8044

CITY OF MADEIRA BEACH

PLANNING & ZONING DEPARTMENT
300 MUNICIPAL DRIVE ♦ MADEIRA BEACH, FLORIDA 33708
(727) 391-9951 EXT. 255 ♦ FAX (727) 399-1131
Email to: planning@madeirabeachfl.gov

MAJOR SITE PLAN APPLICATION

Residential: Developments of 13 or more multiple-family dwelling units. Planned Developments.
Non-Residential: New construction or expansions over 2,001 square feet of building area. Previously undeveloped or rezoned non-residential developments of over 1,000 square feet of building area adjacent to residential development. Planned Developments.
Parking/Other impervious areas/Construction: Parking areas that include more than 21 new parking spaces. Impervious areas more than 15,000 square feet

Preliminary Site Plan. $500.00
First Review Site Plan Submittal. $1,500.00
Each Additional Submittal. $500.00

I. PROJECT

Project Name: Caddy's (fka Gulf Grill) Supplemental Parking Lot

Project Description: Parking lot on existing existing convenience store lot

Address of Subject Property: 14099 Gulf Blvd., Madeira Beach, Florida 33708

Pinellas County

Parcel ID #: 10-31-15-34344-008-0010

Legal Description: See attached

Existing Use of Property: Convenience Store and parking

Full Description Attached? ■ Yes ☐ No

II. APPLICANT

Applicant Status: *Attach proof of ownership (deed)* ☐ Owner ■ Agent

Applicant Name, Title: Sean P. Cashen, P.E. LEED AP

Company Name (*If applicable):* Gulf Coast Consulting Inc.

Mailing Address: 13825 ICOT Blvd., Suite 605

Clearwater, Florida 33760

Phone: (727) 524-1818 Fax: (727) 524-6090

Email: scashen@gulfcoastconsultinginc.com

DISCLAIMER: According to Florida Statutes, Chapter 119, it is the policy of this state that all state, county, and municipal records are open for personal inspection and copying by any person. Providing access to public records is a duty of each agency. All documents and information not specified in F.S. 119.071 and 119.0713 are subject to public record requests.

If Applicant is the agent for a property owner, please attach proof of Agent Authorization.

Name of Owner (Title Holder): Shannon Madeira Property, LLC

Mailing Address: 9740 16th St. N.

St. Petersburg, FL 33716-4210

III. ADDITIONAL INFORMATION

Is there an existing contract for sale of options to purchase subject property? ☐ Yes ■ No

If "Yes", list all names of parties involved: _____

Is the contract/option contingent or absolute? ☐ Contingent ☐ Absolute ■ N/A

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

Sean P. Cashen — *Signature of Applicant*

5/11/22 — *Date*

STATE OF FLORIDA
COUNTY OF Pinellas

The foregoing application as acknowledged before me this 11th day of May, 2022 by Sean P. Cashen who is ☑ personally known to me or ☐ has produced _____ as identification.

[SEAL]

ANITA V. ADKINSON
Notary Public-State of Florida
Commission # GG 347252
My Commission Expires
June 20, 2023

Anita V Adkinson
Public Notary Signature

DISCLAIMER: According to Florida Statutes, Chapter 119, it is the policy of this state that all state, county, and municipal records are open for personal inspection and copying by any person. Providing access to public records is a duty of each agency. All documents and information not specified in F.S. 119.071 and 119.0713 are subject to public record requests.

Sec. 110-51. - Scope of review.

(a) The city manager or his designee will conduct a detailed review of proposed large-scale development (which shall consist of a complete new development on the site) to insure compliance with the current land development regulations. This review will include, but not be limited to, the following areas:

(1) Proposed use:

a. Primary use.

b. Accessory uses.

c. Special exception use: Approval by special magistrate obtained.

(2) Lot restrictions:

a. Lot size: width, depth, area.

b. Setbacks.

c. Lot coverage.

d. Impervious surface.

e. Green area.

f. Building heights (section 110-430).

g. Density.

(3) Arrangement of structures:

a. Distance between structures.

b. Provisions for light, air, privacy and access.

c. Location of accessory structures (article VI, division 4 of this chapter).

d. Use of open space.

e. Transition yard requirements (section 110-429).

(4) Impact on surrounding property.

(5) Floodplain regulations (chapter 94):

a. Elevation requirements.

b. Use below base flood elevation (BFE).

(6) Parking (article VII of this chapter):

a. Minimum requirements for off-street parking.

b. Location of spaces.

c. Circulation.

d. Loading and unloading areas.

e. Handicap facilities.

f. Compact spaces.

g. Remote lots.

(7) Traffic access:

a. Available and allowable street cuts.

b. Use of abutting roadways.

c. Intersection visibility (section 110-423).

d. Emergency vehicle access.

(8) Protection of soil and water resources (chapter 98, article II):

a. Development requirements.

b. Land alteration plan.

c. Drainage plan:

1. Treatment of stormwater runoff.

2. Protection during construction.

d. Environmentally sensitive area protection plan.

(9) Landscaping (chapter 106, article II):

a. Minimum requirements.

b. Perimeter landscaping.

c. Buffer landscaping.

d. Use of existing landscaping.

e. Xeriscape requirements.

f. Irrigation system.

g. Intersection restrictions.

h. Screening of backflow preventer.

i. Protected species (mangroves, sea oats, etc.).

(10) Tree protection (chapter 106, article III):

a. Minimum requirements.

b. Types of trees.

c. Use of existing trees.

d. Removal of exotic species.

e. Protection during construction.

f. Irrigation for the trees.

(11) Lighting (article VI, division 5 of this chapter):

a. Impact of indoor and outdoor lighting.

b. Decorative and accent lighting.

c. Temporary lighting.

d. Lighting in beach area.

(12) Sidewalks (chapter 58):

a. Minimum requirements.

b. Location and size.

c. Pedestrian access.

(13) Signs (chapter 102):

a. Type.

b. Location.

c. Size.

(14) Recreation areas:

a. Type.

b. Location.

(15) Fences and walls (article VI, division 3 of this chapter):

a. Location.

b. Height.

c. Types.

(16) Easements (article VI, division 10, subdivision II of this chapter):

a. Utility.

b. Pedestrian/beach access.

c. Access easements.

(17) Docks and seawalls (section 110-426 and chapter 14, article V):

a. Requirements.

b. Exemptions.

(18) Miscellaneous:

a. Laundry facilities.

b. Satellite dish antennas (article VI, division 12, subdivision III of this chapter).

c. Outdoor storage (article VI, division 9, subdivision I of this chapter).

d. Swimming pools (article VI, division 11 of this chapter).

e. Solid waste disposal containers and enclosures (section 54-61).

(19) Concurrency determination (chapter 90):

a. Transportation.

b. Water.

c. Wastewater.

d. Stormwater.

e. Solid waste.

f. Recreation and open space.

(b) The city manager or his designee will conduct a detailed review of proposed small-scale development (such as building additions, alterations, or renovations to the existing structure, site alterations, addition of an accessory structure on the site) to insure compliance with the current land development regulations. This review of a small-scale development may not require review of all items listed in subsections 110-51 (a)(1)—(19). The relevant information necessary for review shall be determined by the city manager or his designee through consultation with the city manager or his designee.

Sec. 110-71. - Submission; contents.

(a) Eight signed and sealed site plans shall be submitted to the city manager or his designee. The city manager or his designee will have 15 working days to review the plan documents. The site plan may be approved, approved with conditions or denied. The site plans submitted for large-scale development (which shall consist of a complete new development on the site) shall contain all relevant information necessary for review and shall include (when applicable), but not be limited to the following:

(1) Legal description and zone.

(2) Existing use and proposed use.

(3) Site area in square feet and acres.

(4) Lot lines.

(5) Setbacks.

(6) North arrow and scale (engineering scale no smaller than one inch equals 50 feet).

(7) Existing and proposed:

a. Gross floor area (in square feet) (existing and proposed).

b. Building coverage (in square feet) (existing and proposed).

c. Open (green) space (in square feet) (existing and proposed).

d. Paving (in square feet) (existing and proposed).

e. Density (number of residential dwelling units, or number of clients, etc.).

f. Parking spaces (required, existing and proposed).

g. Building height and number of stories.

h. Preservation areas (where applicable) in total square feet and indicating the proposed area being developed or altered.

i. Drainage plan.

j. Land alteration plan.

(8) Required buffer walls (i.e., to buffer nearby residential properties from vehicular use areas) and/or proposed fences, walls, etc. (height, location on-site, and elevation).

(9) Solid waste disposal containers.

(10) Lighting, exterior and accent.

(11) Proposed sign plans (include size and location on-site).

(12) Tree survey indicating the species and size of all existing trees of four inches or greater, measured at breast height.

(13) Variances (if required). Provide a copy of the approved variance with the submitted site plan.

(14) Certified construction cost estimate (shall be determined by a qualified and licensed contractor, architect or engineer or professional estimating firm itemizing total costs in a certified estimate).

(15) A proposed landscape plan which shall:

a. Comply with section chapter 106, article II (general landscaping regulations).

b. Indicate all tree and shrub sizes, species, locations, and quantities.

c. Contain a schematic design and layout of an underground irrigation system as required for all landscaping.

(b) Site plans submitted for small-scale development (such as building additions, alterations, or renovations to the existing structure, site alterations, or addition of an accessory structure on the site) may not require submittal of all items listed in subsections 110-71 (a)(1)—(16). The relevant information necessary for review shall be determined by the city manager or his designee. The site plan may be approved, approved with conditions or denied.

SFMB MADEIRA BEACH, LLC

Date 03/06/2022

To Whom It May Concern:

Please be advised that Sean P. Cashen, P.E., and Robert Pergolizzi, AICP/PTP, Principals at Gulf Coast Consulting, Inc., are authorized to sign permit applications on behalf of SFMB Madeira Beach, LLC or any general permits and applications including FDOT Access Connection, County ROW Utilization permits, Southwest Florida Water Management District Environmental Resource Permits (ERP) and Drainage Connection Permits, City of Madeira Beach Site Plan Approvals and Development permits in connection with the development of the Caddy's Restaurant (fka Gulf Grill) Supplemental Parking Lot, located at 14099 Gulf Blvd., Madeira Beach, Pinellas County, Florida 33708.

Signature of Authorized Representative

Marcus Winters, Manager

Printed Name of Authorized Representative

Shannon Madeira Property LLC

To Whom it may concern:

Please be advised that Sean P Cashen PE & Robert Pergolizzi AICP/PTP, Principals at Gulf Coast Consulting, Inc. are authorized to sign permit applications on behalf of Shannon Madeira Property LLC or any general permits and applications including FDOT access connection, county ROW utilization permits, SW FL Water Management district environmental resource permits (ERP) and drainage connection permits, city of madeira beach site plan approvals & development permits in connection with the development of the caddy's restaurant (FKA Gulf Grill) supplemental parking lot, located at 14099 gulf blvd, Madeira Beach, Pinellas County FL 33708.

Signature of Authorized Representative

Marcus Winters, Manager

Printed Name of Authorized Representative

LEGAL DESCRIPTION

(SUPPLEMENTAL PARKING LOT ONLY)

PARCEL 1
LOT 1 IN BLOCK H OF SECOND ADDN. TO GULF SHORES, ACCORDING TO THE MAP OR PLAT THEREOF RECORDED IN PLAT BOOK 21, PAGES 23 AND 24, OF THE PUBLIC RECORDS OF PINELLAS COUNTY, FLORIDA, LESS RIGHT OF WAY FOR GULF BOULEVARD (S.R. 699 SECTION 15100-2511) BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWESTERLY CORNER OF AFORESAID LOT 1, BLOCK H FOR A POINT OF BEGINNING; THENCE ON THE NORTHERLY BOUNDARY THEREOF, S49°01'23"E A DISTANCE OF 49.86 FEET TO THE NORTHEASTERLY CORNER OF AFORESAID LOT 1, BLOCK H; THENCE ON THE EASTERLY BOUNDARY THEREOF, S40°48'26"W, A DISTANCE OF 82.90 FEET TO THE NORTHERLY RIGHT OF WAY BOUNDARY OF AFORESAID GULF BOULEVARD (S.R. 699) PER DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP SECTION 15100-2511; THENCE ON SAID NORTHERLY RIGHT OF WAY BOUNDARY, N49°4'00"W, A DISTANCE OF 34.77 FEET; THENCE N08°47'32"E, A DISTANCE OF 28.34 FEET TO A POINT ON THE WESTERLY BOUNDARY OF AFORESAID BOUNDARY OF LOT 1, BLOCK H; THENCE ON SAID WESTERLY BOUNDARY N40°44'41"E A DISTANCE OF 58.94 FEET TO THE POINT OF BEGINNING.

AND

PARCEL 2
LOTS 2 AND 3, BLOCK "H" SECOND ADDN. TO GULF SHORES, ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 21, PAGES 23 AND 24, PUBLIC RECORDS OF PINELLAS COUNTY, FLORIDA, LESS THAT PART LYING WITHIN 50 FEET OF THE SURVEY LINE ON STATE ROAD 699 DESCRIBED AS FOLLOWS: BEGIN ON THE SOUTHWESTERLY EXTENSION OF THE SOUTHEASTERLY BOUNDARY LINE OF LOT 9, BLOCK H, SECOND ADDITION TO GULF SHORES SUBDIVISION IN SECTION 15, TOWNSHIP 31 SOUTH, RANGE 15 EAST AS PER PLAT THEREOF RECORDED IN PLAT BOOK 21, PAGE 24, OF THE PUBLIC RECORDS OF PINELLAS COUNTY, FLORIDA, AT A POINT 133.20 FEET S41°47'22"W OF THE NORTHEAST CORNER OF SAID LOT 9; RUN THENCE N48°30'38"W 478.78 FEET (RUNNING FROM SAID SECTION 15 INTO SECTION 10, TOWNSHIP 31 SOUTH, RANGE 15 EAST TO THE SOUTHWESTERLY EXTENSION OF THE SOUTHEASTERLY LINE OF LOT 10, BLOCK C, GULF SHORES SUBDIVISION AS PER PLAT THEREOF RECORDED IN PLAT BOOK 21, PAGE 10, PUBLIC RECORDS OF PINELLAS COUNTY, FLORIDA, AT A POINT 133.15 FEET S41°25'22"W OF THE NORTHEAST CORNER OF SAID LOT 10.

CADDY'S (fka GULF GRILL)

SUPPLEMENTAL PARKING LOT

14099 GULF BOULEVARD

SECTION 10, TOWNSHIP 31 S, RANGE 15 E

PINELLAS COUNTY, FLORIDA

LEGAL DESCRIPTION

(SUPPLEMENTAL PARKING LOT ONLY)

PARCEL 1
LOT 1 IN BLOCK H OF SECOND ADDN. TO GULF SHORES, ACCORDING TO THE MAP OR PLAT THEREOF RECORDED IN PLAT BOOK 21, PAGES 23 AND 24, OF THE PUBLIC RECORDS OF PINELLAS COUNTY, FLORIDA, LESS RIGHT OF WAY FOR GULF BOULEVARD (S.R. 699 SECTION 15100–2511) BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWESTERLY CORNER OF AFORESAID LOT 1, BLOCK H FOR A POINT OF BEGINNING; THENCE ON THE NORTHERLY BOUNDARY THEREOF, S49°01'23"E A DISTANCE OF 49.86 FEET TO THE NORTHEASTERLY CORNER OF AFORESAID LOT 1, BLOCK H; THENCE ON THE EASTERLY BOUNDARY THEREOF, S40°48'26"W, A DISTANCE OF 82.90 FEET TO THE NORTHERLY RIGHT OF WAY BOUNDARY OF AFORESAID GULF BOULEVARD (S.R. 699) PER DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP SECTION 15100–2511; THENCE ON SAID NORTHERLY RIGHT OF WAY BOUNDARY, N49°4'00"W, A DISTANCE OF 34.77 FEET; THENCE N08°47'32"E, A DISTANCE OF 28.34 FEET TO A POINT ON THE WESTERLY BOUNDARY OF AFORESAID BOUNDARY OF LOT 1, BLOCK H; THENCE ON SAID WESTERLY BOUNDARY N40°44'41"E A DISTANCE OF 58.94 FEET TO THE POINT OF BEGINNING.

AND

PARCEL 2
LOTS 2 AND 3, BLOCK "H" SECOND ADDN. TO GULF SHORES, ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 21, PAGES 23 AND 24, PUBLIC RECORDS OF PINELLAS COUNTY, FLORIDA, LESS THAT PART LYING WITHIN 50 FEET OF THE SURVEY LINE ON STATE ROAD 699 DESCRIBED AS FOLLOWS: BEGIN ON THE SOUTHWESTERLY EXTENSION OF THE SOUTHEASTERLY BOUNDARY LINE OF LOT 9, BLOCK H, SECOND ADDITION TO GULF SHORES SUBDIVISION IN SECTION 15, TOWNSHIP 31 SOUTH, RANGE 15 EAST AS PER PLAT THEREOF RECORDED IN PLAT BOOK 21, PAGE 24, OF THE PUBLIC RECORDS OF PINELLAS COUNTY, FLORIDA, AT A POINT 133.20 FEET S41°47'22"W OF THE NORTHEAST CORNER OF SAID LOT 9; RUN THENCE N48°30'38"W 478.78 FEET (RUNNING FROM SAID SECTION 15 INTO SECTION 10, TOWNSHIP 31 SOUTH, RANGE 15 EAST TO THE SOUTHWESTERLY EXTENSION OF THE SOUTHEASTERLY LINE OF LOT 10, BLOCK C, GULF SHORES SUBDIVISION AS PER PLAT THEREOF RECORDED IN PLAT BOOK 21, PAGE 10, PUBLIC RECORDS OF PINELLAS COUNTY, FLORIDA, AT A POINT 133.15 FEET S41°25'22"W OF THE NORTHEAST CORNER OF SAID LOT 10.

LOCATION MAP

DRAWING INDEX

SITE DATA TABLE

(SUPPLEMENTAL PARKING LOT ONLY)

SITE ADDRESS:	14099 GULF BLVD MADEIRA BEACH 33708		
PARCEL ID:	10–31–15–34344–008–0010		
PROPOSED USE:	SUPPLEMENTAL PARKING LOT FOR CADDY'S RESTAURANT		
FUTURE LAND USE MAP DESIGNATION:	R/O/R RESIDENTIAL/OFFICE/RETAIL		
EXISTING ZONING:	C–3 RETAIL COMMERCIAL		
TOTAL LAND AREA:	±12,270 SF (±0.2817 AC)		
SITE DATA TOTALS	EXISTING	PROPOSED	MIN/MAX REQUIRED
BUILDING:	2,778 SF	N/A	N/A
PAVEMENT:	8,824 SF	8,500 SF	
IMPERVIOUS:	11,602 SF (94.56%)	8,500 SF (69.27%)	70% MAX
OPEN SPACE:	668 SF (5.44%)	3,770 SF (30.73%)	30% MIN
VEHICULAR USE AREA (VUA)	N/A	7,894 SF	
VUA LANDSCAPE AREA	N/A	790 SF (10%)	10% MIN
PERIMETER LANDSCAPE AREA	N/A	1,250 SF	
LOT AREA TOTAL:	12,270 SF	12,270 SF	4,000 SF MIN
LOT WIDTH	150'	150'	40' MIN
LOT DEPTH	83'	83'	80' MIN
BUILDING HEIGHT	1 STORY	N/A	30' MAX
PARKING SPACES	9 (INC 1 HC)	27 STANDARD + 1 MOTORCYCLE	N/A
PARKING CALCULATIONS		61 TOTAL SPACES (SUPPLEMENTAL PARKING) 27 STANDARD 1 MOTORCYCLE (ONSITE CADDY'S) 18 SPACES (14 VALET, 2 HDCP, 2 REGULAR) 2 MOTORCYCLE 4 BIKE SPACES (EQUIVALENT TO 2 SPACES) 22 SPACES (OFFSITE PARKING) 11 VALET SPACES	57 SPACES REQUIRED 173 SEATS IN CADDY'S @ 1 SP/4SEATS = 43.25 SPACES 55 SEATS IN TIKI & DECK @ 1 SP/4 SEATS = 13.75 SPACES (228 TOTAL SEATS) = 57 SPACES REQUIRED PER CODE

FLOOD ZONE:
SUBJECT PROPERTY LIES IN COASTAL FLOODPLAIN ZONE AE (EL10), ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 12103C0191H, DATED AUGUST 24, 2021.

PROJECT DIRECTORY

OWNER/DEVELOPER: SHANNON MADEIRA PROPERTY LLC
9740 16TH ST N
ST PETERSBURG FL 33716–4210

CIVIL ENGINEER: GULF COAST CONSULTING, INC
13825 ICOT BOULEVARD, SUITE 605
CLEARWATER, FL 33760

LANDSCAPE ARCHITECT: DEBRA ROMAN
(813) 431–9338
debra@debraroman.com

SURVEYOR: GEODATA SERVICES, INC
1166 KAPP DRIVE
CLEARWATER, FL 33765

PREPARED FOR:

SFMB MAD BEACH PROPERTY, LLC
405 SOUTH HOWARD AVENUE
TAMPA, FL 33606

GOVERNING SPECIFICATIONS AND STANDARDS:

a. FLORIDA DEPARTMENT OF TRANSPORTATION "FY 2021-22 STANDARD PLANS" FOR ROAD AND BRIDGE CONSTRUCTION

b. THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, JULY 2021 EDITION

FDOT PERMITS:
2022-A-799-00028 GULF GRILL (CADDY'S) PARKING--ACCESS
22-D-799-00029 GULF GRILL PARKING LOT--DRAINAGE
FDOT HIGHWAY SEGMENT 15100-000
S.R. 699 MILE POST 7.064-7.951

Gulf Coast Consulting, Inc.
Land Development Consulting
ENGINEERING TRANSPORTATION PLANNING PERMITTING
13825 ICOT BLVD., SUITE 605
Clearwater, Florida 33760
Phone: (727) 524-1818 Fax: (727) 524-6090
www.gulfcoastconsultinginc.com

SEAN P. CASHEN
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE NO. 42505

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SEAN P. CASHEN, ON THE DATE INDICATED HERE USING A SHA AUTHENTICATION CODE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

19-009.01
DATE: 05/06/2022
REV: 07/28/2022
CADDY'S SUPPLEMENTAL PARKING LOT

Sean P. Cashen
AUG - 2 2022
FL P.E. No. 42505

Job Copy
SUBJECT TO FIELD INSPECTION APPROVAL

LEGAL DESCRIPTION
(ALL PARCELS)

Parcel 1:

Lot A, (LESS the Southeast 63 2/3 feet thereof which is adjacent to and parallel with the Northwesterly line of Lot 25, Block A) Block A, SECOND ADDN TO GULF SHORES, according to the map or plat thereof as recorded in Plat Book 21, Pages 23 and 24, Public Records of Pinellas County, Florida.

Parcel 2:

A parcel of land lying in Section 10, Township 31 South, Range 15 East, Pinellas County, Florida, and being more particularly described as follows:

BEGINNING at the Westernmost corner of Lot A, Block A, of SECOND ADDITION TO GULF SHORES, according to the plat thereof as recorded in Plat Book 21, Pages 23 and 24, of the Public Records of Pinellas County, Florida, run thence along the Southwesterly boundary of said Lot A, S48°26'15"E, 116.46 feet to a point on the Northwest boundary of the Southeast 63-2/3 feet of said Lot A; thence along the Southwesterly extension of said Northwest boundary of the Southeast 63-2/3 feet of Lot A, S42°12'52"W, 21.22 feet to a point on the Department of Environmental Protection Coastal Construction Control Line; thence along said Department of Environmental Protection Coastal Construction Control Line, N48°40'58"W, 116.47 feet; thence along the Southwesterly extension of the Northwest boundary of the aforesaid Lot A, N42°12'52"E, 21.72 feet to the POINT OF BEGINNING.

Parcel 3:

Land, lying between the sidelines of Lot A, (LESS the Southeast 63 2/3 feet thereof which is adjacent to and parallel with the Northwesterly line of Lot 25, Block A), Block A, SECOND ADDITION TO GULF SHORES, according to the map or plat thereof as recorded in Plat Book 21, Pages 23 and 24, Public Records of Pinellas County, Florida, as extended to the mean high water line of the Gulf of Mexico as it may exist from time to time.

Less
A parcel of land lying in Section 10, Township 31 South, Range 15 East, Pinellas County, Florida, and being more particularly described as follows:

BEGINNING at the Westernmost corner of Lot A, Block A, of SECOND ADDITION TO GULF SHORES, according to the plat thereof as recorded in Plat Book 21, Pages 23 and 24, of the Public Records of Pinellas County, Florida, run thence along the Southwesterly boundary of said Lot A, S48°26'15"E, 116.46 feet to a point on the Northwest boundary of the Southeast 63-2/3 feet of said Lot A; thence along the Southwesterly extension of said Northwest boundary of the Southeast 63-2/3 feet of Lot A, S42°12'52"W, 21.22 feet to a point on the Department of Environmental Protection Coastal Construction Control Line; thence along said Department of Environmental Protection Coastal Construction Control Line, N48°40'58"W, 116.47 feet; thence along the Southwesterly extension of the Northwest boundary of the aforesaid Lot A, N42°12'52"E, 21.72 feet to the POINT OF BEGINNING.

Parcel 3 also being described as:

A parcel of land lying in Section 10, Township 31 South, Range 15 East, Pinellas County, Florida, and being more particularly described as follows:

Commence at the Westernmost corner of Lot A, Block A, of SECOND ADDITION TO GULF SHORES, according to the plat thereof as recorded in Plat Book 21, Pages 23 and 24, of the Public Records of Pinellas County, Florida, run thence along the Southwesterly extension of the Northwest boundary of said Lot A, S.42°12'52"W., 21.72 feet to a point on the Department of Environmental Protection Coastal Construction Control Line, said point also being the POINT OF BEGINNING; thence along said Department of Environmental Protection Coastal Construction Control Line, S.48°40'58"E., 116.47 feet; thence along the Southwesterly extension of the Northwest boundary of the Southeast 63 and 2/3 feet of the aforesaid Lot A, S.42°12'52"W., 137 feet, more or less, to a point on the Approximate Mean High Water Line of the Gulf of Mexico; thence Northwesterly, along said Approximate Mean High Water Line, 118 feet, more or less; thence along the aforesaid Southwesterly extension of the Northwest boundary of Lot A, N.42°12'52"E., 139 feet, more or less, to the POINT OF BEGINNING.

PARCEL 1
LOT 1 IN BLOCK H OF SECOND ADDN. TO GULF SHORES, ACCORDING TO THE MAP OR PLAT THEREOF RECORDED IN PLAT BOOK 21, PAGES 23 AND 24, OF THE PUBLIC RECORDS OF PINELLAS COUNTY, FLORIDA, LESS RIGHT OF WAY FOR GULF BOULEVARD (S.R. 699 SECTION 15100-2511) BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWESTERLY CORNER OF AFORESAID LOT 1, BLOCK H FOR A POINT OF BEGINNING; THENCE ON THE NORTHERLY BOUNDARY THEREOF, S49°01'23"E A DISTANCE OF 49.86 FEET TO THE NORTHEASTERLY CORNER OF AFORESAID LOT 1, BLOCK H; THENCE ON THE EASTERLY BOUNDARY THEREOF, S40°48'26"W, A DISTANCE OF 82.90 FEET TO THE NORTHERLY RIGHT OF WAY BOUNDARY OF AFORESAID GULF BOULEVARD (S.R. 699) PER DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP SECTION 15100-2511; THENCE ON SAID NORTHERLY RIGHT OF WAY BOUNDARY, N49°4'00"W, A DISTANCE OF 34.77 FEET; THENCE N08°47'32"E, A DISTANCE OF 28.34 FEET TO A POINT ON THE WESTERLY BOUNDARY OF AFORESAID BOUNDARY OF LOT 1, BLOCK H; THENCE ON SAID WESTERLY BOUNDARY N40°44'41"E A DISTANCE OF 58.94 FEET TO THE POINT OF BEGINNING.

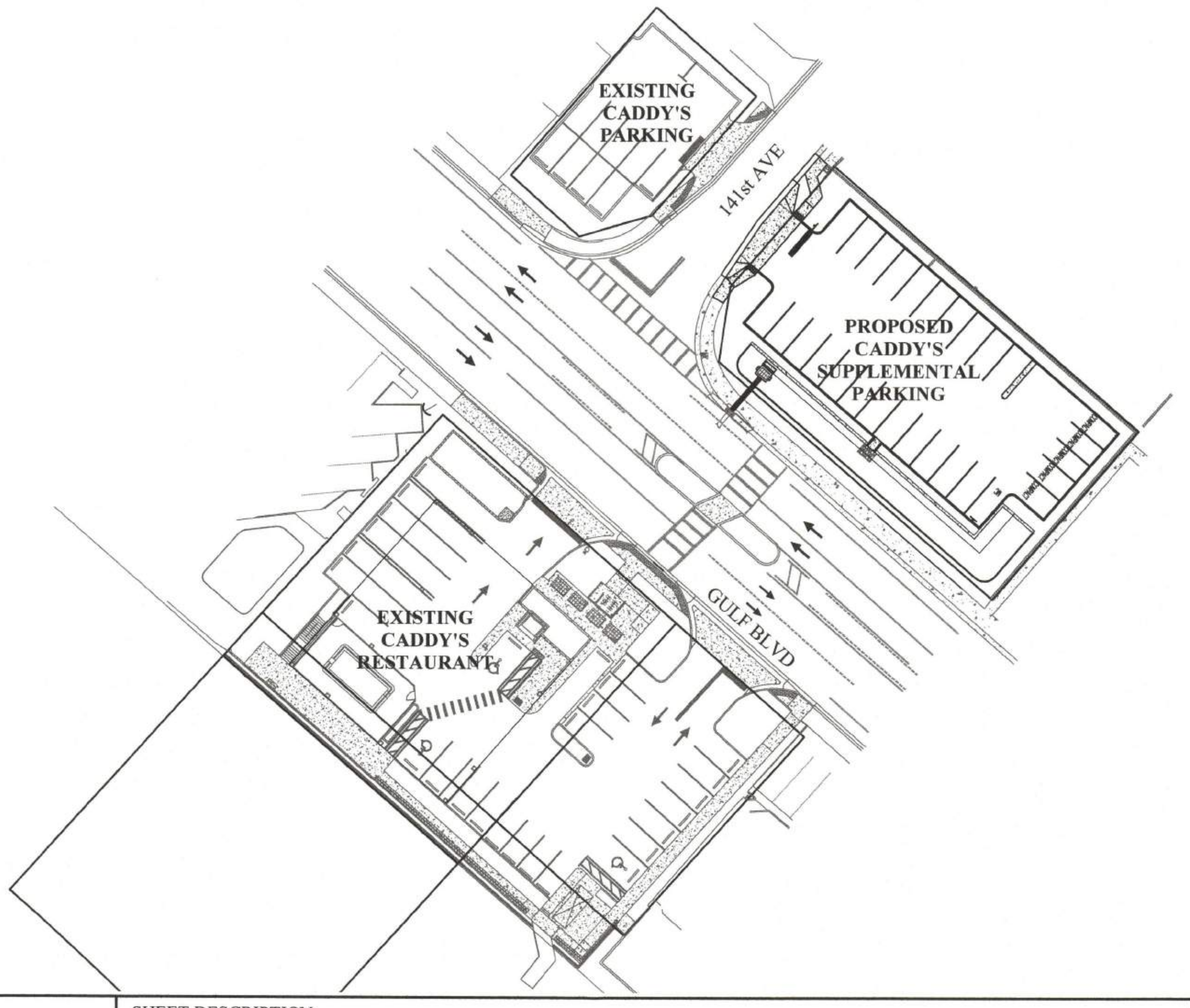
AND

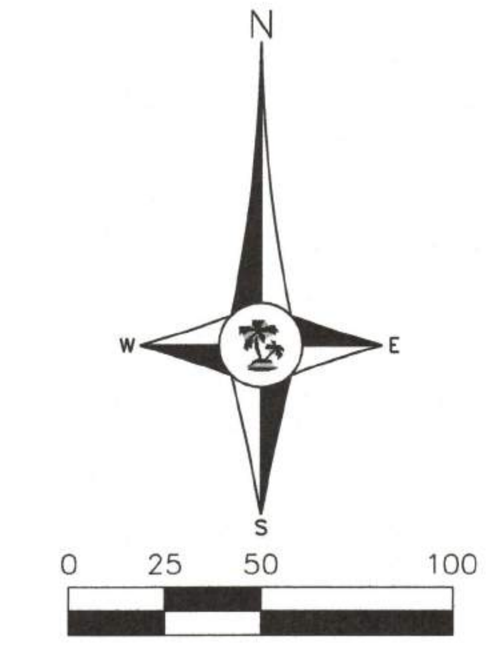
PARCEL 2
LOTS 2 AND 3, BLOCK "H" SECOND ADDN. TO GULF SHORES, ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 21, PAGES 23 AND 24, PUBLIC RECORDS OF PINELLAS COUNTY, FLORIDA, LESS THAT PART LYING WITHIN 50 FEET OF THE SURVEY LINE ON STATE ROAD 699 DESCRIBED AS FOLLOWS: BEGIN ON THE SOUTHWESTERLY EXTENSION OF THE SOUTHEASTERLY BOUNDARY LINE OF LOT 9, BLOCK H, SECOND ADDITION TO GULF SHORES SUBDIVISION IN SECTION 15, TOWNSHIP 31 SOUTH, RANGE 15 EAST AS PER PLAT THEREOF RECORDED IN PLAT BOOK 21, PAGE 24, OF THE PUBLIC RECORDS OF PINELLAS COUNTY, FLORIDA, AT A POINT 133.20 FEET S41°47'22"W OF THE NORTHEAST CORNER OF SAID LOT 9; RUN THENCE N48°30'38"W 478.78 FEET (RUNNING FROM SAID SECTION 15 INTO SECTION 10, TOWNSHIP 31 SOUTH, RANGE 15 EAST TO THE SOUTHWESTERLY EXTENSION OF THE SOUTHEASTERLY LINE OF LOT 10, BLOCK C, GULF SHORES SUBDIVISION AS PER PLAT THEREOF RECORDED IN PLAT BOOK 21, PAGE 10, PUBLIC RECORDS OF PINELLAS COUNTY, FLORIDA, AT A POINT 133.15 FEET S41°25'22"W OF THE NORTHEAST CORNER OF SAID LOT 10.

