIPE CENTERED OVER THE EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING AT CROSSINGS. WATER MAINS CROSSING SANITARY AND STORM SEWER LINES, AS WELL AS VALVES AND FITTINGS, MUST HAVE A MINIMUM 18" VERTICAL SEPARATION. IF THIS SEPARATION CANNOT BE OBTAINED, THE WATER MAIN MUST BE CONSTRUCTED OF DUCTILE IRON PIPE FOR A DISTANCE OF 10' EITHER SIDE OF THE SANITARY OR STORM SEWER MAIN, OR INSTALL WATER MAIN IN D.I. SLEEVE MIN. LENGTH 20' CENTERED, ENDS OF SLEEVE TO BE GROUT FILLED, IN EITHER CASE, MINIMUM OF 6" OF VERTICAL SEPARATION SHALL BE MAINTAINED.

15. MECHANICAL RESTRAINING DEVICES ARE REQUIRED IN ACCORDANCE WITH UTILITY COMPANY STANDARDS WHERE WATER MAINS ARE TERMINATED AND AT ALL BENDS AND TEES.

16. ALL ELECTRIC CONDUIT WORK SHALL BE COMPLETED PRIOR TO THE PRESSURE TESTING OF WATER AND SEWAGE FORCE MAINS.

17. TELEVISION INSPECTION SHALL BE REQUIRED ON ALL GRAVITY SEWER MAINS. THIS SERVICE SHALL BE PROVIDED BY THE CONTRACTOR AS PART OF THE SANITARY SEWER CONTRACT. A FULL WRITTEN REPORT AS TO THE CONDITION OF THE PIPE WITH PERTINENT DATA SUCH AS DISTANCE BETWEEN MANHOLES, LOCATION OF SERVICES, ETC. SHALL BE SUBMITTED TO THE OWNER AND ENGINEER PRIOR TO ACCEPTANCE, AND ONE COPY OF THE VIDEO TAPE SHALL BE SUBMITTED TO CITY OF G.C.S.. ALL DEFECTIVE AREAS AND ITEMS SHALL BE REPLACED OR REPAIRED PRIOR TO FINAL ACCEPTANCE. ALL REPAIRED SECTIONS MUST BE REINSPECTED PRIOR TO ACCEPTANCE.

18. ALL NEW AND/OR RELOCATED WATER MAIN PIPES AND FITTINGS SHALL NOT CONTAIN MORE THAN EIGHT PERCENT LEAD AND ALL PACKING AND JOINT MATERIALS USED IN THE JOINTS SHALL CONFORM WITH ALL APPLICABLE AWWA STANDARDS. ALL NEW AND/OR RELOCATED WATER SERVICES AND PLUMBING SHALL CONTAIN NO MORE THAN EIGHT PERCENT LEAD AND ALL SOLDERS AND FLUX SHALL CONTAIN NO MORE THAN 0.2 PERCENT LEAD.

19. IF SOLVENT CONTAMINATION IS FOUND IN THE PIPE TRENCH, WORK SHALL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH APPROVAL OF THE PERMITTING AGENCY, DUCTILE FITTINGS AND SOLVENT RESISTANT GASKET MATERIAL SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE IRON PIPE SHALL EXTEND AT LEAST 100 FEET BEYOND ANY SOLVENT NOTED.

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383

ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
REGISTRATION NUMBER:
79289

SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

GREEN COVE SPRINGS GENERAL NOTES

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
2A

CITY GENERAL REQUIREMENTS:

1. CITY OF G.C.S. DEPARTMENT OF ENGINEERING REQUIRES TWENTY–FOUR (24) HOUR NOTICE ON ALL MEETINGS AND OR TESTING MEASURES RELATED TO SAID PROJECT.

2. CONSTRUCTION WARNING SIGNS ARE TO BE POST MOUNTED AND ERECTED BEFORE CONSTRUCTION CAN COMMENCE. THESE AND ALL TRAFFIC CONTROL DEVICES SHALL FOLLOW THE STANDARDS SET FORTH BY THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS WELL AS THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD INDEXES.

3. ALL SUB BASE SHALL BE FIRM AND UNYIELDING.

4. ALL JOINTS OF PIPE, REGARDLESS OF MATERIAL TYPE, SHALL BE WRAPPED WITH FABRIC FILTER CLOTH PER FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD INDEX 280.

5. ALL DISTURBED CITY OF G.C.S. RIGHTS–OF–WAY SHALL BE SODDED TO THE DISCRETION AND APPROVAL OF THE CITY OF G.C.S. ENGINEERING DEPARTMENT.

6. THE CURB SHALL BE CHECKED FOR FLOW DESIGN AT ANY STAGE OF THE PROJECT. A WATER TRUCK IS TO BE PROVIDED AT THE FINAL INSPECTION IN ORDER TO CHECK FLOW DESIGN.

7. ALL UNDER DRAIN LINES SHALL HAVE A FORTY–FIVE DEGREE CLEAN OUT AT TWO HUNDRED FOOT (200') INTERVALS AND AT THE END OF THE RUN. THE CURB SHALL BE MARKED WITH TEAL OR HUNTER GREEN PAINT AS TO THE LOCATION OF THE CLEAN OUT.

8. HANDICAP RAMPS SHALL BE INSTALLED WHEREVER THE SIDEWALK MEETS THE CURB.

9. ALL INFORMATION REQUESTED BY THE CITY SHALL BE IN HAND AT THE TIME OF THE FINAL INSPECTION. NO CONDITIONAL CERTIFICATES OF OCCUPANCY SHALL BE GIVEN.

10. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO EXCAVATION AND TAKE ALL MEASURES NECESSARY TO PROTECT UTILITIES DURING CONSTRUCTION. SHOULD ANY UTILITY LINE OR COMPONENT BECOME DAMAGED OR REQUIRE RELOCATION THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE RESPONSIBLE UTILITY COMPANY, THE ENGINEER, AND THE CITY.

11. ALL SWALE SECTIONS ARE TO BE SODDED.

12. ALL DEVELOPER OR CONTRACTOR INSTALLED SIDEWALKS SHALL BE INSTALLED PRIOR TO THE FINAL INSPECTION.

13. A COPY OF THE CONTRACTORS' GENERAL LICENSE AND OR UNDER GROUND UTILITY LICENSE SHALL BE PROVIDED AT THE TIME OF THE PRE–CONSTRUCTION CONFERENCE.

14. ANY APPLICABLE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD) OR FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) PERMITS SHALL BE PROVIDED TO THE CITY BY THE PRE–CONSTRUCTION CONFERENCE. NO WORK SHALL BEGIN WITHOUT ALL APPLICABLE PERMITS ON FILE.

15. THE CONTRACTOR MUST OBTAIN APPROVAL FROM THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD) BEFORE THE CITY WILL ACCEPT THE PROJECT.

16. THERE SHALL BE A MINIMUM THREE (3) DAYS NOTICE GIVEN FOR SCHEDULING THE FINAL INSPECTION.

17. AT THE FINAL INSPECTION, A LETTER OF COMPLIANCE, PROVIDED BY THE CITY, WILL NEED TO BE FILLED OUT AND SIGNED THE STATE OF FLORIDA REGISTERED PROFESSIONAL ENGINEER OF RECORD.

18. FIVE (5) DAYS PRIOR TO THE FINAL INSPECTION TWO (2) SETS OF BLUE LINE AS–BUILTS AND ONE (1) COPY ON DISK IN AUTOCAD FORMAT SHOWING THE FOLLOWING SHALL BE SUBMITTED:

CITY EROSION CONTROL NOTES:

19. PURSUANT TO COMPREHENSIVE PLAN POLICY 9:1 OF THE CONSERVATION ELEMENT, THE USE OF ONE OR MORE EROSION CONTROL MEASURES, AS REQUESTED BY THE CITY OF G.C.S. ENGINEERING DEPARTMENT, SHALL BE USED DURING CONSTRUCTION. THESE WILL BE, BUT NOT LIMITED TO, ITEMS SUCH AS TEMPORARY GRASS COVER, SEDIMENT BASINS OR PONDS, MULCHING, TEMPORARY FENCES, DIVERSION CHANNELS AND HAY BALES.

20. PURSUANT TO COMPREHENSIVE PLAN POLICY 9:1 OF THE CONSERVATION ELEMENT, SCHEDULING OF CONSTRUCTION SHALL BE GIVEN SPECIAL CONSIDERATION TO MINIMIZE EXPOSURE OF BARE SOIL. THE CONTRACTOR WILL FORMULATE A CONSTRUCTION SCHEDULE TO BE GIVEN TO THE CITY REPRESENTATIVE.

21. THE CONTRACTOR SHALL CHECK EACH DAY TO INSURE THAT ALL EROSION CONTROL DEVICES ARE IN PLACE AND WORKING PROPERLY.

22. ALL EROSION CONTROL MEASURES SHALL BE IN COMPLIANCE WITH THE RULES, REGULATION AND STANDARDS OF THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND THE UNITED STATES ARMY CORP OF ENGINEERS.

23. THE CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO PREVENT THE EROSION OF SOIL AND DEPOSITION OF SEDIMENT ON ADJACENT AND DOWNSTREAM PROPERTIES.

24. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION.

CITY PUBLIC SAFETY NOTES:

25. BLUE, ALL–DIRECTIONAL HIGHWAY–STYLE REFLECTIVE MARKERS SHALL BE PROVIDED ON ALL ROADWAYS, ALLEYS, ACCESS ROADS AND ALL PAVED AREA IN FRONT OF EACH HYDRANT. SAID MARKERS SHALL BE LOCATED IN THE LANE OF TRAVEL ON THE SAME SIDE AS THE HYDRANT. THESE MARKERS SHALL BE IN PLACE AT THE TIME OF FINAL INSPECTION OR APPROVAL.

26. A DISK SHALL BE PROVIDED, IN AUTOCAD FORMAT, SHOWING THE LOCATION OF ALL FIRE HYDRANTS BEFORE FINAL APPROVAL. PAVING, DRAINAGE AND CONSTRUCTION NOTES:

27. ALL UNSUITABLE MATERIAL SHALL BE REMOVED TWO FEET (2') BEYOND THE BACK OF CURB AND TWO FEET (2') BELOW FINISHED GRADE.

28. COMPACTION DENSITIES FOR ALL ROADWAY CROSSINGS ARE TO BE TAKEN IN ONE–FOOT (1') LIFTS. STORM SEWER PIPE DENSITIES WILL START AT THE HAUNCHES OF THE PIPE AND BE TAKEN EVERY 6" UNTIL IT HAS REACHED 1' ABOVE THE PIPE.

29. IF UNSUITABLE MATERIAL IS FOUND WITHIN THE LIMITS OF THE ROAD OR IF MATERIAL IS HAULED IN FOR ROADWAY FILL AT A DEPTH GREATER THAN ONE–FOOT (1') THEN THE ENTIRE ROADWAY SHALL BE UNDER DRAINED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND INSTALLED PER THE APPROVED CITY OF G.C.S. DETAIL.

30. ALL STORM SEWER PIPES SHALL BE CUT FLUSH WITH THE INTERIOR WALL OF ANY TYPE MANHOLE OR CURB AND DITCH BOTTOM INLETS.

31. COMPACTION DENSITY TESTS FOR ALL WATER AND SEWER CROSSINGS WILL START THREE FEET (3') ABOVE THE PIPE.

32. COMPACTION DENSITY TESTS FOR ALL WATER AND SEWER CROSSINGS WILL START AT THE SPRING LINE OF THE PIPE.

33. IF THE APPROVED DESIGN REQUIRED THE INLET OR STORM RUN TO BE SURCHARGED, ALL INLETS SHALL BE INSPECTED BEFORE BEING EXPOSED TO THE SYSTEM.

34. TEST CYLINDERS SHALL RUN FOR ALL CONCRETE STRUCTURES. THERE WILL BE THREE (3) TESTS PER EACH DAY POUR WITH ONE (1) AT SEVEN (7) DAY BREAK, AND TWO (2) TWENTY–EIGHT (28) DAY BREAKS.

35. THE ASPHALT SHALL BE CORED FOR THICKNESS AND WILL BE GIVEN A ONE–QUARTER INCH (1/4") TOLERANCE. IF HOWEVER THE CITY'S REPRESENTATIVE IS PRESENT AT POUR AND FEELS COMFORTABLE WITH THE REQUIREMENTS THEN HE OR SHE MAY WAVE THIS POLICY.

36. LBR'S FOR SUBGRADE AT FORTY (40) AND LIME ROCK OR ALTERNATIVE BASE COURSE AT ONE HUNDRED (100). THERE WILL BE NO UNDER TOLERANCE.

37. ALL MATERIAL USED FOR BACK FILL SHALL BE SAND (A3) FREE DRAINING.

38. THERE ARE TO BE NO OPENED TRENCHES AT DAY'S END.

39. ALL DIRT AND DEBRIS TRACKED OUT OF THE PROJECT SHALL BE CLEANED DAILY AND TO THE DISCRETION OF THE CITY OF G.C.S. ENGINEERING DEPARTMENT.

SIGNING AND PAVEMENT MARKING NOTES:

40. ALL SIGNS MUST MEET THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARDS FOR ENGINEERING GRADE SIGN FACES IN REFLECTIVITY.

41. ALL FINAL PAVEMENT MARKINGS WITHIN THE RIGHTS–OF–WAY SHALL BE THERMOPLASTIC.

42. ALL SIGNS SHALL BE ON A TEN–FOOT (10') POLE A MINIMUM OF SEVEN FEET (7') FROM THE GROUND.

43. STREET SIGNS SHALL BE MOUNTED WITH TEE CAPS.

44. STREET SIGNS SHALL BE SIX INCHES (6") WIDE WITH GREEN BACKINGS AND WHITE LETTERS AND BORDERING.

45. STOP SIGNS SHALL BE A MINIMUM TWENTY–FOUR INCH BY TWENTY–FOUR INCH (24" X 24").

46. STOP SIGNS ARE TO BE PLACED FOUR FEET (4') FROM BACK OF CURB, FOR FEET (4') BEHIND CROSS WALKS AND ON THE RIGHT HAND SIDE OF THE ROAD.

47. STREET SIGNS ARE TO BE LOCATED ON THE LEFT HAND CORNER OF THE INTERSECTION FOUR FEET (4') FROM THE BACK OF CURB.

48. STREET / STOP SIGN COMBINATIONS ARE NOT ALLOWED.

49. ALL REGULATORY SIGNS SHALL BE BLACK AND WHITE. ALL CONSTRUCTION WARNING SIGNS SHALL BE ORANGE AND BLACK. ALL WARNING SIGNS SHALL BE YELLOW AND BLACK. ALL NO PARKING AND STOP SIGNS SHALL BE RED AND WHITE.

50. STOP BARS SHALL BE TWENTY–FOUR INCHES (24") WIDE AND LANE WIDTH. ALL STOP BARS SHALL BE THERMOPLASTIC.

51. ALL SIGNS SHALL BE SIDED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.

52. ALL DETECTABLE WARNING PADS FOR ADA RAMPS ARE TO BE WET–SET MATS.

CITY MAINTENANCE OF TRAFFIC:

53. AFTER ISSUANCE OF THE PERMIT, THE PERMITTEE SHALL NOTIFY THE CITY PUBLIC WORKS DEPARTMENT A MINIMUM OF TWO BUSINESS DAYS PRIOR TO COMMENCING CONSTRUCTION. THIS NOTIFICATION WILL ALLOW FOR SCHEDULING OF INSPECTIONS.

54. IF A ROAD CLOSURE IS REQUIRED, THE PERMITTEE SHALL SUBMIT WITH THE PERMIT APPLICATION A MAINTENANCE OF TRAFFIC (MOT) PLAN TO INCLUDE ALL PROPOSED ROAD CLOSURES AND AN EXPECTED TIME DURATION FOR EACH CLOSING.

55. ROAD CLOSURES SHALL REQUIRE SEPARATE APPROVAL BY THE PUBLIC WORKS DEPARTMENT AND A MINIMUM OF THREE BUSINESS DAYS PRIOR NOTIFICATION BEFORE THE COMMENCEMENT OR CONSTRUCTION.

56. ROAD CLOSURES SHALL REQUIRE SEPARATE APPROVAL OF CLAY COUNTY FIRE AND RESCUE.

57. ROAD CLOSURES OF FEWER THAN 15 MINUTES SHALL NOT REQUIRE NOTIFICATION.

CITY AS–BUILT REQUIREMENTS:

58. AS–BUILTS MUST BE SUBMITTED ON THE APPROVED GRADING.

CITY EMERGENCY SHELTER NOTES PER SEC 117–192–B–3

AN EMERGENCY SHELTER SHALL BE PERMITTED IN THE INSTITUTIONAL ZONING DISTRICT AS A SPECIAL EXCEPTION, SUBJECT TO THE FOLLOWING PROVISIONS:

(1) A MINIMUM OF 300 SQUARE FEET OF PRIVATE INDOOR LIVING SPACE SHALL BE PROVIDED FOR EACH OCCUPANT OF A STRUCTURE.

(2) MINIMUM PARKING REQUIREMENTS SHALL BE AS FOLLOWS:

A. ONE PARKING SPACE FOR EACH THREE BEDS; AND

B. ONE PARKING SPACE FOR EACH EMPLOYEE.

TOCOI Engineering, LLC
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ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
REGISTRATION NUMBER:
79289

SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

GREEN COVE SPRINGS GENERAL NOTES

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
2B

Fnd. 1/2" Rebar
(Mathew Griffis)

S 37°00'00" E (Plat) 50.00' (Plat)

S 37°00'00" E (Plat) 150.00'

Fnd. 1/2" I.P.
(no I.D. #)

10' LANDSCAPE BUFFER

Septic Tank

Septic Tank

22"
PALM

20' LANDSCAPE BUFFER

20"
o PALM

14"
o PALM

C K

L O T 6

2 1

L O T 4

THE NORTH 1/2 OF LOT 8
(also known as LOT 8-A)

4088, PG. 1591

N 53°00'00" E (Plat) 125.60'

N 53°00'00" E (Plat) 125.60'

S 53°00'00" W (Plat) 125.60'

O.R.B. 2053, PG. 795

(Plat) 450.00'

W (FM) 450.44'

5.8'

Utility Pole

N 37°00'00" W (Plat) 150.00' (Plat)

WM's

Utility Pole

S 37°00'00" E (Plat) 100.00'

Concrete Curbing

BENCH MARK
PK Nail & Disk
Elev. = 16.28, NAVD 1988

Asphalt Roadway

P I N E A V E N U E
(also known as PINE STREET NORTH / PINE AVENUE NORTH)

0 10 20
SCALE: 1" = 10'
SCALE: 1" = 20'
FOR: 22"x34" SHEET
FOR: 11"x17" SHEET

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
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ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
REGISTRATION NUMBER:
79289

SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

EXISTING GROUND

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
3

Date: 10/18/23 Time: 2:13 PM DWG Name: \\TEL-Vault\01Projects\20-367 Vineyard Transitional Center\03-CADD\03_20-367 MASTER PLAN.dwg Layout: 3-EG

S 37°00'00" E (Plat) 150.00'

TC LINE

15' LANDSCAPE BUFFER

Septic Tank

22" PALM

BASIN A
AREA = 0.39 AC
IMP. = 0.00 AC
L = 187 FT
S = 0.71% AVG.
Tc = 10 MIN.

BASIN B
AREA = 0.03 AC
IMP. = 0.00 AC

BASIN C
AREA = 0.02 AC
IMP. = 0.00 AC

N 53°00'00" E (Plat) 125.60'

S 53°00'00" W (Plat) 125.60'

N 37°00'00" W (Plat) 150.00'

20" PALM

14" PALM

Utility Poles

Concrete Curbing

PINE AVENUE
(also known as PINE STREET NORTH / PINE AVENUE NORTH)

0 10 20
SCALE: 1" = 10'
SCALE: 1" = 20'
FOR: 22"x34" SHEET
FOR: 11"x17" SHEET

SITE DATA

PARCEL AREA	= 0.44 AC
IMPERVIOUS AREA	= 0.00 AC
WETLANDS AREA	= 0.00 AC
CN UPLANDS	= 91
CN WETLANDS	= 95
CN WEIGHTED	= 91

LEGEND

DRAINAGE DIVIDE

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383

ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
REGISTRATION NUMBER: 79289

SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

EXISTING DRAINAGE

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
4

Date: 10/18/23 Time: 2:15 PM DWG Name: \\TEL-Vault\01Projects\20-367 Vineyard Transitional Center\03-CADD\03_20-367 MASTER PLAN.dwg Layout: 4-EDRAIN

S 37°00'00" E (Plat) 150.00'

10' LANDSCAPE BUFFER

DRY POND
0.06 AC

TC LINE

22" PALM

BASIN A
AREA = 0.44 AC
IMP. = 0.21 AC
L = 206 FT
S = 1.00% AVG.
Tc = 10 MIN.

