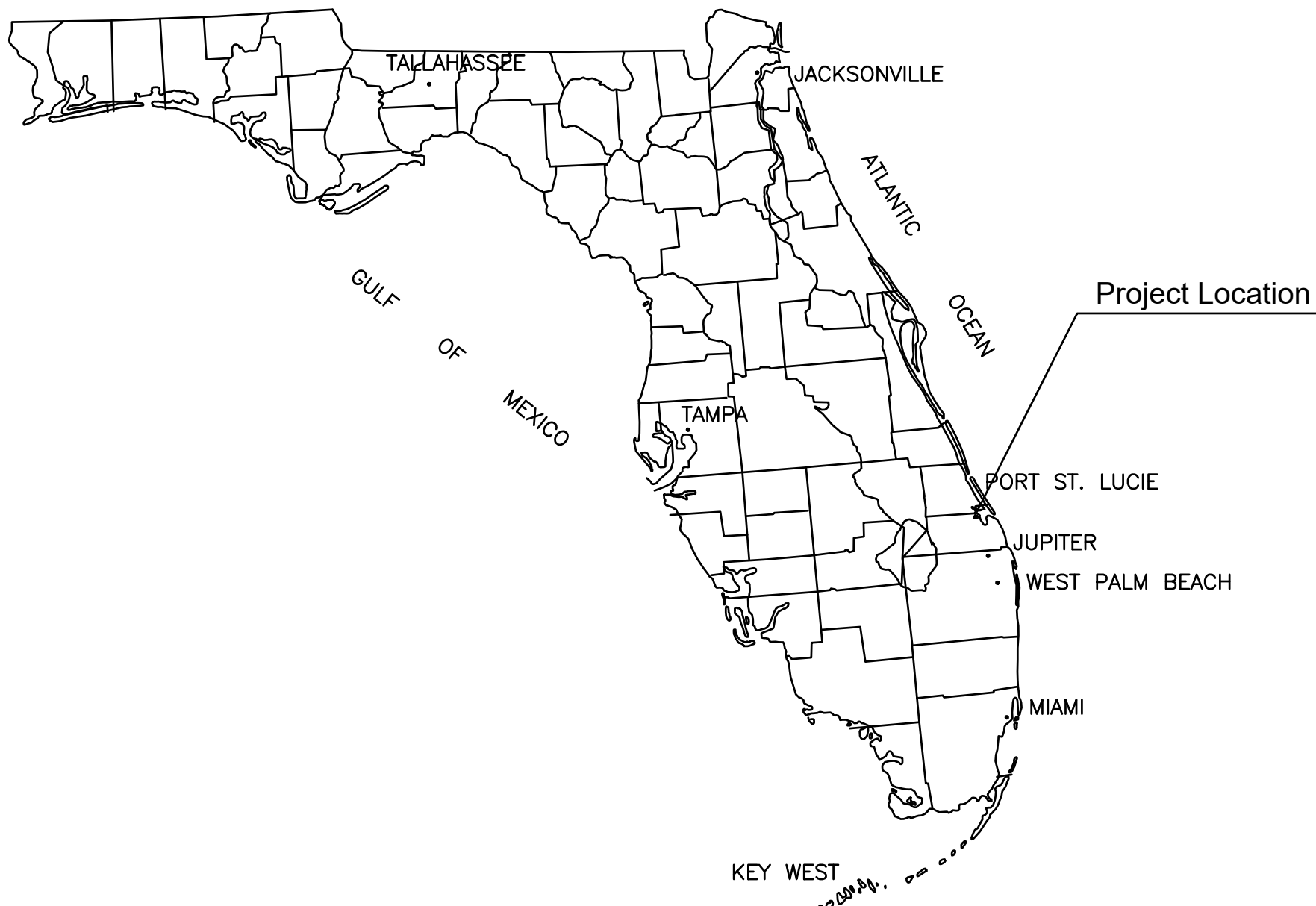


CONSTRUCTION PLANS AND SPECIFICATIONS
FOR
BEACH COURT ROADWAY IMPROVEMENTS
SECTION 10, TOWNSHIP 35S, RANGE 40E
FORT PIERCE, FLORIDA

LOCATION MAP



LEGAL DESCRIPTION
A PORTION OF BEACH ROAD (A 60.00 FOOT WIDE RIGHT OF WAY) LYING SOUTH OF THE NORTH LINE
OF EASTER AND NORTH OF THE SOUTH LINE OF FLORIDA AVENUE.

Project Location



LOCATION MAP

100% PLANS

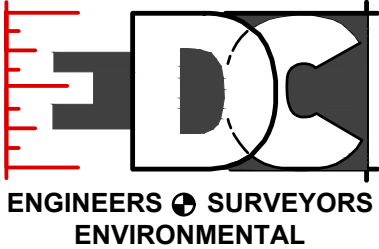
INDEX OF SHEETS

1. COVER
2. EXISTING CONDITIONS & DEMOLITION PLAN
3. HORIZONTAL CONTROL PLAN
4. PAVING, GRADING, & DRAINAGE PLAN
5. PAVING, GRADING, & DRAINAGE PLAN
6. PAVING, GRADING, & DRAINAGE DETAILS
7. STRIPING & SIGNAGE PLAN
8. STORMWATER POLLUTION PREVENTION PLAN & DETAILS
9. SPECIFICATIONS

GENERAL NOTES:

1. BIDDERS, BEFORE SUBMITTING BID, MUST EXAMINE THE CONTRACT DOCUMENTS THOROUGHLY, INCLUDING PLANS, SPECIFICATIONS, AND QUANTITIES AND MUST FAMILIARIZE HIMSELF/HERSELF WITH THE SITE, EXISTING PROJECT CONDITIONS, AND ALL FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, RULES, REGULATIONS, AND POLICIES THAT MAY AFFECT COST, PROGRESS, OR PERFORMANCE OF THE PROJECT WORK REQUIRED BY THE CONTRACT DOCUMENTS AND STUDY AND CAREFULLY CORRELATE BIDDERS' OBSERVATIONS WITH THE CONTRACT DOCUMENTS, INCLUDING THE CONTRACT QUANTITIES, AND MAKE WRITTEN REQUESTS FOR INTERPRETATION TO THE CITY ENGINEER PROMPTLY AFTER DISCOVERING ANY CONFLICTS, QUANTITIES, AND MUST FAMILIARIZE HIMSELF/HERSELF WITH THE SITE, ERRORS, AMBIGUITIES, OR INCONSISTENCIES.
2. QUANTITIES OF WORK AND MATERIAL IN THE BID FORM OR IN THE PLANS ARE APPROXIMATE ONLY AND FOR THE PURPOSE OF PROVIDING BIDDER WITH INFORMATION THAT HE(SHE) MAY USE AS A GENERAL GUIDANCE FOR HIS OR HER OWN QUANTITY TAKE-OFF DURING COMPUTATION OF THE LUMP SUM BID AND TO PROVIDE UNIT PRICES TO COMPUTE FOR THE INTERIM APPLICATIONS FOR PAYMENT, AND ADDITIONS/DELETIONS TO THE CONTRACT LUMP SUM.
3. IT SHALL BE THE BIDDERS' RESPONSIBILITY TO DETERMINE IF THE APPROXIMATE QUANTITIES ON THE BID FORM ARE QUESTIONABLE AND BRING IT TO THE ATTENTION OF THE CITY ENGINEER PRIOR TO THE SUBMITTAL OF THE LUMP SUM BID. THE BIDDER OR CONTRACTOR MUST MAKE OR CAUSE TO BE MADE ALL EXAMINATIONS, INVESTIGATIONS, TESTS, AND STUDIES OF SUCH REPORTS AND RELATED DATA, IN ADDITION TO THOSE IN PARAGRAPH 7.2 OF THE AGREEMENT FORM AS HE(SHE) DEEMS NECESSARY FOR THE PERFORMANCE OF THE WORK, AT THE CONTRACT LUMP SUM PRICE, WITHIN THE CONTRACT TIME.
4. WORK NOT COVERED IN THE CONTRACT DOCUMENTS WILL NOT BE REQUIRED UNLESS IT IS CONSISTENT THEREWITH AND IS REASONABLY INERRABLE THEREFROM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS. ALL RELATED WORK NOT SPECIFICALLY SET FORTH AS A PAY ITEM IN THE BID FORM SHALL BE CONSIDERED A SUBSIDIARY OBLIGATION OF THE CONTRACTOR AND ALL COSTS IN CONNECTION THEREWITH SHALL BE INCLUDED IN THE LUMP SUM BID.
5. BIDDER/CONTRACTOR MUST FAMILIARIZE HIMSELF/HERSELF WITH THE INSTRUCTION TO BIDDERS AND GENERAL CONDITIONS THAT ARE PART OF THE CONTRACT DOCUMENTS PRIOR TO SUBMITTAL OF THE LUMP SUM.
6. BIDDER IS REQUIRED, BEFORE SUBMITTING BID AND PRIOR TO STARTING OF THE WORK, FAMILIARIZE HIMSELF (HERSELF) WITH UTILITIES, EASEMENTS, ETC. THAT MAY AFFECT THE LUMP SUM BID AS WELL AS THE CONTRACT WORK. THOUGH CONSIDERABLE EFFORT HAS BEEN MADE BY THE FPJA AND THE CITY TO ACCURATELY LOCATE EXISTING DRAINAGE AND UTILITY LINES AND ANY APPURTENANCES PRIOR TO DESIGN, LOCATIONS, ELEVATIONS, DIMENSIONS, AND CONDITIONS ARE APPROXIMATE AND MUST BE CONFIRMED PRIOR TO CONSTRUCTION.
7. IT IS THE RESPONSIBILITY OF THE BIDDER/CONTRACTOR TO VERIFY ELEVATIONS, LOCATIONS, AND CONDITIONS PRIOR TO BID SUBMITTAL OR STARTING OF THE WORK. ANY DAMAGE OF UTILITIES, STRUCTURES, OR SERVICES SHALL BE REPAIRED OR REPLACED AT THE CONTRACTORS EXPENSE IN A MANNER THAT WILL BE APPROVED BY THE CITY ENGINEER.
8. ALL ELEVATIONS SHOWN ON THE CONTRACT DOCUMENTS ARE REFERENCED IN NAVD.
9. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL UTILITY COMPANIES TWO WORKING DAYS PRIOR TO EXCAVATION, AS REQUIRED BY CHAPTER 77-153 F.S.. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF UTILITY RELOCATION, TEMPORARY SERVICES, OR ANY DISRUPTION OF SAID SERVICES.
10. CONTRACTOR SHALL REFERENCE/RESTORE (UNDER DIRECTION OF A PLS) EXISTING PROPERTY CORNERS AND LAND MAKERS DAMAGED OR MISPLACED DURING CONSTRUCTION. ALL G.S. & U.S.C. MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF MONUMENTS ARE DAMAGED, CONTRACTOR SHALL NOTIFY THE CITY ENGINEER.
11. PERSONAL PROPERTY INCLUDING BUT NOT LIMITED TO SIGNS, PLANTS, SHRUBS, MAILBOXES, FENCES, UTILITY LINE MAKERS, POLES, IRRIGATION EQUIPMENT, ETC. WITHIN THE LIMITS OF CONSTRUCTION, SHALL BE REMOVED, REPLACED, OR RELOCATED AT THE CONTRACTORS EXPENSE, AS REQUIRED BY THE CONSTRUCTION. EACH ITEM SHALL BE REPLACED TO ITS ORIGINAL CONDITION, OR BETTER, AND ITS ORIGINAL LOCATION BY THE CONTRACTOR. DIFFERENT LOCATIONS FOR REPLACEMENTS MUST BE AUTHORIZED BY THE CITY ENGINEER. THE CONTRACTOR SHALL NOTIFY PROPERTY OWNERS AT LEAST SEVENTY-TWO (72) HOURS IN ADVANCE OF ANY REMOVAL OR RELOCATION/REPLACEMENT OF ALL PERSONAL PROPERTY WITHIN THE LIMITS OF CONSTRUCTION. ALL TREES 6" IN DIAMETER OR LARGER ARE TO REMAIN UNLESS THE REMOVAL IS NOTED ON THE PLANS OR APPROVED BY THE CITY ENGINEER.
12. ASPHALT SHALL BE SAWCUT, REMOVED, AND REPLACED IN ACCORDANCE WITH THE OPEN CUT DETAILS SHOWN ON PLANS. ASPHALT EDGES SHALL BE SMOOTH AND ON A STRAIGHT LINE.
13. CONTRACTOR MUST SUBMIT A "MAINTENANCE OF TRAFFIC PLAN (MOT)" IN ACCORDANCE WITH THE USDOT/FHA "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE FOOT "ROADWAY AND TRAFFIC DESIGN STANDARDS" AT THE PRE-CONSTRUCTION MEETING FOR THE CITY ENGINEER'S REVIEW AND APPROVAL. PRIOR TO THE START OF CONSTRUCTION, CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF TRAFFIC, IN ACCORDANCE WITH APPROVED MOT, AND SHALL MAINTAIN PROPER ACCESS TO ADJACENT PROPERTIES AT ALL TIMES DURING THE TIME OF THE CONTRACT.
14. ALL EXCESS MATERIAL, INCLUDING, BUT NOT LIMITED TO, PIPE, EARTHWORK MATERIAL, STRUCTURES, ETC. SHALL BE THE PROPERTY OF THE CITY OF FORT PIERCE. THE CITY ENGINEER OR HIS DESIGNERS SHALL DETERMINE WHAT OR HOW MUCH OF THE EXCESS MATERIAL SHALL BE DISPOSED OF BY CONTRACTOR. COST OF DISPOSAL OF ALL EXCESS MATERIAL SHALL BE INCLUDED IN THE LUMP SUM BID.
15. CONTRACTOR SHALL REMOVE AND REPLACE ALL PIPES, CULVERTS, STRUCTURES, AND APPURTENANCES DAMAGED DURING CONSTRUCTION AT NO EXPENSE TO THE CITY OF FORT PIERCE.
16. THE LIMITS OF CONSTRUCTION SHOWN ON THE APPROVED DRAWINGS ARE THE MAXIMUM LIMIT FOR WHICH ITEMS WILL BE PAID BY THE CITY. ANY REMOVALS OR REPLACEMENTS BEYOND THE CONSTRUCTION LIMITS WITHOUT THE AUTHORIZATION OF THE CITY ENGINEER, SHALL NOT BE PAID TO CONTRACTOR.
17. WHENEVER CONTRACTOR NEEDS TO REMOVE EXISTING STORM SEWERS TO FACILITATE THE PLACEMENT OF NEW FACILITIES INDICATED IN DRAWINGS, HE(SHE) SHALL REPLACE PIPES WITH MATERIALS OF EQUAL OR BETTER QUALITY. REPLACEMENT OF STORM SEWERS THAT HAVE BEEN DISTURBED MUST BE DETERMINED JOINTLY BY THE CONTRACTOR AND THE CITY ENGINEER. REPLACEMENT OF PIPE JOINTS MAY BE ACCOMPLISHED BY THE USE OF CONCRETE COLLAR PER FOOT SPECIFICATIONS.
18. IN THE EVENT STRUCTURES, SUCH AS INLETS, CATCH BASINS, MANHOLES, OUTFALL, ETC. ARE IN PROXIMITY TO THE STORM SEWER WHICH HAS BEEN REMOVED OR DAMAGED, AT LEAST ONE FULL JOINT OF PIPE MUST BE UNDISTURBED PRIOR TO ENTERING SUCH STRUCTURES. IF A FULL UNDISTURBED JOINT DOES NOT REMAIN, CONTRACTOR SHALL REPLACE THE STORM SEWER COMPLETELY AT NO ADDITIONAL COST TO THE CITY. IN ADDITION, IF IN REPLACING THE STORM SEWER TO THE STRUCTURE, CONTRACTOR CAUSES THE EXISTING STRUCTURE TO BE DISTURBED, CRACKED, OR OTHERWISE DEEMED DEFICIENT BY THE CITY ENGINEER, CONTRACTOR SHALL BE REQUIRED TO REPLACE SAID STRUCTURES AT NO ADDITIONAL COST TO THE CITY.
19. PLEASE REFER TO GEOTECHNICAL REPORT BY AACE - FILE NO. 20-194 COMPLETED ON JULY 07, 2020.

GEODETIC INFORMATION CENTER
ATTN: C-185
ROCKVILLE, MD 30852
PHONE: (301) 443-8631

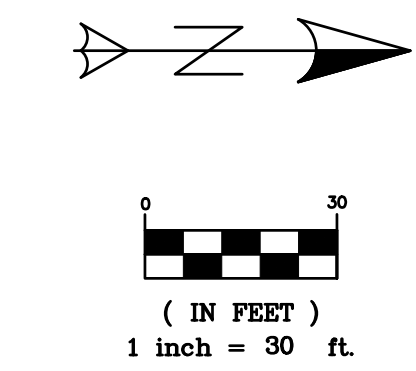


PORT SAINT LUCIE OFFICE
10250 SW VILLAGE PARKWAY - SUITE 201
PORT SAINT LUCIE, FL 34987
772-462-2455
www.edc-inc.com

F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935
L.B. CERTIFICATE OF AUTHORIZATION 8099

DAVID C. BAGGETT, P.E.(DATE)
#81375

10250 SW VILLAGE PKWY - SUITE 201
PORT SAINT LUCIE, FL 34987
772-462-2455



LEGEND	
	EXISTING METER
	PROPOSED METER
	PROPOSED SIGN
	EXISTING CONCRETE
	EXISTING PAVEMENT
	PROPOSED STANDARD ASPHALT
	PROPOSED CONCRETE
	TO BE REMOVED



**ENGINEERS • SURVEYORS
ENVIRONMENTAL**

**10250 VILLAGE PARKWAY
SUITE 201
PORT ST. LUCIE, FL 34987**

 **772-462-2455**

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F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935
L.B. CERTIFICATE OF AUTHORIZATION 8098

DCB	DESIGNED BY	
JLW	DRAWN BY	
FILENAME	Demolition Plan	
LAYOUT	AS SHOWN	
SCALE	24 FEB 22	
DATE		

		6/24/22	100% PLAN REVISIONS PER CITY COMMENTS
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**BEACH COURT
ROADWAY IMPROVEMENTS
DEMOLITION PLAN**