OVERALL SITE DATA TABLE
(INCLUDING EXISTING RESTAURANT, EXISTING PARKING LOT & PROPOSED SUPPLEMENTAL PARKING LOT)

SITE ADDRESS:	14070, 14080 & 14099 GULF BLVD MADEIRA BEACH		
PARCEL ID:	10-31-15-34344-008-0010; 10-31-15-34344-001-0010; 10-31-15-34344-001-0011		
PROPOSED USE:	RESTAURANT & PARKING LOTS		
FUTURE LAND USE MAP DESIGNATION:	R/OR/ - RESIDENTIAL/OFFICE/RETAIL & RFM - RESORT FACILITIES MEDIUM		
EXISTING ZONING:	C-3 RETAIL COMMERCIAL & R-3 MEDIUM DENSITY MULTIFAMILY RESIDENTIAL		
TOTAL LAND AREA:	±26,380 SF (±0.6056 AC)		
SITE DATA TOTALS	EXISTING	PROPOSED	MIN/MAX REQUIRED
BUILDING:	9,173 SF	N/A	N/A
PAVEMENT:	10,194 SF	15,597 SF	
IMPERVIOUS:	19,367 SF (73.42%)	15,597 SF (59.13%)	70% MAX
OPEN SPACE:	7,013 SF (26.58%)	10,783 SF (40.87%)	30% MIN
LOT AREA TOTAL:	26,380 SF	26,380 SF	4,000 SF MIN
LOT WIDTH	116.46 / 150'	116.46 / 150'	40' MIN
LOT DEPTH	121.42 / 83'	116.46 / 150'	80' MIN
PARKING CALCULATIONS		61 TOTAL SPACES (SUPPLEMENTAL PARKING) 27 STANDARD 1 MOTORCYCLE (ONSITE CADDY'S) 18 SPACES (14 VALET, 2 HDCP, 2 REGULAR) 2 MOTORCYCLE 4 BIKE SPACES (EQUIVALENT TO 2 SPACES) 22 SPACES (OFFSITE PARKING) 11 VALET SPACES	57 SPACES REQUIRED 173 SEATS IN CADDY'S @ 1 SP/4SEATS = 43.25 SPACES 55 SEATS IN TIKI & DECK @ 1 SP/4 SEATS = 13.75 SPACES (228 TOTAL SEATS) = 57 SPACES REQUIRED PER CODE
BUILDING HEIGHT	39.55' (34.55' ABOVE GRADE EL 5.0)	39.55' (34.55' ABOVE GRADE EL 5.0)	32.83' MAX ABOVE BFE (EL 5.0) PER D.A.
BUILDING SETBACKS:			
FRONT (GULF BLVD)	25'	N/A	25' MIN
REAR	14' LANDWARD OF CCL	N/A	12.42' LANDWARD OF CCL
SIDE (SE)	19.33'	N/A	10' MIN
SIDE (NW)	19.33'	N/A	10' MIN

FLOOD ZONE:
SUBJECT PROPERTY LIES IN COASTAL FLOODPLAIN ZONE AE (EL10), ZONE AE (EL11), VE (EL12) & VE (EL13) ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 12103C0191H, DATED AUGUST 24, 2021.





DESIGNED SPC
DRAWN MKC
CHECKED SPC
Q.C.

Gulf Coast Consulting, Inc.
Land Development Consulting
ENGINEERING TRANSPORTATION PLANNING PERMITTING
13825 ICOT BLVD., SUITE 605
Clearwater, Florida 33760
Phone: (727) 524-1818 Fax: (727) 524-6090
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PREPARED FOR:
SFMB MAD BEACH PROPERTY, LLC
405 SOUTH HOWARD AVENUE
TAMPA, FL 33606

SHEET DESCRIPTION:
CADDY'S SUPPLEMENTAL PARKING LOT
OVERALL SITE DATA TABLE SHEET

NO.	DATE	REVISIONS	APP'D BY
1	07/28/22	REVISED PER CITY OF MADEIRA BEACH & FDOT COMMENTS	

SEAN P. CASHEN
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE NO. 42505

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SEAN P. CASHEN, ON THE DATE INDICATED HERE USING A SHA AUTHENTICATION CODE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

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Sean P. Cashen
AUG - 2 2022
SEAN P. CASHEN, P.E. 42505
GULF COAST CONSULTING, INC.
CERTIFICATE OF AUTHORIZATION No. 9774

JOB NO. 19-009.01
DATE 05/06/22
SHT. C2

Job Copy
SUBJECT TO FIELD INSPECTION APPROVAL

MISCELLANEOUS

1 THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE PERMITS AND INSPECTION REQUIREMENTS SPECIFIED BY THE VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE ANY NECESSARY INSPECTIONS ACCORDING TO AGENCY INSTRUCTIONS.

2 ALL SPECIFICATIONS AND DOCUMENTS REFERRED TO IN THESE PLANS SHALL BE OF THE LATEST REVISION.

3. ALL WORK PERFORMED SHALL COMPLY WITH THE REGULATIONS AND ORDINANCES OF THE VARIOUS GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.

4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO THE OWNER'S ENGINEER FOR APPROVAL. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE.

5. WORK PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH OTHER WORK BEING PERFORMED ON SITE BY OTHER CONTRACTORS AND UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE CONTRACTOR TO COORDINATE AND SCHEDULE HIS ACTIVITIES, WHERE NECESSARY, WITH OTHER CONTRACTORS AND UTILITY COMPANIES.

6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN THE REQUIRED PERMITS TO PERFORM WORK IN THE PUBLIC RIGHT-OF-WAY.

7. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES BEFORE ORDERING MATERIALS AND CASTING STRUCTURES.

8. IT WILL BE NECESSARY TO EXAMINE, COORDINATE AND ADJUST ACCORDINGLY THE PROPOSED LOCATIONS OF THE VARIOUS COMPONENTS OF THE SITE UTILITIES. THE LAYOUTS INDICATED IN THE PLANS ARE NOT EXACT AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUBMIT COORDINATION DRAWINGS SHOWING PIPE SIZES, STRUCTURES, AND ELEVATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SCHEDULING AND COORDINATION OF THE ALL UNDERGROUND WORK ASSOCIATED WITH THIS PROJECT.

9. THE CONSTRUCTION OF ALL ABOVE GROUND UTILITY APPURTENANCES VISIBLE FROM THE PUBLIC RIGHT-OF-WAY SUCH AS PEDESTALS, UTILITY METERS, TRANSFORMERS, BACK-FLOW PREVENTION DEVICES, ETC FOR NEW DEVELOPMENT OR REDEVELOPMENT ACTIVITIES SHALL CONFORM TO SCREENING REQUIREMENTS AS OUTLINED IN SECTION 6.06.06.C.10 OF THE LAND DEVELOPMENT CODE. PLANT LOCATION MUST BE CONSIDERATE OF REQUIRED SPATIAL SEPARATIONS FROM A FIRE FLOW PROTECTION APPLIANCE IN ACCORDANCE TO THE UNIFORM FIRE CODE.

10. ADJUSTMENTS OF INLETS, JUNCTION BOXES, MANHOLE TOPS, WATER VALVES, WATER METERS, ETC. SHALL BE INCLUDED IN THE CONTRACTOR'S BID AND NO CLAIM SHALL BE MADE AGAINST THE OWNER OR ENGINEER FOR THESE ADJUSTMENTS, IF REQUIRED.

SAFETY

1. DURING THE CONSTRUCTION AND MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS PERSONNEL.

2. THE CONTRACTOR'S MAINTENANCE OF TRAFFIC PLAN MUST BE SUBMITTED AND APPROVED BY THE FDOT PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES WITHIN THE FDOT RIGHT-OF-WAY.

3. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.

4. CONTRACTOR SHALL PROVIDE AND MAINTAIN THEIR OWN SAFETY EQUIPMENT IN ACCORDANCE WITH THEIR HEALTH & SAFETY PROGRAM AND ALL OTHER APPLICABLE LEGAL AND HEALTH AND SAFETY REQUIREMENTS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PROVIDING THEIR EMPLOYEES AND SUBCONTRACTORS WITH ADEQUATE INFORMATION AND TRAINING TO ENSURE THAT ALL EMPLOYEES AND SUBCONTRACTORS AND SUBCONTRACTORS' EMPLOYEES COMPLY WITH ALL APPLICABLE REQUIREMENTS. CONTRACTOR SHALL REMAIN IN COMPLIANCE WITH ALL OCCUPATION SAFETY AND HEALTH REGULATIONS AS WELL AS THE ENVIRONMENTAL PROTECTION LAWS. THE FOLLOWING IS NOT TO BE PERCEIVED AS THE ENTIRE SAFETY PROGRAM BUT JUST BASIC REQUIREMENTS.

5. ALL EXCAVATIONS BY THE CONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF THE DEPARTMENT OF LABOR'S OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION RULES AND REGULATIONS. PARTICULAR ATTENTION MUST BE PAID TO THE CONSTRUCTION STANDARDS FOR EXCAVATIONS, 29 CFR PART 1926, SUBPART P.

6. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF "THE STATE OF FLORIDA, MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS" SHALL BE FOLLOWED IN THE DESIGN, APPLICATION, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND WORKMEN FROM HAZARDS WITHIN THE PROJECT LIMITS.

7. ALL TRAFFIC CONTROL MARKINGS AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION.

8. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.

9. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE UTILITY COMPANIES PRIOR TO CONSTRUCTION TO OBTAIN FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES. CALL SUNSHINE STATE ONE AT 811 TO ARRANGE FIELD LOCATIONS.

10. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR CALLED FOR IN THIS CONTRACT.

11. ALL UNDERGROUND UTILITIES MUST BE IN PLACE AND TESTED OR INSPECTED PRIOR TO BASE AND PAVEMENT CONSTRUCTION.

SITE PLAN AND COORDINATE GEOMETRY

1. CURRENT ZONING: R-3

2. ALL POINTS AND MONUMENTS SHALL BE SURVEYED UPON MOBILIZATION TO VERIFY THEIR ACCURACY. ANY DISCREPANCIES DISCOVERED MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING.

3. MONUMENTS AND OTHER SURVEY CONTROL POINTS SHALL BE PROTECTED FROM DAMAGE AND DISTURBANCE. IF ANY CONTROL POINTS ARE DAMAGED OR DISTURBED, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND REPLACE THE CONTROL POINTS TO THEIR ORIGINAL CONDITION AT HIS OWN EXPENSE.

4. BEARINGS SHOWN HEREON ARE BASED ON THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF GULF BOULEVARD, HAVING AN GRID BEARING OF S.48°26'15"E. THE GRID BEARINGS AS SHOWN HEREON REFER TO THE STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD 83-2007 ADJUSTMENT) FOR THE WEST ZONE OF FLORIDA, AS ESTABLISHED FROM RTK NETWORK.

5. THE SUBJECT PROPERTY LIES IN FLOOD ZONE "VE" WITH ELEVATIONS OF 13' ACCORDING TO FLOOD INSURANCE RATE MAP, MAP NO. 12103C0191G FOR PINELLAS COUNTY, FLORIDA, COMMUNITY NO. 125127, DATED SEPTEMBER 3, 2003 AND ISSUED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

5. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.

6. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH THE OWNER'S ENGINEER WITH COMPLETE "AS-BUILT" INFORMATION CERTIFIED BY A REGISTERED LAND SURVEYOR. THIS "AS-BUILT" INFORMATION SHALL INCLUDE INVERT ELEVATIONS, LOCATION OF FITTINGS, LOCATION OF STRUCTURES FOR ALL UTILITIES INSTALLED, AS WELL AS TOP OF BANK, TOE OF SLOPE AND GRADE BREAK LOCATIONS AND ELEVATIONS FOR POND AND DITCH CONSTRUCTION. NO ENGINEER'S CERTIFICATIONS FOR CERTIFICATE OF OCCUPANCY PURPOSES WILL BE MADE UNTIL THIS INFORMATION IS RECEIVED AND APPROVED BY THE OWNER'S ENGINEER.

7. VERTICAL DATUM FOR ELEVATIONS REFERENCE IN THESE PLANS IS NAVD88.

CLEARING/DEMOLITION

1. PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN AS INDICATED ON THE CONSTRUCTION PLANS SHALL BE PROTECTED IN ACCORDANCE WITH LOCAL TREE ORDINANCES AND DETAILS CONTAINED IN THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THESE TREES IN GOOD CONDITION. NO TREE SHOWN TO REMAIN SHALL BE REMOVED WITHOUT WRITTEN APPROVAL FROM CITY OF MADERIA BEACH OR THE OWNER.

2. THE CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. DISTURBED AREAS WILL BE SEEDED, MULCHED, SODDED OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL IMMEDIATELY FOLLOWING CONSTRUCTION.

3. REMAINING EARTHWORK THAT RESULTS FROM CLEARING AND GRUBBING OR SITE EXCAVATION IS TO BE UTILIZED ON-SITE IF REQUIRED, PROVIDED THAT THE MATERIAL IS DEEMED SUITABLE FOR CONSTRUCTION BY THE OWNER'S SOILS TESTING COMPANY. EXCESS MATERIAL IS TO BE EITHER STOCKPILED ON THE SITE AS DIRECTED BY THE OWNER OR OWNER'S ENGINEER, OR REMOVED FROM THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING EXCESS EARTHWORK FROM THE SITE.

4. ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIALS SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATORY AGENCY REQUIREMENTS.

5. CONTRACTOR WILL BE RESPONSIBLE FOR MAKING A VISUAL INSPECTION OF THE SITE AND WILL BE RESPONSIBLE FOR THE DEMOLITION AND REMOVAL, PURSUANT TO ALL FEDERAL, STATE, COUNTY, CITY OR OTHER GOVERNMENT AGENCY REQUIREMENTS, OF ALL UNDERGROUND AND ABOVE GROUND STRUCTURES THAT WILL NOT BE INCORPORATED WITHIN THE NEW FACILITIES.

PAVING AND GRADING

1. ALL DELETERIOUS SUBSURFACE MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS) IS TO BE EXCAVATED IN ACCORDANCE WITH THESE PLANS OR AS DIRECTED BY THE OWNER, THE OWNER'S ENGINEER, OR OWNER'S SOIL TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS TO BE BACK FILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING DELETERIOUS MATERIAL FROM THE SITE.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. DEWATERING METHODS SHALL BE USED AS REQUIRED TO KEEP TRENCHES DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED.

3. ALL NECESSARY FILL AND EMBANKMENT THAT IS PLACED DURING CONSTRUCTION SHALL CONSIST OF MATERIAL SPECIFIED BY THE OWNER'S SOIL TESTING COMPANY OR ENGINEER AND BE PLACED AND COMPACTED ACCORDING TO THESE PLANS OR THE REFERENCED SOILS REPORT.

4. PROPOSED SPOT ELEVATIONS REPRESENT FINISHED PAVEMENT OR GROUND SURFACE GRADE UNLESS OTHERWISE NOTED ON DRAWINGS.

5. CONTRACTOR SHALL TRIM, TACK AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.

6. CURBING WILL BE PLACED AT THE EDGE OF ALL PAVEMENT, AS SHOWN ON THE PLANS.

7. REFER TO THE LATEST EDITION OF F.D.O.T. "ROADWAY AND TRAFFIC DESIGN STANDARDS" FOR DETAILS AND SPECIFICATIONS OF ALL F.D.O.T. TYPE CURBING AND GUTTERS CALLED FOR IN THESE PLANS.

8. CONTRACTOR TO PROVIDE A 1/2" TO 1" BITUMINOUS EXPANSION JOINT MATERIAL WITH SEALER AT ABUTMENT OF CONCRETE AND OTHER MATERIALS (BUILDINGS, OTHER POURED CONCRETE, ETC.)

9. ALL PAVEMENT MARKINGS SHALL BE MADE WITH PERMANENT THERMOPLASTIC AND SHALL CONFORM TO F.D.O.T STANDARD INDEX NO. 17346, SHEETS 1-7. PARKING STALL STRIPING TO BE 4" WIDE PAINTED STRIPES.

10. CONTRACTOR IS TO PROVIDE EROSION CONTROL AND SEDIMENTATION BARRIER (HAY 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 SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES.

11. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABILIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION OR OTHER ACCEPTABLE METHODS.

12. THE CONTRACTOR WILL STABILIZE BY SEED AND MULCH, SOD OR OTHER APPROVED MATERIALS ANY DISTURBED AREAS WITHIN ONE WEEK FOLLOWING CONSTRUCTION OF THE UTILITY SYSTEMS AND PAVEMENT AREAS. CONTRACTOR SHALL MAINTAIN SUCH AREAS UNTIL FINAL ACCEPTANCE BY OWNER. WITHIN THE FDOT RIGHT-OF-WAY, THE CONTRACTOR SHALL STABILIZE THE RIGTH-OF-WAY BY SODDING ONLY.

13. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE TESTING WITH THE SOILS ENGINEER. TESTS WILL BE REQUIRED PURSUANT WITH THE TESTING SCHEDULE LOCATED ON TABLE SC-1. UPON COMPLETION OF THE WORK, SOILS ENGINEER WILL SUBMIT CERTIFICATIONS TO THE OWNER'S ENGINEER STATING THAT ALL REQUIREMENTS HAVE BEEN MET.

14 A QUALIFIED TESTING LABORATORY SHALL PERFORM ALL TESTING NECESSARY TO ASSURE COMPLIANCE OF THE IN PLACE MATERIALS AS REQUIRED BY THESE PLANS AND THE VARIOUS AGENCIES. SHOULD ANY RETESTING BE REQUIRED DO TO THE FAILURE OF ANY TESTS TO MEET THE REQUIREMENTS, THE CONTRACTOR WILL BEAR ALL COST OF SAID RETESTING.

DRAINAGE

1. STANDARD INDEXES REFER TO THE LATEST EDITION OF THE FDOT DESIGN STANDARDS FOR DESIGN , CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM.

2. ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE CLASS III (ASTM C-76) UNLESS OTHERWISE NOTED ON PLANS.

3. PIPE LENGTHS SHOWN ARE APPROXIMATE AND MEASURED FROM CENTER TO CENTER OF THE PROPOSED DRAINAGE STRUCTURES OR TO THE CONNECTION OF END WALLS AND MITERED END SECTIONS.

4. ALL DRAINAGE STRUCTURE GRATES AND COVERS SHALL BE TRAFFIC RATED FOR H-20 LOADINGS.

5. ALL STORM DRAINAGE PIPING SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER PRIOR TO THE PLACEMENT OF BACKFILL. CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION. CONTRACTOR SHALL ONLY INSTALL FDOT APPROVED/STAMPED PIPE IN FDOT RIGHT-OF-WAY.

6. THE CONTRACTOR SHALL MAINTAIN AND PROTECT FROM MUD, DIRT, DEBRIS, ETC. THE STORM DRAINAGE SYSTEM UNTIL FINAL ACCEPTANCE BY THE OWNER'S ENGINEER.

EXISTING TREE PROTECTION NOTES:

1. REQUIRED BARRICADES AND FLAGGING SHALL BE ERECTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER AND PINELLAS COUNTY PRIOR TO COMMENCEMENT OF LAND ALTERATION ACTIVITIES. COMMENCEMENT OF LAND ALTERATION ACTIVITIES. BARRICADES SHALL REMAIN IN PLACE UNTIL ALTERATION AND CONSTRUCTION ACTIVITIES ARE COMPLETED.

2. DURING LAND ALTERATION AND CONSTRUCTION ACTIVITIES, IT SHALL BE UNLAWFUL TO REMOVE VEGETATION BY GRUBBING OF TO PLACE SOIL DEPOSITS, DEBRIS, SOLVENTS, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND WITHIN THE DRIPLINE OF A TREE TO REMAIN ON THE SITE UNLESS OTHERWISE APPROVED BY THE COUNTY.

EROSION/TURBIDITY CONTROL NOTES

1. THE INSTALLATION OF TEMPORARY EROSION CONTROL BARRIERS SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE LIFE OF THE CONSTRUCTION PHASE.

2. THE TYPE OF EROSION CONTROL BARRIERS USED SHALL BE GOVERNED BY THE NATURE OF THE CONSTRUCTION OPERATION AND SOIL TYPE THAT WILL BE EXPOSED. SILTY AND CLAYEY MATERIAL USUALLY REQUIRE SOLID SEDIMENT BARRIERS TO PREVENT TURBID WATER DISCHARGE, WHILE SANDY MATERIAL MAY NEED ONLY SILT SCREENS OR HAY BALES TO PREVENT EROSION. FLOATING TURBIDITY CURTAINS SHALL BE USED IN OPEN WATER SITUATIONS. DIVERSION DITCHES OR SWALES MAY BE REQUIRED TO PREVENT TURBID STORMWATER RUNOFF FROM BEING DISCHARGED TO WETLANDS OR OTHER WATER BODIES. IT MAY BE NECESSARY TO EMPLOY A COMBINATION OF BARRIERS, DITCHES AND OTHER EROSION/TURBIDITY CONTROL MEASURES IF CONDITIONS WARRANT.

3. CONSTRUCTION OPERATIONS IN OR ADJACENT TO WETLANDS SHALL BE RESTRICTED TO THOSE AREAS IDENTIFIED IN THE PLANS AND IN THE SPECIFICATIONS.

4. EXCAVATED MATERIAL SHALL NOT BE DEPOSITED IN THE WETLANDS OR IN A POSITION CLOSE ENOUGH THERETO TO BE WASHED AWAY BY HIGH WATER OR RUNOFF.

5. WHERE PUMPS ARE TO BE USED TO REMOVE TURBID WATERS FROM CONSTRUCTION AREAS, THE WATER SHALL BE TREATED PRIOR TO DISCHARGE TO THE WETLANDS. TREATMENT METHODS INCLUDE AND ARE NOT LIMITED TO, TURBID WATER BEING PUMPED INTO GRASSED SWALES OR APPROPRIATE VEGETATED AREAS, SEDIMENT BASINS, OR CONFINED BY AN APPROPRIATE ENCLOSURE SUCH AS TURBIDITY BARRIERS, AND KEPT CONFINED UNTIL ITS TURBIDITY LEVEL MEETS STATE WATER QUALITY STANDARDS.

6. THE CONTRACTOR SHALL SCHEDULE HIS OPERATIONS SUCH THAT THE AREA OF UNPROTECTED ERODIBLE EARTH EXPOSED AT ANY ONE TIME IS NOT LARGER THAN THE MINIMUM AREA NECESSARY FOR EFFICIENT CONSTRUCTION OPERATIONS, AND THE DURATION OF EXPOSED, UNCOMPLETED CONSTRUCTION TO THE ELEMENTS SHALL BE AS SHORT AS PRACTICABLE. CLEARING AND GRUBBING SHALL BE SO SCHEDULED AND PERFORMED THAT GRADING OPERATIONS CAN FOLLOW IMMEDIATELY THEREAFTER, AND GRADING OPERATIONS SHALL BE SCHEDULED AND PERFORMED THAT PERMANENT EROSION CONTROL FEATURES CAN FOLLOW IMMEDIATELY THEREAFTER IF CONDITIONS ON THE PROJECT PERMIT.

7. THE CONTRACTOR AND/OR OWNER'S REPRESENTATIVE SHALL PROVIDE ROUTINE MAINTENANCE OF PERMANENT AND TEMPORARY EROSION CONTROL FEATURES UNTIL THE PROJECT IS COMPLETE AND ALL BARED SOILS ARE STABILIZED.

8. SILT FENCE SHALL BE LOCATED AT THE PERIMETER OF CONSTRUCTION LIMITS, AS DEFINED BY FIELD CONDITIONS.

SANITARY SEWER

A. ALL SANITARY SEWER MAINS, LATERALS AND FORCE MAINS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER.

B. ALL ON SITE P.V.C. GRAVITY SANITARY SEWER PIPE SHALL BE MADE OF MATERIAL HAVING A CELL CLASSIFICATION OF 12454 B, 12454 C OR 13354 B AS DEFINED IN ASTM D-1784 AND CONFORM TO THE REQUIREMENTS OF SDR 35. ELASTOMERIC GASKET JOINTS SHALL BE UTILIZED.

C. ALL ON SITE DUCTILE IRON PIPE SHALL BE CLASS 52 AND SHALL RECEIVE INTERIOR AND EXTERIOR BITUMINOUS COATING IN ACCORDANCE WITH ANSI A 21.6, A 21.8, OR A 21.51.

D. POINTS OF CONNECTION FOR THE SANITARY SEWER LINES ARE TO BE COORDINATED WITH THE BUILDING PLUMBING PLANS. SANITARY SERVICE CONNECTION LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE.

E. ALL SANITARY SEWER WORK SHALL CONFORM WITH APPLICABLE AGENCY STANDARDS AND SPECIFICATIONS.

F. PRIOR TO COMMENCING WORK WHICH REQUIRES CONNECTING NEW SANITARY SEWER LINES TO EXISTING LINES OR APPURTENANCES, THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES NEAR THE POINT OF CONNECTION AND NOTIFY OWNER'S ENGINEER OF ANY CONFLICTS OR DISCREPANCIES WITH DESIGN INFORMATION SHOWN IN THESE PLANS. CONTRACTOR SHALL NOTIFY ENGINEER AND CITY OF MADERIA BEACH AT LEAST 48 HOURS IN ADVANCE OF SCHEDULED WORK.

WATER DISTRIBUTION

A. ALL WATER MAINS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER.

B. ALL WATER SYSTEM WORK SHALL CONFORM TO CITY OF MADEIRA BEACH STANDARDS AND SPECIFICATIONS

C. CONFLICTS BETWEEN WATER AND STORM OR SANITARY SEWER TO BE RESOLVED BY ADJUSTING THE WATER LINES AS NECESSARY.

D. CONTRACTOR TO INSTALL TEMPORARY BLOWOFFS AT THE END OF WATER SERVICE LATERALS TO BUILDINGS TO ASSURE ADEQUATE FLUSHING AND DISINFECTION.

E. THRUST BLOCKING SHALL BE PROVIDED AT ALL FITTINGS AND HYDRANTS AS SHOWN ON DETAILS. ALL JOINTS SHALL BE RESTRAINT JOINT FITTINGS.

F. POINTS OF CONNECTION OF THE EXTERNAL WATER LINES ARE TO COINCIDE WITH THE BUILDING PLUMBING AS SHOWN ON THE BUILDING PLUMBING PLANS. CONNECTION LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE.

G. CONTRACTOR TO PERFORM CHLORINATION AND BACTERIOLOGICAL SAMPLING AND OBTAIN CLEARANCE OF DOMESTIC WATER SYSTEM. COPIES OF ALL BACTERIOLOGICAL TESTS TO BE SUBMITTED TO OWNER'S ENGINEER.

H. WATER MAIN SHALL HAVE SUITABLE MAGNETIC LOCATOR TAPE BURIED

UTILITY SEPARATION NOTES

1. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE.

2. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE. AT THE UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY-OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

NOTES:

THE SITE LIGHTING PLAN FOR THE PROJECT WILL ADHERE TO THE PROVISIONS IDENTIFIED IN THE MADEIRA BEACH, FL CODE OF ORDINANCES FOR SITE LIGHTING, INCLUDING ORDINANCE 2019-12.

AT ALL STREET INTERSECTIONS NO OBSTRUCTION TO VISION (OTHER THAN AN EXISTING BUILDING, POST, COLUMN, OR TREE) EXCEEDING 36 INCHES IN HEIGHT ABOVE THE ESTABLISHED GRADE OF THE STREET AT THE PROPERTY LINE SHALL BE ERECTED OR MAINTAINED ON ANY LOT WITHIN THE TRIANGLE FORMED BY THE STREET LOT LINES OF SUCH LOT AND A LINE DRAWN BETWEEN THE POINTS ALONG SUCH STREET LOT LINES 25 FEET DISTANT FROM THEIR POINT OF INTERSECTION.

CITY OF MADEIRA BEACH NOTES

1. WHERE NECESSARY TO ACCOMMODATE PROPOSED DEVELOPMENT, THE APPLICANT SHALL BE RESPONSIBLE FOR THE REMOVAL AND/OR RELOCATION OF ANY AND ALL PUBLIC UTILITIES LOCATED ON THE SUBJECT SITE, INCLUDING THE GRANTING OF EASEMENTS AS MAY BE REQUIRED. THIS IS REGARDLESS OF WHETHER THE PUBLIC UTILITIES ARE KNOWN AT THE TIME OF SITE PLAN APPROVAL OR DISCOVERED SUBSEQUENT TO SUCH APPROVAL. ANY REQUIRED RELOCATION WILL REQUIRE APPROVAL FROM THE CITY'S COMMUNITY SERVICES DEPARTMENT.

2. UTILITY SERVICES - ALL UTILITIES SERVICING THE PROPOSED BUILDING AND ACCESSORY USES MUST BE UNDERGROUND

3. BUILDING FIRE CODE - THE BUILDING DESIGN MUST BE IN CONFORMANCE WITH THE NFPA FIRE/LIFE SAFETY CODE, APPLICABLE LAW, STATE AND NATIONAL ORDINANCES AND CODES.

FDOT NOTES

FOR THE CONSTRUCTION OR RECONSTRUCTION OF SIDEWALK ON STATE RIGHT-OF-WAY USE STANDARD #520-001, #522-001 AND #522-002, AND MEET CURRENT ADA STANDARDS AND ALL CONCRETE PLACED IN THE RIGHT OF WAY SHALL BE MINIMUM OF 6" THICK, FDOT_CLASS 1 NON-STRUCTURAL, 2500 PSI CONCRETE WITH FIBER MESH MATERIAL FROM A STATE APPROVED PLANT.

POND OPERATION AND MAINTENANCE INSTRUCTIONS

OPERATION

THE PROJECT'S STORMWATER MANAGEMENT SYSTEM IS A GRAVITY OPERATED SYSTEM AND REQUIRES NO OPERATOR ACTION OTHER THAN MAINTENANCE. SEE SHEET C11 FOR OPERATION AND MAINTENANCE OF THE SUB-SURFACE STORMWATER MANAGEMENT SYSTEM.

MAINTENANCE

1. SWALES: ALL SWALES SHALL BE PERIODICALLY MOWED AND CLEANED. DURING THE MOWING OPERATION, SWALES SHALL BE INSPECTED FOR BARE SPOTS, DAMAGE, AND EROSION. ANY BARE SPOTS GREATER THAN ONE (1) SQUARE FOOT IN AREA SHALL BE SEEDED OR SODDED TO REPLACE THE GRASS COVER. IN CASE OF EROSION OR DAMAGE WHERE UNDERLYING SOIL IS MISSING, THE MISSING SOIL SHALL BE REPLACED AND THE AREA BROUGHT BACK TO GRADE THEN SEEDED OR SODDED AS REQUIRED.
2. INLET GRATES: INLET GRATES WILL BE CHECKED MONTHLY FOR DAMAGE OR BLOCKAGE. ANY DAMAGED GRATES WILL BE REPLACED OR REPAIRED. ANY DEBRIS BLOCKING FULL FLOW THROUGH THE GATE WILL BE REMOVED.
3. PIPES AND INLETS: PIPES AND INLETS WILL BE INSPECTED YEARLY FOR DAMAGE OR BLOCKAGE. ANY DAMAGED PIPES OR INLETS WILL BE REPAIRED OR REPLACED. REMOVE ANY TRASH, DEBRIS, OR SAND DEPOSITS.
4. POND RETENTION AREAS: ALL PONDS SHALL BE PERIODICALLY MOWED AND CLEANED. DURING THE MOWING OPERATION, PONDS SHALL BE INSPECTED FOR BARE SPOTS, DAMAGE, AND EROSION. ANY BARE SPOTS GREATER THAN ONE (1) SQUARE FOOT IN AREA SHALL BE SEEDED OR SODDED TO REPLACE THE GRASS COVER. IN CASE OF EROSION OR DAMAGE WHERE UNDERLYING SOIL IS MISSING, THE MISSING SOIL SHALL BE REPLACED AND THE AREA BROUGHT BACK TO GRADE THEN SEEDED OR SODDED AS REQUIRED.

GENERAL NOTES

1. ALL CONSTRUCTION, MATERIALS, AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH CITY OF MADERIA BEACH STANDARDS, AND FDOT SPECIFICATIONS, LATEST EDITIONS.
2. CONTRACTOR IS TO COORDINATE ALL WORK WITHIN, BUT NOT LIMITED TO PUBLIC RIGHT- OF-WAY WITH UTILITY COMPANIES IN ORDER TO PREVENT DAMAGE TO UTILITY LINES AND THE MAKING OF ADJUSTMENTS TO SAME, IF REQUIRED.
3. CONTRACTOR SHALL CONTACT THE ENGINEER AND/OR THE OWNER PRIOR TO ANY CONSTRUCTION THAT MAY DAMAGE TREES.
4. ADJUSTING MANHOLE TOPS, VALVE COVERS, METER BOXES, ETC. TO MATCH GRADE AND SLOPE OF THE FINISH PAVING SHALL BE INCLUDED IN THE CONSTRUCTION COST. PAYMENT OF WHICH WILL CONSTITUTE FULL COMPENSATION FOR THE CONSTRUCTION OF THE PROJECT, AND NO ADDITIONAL PAYMENT WILL BE ALLOWED OR MADE FOR THESE ADJUSTMENTS.
5. ALL FINISH FLOOR ELEVATIONS (FFE) ARE MINIMUMS.
6. SLOPE PERIMETER GRADE TO MATCH EXISTING GRADE AT 4:1 MAXIMUM.
7. ANY AREAS SUBJECT TO EROSION MUST BE ADEQUATELY STABILIZED WITH VEGETATIVE MATERIAL THAT WILL, WITHIN A REASONABLE TIME FRAME, DETER SOIL DISTURBANCE. SODDING, PLUGGING, SPRIGGING OR SEEDING IS ACCEPTABLE FOR STABILIZATION; HOWEVER, SODDING MAY BE REQUIRED IN AREAS OF EROSION-PRONE SOILS OR WHERE SLOPES ARE GREATER THAT 5:1 VEGETATION OTHER THAN GRASS IS ACCEPTABLE UNLESS OTHERWISE SPECIFIED.
8. THIS LOT AS DESCRIBED IS IN ZONE VE PER COMMUNITY PANEL NO. 12103C0191G, DATED 9/3/2003
9. NOT USED.
10. ALL GRADING OF SIDEWALKS AND PEDESTRIAN WALKWAYS SHALL MEET MINIMUM 'ADA' STANDARDS. SIDEWALK CROSS SLOPES AND DRIVEWAY CROSSINGS FOR SIDEWALKS TO BE 2.0% MAX. SLOPE. ALL SIDEWALK RUNNING SLOPES SHALL NOT EXCEED 5% WITHOUT USE OF PROPER RAMPS PER FDOT OR FLORIDA BUIDING CODE. CONTRACTOR SHALL FIELD VERIFY SIDEWALK FORM BOARDS PRIOR TO CONSTRUCTING WALKWAYS.
11. CONTRACTOR SHALL WRAP ALL INLET GRATES WITH FILTER FABRIC UPON INSTALLATION. FABRIC TO BE REMOVED UPON COMPLETION OF BUILDING CONSTRUCTION.
12. BUILDING EXTERIOR GRADE SHALL BE 5' LEVEL AT BUILDING PERIMETER PRIOR TO SLOPING TO EXISTING GRADE.
13. CONTRACTOR SHALL OBTAIN ALL CONTRACTOR RELATED PERMITS.
14. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR CALLED FOR IN THIS CONTRACT.
15. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS OF THE RIGHT-OF-WAY S.R. 699 AFTER THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
16. AT THE LOCATIONS OF ANY EXISTING DRIVEWAYS AND ROADWAY TIE IN POINTS THAT ARE TO BE REMOVED, THE DROP CURB AND DRIVEWAY/ROADWAY APRONS SHALL BE REMOVED AND AREA REGRADED, SODDED AND RESTORED WITH TYPE "F" CURB AND STANDARD SIDEWALK THAT CONFORMS WITH FDOT STANDARD INDEX NO. 520-001 AND 522-001.
17. ANY SIDEWALK FRONTING THE PROPERTY THAT IS CRACKED, DAMAGED OR UNSTABLE AND IS CREATING AN ADA TRIP HAZARD MUST BE REPLACED BY SECTION, USING STANDARD 520-001, 522-002, AND 522-001 FOR THE CONSTRUCTION OF SIDEWALK AND MEET ADA STANDARDS. ALL CONCRETE PLACED IN THE R/W SHALL BE A MINIMUM OF 6" THICK, FDOT CLASS 1 NON STRUCTURAL, 2500 PSI CONCRETE WITH FIBER MESH MATERIAL FROM A STATE APPOVED PLANT.
18. PRIOR TO THE REMOVAL OF ANY MATERIAL, THE AREA MUST BE SAW-CUT TO PREVENT ANY DAMAGE TO THE ROADWAY

FDOT

FDOT CONSTRUCTION NOTES - ACCESS

1. Any new proposed plan shall include cross sections of the state road adequately reflecting all right of way features including existing utilities, storm drain structures and any above or below ground appurtenances where applicable.
2. No pedestrian pathway is to be removed, blocked, or disturbed without having a sufficient designated temporary pedestrian pathway with all appropriate pedestrian maintenance of traffic signs (Standard Plan 102-660) in place prior to pathway being affected.
3. All temporary pedestrian pathways must be firm and unyielding.
4. Any sidewalk fronting the property that is cracked, damaged or unstable and is creating an ADA trip hazard must be replaced by section, using Standard #520-001, # 522-002, and #522-001 for the construction of sidewalk and meet current ADA Standards. All concrete placed in the right of way shall be a minimum of 6" thick, FDOT Certified Class 1 non-structural, 2500 PSI concrete with fiber mesh material from a FDOT approved plant.
5. Verify and ensure that the existing sidewalk in the ROW being retained meets ADA requirements. Any sidewalk found during subsequent site inspections not meeting current ADA and FDOT Design Standards will be required to be removed and replaced.
6. The detectible warning surface materials must be on the State's Approved Products List. (Non-proprietary).
7. Any sidewalk damaged as a result of work being performed in association with the permittee and contractor shall be removed and replaced per FDOT Specifications.
8. Any sidewalk disturbed will be replaced by section within 72 hours, to FDOT specifications.
9. Pipe culverts shown on the permit must meet FDOT specifications, type, size, and length as described on the permit. Each joint or length of pipe shall have FDOT stamps affixed verifying this approval. All concrete pipe joints other than 1" ring joints must be diapered. All culverts to be inspected by FDOT prior to placement of fill.
10. The FDOT retains the right to make alterations to the permit, attached sketch or character of work as may be considered necessary or desirable during the progress of the work for satisfactory completion of the proposed construction.
11. The permittee shall notify the FDOT of date of completion, request a final inspection and a notice of final acceptance.
12. All construction and/or maintenance on the FDOT right of way shall conform to the federal manual on uniform traffic devices (MUTCD). The FDOT roadway and traffic design standards. The standard specifications for road and bridge construction, plans preparation manual and drainage manual.
13. No lane closures of any State roadway are allowed without 48-hour advance notice and approval from FDOT.
14. Lane closures must be limited to Sunday through Thursday 8:00 PM to 5:30 AM unless otherwise approved by the FDOT.
15. Lane closure needs to accommodate for a bike lane if the roadway consists of one.
16. No work shall be performed during the weeks of any state or federal holidays unless otherwise approved in writing by the FDOT.
17. Open cutting of any roadway, driveway, or sidewalk outside those limits identified within the permit are not allowed without prior approval by the FDOT.
18. Prior to the removal of any materials the area must be saw-cut to prevent any damage to the roadway.
19. The contractor shall have an authorized person available at/or near the work site on a 24-hour basis, 7 days a week in order to address emergency issues associated with the project.
20. No stock piling, storing, or semi-permanent use of the right of way is authorized unless specifically identified within the permit.
21. The permitted work schedule is defined as Monday through Friday 7:00 AM to 5:30 PM unless otherwise noted within the permit. Any work desired outside of this period must be requested in advance and approved before working the alternate schedule.
22. The Department of Transportation reserves the right to make adjustments to any permitted method of installation, scope, restoration that may be required to positively support life, safety and environmental well-being of all users of the transportation system.
23. Roadway restoration shall utilize 100 PSI excavatable flowable fill material and asphalt placed within the State right-of-way shall be placed full-depth, two 2.5-inch lifts of SP 12.5, two 1.5-inch lifts of SP 9.5. Typical sections will need to be provided within the plans for the pavement placement. A stair step method should be incorporated, prior to placing asphalt, to avoid vertical joints. Milling of the patch may be required based on the patched surface performance. The milling shall be utilized for surface leveling to a thickness equal to or greater than the existing friction coarse material. The milling limits are 50-foot of the patch along the longitudinal path of the lane, full lane width and to include any adjacent bike lanes, shared path or urban shoulder sections.
24. Any disruptions to any permeable pedestrian way and bike lane are to be restored as work continues. All patches shall be full width from outside edge of pedestrian path to white line edge of travel lane with stair step (staggered) joints. Restoration to include backfill with existing sub-grade material and #57 stone as base material (compact in 6-inch lifts) to bottom of existing pervious asphalt base, followed by permeable design mix (if available) or FC-5 (Friction Course) mix with a minimum of two 2-inch and a maximum of two 3-inch lifts. Maintain ingress/egress on all drives and side streets during construction.
25. The Department will review the revisions to the plans and if needed changes are necessary the Department will address it at that time.