PROPOSED
76'x40'
3,300 SF
ONE STORY
OFFICE AND
RESIDENCES

FFE 17.10

N 53°00'00" E (Plat) 125.60'

S 53°00'00" W (Plat) 125.60'

BASIN B
AREA = 0.03 AC
IMP. = 0.03 AC

14" PALM

20" PALM

Utility Pole

Concrete curbing

Future Utility Pole

P I N E A V E N U E
(also known as PINE STREET NORTH / PINE AVENUE NORTH)

0 10 20
SCALE: 1" = 10'
SCALE: 1" = 20'
FOR: 22"x34" SHEET
FOR: 11"x17" SHEET

SITE DATA

PROJECT AREA	= 0.47 AC
PARCEL AREA	= 0.44 AC
IMPERVIOUS AREA	= 0.24 AC
WETLANDS AREA	= 0.00 AC
CN UPLANDS	= 92
CN WETLANDS	= 98
CN WEIGHTED	= 95

LEGEND

DRAINAGE DIVIDE

DEP SITE DATA

PROJECT AREA	= 0.47 AC
PARCEL AREA	= 0.44 AC
IMPERVIOUS AREA	
EXISTING CONDITIONS	= 0.00 AC
PROPOSED CONDITIONS	= 0.24 AC
ADDED IMPERVIOUS	= 0.24 AC

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ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
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SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

PROPOSED DRAINAGE

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
5

Date: 10/18/23 Time: 2:32 PM DWG Name: \\TEL-Vault\01Projects\20-367 Vineyard Transitional Center\03-CADD\03_20-367 MASTER PLAN.dwg Layout: 5-PDRAIN

NOTE: REMOVE EXIST. SEPTIC TANK

RETAIN EXISTING PALM TREE

NOTE: REMOVE EXIST. SEPTIC TANK

S 37°00'00" E (Plat) 150.00'

10' LANDSCAPE BUFFER

Septic Tank

Septic Tank

22" PALM

N 53°00'00" E (Plat) 125.60'

S 53°00'00" W (Plat) 125.60'

10' LANDSCAPE BUFFER

26" PALM

14" PALM

N 37°00'00" W (Plat) 150.00'

Utility Pole

Concrete Curbing

Utility Pole

RETAIN EXISTING WATER METERS

CONST. 600 LF± SILT FENCE AROUND PARCEL PERIMETER AND NEW ENTRANCE

RETAIN EXISTING PALM TREE

RETAIN EXISTING PALM TREE

NOTE: COORDINATE RELOCATION OF EXIST. UTILITY POLE WITH UTILITY COMPANY (SEE GEOMETRY PLAN)

P I N E A V E N U E

(also known as PINE STREET NORTH / PINE AVENUE NORTH)

N

0 10 20

SCALE: 1" = 10'
SCALE: 1" = 20'
FOR: 22"x34" SHEET
FOR: 11"x17" SHEET

LEGEND

ITEMS TO BE REMOVED UNLESS OTHERWISE NOTED

SILT FENCE

PROPERTY BOUNDARY

SITE DATA

PROJECT AREA	= 0.47 AC
PARCEL AREA	= 0.44 AC
IMPERVIOUS AREA	= 0.22 AC
WETLANDS AREA	= 0.00 AC

NOTE: STABILIZED CONSTRUCTION ENTRANCE TO BE DETERMINED BY ONSITE PERSONNEL

TOCOI Engineering, LLC
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ENGINEER OF RECORD CHARLES SOHM
FLORIDA REGISTRATION NUMBER: 79289

SITE IMPROVEMENTS FOR VINEYARD TRANSITIONAL CENTER

DEMO PLAN

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO. 6

Date: 10/18/23 Time: 2:37 PM DWG Name: \\TEL-Vault\01Projects\20-367 Vineyard Transitional Center\03-CADD\03_20-367 MASTER PLAN.dwg Layout: 6-DEMO

CONST. 6'W EARTH WEIR (SEE GRADING AND DRAINAGE PLAN AND DRAINAGE DETAILS)

12'x20' ADA PARKING SPACE (SEE MISC. DETAILS)

CONST. 0.6 AC DRY POND (SEE GRADING AND DRAINAGE PLAN AND DRAINAGE DETAILS)

DRAINAGE SWALE CUTS THROUGH POND TOB (TYP.) (SEE DRAINAGE DETAILS)

CONST. 3'W CONC. FLUME WITH 4'x7.5' RIPRAP PAD (SEE DRAINAGE DETAILS)

S 37°00'00" E (Plat) 150.00'

8.33'

3'W TOB

7.09'

10' LANDSCAPE BUFFER

N 36°05'44" W 56.73'

N 36°05'44" W 40.27'

L:14.77' R:7.50'

L:14.77' R:7.50'

12.41'

7.10'

N 66°05'44" W 17.29

DRY POND 0.06 AC

R3' BOC

R3' BOC

N 6°05'44" W 8.18

L:6.85' R:7.50'

L:6.85' R:7.50'

S 36°05'44" E 69.04'

CONST. 71 LF± OF 6'W CONC. SIDEWALK (SEE MISC. DETAILS)

22" PALM

N 53°54'16" E 5.00

S 36°05'44" E 7.75'

CONST. 8 LF± OF 7.33'W CONC. SIDEWALK (SEE MISC. DETAILS)

R5' BOC

R5' BOC

N 53°00'00" E (Plat) 125.60'

S 53°00'00" W (Plat) 125.60'

CONST. 12'x26' CONC. DUMPSTER PAD W/ 6' 95% OPAQUE CLF W/ GATE (SEE DRAINAGE DETAILS)

PROPOSED 76'x40' 3,300 SF ONE STORY OFFICE AND RESIDENCES

CONST. 10'x16' CONC. PATIO (SEE ARCH. PLANS BY OTHERS)

PATIO

2.5'±

3'±

12' FOC

8'

10'

10'

10'x18' PARKING SPACE (TYP.)

N 53°54'16" E 101.86'

N 53°54'16" E 90.94'

CONST. 8.33'Wx8.33'L CONC. SIDEWALK (SEE MISC. DETAILS)

10'x20' PARKING SPACE (TYP.)

CONST. 8 LF± OF 7.33'W CONC. SIDEWALK (SEE MISC. DETAILS)

CONST. 165 LF± OF 6"D± GRASSED DRAINAGE SWALE (SEE GRADING & DRAINAGE PLAN)

N 53°54'16" E 86.39'

29.88'

CONST. 8.33'Wx8.33'L CONC. SIDEWALK (SEE MISC. DETAILS)

CONST. 89 LF± OF 6"D± GRASSED DRAINAGE SWALE (SEE GRADING & DRAINAGE PLAN)

20' FOS/W

12'

12'

18' FOC

5'±

5'±

15.48'

20' LANDSCAPE BUFFER

N 36°05'44" W 61.39

20" o PALM

14" o PALM

R5' BOC

R30' BOC

R30' BOC

CONST. 150 LF± OF 6'W CONC. SIDEWALK @ ROW (SEE MISC. DETAILS)

20'

33.25'

40.5' ℄ TO ℄

COORDINATE RELOCATION OF EXIST. UTILITY POLE WITH UTILITY COMPANY

Utility Pole

Concrete Curbing

Future Utility Pole

NOTE: KEEP EXIST. WATER METERS

CONNECT TO EXIST. STANDARD CURB AND GUTTER

N 53°54'16" E 13.54

CONNECT TO EXIST. ASPHALT ROADWAY BEGIN ASPHALT DRIVE AISLE ENTRANCE

CONNECT TO EXIST. STANDARD CURB AND GUTTER

P I N E A V E N U E

(also known as PINE STREET NORTH / PINE AVENUE NORTH)

N

0 10 20

SCALE: 1" = 10'
SCALE: 1" = 20'
FOR: 22"x34" SHEET
FOR: 11"x17" SHEET

LEGEND

- AREAS WHERE NEW CONCRETE CONSTRUCTION IS TO occur
- AREAS WHERE NEW ASPHALT CONSTRUCTION IS TO OCCUR
- PROPERTY BOUNDARY
- SOLID ARROWS ARE FOR DIRECTIONAL PURPOSES ONLY NOT FOR PAVEMENT MARKINGS
- (10) NUMBER OF STANDARD PARKING SPACES

NOTE: FOR ADA PARKING AND SIDEWALK DETAILS SEE MISC. DETAILS

SITE INFORMATION	DESIGNED	REQUIRED
STANDARD PARKING SPACES	10	6*
ADA PARKING SPACES	1 VAN	1 ADA**
TOTAL PARKING SPACES	10 + 1 ADA	6 + 1 ADA

* LIVING SPACE 6 BEDS 1 PER 3 BEDS = 2 SP
OFFICE SPACE 954 SF 1 PER 250 SF = 4 SP

** TOTAL ADA = 1 PER 25 STANDARD SP
VAN = 1 PER 1–400 ADA SP

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383

ENGINEER OF RECORD CHARLES SOHM
FLORIDA REGISTRATION NUMBER: 79289

SITE IMPROVEMENTS FOR VINEYARD TRANSITIONAL CENTER

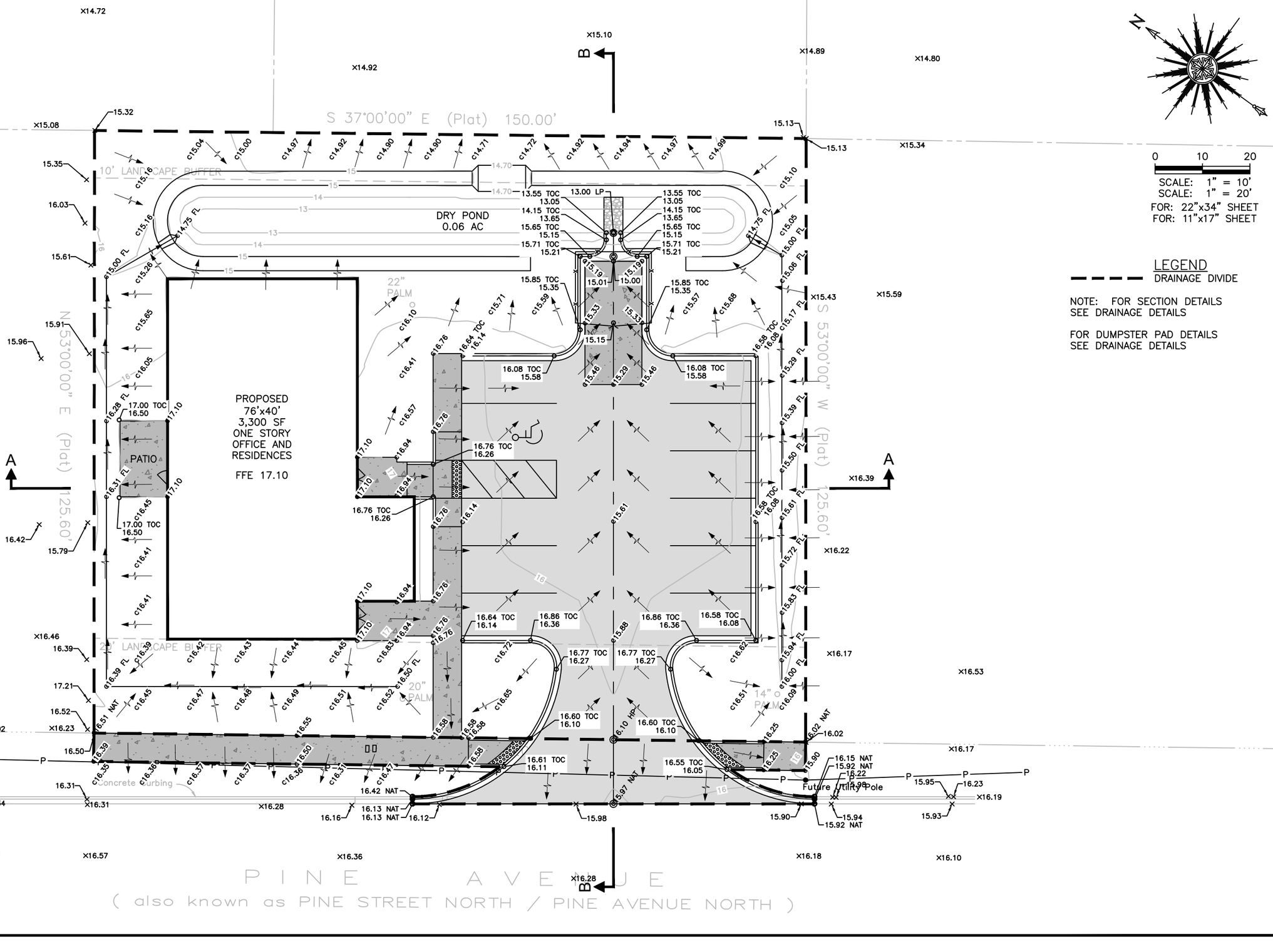
GEOMETRY PLAN

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO. 7

Date: 10/18/23 Time: 2:42 PM DWG Name: \\TEL-Vault\01Projects\20-367 Vineyard Transitional Center\03-CADD\03_20-367 MASTER PLAN.dwg Layout: 7-GEO



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714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383
ENGINEER OF RECORD CHARLES SOHM
FLORIDA REGISTRATION NUMBER: 79289

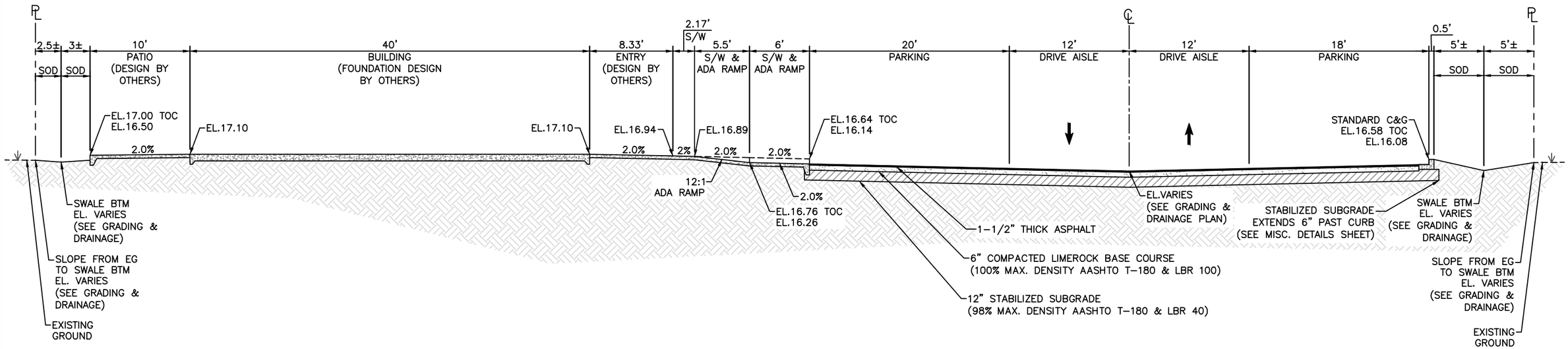
SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

GRADING AND DRAINAGE PLAN

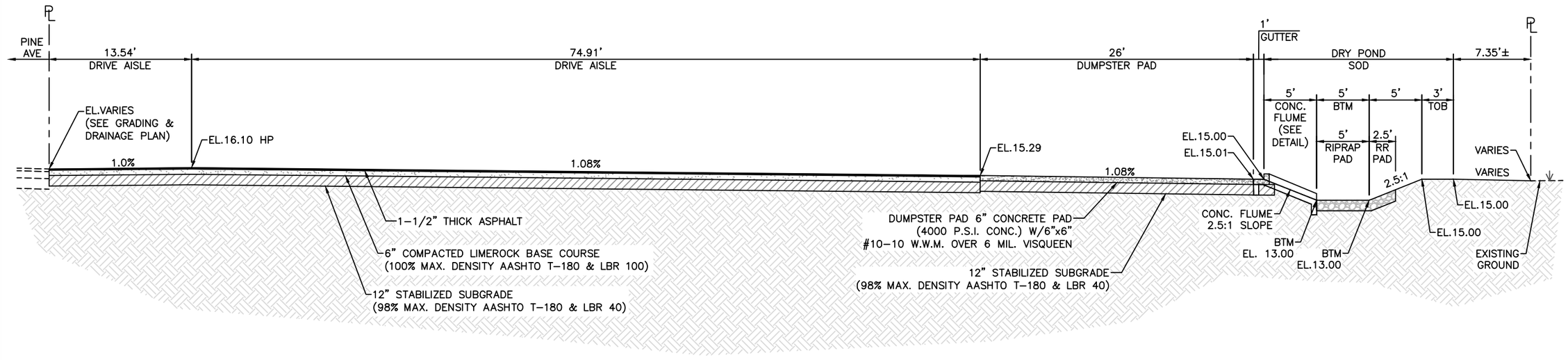
REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
8



SECTION A-A
N.T.S.



SECTION B-B
N.T.S.

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383

ENGINEER OF RECORD
CHARLES SOHM

FLORIDA
REGISTRATION NUMBER:
79289

SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

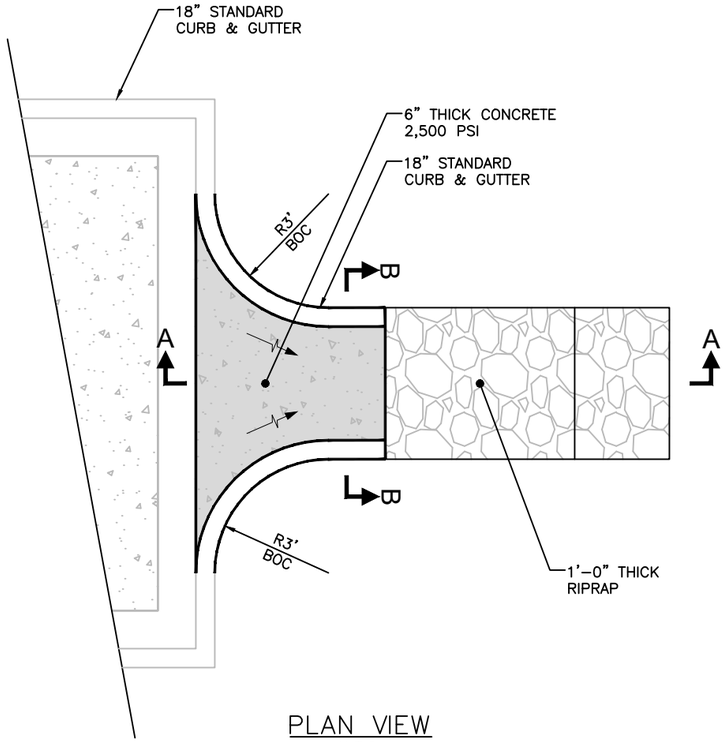
DRAINAGE DETAILS

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
9A

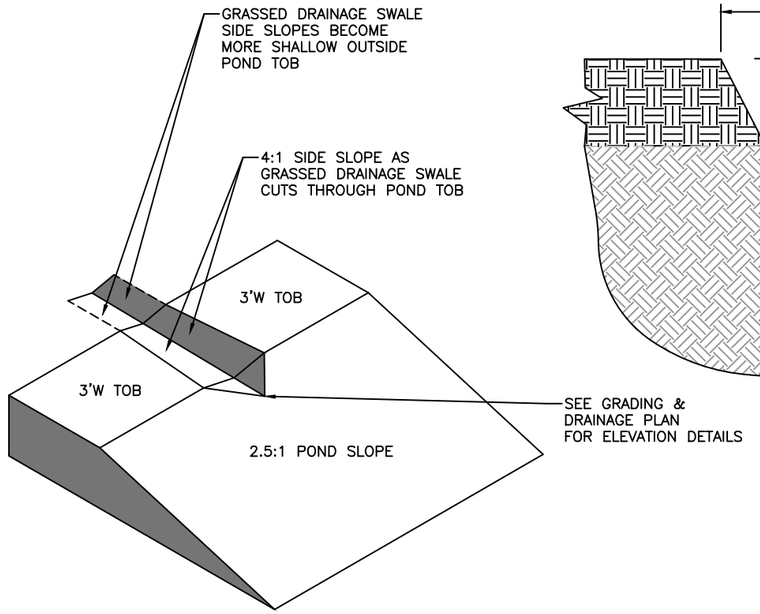
Date: 10/18/23 Time: 2:56 PM DWG Name: \\TEL-Vault\01Projects\20-367 Vineyard Transitional Center\03-CADD\04_20-367 DRAINAGE DETAILS.dwg Layout: 9A



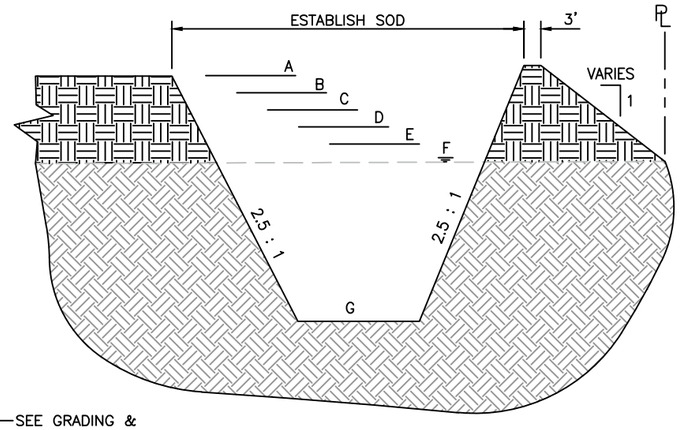
PLAN VIEW
N.T.S.