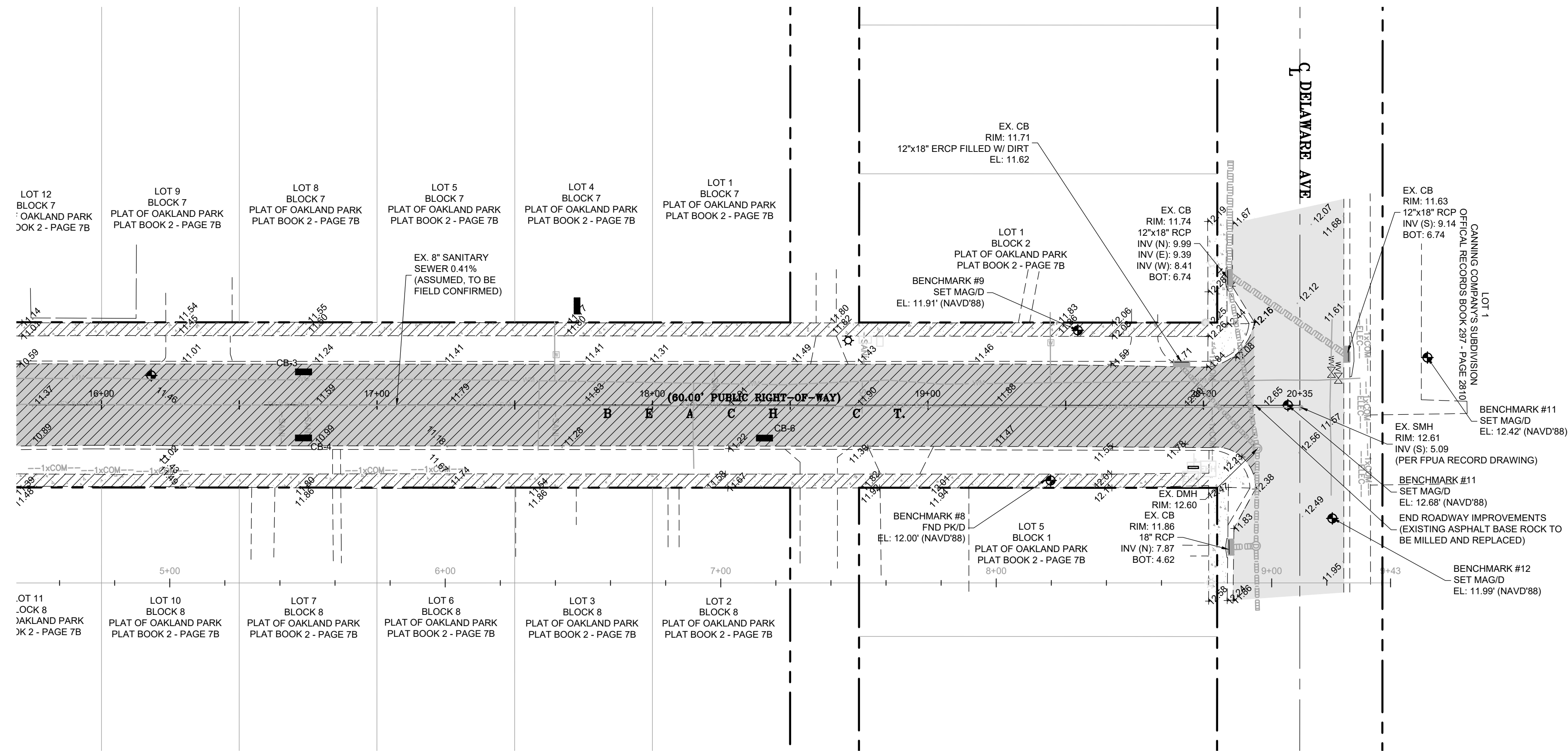
DAVID C. BAGGETT, P.E.(DATE)
#81375



10250 SW VILLAGE PARKWAY - SUITE 200
PORT SAINT LUCIE, FL 34987
 ☎ 772-462-2455

21-384

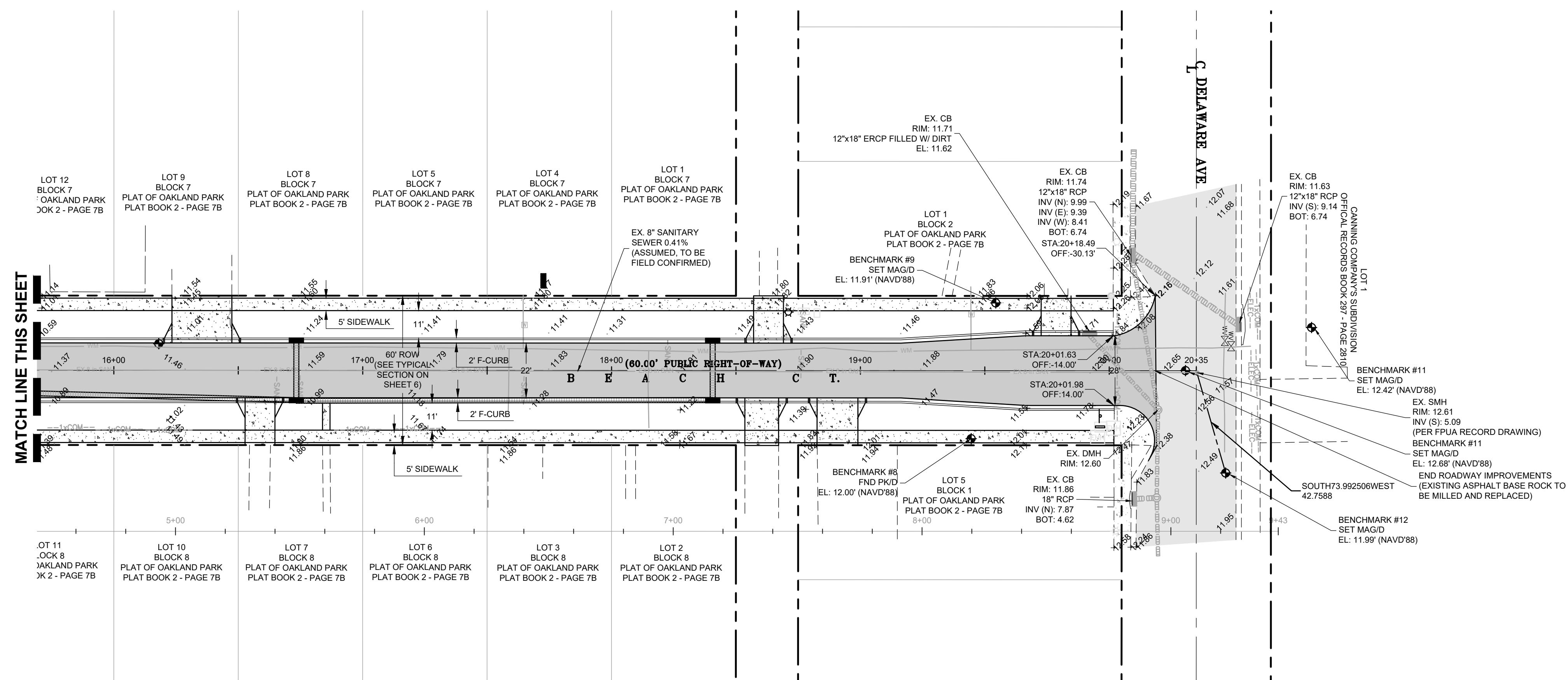
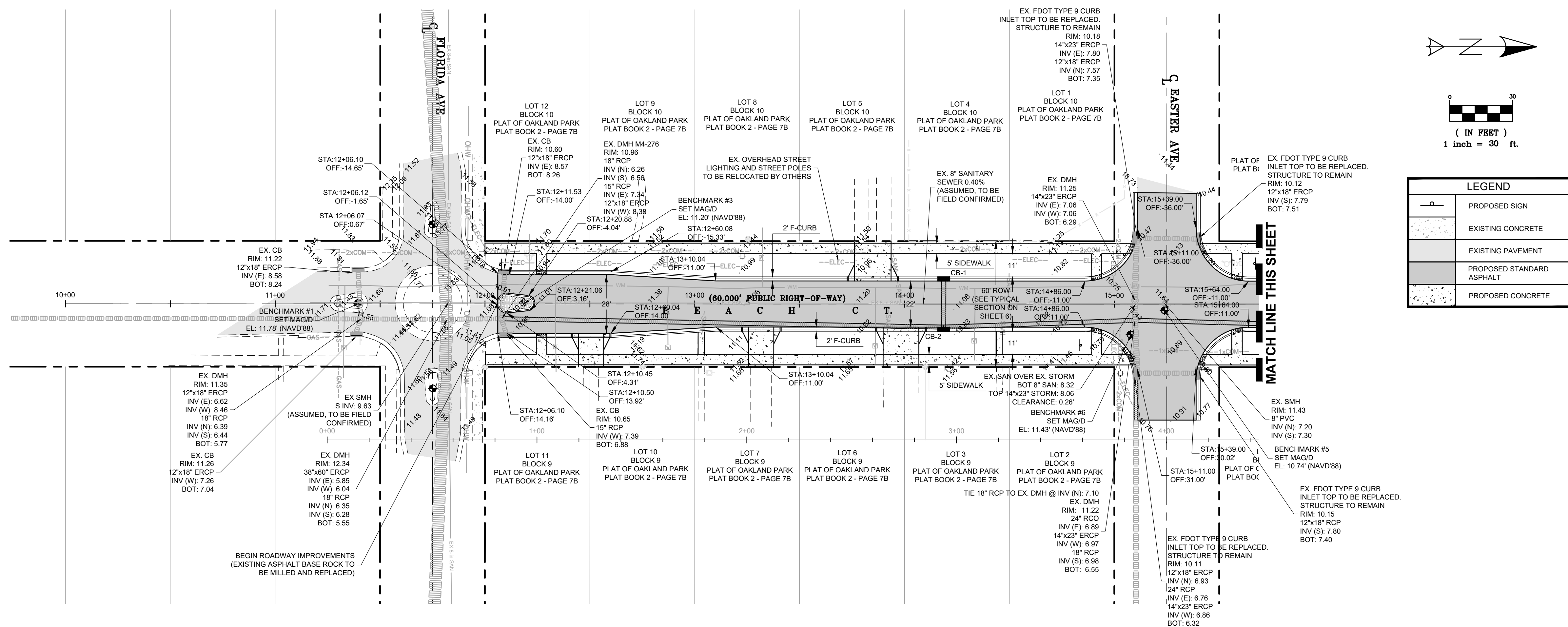
2 OF 9