THE CONTRACTOR WILL BE REQUIRED TO HAVE A PRE-CON MEETING TWO WEEKS PRIOR TO WORK IN THE STATE-OF-WAY.

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July 11, 2018

DESIGNED SPC
DRAWN MKC
CHECKED SPC
Q.C.

Gulf Coast Consulting, Inc.
Land Development Consulting
ENGINEERING TRANSPORTATION PLANNING PERMITTING
13825 ICOT BLVD., SUITE 605
Clearwater, Florida 33760
Phone: (727) 524-1818 Fax: (727) 524-6090
WWW.GULFCOASTCONSULTINGINC.COM

PREPARED FOR:

SFMB MAD BEACH PROPERTY, LLC
405 SOUTH HOWARD AVENUE
TAMPA, FL 33606

SHEET DESCRIPTION:

CADDY'S SUPPLEMENTAL PARKING LOT

NOTES & SPECIFICATIONS

NO.	DATE	REVISIONS	APP'D BY
2	07/27/22	REVISED PER FDOT DRAINAGE COMMENTS	
1	07/28/22	REVISED PER CITY OF MADEIRA BEACH & FDOT COMMENTS	

SEAN P. CASHEN
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE NO. 42505

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SEAN P. CASHEN, ON THE DATE INDICATED HERE USING A SHA AUTHENTICATION CODE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Sean P. Cashen
AUG - 2 2022
SEAN P. CASHEN, P.E. #42505
FL P.E. NO. 42505
NOT VALID UNLESS SIGNED & EMBOSSED BY REGISTERED ENGINEER
GULF COAST CONSULTING, INC.
CERTIFICATE OF AUTHORIZATION No. 9774

JOB NO. 19-009.01
DATE: 05/06/22
SHT. C3

Job Copy
SUBJECT TO FIELD INSPECTION APPROVAL

SEQUENCE OF MAJOR EVENTS:

1. INSTALL STAKED SILT FENCE AS INDICATED ON THE CONSTRUCTION PLANS.
2. CLEAR AND GRUB SITE.
3. EXCAVATE TEMPORARY SEDIMENT TRAPS AS NEEDED.
4. BEGIN BUILDING CONSTRUCTION.
5. INSTALL STORM SEWER SYSTEM AND ITS SILTATION PROTECTION AND UTILITIES.
6. CONSTRUCT CURB, BASE AND ASPHALT.
7. COMPLETE FINAL SITE GRADING.
8. INSTALL PERMANENT LANDSCAPING ON SITE. REPAIR ANY WASHED OUT AREAS.
9. WHEN CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE EROSION PROTECTION DEVICES AND PLACE SOD AS NECESSARY.

STABILIZATION PRACTICES

WIND EROSION STABILIZATION – THE CONTRACTOR SHALL DENUDE ONLY AREAS WHERE IT IS EXPECTED TO BE GRADED OR ALTERED WITHIN A TWO (2) WEEK TIME FRAME. ALL PERVIOUS AREAS OF THE SITE INCLUDED IN GRADING THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE GRADED AND PREPARED WITH A COMBINATION OF SOD AND/OR SEEDING AND MULCHING. PAD AREAS WITHIN FUTURE UNITS WHERE EARTHWORK IS COMPLETED SHALL BE COMPLETELY SEEDED AND MULCHED. AREAS WHERE CONSTRUCTION OPERATIONS WILL BE CONTINUOUS, FUGITIVE DUST SHALL BE MANAGED BY APPLYING A WATER SPRAY TO SATURATE THE SURFACE SOILS ON A DAILY BASIS (OR AS NEEDED) TO MAINTAIN MINIMAL DUST TRANSPORT. FUGITIVE DUST SHALL BE MONITORED CONTINUOUSLY AND ADDITIONAL MEASURES MAY NEED TO BE TAKEN TO CONTROL OFF SITE TRANSPORT OF UNACCEPTABLE LEVELS OF DUST.

TEMPORARY STABILIZATION – TOP OF SOIL STOCK PILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASS AND MULCH NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY. GRASS SEED SHALL BE A MIXTURE OF 20 PARTS OF BERMUDA AND 80 PARTS OF PENSACOLA BAHIA. THE SEPARATE TYPES OF SEED USED SHALL BE THOROUGHLY DRY MIXED IMMEDIATELY BEFORE SOWING. SEED WHICH HAS BECOME WET SHALL NOT BE USED. THE MULCH MATERIAL USED SHALL NORMALLY BE DRY MULCH. DRY MULCH SHALL BE STRAW OR HAY CONSISTING OF OAT, RYE OR WHEAT STRAW, OR OF PANGOLA, PEANUT, COASTAL BERMUDA OR BAHIA GRASS HAY. ONLY UNDETERIORATED MULCH WHICH CAN BE READILY CUT INTO THE SOIL. SHALL BE USED. AREAS OF THE SITE WHICH ARE TO BE PAVED WILL BE TEMPORARILY STABILIZED BY APPLYING STABILIZATION AND BASE.

PERMANENT STABILIZATION – DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY PERMANENTLY CEASES SHALL BE STABILIZED WITH SOD NO LATER THAN 14 DAYS AFTER LAST CONSTRUCTION ACTIVITY.

STRUCTURAL PRACTICES

EROSION PROTECTION – DURING THE CONSTRUCTION PHASES, APPROPRIATE PRACTICES INCLUDING, BUT NOT LIMITED TO SILT FENCE BARRIERS, HAY BALES AND WATERING OR OTHER METHODS NECESSARY WILL BE IMPLEMENTED TO CONTROL FUGITIVE DUST.

SEDIMENT BASINS – THE STORM WATER MANAGEMENT AREAS (RETENTION AREA(S)) WILL SERVE AS SEDIMENT BASINS DURING THE CONSTRUCTION PERIOD. AT THE CONTRACTOR'S DISCRETION, THE SEDIMENT BASINS WILL BE CONSTRUCTED TO THE DESIGN CROSS-SECTION OR A MINIMUM OF 2-FEET BELOW EXISTING GROUND TO ALLOW THE SILT TO BE COLLECTED AND REMOVED PRIOR TO COMPLETION OF THE GRADING.

STORM WATER MANAGEMENT

STORM WATER DRAINAGE WILL BE PROVIDED BY AN INVERTED CROWN PAVEMENT, STORM WATER AND CATCH BASIN SYSTEM FOR THE DEVELOPED AREAS. THE AREAS NOT DEVELOPED SHALL BE GRADED TO LESS THAN 2% SLOPES AND HAVE PERMANENT SEEDING OR PLANTINGS. WHEN CONSTRUCTION IS COMPLETE THE SITE WILL DRAIN TO STORM WATER PONDS THAT WERE UTILIZED AS THE TEMPORARY SEDIMENT BASINS DURING THE CONSTRUCTION PROCESS. ANY ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASINS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONSTRUCT ALL RETENTION/DETENTION AREAS IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS.

WASTE DISPOSAL

WASTE MATERIALS – ALL WASTE MATERIAL SHALL BE COLLECTED AND CONTAINED IN A CONTROLLED AREA PURSUANT TO STATE AND LOCAL SOLID WASTE REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS GENERATED FROM CONSTRUCTION IS TO BE REMOVED FROM THE SITE AND DISPOSED OF APPROPRIATELY. NO CONSTRUCTION MATERIALS SHALL BE BURIED ON SITE. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED IN THE ON SITE OFFICE TRAILER AND THE CONSTRUCTION MANAGER RESPONSIBLE FOR THE DAY TO DAY SITE OPERATIONS SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTE – IF ENCOUNTERED, ALL WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY STATE AND/LOCAL REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

SANITARY WASTE – ALL SANITARY WASTE SHALL BE COLLECTED FROM PORTABLE UNITS BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY STATE AND LOCAL CODES AND REGULATIONS.

OFF SITE VEHICLE TRACKING

STABILIZED CONSTRUCTION ENTRANCES SHALL BE PROVIDED TO HELP REDUCE OFF SITE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREETS SHALL BE CLEANED AS NEEDED TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE SITE SHALL BE COVERED WITH A TARPAULIN AT ALL TIMES.

TIMING OF CONTROL MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, STAKED SILT FENCE, STABILIZED CONSTRUCTION ENTRANCES AND SEDIMENT BASINS SHALL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN 21 DAYS SHALL BE STABILIZED WITH A TEMPORARY GRASS AND MULCH WITHIN 14 DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY THAT AREA SHALL BE STABILIZED WITH PERMANENT SOD. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE TRAPS AND THE STAKED SILT FENCES SHALL BE REMOVED.

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

THESE ARE THE INSPECTION AND MAINTENANCE PRACTICES THAT SHALL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROL:

1. LESS THAN ONE HALF OF THE SITE SHALL BE DENUDED AT ONE TIME.
2. ALL CONTROL MEASURES SHALL BE INSPECTED AT AT THE END OF EACH WORK DAY AND FOLLOWING ANY STORM EVENT OF 0.5-INCHES OR GREATER BY A CONTRACTOR'S REPRESENTATIVE.
3. ALL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.
4. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE SILT FENCE.
5. SILT FENCE SHALL BE INSPECTED REGULARLY FOR DEPTH OF SEDIMENT AND TEARS TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
6. THE SEDIMENT BASINS SHALL BE INSPECTED. DEPTH OF SEDIMENT AND BUILD UP OF SEDIMENT SHALL BE REMOVED WHEN IT REACHES 10% OF THE DESIGN CAPACITY OR AT THE END OF THE JOB.
7. TEMPORARY AND PERMANENT GRASSING AND MULCHING AND SODDING SHALL BE INSPECTED FOR BARE SPOTS, WASHOUTS AND HEALTHY GROWTH.
8. A MAINTENANCE INSPECTION REPORT SHALL BE MADE AFTER EACH INSPECTION BY THE CONTRACTOR AND SHALL BE KEPT IN AN ACTIVE LOG READILY AVAILABLE AT THE JOB SITE.
9. EITHER THE SITE SUPERINTENDENT OR HIS DESIGNEES SHALL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE, REPAIR ACTIVITIES AND COMPLETING THE INSPECTION AND MAINTENANCE REPORT.
10. PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES SHALL RECEIVE TRAINING FROM THE SITE SUPERINTENDENT. THEY SHALL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ON SITE IN GOOD WORKING ORDER.

NON-STORM WATER DISCHARGE

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

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

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

NON-STORM WATER DISCHARGE

IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES SHALL NOT OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

CONCRETE	DETERGENTS	PAINTS (ENAMEL AND LATEX)	METAL STUDS
SAND	FERTILIZERS	TAR	PETROLEUM BASED PRODUCTS AND FUELS
CLEANING SOLVENTS	WOOD	MASONRY BLOCK	ROOFING SHINGLES
STONE			

SPILL PREVENTION

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT SHALL 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 SHALL BE FOLLOWED ON SITE DURING THE CONSTRUCTION PROJECT.

AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO COMPLETE THE PROJECT.
ALL MATERIALS STORED ON SITE SHALL BE STORED IN A NEAT ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND IF POSSIBLE, UNDER A ROOF OR OTHER CONTAINED ENCLOSURE.
PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL MANUFACTURERS LABELED CONTAINERS.
SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
WHENEVER POSSIBLE, ALL OF THE PRODUCT SHALL BE USED BEFORE DISPOSING OF THE CONTAINER.
MANUFACTURERS RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
THE SITE SUPERINTENDENT SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ON SITE.

HAZARDOUS PRODUCTS:

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

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

PETROLEUM PRODUCTS:

ALL ON SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ON SITE SHALL BE APPLIED ACCORDINGLY TO THE MANUFACTURERS RECOMMENDATIONS.

FERTILIZERS:

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

PAINTS:

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

CONCRETE TRUCKS:

DISCHARGE OF SURPLUS CONCRETE OR DRUM WASH WATER IS STRICTLY PROHIBITED. HARD DEBRIS SHALL BE DISPOSED OF BY CONTRACTOR UPON COMPLETION OF THE PROJECT.

SPILL CONTROL PRACTICES

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

MANUFACTURERS RECOMMENDED METHODS FOR SPILL CLEAN UP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEAN UP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEAN UP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS SHALL INCLUDE, BUT NOT BE LIMITED TO, BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST AND PLASTIC AND METAL TRASH CONTAINERS.

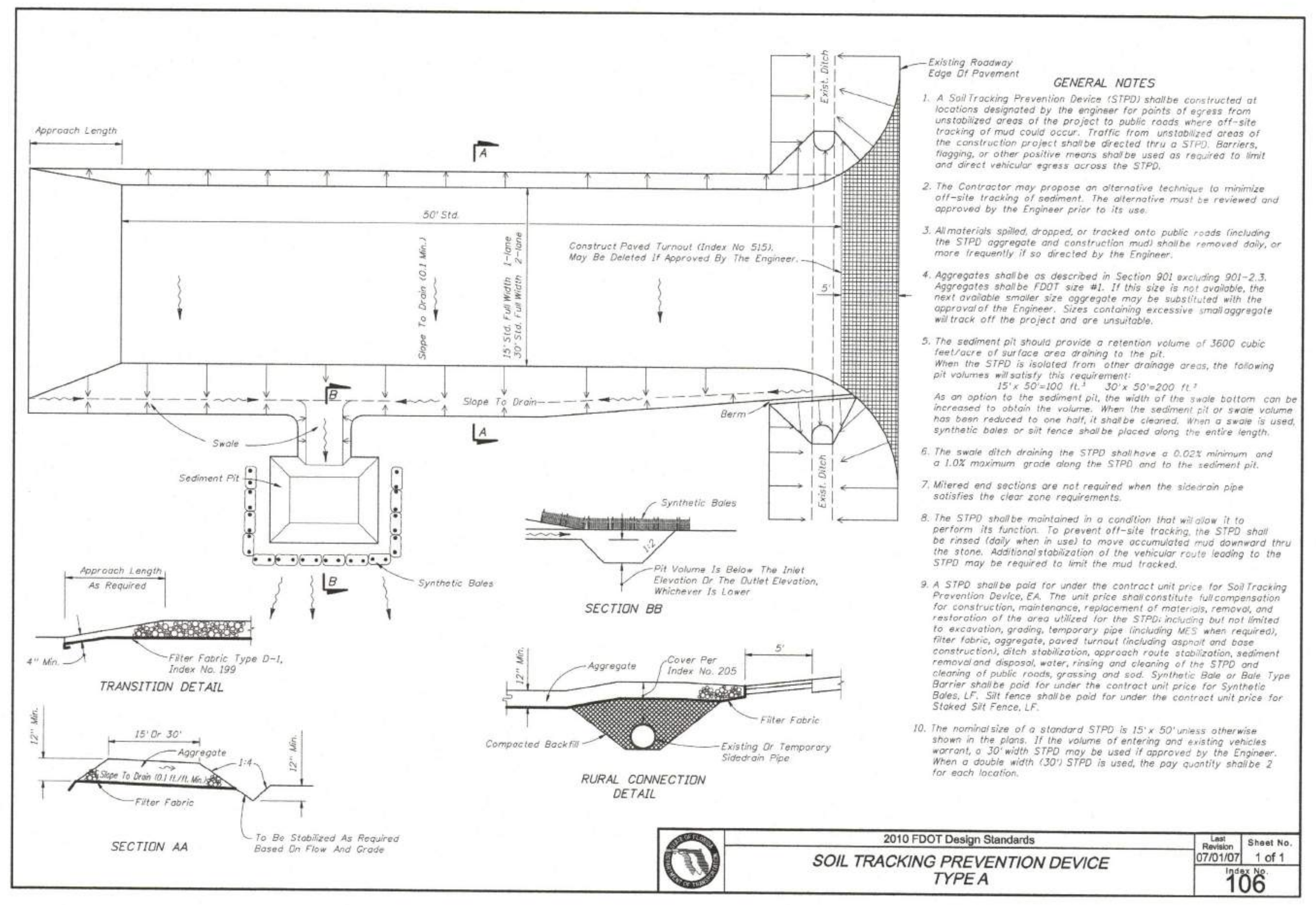
ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

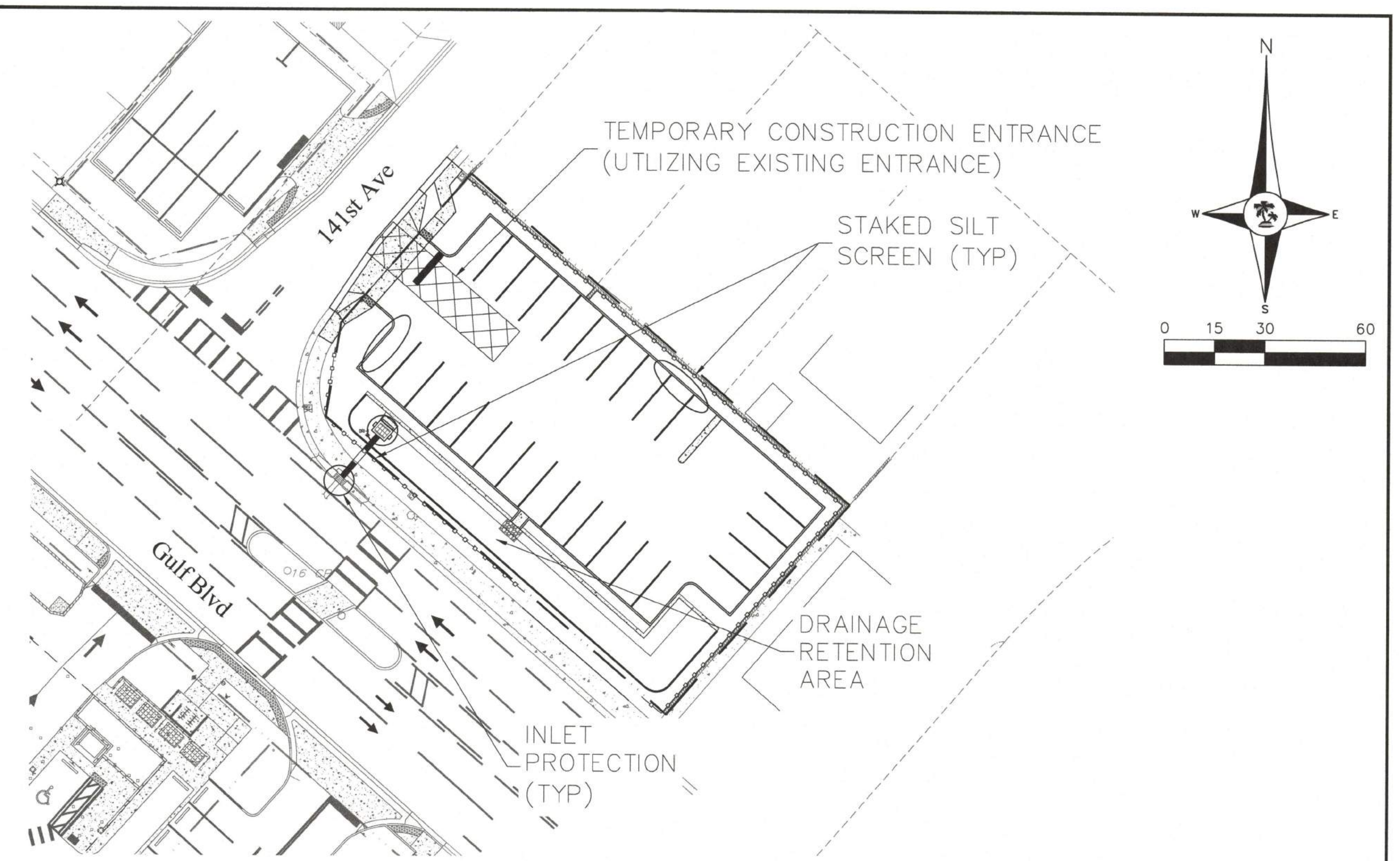
THE SPILL SHALL BE KEPT WELL VENTILATED AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH HAZARDOUS SUBSTANCE.

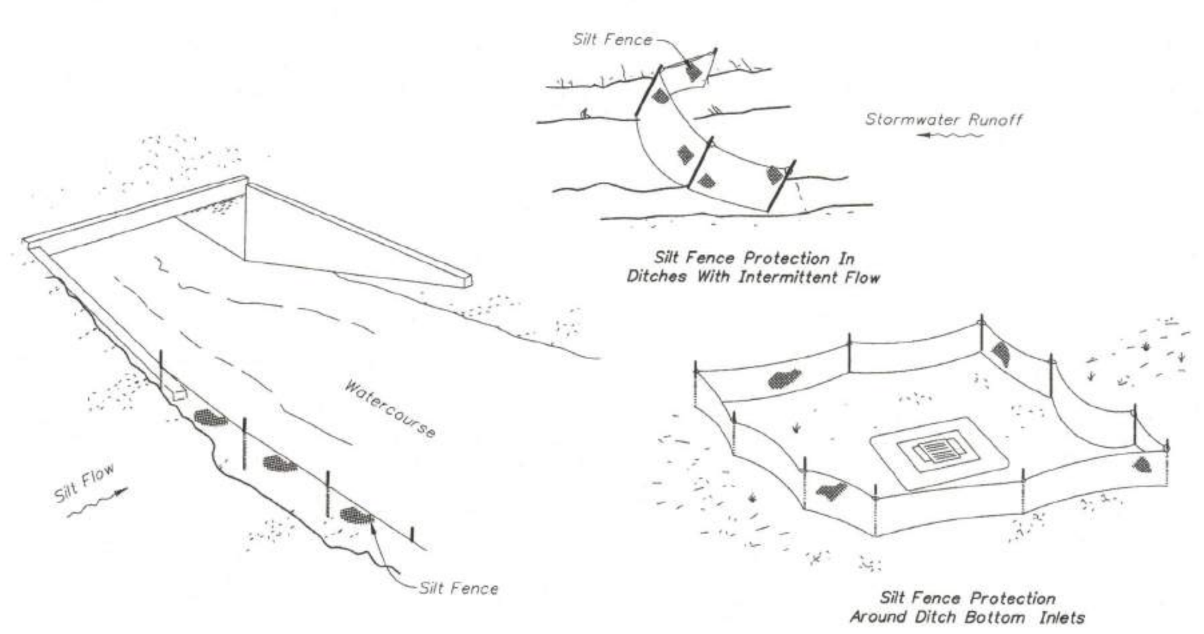
SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.

THE SPILL PREVENTION PLAN SHALL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND THE CLEAN UP PROCEDURES FOR FUTURE USE. A DESCRIPTION OF THE SPILL, ITS CAUSE AND THE CLEAN UP MEASURES SHALL ALSO BE INCLUDED.

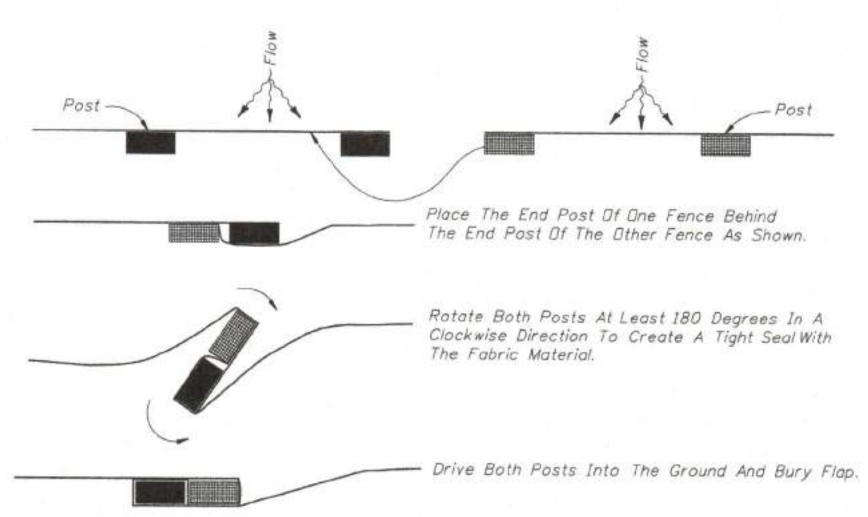
THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY TO DAY SITE OPERATIONS SHALL BE THE SPILL PREVENTION AND CLEAN UP COORDINATOR. HE OR SHE SHALL DESIGNATE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEAN UP TRAINING. THESE INDIVIDUALS SHALL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEAN UP. THE NAMES OF THE RESPONSIBLE SPILL PERSONNEL SHALL BE POSTED IN THE MATERIAL STORAGE AREA OR IN THE OFFICE TRAILER ON SITE, IF APPLICABLE.







SILT FENCE APPLICATIONS



PLAN VIEW

JOINING TWO SILT FENCES

NOTES FOR SILT FENCES

1. Type III Silt Fence to be used at most locations. Where used in ditches, the spacing for Type III Silt fence shallbe in accordance with Chart I, Sheet 1.
2. Type IV Silt Fence to be used where large sediment loads are anticipated. Suggested use is where fill slope is 1:2 or steeper and length of slope exceeds 25 feet. Avoid use where the detained water may back into travellanes or off the right of way.
3. Do not construct silt fences across permanent flowing watercourses. Silt fences are to be at upland locations and turbidity barriers used at permanent bodies of water.
4. Where used as slope protection, Silt Fence is to be constructed on 0% longitudinal grade to avoid channelizing runoff along the length of the fence.
5. Silt Fence to be paid for under the contract unit price for Staked Silt Fence, (LF).

LEGEND

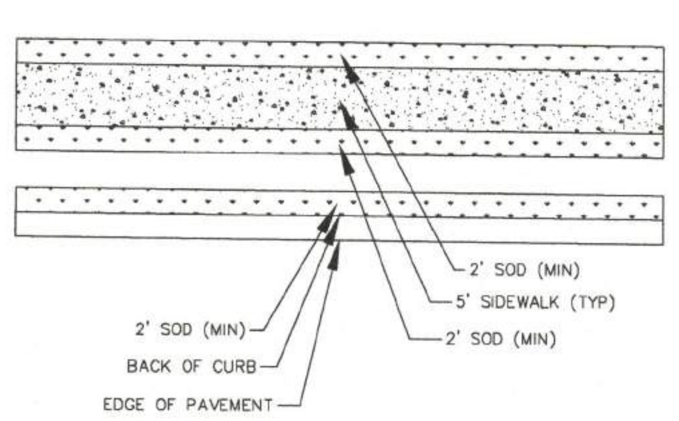
(symbol)	STAKED SILT SCREEN
(symbol)	TEMP CONSTRUCTION ENTRANCE
(symbol)	INLET PROTECTION
(symbol)	SOD ALONG CURB & S/W

SEEDING RATES (Lbs/Ac) FOR NEW SHOULDERS AND SLOPES*		
TYPE OF SEED	Feb. to Dec.	Dec. to Feb.
PERMANENT GRASS		
Unhulled Bermuda	20	20
Bahia Argentina Or Pensacola	80	80
QUICK GROWING		
Brown Top Millet	20	
Annual Rye Grass		20
TOTAL POUNDS PER ACRE	120	120

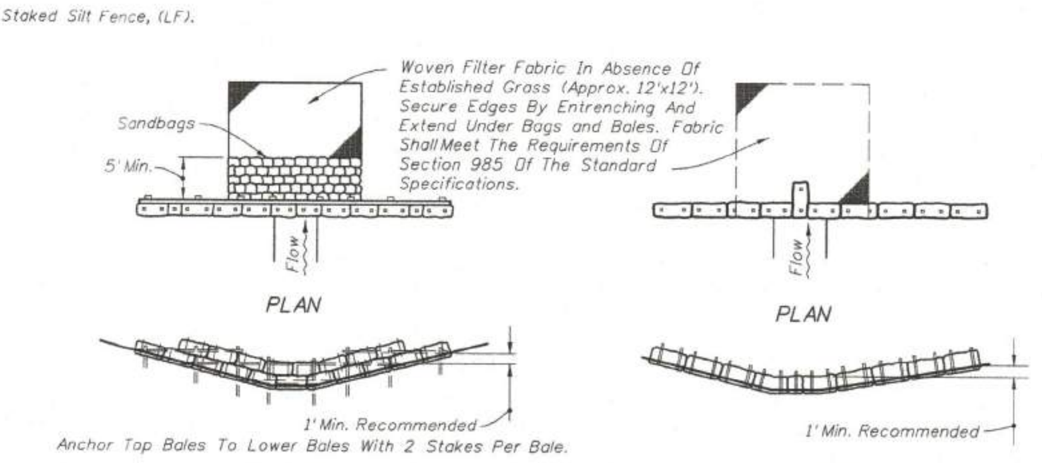
Note:
The seeding rates shown in this table apply only when seed is spread by an approved mechanical spreader meeting the requirements of Section 570 and 577 of the Standard Specifications.

*See Index No. 105 for zone boundaries and seeding rates for shoulder reworking.

NOTE:
SODDING / SEED AND MULCH - 2' SOD STRIPS SHALL BE USED ALONG ALL PAVEMENT EDGES, BACK OF CURBS, EDGE OF SIDEWALKS, AND ALL SLOPES GREATER THAN 4:1. SEED AND MULCH ALL OTHER AREAS DISTRUBED BY CONSTRUCTION.



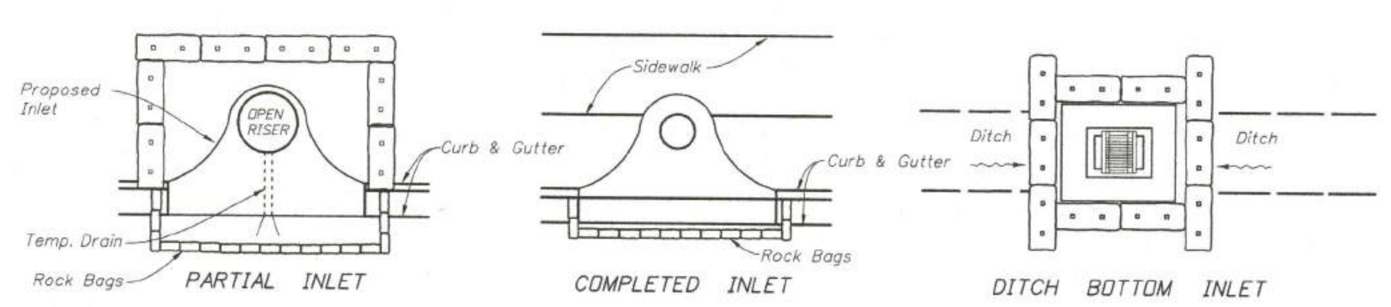
SODDING & SEEDING APPLICATION



SYNTHETIC BALES OR BALE TYPE BARRIERS FOR UNPAVED DITCHES

NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS

1. Type I and II Synthetic Barrier should be spaced in accordance with Chart 1, Sheet 1.
2. Bales shallbe anchored with 2-1" x 2" (or 1" dia.) x 4' wood stakes. Stakes of other material or shape providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shallbe removed upon completion of the project.
3. Rails and posts shallbe 2" x 4" wood. Other materials providing equivlalent strength may be used if approved by the Engineer.
4. Adjacent bales shallbe butted firmly together.
5. Where used in conjunction with silt fence, bales shallbe placed on the upstream side of the fence.
6. Bales to be paid for under the contract unit price for Synthetic Bales, LF. The unit price shall include the cost of filter fabric for Type I and II Barriers. Sandbags shall be paid for under the unit price for Sandbagging, CY. Rock bags to be paid for under the contract unit price for Rock Bags, EA.



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

NPDES Notification
(National Pollutant Discharge Elimination System)
Attention: The erosion/sedimentation locations and details set forth in this site plan have been devised by the project engineer to meet the requirements of the federal National Pollutant Discharge Elimination System (NPDES) program. Failure to maintain these controls, or an illicit discharge resulting from their failure will likely result in fine citations. Sec. 58-239 of the Pinellas County Code authorizes penalties of up to $10,000.00 for each offense.