	DESCRIPTION	ELEVATION
A	TOP OF BANK	15.00
B	DESIGN HIGH WATER (DHW) 100-YR	14.97
C	DHW 25-YR	14.92
D	MEAN ANNUAL	14.76
E	WEIR EL.	14.70
F	NORMAL WATER LEVEL (NWL)	N/A
G	POND BOTTOM	13.00

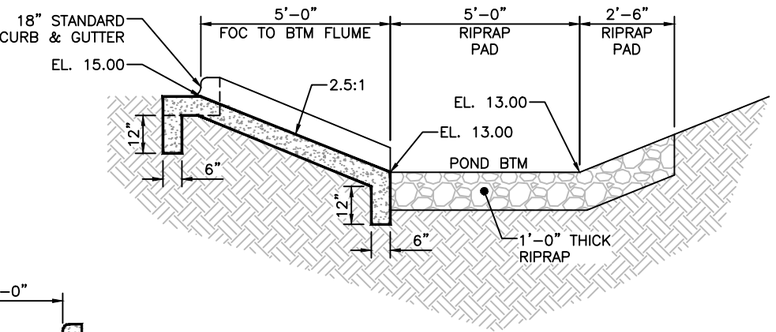
LEGEND
GROUND



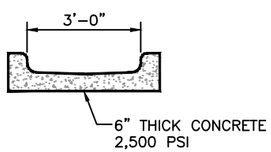
GRASSED DRAINAGE SWALE
CUTTING THROUGH
TOP OF POND BANK
DETAIL
N.T.S.



DRY POND
N.T.S.

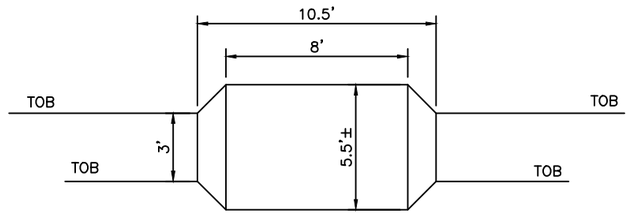


SECTION A-A
N.T.S.

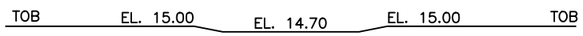


SECTION B-B
N.T.S.

CONCRETE FLUME
AND RIPRAP
DETAIL
N.T.S.



PLAN VIEW
N.T.S.



SIDE VIEW
N.T.S.

EARTH WEIR
DETAIL
N.T.S.

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383

ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
REGISTRATION NUMBER:
79289

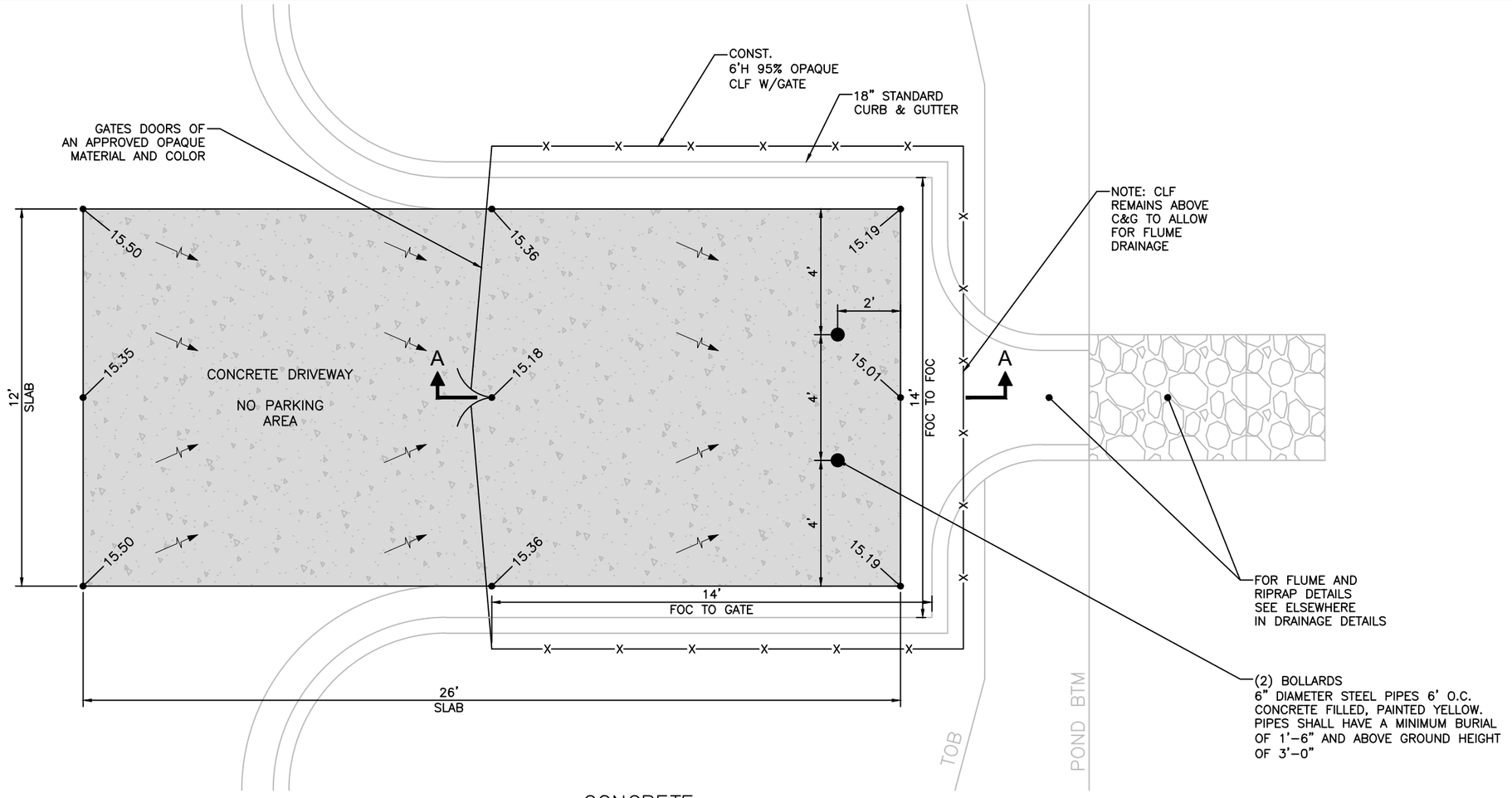
SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

DRAINAGE DETAILS

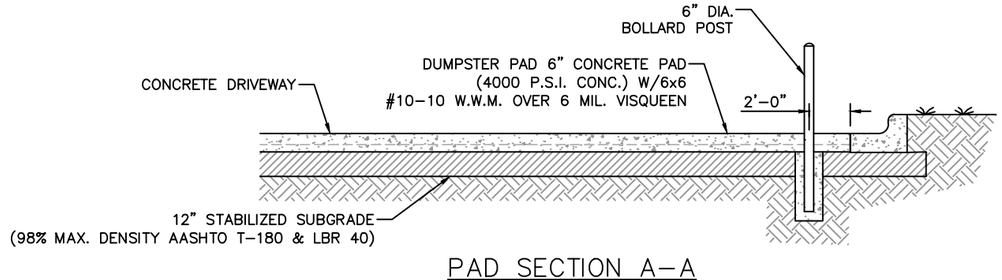
REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

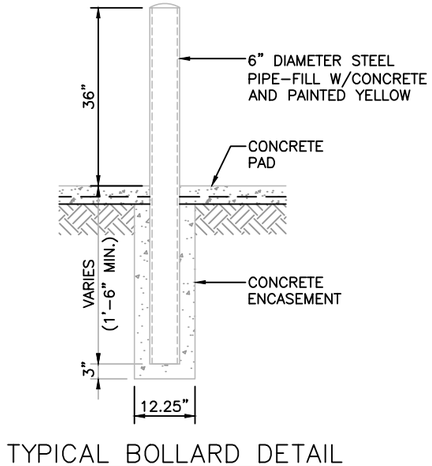
SHEET NO.
9B



CONCRETE
DUMPSTER PAD
PLAN VIEW
DETAIL
N.T.S.



PAD SECTION A-A
N.T.S.



TYPICAL BOLLARD DETAIL
N.T.S.

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383

ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
REGISTRATION NUMBER:
79289

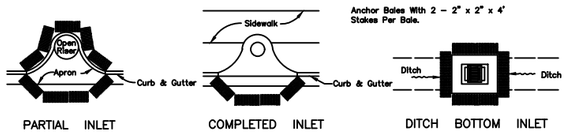
SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

DRAINAGE DETAILS

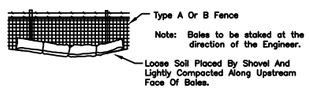
REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

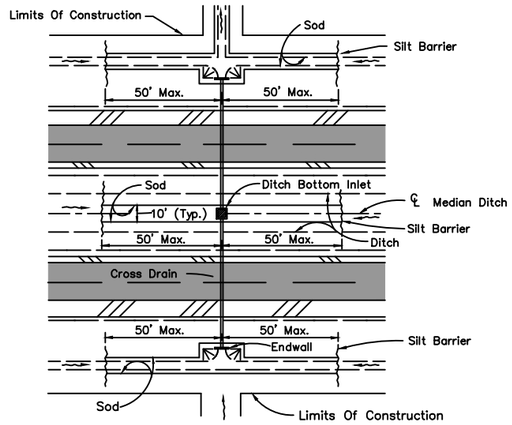
SHEET NO.
9C



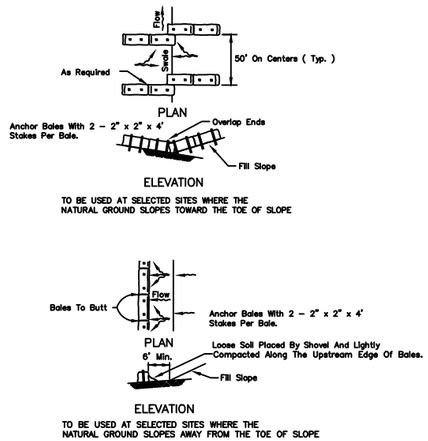
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



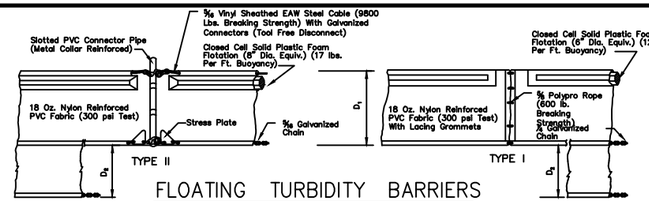
BALES BACKED BY FENCE



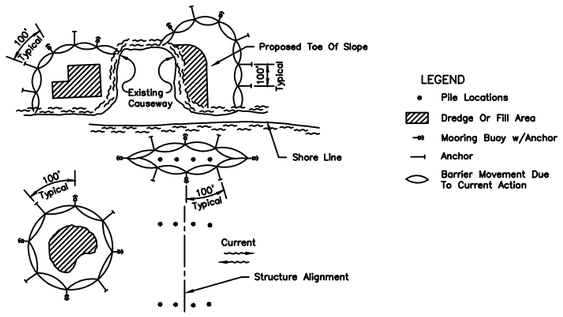
DITCH INSTALLATIONS AT DRAINAGE STRUCTURES



BARRIERS FOR FILL SLOPES



FLOATING TURBIDITY BARRIERS



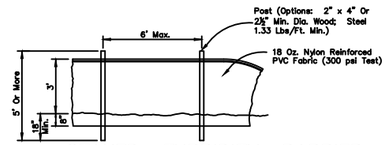
NOTES:
1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities.
3. Deployment of barrier around pile locations may vary to accommodate construction operations.
4. Navigation may require segmenting barrier during construction operations.
5. For additional information see Section 104 of the FDOT Standard Specifications.

TURBIDITY BARRIER APPLICATIONS

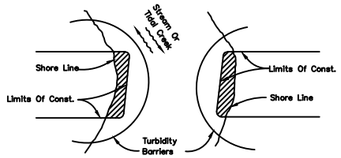
TURBIDITY BARRIERS

(D–907)
N.T.S.

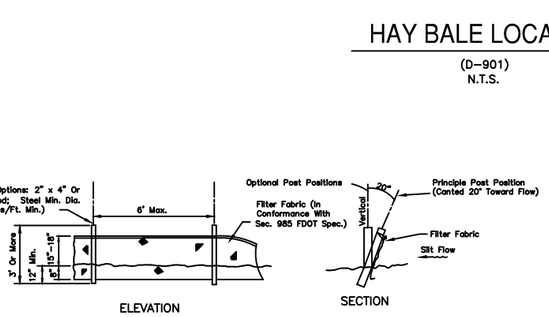
NOTICE:
COMPONENTS OF TYPES I & TYPE II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.



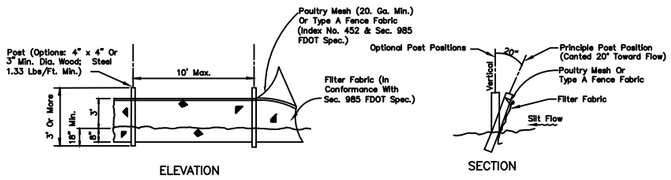
STAKED TURBIDITY BARRIER



Note:
Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the contract lump sum price established in the bid proposal for Erosion & Sediment Control Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

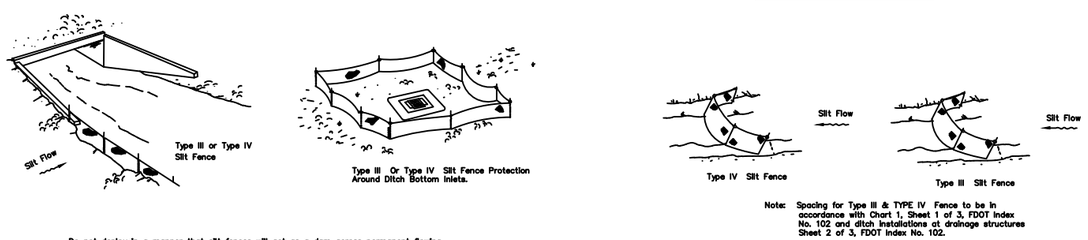


TYPE III SILT FENCE



Note: Silt Fence to be paid for under the contract lump sum price for Erosion and Sediment Control.

TYPE IV SILT FENCE



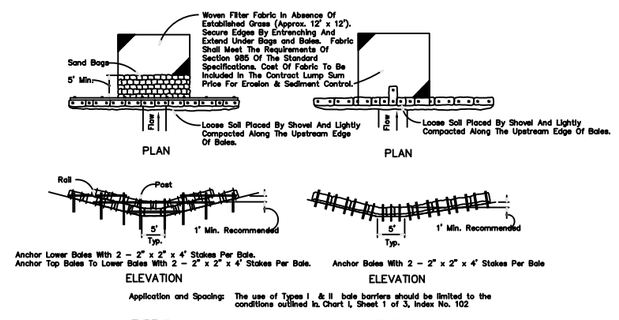
Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

Note: Spacing for Type III & TYPE IV Fence to be in accordance with Chart 1, Sheet 1 of 3, FDOT Index No. 102 and ditch installations at drainage structures Sheet 2 of 3, FDOT Index No. 102.

SILT FENCE APPLICATIONS

SILT FENCE TYPE III & IV

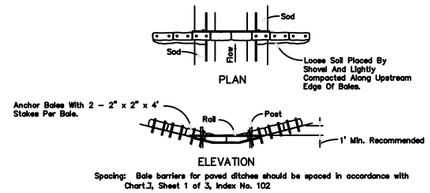
(D–908)



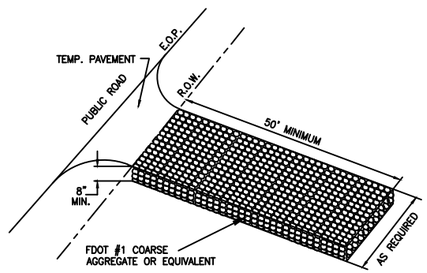
BARRIER FOR UNPAVED DITCHES

HAY BALE BARRIERS TYPE I & II

(D–912)
N.T.S.



BARRIER FOR PAVED DITCH



STABILIZED CONSTRUCTION ENTRANCE

N.T.S. (per FDOT Index 106)

NOTE:
WHERE FDOT SPECS AND INDEX ARE REFERENCED, PLEASE REFER TO FDOT ROADWAY & TRAFFIC DESIGN STANDARDS, AND FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383

SITE IMPROVEMENTS FOR VINEYARD TRANSITIONAL CENTER

EROSION CONTROL DETAILS

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
10

S 37°00'00" E (Plat) 150.00'

10' LANDSCAPE BUFFER

DRY POND
0.06 AC

22"
PALM

N 53°00'00" E (Plat) 125.60'

S 53°00'00" W (Plat) 125.60'

PROPOSED
76'x40'
3,300 SF
ONE STORY
OFFICE AND
RESIDENCES

PATIO

SANITARY SEWER
CONNECTS TO BLDG.
(SEE ARCH. PLANS)

WATER LINE
CONNECTS TO BLDG.
(SEE ARCH. PLANS)

SEE LANDSCAPE PLANS
FOR WATER CONNECTIONS

26 LF± OF
1" POLYETHYLENE TUBING

CONNECT TO
EXIST. WATER METER

20' LANDSCAPE BUFFER

20"
PALM

14"
PALM

Utility Pole

Concrete Curbing

Future Utility Pole

LOCATE AND CONNECT TO
EXIST. SANITARY SEWER
LATERAL

EXIST. WATER METERS

EXIST. SANITARY SEWER

P I N E A V E N U E

(also known as PINE STREET NORTH / PINE AVENUE NORTH)

N

0 10 20

SCALE: 1" = 10'
SCALE: 1" = 20'
FOR: 22"x34" SHEET
FOR: 11"x17" SHEET

LEGEND
PROPERTY BOUNDARY

TOCOI Engineering, LLC
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PH: 904-215-1388 E.B. NUMBER: 26383

ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
REGISTRATION NUMBER:
79289

SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

UTILITY PLAN

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
11

Date: 10/18/23 Time: 4:40 PM DWG Name: \\TEL-Vault\01Projects\20-367 Vineyard Transitional Center\03-CADD\03_20-367 MASTER PLAN.dwg Layout: 11-UTIL

GREEN COVE SPRINGS GENERAL NOTES

1. AS–BUILT DRAWINGS. During the daily progress of the work, the Contractor's job superintendent shall record on his field set of drawings all work installed. All manholes, sewer mains, laterals, valves, fittings, fire hydrants, etc. shall be located in two directions. One location shall be referenced perpendicular to the right–of–way lines and/or property lines (preferably both) or existing permanent utility structures are acceptable (i.e manholes, catch basins, fire hydrants, head/endwalls, etc.). No power / utility poles may be used for reference. Elevations of manhole inverts and center of cover shall be shown to the nearest hundredth of a foot. Size, type, class and slope of sewer main shall be shown (i.e. 8" PVC, SDR–35). Size, type and class of water mains, valves, fittings, fire hydrants, etc. shall be shown (i.e. 8" D.I.P., 6" Gate Valve). All locations where the top of the water main is less than 36" deep or more than 50" deep shall be noted on the as–builts. R The As–Builts shall be at the Contractor's expense, provided in AutoCad R10, or later, in accordance with the City of Green Cove Springs required format. R A copy of the AutoCAD data shall be furnished on a compact disk (CD) and the contractor shall provide two double matte mylars and six prints of the as–builts on 18"x 24" sheets. Title Block format, as–built page numbers, fire hydrant numbers, and continuation sheet numbers shall be obtained from the City of Green Cove Springs staff before preparation of the as–builts and shall be incorporated into the as–built drawings prior to submittal. Scale shall be 1"=100', however, in congested areas where dimensions and data are not legible an insert shall be drawn to a scale which will provide adequate space for the as–built data. The lettering and numerals shall be legible and a minimum height of 0.06 inches. The mylars shall be signed by the General Contractor and Florida Registered Surveyor for the job. The signature shall certify that the "As–Built Drawings" do in fact, reflect the true as–built conditions. Upon completion of the job and the preparation of the as–builts, a "proof" set of the as–builts will be delivered to the Utility and the Design Engineer for their review and comment, prior to the final as–builts being submitted to the Design Engineer for his use in final certification to the Florida Department of Environmental Protection. As–built corrections based on the Utility's and the Design Engineer's comments shall be incorporated into the as–builts that the engineer uses for final certification, and the appropriate number of R copies of such as–builts along with the mylar and AutoCAD disk shall be delivered to the Utility with the request for execution of the final certification or prior. Water as–builts and sewer as–builts shall be on separate sheets.