VERTICAL DATUM NOTE:
ALL ELEVATION SHOWN HERE REFERENCE THE
NORTH AMERICAN VERTICAL DATUM NAVD83.
CONVERSION: NGVD29 + NAVD83 + 1.5

NOTE TO CONTRACTOR:

1. MAINTENANCE OF TRAFFIC SHALL INCLUDE ALL ITEMS NECESSARY TO MAINTAIN VEHICULAR AND PEDESTRIAN TRAFFIC THROUGHOUT THE PROJECT.
2. CONTRACTOR SHALL MAINTAIN THE CONDITION OF THE EXISTING RIGHT-OF-WAY OVER THE ENTIRE PROJECT LIMITS WITH PHOTOS AND VIDEO PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE TO CONFIRM HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING DRAINAGE, UTILITIES, AND INFRASTRUCTURE IN THE FIELD.
4. DURING ASPHALT REMOVAL SEE CORING PLAN BY ANDERSON ANDERSON CONSULTING ENGINEERS, INC. FILE #206 FOR FURTHER DETAILED INFORMATION.
5. FOLLOWING MILLING OF ROADWAY, ENGINEER WILL DETERMINE THE EXTENT OF ROADWAY BASE THAT IS REQUIRED TO BE REPAIRED. BASE REPAIR SHALL BE MINIMUM 6" LIME TREATED AND COMPACTED TO 98% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-18.
6. ASPHALT PAV TYPE TO INCLUDE BITUMINOUS MATERIAL, TACK COAT TO 0.05 GAL/SY AND PRIME COAT APPLIED AT 0.10 GAL/SY.
7. ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE SODED USING BAHA SOX EXCEPT WHEN MATCHING THE EXISTING.
8. ALL PAVEMENT MARKINGS TO BE THERMOPLASTIC IN CONFORMANCE WITH SECTION 711 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION LATEST EDITION.
9. ALL HEDGING TO BE INSTALLED IN COORDINATION WITH CITY ENGINEERING DEPARTMENT.
10. ALL UTILITY POLY (PE) SHALL BE INSTALLED (BY OTHERS) OVERHEAD UTILITIES TO BE INSTALLED / RELOCATED UNDERGROUND BY OTHERS.



VERTICAL DATUM NOTE:
ALL ELEVATION SHOWN HERE REFERENCE THE
NORTH AMERICAN VERTICAL DATUM NAVD83.
CONVERSION: NGVD29 = NAVD83 + 1.5

NOTE TO CONTRACTOR:

1. MAINTENANCE OF TRAFFIC SHALL INCLUDE ALL ITEMS NECESSARY TO MAINTAIN VEHICULAR AND PEDESTRIAN TRAFFIC THROUGHOUT THE PROJECT. CONTRACTOR SHALL DOCUMENT THE CONDITION OF THE EXISTING RIGHT-OF-WAY OVER THE ENTIRE PROJECT LIMITS WITH PHOTOS AND VIDEO PRIOR TO CONSTRUCTION.
2. CONTRACTOR NEEDING TO CONFORM HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING DRAINAGE, UTILITIES, AND INFRASTRUCTURE IN THE FIELD.
3. DURING ASPHALT REMOVAL SEE CORING PLAN BY ANDERSON ANDRUP CONSULTING ENGINEERS, INC. FILE NO. 21-036 FOR THE PAVEMENT SECTION. FOLLOWING MILLING OF ROADWAY, ENGINEER WILL DETERMINE THE EXTENT OF ROADWAY BASE THAT IS REQUIRED TO BE REPAIRED. BASE REPAIR SHALL CONSIST OF 6" MINIMUM THICK COMPACTED TO 98% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.
4. ASPHALT PAV TACK TO INCLUDE BITUMINOUS MATERIAL, TACK COAT AT 0.5 OZ GAL/SY AND PRIME COAT APPLIED AT 1.0 OZ GAL/SY.
5. ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE SODED USING BAHIA SOD EXCEPT WHEN MATCHING THE EXISTING.
6. ALL PAVEMENT MARKINGS TO BE THERMOPLASTIC IN CONFORMANCE WITH SECTION 711 OF THE FDOT STANDARDS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION LATEST EDITION.
7. ALL HEDGING TO BE INSTALLED IN COORDINATION WITH CITY ENGINEERING DEPARTMENT.
8. ALL UTILITIES (POLES AND/OR OTHERS), OVERHEAD UTILITIES TO BE INSTALLED TO 98% UNDERGROUND BY OTHERS.



**10250 VILLAGE PARKWAY
SUITE 201
PORT ST. LUCIE, FL 34987**
 **772-462-2455**
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F.B.P.E. CERTIFICATE OF AUTHORIZATION 993
L.B. CERTIFICATE OF AUTHORIZATION 8098

DCB	FILENAME
DESIGNED BY	HC Plan
JLW	LAYOUT
DRAWN BY	AS SHOWN
	SCALE
	24FE822

	100% R.A. IN REVISIONS PER CITY / COMMENTS
	05-24-22

BEACH COURT
ROADWAY IMPROVEMENTS
HORIZONTAL CONTROL PLAN
FORT PIERCE
FLORIDA

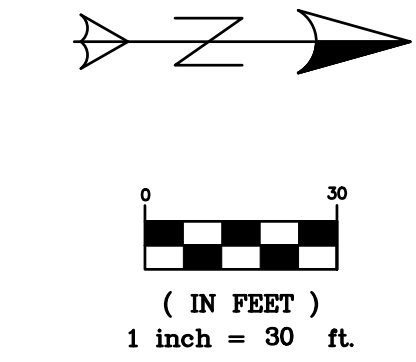
DAVID C. BAGGETT, P.E.(DATE)
#81375



10250 SW VILLAGE PARKWAY - SUITE 201
PORT SAINT LUCIE, FL 34987
772-462-2455

21-384

3 OF 9



UTILITY CONFLICTS:

STA: 14+18.69
OFF: -0.34'
EX. 8" SAN OVER 12"x18" ERCP STORM
(6" SEPARATION)
BOTTOM EX. 8" SAN = 8.71
TOP 12"x18" ERCP STORM = 8.21
FG = 11.05

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DCB	DESIGNED BY	
JLW	DRAWN BY	
FILENAME	PGD Plan	
	LAYOUT	
	AS SHOWN	
	SCALE	
	24FEB22	

BEACH COURT

ROADWAY IMPROVEMENTS

PAVING, GRADING, & DRAINAGE PLAN

BEACH COURT
12+00.00 TO 15+75.00
SCALE: 1" = 3'V, 30'H

15.00
10.00
5.00

12+00 12+50 13+00 13+50 14+00 14+50 15+00 15+50 15+75

11.14
11.1
11.21
11.2
11.29
11.3
11.36
11.4
11.33
11.3
11.25
11.3
11.18
11.2
11.10
11.1
11.08
11.1
11.23
11.2
11.37
11.4
11.51
11.5
11.65
11.6
11.58
11.6
11.50
11.5

DMH 12+276
STA: 12+276
OFF: 7.06
RM: 10.82
IN (N): 7.39
IN (E): 7.39
OUT (N): 6.26
OUT (S): 6.98
OUT (N): 5.57

0.30%

EX. GRADE

-0.30%

Ex. 342 LF 8" PVC @ 0.40%

Construct 211 LF 18" RCP @ 0.00%

CB-1
STA: 14+18.69
OFF: 11.00
RM: 10.83
OUT (E): 6.98

CB-2
STA: 14+18.69
OFF: 11.00
RM: 10.83
IN (W): 6.98
IN (N): 6.98
OUT (S): 6.26
OUT (N): 6.98

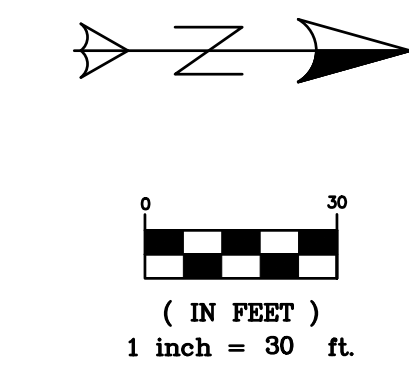
TIE 18" RCP TO EX. DMH @
INV (N): 7.10
INV (S): 6.98

EX. DMH
STA: 14+39.92
OFF: 7.75
RM: 11.22
IN (W): 6.98
IN (E): 6.98
OUT (N): 6.98
OUT (S): 6.98

EX. SLOPE
STA: 15+75.00
OFF: -0.26
RM: ADJUST EX. RIM
IN (S): 11.05
IN (N): 7.30
OUT (N): 7.20

NOTE TO CONTRACTOR:

1. MAINTENANCE OF TRAFFIC SHALL INCLUDE ALL ITEMS NECESSARY TO MAINTAIN VEHICULAR AND PEDESTRIAN TRAFFIC THROUGHOUT THE PROJECT.
2. CONTRACTOR SHALL DOCUMENT THE CONDITION OF THE EXISTING RIGHT-OF-WAY OVER THE ENTIRE PROJECT LIMITS WITH PHOTOS AND VIDEO PRIOR TO CONSTRUCTION.
3. CONTRACTOR NEEDING TO CONFORM HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING DRAINAGE, UTILITIES, AND INFRASTRUCTURE IN THE FIELD.
4. DURING CONSTRUCTION, THE EXISTING CURBING PLAN BY ANDERSON CONSULTING ENGINEERS, INC. FILE NO. 21-236 FOR EXISTING PAVEMENT SECTION.
5. FOLLOWING MILLING OF ROADWAY, ENGINEER WILL DETERMINE THE EXTENT OF ROADWAY BASE THAT IS REQUIRED TO BE REPAIRED. BASE REPAIR SHALL CONSIST OF 6 LIME/ROCK COMBINATION TO 98% OF MAXIMUM DENSITY AS DETERMINED BY ASPHALT T-180
6. ASPHALT P-110 IS ALLOWED BITUMINOUS MATERIAL, TACK COAT AT 0.05 GAL/SY AND PRIME COAT APPLIED AT 0.10 GAL/SY.
7. ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE SOODED USING BAHIA SOD EXCEPT WHEN MATCHING THE SLOPE.
8. ALL PAVEMENT MARKINGS TO BE THERMOPLASTIC IN CONFORMANCE WITH SECTION 711 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION LATEST EDITION.
9. ALL HEDGING TO BE INSTALLED IN COORDINATION WITH CITY ENGINEERING DEPARTMENT.
10. EX. UTILITY POLES TO BE REMOVED (BY OTHERS). OVERHEAD UTILITIES TO BE INSTALLED/ RELOCATED UNDERGROUND BY OTHERS.
11. A 4' MIN ADA ACCESSIBLE RIDE W/ 2% MAX CROSS SLOPE SHALL BE PROVIDED IN ACCORDANCE W/ FDOT STANDARD PLANS 622.
12. ANY UTILITY, DRAINAGE, OR OTHER INFRASTRUCTURE CONFLICTS THAT ARE DISCOVERED IN THE FIELD SHALL BE COORDINATED IMMEDIATELY WITH THE CITY OF FORT PIERCE, FORT PIERCE UTILITIES AUTHORITY, THE ENGINEER OF RECORD, AND ANY OTHER SERVICE PROVIDER. DEVIATIONS FROM THESE REQUIREMENTS AND ANY UNKNOWN CONFLICTS SHALL BE APPROVED BY THE CITY OF FORT PIERCE PROJECT MANAGER AND ENGINEER OF RECORD BEFORE PROCEEDING WITH WORK.



LEGEND	
	PROPOSED SIGN
	EXISTING CONCRETE
	EXISTING PAVEMENT
	PROPOSED STANDARD ASPHALT
	PROPOSED CONCRETE



F.B.P.E. CERTIFICATE OF AUTHORIZATION 909
L.B. CERTIFICATE OF AUTHORIZATION 809

DCB
DESIGNED BY
JLW
DRAWN BY
FILENAME
Striping Plan
LAYOUT
AS SHOWN
SCALE
24/FEB/02

[illegible]

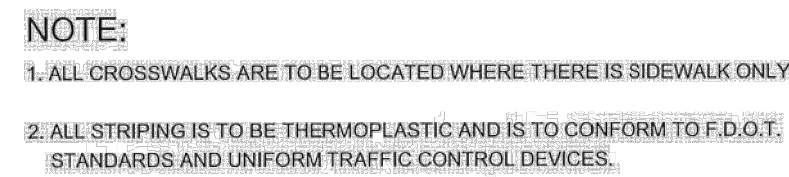
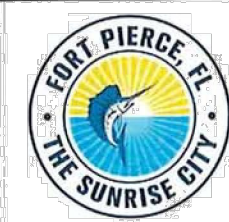
BEACH COURT ROADWAY IMPROVEMENTS STRIPING & SIGNAGE PLAN

DAVID C. BAGGETT, P.E. (DATE
#81375



21-384

7 OF 9

CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING
TECHNICAL SPECIFICATIONS AND DETAILS

TYPICAL STREET STRIPING DETAIL

SCALE: N.T.S.	ISSUED DECEMBER 2000
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REVISIONS

SHEET No.
STP 01

Section 1	Project Name and location information:	Beach Court Roadway Improvements (Delaware Ave to Florida Ave)
Section 2	Describe the nature of the construction activity:	Roadway, Sidewalk, & Drainage Improvements
Section 3	Describe the intended sequence of major soil disturbing activities:	0-2 days, site prep and stabilized construction entrance; 3-6 days, install perimeter sediment and erosion controls; 7-10 days, install stormwater retention basin; 11-15 days, clearing/grubbing over all areas; 16-20 days, site grading; 21-25 days, install storm sewer and utilities; 26-30 days, stabilize site
Section 4	Total area of the site:	±0.7 Acres
Section 5	Total area of the site to be disturbed:	±0.7 Acres
Section 6	Existing data describing the soil or quality of any stormwater discharge from the site:	
Section 7	Estimate the drainage area size for each discharge point:	
Section 8	Latitude and longitude of each discharge point and identify the receiving water or MS4 for each discharge point:	N27°26'37", W80°19'36"
Section 9	Give a detailed description of all controls, Best Management Practices (BMPs) and measures that will be implemented at the construction site for each activity identified in the intended sequence of major soil disturbing activities section. Provide time frames in which the controls will be implemented.	NOTE: All controls shall be consistent with performance standards for erosion and sediment control and stormwater treatment set forth in s. 62-40.432, F.A.C., the applicable Stormwater or Environmental Resource Permitting requirements of the Department of a Water Management District, and the guidelines contained in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual, FDOT, FDOT, and any subsequent amendments. * Prior to clearing, a silt fence (trenched 6 inches deep and backfilled on the uphill side), shall be installed around the perimeter of the site. A rock entrance road (that is 60ft long with a 6 inch depth of FDOT #1 stone and lined with filter fabric) shall be constructed to minimize the effects of truck traffic and sedimentation tracking both on and off the site. There will be only one construction entrance at this site. * After the initial site grading work, all proposed inlet(s) / outfall, once installed, shall be protected from erosion and sediment runoff by the use of filter fabric and properly installed inlet filters. Disturbed portions of the site where construction activities have permanently ceased shall be stabilized with sod or other permanent stabilization methods (if other methods are used, this SWPPP will be modified) no later than 7 days after the last construction activity. Seeding shall be the same as in temporary seeding. * All installation shall be commenced as depicted on the attached site map and installation "typicals" sheet.
Section 10	Describe all temporary and permanent stabilization practices. Stabilization practices include temporary seeding, mulching, permanent seeding, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, vegetative preservation, etc.	* Temporary seeding shall be rye grass or other appropriate ground covers depending upon season of installation that is applied at manufacturer's recommendations to any disturbed areas that are inactive more than 7 days. * Sod shall be used to stabilize the sides of the detention basins. * Filter fabric shall be placed under the rock entrance / exit. * Vegetative buffers shall be left undisturbed along the boundaries of the property, with the exception of exotic vegetation removal.
Section 11	Describe all structural controls to be implemented to divert stormwater flow from exposed soils and structural practices to store flows, retain sediment on site or in any other way limit stormwater runoff. These controls include silt fences, earth dikes, diversions, swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, coagulating agents and temporary or permanent sediment basins.	* A silt fence (with the same installation as indicated under the Best Management Practices heading) shall be placed around the entire perimeter of each construction phase. * A wet detention basin shall be constructed which may be used as a temporary sediment basin (prior to being connected to a discharge structure) if needed. Care shall be taken to assure the removal of accumulated fine sediments and that the excessive compaction of soil by construction machinery is avoided. * Inlets / Outfalls shall be protected with filter fabric and properly installed inlet filters (with the same installation as indicated under the Best Management Practices heading).
Section 12	Describe all sediment basins to be implemented for areas that will disturb 10 or more acres at one time. The sediment basins (or an equivalent alternative) should be able to provide 3,600 cubic feet of storage for each acre drained. Temporary sediment basins (or an equivalent alternative) are recommended for drainage areas under 10 acres.	No temporary sedimentation basins are proposed. The detention basins (prior to being connected to a discharge structure) may be used as a temporary sediment basin if needed.
Section 13	Describe all permanent stormwater management controls such as, but not limited to, detention or retention systems or vegetated swales that will be installed during the construction process.	* A stormwater detention basin shall be constructed per ERP permit and all disturbed areas shall be grassed.
Section 14	Waste disposal, site, and sanitary waste:	All construction materials and debris will be placed in a dumpster, chemicals, liquids, and sanitary waste: No materials will be buried on site.
Section 15	Offsite vehicle tracking from construction entrances/exits:	Off site vehicle tracking of sediments and dust generation will be minimized via a rock construction entrance, street sweeping and the use of water to keep dust down.
Section 16	The proper application rates of all fertilizers, herbicides and pesticides used at the construction site:	Florida-friendly fertilizers and pesticides will be used at a minimum and in accordance with the manufacturer's suggested application rates.
Section 17	The storage, application, generation and migration of all toxic substances:	All paints and other chemicals will be stored in a locked covered shed.
Section 18	Other:	Port-o-lets will be placed away from storm sewer systems, storm inlet(s), surface waters and wetlands. No vehicle maintenance shall be conducted on-site. A washdown area shall be designated at all times and will not be located in any area that will allow for the discharge of polluted runoff.
Section 19	Provide a detailed description of the maintenance plan for all structural and non-structural controls to assure that they remain in good and effective operating condition.	Contractor shall provide routine maintenance of permanent and temporary sediment and erosion control features in accordance with the technical specifications or as follows, whichever is more stringent: * Silt fence shall be inspected at least weekly. Any required repairs shall be made immediately. Sediment deposits shall be removed when they reach approximately one-half the height of the barrier. * Maintenance shall be performed on the rock entrance when any void spaces are full of sediment. * Inlet(s)/outfalls shall be inspected immediately after each rain event and any required repairs to the filter inlets, silt fence, or filter fabric shall be performed immediately. * Bare areas of the site that were previously seeded shall be reseeded per manufacturer's instructions. * Mulch and sod that has been washed out shall be replaced immediately. * Maintain all other areas of the site with proper controls as necessary.
Section 20	Inspections: Describe the inspection and inspection documentation procedures, as required by the FDEP NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities.	Qualified personnel will inspect all points of discharges, all disturbed areas of construction that have not been stabilized, constructed areas and locations where vehicles enter and exit the site, and all BMPs at least once every 7 calendar days and within 24 hours of the end of a rainfall event that is 0.5 inches or greater. Where sites have been finally stabilized, said inspections shall be conducted at least once every month until the Notice of Termination is filed.
Section 21	Identify and describe all sources of non-stormwater discharges as allowed by the FDEP NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities.	It is expected that the following non-stormwater discharges may occur from the site during construction period: wash water (where no spills or leaks of toxic or hazardous materials have occurred), and uncontaminated groundwater (from dewatering excavation). Dewatering shall be done in accordance with the requirements of the SPVMD Water Use Permit. If said discharges do occur, they will be directed to the temporary sediment basin prior to discharge. Turbid water from the stormwater pond shall not be pumped directly into the receiving waters. Any pumped water from the stormwater pond shall be treated so as to not allow a discharge of polluted stormwater. Treatment can include silt fences, settling ponds, the proper use of flocculating agents, or other appropriate means.
Section 22	All contractor(s) and subcontractor(s) identified in the SWPPP must sign the following certification:	"I certify under penalty of law that I understand, and shall comply with, the terms and conditions of the State of Florida Generic Permit for Stormwater Discharge from Large and Small Construction Activities and this Stormwater Pollution Prevention Plan prepared thereunder."