NOTE TO CONTRACTOR:

REQUIRED EROSION CONTROL MEASURES MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. ENCROACHMENT INTO OR FAILURE TO MAINTAIN THESE BARRICADES WILL RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS AND/OR PERMIT REVOCATION AS PROVIDED BY CHAPTER 166 OF THE PINELLAS COUNTY LAND DEVELOPMENT CODE.

DESIGNED SPC
DRAWN MKC
CHECKED SPC

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Clearwater, Florida 33760
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WWW.GULFCOASTCONSULTINGINC.COM

PREPARED FOR:
SFMB MAD BEACH PROPERTY, LLC
405 SOUTH HOWARD AVENUE
TAMPA, FL 33606

SHEET DESCRIPTION:
CADDY'S SUPPLEMENTAL PARKING LOT
STORMWATER POLLUTION PREVENTION PLAN

NO.	DATE	REVISIONS	APP'D BY
1	07/28/22	REVISED PER CITY OF MADEIRA BEACH & FDOT COMMENTS	

SEAN P. CASHEN
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE NO. 42505

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SEAN P. CASHEN, ON THE DATE INDICATED HERE USING A SHA AUTHENTICATION CODE.

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Sean P. Cashen
AUG - 2 2022
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FL P.E. No. 42505
GULF COAST CONSULTING, INC.
CERTIFICATE OF AUTHORIZATION No. 9774

JOB NO. 19-009.01
DATE: 05/06/22
SHT. C4

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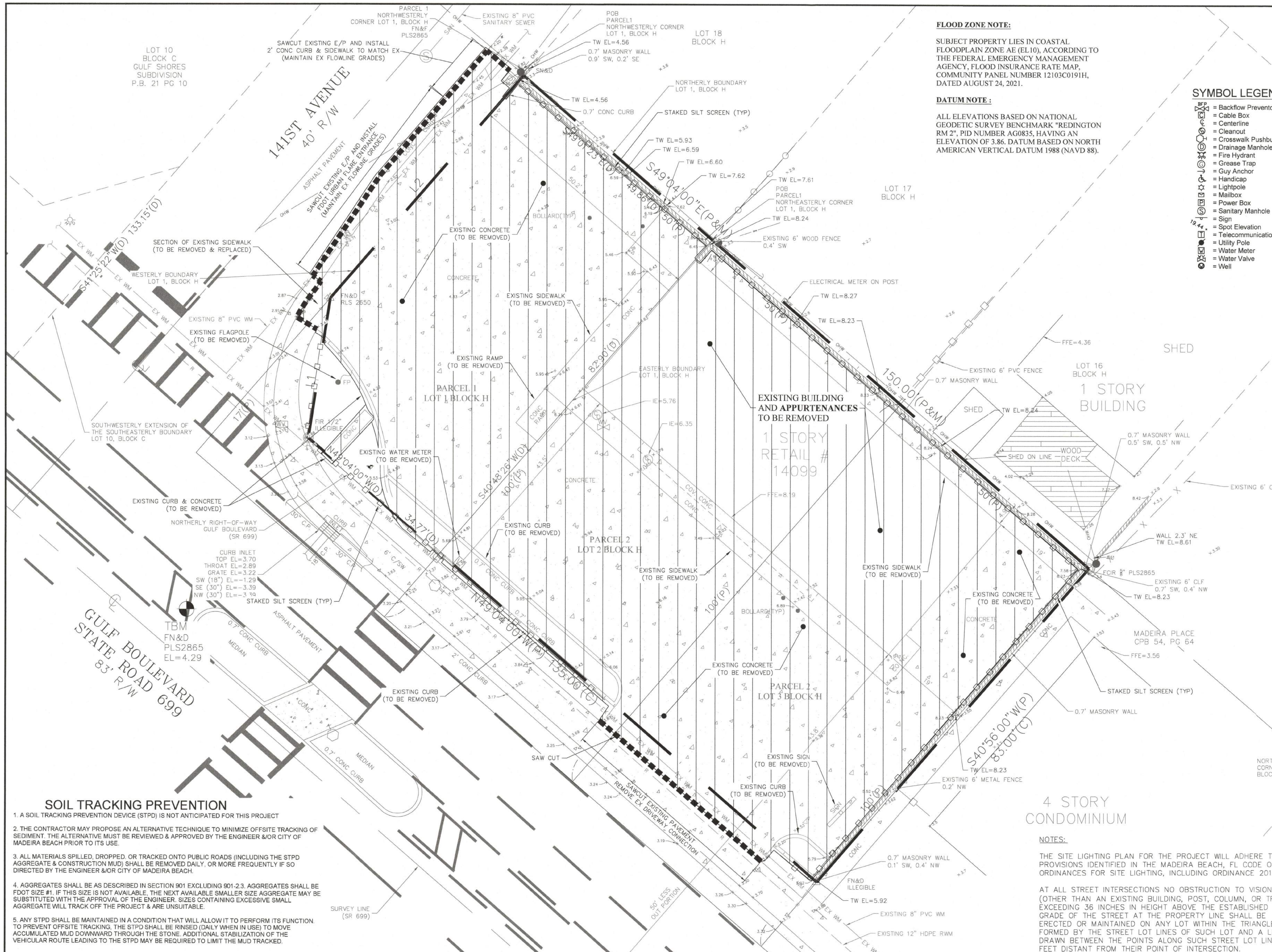
SUBJECT TO FIELD INSPECTION APPROVAL



FLOOD ZONE NOTE:

SUBJECT PROPERTY LIES IN COASTAL FLOODPLAIN ZONE AE (EL10), ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 12103C0191H, DATED AUGUST 24, 2021.

DATUM NOTE :

ALL ELEVATIONS BASED ON NATIONAL GEODETIC SURVEY BENCHMARK "REDINGTON RM 2", PID NUMBER AG0835, HAVING AN ELEVATION OF 3.86. DATUM BASED ON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88).

SYMBOL LEGEND

- BFP = Backflow Preventor
- = Cable Box
- = Centerline
- = Cleanout
- = Crosswalk Pushbutton Post
- = Drainage Manhole
- = Fire Hydrant
- = Grease Trap
- = Guy Anchor
- = Handicap
- = Lightpole
- = Mailbox
- = Power Box
- = Sanitary Manhole
- = Sign
- 19.44 = Spot Elevation
- = Telecommunication Box
- = Utility Pole
- = Water Meter
- WV = Water Valve
- = Well

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NOTE TO CONTRACTORS:
THE LOCATIONS OF ALL UTILITIES ARE APPROXIMATE AND HAVE NOT BEEN VERIFIED. BEFORE BEGINNING SITE WORK, THE CONTRACTOR IS REQUIRED TO FIELD VERIFY THE EXISTENCE, LOCATION & ELEVATION OF UNDERGROUND UTILITIES AND OTHER FEATURES, & CONTACT THE ENGINEER TO CONVEY ANY INFORMATION AND/OR DISCREPANCIES.

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LEGEND

(line)	EXISTING BOUNDARY
(hatch)	TO BE REMOVED OR DEMOLISHED
HYD	EXISTING FIRE HYDRANT ASSEMBLY
OHW	EXISTING OVER HEAD WIRES
x5.83	EXISTING SPOT ELEVATION

DEMOLITION NOTES

1. PRIOR TO THE INITIATION OF SITE CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, COMMUNICATION, CABLE TV, SANITARY AND STORM SEWER BOTH ON AND ADJACENT TO THE SITE.
2. CONTRACTOR TO REMOVE ALL IMPROVEMENTS WITHIN THE LIMITS OF CONSTRUCTION EXCEPT AS NOTED.
3. CONTRACTOR TO COORDINATE WITH LOCAL UTILITY OWNERS TO DISCONNECT/RELOCATE THEIR FACILITIES WITHIN THE LIMITS OF CONSTRUCTION PRIOR TO ANY DEMOLITION.
4. SITE SPECIFIC EROSION AND SEDIMENT CONTROL: SILT FENCE TO BE PLACED AROUND THE PERIPHERY OF THE SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION/DEMOLITION.
5. FUGITIVE DUST EMISSIONS DURING DEMOLITION SHALL BE MAINTAINED TO AN ACCEPTABLE LEVEL BY CONTRACTOR, IN ACCORDANCE WITH THE CONSTRUCTION NOTES AND TESTING SCHEDULE, SHEET C-2
6. REMOVE OR CAP ALL UTILITIES TO EXISTING STRUCTURES WHICH ARE TO BE REMOVED. CONTRACTOR TO COORDINATE WITH UTILITY OWNERS PRIOR TO MAKING ANY UTILITY ADJUSTMENTS.
7. CONTRACTOR TO DEMOLISH, REMOVE AND DISPOSE OF ALL ASPHALT, CONCRETE, SIDEWALKS, CURBING, BUILDINGS AND BUILDING FOUNDATIONS WITHIN THE LIMITS OF CONSTRUCTION UNLESS OTHERWISE NOTED ON PLANS. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS OF CITY OF MADEIRA BEACH.
8. CONTRACTOR TO PROTECT PROPERTY CORNERS DURING DEMOLITION AND CONSTRUCTION.

EROSION/TURBIDITY CONTROL NOTES

1. THE INSTALLATION OF TEMPORARY EROSION CONTROL BARRIERS SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE LIFE OF THE CONSTRUCTION PHASE.
2. THE TYPE OF EROSION CONTROL BARRIERS USED SHALL BE GOVERNED BY THE NATURE OF THE CONSTRUCTION OPERATION AND SOIL TYPE THAT WILL BE EXPOSED. SILTY AND CLAYEY MATERIAL USUALLY REQUIRE SOLID SEDIMENT BARRIERS TO PREVENT TURBID WATER DISCHARGE, WHILE SANDY MATERIAL MAY NEED ONLY SILT SCREENS OR HAY BALES TO PREVENT EROSION. FLOATING TURBIDITY CURTAINS SHALL BE USED IN OPEN WATER SITUATIONS. DIVERSION DITCHES OR SWALES MAY BE REQUIRED TO PREVENT TURBID STORMWATER RUNOFF FROM BEING DISCHARGED TO D.E.P. COASTAL CONSTRUCTION CONTROL LINE OR OTHER WATER BODIES. IT MAY BE NECESSARY TO EMPLOY A COMBINATION OF BARRIERS, DITCHES AND OTHER EROSION/TURBIDITY CONTROL MEASURES IF CONDITIONS WARRANT.
3. CONSTRUCTION OPERATIONS IN OR ADJACENT TO D.E.P. COASTAL CONSTRUCTION CONTROL LINE SHALL BE RESTRICTED TO THOSE AREAS IDENTIFIED IN THE PLANS AND IN THE SPECIFICATIONS.
4. THE CONTRACTOR SHALL SCHEDULE HIS OPERATIONS SUCH THAT THE AREA OF UNPROTECTED ERODIBLE EARTH EXPOSED AT ANY ONE TIME IS NOT LARGER THAN THE MINIMUM AREA NECESSARY FOR EFFICIENT CONSTRUCTION OPERATIONS, AND THE DURATION OF EXPOSED, UNCOMPLETED CONSTRUCTION TO THE ELEMENTS
5. SHALL BE AS SHORT AS PRACTICABLE. CLEARING AND GRUBBING SHALL BE SO SCHEDULED AND PERFORMED THAT GRADING OPERATIONS CAN FOLLOW IMMEDIATELY THEREAFTER, AND GRADING OPERATIONS SHALL BE SCHEDULED AND PERFORMED THAT PERMANENT EROSION CONTROL FEATURES CAN FOLLOW IMMEDIATELY THEREAFTER IF CONDITIONS ON THE PROJECT PERMIT.
6. THE CONTRACTOR AND/OR OWNER'S REPRESENTATIVE SHALL PROVIDE ROUTINE MAINTENANCE OF PERMANENT AND TEMPORARY EROSION CONTROL FEATURES UNTIL THE PROJECT IS COMPLETE AND ALL BARED SOILS ARE STABILIZED.
7. SILT FENCE SHALL BE LOCATED AT THE PERIMETER OF CONSTRUCTION LIMITS, AS DEFINED BY FIELD CONDITIONS.
8. CONTRACTOR IS TO PROVIDE EROSION CONTROL AND SEDIMENTATION BARRIER (HAY 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 SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES.
9. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABILIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION OR OTHER ACCEPTABLE METHODS.

NOTES:

THE SITE LIGHTING PLAN FOR THE PROJECT WILL ADHERE TO THE PROVISIONS IDENTIFIED IN THE MADEIRA BEACH, FL CODE OF ORDINANCES FOR SITE LIGHTING, INCLUDING ORDINANCE 2019-12.

AT ALL STREET INTERSECTIONS NO OBSTRUCTION TO VISION (OTHER THAN AN EXISTING BUILDING, POST, COLUMN, OR TREE) EXCEEDING 36 INCHES IN HEIGHT ABOVE THE ESTABLISHED GRADE OF THE STREET AT THE PROPERTY LINE SHALL BE ERECTED OR MAINTAINED ON ANY LOT WITHIN THE TRIANGLE FORMED BY THE STREET LOT LINES OF SUCH LOT AND A LINE DRAWN BETWEEN THE POINTS ALONG SUCH STREET LOT LINES 25 FEET DISTANT FROM THEIR POINT OF INTERSECTION.

SOIL TRACKING PREVENTION

1. A SOIL TRACKING PREVENTION DEVICE (STPD) IS NOT ANTICIPATED FOR THIS PROJECT
2. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE TECHNIQUE TO MINIMIZE OFFSITE TRACKING OF SEDIMENT. THE ALTERNATIVE MUST BE REVIEWED & APPROVED BY THE ENGINEER &/OR CITY OF MADEIRA BEACH PRIOR TO ITS USE.
3. ALL MATERIALS SPILLED, DROPPED. OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE STPD AGGREGATE & CONSTRUCTION MUD) SHALL BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER &/OR CITY OF MADEIRA BEACH.
4. AGGREGATES SHALL BE AS DESCRIBED IN SECTION 901 EXCLUDING 901-2.3. AGGREGATES SHALL BE FDOT SIZE #1. IF THIS SIZE IS NOT AVAILABLE, THE NEXT AVAILABLE SMALLER SIZE AGGREGATE MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER. SIZES CONTAINING EXCESSIVE SMALL AGGREGATE WILL TRACK OFF THE PROJECT & ARE UNSUITABLE.
5. ANY STPD SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM ITS FUNCTION. TO PREVENT OFFSITE TRACKING, THE STPD SHALL BE RINSED (DAILY WHEN IN USE) TO MOVE ACCUMULATED MUD DOWNWARD THROUGH THE STONE. ADDITIONAL STABILIZATION OF THE VEHICULAR ROUTE LEADING TO THE STPD MAY BE REQUIRED TO LIMIT THE MUD TRACKED.

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DRAWN MKC
CHECKED SPC
Q.C.

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WWW.GULFCOASTCONSULTINGINC.COM

PREPARED FOR:
SFMB MAD BEACH PROPERTY, LLC
405 SOUTH HOWARD AVENUE
TAMPA, FL 33606

SHEET DESCRIPTION:
CADDY'S SUPPLEMENTAL PARKING LOT
EXISTING CONDITIONS / DEMOLITION PLAN

NO.	DATE	REVISIONS	APP'D BY
2	07/27/22	REVISED PER FDOT DRAINAGE COMMENTS	
1	07/28/22	REVISED PER CITY OF MADEIRA BEACH & FDOT COMMENTS	

SEAN P. CASHEN
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE NO. 42505

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FL P.E. No. 42505
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GULF COAST CONSULTING, INC.
CERTIFICATE OF AUTHORIZATION No. 9774

JOB NO. 19-009.01
DATE: 05/06/22
SHT. C5

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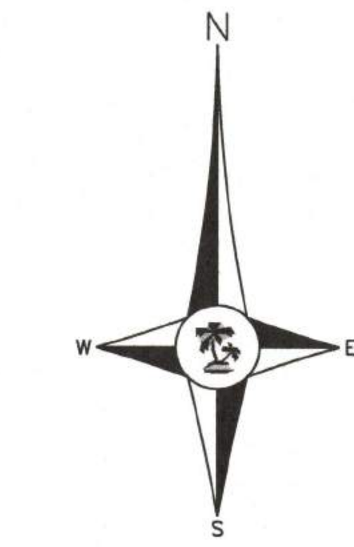

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DATUM NOTE :

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DESIGNED	SPC
DRAWN	MKC
CHECKED	SPC
Q.C.	

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PREPARED FOR:
SFMB MAD BEACH PROPERTY, LLC
405 SOUTH HOWARD AVENUE
TAMPA, FL 33606

SHEET DESCRIPTION:
CADDY'S SUPPLEMENTAL PARKING LOT
OVERALL SITE PLAN

NO.	DATE	REVISIONS	APPD BY
1	07/28/22	REVISED PER CITY OF MADEIRA BEACH & FDOT COMMENTS	

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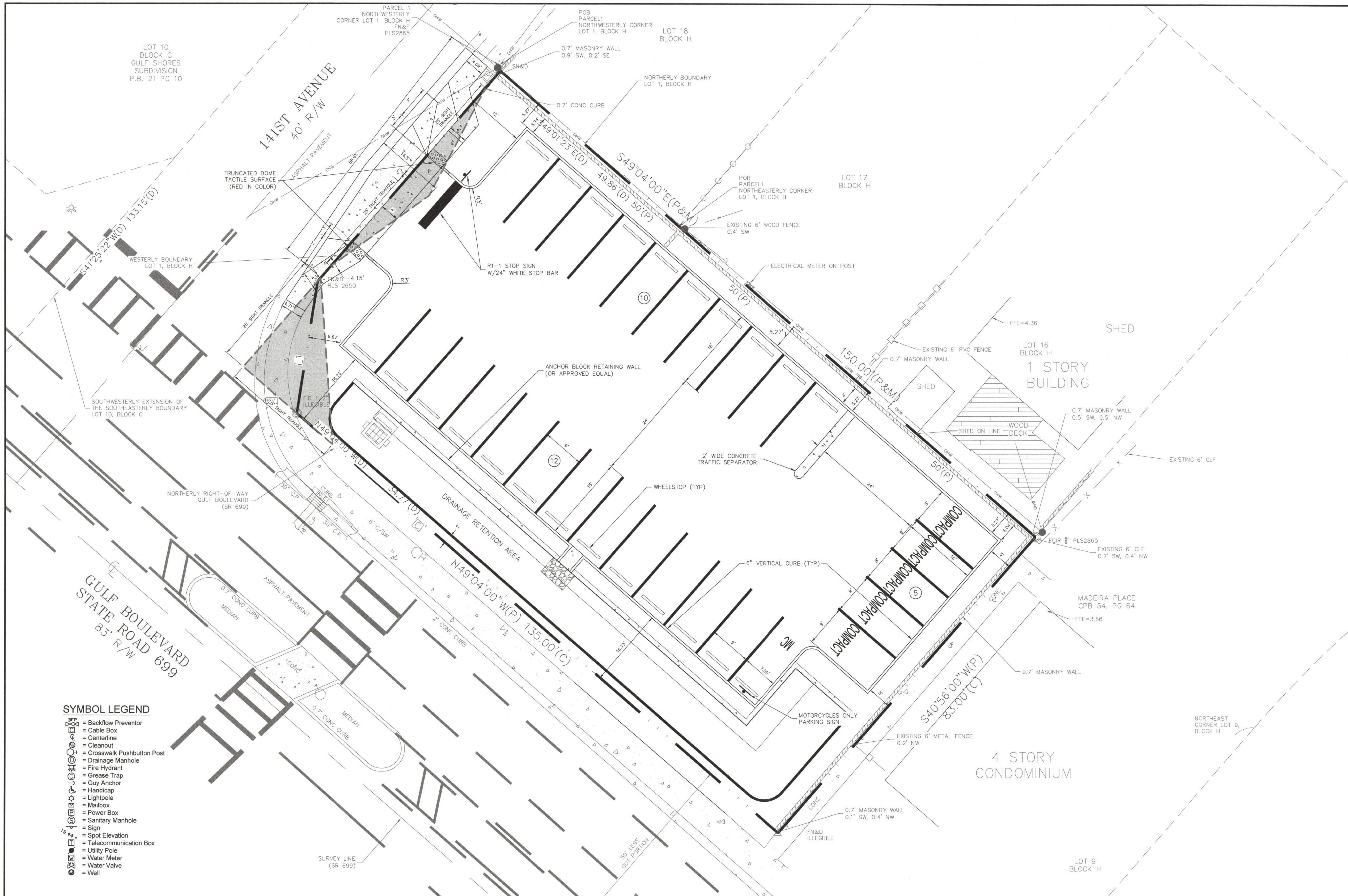

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NOTE TO CONTRACTORS:
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FLOOD ZONE NOTE:

SUBJECT PROPERTY LIES IN COASTAL FLOODPLAIN ZONE AE (EL10), ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 12103C0191H, DATED AUGUST 24, 2021.

DATUM NOTE :

ALL ELEVATIONS BASED ON NATIONAL GEODETIC SURVEY BENCHMARK "REDINGTON RM 2", PID NUMBER AG0835, HAVING AN ELEVATION OF 3.86. DATUM BASED ON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88).

DESIGNED	SPC
DRAWN	MKC
CHECKED	SPC
Q.C.	

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Land Development Consulting
ENGINEERING TRANSPORTATION PLANNING PERMITTING
13825 ICOT BLVD., SUITE 605
Clearwater, Florida 33760
Phone: (727) 524-1818 Fax: (727) 524-6090
WWW.GULFCOASTCONSULTINGINC.COM

PREPARED FOR:
SFMB MAD BEACH PROPERTY, LLC
405 SOUTH HOWARD AVENUE
TAMPA, FL 33606

SHEET DESCRIPTION:
CADDY'S SUPPLEMENTAL PARKING LOT
HORIZONTAL CONTROL PLAN

NO.	DATE	REVISIONS	APP'D BY
1	07/28/22	REVISED PER CITY OF MADEIRA BEACH & FDOT COMMENTS	

SEAN P. CASHEN
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE NO. 42505

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P.E. No. 42505
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CERTIFICATE OF AUTHORIZATION No. 9774

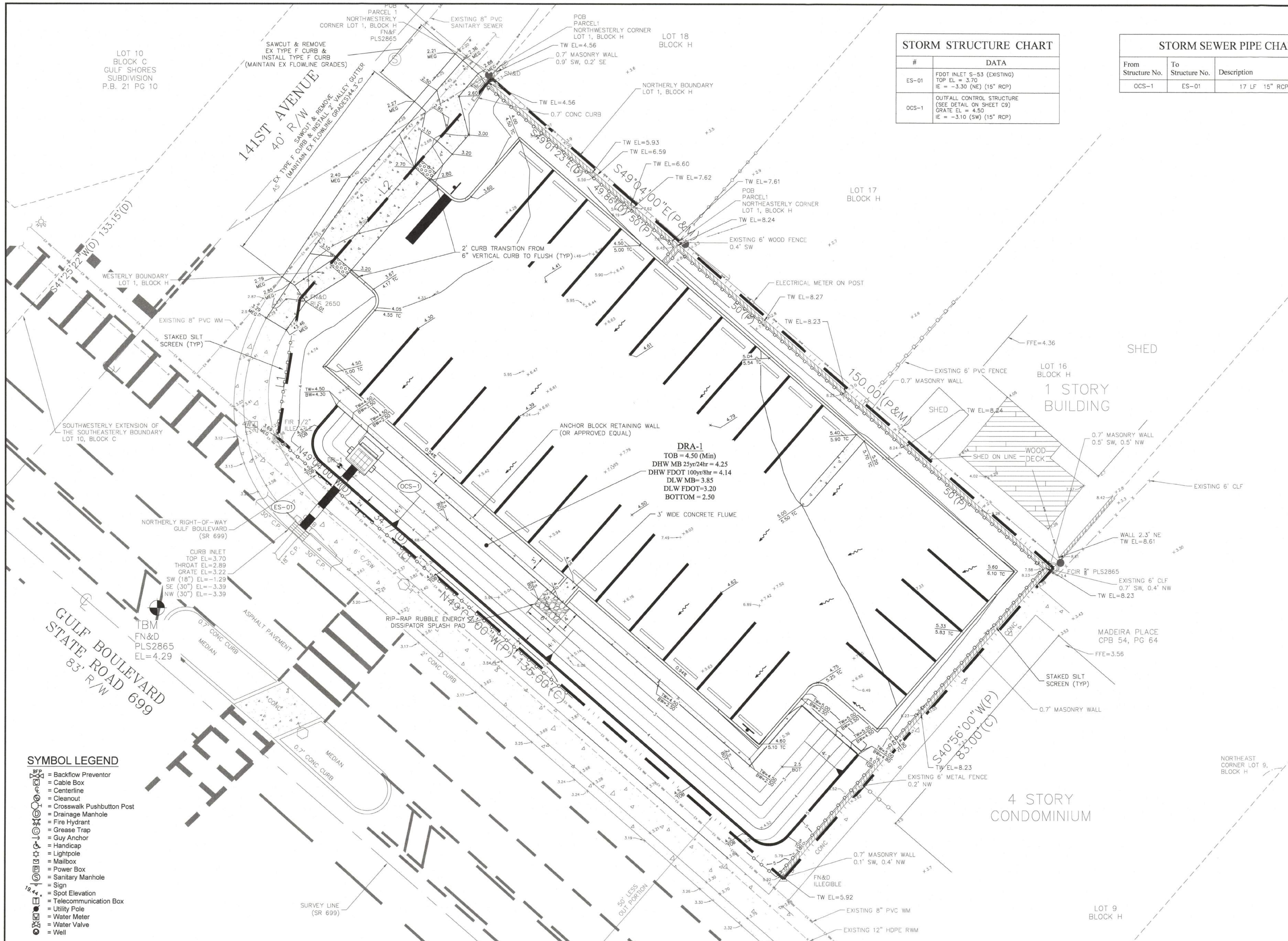
JOB NO. 19-009.01
DATE 05/06/22
SHT. C7

Job Copy
SUBJECT TO FIELD INSPECTION APPROVAL

STORM STRUCTURE CHART	
#	DATA
ES-01	FDOT INLET S-53 (EXISTING) TOP EL = 3.70 IE = -3.30 (NE) (15" RCP)
OCS-1	OUTFALL CONTROL STRUCTURE (SEE DETAIL ON SHEET C9) GRATE EL = 4.50 IE = -3.10 (SW) (15" RCP)

STORM SEWER PIPE CHART

From Structure No.	To Structure No.	Description
OCS-1	ES-01	17 LF 15" RCP @ 1.19%



SYMBOL LEGEND

- = Backflow Preventor
- = Cable Box
- = Centerline
- = Cleanout
- = Crosswalk Pushbutton Post
- = Drainage Manhole
- = Fire Hydrant
- = Grease Trap
- = Guy Anchor
- = Handicap
- = Lightpole
- = Mailbox
- = Power Box
- = Sanitary Manhole
- = Sign
- = Spot Elevation
- = Telecommunication Box
- = Utility Pole
- = Water Meter
- = Water Valve
- = Well

FLOOD ZONE NOTE:

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LEGEND

× 4.50	EXISTING SPOT GRADE
4.50	PROPOSED SPOT GRADE
4.50 MEG	MATCH EXISTING GRADE (TYP)
4.50 5.00 TC	PROPOSED TOP OF CURB GRADE
TW=4.50 BW=3.0	TOP OF BOARDWALK ELEVATION BOTTOM OF BOARDWALK ELEVATION
	SHEET FLOW DIRECTION
	HARD SURFACE FLOW DIRECTION
	EXISTING BOUNDARY
	STAKED SILT SCREEN

FDOT NOTES:

FOR PIPE CONNECTIONS TO EXISTING STRUCTURES WITHIN THE FDOT RIGHT OF WAY:

a. THE HOLE INTO THE EXISTING STRUCTURE MUST BE SAW CUT OR CORE DRILLED.
b. USE NON-SHRINKING GROUT TO FILL ALL GAPS AROUND THE JOINT.
c. AFTER PIPE IS CONNECTED WITH THE INLET, THE END OF THE PIPE MUST BE CUT FLUSH WITH THE INSIDE SURFACE OF THE INLET.
d. REFER TO FDOT STANDARD PLAN INDEX 425-001 FOR FILTER FABRIC WRAP ON GROUTED PIPE TO STRUCTURE JOINT DETAIL.

ALL DISTURBED AREAS IN THE FDOT RIGHT OF WAY WILL BE SODDED.

ALL WORK WITHIN THE FDOT RIGHT-OF-WAY MUST MEET CRITERIA SHOWN IN THE FDOT DESIGN MANUAL AND FDOT STANDARD PLANS FOR ROAD CONSTRUCTION.

NOTE:
SIDEWALKS, RAMPS & DRIVEWAYS TO BE CONSTRUCTED PER FDOT INDICES 522-001, 522-002 & 522-003, LATEST EDITION.

DESIGNED SPC
DRAWN MKC
CHECKED SPC
Q/C

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PREPARED FOR:
SFMB MAD BEACH PROPERTY, LLC
405 SOUTH HOWARD AVENUE
TAMPA, FL 33606

SHEET DESCRIPTION:
CADDY'S SUPPLEMENTAL PARKING LOT
PAVING, GRADING & DRAINAGE PLAN

NO.	DATE	REVISIONS	APP'D BY
2	07/27/22	REVISED PER FDOT DRAINAGE COMMENTS	
1	07/28/22	REVISED PER CITY OF MADEIRA BEACH & FDOT COMMENTS	

SEAN P. CASHEN
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE NO. 42505

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FL P.E. No. 42505

JOB NO. 19-009.01
DATE: 05/06/22
SHT. C8

Job Copy
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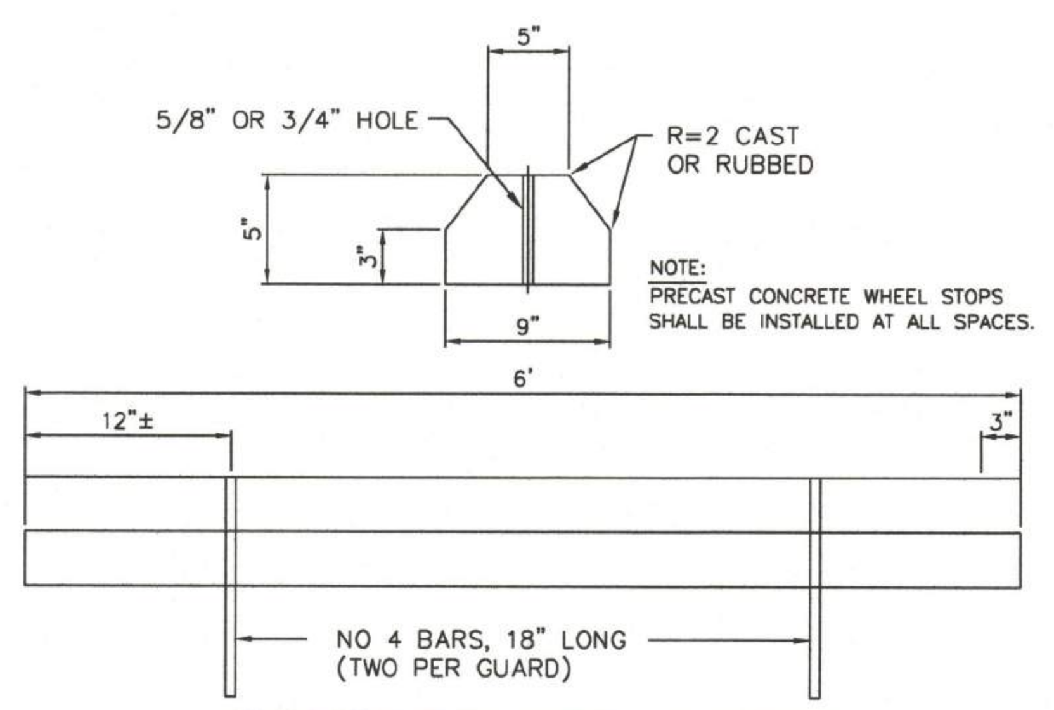
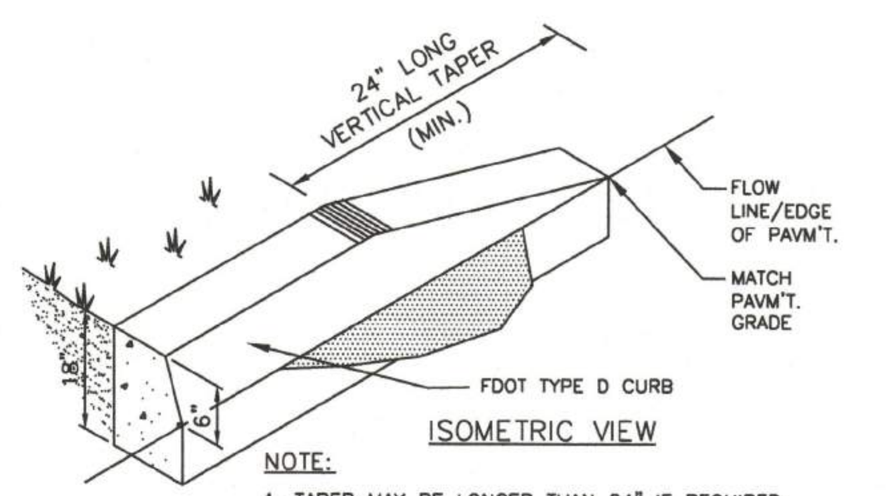


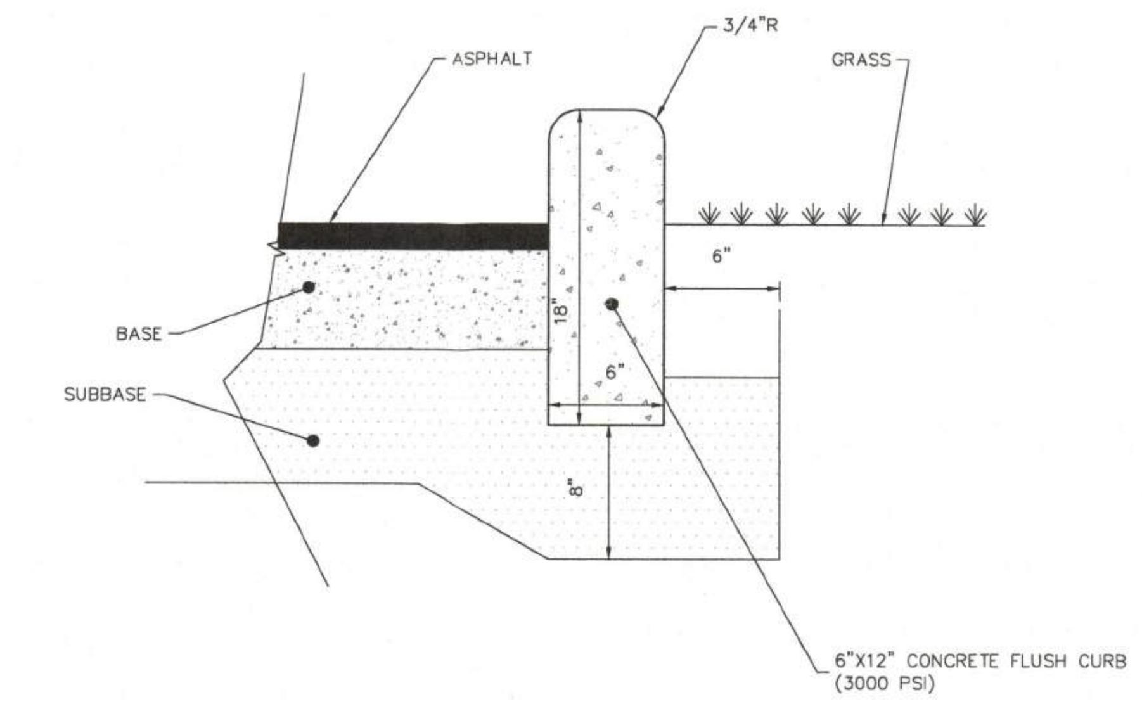
NOTE:
PRECAST CONCRETE WHEEL STOPS SHALL BE INSTALLED AT ALL SPACES.