2. CONSTRUCTION WARRANTY AND WARRANTY SECURITY PERIOD. Developer shall warranty Utility against defects in material and workmanship for the portion of the on–site system to be owned by the Utility. Developer shall secure from its Contractor a written and fully assignable warranty that the system installed will be and remain free from all defects, latent or otherwise with respect to workmanship, materials, installation, and accuracy of his as–built drawings in accordance with the Utility approved plans and specifications for a period of one year from the date of the system acceptance by the Utility, and immediately assign the same and the right to enforce the same to Utility on or before the date of the Utility's acceptance of the system for ownership and maintenance.

3. CLEAN–UP. All surplus materials of construction shall be removed from the site and disposed of by the Contractor as part of his contract with the owner.

4. RESTORATION. New Sanitary Sewer and Water Main Construction in earthen areas shall be seeded and mulched in accordance with Section 570 of the Standard Specifications of the Florida Department of Transportation (latest edition). In locations where existing grassed (sodded) areas are disturbed, sod shall be replaced to preconstruction condition and to limits of construction or where directed by the engineer.

5. PERMITS. The Contractor shall be responsible for obtaining all permits required for performing work under this contract, except that the F.D.E.P. permits and wetlands permits, if required, will be secured by the owner or developer.

6. PIPE BEDDING. In the event unsuitable or unstable bedding material is encountered at or below the limits of the excavation required for installation, such material shall be removed and replaced with suitable compacted backfill material specified by the design engineer and approved by the City of Green Cove Springs so as to provide a stable trench bedding surface suitable for proper pipe installation.

7. DEWATERING. The contractor shall at all time during construction provide ample means and equipment with which to promptly remove and dispose of all water entering the trench and structure excavations and shall keep said excavations acceptably dry, until the piping and/or structures to be built therein are completed. All water pumped or drained from the work area shall be disposed of in a manner as to not damage sewer, water, electrical or any other piping, structures or property. No pipe shall be laid in water and no water shall be allowed to rise above the bottom of any pipe while it is being jointed, except as may be approved in writing by the City of Green Cove Springs.

8. HYDROSTATIC TESTING. After all pressure pipes (water mains, services, and force mains) are laid, the joints completed, and the trench backfilled, the newly laid pipe and appurtenences shall be subjected to a hydrostatic test of 150 P.S.I. for a period of at least 2 hours. The Engineer and the City of Green Cove Springs must be notified 24 hours before a test is to be performed. Test shall be as set forth in AWWA standard C600. Any leaks detected shall be corrected and the section of pipeline retested. The 2 hour test period shall begin when all joints have been determined to be water tight. Leakage shall be limited to that allowance set forth in Section 4 of AWWA Standard C600–87. Hydrostatic and leakage test and blow–down (zeroing of gage) must occur before sampling for bacteriological test. The maximum allowable pressure loss is 5 P.S.I. regardless of the length of pipe.

9. REPORTS. Reports of hydrostatic and leakage tests and sterilization of the newly completed systems shall be submitted to the City of Green Cove Springs prior to requesting acceptance of the system.

10. DENSITY TESTING. In–place density tests are required at intervals not to exceed 150' along pipelines for every other lift. A minimum of one test between manholes is required for every other lift regardless of the distance between sanitary sewer manholes.

11. CONCRETE. All Portland Cement concrete shall be of Type II Portland Cement, 2,500 P.S.I. minimum, ready mixed. All concrete shall be placed before the initial set has taken place. Stale or retempered concrete shall not be used.

12. GATE VALVES AND BOXES. Gate valves shall have a 2" operating nut and open left. Gate valves shall have joints suitable for the type main on which installed. Valves 2" and 3" shall be iron body, bronze fitted. Valves 4" and larger shall be iron body, bronze fitted with resilient seat. The word "WATER" on water boxes and "SEWER" on force main boxes shall be cast in the covers.

13. SEPARATION OF WATER AND SEWER MAINS. A horizontal separation of a minimum of 10 feet shall be maintained between parallel water mains and sanitary sewers (including force mains) where practical. Where water mains and sanitary sewers cross with less than 18 inches vertical clearance, all PVC pipe shall be encased in concrete for a distance of 20 feet centered on the point of crossing; or a 20 foot section of ductile iron sewer pipe or DR–18 water pipe centered on the point of crossing may be substituted. This situation may or may not be noted on the design drawings. The City of Green Cove Springs must specifically approve use of ductile iron pipe for this situation.

14. NEW CONNECTION TO EXISTING MAIN. New connection to existing main in service shall be accomplished by the "wet tap" method utilizing full circle stainless steel tapping sleeve and mechanical joint tapping valve. Tapping sleeve shall be rated at 200 P.S.I., non–shock working pressure conforming to AWWA Standard C110, latest revision. Romac SST or JCM 432 stainless steel tapping sleeve with ductile iron flange is preferred. Tapping valve shall be mechanical joint one end and standard flanged joint on other end. Valve shall conform to Section 12. of these specifications.

15. JOBSITE SAFETY. While on the jobsite, the contractor shall at all times observe all Federal, State and local safety rules, regulations and laws. This applies to all aspects of the project including all rules, regulations, laws and requirements governing "confined spaces" for which a specific permit from the City of Green Cove Springs will be required.

16. CLOSE OUT / COMPLETION. Minimum items required for Close Out / Completion for submittal to the City of Green Cove Springs will include:

16.a. Construction Warranty from Developer in the form of a Bond, Letter of Credit or Cashier's Check for a two–year period.

16.b. Warranty Certificate for a two–year warranty from the contractor to the Developer and assignment of same to the City of Green Cove Springs.

16.c. Developer's Affidavit certifying there is no outstanding debt against utility assets to be deeded to City of Green Cove Springs.

16.d. Value of Acceptance Report showing value of assets to be deeded to the City of Green Cove Springs.

16.e. Bill of Sale to City of Green Cove Springs.

16.f. Bacteriological Test(s)

16.g. Pressure Test(s)

16.h. Television Reports and Tapes

16.i. Density Reports

16.j. Final As–Built Drawings and disks

17. AS–BUILT PLANS AND COST RECORDS. All cost records pertaining to the cost of water and sewer facilities donated to the Utility shall be provided to the Utility by Applicant. Prior to acceptance of any extension to the Utility's system that is completed by a licensed underground utility contractor, the Utility will require that the Applicant's contractor provide the Utility to retain for its permanent records, with:

17.a. Neat, legible, handwritten field copy as–built drawings showing all dimensions and elevations required by the Utility; and

17.b. A written report, in a format acceptable to the Utility, certified to by a Florida registered surveyor or mapper which:

17.b.1. Identifies each manhole by reference number;

17.b.2. Provides the top elevation of each manhole:

17.b.3. Identifies the inverts of all pipes coming into each manhole;

17.b.4. Provides the elevation of each invert and;

17.b.5. Provides the distance and grade on each pipe between manholes.

17.b.6. Applicant's Contractor shall be responsible for paying in advance the Utility's cost for preparation and completion of the Utility's final CADD as–built plans for each such extension of the Utility's system, based on the Utility's initial estimate of the cost to complete the Utility's final CADD as–built plans. Extra time required for revisions to the Utility's CADD as–built plans, caused either by inadequate as–built field copies provided by the Applicant's contractor, inaccurate or incomplete dimensions provided by the Applicant's surveyor, or other incomplete or inadequate information required of Applicant, Applicant's contractor or surveyor to complete the Utilities CADD as–built plans, or by any combination of such factors, shall be charged to and paid by the Applicant as an additional cost of completing th Utility's final CADD as–built plans, based on an hourly rate of $30.00 per hour, plus plotting and printing costs for any extra proof sets. Once the Utility has completed its proposed final CADD as–built plans for such extension, a proof set of the proposed plans will be provided to the Applicant's contractor for proofreading and verification of the accuracy of the Utility's proposed final CADD as–built plans, based on the information provided to the Utility by the Applicant, Applicant's contractor or surveyor. When the Utility's proposed final CADD as–built plans have been verified as accurate by the Applicant's contractor, then a final set of "official" as–built plans will be plotted by the Utility and mylars will be prepared and submitted for the signature of the Applicant's contractor.

18. Location wire and warning tape is to installed on all water, sewer and forcemain to be dedicated to Green Cove Springs per Green Cove Springs standards and specifications.

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SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

GREEN COVE SPRINGS UTILITY DETAILS

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
12A

OUTLINE SPECIFICATIONS FOR CONSTRUCTION OF WATER DISTRIBUTION SYSTEM

1. INTENTION. It is the declared and acknowledged intention to secure a new water distribution system, complete, in accordance with the plans and specifications, and contract documents. All new work shall be in accordance with City of Green Cove Springs Specifications and Details and Approved Materials Manual.

2. GENERAL. All materials shall be new and unused. Materials shall be warranted by the Contractor as to materials, workmanship and accuracy of As–Built drawings for a period of two years from the date of completion of the work or beneficial use of the facilities. Workmanship shall be of good quality; i.e., mains shall be laid in a uniform alignment, fittings shall be properly restrained, trenches shall be properly excavated and backfilled, fire hydrants and valve boxes shall be adjusted to finished grade.

3. SURVEYS. The Utility Contractor shall provide all surveys necessary for the layout and construction of the work of his contract.

4. EARTHWORK. Earthwork shall include all excavation, fill and backfill (hand/machine), compaction and rough grading of materials encountered. No unsuitable materials clay, muck, or peat removed from pipe trenches are to be used for backfill. All fill or backfill shall be either sand or sandy clay, free of roots, trash or other debris. All backfill alongside of and to a height twenty–four inches above all pipe shall be free of clay or organic material, compacted by either hand or machine operation carefully to 98%. All other backfill shall be compacted by either hand or machine operation carefully to 95% (outside of paving), 98% (under paving) of its optimum moisture content as determined by ASTM D698, latest.

5. JOINT RESTRAINT. All fittings shall be properly and adequately restrained against lateral movement at all water main tees, crosses, valves bends and fire hydrants. Restrainers shall be Mega–lug or Uni–Flange Series 1300, 1350, 1390 or approved equal installed per manufacturer's recommendations and the City of Green Cove Springs Details and Specifications.

6. DUCTILE IRON PIPE. Ductile iron pipe shall conform to ANSI Specification A21.50 (AWWA C150) latest, "Thickness Design of Ductile Iron Pipe", Table 50.5, laying condition Type 2, internal operating pressure 250 p.s.i. for an 8–foot depth of cover, Class 51 minimum and shall be ANSI A21.51 (AWWA C151), latest centrifugally cast pipe. Laying lengths shall be 20 feet or less, each length clearly marked with pressure rating, thickness class, height of pipe without lining, length, and manufacturer. Ductile iron pipe for water service shall be furnished with cement lining per AWWA C110, C115 and C151. The pipe shall have design values of 60,000 P.S.I. minimum tensile strength, and 42,000 P.S.I. minimum yield strength. Ductile iron pipe for water service shall be used only between lots with close houses or with prior approval of the City of Green Cove Springs.

7. DUCTILE IRON FITTINGS shall be C153 cement lined and suitable for the type and class of pipe to which connected. Gaskets shall be suitable for potable, domestic water service. Minimum working pressure shall be 150 P.S.I.

8. STEEL CASING PIPE. Steel casing pipe shall be of size indicated on the Drawings and shall conform to ASTM A139, with a minimum yield strength of 35,000 p.s.i.

9. POLYVINYL CHLORIDE PIPE. Polyvinyl chloride pipe for water mains 4 inch in diameter and larger, shall be P.V.C. C900, DR18 orDR25.

10. POLYVINYL CHLORIDE PRESSURE PIPE. Pipe shall be virgin polyvinyl chloride (PVC) pipe for potable water and shall have a bell type coupling with a thickened wall section integral with the pipe barrel in accordance with ASTM D3139. Elastomeric seals shall meet ASTM F477. The pipe material shall be clean, virgin, National Sanitation Foundation NO.14 approved, Class 12454–A or 1254–8 PVC compound conforming to ASTM resin specification D1784. Each length shall be clearly marked with the manufacturer, location of plant, pressure rating, nonimal pipe diameter and lenght. Storage and handling of PVC pipe shall be in accordance with chapter 6 of AWWA manual M23. All PVC water pipe shall be blue. PVC 1120, CLASS 100, DR 25 PIPE Pipe shall conform to AWWA standard C900 for 4 inch through 12 inch pipe, and AWWA stanard C905 for 14 inch through 36 inch pipe. All pipe shall be hydrostatically proof tested at the factory in conformance with UNI–8–11 stanards. In case of conflict between standards specified herein, the requirements of AWWA Standard C900 and C905 shall prevail. Pipe is to be manufactured to ductile iron pipe equivalent outside diameters. The pipe shall be designed to pass without failure a sustained presssure test of 350 psi in conformance with ASTM D1598 and a quick burst test of 535 psi in conformance with ASTM D1599. PVC 1120, CLASS 150, DR 18 PIPE Pipe shall conform to AWWA standard C900 for 4 inch through 12 inch pipe, and AWWA standard C905 for 14 inch through 36 inch pipe. All pipe shall be hydrostatically proof tested at the factory in conformance with UNI–8–11 standards. In case of conflict between standards specified herein, the requirements of AWWA Stanard C900 and C905 shall prevail. Pipe is to be manufactured to ductile iron pipe equivalent outside diameters. The pipe shall be designed to pass without failure a sustained presssure test of 500 psi in conformance with ASTM D1598 and a quick burst test of 755 psi in conformance with ASTM D1599. PVC 1120, CLASS 200, DR 14 PIPE Pipe shall conform to AWWA standard C900 for 4 inch through 12 inch pipe, and AWWA standard C905 for 14 inch through 36 inch pipe. All pipe shall be hydrostatically proof tested at the factory in conformance with UNI–8–11 standards. In case of conflict between standards specified herein, the requirements of AWWA Standard C900 and C905 shall prevail. Pipe is to be manufactured to ductile iron pipe equivalent outside diameters. The pipe shall be designed to pass without failure a sustained presssure test of 650 psi in conformance with ASTM D1598 and a quick burst test of 985 psi in conformance with ASTM D1599. PVC 1120, CLASS 200, SDR 21 PIPE Pipe shall conform to ASTM D2241 and shall be used only for construction of 2 inch water mains. Pipe is to be manufactured to I.P.S. (Steel) Standard Pipe equilvalent outside diameters. The pipe shall be designed for a hydrostatic working pressure of 200 psi at 73.4 degrees F. and to pass without failure a sustained pressure of 420 psi minimum when tested in accordance with ASTM D1598, and a quick burst test test of 630 psi minimum when tested in accordance with ASTM D1599. Pipe shall be marked NSF–pw approved. PVC 1120, SCHEDULE 40 AND 80 PIPE Pipe shall conform to ASTM D1784 and D1785 shall be used only for construction of 2 inch water mains. Pipe is to be manufactured to I.P.S. (Steel) Standard Pipe equilvalent outside diameters. The sustained pressure test shall be conducted in accordance with ASTM D1598 at test pressures given in ASTM D1785. The burst pressure test shall be conducted in accordance with ASTM D1599 at test pressures given in ASTM D1785. Pipe shall be marked NSF–PW approved.

11. POLYVINYL CHLORIDE (PVC 1120, SCHEDULE 80) PIPE shall conform to the requirements of ASTM D 1785. Fittings shall be suitable for type of installation required. All piping smaller than 4" shall be Schedule 80 PVC.

12. GATE VALVES AND BOXES. Gate valves shall be non–rising stem type and shall be suitable for a 200 p.s.i. non–shock working pressure Gate valves shall be mechanical joint, flanged or screwed. Gate valves shall have a 2" operating nut and open left. Gate valves shall have joints suitable for the type of main on which installed. Valves 2" & 3" shall be iron body, bronze fitted (distribution mains only). Valves 4" and larger shall be iron body, bronze fitted with resilient seat. Valves shall be of domestic (American) manufacture and shall be A.F.C., M&H, Mueller or approved equal. Valves 16" and larger shall be AWWA C–509, M&H Valve Co. Valve boxes with screw extensions shall be provided for all gate valves. Boxes shall be of cast iron construction, 7/32" minimum wall thickness and shall be nontacky tar enamel coated. The word "WATER" shall be cast in the cover. Other valves 2" and smaller shall be heavy–duty bronze, key operated ball valves.

13. WATER METER BOXES. Water meter boxes for residential services shall be DFW #D–1200. Meter boxes for flushing hydrants shall be Russco meter #D–112. Developer shall be responsible for installation of meter boxes on all water services as part of the water main installation. All curb stops shall be adjusted to the proper elevation and shall be accessible for the installation of the water meter. The contractor shall be required to open all boxes for the Authority's inspector at the final inspection. A treated 6'–6" long treated fence post marker shall be installed at the side of and centered on the meter box and painted blue for identification. DFW #D–1200 lid shall be C282 and Russell #112 shall be C283 for Touch Read meters.

14. CURB STOPS. Curb stops shall be cast bronze, inverted key stop, roundway, with check, lock wing type, for locking in the closed position. Curb stops shall be Ford Ball Valve, with F.I.P.T.

15. FIRE HYDRANTS. Fire hydrants shall be traffic type, 150 pound working pressure, AWWA Standard C502, latest revisions, with two 2 1/2" nozzles, one 4 1/2" nozzle and 5 1/4" main valve. Fire hydrant shall be be compression type with breakable coupling and bolts. Pipe connection shall be mechanical joint. Mueller A–423 or M&H 5 1/4 129T are the only acceptable fire hydrants. Fire hydrants shall be painted red with a white top and 1 1/2" penta nuts, opening left.

16. INSTALLATION. The minimum cover over top of potable water main shall be 36" minimum. All water lines and appurtenances shall be thoroughly cleaned of all foreign matter before being lowered into the trench and shall be kept clean during laying operations by means of plugs or other approved methods. All pipe shall be checked for defects before being lowered into the trench. Defective pipe shall not be used. Pipe found to be defective, after installation, shall be removed and replaced with sound pipe at no additional expense to the Owner. The full length of each section of pipe shall rest solidly upon the pipe bed, with recesses excavated to accommodate the bells and joints. All pipe that has the grade or joint disturbed after laying shall be taken up and reinstalled. The pipe shall not be laid in water, or, when trench or weather conditions are unsuitable for the work. All joints shall be cleaned of all foreign matter before making the joint. Fittings at bends in the pipe shall be properly restrained with joint restrainers adequately sized to prevent movement and dislocating or blowing off when the line is under pressure. Service laterals shall terminate at the point noted in the details.

17. TESTS. After the pipe is laid, the joints completed, and the trench backfilled, the newly laid pipe and appurtenances shall be subjected to a Hydrostatic and Leakage test of 150 pounds per square inch for a period of at least two hours. During this period, all joints shall be inspected to determine water tightness of the system. Any leaks detected shall be corrected. Tests shall be in accordance with the City of Green Cove Springs requirements and specifications. Curb and limerock may be installed after construction of the water mains, however, limerock priming and paving operations may not proceed until such time as the C.O.G.C.S. inspector approves the water distribution system pressure test. This will be strictly enforced. If the water main is damaged during any of the operations prior to paving, a follow–up test may be required by the City of Green Cove Springs.

18. STERILIZATION. After completion of construction and testing, the water system shall be sterilized with chlorine in accordance with AWWA Standard C601 latest, and State of Florida Department of Environmental Protection requirements before acceptance for domestic operation. The amount of chlorine applied shall be sufficient to provide a dosage of 50 parts per million or more. The chlorine solution shall remain in the system for a period of at least 8 hours, during which time every valve in the system shall remain opened and closed several times to assure contact with every surface of the system. After completion of sterilization procedures, the system shall be flushed using chlorinated water from a domestic water source having a chlorine residual of at least 1 part per million. The contractor shall obtain all bacteriological clearances as required by the Florida Department of Environmental Protection. After bacteriological clearances, the pressure in the main shall not drop below 20 P.S.I. Clearance report to be submitted to the Engineer. The contractor should be aware that there is a timing maximum related to bacteriological clearance of the main, completion of as–built drawings and Engineer / The City of Green Cove Springs completion of Certificate of Completion. In any project where the bacteriological clearances are greater than 30 days old at the time of submittal of Certificate of Completion to F.D.E.P., the contractor may be required to pull more samples and obtain more bacteriological clearances. Prior to introducing the chlorine solution, the lines shall be thoroughly flushed with clean water utilizing full pipe diameter flushing for pipe up to and including 8" diameter. Contractor shall be responsible for dechlorination of the disinfectant water prior to any discharge to any ditch or surface waters.

19. BACTERIOLOGICAL SAMPLING. Contractor shall assure the project construction is completely finished prior to any bacteriological sampling and testing.

FINAL INSPECTION PROCEDURES

PRIOR TO FINAL INSPECTION, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:

1. The sewer line T.V. report and tape
2. The pressure test and bacteriological clearance analysis report.
3. The engineer of record certification to D.E.P. This can be done with preliminary as–builts.
4. Preliminary as–builts showing at least the following: a.) Location of valves, mains, services and manholes. b.) Elevation of sewer lines in the manhole.
5. All services and valves to be plainly marked with a treated fence post.
6. Pump station start–up report with draw down data for each pump and with both pumps in operation. All electrical components to be completely installed and in proper working condition.
7. Tracer wire test required prior to final inspection.