Name	Title	Company Name, Address and Phone Number	Date

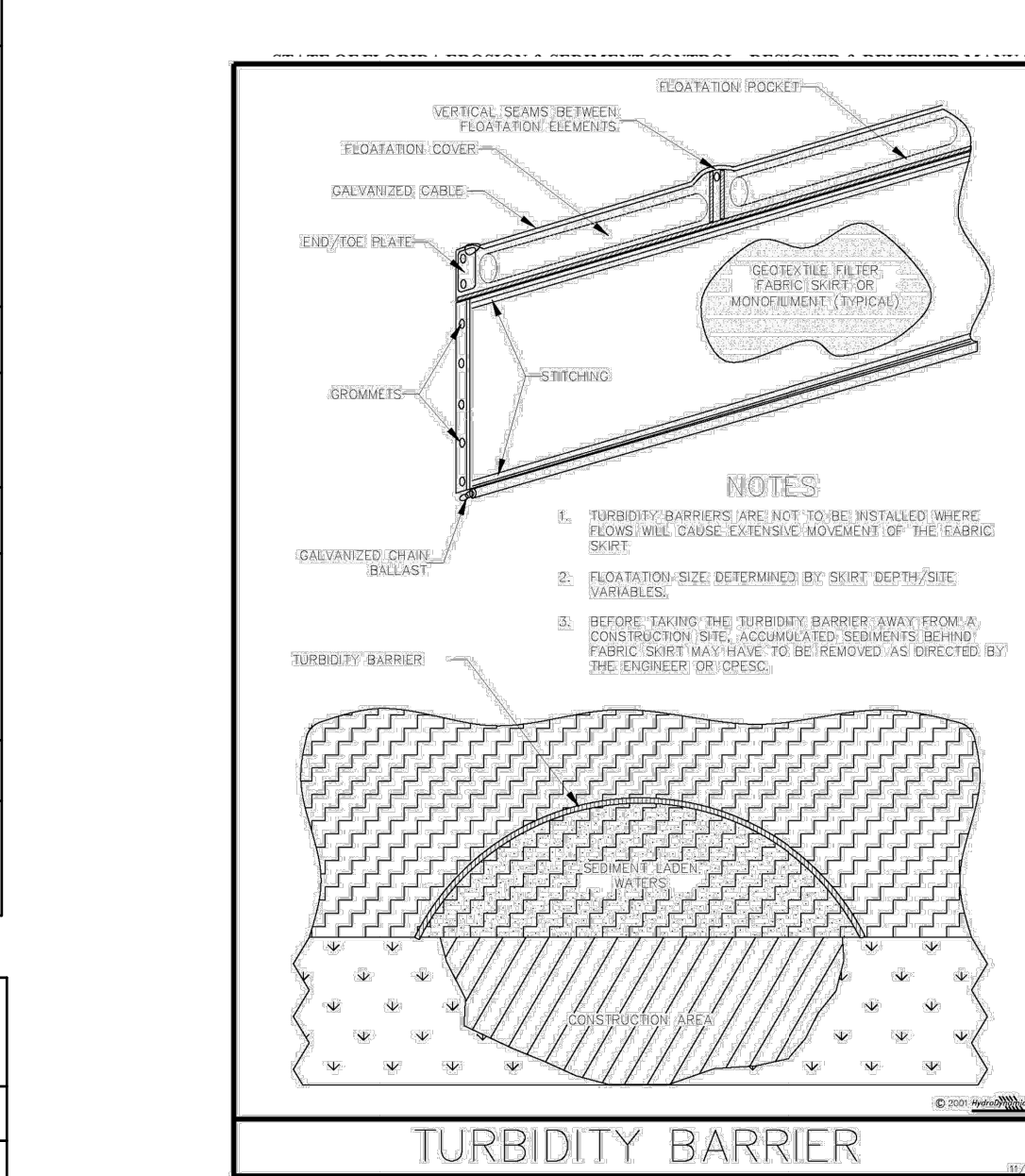
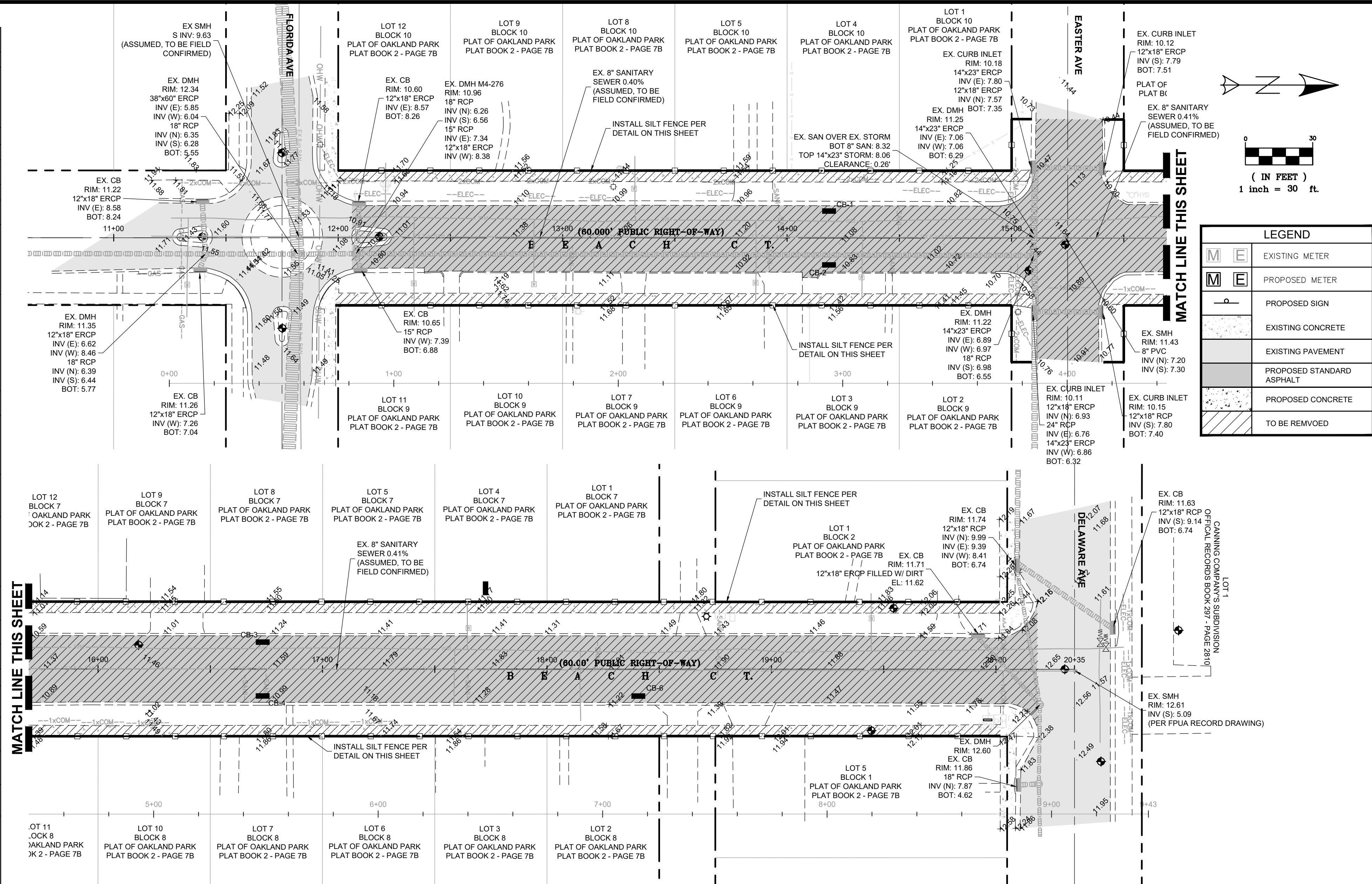