CONCRETE WHEEL STOP
NTS

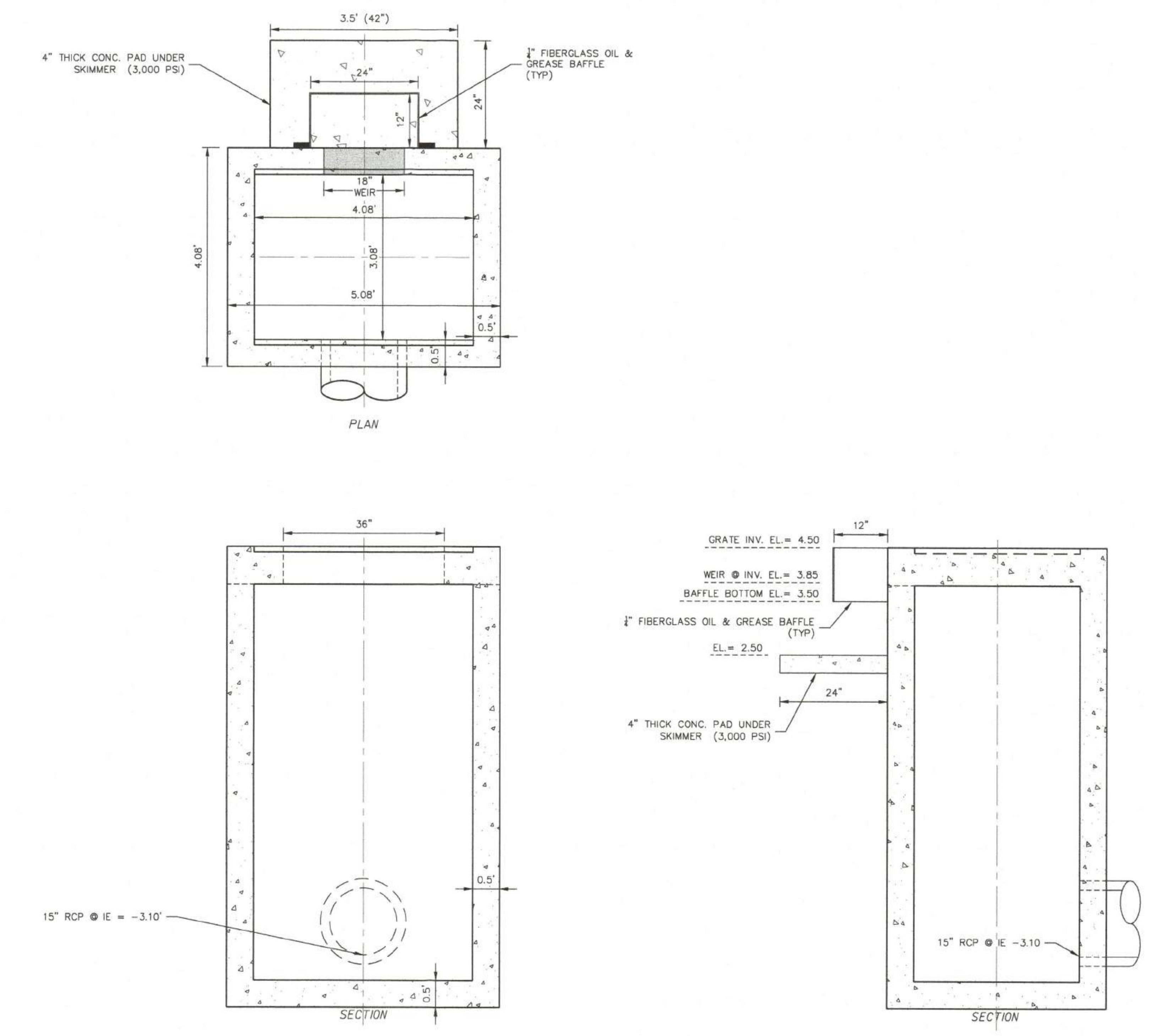


NOTE:
1. TAPER MAY BE LONGER THAN 24" IF REQUIRED. BY FIELD CONDITIONS AND APPROVED BY ENGINEER.
2. CONSTRUCT TAPER AT TERMINUS OF ALL CURB-RUNS. WHERE NOT INTERSECTING A STRUCTURE OR ANOTHER CURB.

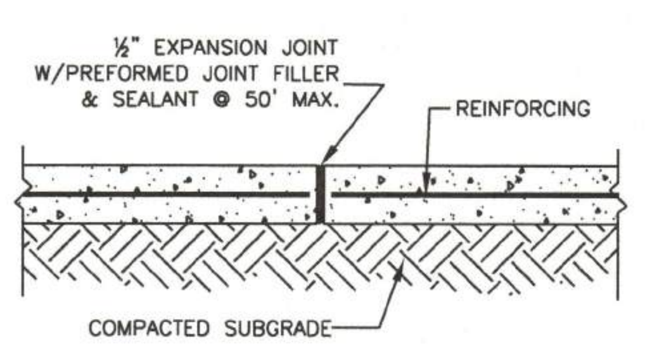
VERTICAL TAPER FOR FDOT TYPE 'D' CURB
NTS



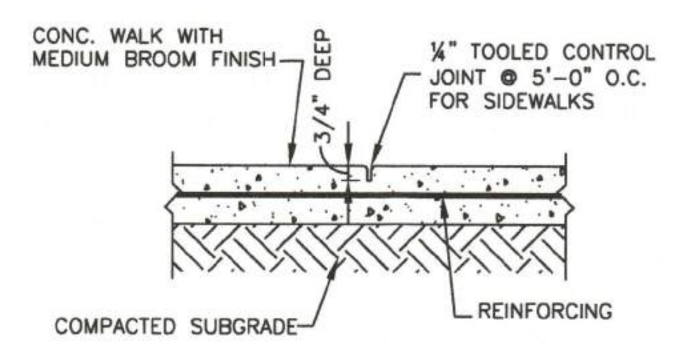
6" VERTICAL CURB DETAIL
NTS



OUTFALL CONTROL STRUCTURE (OCS-1)
FDOT TYPE D (MODIFIED)
NTS

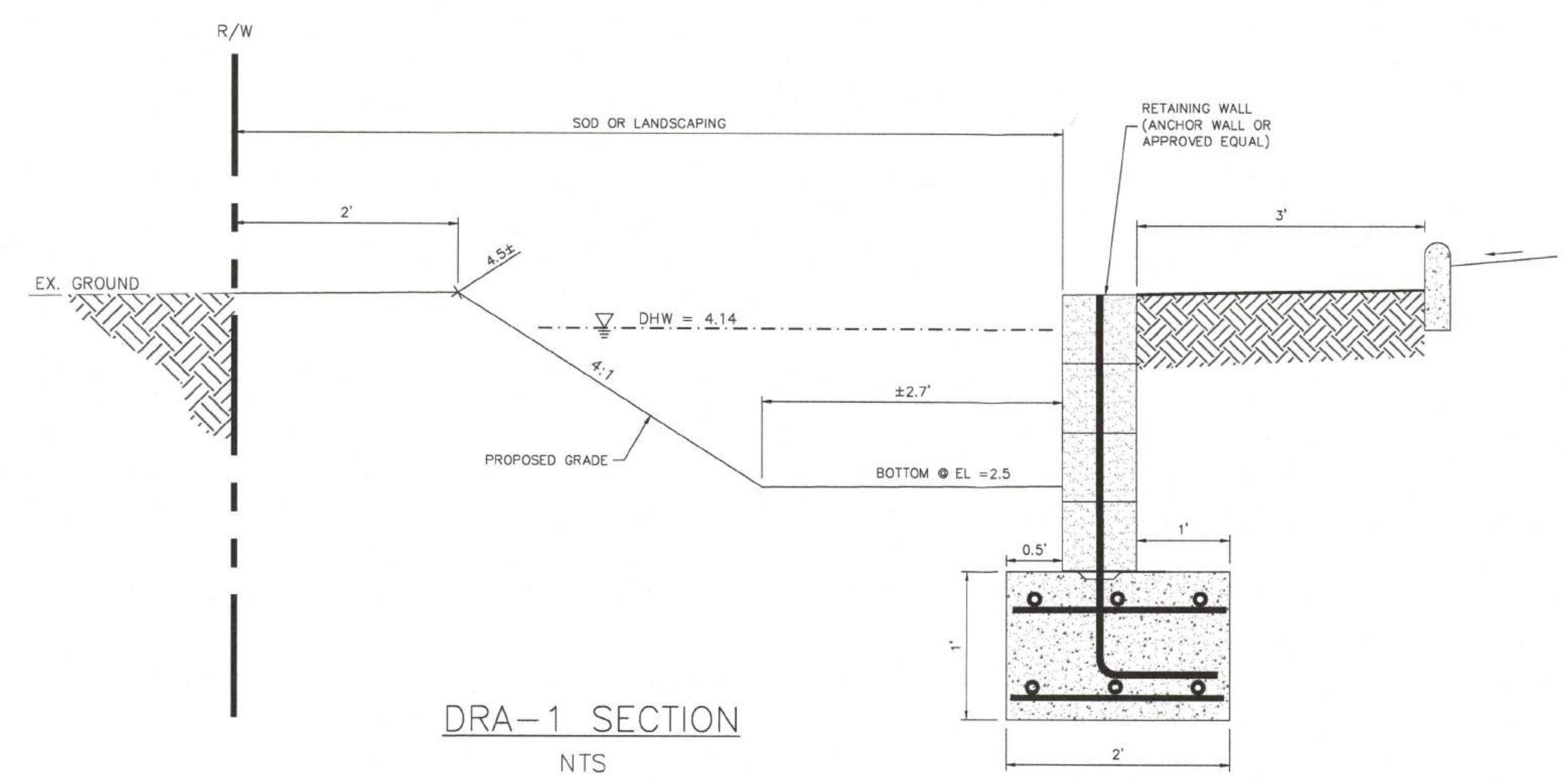


EXPANSION JOINT
NTS

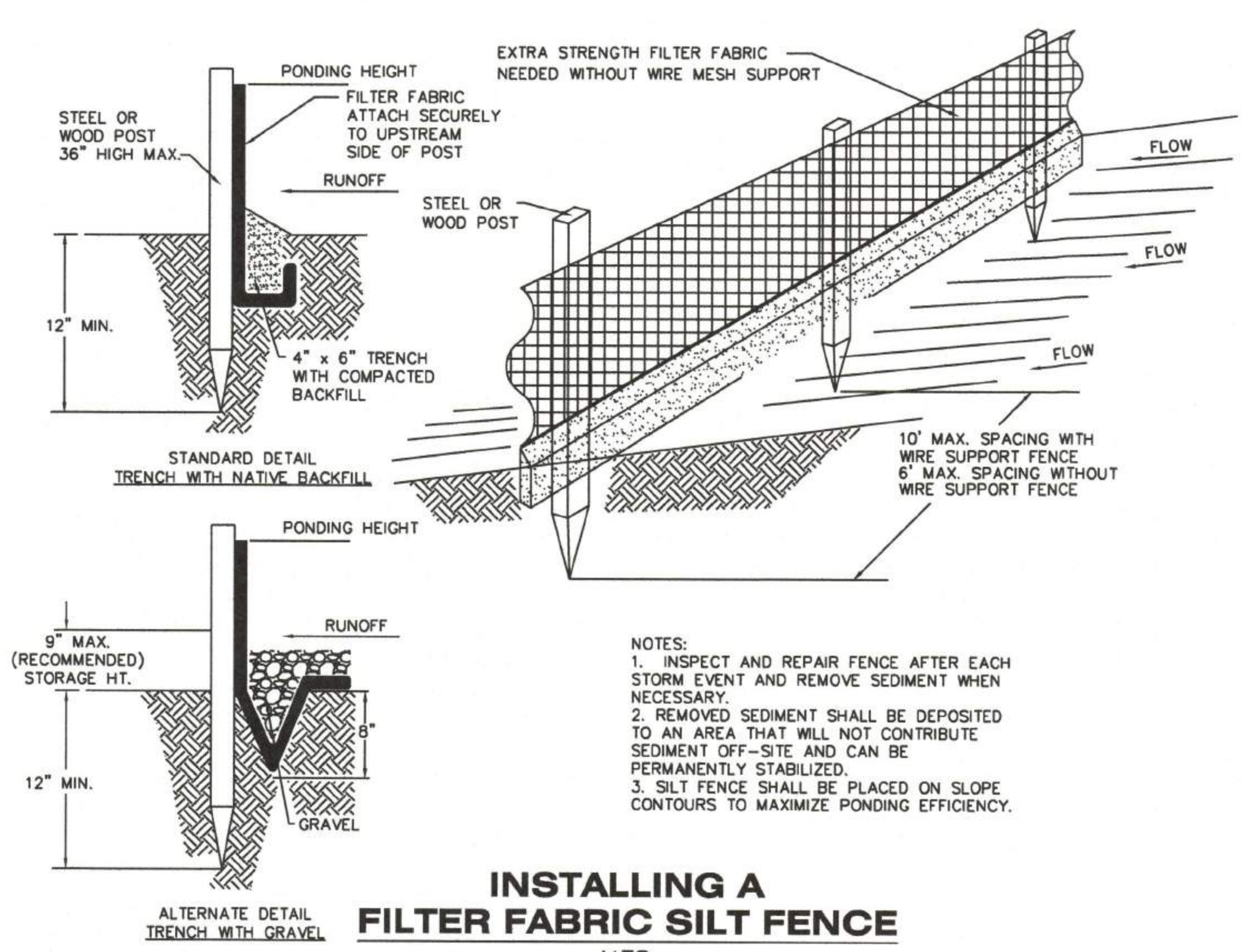


NOTES:
1. CONTROL JOINTS MAY BE SAWED OR KEYED ON CONCRETE PAVEMENT SLABS WHERE INDICATED ON THE PLANS.

CONTROL JOINT
NTS

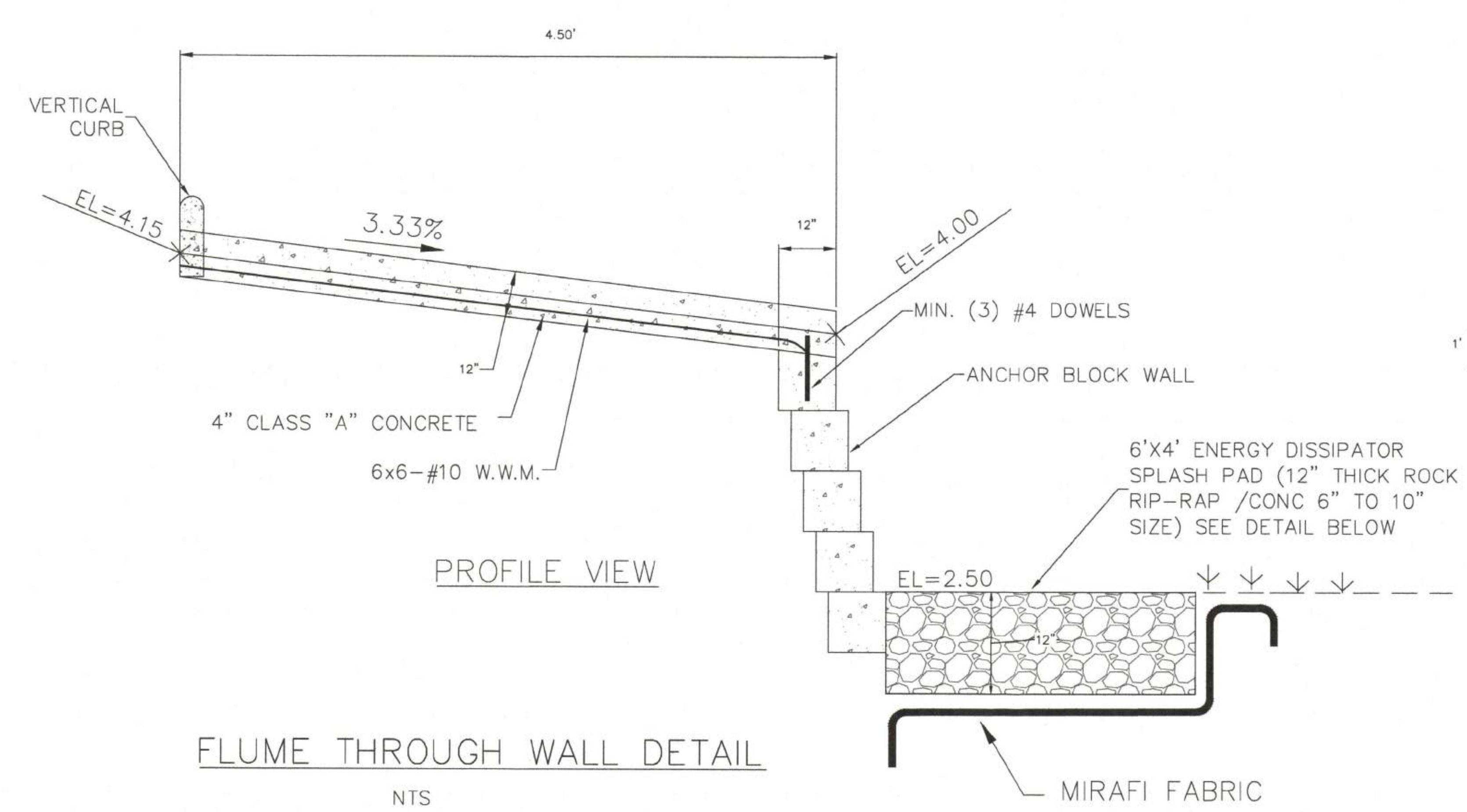


DRA-1 SECTION
NTS

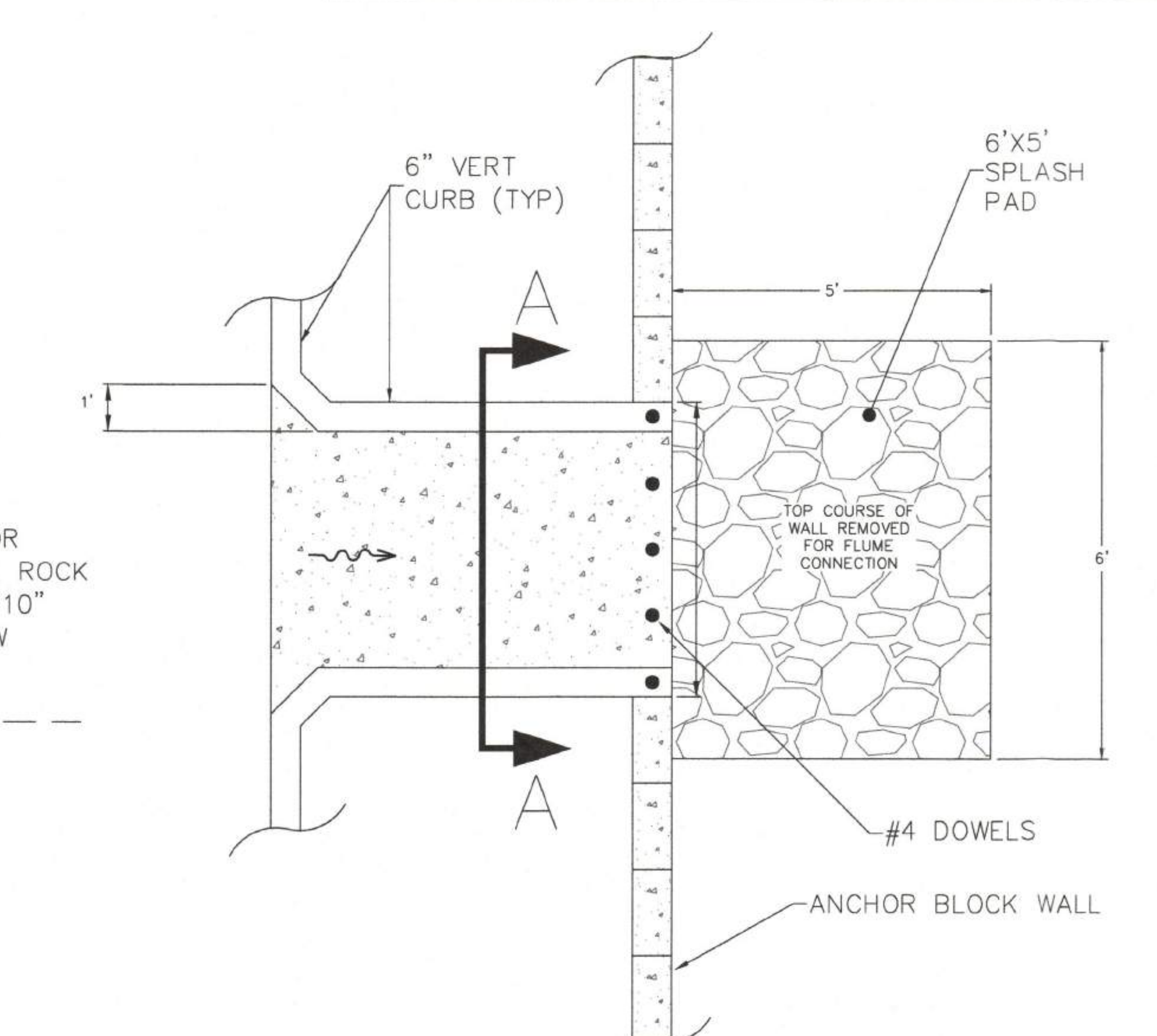


NOTES:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

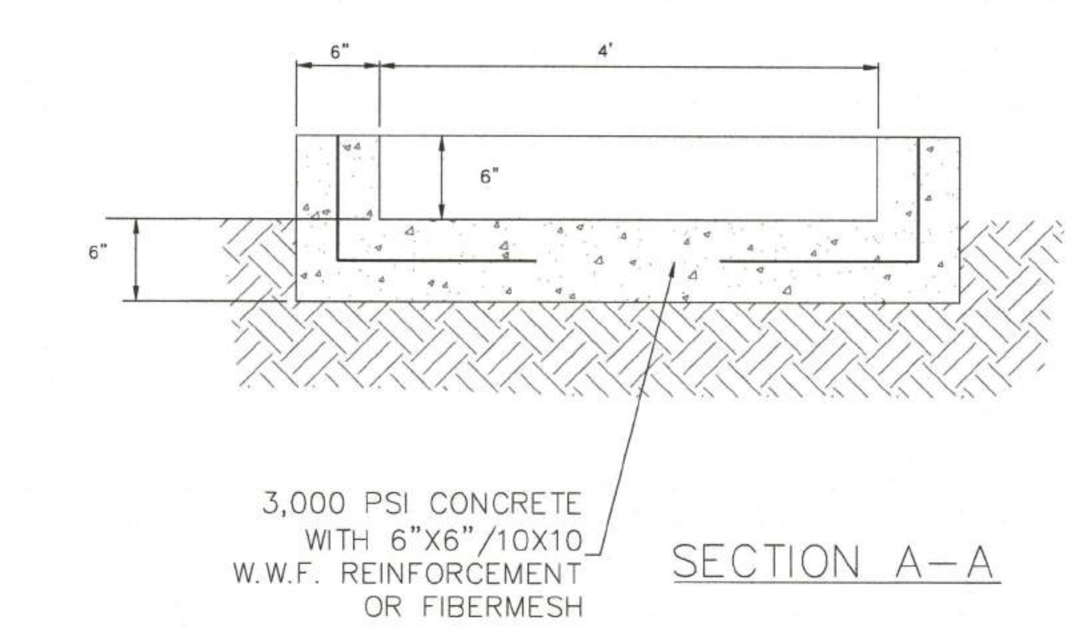
INSTALLING A FILTER FABRIC SILT FENCE
NTS



FLUME THROUGH WALL DETAIL
NTS



PLAN VIEW



SECTION A-A

NOTE:
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DRAWN	MKC
CHECKED	SPC
Q.C.	

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PREPARED FOR:
SFMB MAD BEACH PROPERTY, LLC
405 SOUTH HOWARD AVENUE
TAMPA, FL 33606

SHEET DESCRIPTION:
CADDY'S SUPPLEMENTAL PARKING LOT
CONSTRUCTION DETAILS

NO.	DATE	REVISIONS	APP'D BY
2	07/27/22	REVISED PER FDOT DRAINAGE COMMENTS	
1	07/28/22	REVISED PER CITY OF MADEIRA BEACH & FDOT COMMENTS	

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CERTIFICATE OF AUTHORIZATION No. 9774

JOB NO. 19-009.01
DATE: 05/06/22
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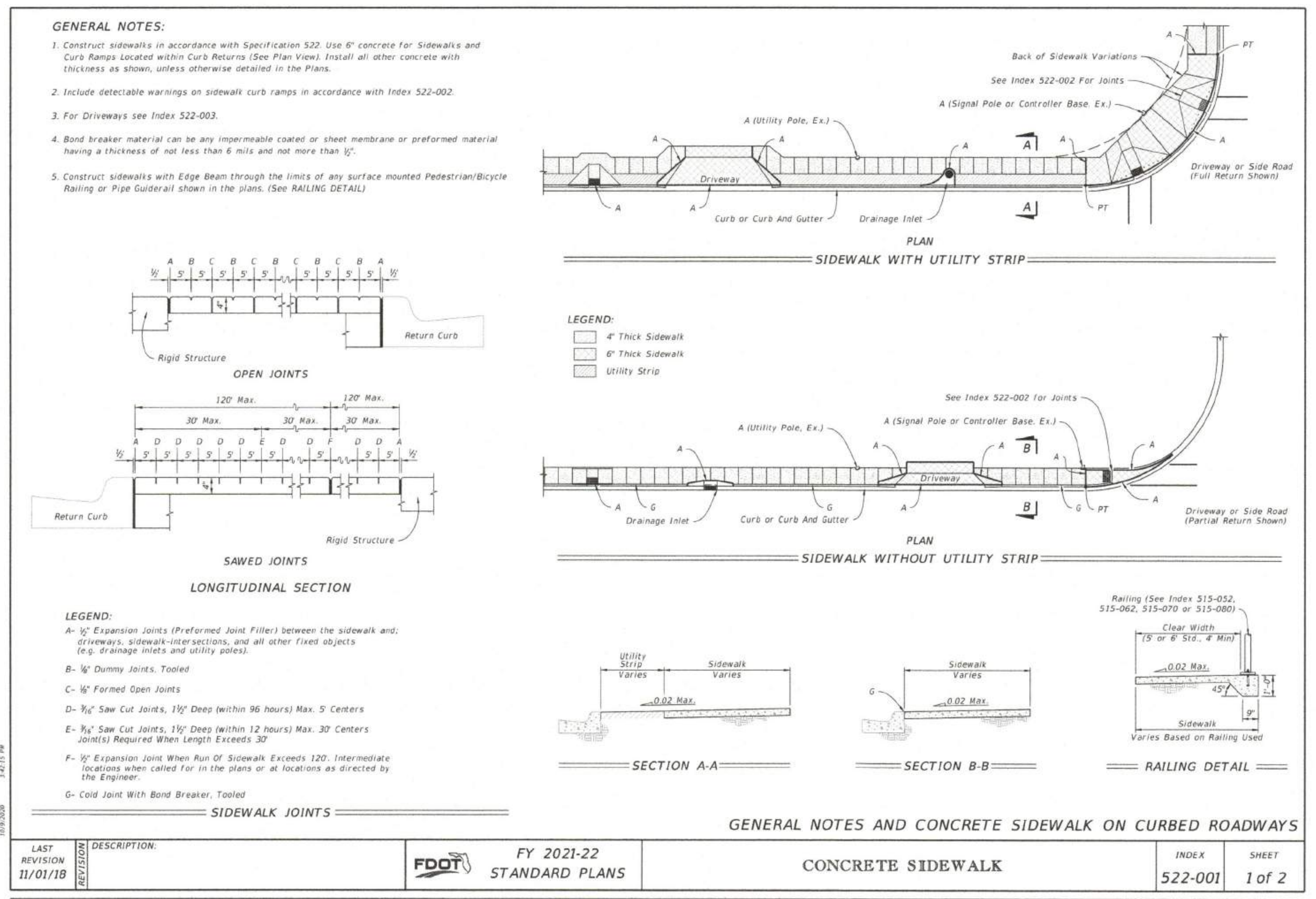