ITEMS THAT DO NOT HAVE TO BE TOTALLY COMPLETED AT THE FINAL INSPECTION ARE AS FOLLOWS:

1. The water services do not have to be lowered if the area between the back of curb and the right–of–way line has not been dressed up.
2. The meter boxes do not have to be set.
3. The manhole rings and covers do not have to be adjusted to final finish grade.

PRIOR TO FINAL ACCEPTANCE FOR OWNERSHIP, THE FOLLOWING MUST BE COMPLETED:

1. All manhole rings and covers have to be adjusted to finish grade.
2. Water services must be lowered and meter boxes installed, valve boxes must be set on all gate valves.
3. As–built drawings shall have been updated to accommodate the City of Green Cove Springs comments and the final elevation of the manhole tops must be included.
4. As–builts must be accepted by the City of Green Cove Springs.

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SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

GREEN COVE SPRINGS UTILITY DETAILS

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
12B

Date: 10/9/23 Time: 2:00 PM DWG Name: \\TEL-Vault\01Projects\20-367 Vineyard Transitional Center\03-CADD\06_20-367 GCS UTILITY DETAILS.dwg Layout: 12B

OUTLINE SPECIFICATIONS FOR CONSTRUCTION OF SEWAGE COLLECTION SYSTEM

1. INTENTION. It is the declared and acknowledged intention to secure a new sewerage system, complete, in accordance with the plans, specifications, and contract documents. All new work shall be in accordance with City of Green Cove Springs Specifications and Details and with City of Green Cove Springs Approved Materials Manual.

2. GENERAL. All materials shall be new and unused. The installation shall be warranted by the Contractor as to materials, workmanship and accuracy of As–Built drawings for a period of two years from the date of completion of the work or beneficial use of the facilities. Workmanship shall be of good quality; i.e., sewers shall be laid true to line and grade, fittings shall be properly installed and restrained, trenches shall be properly excavated and backfilled, manholes shall be installed at locations and to elevations shown on the plans.

3. SURVEYS. The Utility Contractor shall provide all sur–veys necessary for the layout and construction of the work of his contract.

4. EARTHWORK. Earthwork shall include all excavation, fill and backfill (hand/machine), compaction and rough grading of materials encountered. No unsuitable materials clay, muck, or peat removed from pipe trenches are to be used for backfill. All fill or backfill shall be either sand or sandy clay, free of roots, trash or other debris. All backfill alongside of and to a height twenty–four inches above all pipe shall be free of clay or organic material, compacted by either hand or machine operation carefully to 98%. All other backfill shall be compacted by either hand or machine operation carefully to 95% (outside of paving), 98% (under paving) of its optimum moisture content as determined by ASTM D698, latest.

5. MANHOLES. Manhole bases, sections and cones shall conform to the requirements of ASTM C478, Specifications for Precast Reinforced Concrete Manhole Sections. Cement shall meet the requirements of ASTM C150, Specifications for Portland Cement, Type II. Concrete shall meet the minimum requirements for Class "A" Concrete Work. Minimum wall thickness shall be 1/12 the inside diameter in inches plus one (1) inch. Bases for manholes shall be cast integrally with the bottom manhole section. Joint contact surfaces shall be formed with machined castings; they shall be exactly parallel with a 2 degree slope and nominal 1/16 inch clearance with the tongue equipped with a proper recess for the installation of an O–ring rubber gasket, conforming to ASTM C443, Joints for circular Concrete sewer and Culvert pipe using Rubber gasket, or RAM–NEK premolded Plastic Joint Sealer with joints Manhole adjustment materials shall be sound, hard, and pre–primed. uniformly burned brick, regular and uniform in shape and size, of compact texture and satisfactory to the Engineer. Precast concrete adjustment rings as manufactured by Taylor Precast Co. (or equal) may be utilized in lieu of brick adjustment. Brick shall comply with the ASTM Standard Specifications for Sewer Brick, Designation C–32, latest, Grade MM. Field mixed mortar for brick shall be composed of portland cement Type II, sand and clean water. Mortar shall be one part cement Type II and two parts sand; lime shall not be used. The outside faces of brick masonry shall be plastered with mortar from 1/4" to 3/8" thick. Precast manhole walls shall not be coated, unless otherwise noted. Cement grout for manhole bottoms shall be a stiff rich mix of Type II Portland Cement and sharp plaster sand. Calcium chloride may be added (maximum of 2%) to aid in obtaining a faster set. At pump station locations, the first upstream manhole from the station shall be lined with a polyethylene liner as manufactured and installed by Taylor Precast Co. or approved equal.

5.1. CAST IRON MANHOLE FRAMES AND COVERS. Cast iron manhole frames and covers shall be as detailed on drawings. Castings shall meet the requirements of ASTM A48, Specifications for Gray Iron Castings, Class No. 30, or Grade 65–45–12, Ductile Iron meeting the requirements of ASTM A536, Standard Specification for Ductile Iron Castings. In either case, manhole frame and cover shall be designed to withstand an HS20–44 loading defined in the ASSHTO Specifications. Frames and covers shall be machined or ground at touching surfaces so as to seat firmly and prevent rocking.

5.2. FLEXIBLE MANHOLE CONNECTOR. All connections between sewer pipe and pre–cast concrete manholes shall be accomplished by a Flexible Connector, "Kor–N–Seal", as manufactured by National Pollution Control Systems, Inc. or approved equal.

5.3. FLOW CHANNELS. Flow channels in manhole base shall be formed of D.O.T. Class I, Type II cement grout with brick or rubble and trowel to a smooth surface finish. Grout surface shall be 1" min. thickness over brick or rubble. While the manholes are under construction, cut off pipes at inside face of the manhole and construct the invert to the shape and sizes of pipe indicated. All inverts shall provide a constant gradient from influent pipe to effluent pipe through manhole. Changes in direction of the sewer and entering branch or branches shall be laid out in smooth curves of the longest possible radius which is tangent to the center lines of adjoining pipelines.

5.4. DROP INLETS. Where shown on the drawings, drop inlets to the manholes shall be constructed as shown on the drawings and specified herein.

6. POLYVINYL CHLORIDE PIPE. Polyvinyl Chloride Sewer Pipe shall conform to the requirements of ASTM D–3034, SDR 26. The PVC compound conforming to ASTM D–1784. Pipe shall be clearly marked in 5 Ft. intervals or less, indicating manufacturers name, nominal size, cell classification and legend. Joints shall be push–on rubber gasketed, conforming to ASTM D–3034. Pipe and fittings shall be installed in accordance with recommended practice ASTM D–2321. Maximum depth of gravity sewer without prior approval shall be 15 feet.

7. PIPE BETWEEN MANHOLES. All piping installed between manholes shall be the same material and class. No dissimilar pipe material will be allowed anywhere within a single run of pipe.

8. SANITARY SERVICE LATERALS. Sanitary service laterals shall be Polyvinyl Chloride Pipe conforming to the requirements of ASTM D–3034, DR 35 where cover over top of pipe is 36 inches or greater. Where cover over top of pipe is less than 36 inches, sanitary service lateral shall be Ductile Iron Pipe, Polylined or Epoxy lined conforming to ANSI A 21.50, latest (unless specific construction conditions are agreed to by the City of Green Cove Springs). All sanitary service laterals shall be 6–inch diameter from the main to the right–of–way line with a minimum slope of 0.60% (0.6 feet per hundred feet). In single family residential developments, services shall reduce to 4" in size at the property line utilizing the proper fittings for the type of pipe specified. Mark end of all sewer laterals with 6'–6" treated post painted green.

9. FORCE MAINS. Force mains shall be C900 DR–18 PVC and conform to the requirements of ASTM D–1784, D–2241, D–3139 and F–477. Pipe shall be color coded and marked "FORCE MAIN" on at least two sides and at every 12" along the barrel of the pipe. Ductile iron pipe for force main service shall be asphaltic lined. Ductile iron pipe is not to be used without prior approval of the City of Green Cove Springs. Fittings shall be C110 gray iron and shall be asphaltic lined. Epoxy shall be 40 mil minimum thickness when approved with ductile iron pipe.

9.1. LIFT STATION VALVES. Plug valves shall be Dezurik or approved equal with full port opening. Check valves shall be M&H, Mueller or American Darling.

9.2. FORCE MAIN VALVE. Gate valve, resilient seated, same as specified in Water Distribution System Specifications Section 12 below. Valve box shall have the word "SEWER" cast into the cover.

9.3. FORCE MAIN JOINT RESTRAINT. All fittings shall be properly and adequately restrained against lateral movement at all force main tees, crosses, valves and bends. Restrainers shall be Mega–lug or Uni–Flange Series 1300, 1350, 1390 or approved equal installed per manufacturer's recommendations and City of Green Cove Springs details and specifications.

9.4. FORCE MAIN PIPE FLUSHING. All force main piping shall be flushed clean with water utilizing full pipe diameter flushing for all piping up to and including 8" diameter.

10. INSTALLATION. All sewer lines, manholes, and appur–tenancies shall be constructed to the dimensions and elevations indicated on the drawings. Trenches shall be excavated to a width approximately twelve inches greater than the outside diameter of the pipe. Machine excavation shall be to a depth one–fourth pipe diameter above proposed pipe grade; the remaining depth shall be hand excavated and shaped to give full support to the lower one–fourth of each pipe. Each section of pipe shall be inspected for defects prior to being lowered into the trench. The inside of each bell and the outside of each spigot shall be thoroughly cleaned of all foreign matter, prior to making the joint. All sewer lines shall be constructed with the spigot ends pointing in the direction of the flow. Both the bell and the spigot of each joint shall be lubricated with the lubricant recommended by the pipe manufacturer. All sewer lines shall be cleaned of foreign matter as construction progresses, and shall be in a clean condition upon completion of construction operations. Pipe materials shall remain the same on runs between manholes and / or other structures.

11. INSPECTIONS. Each section of the completed sewer system shall be inspected for proper alignment. Inspection shall consist of "lamping" from manhole to manhole. Any section of the sewer system which does not display true, concentric alignment shall be reinstalled at no additional expense to the Owner. A written log of inspection shall be kept indicating location of test, potential problems in sewer, dips and depth of water, service locations, and other irregularities in the pipe lines. A video tape in DVD format shall be made of the television inspection and submitted to the Engineer and the City of Green Cove Springs.

11.1. Television inspection will be required on all new gravity sewers constructed. This service shall be provided by the Contractor as a part of this Contract. The newly constructed sewers shall be televised in the presence of the Inspector of the City of Green Cove Springs. A full report as to the condition of pipe, type, depth, location of services, length, type, joint and distance between manholes, etc. shall be furnished to the City of G.C.S. inspector prior to the final acceptance of the system. Any pipe found to be cracked, leaking or otherwise defective shall be removed and replaced with new pipe at no additional costs to the Owner. Deflection testing with 5% mandrel also required. Any section not passing the mandrel test shall be corrected. Curb and limerock may be installed after construction of the sewer lines, however, limerock priming and paving operations may not proceed until such time as the City of Green Cove Springs inspector reviews and approves the television tape of the gravity sewer system and/or approval of force main pressure tests. This will be strictly enforced. All gravity sewers must be flushed no sooner than 4 hours prior to any television inspection.

11.2. TEST, INFILTRATION: After completion, the sewers or sections thereof, shall be tested and gauged for infiltration. To check the amount of infiltration, the Contractor, at no added compensation over the contract price for the sewers, shall furnish, and install and maintain a V–notch sharp crested weir in a wood frame on the main sewers as directed by the Engineer. Maximum allowable infiltration shall be 50 gallons per mile, per inch of dia. of sewer per 24 hour day at any time.

11.3. TEST, EXFILTRATION: In areas where ground water is not encountered in sewer construction, or it is desired to run exfiltration tests, the Contractor shall furnish and install all necessary materials, equipments, shall supply water, etc., and shall run exfiltration tests to determine acceptance of the sewer. The maximum allowable exfiltration shall be 50 gallons per mile per inch of diameter of sewer per 24 hour day at any time based on two foot minimum internal head.

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383

ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
REGISTRATION NUMBER:
79289

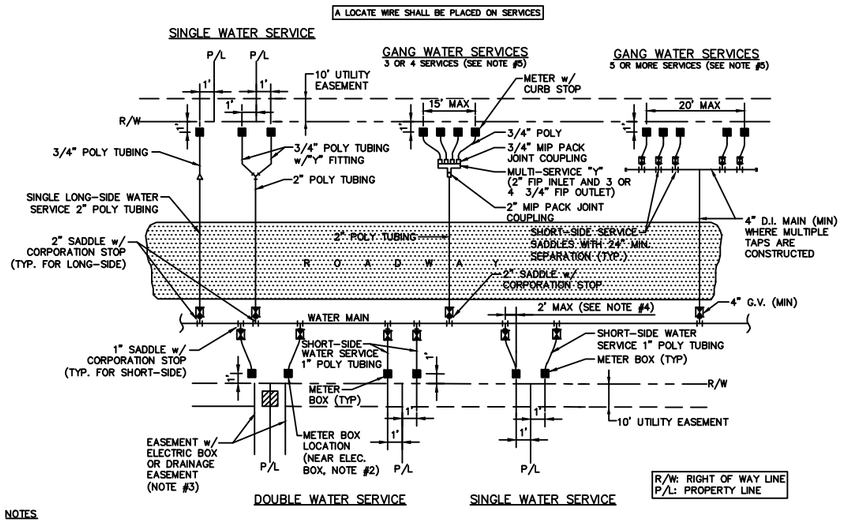
SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

GREEN COVE SPRINGS UTILITY DETAILS

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
12C



NOTES

1. THE SKETCHES ABOVE INDICATE TYPICAL WATER SERVICE AND METER BOX LOCATIONS. ACTUAL LOCATIONS OF BOXES MAY VARY SLIGHTLY ACCORDING TO FIELD CONDITIONS ENCOUNTERED. TYPICALLY, THE METER BOX SHALL BE LOCATED 1.0' OFF OF THE R/W LINE.

2. UNLESS SPECIFIED OTHERWISE BY THE CITY OF GREEN COVE SPRINGS, THE METER BOX SHALL BE LOCATED 1.0' OFF OF THE R/W LINE, AND 1.0' FOOT INSIDE OF THE PROLONGATION OF ONE OF THE SIDE PROPERTY LINES. IF A CONFLICT EXISTS WITH OTHER UTILITIES, THE METER BOX MAY BE ADJUSTED TO FOUR FEET (MAX.) INSIDE PROPERTY LINES (IN LIEU OF 1.0' FEET). UNLESS APPROVED OTHERWISE BY THE CITY, THE WATER METER BOX SHALL BE LOCATED IN NON-TRAFFIC AREAS (NOT IN SIDEWALKS OR DRIVEWAYS). IF AN UNAPPROVED METER BOX IS IDENTIFIED BY THE CITY, THEN THE CONTRACTOR OR CUSTOMER SHALL BE RESPONSIBLE FOR THE COST OF RELOCATING ANY METER BOX WHICH IS LOCATED IN THE SIDEWALK OR DRIVEWAY OR THE COST TO PROVIDE THE CORRECT METER BOX. THE CITY SHALL APPROVE ALL DEVIATIONS TO THE ABOVE PRIOR TO CONSTRUCTION.

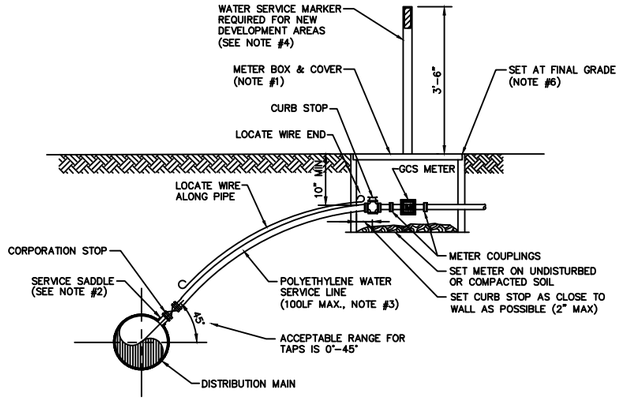
3. IF DRAINAGE OR OTHER EASEMENT IS LOCATED BETWEEN LOTS, METER BOXES SHALL BE LOCATED AT THE EASEMENT LINE BUT OUTSIDE THE EASEMENT AREA.

4. FOR SINGLE SERVICES, THE HORIZONTAL DISTANCE (PERPENDICULAR TO THE MAIN) BETWEEN THE SERVICE'S SADDLE AND THE METER BOX SHALL BE 2 FEET MAXIMUM. FOR DOUBLE 3/4" SERVICES, THE 2" POLY MAIN SHALL BE LOCATED CENTERED BETWEEN THE TWO METER BOXES. LOCATE WIRE IS REQUIRED ON ALL SERVICES. THE WIRE SHALL RUN FROM THE METER BOX TO THE MAIN (WITH NO CONNECTION TO MAIN WIRE WITH THE LAST 24 INCHES STRIPPED OF INSULATION/BARE WIRE AS GROUND). ALL EXCEPTIONS TO THIS REQUIREMENT MUST BE APPROVED BY THE CITY OF GREEN COVE SPRINGS. THIS WILL ASSIST IN LOCATING EXISTING SERVICE LINES IN THE FUTURE.

5. GANG WATER SERVICES: FOR 3 OR 4 SERVICES IN ONE AREA, A DUCTICLE IRON PIPE (D.I.P.) WATER MAIN EXTENSION W/LOCATE WIRE MAY BE UTILIZED ON EITHER SHORT-SIDE OR LONG-SIDE SERVICES WHERE SHOWN ON THE DRAWINGS. LOCATE WIRE SHALL EXTEND FROM ONE METER BOX TO CURB STOP AT WATER MAIN. FOR 5 OR MORE SERVICES IN ONE AREA, A WATER MAIN EXTENSION W/LOCATE WIRE MAY BE UTILIZED ON EITHER SHORT-SIDE OR LONG-SIDE SERVICES WHERE SHOWN ON THE DRAWINGS (TAPS STAGGERED AND AT 2 FEET ON CENTER (MIN). FOR WATER SUPPLY HEADERS WHERE 5 OR MORE TAPS ARE CONSTRUCTED, THE HEADER PIPE SHALL BE 4" AT A MINIMUM. EXAMPLE: CONSTRUCT A 4" MAIN D.I. CROSSING THE STREET FOR 5 RESIDENTIAL CUSTOMERS, UTILIZING 4" G.V., 4" PIPE, 4"X1" SADDLES AND 1" CURB STOPS (NO GLUED TEE FITTINGS). THE 4" OR LARGER D.I.P. WATER MAIN MUST BE SIZED AND DESIGNED BY THE ENGINEER.

6. ALL COMMERCIAL WATER SERVICES SHALL BE 2" POLYETHYLENE PIPING CONNECTED TO 2" CURB STOP IN METER BOX, UNLESS OTHERWISE APPROVED BY THE CITY.

WATER SERVICE INSTALLATIONS 2" AND SMALLER METER



NOTES

1. SEE CITY OF GREEN COVE SPRINGS APPROVED MATERIALS MANUAL AND SYSTEM DETAILS FOR REQUIREMENTS.

2. SINGLE BAND SADDLES MAYBE UTILIZED ON NEW 1" WATER SERVICES WHICH ARE INSTALLED ON A DRY 10" SIZE OR SMALLER WATER MAIN (NEW WATER MAIN CONSTRUCTION). FOR WET TAPS OR WATER MAINS 12" SIZE AND LARGER, A DOUBLE BAND SADDLE IS REQUIRED.

3. NO OPEN CUT UNDER ROADWAY PAVING ALLOWED UNLESS THE ROADWAY IS BEING RECONSTRUCTED OR IF DIRECTED OTHERWISE BY CITY OF GREEN COVE SPRINGS. CONSTRUCT POLY LINE WITH 36" (MIN.) COVER UNDER ROADWAYS. THE POLY WATER SERVICE LINE SHALL BE SAME SIZE AS THE METER (3/4" MINIMUM) AND BE INSTALLED PERPENDICULAR TO THE MAIN AND NOT EXCEED 100LF UNLESS OTHERWISE APPROVED BY CITY OF GREEN COVE SPRINGS.

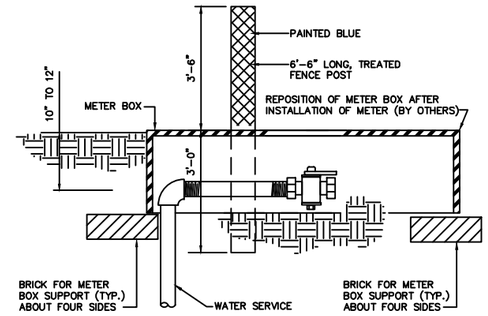
4. INSTALL PVC PLUG IN ALL CURB STOPS IF WATER SERVICE IS "NOT IN USE" (I.E.: IF NO METER IS INSTALLED). IN ADDITION, INSTALL A 6', 6" P.T. FENCE POST (TOP PAINTED BLUE) 12" OFF SIDE OF METER BOX. THE REMOVAL OR TRANSFER OF A WATER SERVICE SHALL INCLUDE BRASS METER COUPLINGS (HEX ON BARREL TYPE).