Figure V-44: Illustration of a Turbidity Barrier Curtain

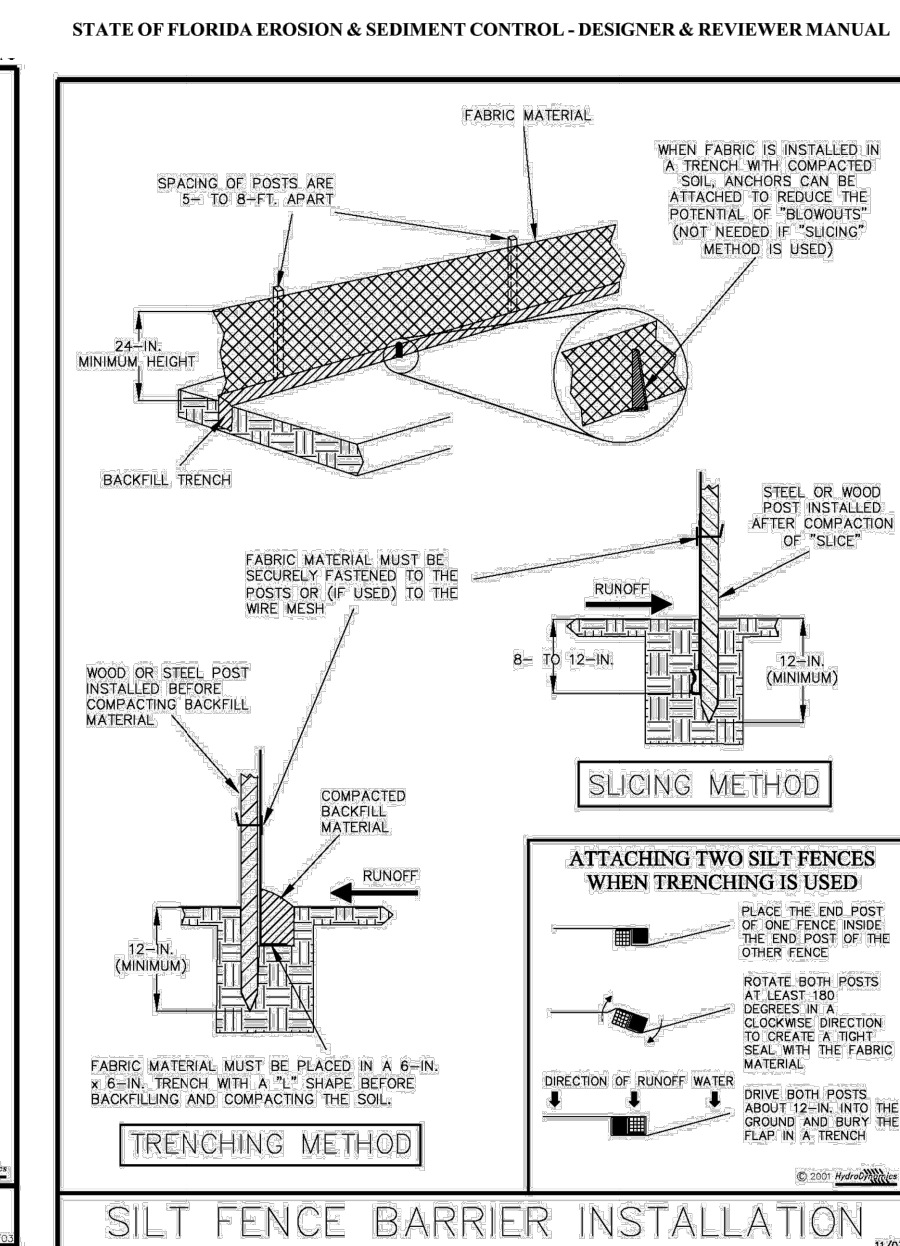


Figure V-40: Illustration of a Silt Fence Barrier Installation

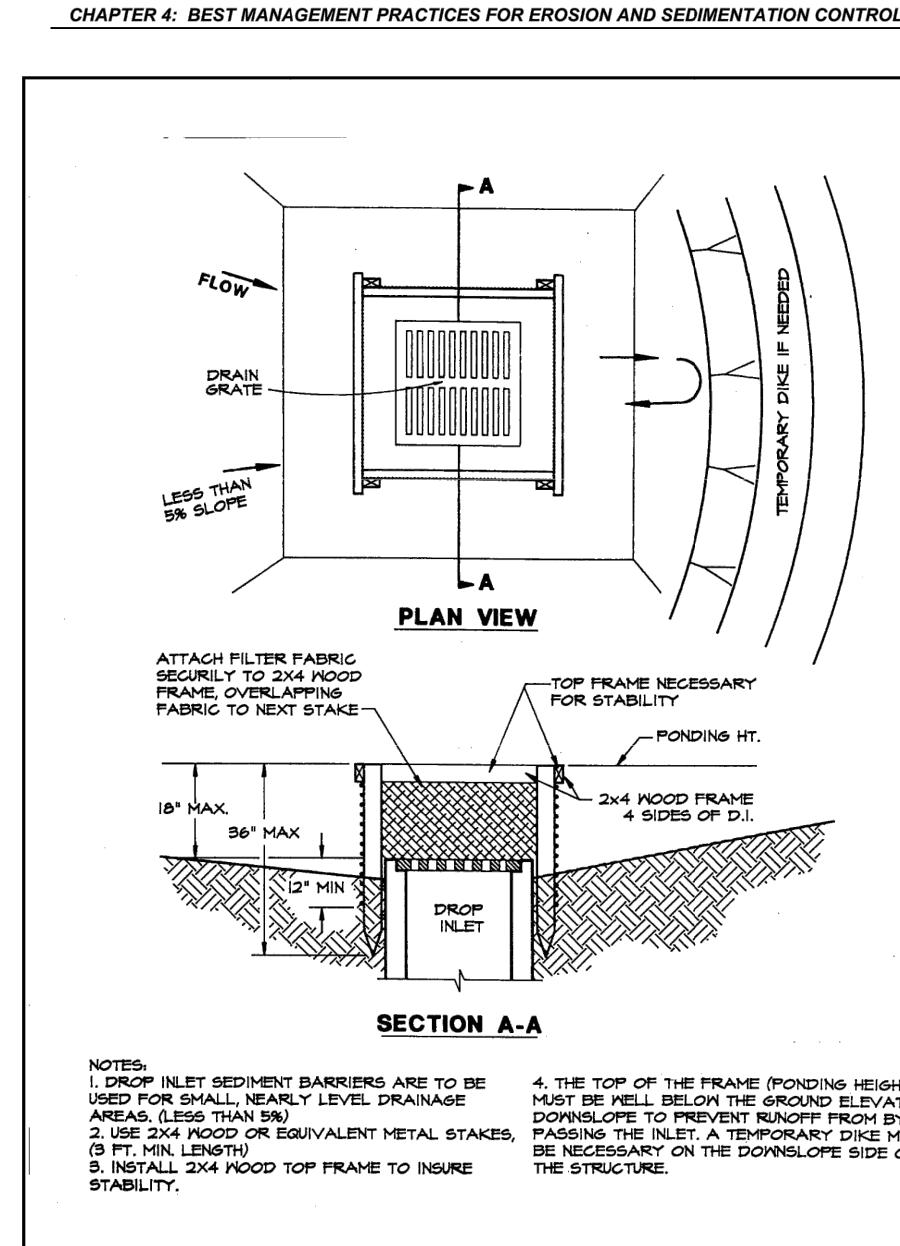


Figure 4.5a: Silt Fence Drop Inlet Sediment Barrier

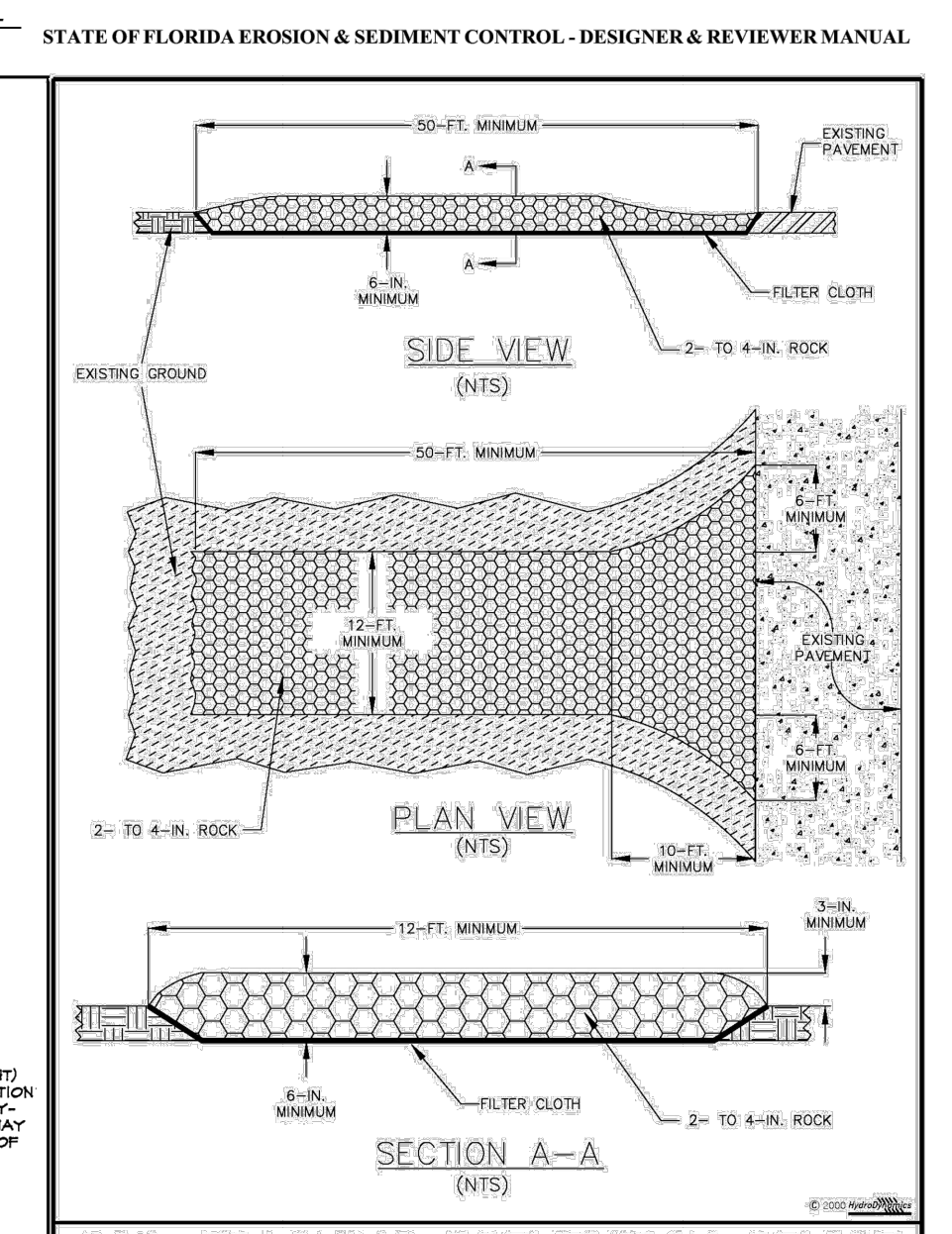
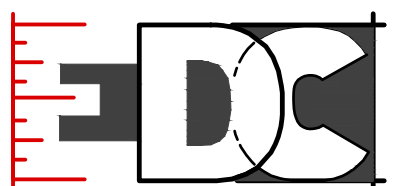


Figure V-52: Illustration of a Soil Tracking Prevention Device



**ENGINEERS & SURVEYORS
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**10250 VILLAGE PARKWAY
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PORT ST. LUCIE, FL 34987**

772-462-2455

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F.B.P.E. CERTIFICATE OF AUTHORIZATION 0905
L.B. CERTIFICATE OF AUTHORIZATION 0908

DESIGNED BY	J.W.
DRAWN BY	J.W.
CHECKED BY	J.W.
FILE NAME	21-384
DATE	3/9/2023

21-384

8 OF 9

**BEACH COURT
ROADWAY IMPROVEMENTS
STORMWATER POLLUTION
PREVENTION PLAN & DETAILS
PORT PIERCE
FLORIDA**

DAVID C. BAGGETT, P.E.(DATE)
#81375



10250 SW VILLAGE PARKWAY - SUITE 201
PORT SAINT LUCIE, FL 34987

772-462-2455

GENERAL NOTES

- ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGE OR DEVIATIONS FROM THE DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL CONTACT ENGINEER OF RECORD, THE APPROPRIATE GOVERNMENTAL JURISDICTIONAL AGENCY AND ALL OTHER CONCERNED UTILITIES AT LEAST 2 FULL BUSINESS DAYS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- THE LOCATION AND SIZE OF ALL EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE BASED ON THE BEST AVAILABLE INFORMATION. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PHYSICALLY LOCATING ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITIES BY ELECTRONIC METHODS AND BY HAND EXCAVATION IN COORDINATION WITH ALL UTILITY COMPANIES. PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS, ANY AND ALL CONFLICTS OF EXISTING UTILITIES WITH PROPOSED IMPROVEMENTS SHALL BE RESOLVED BY THE ENGINEER AND THE OWNER PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- PROJECT SUPERINTENDENT: THE CONTRACTOR SHALL PROVIDE A QUALIFIED SUPERINTENDENT TO REMAIN ON THE JOB SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. THE SUPERINTENDENT SHALL BE PRESENT AT THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL NOTIFY THE OWNER BY LETTER, PRIOR TO THE PRE-CONSTRUCTION MEETING, APPOINTING THE SUPERINTENDENT FOR THIS PROJECT INCLUDING A FORMAL RESUME SHOWING QUALIFICATIONS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE HIS COMPLETE FAMILIARITY WITH THE PROJECT SITE AND COMPONENTS TO INCLUDE SUBSURFACE CONDITIONS OF SOIL AND GROUNDWATER TABLE. BY SUBMITTAL OF A BID FOR THIS PROJECT, THE CONTRACTOR ACKNOWLEDGES HIS COMPLETE UNDERSTANDING AND RESPONSIBILITIES WITH RESPECT TO THE CONSTRUCTION ACTIVITIES REQUIRED UNDER THE SCOPE OF THIS PROJECT.