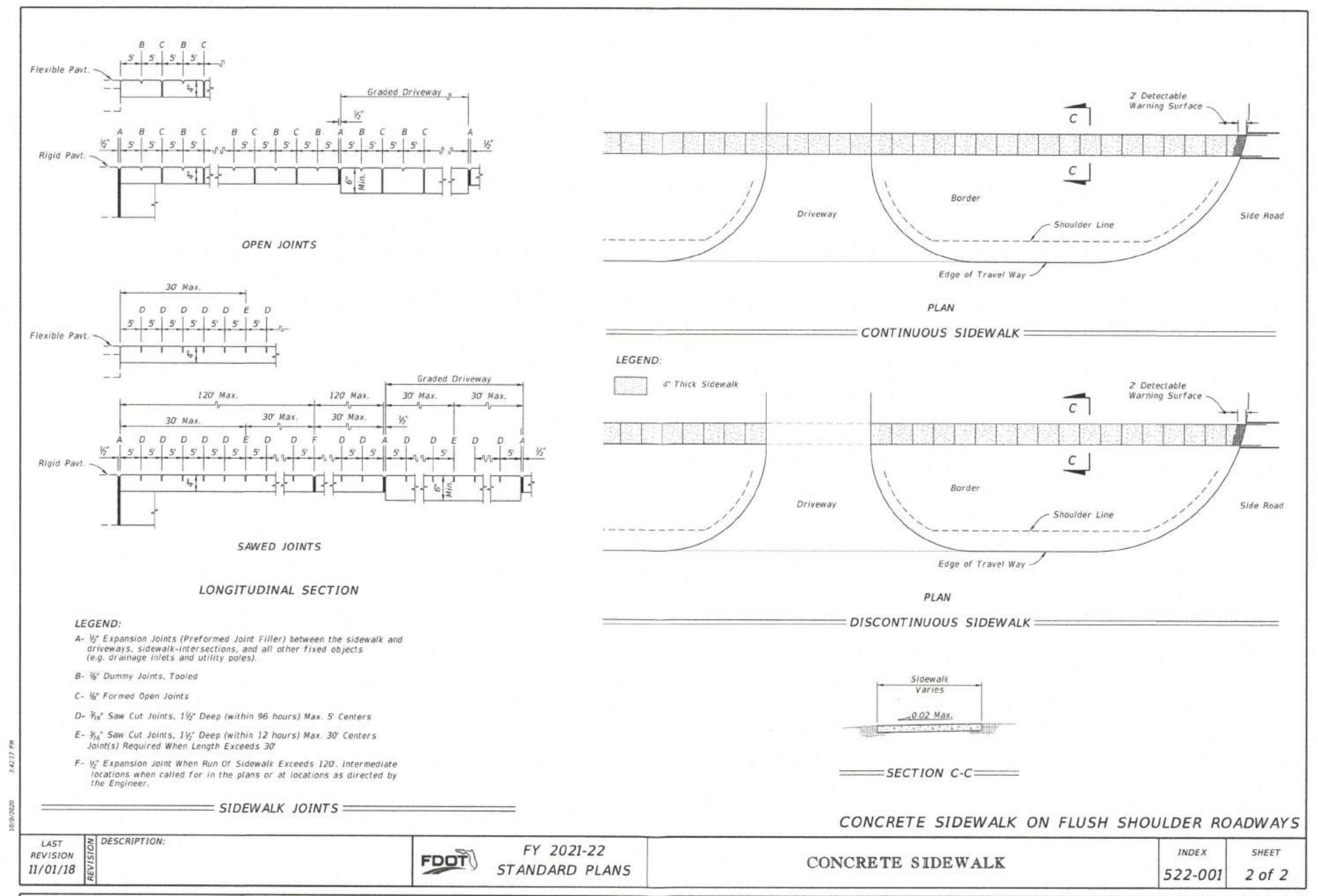

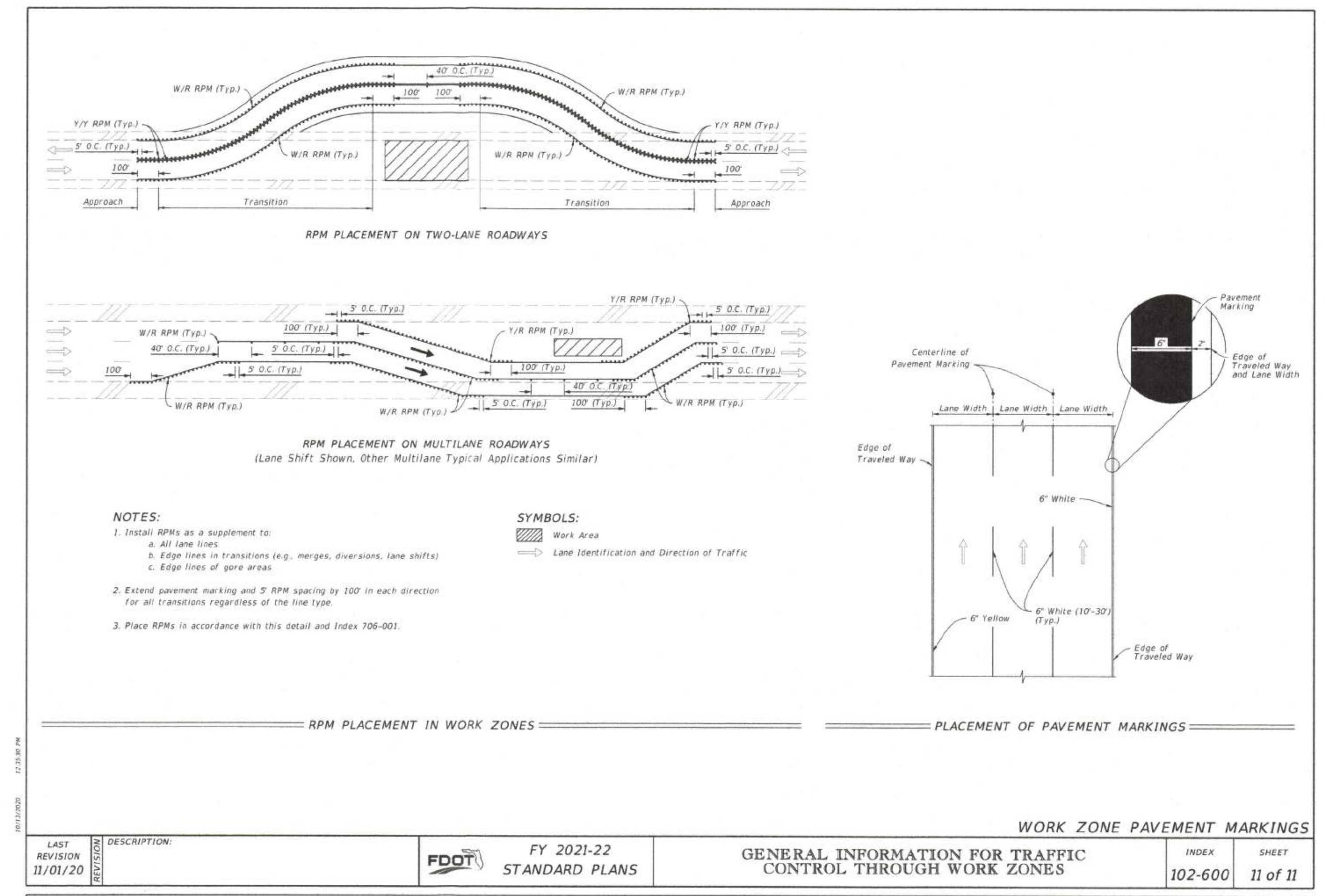

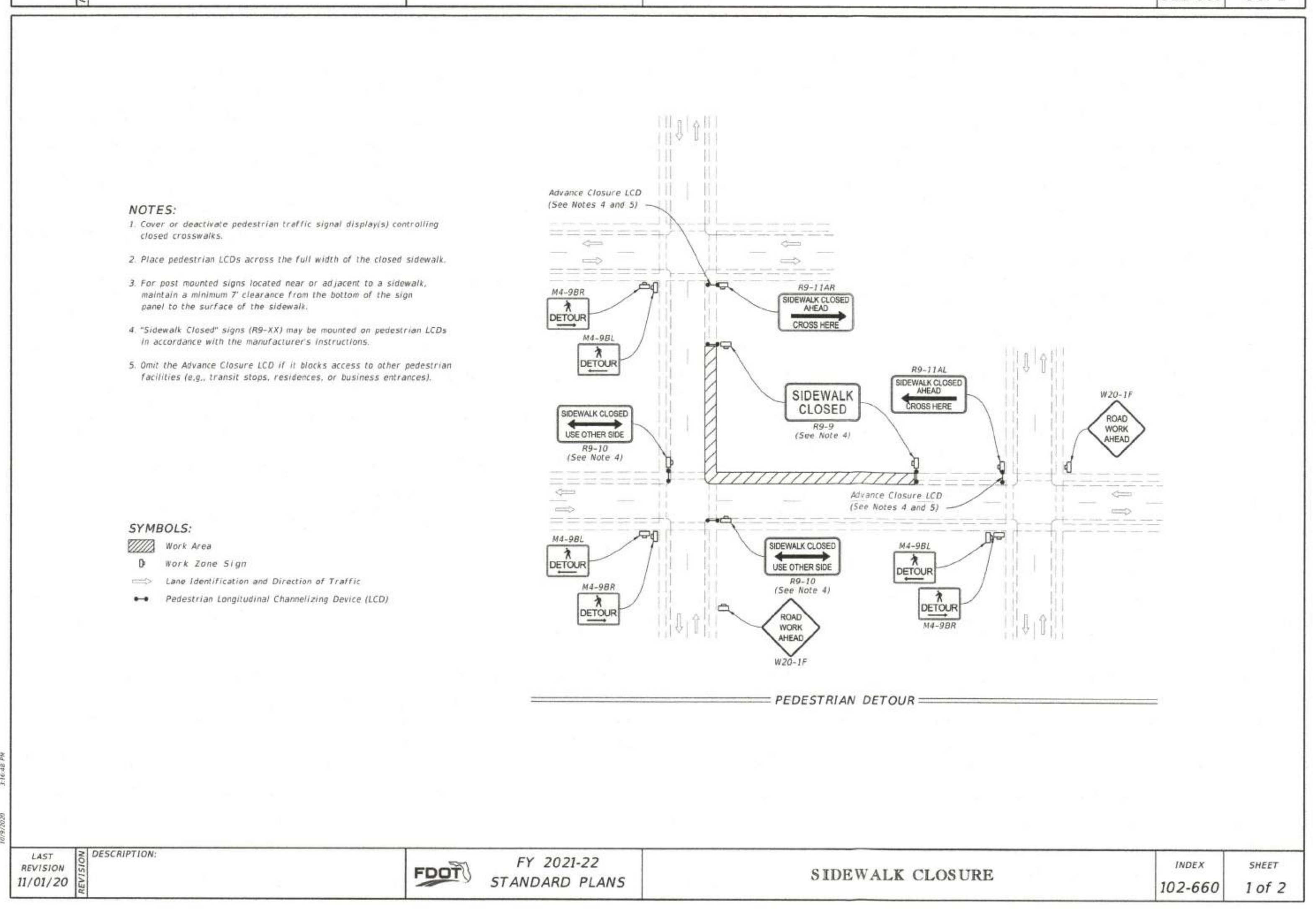

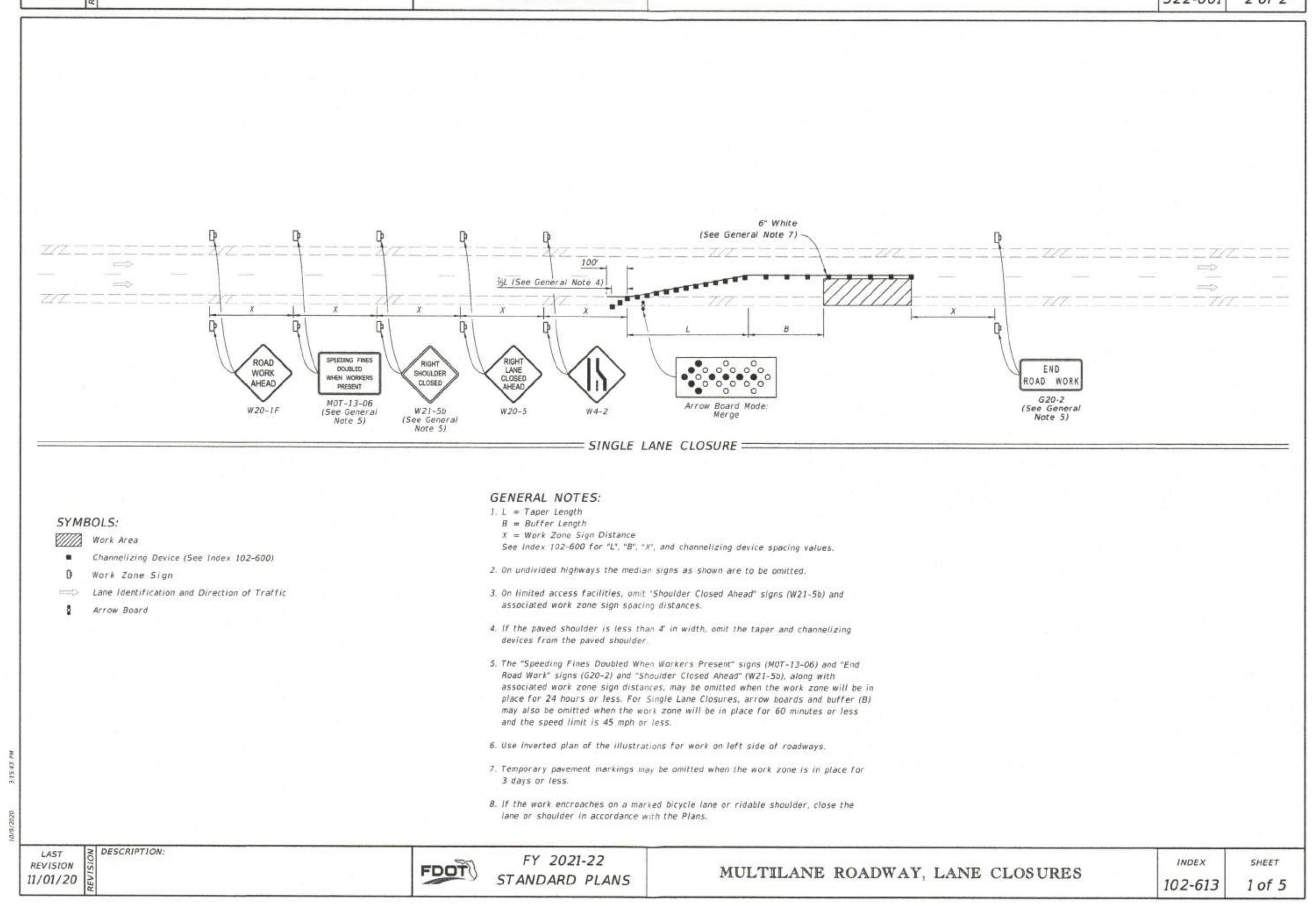

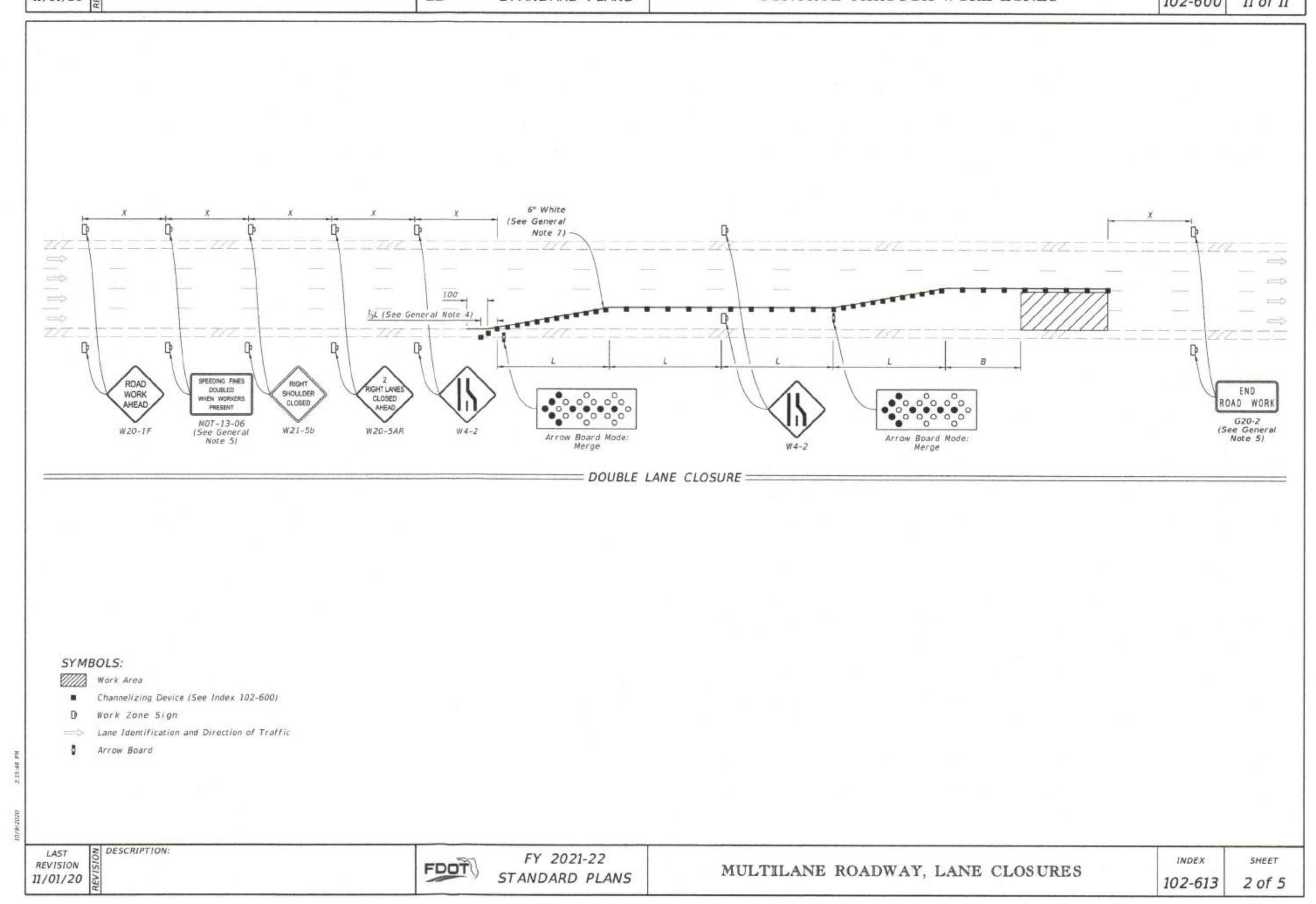

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P.E. No. 42505

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405 SOUTH HOWARD AVENUE
TAMPA, FL 33606

SHEET DESCRIPTION:
CADDY'S SUPPLEMENTAL PARKING LOT
SIGHT TRIANGLE EXHIBIT

NO.	DATE	REVISIONS	APP'D BY
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JOB NO. 19-009.01
DATE: 05/06/22
SHT. EX1

PLANT LEGEND

See Sheet L1.2 for Details

SHADE TREES — *Different species for every 5 trees (Max of 8 species required)*

SYMBOL	QTY	COMMON NAME	BOTANICAL NAME	SIZE REQUIREMENTS	NATIVE FLORIDA	DROUGHT TOLERANT
	1	SYLVESTER PALM Existing in Median		Existing	NO	YES
	4	RED MAPLE	Acer rubrum	10'h min., 2.5" cal.	YES	YES
	8	LITTLE GEM MAGNOLIA	*Magnolia "Little Gem"*	10'h min, 2.5 cal.	YES	YES
	11	SABAL PALM	Sabal palmetto	12'h, 8'ct min.	YES	YES
	21	TOTAL TREES	*(Includes Existing, Required and Non-Required)*			

SHRUBS

SYMBOL	QTY	COMMON NAME	BOTANICAL NAME	SIZE REQUIREMENTS	NATIVE FLORIDA	DROUGHT TOLERANT
	28	COPPER PLANT	*Acalypha amentacea*	3'h. min, 3 gal. +	NATURALIZED	YES
	35	FOUNTAIN GRASS	*Pennisetum setaceum "Rubrum"*	3'h. min, 3 gal. +	NATURALIZED	YES
	8	TEXAS SAGE	*Leucophyllum frutescens*	2'h. min, 3 gal. +	NATURALIZED	YES
		EXISTING SHRUBS in median				
	71	TOTAL NEW SHRUBS	*(Includes Required and Non-Required, does not include existing Shrubs)*			

Digitally signed by Debra Roman
Date: 2022.07.28 13:08:21 -04'00'

GROUNDCOVER

SYMBOL	QTY	COMMON NAME	BOTANICAL NAME	SIZE REQUIREMENTS	NATIVE FLORIDA	DROUGHT TOLERANT
	field verify	BEACH SUNFLOWER	*Helianthus debilis*	1 gal min.	YES	YES
	field verify	ST. AUGUSTINE SOD	*Stenotaphrum secundatum*	as sod	NO	YES

MULCH/OTHER

SYMBOL	QTY	COMMON NAME				
	field verify	MULCH	No Float - Brown, Black only	3"d, away from trunk, around all trees and shrubs		

NOTE: IF DISCREPANCIES ARISE IN QUANTITIES BETWEEN THE LANDSCAPE PLAN AND THE PLANT LEGEND, LANDSCAPE PLAN WINS.

Know what's below. Call before you dig. 811

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ROMAN EARTH
ARCHITECTURAL & LANDSCAPE DESIGN
DEBRA L. ROMAN
LANDSCAPE ARCHITECT
813.431.9338
DEBRA@ROMANEARTH.COM

Caddy's Madeira Beach, Florida

REGISTERED LANDSCAPE ARCHITECT DEBRA L. ROMAN STATE OF FLORIDA
DEBRA ROMAN, RLA
LA#6666762
COPIES OF THESE PLANS ARE NOT VALID UNLESS EMBOSSED WITH THE SIGNING ENGINEER'S SEAL

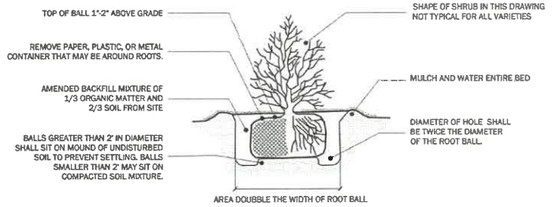
Issue Date: 05 may 2022
Revisions: v3

No.	Date	Description
1	18 jul 22	remove Gulf access
2	28 jul 22	enlarge pond
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	
	/ /	

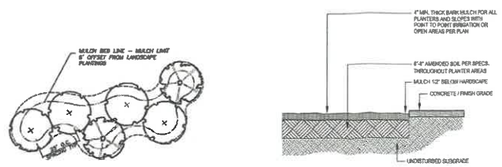
LANDSCAPE PLAN

CADDY'S PARKING
10499 gULF BOULEVARD
MADEIRA BEACH, FL

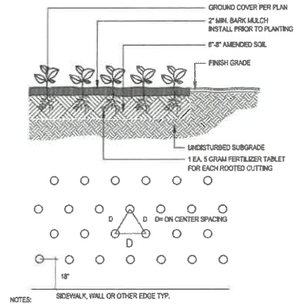
L1.1



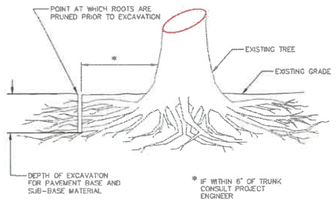
SHRUB PLANTING DETAIL



MULCH AREA DETAIL



GROUNDCOVER DETAIL

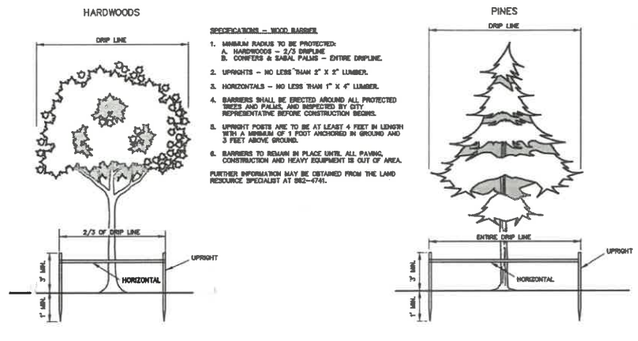


NOTES:

1) CUTS ARE TO BE MADE CLEANLY WITH A SHARP ROOT PRUNING TOOL (SUCH AS A DOSCO OR VERMEER ROOT PRUNER).

2) INSTALL ORANGE PLASTIC MESH TREE BARRIER, WITH REBAR SUPPORTS, AT POINT OF PRUNING AND CONTINUE COMPLETELY AROUND TREE, PROTECTING THE AREA WITHIN THE DRIP LINE (EXTENT OF OUTER BRANCHES).

ROOT PRUNING DETAIL

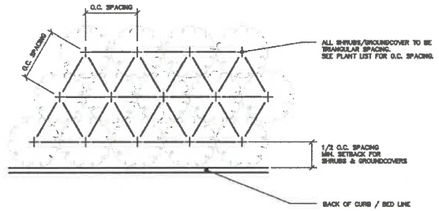


SPECIFICATIONS – WOOD BARRIER

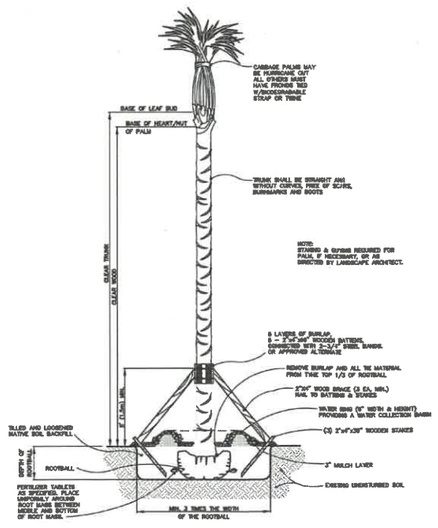
1. MINIMUM RADIUS TO BE PROTECTED:
   A. HARDWOODS – 2/3 DRIPLINE
   B. CONIFERS & SABAL PALMS – ENTIRE DRIPLINE.
2. UPRIGHTS – NO LESS THAN 2" X 2" LUMBER.
3. HORIZONTALS – NO LESS THAN 1" X 4" LUMBER.
4. BARRIERS SHALL BE ERECTED AROUND ALL PROTECTED TREES AND PALMS, AND INSPECTED BY CITY REPRESENTATIVE BEFORE CONSTRUCTION BEGINS.
5. UPRIGHT POSTS ARE TO BE AT LEAST 4 FEET IN LENGTH WITH A MINIMUM OF 1 FOOT ANCHORED IN GROUND AND 3 FEET ABOVE GROUND.
6. BARRIERS TO REMAIN IN PLACE UNTIL ALL PAVING, CONSTRUCTION AND HEAVY EQUIPMENT IS OUT OF AREA.

FURTHER INFORMATION MAY BE OBTAINED FROM THE LAND RESOURCE SPECIALIST AT 862-4741.

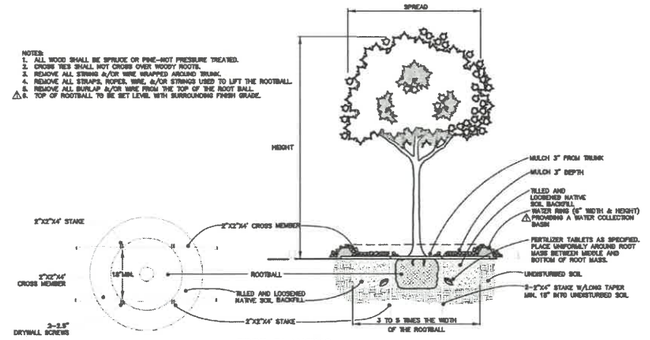
TREE BARRICADES



PLANT SPACING DETAIL (NO-OFFSET)



PALM PLANTING DETAIL



TREE PLANTING DETAIL

NOTES:

1. Where a driveway/accessway intersects a road right-of-way or where two (2) road rights-of-way intersect, vegetation, structures, and non-vegetative visual screens shall not be located so as to interfere with the clearsight triangle as defined in this Code or the Florida Department of Transportation, Manual of Uniform Minimum Standards, most recent edition (Green Book), whichever is more restrictive.

2. Landscaping shall be installed so that landscaping materials meet the concept of right material/right place. Installed trees and plants shall be grouped into zones according to water, soil, climate, and light requirements. Plant groupings based on water requirements are drought tolerant, natural, and oasis.

3. All plant materials shall be Florida No. 1 grade per "Grades and Standards for Nursery Plants," Florida Department of Agriculture and Consumer Services (FDACS), which is incorporated herein by reference.

4. Groundcover plants shall be spaced to present a finished appearance and obtain a reasonably complete coverage within one (1) year. Non-living ground cover, such as mulch, gravel, rocks, etc., shall be used in conjunction with living plants so to cover exposed soil and suppress fugitive dust.

5. All trees shall be planted according to the Florida Chapter, International Society of Arboriculture Standards for Planting, which is incorporated herein by reference. All trees must be maintained in good condition and planted in locations with adequate open space to allow for mature tree-canopy development.

6. Trees shall not be planted within any easement so as to interfere with the use of that easement, nor under any present or planned overhead utility, nor in any rights-of-way without County approval through the associated review process.

7. Mulch shall be used in conjunction with living plant materials so as to cover exposed soil. Mulch shall be installed to a minimum depth of three (3) inches. The mulch should not be placed directly against the plant stem or tree trunk. Mulch shall not be required for annual beds. Stone or gravel may be used to cover a maximum of 20 percent of the landscaped area.

8. All landscaping shall be installed in accordance with standards and practices of the Florida Nursery, Growers, and Landscape Association and the Florida Chapter of the International Society of Arboriculture.

9. All height requirements shall be based on the finished grade of the landscaped area and measured at the main stem.

10. All portions of a lot upon which development has commenced, but not continued for a period of 30 days, shall be planted with a grass species or ground cover to prevent erosion and encourage soil stabilization. Adequate coverage, so as to suppress fugitive dust, shall be achieved within 45 days.

11. All portions of each site, which are not devoted to buildings, sidewalks, paving, or special landscape features shall be grassed. However, no more than thirty (30) percent of the required landscape area may be grassed; the balance shall be landscaped in shrubs and ground cover plants.

12. All required landscaping shall be maintained in a healthy condition in perpetuity.

13. Ongoing maintenance to prevent the establishment of prohibited exotic species is required.

14. An irrigation system utilizing the most sustainable ecological method shall be installed prior to landscape installation.

15. All invasive and exotic plants and trees are to be removed from the site at the site preparation phase, including roots.

16. Tree maintenance shall be performed under the supervision of a licensed Arborist.

17. All existing trees and vegetation to remain are to be protected with tree barricades during construction. NO trenching under trees to install silt fence to be allowed.

ROMAN EARTH
ARCHITECTURAL & LANDSCAPE DESIGN
DEBRA L. ROMAN
LANDSCAPE ARCHITECT
813-431-8336
DEBRA@ROMANEARTH.COM

Digitally signed by Debra Roman
Date: 2022.05.05 17:33:58 -04'00'

DEBRA ROMAN, RLA
LA#0666762
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Issue Date: 05 may 202
Revisions: V1

No	Date	Description
1	/ /	
2	/ /	
3	/ /	
4	/ /	
5	/ /	
6	/ /	
7	/ /	
8	/ /	

LANDSCAPE PLAN - DETAILS

CADDY'S PARKING
10499 gULF BOULEVARD
MADEIRA BEACH, FL

L1.2

Drainage Design Report

FOR:

Caddy's Gulf Grill
Parking Lot Expansion

14099 Gulf Boulevard
Madeira Beach, Florida 33708

Gulf Coast Consulting, Inc.

Engineering • Planning • Transportation • Permitting

13825 ICOT Boulevard - Suite 605
Clearwater, Florida 33760
Ph: (727) 524-1818

SUBMITTED TO:

City of Madeira Beach

July 2022
May 2022

GCC PROJECT No. 19-009.01

Drainage Design Report

FOR:

Caddy's Gulf Grill
Parking Lot Expansion

14099 Gulf Boulevard
Madeira Beach, Florida 33708

Gulf Coast Consulting, Inc.

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Clearwater, Florida 33760
Ph: (727) 524-1818

SUBMITTED TO:
City of Madeira Beach

Sean P. Cashen
AUG -2 2022
FL P.E. No. 42505

Sean P. Cashen, State of Florida, P.E. #42505

This item has been electronically signed and sealed by Sean P. Cashen, P.E. on the date indicated here using a *SHA* authentication code.

July 2022
May 2022

Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies

GCC PROJECT No. 19-009.01

GCC PROJECT No. 19-009.01

Gulf Grill Parking Lot Expansion

MADEIRA BEACH, FLORIDA

Table of Contents

PART A – GENERAL INFORMATION

- **Project Summary**
- **Calculations Summary**
- ***Drainage Results Summary***
- **Location Map**
- **Aerial**
- **FEMA Map**
- **NRCS Soil Survey**

Project Summary

General Overview

The proposed project is the redevelopment of a convenient store to a proposed parking lot at 14099 Gulf Boulevard within the City of Madeira Beach. The total site area is .2817 acres and lies within Section 10, Township 31S, Range 15E. The site is located at the southeast corner of 141st Avenue and Gulf Boulevard, SR 699.

All elevations herein and shown on the construction plans are relative to the NAVD88 datum.

In the pre-development condition, the project site is occupied by the convenient store with associated parking. The property is 95% impervious. There is not any on-site stormwater treatment system and the stormwater sheet-flows to the rights of ways of Gulf Boulevard and 141st Avenue.

The proposed improvements consist of an asphalt parking lot and a stormwater treatment pond. This parking lot will serve the existing Caddy's Restaurant (fka Gulf Grill) located on the opposite side of Gulf Boulevard at 14080 Gulf Boulevard, as shown on the Overall Site Plan. The site is designed to collect runoff from the parking area by flume into to the proposed dry retention stormwater treatment pond. The pond will provide water quantity attenuation and water quality treatment in accordance with the City of Madeira Beach (1" required treatment for impervious area) and SWFWMD criteria. There is an existing FDOT curb inlet located in the Gulf Boulevard right-of-way that is proposed as the stormwater connection point to the existing FDOT SR 699 public stormwater system.

- **Soils and Seasonal High Water Table**

The on-site soils utilizing the USDA NRCS Soil Survey, see exhibit, identifies the site as having Matlacha and St. Augustine soils and Urban Land, (16). The hydrologic soil group (HSG) is set as B in the existing and proposed conditions.

The SHWT elevation has been set at elevation 2.0, based on the NOVA Geotech Report. The location of the boring is shown in the report and the Pre-Development Basin Map.

- **Flood Zone**

This site appears to lie within **Flood Zone AE-10.** The floodplain areas were determined from Flood Insurance Rate Map No. 12103C0191H dated August 24, 2021.

- **Impaired Water Body Analysis**

Stormwater runoff from this site drains into drainage basin, WBID #1694B. This basin is part of Boca Ciega Bay (North). This tributary is listed on the verified list as impaired for nutrients, as shown in the Impairment Exhibit. The site is required to meet Net Improvement BMP's per SWFWMD. Please see the BMPTrains (Version 4.3.2) Treatment calculations.

CALCULATIONS SUMMARY

The drainage modeling was computed using ICPR v3.10. The curve numbers were computed using the SCS Method, and the time of concentration were computed using the TR55 computation approach. The positive discharge from the site will be controlled by the stormwater system connecting to the existing FDOT inlet within the right-of-way. Stormwater management for this site falls under the jurisdiction of City of Madeira Beach and Southwest Florida Water Management District (SWFWMD).

Post-Development Analysis

The proposed pond is designed as a dry retention area. Water quality, quantity, volume recovery, and discharge rates have been demonstrated through the ICPR model and accompanying calculations. The single stage weir was designed to hold a 1" of runoff from the impervious contributing area.

The Infiltration Recovery Method for water quality treatment with drawdown is utilized for the first inch of rainfall for the site. This is shown in the ICPR Percolation results with the drawdown of the treatment volume in accordance with the SWFWMD 72-hour criteria.

DRAINAGE RESULTS SUMMARY

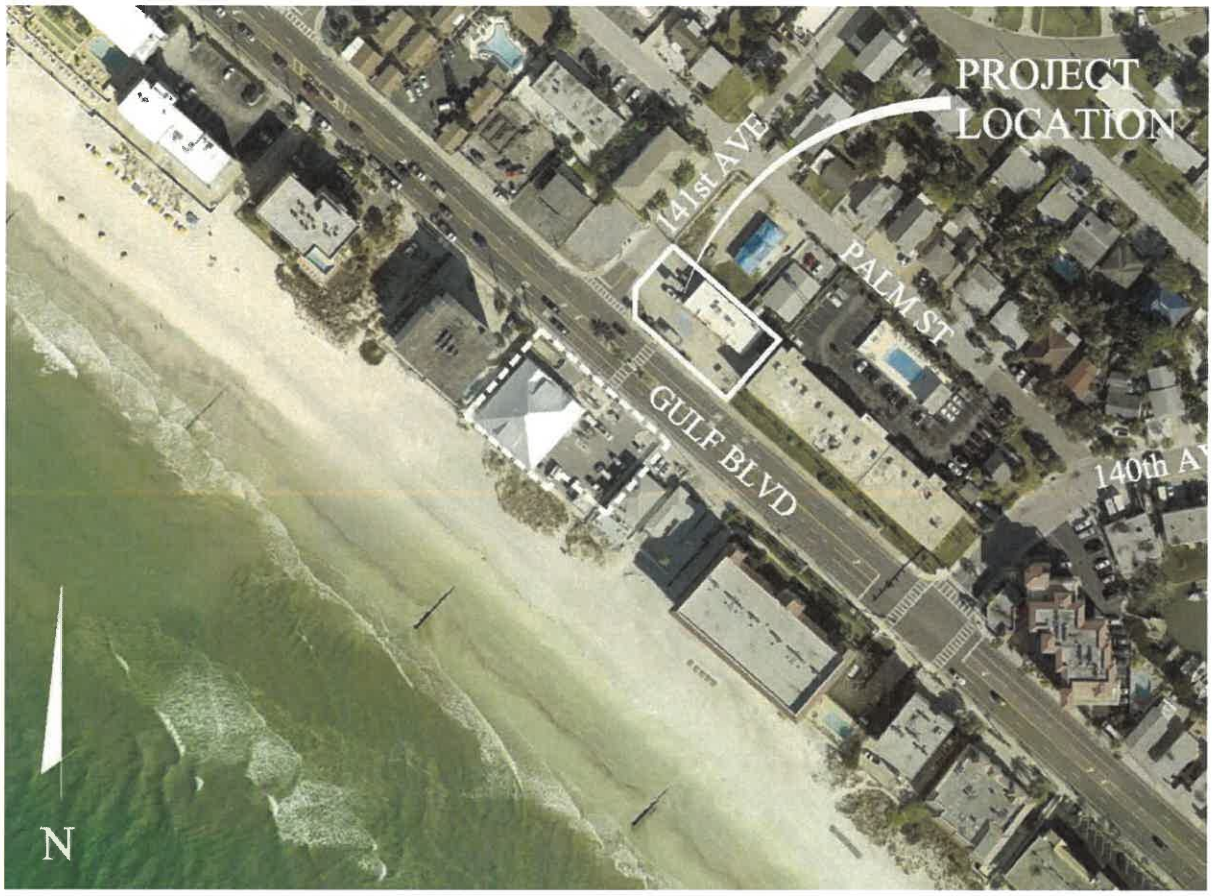
The critical storm that was utilized to design the retention systems is the 25-year/24-hour for the City of Madeira Beach. The 25-year/24-hour post-development peak discharge rate for the site **does not** exceed the allowable 25-year/24-hour pre-development peak. See all of the results as detailed in the Drainage Summary Table below.

	Pre-Dev (cfs)
25Yr-24Hr	1.22

	Post-Dev S-53 (cfs)
25Yr-24Hr	1.21

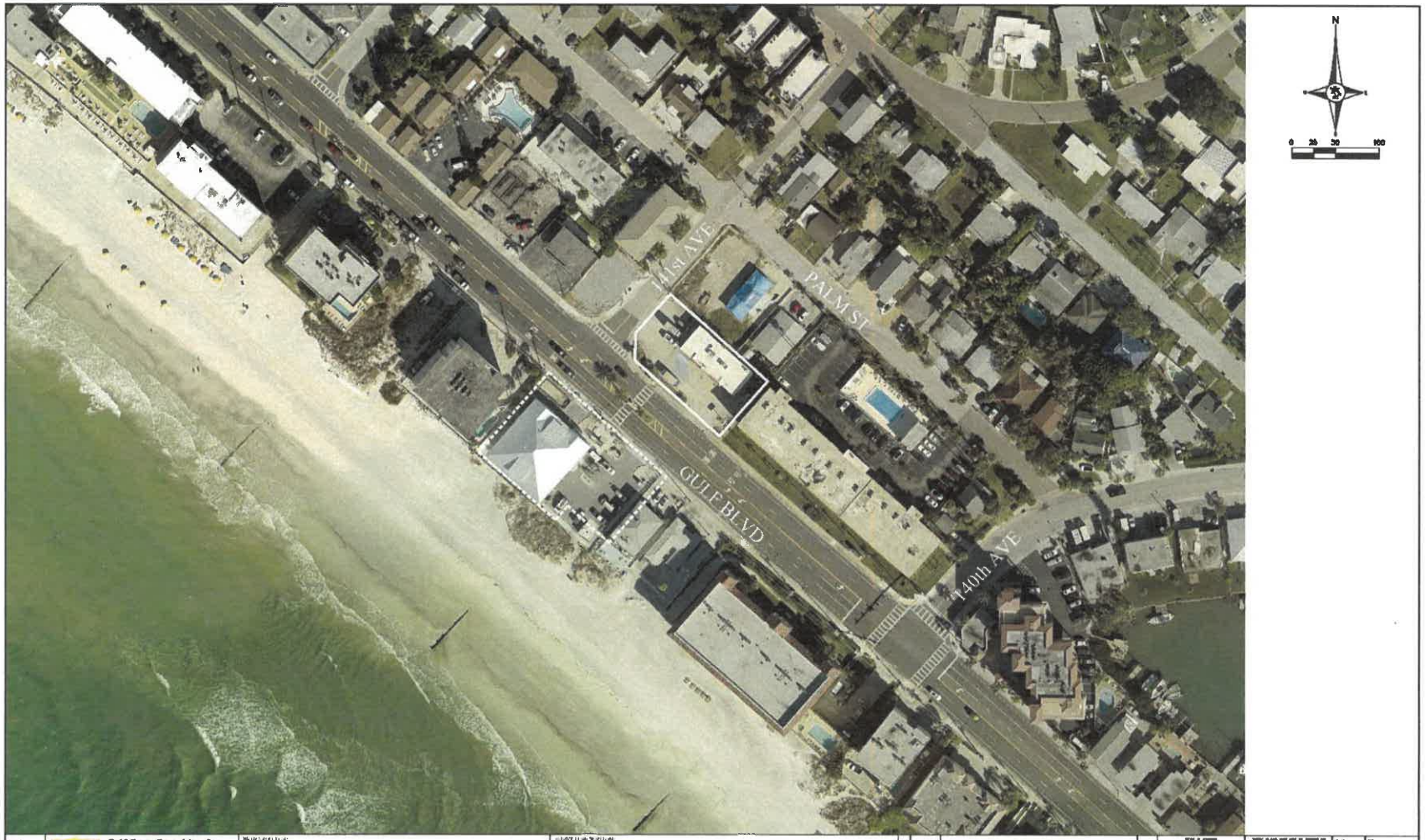
	Design High Water Table Summary		
	Pond DHW Post-Development		Top of Bank
DRA 1	25Yr-24Hr	4.25	4.50

Location Map



Approximate project area in white.