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF THE BOXES, METERS OR ELECTRONIC DEVICES IF DAMAGED BY THE CONTRACTOR DURING THE CONSTRUCTION PERIOD.

6. METER BOX AND TOP SHALL BE CLEAR OF ALL DEBRIS TO ALLOW FULL ACCESS TO BOX (I.E., NO DIRT, TRASH OR OTHER DEBRIS PLACED ON TOP OF BOX).

7. LOCATE WIRING REQUIRED ON ALL LONG AND SHORT SERVICES.

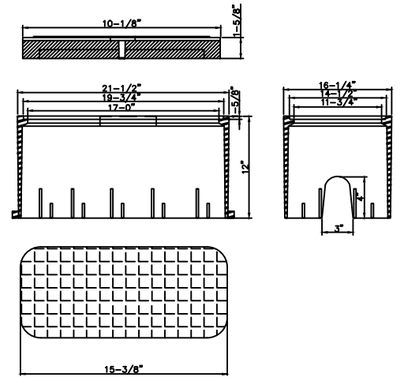
WATER SERVICE DETAIL- 2" AND SMALLER METER



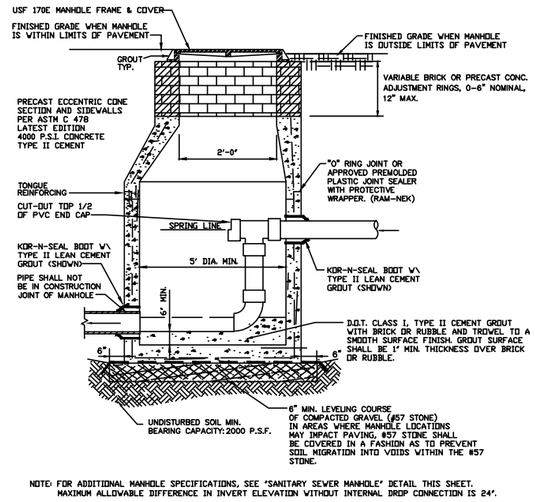
WATER SERVICE MARKER POST

NOTE:
ALL SERVICES ARE TO BE CLEARLY MARKED BY A TREATED 6'-6" LONG MARKER POST PAINTED BLUE. ALL SERVICES ARE TO BE EXTENDED ABOVE GRADE UNTIL COMPLETION OF ALL GRADING ACTIVITIES. ONCE FINAL ROAD GRADING IS COMPLETE, LOWER SERVICES BY CUTTING OFF RISER 10" TO 12" BELOW FINAL GRADE AND INSTALL 90° BEND, NIPPLE AND LW BALL VALVE AT THAT ELEVATION. SET METER BOX OVER ENTIRE HORIZONTAL SECTION OF SERVICE LINE FROM LAST 90° BEND TO THE END OF THE CURB STOP. BOX TO BE REPOSITIONED WHEN THE METER IS INSTALLED. MARKER POST TO BE INSTALLED ADJACENT TO AND LOCATED AT THE MID SECTION OF THE METER BOX.

NOTE:
MIN. WALL THIKNESS: .25"
DOUBLE WALL BODY w/STRUCTURAL SUPPORT RIBS
w/MIN. THINCKNESS: 9/16"
1" BOTTOM FLANGE
BOX IS INJECTED MOLDED STRUCTURAL FOAM RECYCLED POLYPROPYLENE MATERIAL

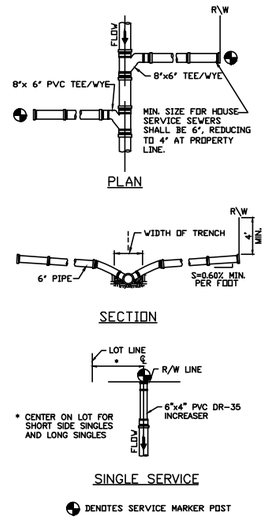


METER BOX & SOLID BLUE LID

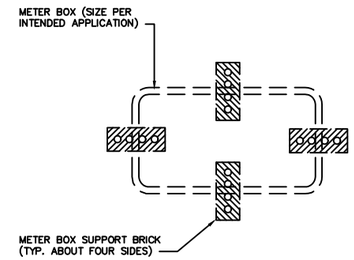


NOTE: FOR ADDITIONAL MANHOLE SPECIFICATIONS, SEE 'SANITARY SEWER MANHOLE' DETAIL THIS SHEET. MAXIMUM ALLOWABLE DIFFERENCE IN INVERT ELEVATION WITHOUT INTERNAL DROP CONNECTION IS 24".

TYPICAL GRAVITY SEWER DROP PIPE CONNECTION TO MANHOLE



STANDARD SINGLE SEWER SERVICE LATERALS



METER BOX SUPPORT DETAIL

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383
ENGINEER OF RECORD CHARLES SOHM
FLORIDA REGISTRATION NUMBER: 79289

SITE IMPROVEMENTS FOR VINEYARD TRANSITIONAL CENTER

GREEN COVE SPRINGS UTILITY DETAILS

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
12D

S 37°00'00" E (Plat) 150.00'

10' LANDSCAPE BUFFER

DRY POND
0.06 AC

22"
PALM

PROPOSED
76'x40'
3,300 SF
ONE STORY
OFFICE AND
RESIDENCES

PATIO

N 53°00'00" E (Plat) 125.60'

S 53°00'00" W (Plat) 125.60'

PARKING BY DISABLED PERMIT ONLY
VAN ACCESSIBLE
$250.00 FINE

FTP-20-06
AND
R7-8A
AND
FTP-22-06
(MOUNTED
TO POST)

CONST. 24" WIDE
WHITE THERMOPLASTIC
STOP BAR

20' LANDSCAPE BUFFER

20"
PALM

14"
PALM

Concrete Curbing

STOP
R1-1
36"x36"

6" WIDE WHITE
THERMOPLASTIC STRIPE
DENOTES EDGE OF LANE
ON REPAVED ASPHALT

PINE AVENUE
(also known as PINE STREET NORTH / PINE AVENUE NORTH)

N

0 10 20
SCALE: 1" = 10'
SCALE: 1" = 20'
FOR: 22"x34" SHEET
FOR: 11"x17" SHEET

LEGEND
PROPERTY BOUNDARY

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383

ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
REGISTRATION NUMBER:
79289

SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

SIGNAGE & PAVEMENT MARKING PLAN

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
13

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383

ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
REGISTRATION NUMBER:
79289

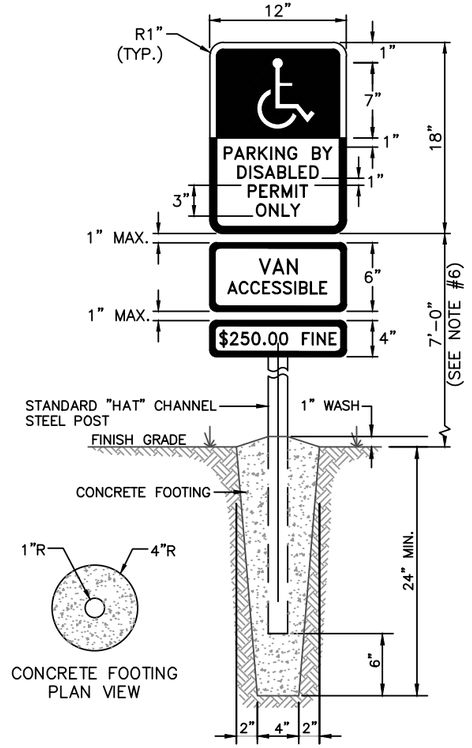
SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

FIRE SUPPRESSION PLAN

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

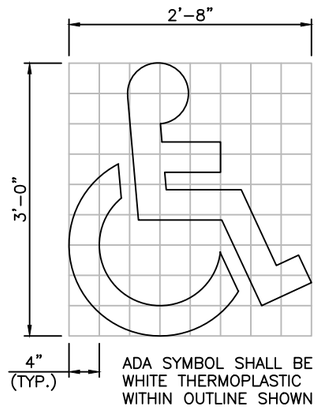
SHEET NO.
14



CONCRETE FOOTING
PLAN VIEW

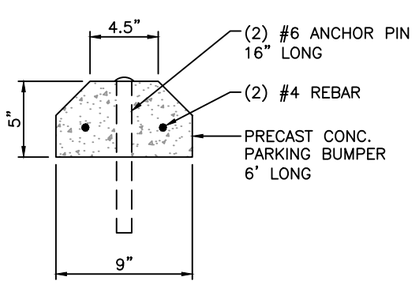
NOTES
1. ALL LETTERS ARE 1" SERIES.
2. TOP PORTION OF SIGN SHALL HAVE A REFLECTORIZED BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND & BORDER.
3. BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED WHITE BACKGROUND WITH BLOCK OPAQUE LEGEND & BORDER.
4. LETTERS AND NUMBERS ON SIGN SHALL HAVE A WIDTH-TO-HEIGHT RATIO BETWEEN 3:5 AND 1:1 AND A STROKE WIDTH-TO-HEIGHT RATIO BETWEEN 1:5 AND 1:10.
5. ADDITIONAL ASSOCIATED SIGNS ("VAN ACCESSIBLE, ETC.) SHALL BE WHITE REFLECTORIZED BACKGROUND WITH 1" SERIES C BLUE REFLECTORIZED LETTERING AND BORDER.
6. SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.
7. ADA PARKING SPACE SIZE, STRIPING, AND SIGNAGE SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CITY, STATE, & FEDERAL REGULATIONS.

ADA SIGN DETAIL
N.T.S.

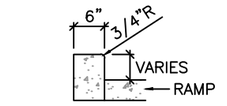


ADA SYMBOL SHALL BE WHITE THERMOPLASTIC WITHIN OUTLINE SHOWN

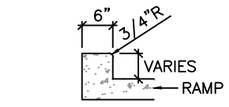
ADA SYMBOL DETAIL
N.T.S.



CONCRETE WHEEL STOP
N.T.S.

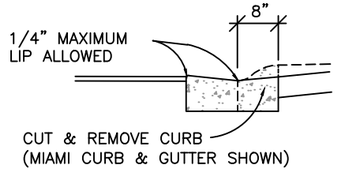


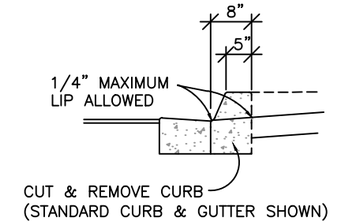
RAMP W/SEPARATELY CAST CURB



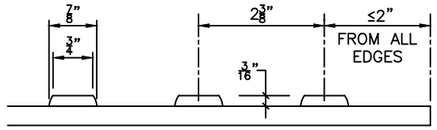
RAMP W/INTEGRAL CAST CURB

RAMP CURB OPTIONS
N.T.S.





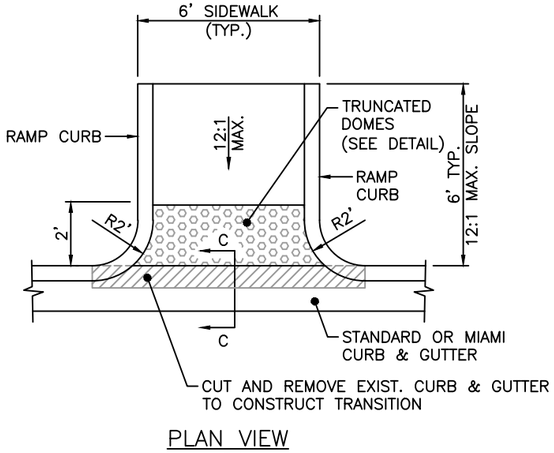
SECTION C-C
N.T.S.



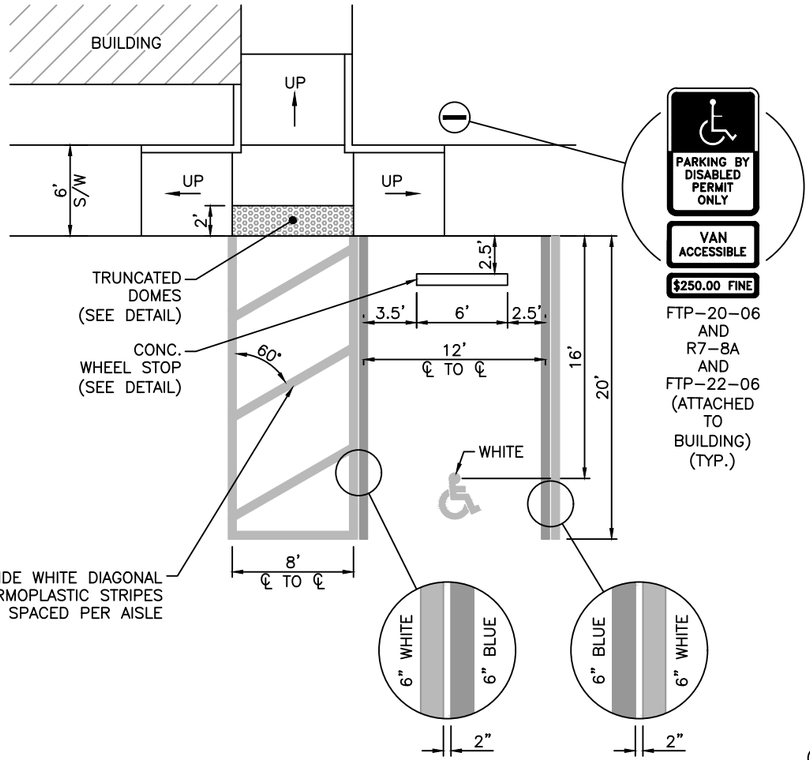
TRUNCATED DOMES - DETECTABLE WARNING PAD DETAIL
N.T.S.

DETECTABLE WARNINGS IN CURB RAMPS/CROSSWALKS SHALL COMPLY WITH ALL ADA REQUIREMENTS INCLUDING FDOT STANDARD SPECIFICATIONS 527 AND FDOT INDEX NO. 522

ALL NEW CONCRETE RAMP SURFACES TO RECEIVE BROOM FINISH. SEE FDOT STANDARD SPECIFICATIONS 522-7.2 (SURFACE REQUIREMENTS)



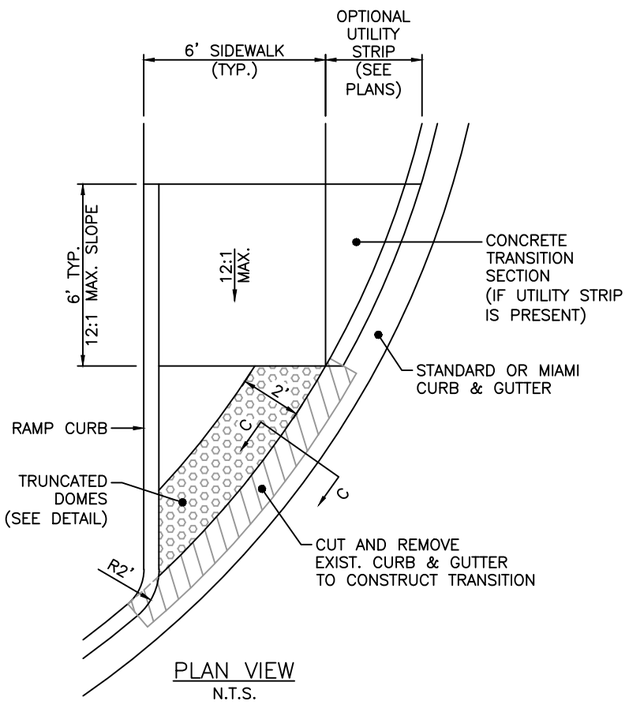
PLAN VIEW
N.T.S.



FTP-20-06 AND R7-8A AND FTP-22-06 (ATTACHED TO BUILDING) (TYP.)

NOTES
1. EACH SUCH PARKING SPACE SHALL BE CONSPICUOUSLY OUTLINED IN BLUE THERMOPLASTIC, AND SHALL BE POSTED AND MAINTAINED WITH A PERMANENT, ABOVE-GRADE SIGN BEARING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY OR THE CAPTION "PARKING BY DISABLED PERMIT ONLY", OR BEARING BOTH SUCH SYMBOLS AND CAPTION. SUCH SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE. ALL ADA PARKING SPACES MUST BE DESIGNED AND MARKED IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE DEPARTMENT OF TRANSPORTATION.
2. THE FTP-22-06 AND R7-8A PANEL SHALL BE MOUNTED BELOW THE FTP-20-06 SIGN.

ADA PARKING DETAIL
N.T.S.



PLAN VIEW
N.T.S.

ADA RAMP AND CURB CUT DETAIL
N.T.S.

TOCOI Engineering, LLC
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ENGINEER OF RECORD CHARLES SOHM
FLORIDA REGISTRATION NUMBER: 79289

SITE IMPROVEMENTS FOR VINEYARD TRANSITIONAL CENTER

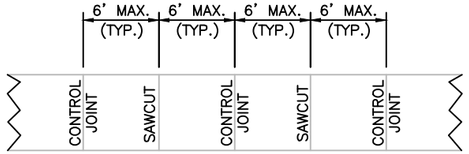
MISCELLANEOUS DETAILS

REVISIONS

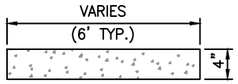
PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
15A

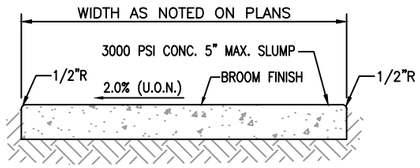
Date: 10/18/23 Time: 5:04 PM DWG Name: \\TEL-Vault\01Projects\20-367 Vineyard Transitional Center\03-CADD\08_20-367 MISC DETAILS.dwg Layout: 15A



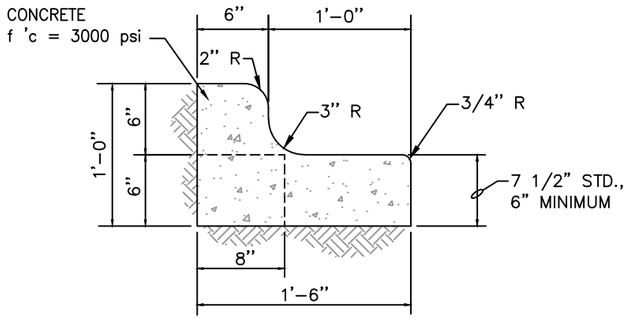
PLAN



SECTION



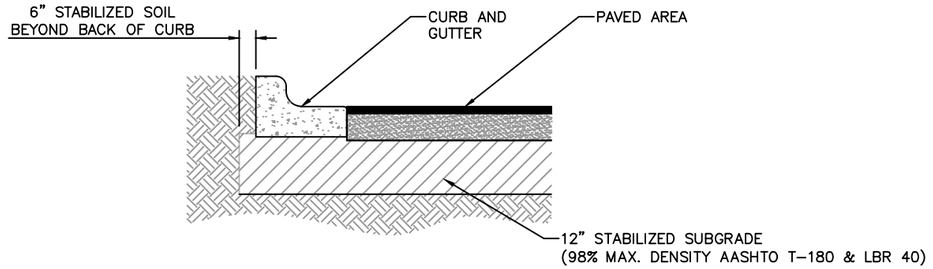
SECTION DETAILS



NOTE:
WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.

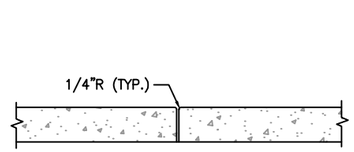
STANDARD TYPE CURB & GUTTER

N.T.S.

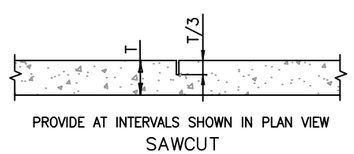


SOIL STABILIZATION DETAIL

N.T.S.



PROVIDE AT INTERVALS SHOWN IN PLAN VIEW
CONTROL JOINT (1-1/2" DEEP)

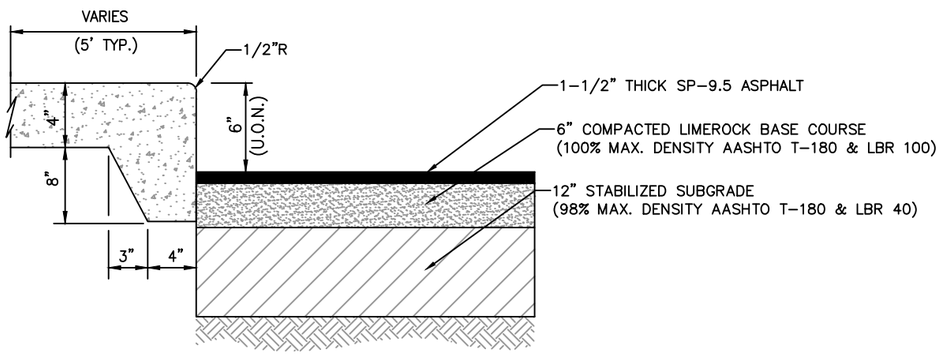


PROVIDE AT INTERVALS SHOWN IN PLAN VIEW
SAWCUT

SIDEWALKS SHALL BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE, CLASS NON-STRESS (NS), AND ALL METHODS OF CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDING TO THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

CONCRETE SIDEWALK DETAILS

N.T.S.



NOTE:
UNDERCUT ALL UNSUITABLE MATERIAL AND BACKFILL WITH CLEAN FREE-DRAINING SAND (BOTTOM OF CUT SHALL BE 24" MIN. BELOW FINISH GRADE)

SIDEWALK DETAIL AT PAVEMENT AND NEW ASPHALT PAVEMENT SECTION

N.T.S.

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383

ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
REGISTRATION NUMBER:
79289

SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

MISCELLANEOUS DETAILS

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
15B

NOTE:

1. This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work on the shoulder.

2. L = Taper Length
   X = Work Zone Sign Spacing
   B = Buffer Length
   See Index 102-600 for "L", "X", "B", and channelizing device spacing values.

3. Where work activities are between 2' and 15' from the edge of traveled way, the Engineer may omit signs and channelizing devices for work operations 60 minutes or less.

4. When four or more work vehicles enter the through traffic lanes in a one hour period (excluding establishing and terminating the work area), use a flagger or lane closure to accommodate work vehicle ingress and egress.

5. For work less than 2' from the traveled way and work zone speed is greater than 45 MPH, use a lane closure.

6. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" Signs (G20-2) along with the associated work zone sign spacing distances may be omitted when the work operation is in place for 24 hours or less.

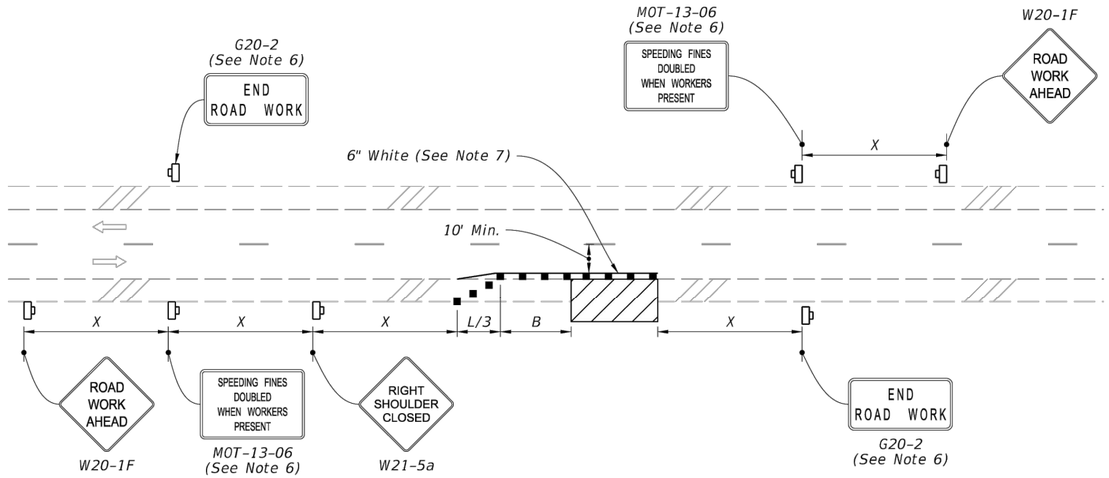
7. Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.

8. Omit "Shoulder Closed" signs (W21-5a) along with associated work zone sign spacing distances for work on the median.

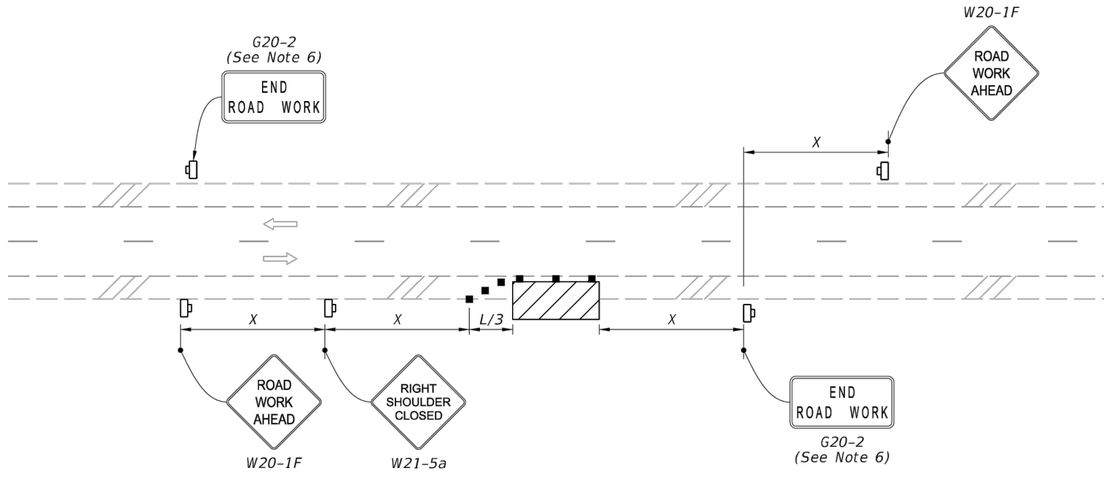
9. When there is no paved shoulder, the "Worker" sign (W21-1) may be used instead of the "Shoulder Closed" sign (W21-5a).

SYMBOLS:

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



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



TWO-LANE ROADWAY
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY

LAST REVISION	REVISION	DESCRIPTION:	FY 2023-24 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER	INDEX	SHEET
11/01/21					102-602	1 of 2

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383

ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
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SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

MISCELLANEOUS DETAILS

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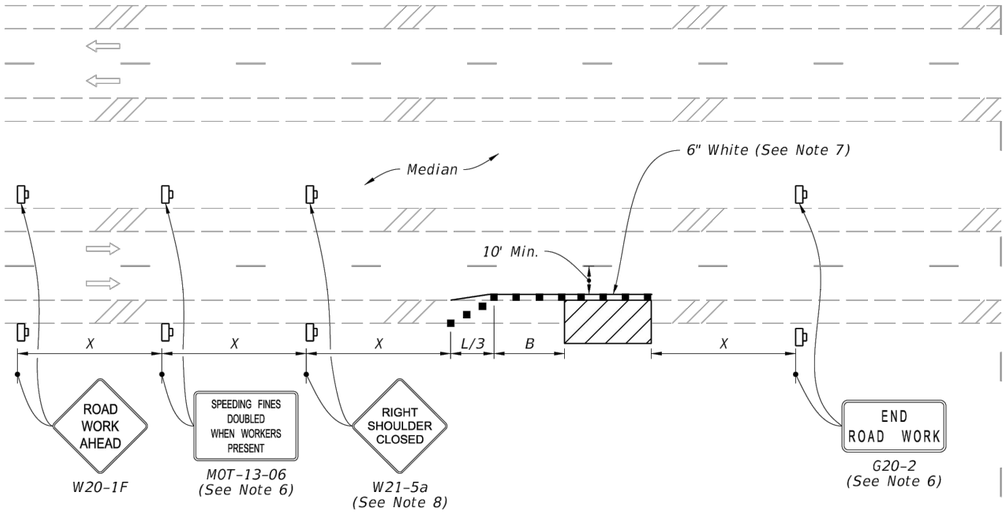
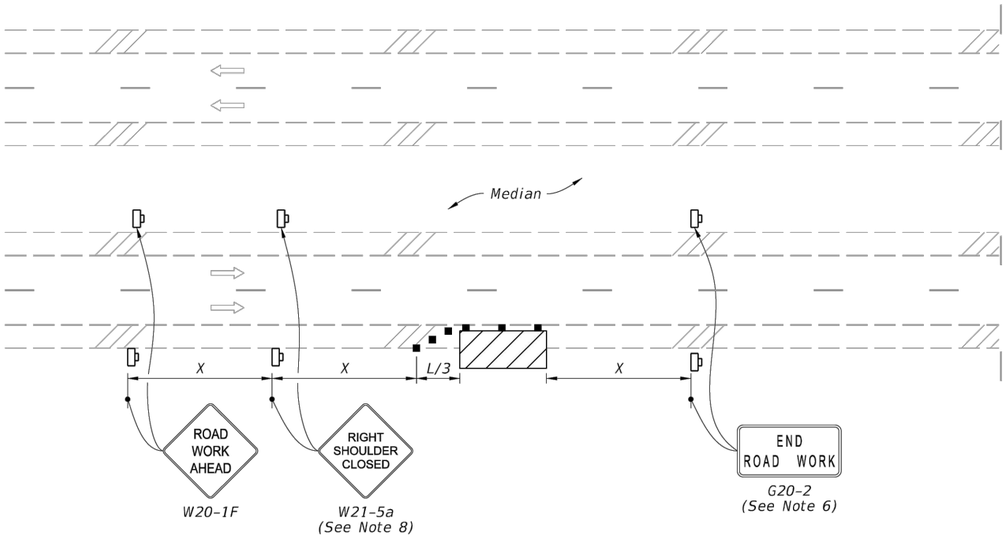
JOB NO.:

SHEET NO.
15C

Date: 10/18/23 Time: 5:05 PM DWG Name: \\TEL-Vault\01Projects\20-367 Vineyard Transitional Center\03-CADD\08_20-367 MISC DETAILS.dwg Layout: 15C
2/2/2023 10:33:35 AM



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	REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER	INDEX	SHEET
11/01/20						102-602	2 of 2

TOCOI Engineering, LLC
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SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

MISCELLANEOUS DETAILS

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DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
15D

Item # 6.

STORM WATER POLLUTION PREVENTION PLAN

CITY'S REQUIREMENTS

SITE DESCRIPTION

PROJECT NAME AND LOCATION:
VINEYARD TRANSITIONAL CENTER
518 PINE AVENUE NORTH
GREEN COVE SPRINGS, FL 32043

OWNER NAME AND ADDRESS:
VINEYARD TRANSITIONAL CENTER
JOHN SANDERS
518 PINE AVENUE NORTH
GREEN COVE SPRINGS, FL 32043

DESCRIPTION
LOT 6 BLK 21 N.S. GCS AS REC OR
4159 PG 1719

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 =
2. DURING CONSTRUCTION =
3. POST-CONSTRUCTION =

SOILS:
SEE SOIL BORING REPORT FOR SOILS DATA

SITE MAPS:
* SEE ATTACHED GRADING PLAN 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 =
2. TOTAL AREA TO BE DISTURBED =

NAME OF RECEIVING WATERS:

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 (DESRIPTION:) __________
____

FOR THE PROJECT. AREAS WHICH ARE NOT TO BE CONSTRUCTED ON, BUT WILL BE REGRADED SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE. WHEN CONSTRUCTION IS COMPLETE, A TOTAL OF ____ ACRES WILL HAVE BEEN REGRADED, ____ ACRES LEFT UNDISTURBED. 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 ____ 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 RESPONSIBILITY" FOR THE TIMING OF CONTROL/MEASURES.

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.

D.E.R. DREDGE/FILL PERMIT # ____________________
C.O.E. DREDGE/FILL PERMIT # ____________________
S.J.R.W.M.D. M.S.S.W. 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:____
CITY ENGINEER

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 AND HAY BALES 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 AND HAY BALES, 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 EROSON 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. HAY BALE BARRIER: HAY BALE 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.
   C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS.
   D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF STRAW BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE AGAINST WASHOUT.

   REFER TO CITY STANDARD DETAIL D-913 FOR CONSTRUCTING THE HAY BALE BARRIER. ALSO REFER TO D-901, D-911 AND D-12 FOR PROPER LOCATION, MATERIAL & USAGE.
2. 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.

   REFER TO CITY STANDARD DETAIL D-910 FOR PROPER CONSTRUCTION OF THE FILTER FABRIC BARRIER.
3. 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.
4. 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. LEVEL SPREADER SHALL BE CONSTRUCTED IN ACCORDANCE TO CITY STANDARD DETAIL D-914.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.
11. TEMPORARY REGRASSING : IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.
12. 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.
13. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.
14. 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. AND IT SHALL BE CONSTRUCTED IN ACCORDANCE TO D-914.
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 INDEPENDANTLY 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. REFER TO D-902 FOR CONSTRUCTION OF A CURB INLET SEDIMENT FILTER, AND D-904 FOR CONSTRUCTION OF A DROP INLET SEDIMENT FILTER.
   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. REFER TO D-903 FOR CONSTRUCTION OF CURB INLET & DROP SEDIMENT TRAP.
   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. REFER TO D-905 FOR CONSTRUCTION OF HAY BALE & FABRIC SEDIMENT FILTER.
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 & HAY BALES ARE TO BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE DISCHARING 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 PONDS) 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.

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

WASTE MATERIALS

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	☐ Fertilizers	☐ Wood
☐ Asphalt	☐ Petroleum Based Products	☐ Masonry Blocks
☐ Tar	☐ Cleaning Solvents	☐ Roofing Materials
☐ Detergents	☐ Paints	☐ 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, ORDERLY 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.

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

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

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 REPORT.
* 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.
* 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.
* DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
* 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 THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

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

TOCOI Engineering, LLC
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PH: 904-215-1388 E.B. NUMBER: 26383

ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
REGISTRATION NUMBER:
79289

SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER
SWPPP CONTRACTOR REQUIREMENTS

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
16

Date: 9/27/23 Time: 4:55 PM DWG Name: \\TEL-Vault\01Projects\20-367 Vineyard Transitional Center\03-CADD\10_20-367 SWPPP CONTRACTOR REQUIREMENTS.dwg Layout: 16

PROJECT:

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

TO BE COMPLETED EVERY 7 DAYS AND WITHIN 24 HOURS OF
A RAINFALL EVENT OF 0.25 INCHES OR MORE

INSPECTOR:_____ DATE:_____

INSPECTOR'S QUALIFICATIONS:
_____
_____
_____
_____

DAYS SINCE LAST RAINFALL:_____ AMOUNT OF LAST RAINFALL _____ INCHES

STABILIZATION MEASURES

INSPECTION AREA (DESCRIPTION OF LOCATION)	DATE SINCE LAST DISTURBED	DATE OF NEXT DISTURBANCE	STABLIZED ? (YES/NO)	STABILIZED WITH	CONDITION

STABILIZATION REQUIRED:
_____
_____
_____
_____

TO BE PERFORMED BY:_____ ON OR BEFORE:_____

PAGE 1 OF 4

PROJECT:

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

STRUCTURAL CONTROLS

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 CLOGING/WASHOUT OR BYPASSING ?	ARE TURBIDITY CONTROLS IN NEED OF REPLACING	DOES SILT NEED TO BE REMOVED FROM AROUND CONTROL

MAINTENANCE REQUIRED FOR CATCH BASIN/CURB INLETS/OUTFALLS TURBIDITY CONTROLS:
_____
_____
_____
_____

TO BE PERFORMED BY:_____ ON OR BEFORE:_____

PAGE 2 OF 4

PROJECT:

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 ?	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 ROAD ?	IS THE GRAVEL CLEAN OR IS IT FILLED WITH SEDIMENT?	DOES ALL TRAFFIC USE THE STABILIZED ENTRANCE TO LEAVE THE SITE ?	IS THE CULVERT BENEATH THE ENTRANCE WORKING? (IF APPLICABLE)

MAINTENANCE REQUIRED FOR STABILIZED CONSTRUCTION ENTRANCE:
_____
_____
_____

TO BE PERFORMED BY:_____ ON OR BEFORE:_____

PAGE 3 OF 4

PROJECT:

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:
_____
_____
_____
_____
_____
_____
_____
_____
_____

REASONS FOR CHANGES:
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

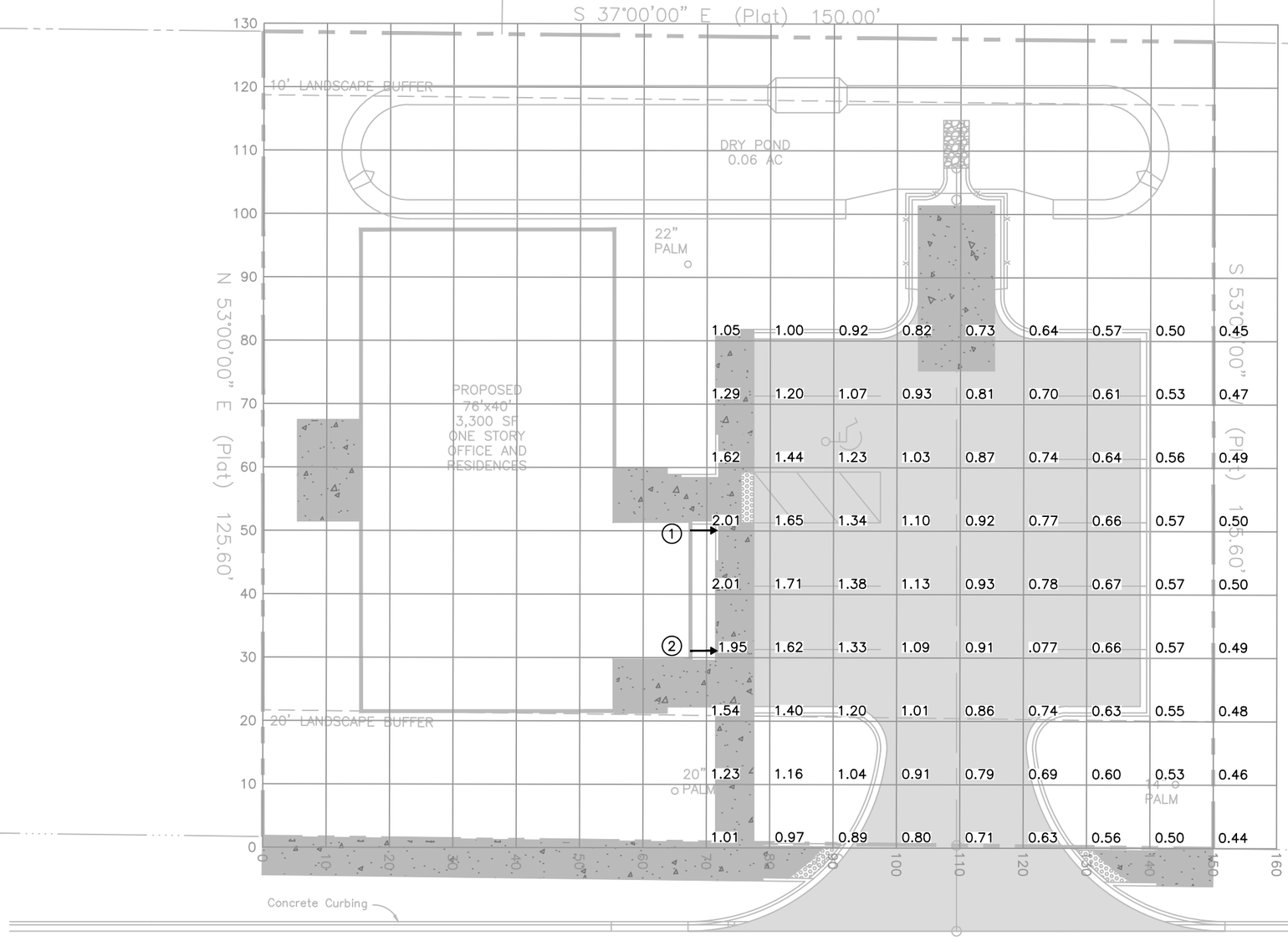
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE 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.

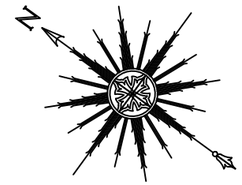
SIGNATURE:_____

DATE:_____

PAGE 4 OF 4

NOTE TO CONTRACTOR:
THIS IS THE CONTRACTORS CERTIFICATION REQUIRED BY THE EPA'S NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES), STORM WATER POLLUTION PREVENTION PLAN FOR CONSTRUCTION SITES OVER 5 ACRES. THIS CERTIFICATION MUST BE COMPLETED WEEKLY AND AFTER EVERY RAINFALL EVENT OVER 0.25 INCHES. IT IS SUGGESTED THAT THIS SHEET BE REMOVED FROM THE PLAN SET AND DUPLICATED AS NEEDED BY THE CONTRACTOR.