AERIAL



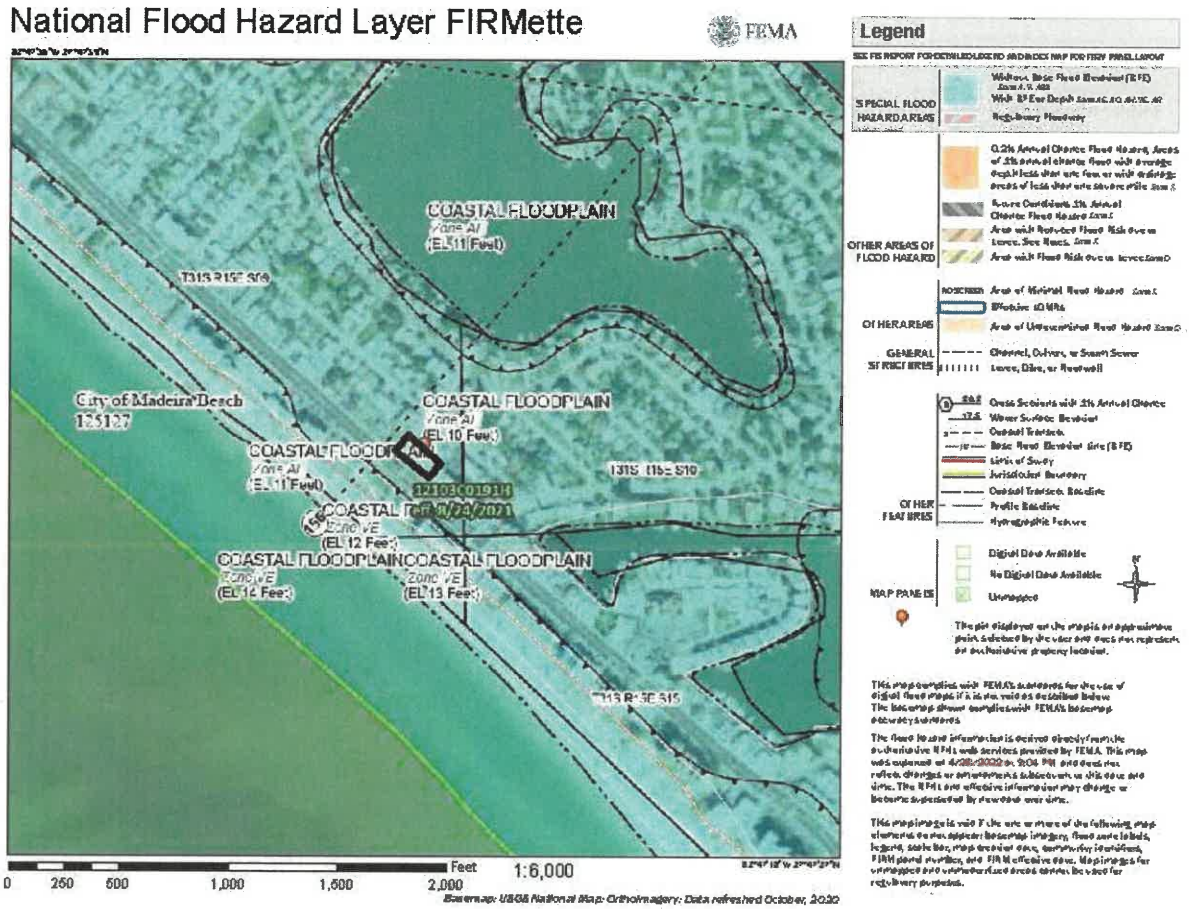
Gulf Coast Consulting, Inc.
Land Development Consulting

SFMB MAD BEACH PROPERTY, LLC
405 SOUTH HOWARD AVENUE
TAMPA, FL 33606

CADDY'S SUPPLEMENTAL PARKING LOT
AERIAL EXHIBIT

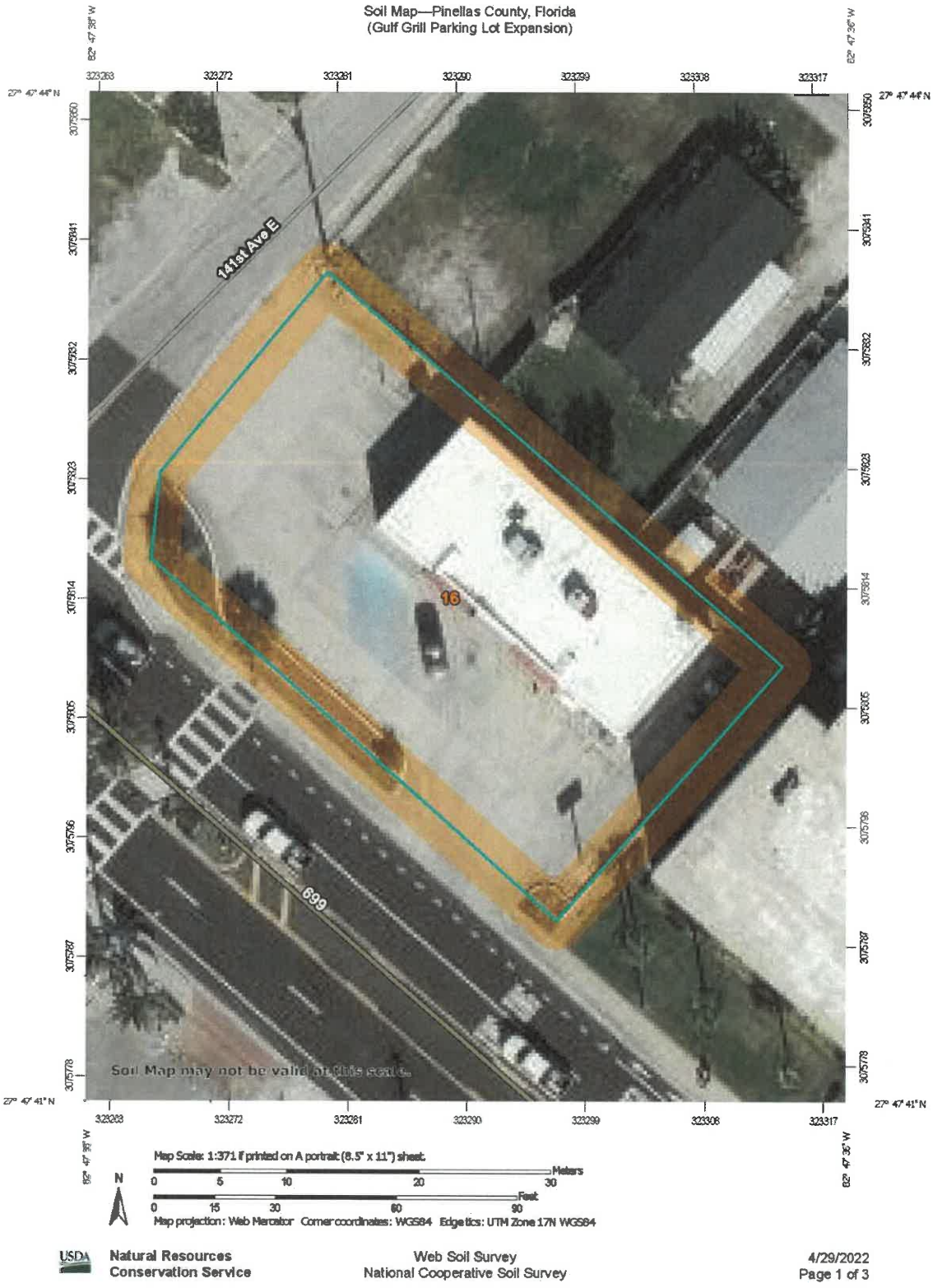
AE1

FEMA MAP



Approximate project area in black.

NRCS SOIL SURVEY



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Pinellas County, Florida
Survey Area Data: Version 18, Aug 27, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 20, 2020—Jan 28, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
16	Matlacha and St. Augustine soils and Urban land	B	0.3	100.0%
Totals for Area of Interest			0.3	100.0%

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
16	Matlacha and St. Augustine soils and Urban land	76	0.3	100.0%
Totals for Area of Interest			**0.3**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Saturated Hydraulic Conductivity (Ksat)

Map unit symbol	Map unit name	Rating (micrometers per second)	Acres in AOI	Percent of AOI
16	Matlacha and St. Augustine soils and Urban land	28.0000	0.3	100.0%
Totals for Area of Interest			**0.3**	**100.0%**

Description

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity is considered in the design of soil drainage systems and septic tank absorption fields.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

The numeric Ksat values have been grouped according to standard Ksat class limits.

Rating Options

Units of Measure: micrometers per second

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Fastest

Interpret Nulls as Zero: No

Layer Options (Horizon Aggregation Method): Surface Layer (Not applicable)

PART B – DRAINAGE ANALYSIS

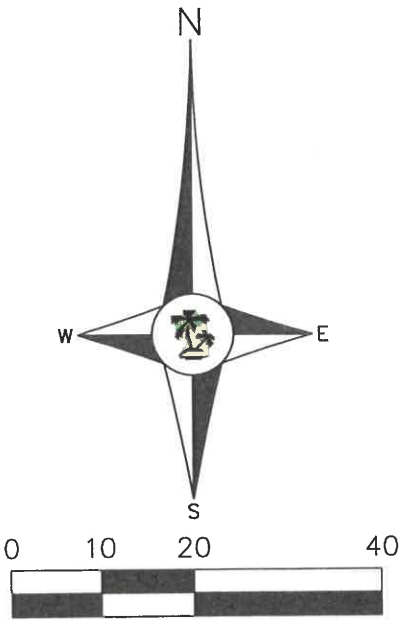
➢ Pre-Development Analysis

- Pre-Development Drainage Basin Map
- Existing Conditions Summary
- Existing Conditions Curve Number
- Existing Conditions Time of Concentration
- Historic "Q" Calculations

➢ Post-Development Analysis

- Post-Development Drainage Basin Map
- Post-Development Percolation Map
- Proposed Conditions Summary
- Proposed Conditions Curve Number

PRE-DEVELOPMENT ANALYSIS



DESIGNED SPC
DRAWN MKC
CHECKED SPC
Q.C.

Gulf Coast Consulting, Inc.
Land Development Consulting
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13825 ICOT BLVD., SUITE 605
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PREPARED FOR:
SFMB MA

APPD BY

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JOB NO. 19-009.01
DATE: 05/06/22
SHT. D1

Y:\PINELLAS\Gulf Grill - 14080 Gulf Blvd (19-009)\Drainage Caddys PLot\Map\Pre-Dev Basin Map.dwg, 7/22/2022 2:28:45 PM

Existing Conditions Summary

Project: Caddy's Parking Lot **Date:** May 1, 2022
Revised: Jul, 2022
Proj. No: 19-009.01 **By:** RAS/KML

Basin	Area (Acres)	CN	TOC
PRE	0.2817	79.0	10.0
Total	0.28		

Site Acreage 0.28

Green Numbers	=	Info From Another Spreadsheet
Blue Numbers	=	Input
Red Numbers	=	Calculations

Existing Conditions
CN Calculations:

PROJECT: Caddy's Parking Lot **DATE:** May 1, 2022
Revised: Jul, 2022
JOB NO: 19-009.01 **BY:** RAS/KML

PRE 0.2817 Ac or 12,270 Sq. Ft.

		Area	HSG	CN	
Open Space, Poor Condition	*	0.2817	B	79	
Impervious - Buildings & Pavement		0.0000	B	98	
Pond		0.0000	B	100	
TOTAL		0.2817		79.0	← CN

* Native Soil Condition

Green Numbers	=	Info from another spreadsheet
Blue Numbers	=	Input
Red Numbers	=	Calculations

Existing Conditions
Time of Concentration Calculations

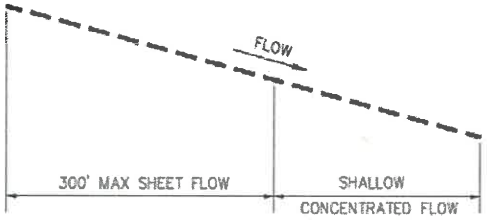
PROJECT: Caddy's Parking Lot **DATE:** May 1, 2022

Revised: Jul, 2022

JOB NO: 19-009.01 **BY:** RAS/KML

Overland Flow:
Mannings Kinematic

$$T_{c1} = \frac{.007\,(nL)^{0.8}}{P_2^{0.5}\,S^{0.4}}$$



Where:
L = Flow Length
n = Manning's Roughness Coefficient
S = Average Watershed Slope

Concentrated Flow:

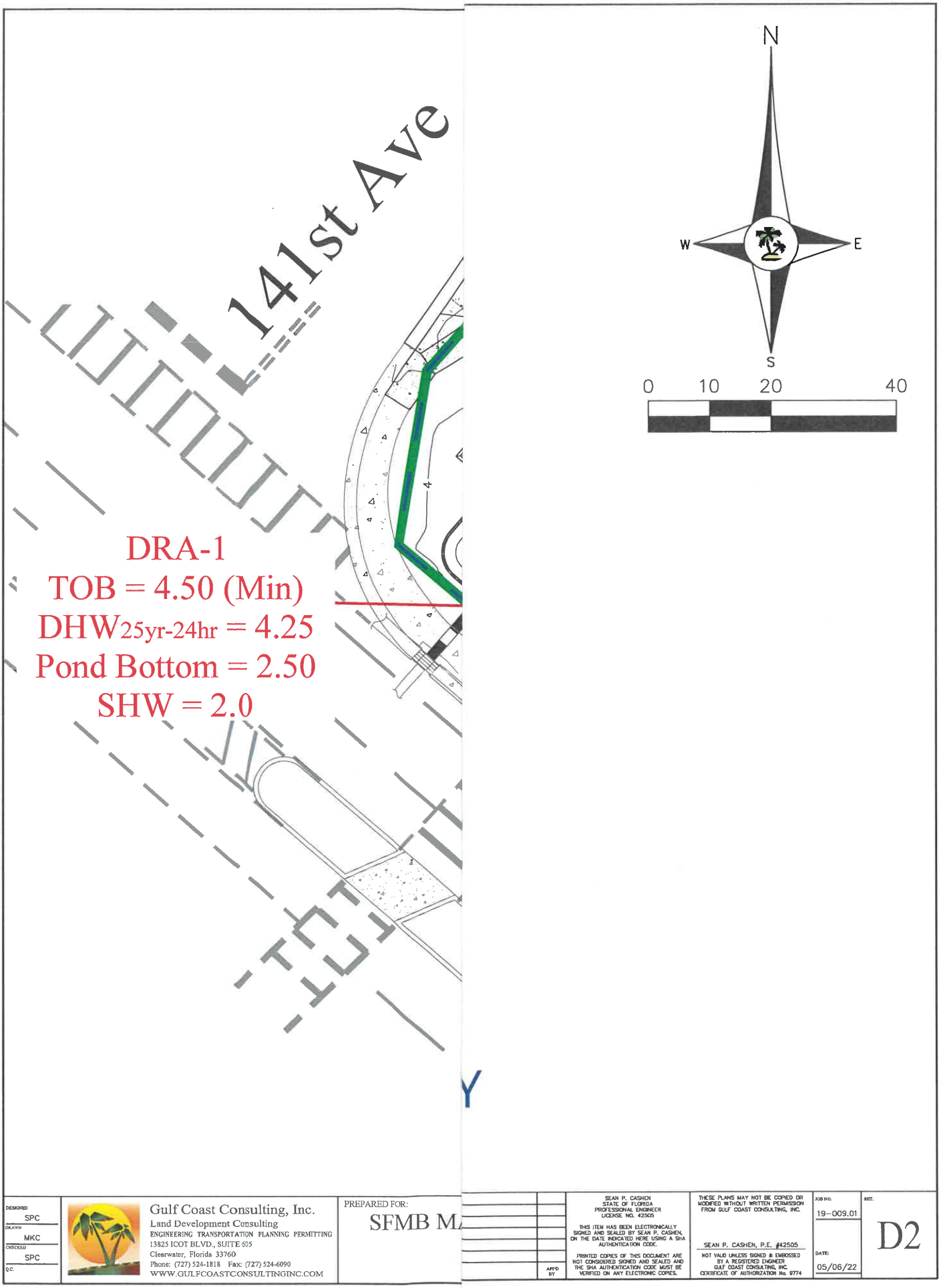
$$T_c = \frac{L}{V}$$

Where:
L = Flow Length
V = Velocity (See FDOT Figure 5-20)

Basin	PRE
Total Flow Length	44 ft
Overland Flow Length (300' Max)	39 ft
Shallow Concentrated Flow Length	5 ft
Mannings Roughness Coefficient	0.001
25-Year 24-Hour Storm	8.46 in.
Overland Flow Average Slope	6.60%
Concentrated Flow Avg. Slope	6.60%
(Shallow) V	3.90 ft/sec
Overland Flow T_c =	0.03 min.
Shallow Concentrated T_c =	0.02 min.
Total T_c =	**0.1 min**

(Minimum 10 minutes)

POST-DEVELOPMENT ANALYSIS



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CHECKED SPC
QC.

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PREPARED FOR:
SFMB M

APP'D BY

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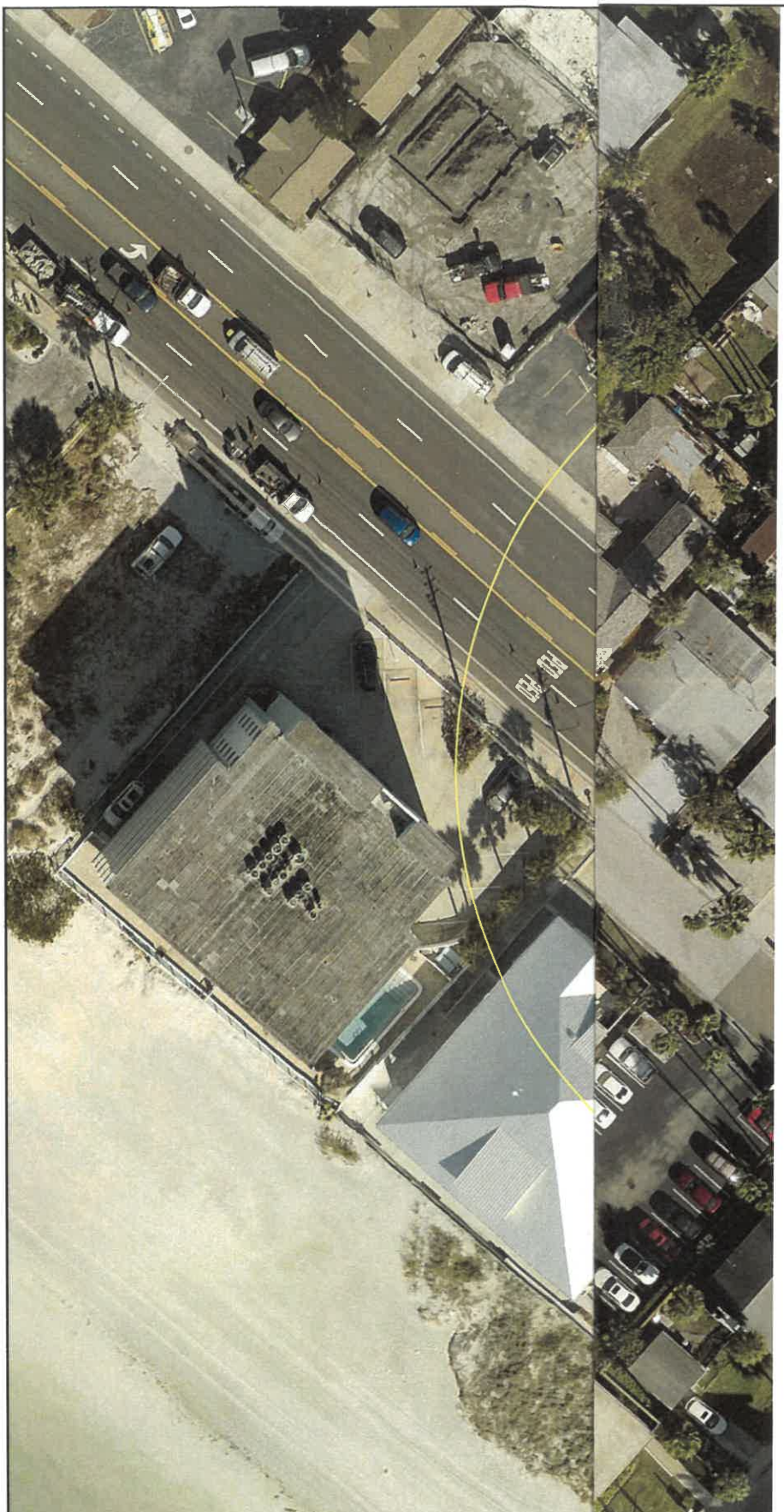
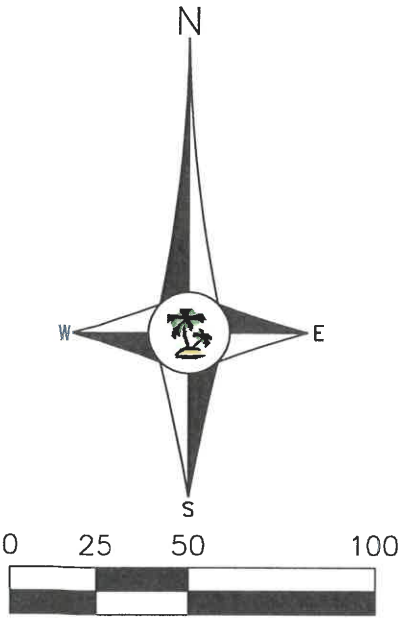
JOB NO. 19-009.01

DATE: 05/06/22

SHT. D2

Y:\PINELLAS\Gulf Grill - 14080 Gulf Blvd (19-009)\Drainage Caddys PLot\Map\Post-Dev Basin Map.dwg, 7/21/2022 5:08:28 PM





DESIGNED SPC DRAWN MKC CHECKED SPC QC	Gulf Coast Consulting, Inc. Land Development Consulting ENGINEERING TRANSPORTATION PLANNING PERMITTING 13825 ICOT BLVD., SUITE 605 Clearwater, Florida 33760 Phone: (727) 524-1818 Fax: (727) 524-6090 WWW.GULFCOASTCONSULTINGINC.COM	PREPARED FOR: SFMB M	APP'D BY	SEAN P. CASHEN STATE OF FLORIDA PROFESSIONAL ENGINEER LICENSE NO. 42505 THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SEAN P. CASHEN, ON THE DATE INDICATED HERE USING A SHA AUTHENTICATION CODE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	THESE PLANS MAY NOT BE COPIED OR MODIFIED WITHOUT WRITTEN PERMISSION FROM GULF COAST CONSULTING, INC. SEAN P. CASHEN, P.E. #42505 NOT VALID UNLESS SIGNED & EMBOSSED BY A REGISTERED ENGINEER GULF COAST CONSULTING, INC. CERTIFICATE OF AUTHORIZATION No. 9774	JOB NO. 19-009.01 DATE: 05/06/22	SHT. D3

Proposed Conditions Summary

Project: Caddy's Parking Lot **Date:** May 1, 2022
Revised: Jul, 2022
Proj. No: 19-009.01 **By:** RAS/KML

Basin	Area (Acres)	CN	TOC
POST	0.28	86.6	10.0
Total	0.28		

Site Acreage 0.2817

Green Numbers	= Info From Another Spreadsheet
Blue Numbers	= Input
Red Numbers	= Calculations

Proposed Conditions
CN Calculations:

PROJECT: Caddy's Parking Lot **DATE:** May 1, 2022
Revised: Jul, 2022
JOB NO: 19-009.01 **BY:** RAS/KML

Basin: POST
Project Area: 0.2817 Ac or 12,270 Sq. Ft.

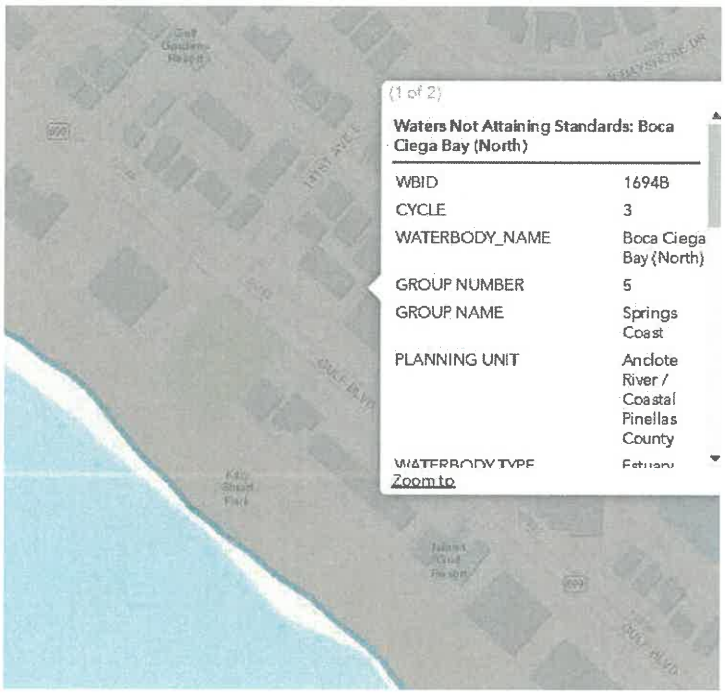
	Area	HSG	CN	
Open Space, Good Condition	0.0865	B	61	
Impervious - Buildings & Pavement	0.1951	B	98	
Pond	0.0000	B	100	
TOTAL	0.2817		86.6	← CN

Green Numbe	= Info from another spreadsheet
Blue Numbers	= Input
Red Numbers	= Calculations

PART C – DRAINAGE CALCULATIONS

- **WBID 1694B - Impairment Exhibit**
- **DCIA Calculations (Existing and Proposed)**
- **BMPTrains Calculations & Report**
- **Pond Volume Stage/Storage Calculations**
- **ICPR Pre/Post-Development Nodal Diagram**
- **ICPR Hydrologic Input Data – Nodal**
- **ICPR Hydrologic Output Data - Nodal Summary**
- **ICPR Hydrologic Output Data – Link Summary**
- **ICPR Hydrologic Input Data - Percolation**
- **ICPR Hydrologic Output Data – Percolation Analysis (Node Time Series)**
- **Results Summary**

Impaired Waterbody – WBID #1694B
Boca Ciega Bay (North)



Waters Not Attaining Standards: Boca Ciega Bay (North)

WBID	1694B
CYCLE	3
WATERBODY_NAME	Boca Ciega Bay (North)
GROUP NUMBER	5
GROUP NAME	Springs Coast
PLANNING UNIT	Anclote River / Coastal Pinellas County
WATERBODY TYPE	Estuary
WATERBODY CLASS	3M
PARAMETER_IWR	Nutrients (Chlorophyll-a)
PARAMETER_GROUP	Nutrients
IR_ASSESSMENT_CATEGORY	5
ASSESSMENT_STATUS	Impaired
COMMENTS	This waterbody is impaired for this parameter because the annual geometric means exceeded the criterion more than once in a three year period during the verified period. This parameter is being added to the Verified List and the department is requesting EPA add to the 303(d) List.

DCIA Calculations:
Existing and Proposed Conditions

PROJECT: Caddy's Parking Lot **DATE:** May 1, 2022
Revised: Jul, 2022

JOB NO: 19-009.01 **BY:** RAS/KML

(DCIA Calculations used for Calculating Nutrient Removal Efficiency for the BMP Trains Calculations)

Project Area: **12,270 Sq. Ft.**

Pre-Developed:

CN	=	61.00	Open Space Fair Condition - Type B
nDCIA	=	94.5%	11,599 Sq. Ft. / 12,270 Sq. Ft.
DCIA	=	94.5%	Percent DCIA present in the basin
PA	=	5.5%	Percent Pervious present in the basin
nDCIA CN	=	**95.98**	See formula below

Post-Developed:

CN	=	61.00	Open Space Good Condition - Type B
nDCIA	=	69.3%	8,500 Sq. Ft. / 12,270 Sq. Ft.
DCIA	=	69.3%	Percent DCIA present in the basin
PA	=	30.7%	Percent Pervious present in the basin
nDCIA	=	**86.63**	See formula below

$$\text{nDCIA CN} = \frac{((PA * CN)) + (nDCIA * 98))}{(PA + nDCIA)}$$

Impaired Waterbody - BMPTrains

Impairment Calculations—Net Improvement

Complete Report (not including cost) Ver 4.2.2

Project: Gulf Grill Parking Lot Expansion
Date: 7/22/2022 3:43:57 PM

Site and Catchment Information

Analysis: Net Improvement

Catchment Name	Pre/Post
Rainfall Zone	Florida Zone 4
Annual Mean Rainfall	51.00

Pre-Condition Landuse Information

Landuse	High-Intensity Commercial: TN=2.40 TP=0.345
Area (acres)	0.28
Rational Coefficient (0-1)	0.78
Non DCIA Curve Number	61.00
DCIA Percent (0-100)	94.50
Nitrogen EMC (mg/l)	2.400
Phosphorus EMC (mg/l)	0.345
Runoff Volume (ac-ft/yr)	0.929
Nitrogen Loading (kg/yr)	2.748
Phosphorus Loading (kg/yr)	0.395

Post-Condition Landuse Information

Landuse	High-Intensity Commercial: TN=2.40 TP=0.345
Area (acres)	0.28
Rational Coefficient (0-1)	0.58
Non DCIA Curve Number	61.00

DCIA Percent (0-100)	69.30
Wet Pond Area (ac)	0.00
Nitrogen EMC (mg/l)	2.400
Phosphorus EMC (mg/l)	0.345
Runoff Volume (ac-ft/yr)	0.694
Nitrogen Loading (kg/yr)	2.054
Phosphorus Loading (kg/yr)	0.295

Catchment Number: 1 Name: Pre/Post

Project: Gulf Grill Parking Lot Expansion
Date: 7/22/2022

Retention Design

Retention Depth (in)	0.500
Retention Volume (ac-ft)	0.012

Watershed Characteristics

Catchment Area (acres)	0.28
Contributing Area (acres)	0.280
Non-DCIA Curve Number	61.00
DCIA Percent	69.30
Rainfall Zone	Florida Zone 4
Rainfall (in)	51.00

Surface Water Discharge

Required TN Treatment Efficiency (%)	
Provided TN Treatment Efficiency (%)	53
Required TP Treatment Efficiency (%)	
Provided TP Treatment Efficiency (%)	53

Media Mix Information

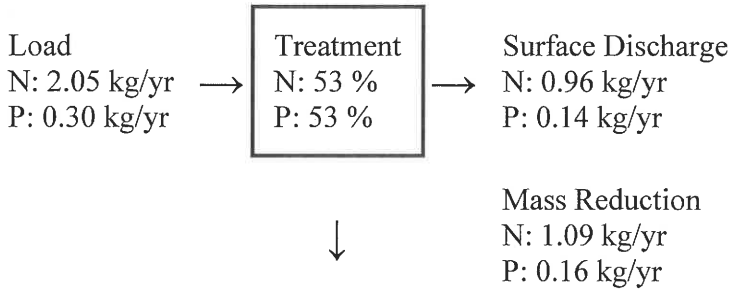
Type of Media Mix	Not Specified
Media N Reduction (%)	
Media P Reduction (%)	

Groundwater Discharge (Stand-Alone)

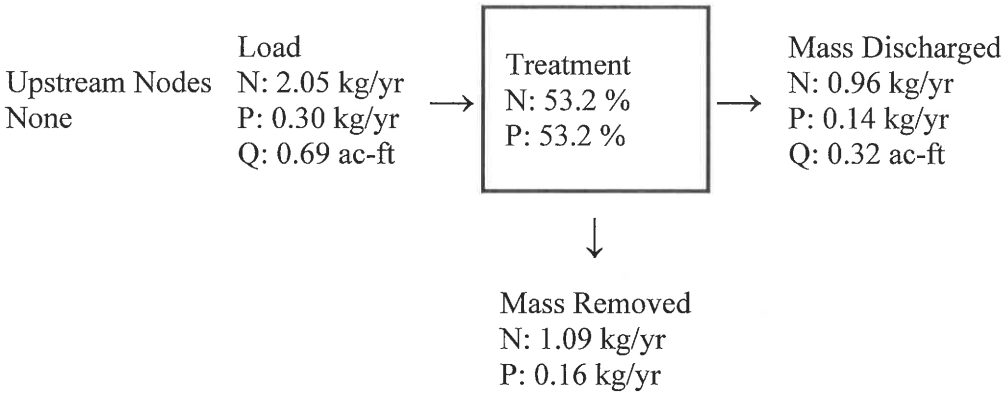
Treatment Rate (MG/yr)	0.000

TN Mass Load (kg/yr)	1.093
TN Concentration (mg/L)	0.000
TP Mass Load (kg/yr)	0.157
TP Concentration (mg/L)	0.000

Load Diagram for Retention (stand-alone)



Load Diagram for Retention (As Used In Routing)



Summary Treatment Report Version: 4.2.2

Project: Gulf Grill Parking Lot Expansion

Date:7/22/2022

Analysis Type: Net Improvement

Routing Summary
Catchment 1 Routed to Outlet

BMP Types:

Catchment 1 - (Pre/Post)
Retention
Based on % removal values to
the nearest percent

Total nitrogen target removal met? Yes
Total phosphorus target removal met? Yes

Summary Report

Nitrogen

Surface Water Discharge

Total N pre load	2.75 kg/yr	
Total N post load	2.05 kg/yr	
Target N load reduction	%	
Target N discharge load	2.75 kg/yr	
Percent N load reduction	53 %	
Provided N discharge load	.96 kg/yr	2.12 lb/yr
Provided N load removed	1.09 kg/yr	2.41 lb/yr

Phosphorus

Surface Water Discharge

Total P pre load	.395 kg/yr	
Total P post load	.295 kg/yr	
Target P load reduction	%	
Target P discharge load	.395 kg/yr	
Percent P load reduction	53 %	
Provided P discharge load	.138 kg/yr	.3 lb/yr
Provided P load removed	.157 kg/yr	.347 lb/yr

From Pre-Condition Loads

Existing N Discharge	2.75 (kg/yr)
Existing P Discharge	.395 (kg/yr)

Pond Volume Stage/Storage Calculations

PROJECT: Caddy's Parking Lot **DATE:** May 1, 2022

Revised: Jul, 2022

JOB NO: 19-009.01 **BY:** RAS/KML

TOTAL TREATMENT STORAGE

Watershed Area*	Required Treatment (in)	Required Volume (Ac Ft)	Available Volume (Ac Ft)	Treatment Elev	
0.1951	1.00 in.	0.0235	0.0235	3.85	Imperv
0.2817	0.50 in.	0.0117	0.0118	3.35	BMP