0 10 20

SCALE: 1" = 10'
SCALE: 1" = 20'
FOR: 22"x34" SHEET
FOR: 11"x17" SHEET

LEGEND
→ 10,000 L LAMP
ON BUILDING
8' ABOVE GRADE

P I N E A V E N U E
(also known as PINE STREET NORTH / PINE AVENUE NORTH)

TOCOI Engineering, LLC
714 NORTH ORANGE AVENUE, GREEN COVE SPRINGS, FL 32043
PH: 904-215-1388 E.B. NUMBER: 26383

ENGINEER OF RECORD
CHARLES SOHM
FLORIDA
REGISTRATION NUMBER:
79289

SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

PHOTOMETRIC PLAN

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
18

S 37°00'00" E (Plat) 150.00'

10' LANDSCAPE BUFFER

DRY POND
0.06 AC

22"
PALM

N 53°00'00" E (Plat) 125.60'

3/4" HOSE BIB RADIUS

PROPOSED 75'
76'x40'
3,300 SF
ONE STORY
OFFICE AND
RESIDENCES

HB

S 53°00'00" W (Plat) 125.60'

(1)QV

NOTE:
PLACE OUTSIDE
DRAINAGE SWALE
(SEE
DRAINAGE PLANS)

20' LANDSCAPE BUFFER

(1)LF

(1)LF

20"
PALM

14"
PALM

Concrete Curbing

PINE AVENUE
(also known as PINE STREET NORTH / PINE AVENUE NORTH)

N

0 10 20
SCALE: 1" = 10'
SCALE: 1" = 20'
FOR: 22"x34" SHEET
FOR: 11"x17" SHEET

PLANT SCHEDULE

SYMBOL	CODE	QTY	COMMOM NAME	BOTANICAL NAME	SIZE
	QV	1	LIVE OAK	QUERCUS VIRGINIANA	FLORIDA #1, 3" CAL MIN, 12' HT, 5' FT SPD
	LF	2	CREPE MYRTLE	LAGERSTROEMIA X FAURIEI	FLORIDA #1, 2.5" CAL MIN, 8' HT MIN.
	VO	44	WALTER'S VIBURNUM	VIBURNUM OBOBATUM	FLORIDA #1, 3 GAL, 24' HT MIN.

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FLORIDA
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SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

LANDSCAPE PLAN

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
LS-1

Date: 10/18/23 Time: 5:09 PM DWG Name: \\TEL-Vault\01Projects\20-367 Vineyard Transitional Center\03-CADD\03_20-367 MASTER PLAN.dwg Layout: LS-1

CITY OF GREEN COVE SPRINGS LANDSCAPE NOTES

1. THESE PLANS ARE FOR LANDSCAPE PERMITTING PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR FOLLOWING ALL APPROPRIATE RULES AND REGULATIONS.
2. TREE PROTECTION BARRIERS ARE TO REMAIN IN PLACE UNTIL ALL SITE DEVELOPMENT IS COMPLETED.
3. EXISTING TREES SHOWN ON THIS PLAN ARE THOSE LOCATED BY SURVEYOR. ENGINEER TAKES NO RESPONSIBILITY FOR THEIR LOCATION AND SIZE.
4. ENGINEER CAN NOT GUARANTEE EXISTING TREE SURVIVAL FROM CONSTRUCTION IMPACT.
5. PLANT SIZE TAKES PRECEDENCE OVER CONTAINER SIZE.
6. PLANT QUANTITIES AND SQUARE FOOTAGE TABULATIONS ARE FOR THE CONTRACTORS CONVENIENCE ONLY. THE CONTRACTOR IS TO VERIFY ALL PLANT QUANTITIES AND SQUARE FOOTAGES.
7. ALL TREES LOCATED IN LAWN AREAS ARE TO HAVE A 2' RADIUS MULCHED CIRCLE AROUND BASE OF TREE.
8. ALL PLANT MATERIAL TO BE FLORIDA GRADE #1 OR BETTER.
9. ALL PLANTING AREAS AND MULCHED RADII AROUND TREES ARE TO BE A MIN. 2" OF ORGANIC MULCH.
10. ALL SHADE TREES TO BE 15 FT MIN. FROM ALL OVER HEAD POWER LINES.
11. ALL SHADE TREES TO BE 5 FT MIN. AND UNDERSTORY TREES ARE TO BE A 2 1/2' FT MIN. FROM ALL SIDEWALKS, CURBS AND HARDSURFACES.
12. CONTRACTOR RESPONSIBLE TO PROVIDE ON SITE, TOTAL CALIPER INCHES SHOWN ON PLANTING SCHEDULE.
13. FINAL ACCEPTANCE OF LANDSCAPE IS NOT TO BE ASSUMED UNTIL:
    - 13.1. CITY FINAL LANDSCAPE INSPECTION IS COMPLETE AND APPROVED,
    - 13.2. A FORMAL LETTER FROM GENERAL CONTRACTOR TO ENGINEER STATING FINAL APPROVAL IS DELIVERED TO ENGINEER.
14. CONTRACTOR RESPONSIBLE FOR LANDSCAPE MAINTENANCE UNTIL FINAL APPROVAL LETTER RELEASES LANDSCAPE TO OWNER.
15. ALL DISTURBED AREAS ON THE SITE AND THE RIGHT-OF-WAY SHALL BE SODDED WITH TURF GRASS (ST. AUGUSTINE OR EQUIVALENT).
16. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ALL REQUIRED PERMITS AND ASSOCIATED FEES TO COMPLETE THE WORK.
17. CONTRACTOR SHALL LOCATE AND VISIBLY MARK ALL BURIED UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY CONFLICTS.
18. SUBSTITUTIONS WILL REQUIRE CITY OF GREEN COVE SPRINGS APPROVAL AND AMENDED PLANS.

CODE REQUIREMENT CALCULATIONS (FROM ARTICLE VI)

TOTAL SITE AREA (SF)	19,074.30
ZONING AREA	C2
PCT LANDSCAPED AREA (MIN 15%)	2,861.15

PERIMETER LANDSCAPING					
	FRONT	SIDE	TOTAL		CALIPER
PERIMETER LENGTH (FT)	150	125.6	275.6		(5)2.5"
NUMBER OF TREES @ 50'	3	2	5		12.5"
TOTAL MIN CALIPER REQUIRED					12.50
TOTAL CALIPER PROVIDED (SEE LANDSCAPE PLAN)					24.50

INTERIOR LANDSCAPING			
SITE AREA (SF)	SQ. FEET/		
10,500.00	1500	SQ FT/ TREE (FIRST 10,500 SF)=	7
8,574.30	4000	REMAINING SF	3
		REQUIRED TREES	10
		MIN CALIPER PER TREE (IN)	2.5
		TOTAL MIN CALIPER REQUIRED	25.00
		TOTAL CALIPER PROVIDED (SEE LANDSCAPE PLAN)	35.50

OVERALL LANDSCAPE POINTS				
SIZE	RETAINED POINTS	REMOVED POINTS	INSTALLED POINTS	TOTAL POINTS
UNDERSTORY	0	0	5.00	5.00
CANOPY	28.00	0	2.50	30.50
TOTAL POINTS				35.50

IRRIGATION

1. HOSE BIBS ARE TO BE PROVIDED EVERY 75' WITHIN ALL LANDSCAPED AREAS WITHIN THE PROJECT AREA.
2. UPON COMPLETION, CONTRACTOR SHALL SUBMIT AN AS-BUILT PLAN OF THE INSTALLED IRRIGATION SYSTEM, LOCATION OF ALL COMPONENTS AND SLEEVES TO THE OWNER (AND MUNICIPAL AUTHORITY IF REQUIRED).
3. ALL PIPE AND WIRE UNDER PAVING SHALL BE PLACED IN SCHEDULE 40 PVC SLEEVES FOR THE FULL PAVEMENT COVERAGE LENGTH AND SHALL BE AT LEAST 24" BELOW FINISHED GRADE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL APPLICABLE PERMITS AND FEES.

WATERING SCHEDULE

ALL REQUIRED LANDSCAPING SHOWN ON THESE PLANS WILL BE WATERED MANUALLY USING HOSE BIBS DISPERSED THROUGHOUT THE DEVELOPMENT SO THAT EVERY REQUIRED LANDSCAPE AREA IS WITHIN 75' OF A HOSE BIB. TREES SHALL BE WATERED AS NEEDED TO PREVENT DECLINE, AND AT MINIMUM, THREE TIMES WEEKLY DURING NO-RAIN PERIODS FOR THE FIRST 60 DAYS. WATER THEREAFTER ACCORDING TO THE FOLLOWING 180-DAY SCHEDULE:

LARGE TREES/PALMS:	30GAL/APPLICATION
SMALL TREES:	20GAL/APPLICATION
SHRUBS AND SOD:	AS NEEDED TO PREVENT WILTING
1ST 8 WEEKS:	3 WATERINGS PER WEEK (24 TOTAL)
2ND 8 WEEKS:	2 WATERINGS PER WEEK (16 TOTAL)
FINAL 10 WEEKS:	1 WATERING PER WEEK (10 TOTAL)

ALL WATERING MUST COMPLY WITH ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT LAWN AND IRRIGATION RULES AND REGULATIONS.

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ENGINEER OF RECORD CHARLES SOHM
FLORIDA REGISTRATION NUMBER: 79289

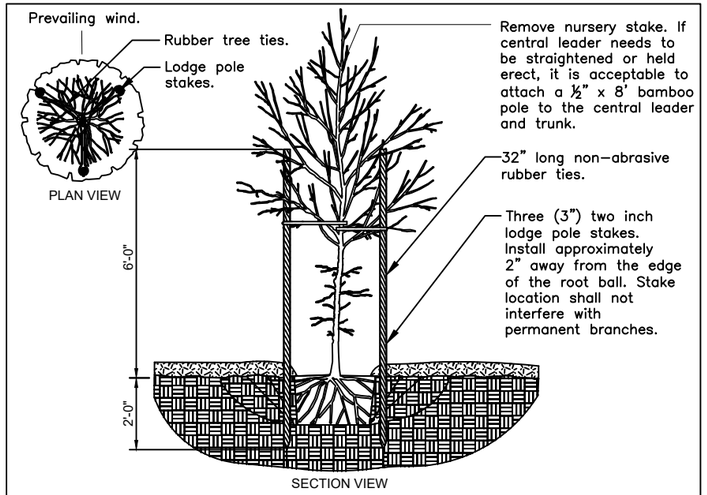
SITE IMPROVEMENTS FOR VINEYARD TRANSITIONAL CENTER

LANDSCAPE PLAN

REVISIONS

PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
LS-2

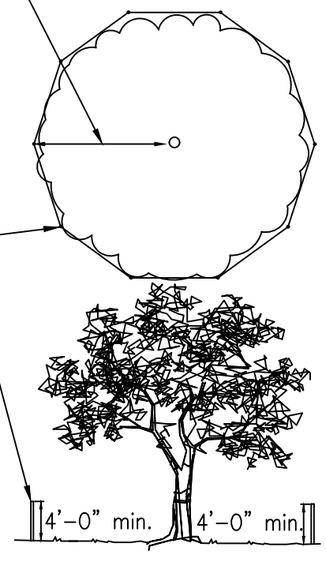


TREE STAKING – LODGE POLES (3)

N.T.S.

TEMPORARY TREE PROTECTION BARRIER SHALL BE LOCATED AS INDICATED ON PLAN BUT SHALL ALWAYS BE AT 1'–0" OF RADIUS FOR EVERY 1" OF D.B.H. IF NO CONSTRUCTION ACTIVITIES ARE TO TAKE PLACE WITHIN THE DRIP LINE. IN NO CASE SHALL THE PROTECTED AREA BE LESS THEN ONE–HALF THE AVERAGE RADIUS OF THE DRIP LINE OR LESS THAN 10 FEET.

THE BARRIER SHALL BE CONSTRUCTED OF: 4'–0" SAFETY DRAINAGE COPOLYMER BARRIER FENCING RETAINED TAUGHT BY WIRE TIES TO POSTS. POSTS SHALL BE #3 REBAR 6'–0" LONG DRIVEN 2'–0" INTO GROUND NO MORE THEN 6'–0" APART. REBAR POST SHALL HAVE A SAFETY CAP ON EACH POST'S EXPOSED END.



NOTES:
–NO MATERIALS OR EQUIPMENT SHALL BE STORED, OPERATED, DUMPED, OR BURNED WITHIN THE PROTECTED AREA.
–NO ATTACHMENT (WIRES, SIGNS, ETC.), SHALL BE ATTACHED TO A PROTECTED TREE.
–PRIOR TO ANY LAND CLEARING OPERATIONS, TREE LIMBS WHICH INTERFERE WITH CONSTRUCTION SHALL BE REMOVED IN ACCORDANCE WITH NAT. ARBORIST ASSOC. PRUNING STANDARDS.

TREE PROTECTION BARRIER DETAIL

N.T.S.

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SITE IMPROVEMENTS
FOR
VINEYARD TRANSITIONAL CENTER

LANDSCAPE PLAN

REVISIONS

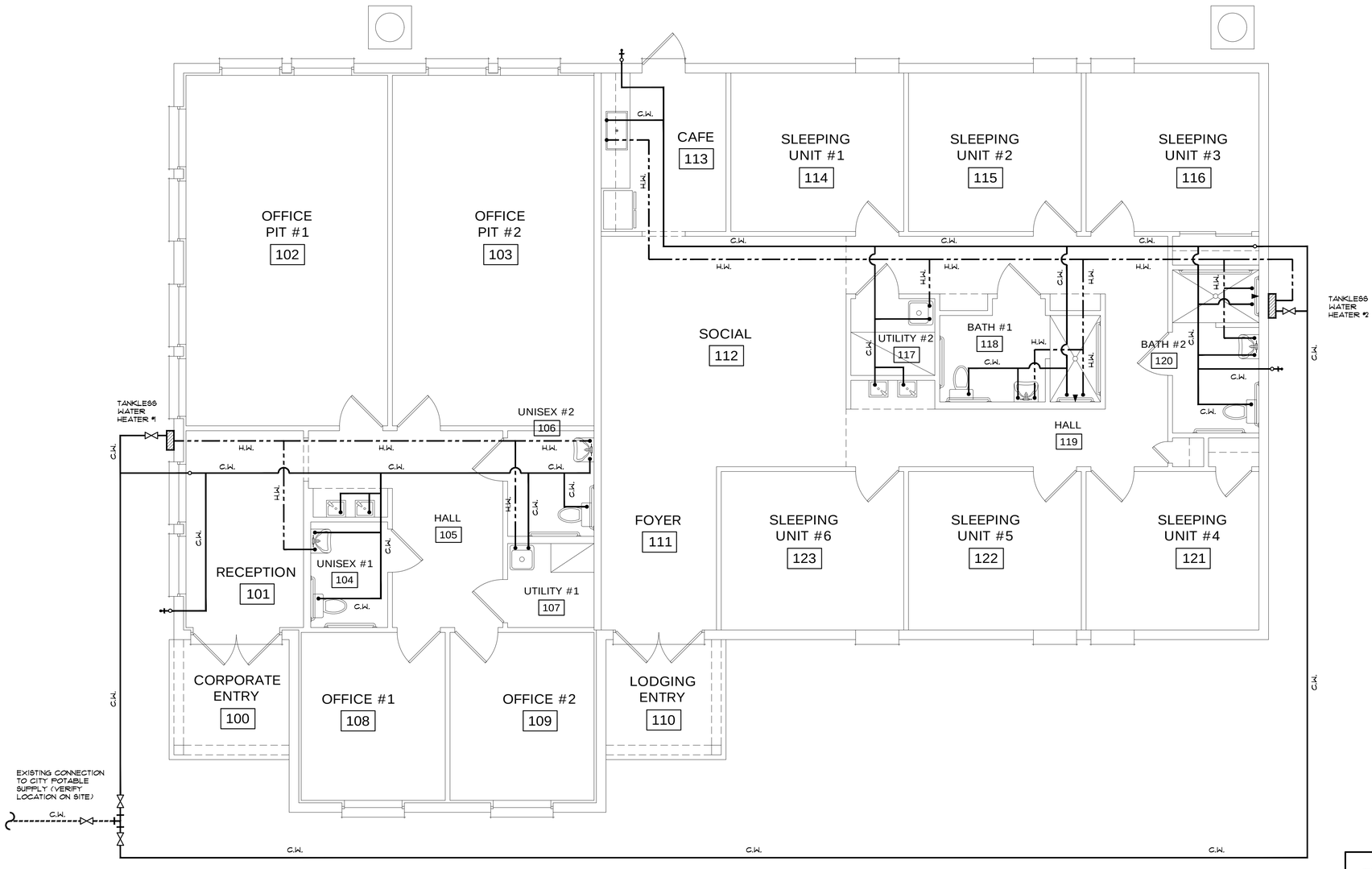
PLOT DATE:
DRAWN BY:
DESIGNED BY:
CHECKED BY:
SCALE:
JOB NO.:

SHEET NO.
LS-3

Date: 10/9/23 Time: 2:52 PM DWG Name: \\TEL-Vault\01Projects\20-367 Vineyard Transitional Center\03-CADD\03_20-367 MASTER PLAN.dwg Layout: LS-3

NOTE:

ALTHOUGH EVERY EFFORT HAS BEEN TAKEN TO PREPARE THESE DRAWINGS TO COMPLY WITH LOCAL BUILDING CODES, CONTINUOUS CODE CHANGES MAY REQUIRE ADDITIONAL DRAWINGS, ENGINEERING SERVICES, AND OR CHANGES TO THESE DRAWINGS TO MEET CODE COMPLIANCE. POSSESSION OF THESE PLANS ACKNOWLEDGES THAT THE PURCHASER HAS BEEN INFORMED OF THIS INFORMATION AND ASSUMES THE RESPONSIBILITY TO PROVIDE ALL ADDITIONAL REQUIREMENTS OF LOCAL BUILDING OFFICIALS TO MEET COMPLIANCE.



1 PLUMBING PLAN POTABLE (SUPPLY)
SCALE: 1/4" = 1'-0"

POTABLE (SUPPLY) PLUMBING LINE LEGEND

C.W.	NEW COLD-WATER SUPPLY LINE
H.W.	NEW HOT WATER SUPPLY LINE
C.W. / H.W.	EXISTING POTABLE SUPPLY LINE
	SHUT-OFF VALVE

PROVIDE APPROVED WATER TEMPERATURE LIMITING DEVICE (ASSE 1070) AT RESTROOM LAVATORIES FOR THE DELIVERY OF TEMPERED WATER

PLUMBING CONTRACTOR:

ADDRESS:

LICENSE #:

TELEPHONE:

GDH ARCHITECTS, P.A.
Florida Licence No. AR-0017319
140 Outlook Drive
Ponte Vedra, FL 32081
904.881.8100 GlennHettinger@gmail.com

Seal:

VINEYARD TRANSITIONAL CENTER

518 NORTH PINE AVEUE
GREEN COVE SPRINGS, FL 32043

Contract Stage: REVIEW SET

Revisions:

Project No: 23-1066 (23_0xx)

Drawn By: JBF
Checked By: GDH

Sheet Title: PLUMBING PLAN POTABLE (SUPPLY)

Sheet No: P1

Last Plot Date: 9/1/2023

CAD File:

Planning & Zoning
321 Walnut Street, Green Cove Springs, FL 32043 904-297-7051

APPLICATION DEFICIENCY NOTICE

DATE: December 11, 2023

APPLICATION REFERENCE: Trent, Angela, SPL-23-008 - 518 PINE Ave

Dear Applicant:

The items you submitted for the above-referenced permit have been reviewed by the City representatives responsible for approving different aspects of your application. Attached to this notice is a list of comments in response to the materials submitted.

Each of the items on the attached list require responses and revised materials be created and re-submitted before any further action can be taken on this permit. A hold is placed on this application and the time it takes you to respond to this list of items is excluded in calculating permit processing timeframes. Once corrected and/or new materials are submitted, your permit processing timeframe will begin again.

A complete response to each of the items on the attached list is required to be submitted ***at the same time.*** As applicable, a complete response is required to include:

1. A written document addressing all of your responses (one paper copy).
2. New and/or updated technical reports (one paper copy).
3. New and/or corrected plans. Please note that revisions to previously submitted plans are required to be identified by clouding, must be noted in a revision list on the plan sheet(s), and are required to be incorporated into a full set of revised plans (one paper copy).
4. A transmittal that itemizes everything being resubmitted (one paper copy).
5. A copy of the entire resubmittal must be provided electronically (either on a thumb drive or uploaded via the permit portal).

Your response must be received by our Department within 180 days of the date noted on this letter to avoid this application being withdrawn from consideration. Withdrawn application must be resubmitted as new applications requiring repayment of all applicable fees and processing requirements.

Thank you for your anticipated cooperation in submitting the items requested by staff. We look forward to working with you as this application continues to be processed.

APPLICATION DEFICIENCY NOTICE

DATE: December 11, 2023

APPLICATION REFERENCE: Trent, Angela, SPL-23-008

PLANNING DIVISION COMMENTS - contact Michael Daniels (mdaniels@greencovesprings.com)

1. 1. Provide building layout to determine compliance with 117-796(a)(1)
   2. Provide a note on the plan that this use shall be limited to the proposed applicant or owner to whom the special exception is granted and shall be subject to the requirements of this subsection. Any changes in ownership or to the use of the property will require a new special exception application.
   3. Provide a note of compliance with Sec. 117-796(b) and provide Responsible contact information on the Site Plan.
   4. Provide a minimum 10 landscape buffer adjacent to residential property to the north and east. Including small trees an average 1 per 25 on center and a continuous hedge row.
   5. Provide large trees in landscape islands in parking areas.
   6. Perimeter planting calculation shall be based on all four sides which result in 12 large trees being planted around perimeter of property, where power lines encroach on perimeter plantings, small trees can be substituted at two for one.
   7. drainage retention must be fenced.