SHW = 2.0

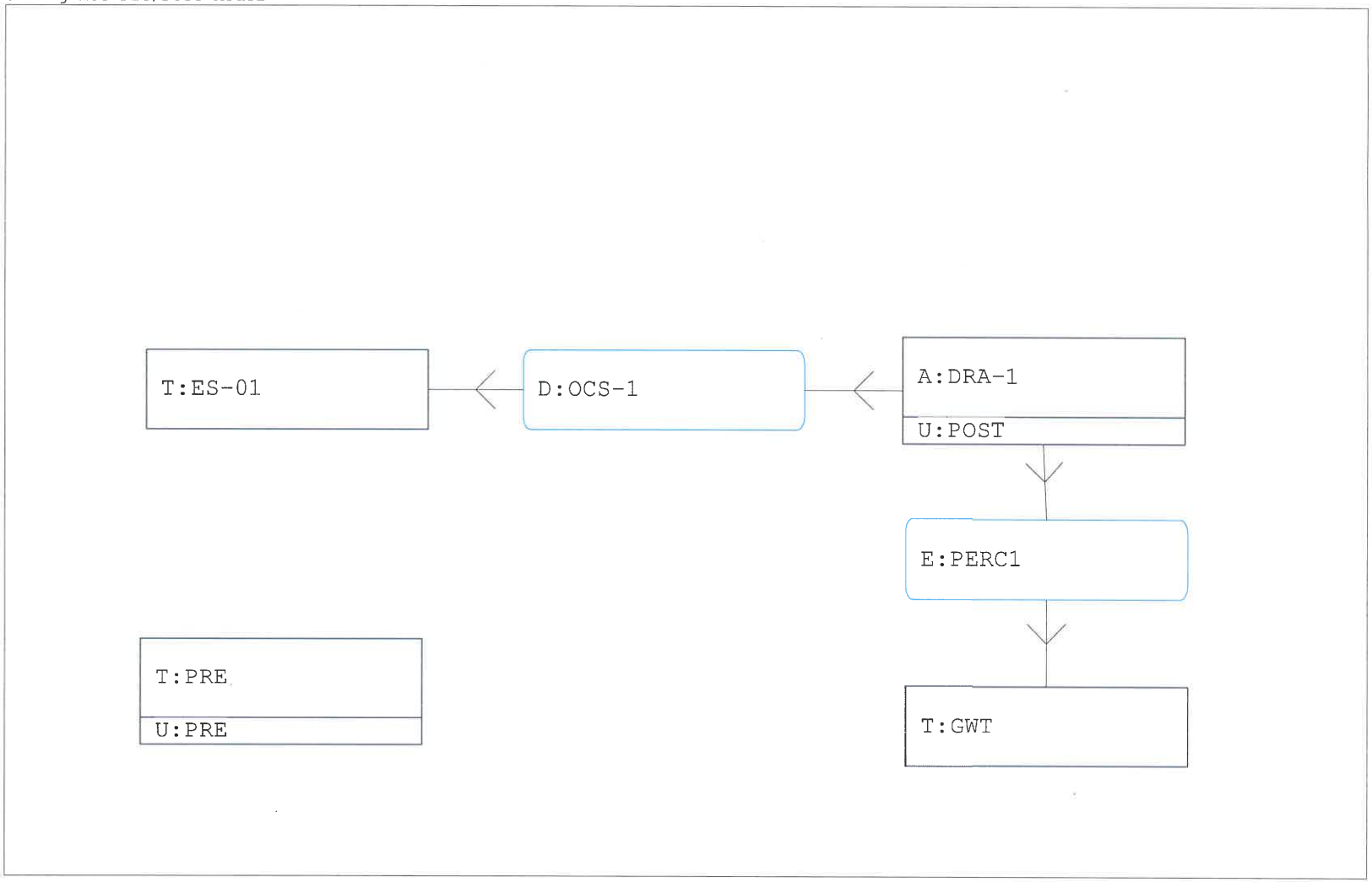
	DRA 1		
	Elevation	Area (ac)	Volume (ac ft)
TOB	4.50	0.0349	0.0432
	4.00	0.0278	0.0275
DLW	3.85	0.0261	0.0235
	3.50	0.0223	0.0150
	3.35	0.0200	0.0118
	3.00	0.0146	0.0058
Bottom	2.50	0.0085	0.0000

Gulf Grill Caddys Parking Lot Pre/Post Model

Nodes
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins
O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links
P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



Y:\PINELLAS\GULF GRILL - 14080 GULF BLVD (19-009)\DRAINAGE CADDYS PLOT\ICPR\GULF GRILL PLOT EXP PRE-POST 072022.ICP
7/21/2022

ICPR INPUT DATA
Nodal Model Input

```
================================================================================
==== Basins ====================================================================
================================================================================

        Name: POST                    Node: DRA-1                  Status: Onsite
       Group: BASE                    Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh256                 Peaking Factor: 256.0
         Rainfall File:                 Storm Duration(hrs): 0.00
   Rainfall Amount(in): 0.000             Time of Conc(min): 10.00
            Area(ac): 0.282               Time Shift(hrs): 0.00
        Curve Number: 86.60            Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


--------------------------------------------------------------------------------
        Name: PRE                     Node: PRE                    Status: Onsite
       Group: BASE                    Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh256                 Peaking Factor: 256.0
         Rainfall File:                 Storm Duration(hrs): 0.00
   Rainfall Amount(in): 0.000             Time of Conc(min): 10.00
            Area(ac): 0.282               Time Shift(hrs): 0.00
        Curve Number: 79.00            Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


================================================================================
==== Nodes =====================================================================
================================================================================

      Name: DRA-1              Base Flow(cfs): 0.000          Init Stage(ft): 2.500
     Group: BASE                                             Warn Stage(ft): 4.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
          2.500          0.0085
          3.000          0.0146
          3.500          0.0223
          4.000          0.0278
          4.500          0.0349

--------------------------------------------------------------------------------
      Name: ES-01              Base Flow(cfs): 0.000          Init Stage(ft): -3.390
     Group: BASE                                             Warn Stage(ft): -0.890
      Type: Time/Stage

Existing FDOT Inlet S-53 along SR 699
TW Ex 30" Pipe--IE, Crown, 40% down from crown

      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00          -3.390
          12.33          -0.890
          30.00          -1.890

--------------------------------------------------------------------------------
      Name: GWT                Base Flow(cfs): 0.000          Init Stage(ft): 0.000
```

```
     Group: BASE                                              Warn Stage(ft): 0.000
      Type: Time/Stage


      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00           0.000
        9999.00           0.000

-------------------------------------------------------------------------------------------
      Name: PRE                Base Flow(cfs): 0.000          Init Stage(ft): 3.020
     Group: BASE                                              Warn Stage(ft): 8.000
      Type: Time/Stage

Ex min elev 3.02, max elev 7.58, 40% from max

      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00           3.020
          12.00           7.580
          30.00           5.760

===========================================================================================
==== Drop Structures ======================================================================
===========================================================================================

        Name: OCS-1              From Node: DRA-1             Length(ft): 17.00
       Group: BASE                 To Node: ES-01                  Count: 1

              UPSTREAM       DOWNSTREAM                Friction Equation: Automatic
    Geometry: Circular       Circular                 Solution Algorithm: Most Restrictive
    Span(in): 15.00          15.00                                 Flow: Both
    Rise(in): 15.00          15.00                    Entrance Loss Coef: 0.500
  Invert(ft): -3.300         -3.100                       Exit Loss Coef: 0.000
 Manning's N: 0.012000       0.012000                   Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000          0.000                        Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000          0.000                          Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


*** Weir 1 of 2 for Drop Structure OCS-1 ***
                                                                              TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis           Top Clip(in): 0.000
                   Flow: Both                   Weir Disc Coef: 3.200
               Geometry: Rectangular          Orifice Disc Coef: 0.600

               Span(in): 18.00                        Invert(ft): 3.850
               Rise(in): 7.80                  Control Elev(ft): 3.850

*** Weir 2 of 2 for Drop Structure OCS-1 ***
                                                                              TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Horizontal                Top Clip(in): 0.000
                   Flow: Both                   Weir Disc Coef: 3.200
               Geometry: Rectangular          Orifice Disc Coef: 0.600

               Span(in): 37.00                        Invert(ft): 4.500
               Rise(in): 49.00                 Control Elev(ft): 4.500
```

==========
==== Percolation Links ==========
==========

Name: PERC1 From Node: DRA-1 Flow: Both
Group: BASE To Node: GWT Count: 1

Surface Area Option: Use 1st Point in Stage/Area Table
Vertical Flow Termination: Horizontal Flow Algorithm
Aquifer Base Elev(ft): 0.000 Perimeter 1(ft): 235.000
Water Table Elev(ft): 2.000 Perimeter 2(ft): 592.000
Ann Recharge Rate(in/year): 0.000 Perimeter 3(ft): 1306.000
Horiz Conductivity(ft/day): 14.000 Distance 1 to 2(ft): 50.000
Vert Conductivity(ft/day): 9.330 Distance 2 to 3(ft): 100.000
Effective Porosity(dec): 0.329 Num Cells 1 to 2: 10
Suction Head(in): 4.170 Num Cells 2 to 3: 10
Layer Thickness(ft): 0.000

==========
==== Hydrology Simulations ==========
==========

Name: 025YR24HR
Filename: Y:\PINELLAS\Gulf Grill - 14080 Gulf Blvd (19-009)\Drainage Caddys PLot\ICPR\025YR24HR.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 9.00

Time(hrs)	Print Inc(min)
30.000	5.00

==========
==== Routing Simulations ==========
==========

Name: 025YR24HR Hydrology Sim: 025YR24HR
Filename: Y:\PINELLAS\Gulf Grill - 14080 Gulf Blvd (19-009)\Drainage Caddys PLot\ICPR\025YR24HR.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
999.000	15.000

Group	Run
BASE	Yes

ICPR NODAL SUMMARY

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
DRA-1	BASE	025YR24HR	12.12	4.25	4.00	0.0050	1366	12.00	1.36	12.11	1.28
ES-01	BASE	025YR24HR	12.33	-0.89	-0.89	0.0034	0	12.12	1.21	0.00	0.00
GWT	BASE	025YR24HR	0.00	0.00	0.00	0.0000	0	12.05	0.07	0.00	0.00
PRE	BASE	025YR24HR	12.00	7.58	8.00	0.0063	0	12.08	1.22	0.00	0.00

DHW

Pre-Dev & Post-Dev Peak Discharge

POST/POST OUTPUT -- LINK SUMMARY

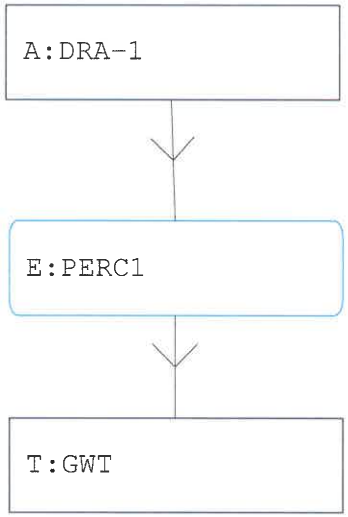
Name	Group	Simulation	Max Time Flow hrs	Max Flow cfs	Max Delta Q cfs	Max Time US Stage hrs	Max US Stage ft	Max Time DS Stage hrs	Max DS Stage ft
OCS-1	BASE	025YR24HR	12.12	1.21	-0.014	12.12	4.25	12.33	-0.89
PERC1	BASE	025YR24HR	12.05	0.07	-0.000	12.12	4.25	0.00	0.00

Gulf Grill Caddys Parking Lot Pre/Post Model-Percolation

Nodes
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins
O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links
P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



Y:\PINELLAS\Gulf Grill - 14080 Gulf Blvd (19-009)\Drainage Caddys PLot\ICPR\Gulf Grill PLot Exp Pre-Post 072022_PERC.ICP
7/21/2022

PRE/POST-INPUT DATA

Percolation Model Input

```
================================================================================
==== Nodes =====================================================================
================================================================================

      Name: DRA-1              Base Flow(cfs): 0.000          Init Stage(ft): 3.850
     Group: BASE                                             Warn Stage(ft): 2.500
      Type: Stage/Area

DLW=3.85

      Stage(ft)        Area(ac)
--------------- ---------------
          2.500          0.0085
          3.000          0.0146
          3.500          0.0223
          4.000          0.0278
          4.500          0.0349

--------------------------------------------------------------------------------
      Name: GWT                Base Flow(cfs): 0.000          Init Stage(ft): 0.000
     Group: BASE                                             Warn Stage(ft): 0.000
      Type: Time/Stage


      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00           0.000
        9999.00           0.000

================================================================================
==== Percolation Links =========================================================
================================================================================

        Name: PERC1              From Node: DRA-1                  Flow: Both
       Group: BASE                 To Node: GWT                   Count: 1

        Surface Area Option: Use 1st Point in Stage/Area Table
  Vertical Flow Termination: Horizontal Flow Algorithm
      Aquifer Base Elev(ft): 0.000                    Perimeter 1(ft): 235.000
       Water Table Elev(ft): 2.000                    Perimeter 2(ft): 592.000
 Ann Recharge Rate(in/year): 0.000                    Perimeter 3(ft): 1306.000
 Horiz Conductivity(ft/day): 14.000                Distance 1 to 2(ft): 50.000
  Vert Conductivity(ft/day): 9.330                 Distance 2 to 3(ft): 100.000
    Effective Porosity(dec): 0.329                    Num Cells 1 to 2: 10
            Suction Head(in): 4.170                   Num Cells 2 to 3: 10
        Layer Thickness(ft): 0.000




================================================================================
==== Routing Simulations =======================================================
================================================================================

        Name: PERC               Hydrology Sim:
    Filename: Y:\PINELLAS\Gulf Grill - 14080 Gulf Blvd (19-009)\Drainage Caddys
PLot\ICPR\PERC.I32

     Execute: Yes         Restart: No           Patch: No
 Alternative: No
```

Max Delta Z(ft):	1.00	Delta Z Factor:	0.00500
Time Step Optimizer:	10.000		
Start Time(hrs):	0.000	End Time(hrs):	72.00
Min Calc Time(sec):	0.5000	Max Calc Time(sec):	60.0000
Boundary Stages:		Boundary Flows:	

Time(hrs)	Print Inc(min)
999.000	15.000

Group	Run
BASE	Yes

POST-DEV
PERCOLATION ANALYSIS (NODE TIME SERIES SUMMARY)

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
PERC	DRA-1	BASE	0.00	3.85	2.50	1139	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	0.25	3.77	2.50	1101	0.00	0.09	0.0	0.0
PERC	DRA-1	BASE	0.51	3.70	2.50	1068	0.00	0.07	0.0	0.0
PERC	DRA-1	BASE	0.76	3.64	2.50	1040	0.00	0.06	0.0	0.0
PERC	DRA-1	BASE	1.01	3.59	2.50	1015	0.00	0.05	0.0	0.0
PERC	DRA-1	BASE	1.25	3.55	2.50	995	0.00	0.05	0.0	0.0
PERC	DRA-1	BASE	1.51	3.51	2.50	975	0.00	0.04	0.0	0.0
PERC	DRA-1	BASE	1.76	3.47	2.50	953	0.00	0.04	0.0	0.0
PERC	DRA-1	BASE	2.01	3.44	2.50	931	0.00	0.03	0.0	0.0
PERC	DRA-1	BASE	2.26	3.41	2.50	912	0.00	0.03	0.0	0.0
PERC	DRA-1	BASE	2.51	3.38	2.50	894	0.00	0.03	0.0	0.0
PERC	DRA-1	BASE	2.76	3.36	2.50	877	0.00	0.02	0.0	0.0
PERC	DRA-1	BASE	3.01	3.34	2.50	862	0.00	0.02	0.0	0.0
PERC	DRA-1	BASE	3.26	3.32	2.50	848	0.00	0.02	0.0	0.0
PERC	DRA-1	BASE	3.51	3.30	2.50	834	0.00	0.02	0.0	0.0
PERC	DRA-1	BASE	3.76	3.28	2.50	821	0.00	0.02	0.0	0.0
PERC	DRA-1	BASE	4.01	3.26	2.50	809	0.00	0.02	0.0	0.0
PERC	DRA-1	BASE	4.26	3.24	2.50	798	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	4.51	3.23	2.50	787	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	4.76	3.21	2.50	777	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	5.01	3.19	2.50	767	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	5.26	3.18	2.50	757	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	5.51	3.17	2.50	748	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	5.76	3.15	2.50	739	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	6.01	3.14	2.50	731	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	6.26	3.13	2.50	722	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	6.51	3.12	2.50	714	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	6.76	3.10	2.50	706	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	7.01	3.09	2.50	699	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	7.26	3.08	2.50	692	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	7.51	3.07	2.50	684	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	7.76	3.06	2.50	677	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	8.01	3.05	2.50	671	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	8.26	3.04	2.50	664	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	8.51	3.03	2.50	658	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	8.76	3.02	2.50	651	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	9.01	3.01	2.50	645	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	9.26	3.00	2.50	639	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	9.51	3.00	2.50	634	0.00	0.01	0.0	0.0

PERC	DRA-1	BASE	9.76	2.99	2.50	629	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	10.01	2.98	2.50	625	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	10.26	2.97	2.50	621	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	10.51	2.96	2.50	616	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	10.76	2.96	2.50	612	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	11.01	2.95	2.50	608	0.00	0.01	0.0	0.0
PERC	DRA-1	BASE	11.26	2.94	2.50	604	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	11.51	2.93	2.50	600	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	11.76	2.93	2.50	597	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	12.01	2.92	2.50	593	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	12.26	2.91	2.50	589	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	12.51	2.91	2.50	586	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	12.76	2.90	2.50	582	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	13.01	2.89	2.50	579	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	13.26	2.89	2.50	575	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	13.51	2.88	2.50	572	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	13.76	2.87	2.50	569	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	14.01	2.87	2.50	565	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	14.26	2.86	2.50	562	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	14.51	2.86	2.50	559	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	14.76	2.85	2.50	556	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	15.01	2.84	2.50	553	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	15.26	2.84	2.50	550	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	15.51	2.83	2.50	547	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	15.76	2.83	2.50	544	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	16.01	2.82	2.50	542	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	16.26	2.82	2.50	539	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	16.51	2.81	2.50	536	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	16.76	2.81	2.50	533	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	17.01	2.80	2.50	531	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	17.26	2.80	2.50	528	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	17.51	2.79	2.50	526	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	17.76	2.79	2.50	523	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	18.01	2.78	2.50	521	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	18.26	2.78	2.50	518	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	18.51	2.77	2.50	516	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	18.76	2.77	2.50	513	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	19.01	2.76	2.50	511	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	19.26	2.76	2.50	509	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	19.51	2.76	2.50	506	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	19.76	2.75	2.50	504	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	20.01	2.75	2.50	502	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	20.26	2.74	2.50	500	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	20.51	2.74	2.50	498	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	20.76	2.74	2.50	495	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	21.01	2.73	2.50	493	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	21.26	2.73	2.50	491	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	21.51	2.72	2.50	489	0.00	0.00	0.0	0.0

PERC	DRA-1	BASE	21.76	2.72	2.50	487	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	22.01	2.72	2.50	485	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	22.26	2.71	2.50	483	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	22.51	2.71	2.50	481	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	22.76	2.71	2.50	479	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	23.01	2.70	2.50	477	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	23.26	2.70	2.50	475	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	23.51	2.69	2.50	474	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	23.76	2.69	2.50	472	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	24.01	2.69	2.50	470	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	24.26	2.68	2.50	468	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	24.51	2.68	2.50	466	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	24.76	2.68	2.50	465	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	25.01	2.67	2.50	463	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	25.26	2.67	2.50	461	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	25.51	2.67	2.50	459	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	25.76	2.66	2.50	458	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	26.01	2.66	2.50	456	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	26.26	2.66	2.50	454	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	26.51	2.66	2.50	453	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	26.76	2.65	2.50	451	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	27.01	2.65	2.50	450	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	27.26	2.65	2.50	448	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	27.51	2.64	2.50	446	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	27.76	2.64	2.50	445	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	28.01	2.64	2.50	443	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	28.26	2.63	2.50	442	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	28.51	2.63	2.50	440	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	28.76	2.63	2.50	439	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	29.01	2.63	2.50	437	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	29.26	2.62	2.50	436	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	29.51	2.62	2.50	434	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	29.76	2.62	2.50	433	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	30.01	2.62	2.50	432	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	30.26	2.61	2.50	430	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	30.51	2.61	2.50	429	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	30.76	2.61	2.50	428	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	31.01	2.61	2.50	426	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	31.26	2.60	2.50	425	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	31.51	2.60	2.50	424	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	31.76	2.60	2.50	422	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	32.01	2.60	2.50	421	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	32.26	2.59	2.50	420	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	32.51	2.59	2.50	418	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	32.76	2.59	2.50	417	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	33.01	2.59	2.50	416	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	33.26	2.58	2.50	415	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	33.51	2.58	2.50	413	0.00	0.00	0.0	0.0

PERC	DRA-1	BASE	33.76	2.58	2.50	412	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	34.01	2.58	2.50	411	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	34.26	2.57	2.50	410	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	34.51	2.57	2.50	409	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	34.76	2.57	2.50	407	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	35.01	2.57	2.50	406	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	35.26	2.57	2.50	405	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	35.51	2.56	2.50	404	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	35.76	2.56	2.50	403	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	36.01	2.56	2.50	402	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	36.26	2.56	2.50	401	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	36.51	2.55	2.50	399	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	36.76	2.55	2.50	398	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	37.01	2.55	2.50	397	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	37.26	2.55	2.50	396	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	37.51	2.55	2.50	395	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	37.76	2.54	2.50	394	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	38.01	2.54	2.50	393	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	38.26	2.54	2.50	392	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	38.51	2.54	2.50	391	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	38.76	2.54	2.50	390	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	39.01	2.54	2.50	389	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	39.26	2.53	2.50	388	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	39.51	2.53	2.50	387	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	39.76	2.53	2.50	386	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	40.01	2.53	2.50	385	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	40.26	2.53	2.50	384	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	40.51	2.52	2.50	383	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	40.76	2.52	2.50	382	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	41.01	2.52	2.50	381	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	41.26	2.52	2.50	380	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	41.51	2.52	2.50	379	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	41.76	2.52	2.50	378	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	42.01	2.51	2.50	377	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	42.26	2.51	2.50	376	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	42.51	2.51	2.50	376	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	42.76	2.51	2.50	375	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	43.01	2.51	2.50	374	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	43.26	2.50	2.50	373	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	43.51	2.50	2.50	372	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	43.76	2.50	2.50	371	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	44.01	2.50	2.50	370	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	44.26	2.50	2.50	370	0.00	0.00	0.0	0.0
PERC	DRA-1	BASE	44.51	2.50	2.50	370	0.00	0.00	0.0	0.0

Water percolates through the bottom of DRA-1 (elevation 2.50) within 43.26 hrs

City of Madeira Beach
Results Summary

PROJECT: Caddy's Parking Lot
DATE: May 1, 2022
Revised: Jul, 2022
JOB NO: 19-009.01
BY: RAS/KML

	Pre-Dev (cfs)
25Yr-24Hr	1.22

	Post-Dev S-53 (cfs)
25Yr-24Hr	1.21

Design High Water Table Summary			
	Pond DHW Post-Development		Top of Bank
DRA 1	25Yr-24Hr	4.25	4.50

PART D – OTHER INFORMATION

- **Operation & Maintenance Instructions**
- **Geotechnical Engineering Services DRI Report**

OPERATION AND MAINTENANCE INSTRUCTIONS

Storm Water Management Systems should be inspected on a routine basis to ensure that they are functioning properly. Inspections should be performed on a monthly and semi-annual basis following major storms. Systems that incorporate percolation are most critical since poor maintenance practices can soon render them ineffective. Records should be kept on all maintenance operations to help plan future work and identify facilities requiring attention.

Considerable damage, as well as loss of structures and effective use of the stormwater facilities can result from a failure to protect and maintain the drainage systems. Providing maintenance in a timely manner often saves costly repair jobs when the unusual storms occur.

Remember, the SWFWMD permit dictates that the system must be maintained, and that the owner is responsible for system maintenance.

A. GENERAL

Normal maintenance requirements are as follows:

a. Retention areas and swales should be mowed at regular intervals. All clippings should be picked up and any accumulated debris should be removed.

b. The bottom area of the dry retention area should be periodically scarified (semi-annually) with a disk or raking device to maintain design percolation rate and efficiency.

c. Sod cover on slopes and embankments should be inspected and repaired or replaced as necessary.

d. Periodically, following a storm event, the outfall structures should be inspected to check that the orifice and/or weir is not clogged and is flowing at a substantial rate.

e. The discharge pipe(s) should be visually inspected to determine if the pipe(s) require cleaning. All debris found in the pipe should be removed.

f. Inlet structure within stormwater vault (under parking lot) should be inspected after each storm event. All debris accumulated in the Debris Baffle or on the grate should be removed.

g. Outlets should be inspected for clogging and erosion.

h. Concrete vault containment wall structures should be inspected for breaks, cracks, or any structural deficiencies. Repairs, if necessary, should be performed immediately.

i. Berms and other structures should be inspected for breaks. Repairs, if necessary,

should be performed immediately.

B. CATCH BASIN INLETS (NOT APPLICABLE)

Catch basins should be inspected after major storms and should be cleaned as often as needed. Various techniques and equipment are available for maintenance of catch basins. Filter bags can be used in catch basins at street grade to reduce the frequency of cleaning catch basins and outfall pipes.

C. UNDERGROUND STORMWATER CHAMBERS (NOT APPLICABLE)

Underground Chambers should be inspected after major storms and should be cleaned as often as needed. Maintenance and cleaning is accomplished with a Water Jet Spray. The Water Jet Spray technique will allow a high pressure water nozzle to be fed into a chamber as needed and then pulled back which will collect any sediment or trash to an accessible point at which debris may be removed. Keeping the main header pipe leading into the chambers clean and free of debris will keep maintenance to a minimum.

D. CONTROL STRUCTURES (NOT APPLICABLE)

Inspect Outfall Control Structure boxes quarterly or after a large storm event. Any debris or sedimentation should be removed and/or flushed out and any structural defects repaired. The structures should be inspected on a monthly basis during the rainy season (May through September) to assure that the system is clear of any obstructions and/or sediment and is functioning properly.

If the sediment buildup is more than 6-inches within the control structure box, then the sediment should be removed. The sediment should be removed by vacuuming, pumping or manually removed. The inlet pipes should also be inspected and cleaned. These structures, if inspected and maintained properly, should reduce the potential of sediment and trash entering this control structure.

D. UNDERDRAINS AND EFFLUENT FILTERS (NOT APPLICABLE)

Underdrains and effluent filtration systems should be periodically inspected to assure that they are functioning as designed. Failure to effectively maintain these systems will result in insufficient drawdown of detained stormwater runoff after rainfall events. The filter media should be routinely inspected for accumulation of excess debris and silt. Debris should be removed immediately following storm events.

Effluent filters are designed such that all detained runoff should discharge from the basin within a 72 hour period. Observations should be made periodically to verify that the filter is passing the runoff within the design time frame. Runoff remaining in the basin longer than 24 hours is indicative of a clogged or silt laden filter. Should this event occur, the filter should be thoroughly backwashed with clean water to remove silt and other fines from the media. If backwashing does not remedy the situation, the media may need to be replaced. The owner should retain a qualified contractor and should consult with the

engineer prior to replacing filter media.

E. DRY BOTTOM RETENTION SYSTEMS

The retention area must become dry within **72 hours** after a rainfall event. If the retention area is regularly wet, it is out of compliance with the permitted design, and the pond bottom must be scarified, or the bottom foot or so replaced with clean sands, to ensure that the permitted percolation rate is maintained.

F. LITTORAL ZONES (NOT APPLICABLE) - (For Wet Detention Systems only)

The littoral shelf shall be maintained as follows:

1. Wetland topsoil, containing a suitable seed source, shall be spread over the littoral zone from the control elevation out to the waterward extent of the shelf, with a minimum thickness of four inches.

2. Littoral vegetation will become established via natural recruitment.

3. All desirable vegetation that becomes established in the littoral area must be maintained.

4. Nuisance/invasive exotic species (e.g., cattails) should be removed periodically. The owner should consult the water management district prior to undertaking this activity.

G. METHODS AND EQUIPMENT FOR SYSTEM MAINTENANCE

Various types of equipment are commercially available for maintenance of stormwater management systems. The most frequently used equipment and techniques are listed below:

1. Vacuum Pump

   This device is normally used to remove sediment from sumps and pipes. The equipment for this system is generally mounted on a vehicle. It requires a 200 to 300 gallon (0.757 to 1.136 m ^3) holding tank and a vacuum pump that has a 10-inch (254 mm) diameter flexible hose with a serrated metal end for breaking up cake sediment. A two-man crew can clean a catch basin in 5 to 10 minutes. This system can remove stones, bricks, leaves, litter, and sediment deposits. Normal working depth is 0 to 20 feet (0 to 6 m).

2. Water Jet Spray

This equipment is generally mounted on a vehicle equipped with a high pressure pump and a 200 to 300 gallon (0.760 to 1.140 m ^3) water supply. A 3-inch (76 mm) flexible hose line with a metal nozzle directs jets of water to loosen debris in pipes or trenches. Normal length of hose is approximately 200 feet (61 m). This system should not be used to clean erodible trench walls.

3. Fire Hose Flushing

This equipment consists of various fittings that can be placed on the end of a fire hose such as rotating nozzles, rotating cutter, etc. When this equipment is dragged through a pipe, it can be effective in removing light material from walls.

4. Sewer Jet Flusher

Sewer jet flushers are usually truck-mounted and consists of a large water tank of at least 1000 gallons (3.785 m ^3), a triple action water pump capable of producing 1000 psi (6900 kN/m^2) or more pressure, a gasoline motor to run the pump, a hose reel large enough for 500 feet (153 m) of 1-inch (25 mm) inside diameter high pressure hose, and a hydraulic pump to operate the hose reel. In order to clean pipes properly, a minimum nozzle pressure of 600 psi (4140 kN/m ^2) is required. All material is flushed ahead of the nozzle by spray action. This extremely mobile machine can be used for cleaning areas with light grease problems, sand and gravel infiltration, and for general cleaning.

STORMWATER MANAGEMENT FACILITIES
OPERATION AND MAINTENANCE CHECKLIST

1. VEGETATION: (Structures and Drainage swales)

    a. Need for cutting and/or spraying
    b. Need for reseeding
    c. Need for fertilizing
    d. Evidence of grazing
    e. Evidence of motorbikes or other vehicles

2. FENCES:

    a. Loose or damaged posts
    b. Loose or broken wires
    c. Accumulated debris in fence
    d. Condition of gates

3. RETENTION/DETENTION AREA:

    a. Undesirable vegetation growth
    b. Slash and other debris
    c. Berms
        1) Erosion / Breaks
        2) Settlements
    d. Levees
        1) Settlement
        2) Any breaks
    e. Slope failure
    f. Surface drainage
        1) Condition of open channels
        2) Catch basin condition
            a) Manholes
            b) Outlets

4. FILL AREAS:

    a. Settlement or cracking
    b. Erosion
    c. Slope failure
    d. Rodent or wildlife damage

5. SWALES / CHANNELS:

    a. Sedimentation
    b. Bank cutting
    c. Debris accumulation

d. Condition of riprap or other works of improvements
   1) Undermining
   2) Damage or deterioration
   3) Adjacent channel scouring
e. Adjacent property damage

6. STRUCTURE DRAINAGE SYSTEM:

a. Drainage outlet pipes
   1) clean or dirty water
   2) Pipes free-flowing, no obstructions
   3) Evidence of seepage
      a) Adjacent to pipes
      b) Lower 1/3 slope
b. Rock toe drains—**not applicable**
   1) Free draining into collection channels or catch basins
   2) Clean or dirty water
c. Underground Dry Retention System (under parking lot)
   1) Inspect system / remove debris from structure or baffle.
   2) Vac hose or remove any building sediment.
   3) Scarify or disk dry pond bottom to maintain percolation capacity.

7. SAFETY HAZARDS:

The items to be checked at time of inspection may include above, but are not limited to those listed.

   1) At grates (outfall control structures)
   2) Outfall Pipes and structures and the connection point of under drain to control structures.

References

1. Sewer Maintenance Manual Prepared by Municipal Engineers Association of Ontario for Ministry of the Environment, Ontario, Canada, March 1974.

2. Smith, T.W., Peter, R.R., Smith, R.E., Shirley, E.C., "Infiltration Drainage of Highway Surface Water", Transportation Laboratory, California Department of Transportation, Research Report M & R 632820-1, August, 1969.

MAINTENANCE SCHEDULE:

Standard Maintenance:

Repair undercut and eroded areas at inflow and outflow pipes.

Remove sediment, trash and debris, oil and grease from structures.

Semi-Annual:

Remove trash, debris, grass clippings, trees, and other large vegetation from the trench perimeter and dispose of properly.

Mow and trim vegetation to prevent establishment of woody vegetation.

Annual:

Clean out inlet/outlet structures and outfall control structure.

Remove grass clippings, leaves, and accumulated sediment from system area

Re-sod area to restore ground cover as needed.

GEOTECHNICAL ENGINEERING SERVICES REPORT

NOVA

July 18, 2022

Gulf Coast Consulting, Inc.
13825 Icot Boulevard, Suite 605
Clearwater, Florida 33760

Attention: Mr. Sean P. Cashen, P.E., LEED AP

Subject: Report for Shallow Subsurface Exploration &
Geotechnical Engineering Evaluation
Double-Ring Infiltrometer Test Results
CADDY'S MADEIRA BEACH
14099 Gulf Boulevard
Madeira Beach, Florida
NOVA Project Number 10106-2022034

Dear Mr. Cashen:

NOVA was requested to perform one Double-Ring Infiltrometer (DRI) test within the grassed area fronting the property. This letter summarizes our findings.

We appreciate your selection of NOVA and the opportunity to be of service on this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,
NOVA ENGINEERING AND ENVIRONMENTAL, LLC

ANDRES F. ALBERDI LICENSE No 42449 STATE OF FLORIDA PROFESSIONAL ENGINEER

Andres F. Alberdi, P.E.
Senior Engineer
Fl License No. 42449

James W. Niehoff, P.E.
Senior Geotechnical Engineer
FL License No. 32313

FIELD EXPLORATION

A single Double-Ring Infiltrometer (DRI) test was requested for the general assessment of the vertical unsaturated infiltration rate of the shallow soils at the site. The test was performed at the location illustrated below. It should be noted that the test was relocated from the desired location in the planter due to utility conflicts. The actual test location is about 1 foot lower in elevation than the requested test location.

A NOVA representative visited the site on July 13, 2022, to conduct the DRI test. The test was performed in general accordance with ASTM D-3385 near a depth of 1.5 feet below existing grade (BEG). The DRI test is used for measuring the vertical unsaturated water infiltration rate of soil within the drainage area footprint. The rings are partially inserted into the soil and filled with water, after which the infiltration rate is measured. Infiltration is the process of water penetrating the ground surface. The intensity of this process is called the infiltration rate and is expressed in terms of the volume of water per ground surface area and per unit of time (inches/hour).

Also completed was a hand auger boring advanced to a nominal depth of 4 feet BEG. The boring was used to check the soil types and groundwater level, and was performed in general accordance with ASTM D-1452.

SOIL TYPES AND INFILTRATION

The hand auger boring revealed relatively clean, grayish brown to light brownish gray fine sands with silt and some shell (Unified Soil Classification System – SP and SP-SM soils) to approximately 4 feet below existing grade (BEG). Shell was prevalent between a depth of about 0.8 feet to 1.4 feet BEG. Perched groundwater was initially encountered near a depth of 2 feet BEG, but groundwater stabilized around a depth of 3 feet BEG.

The hand auger boring could not extend past 4 feet BEG due to the presence of shell and groundwater. Based on the current groundwater level and time of year (early to mid-rainy season), it is estimated that the seasonal high groundwater level could approach a depth of about 2 feet BEG or near elevation 2± feet. The measured vertical unsaturated infiltration rate was measured at 14 inches per hour, which is consistent with the fine sands with shell at the test depth.