- THE "TRENCH SAFETY ACT" SHALL BE INCORPORATED INTO THIS CONTRACT AS ENHANCED BY THE LEGISLATURE OF THE STATE OF FLORIDA TO BE IN EFFECT AS OF OCTOBER 1, 1990.
- AS-BUILT PLANS: THE CONTRACTOR SHALL PROVIDE ONE (1) REPRODUCIBLE MYLAR COPY, TWO (2) BLACK LINE COPIES AND ONE (1) DIGITAL FORMAT (CAD & PDF) OF A CERTIFIED AS-BUILT SURVEY. DRAWINGS SHALL BE IN STATE PLANE COORDINATES AND MEET PLUS/USD REQUIREMENTS. DRAWINGS SHALL BEAR THE ORIGINAL SIGNATURE AND EMBOSSED SEAL OF THE SURVEYOR AND SHALL BE SUBMITTED AFTER THE COMPLETION OF CONSTRUCTION, BUT PRIOR TO FINAL APPROVAL. THE AS-BUILT SURVEY SHALL BE PREPARED IN PLAN AND PROFILE FORMAT BY A LICENSED PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA AND SHALL COMPLY WITH APPLICABLE PROVISIONS OF THE FLORIDA ADMINISTRATIVE CODE AND CHAPTER 472 OF THE FLORIDA STATUTES. THE DRAWINGS SHALL BE AT A SCALE COMPARABLE TO THE DESIGN DRAWINGS PREPARED BY THE ENGINEER AND SHALL REFERENCE THE BASE LINE OF SURVEY APPEARING ON THE ENGINEERING DRAWINGS. THE HORIZONTAL AND VERTICAL LOCATION OF THE ROADWAYS, DRAINAGE FACILITIES AND ALL APPURTENANCES SHALL BE ACCURATELY DEPICTED TO SCALE AND SHALL BE IDENTIFIED RELATIVE TO THE BASE LINE AND TO READILY IDENTIFIABLE PERMANENT OR SEMI-PERMANENT REFERENCE POINTS EXISTING AFTER THE COMPLETION OF CONSTRUCTION. LOCATIONS SHALL BE SHOWN FOR ALL FITTINGS, VALVES, HYDRANTS, MANHOLES, SAMPLE POINTS, AIR RELEASES, ETC., BOTH HORIZONTAL AND VERTICAL. THE LOCATION OF THE MAIN AT EACH BASELINE STATION AS SHOWN ON THE PLANS (100 FEET MAXIMUM) BOTH HORIZONTAL AND VERTICAL. UNDERGROUND FACILITIES (I.E., DRAINAGE, GAS, ELECTRIC, TELEPHONE, ETC.) CROSSING THE MAINS SHALL BE ACCURATELY SHOWN BOTH HORIZONTAL AND VERTICAL AND SHALL IDENTIFY SIZE, TYPE, FACILITY, MATERIAL AND CLEARANCE. ALL INFORMATION SHALL BE BASED UPON MEASUREMENTS AND OBSERVATIONS MADE IN THE FIELD BY THE SURVEYOR CERTIFYING THE SURVEY OR BY PERSONNEL UNDER HIS EMPLOYMENT, DIRECTION AND SUPERVISION. THE COST FOR PREPARING AND MAINTAINING THE AS-BUILT PLANS SHALL BE COVERED UNDER PAY ITEM 102-22A.
- THE CONTRACTOR SHALL PREPARE A PLAN SHOWING THE SCHEDULE OF WORK, INCLUDING A HIGHLIGHTED PLAN SHOWING THE ORDER OF CONSTRUCTION WHICH WILL FACILITATE MAINTAINING EXISTING SERVICES DURING CONSTRUCTION. THIS PLAN SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION MAINTENANCE OF TRAFFIC AND STAGING PLAN.
- ALL CONSTRUCTION TO BE IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS DATED 2002-21, AND STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION DATED 2020. UTILITY CONSTRUCTION TO CONFORM TO THE LATEST MARTIN COUNTY UTILITY STANDARDS MANUAL.
- ALL UNDERGROUND MUNICIPAL UTILITIES, FIBER OPTIC, TELEPHONE, FPL, LOCAL CABLE AND ALL OTHER LOCAL UTILITY COMPANY LOCATIONS SHOWN ARE TAKEN FROM INFORMATION PROVIDED BY THAT UTILITY COMPANY. THESE LOCATIONS HAVE NOT BEEN VERIFIED IN THE FIELD. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL EXPOSE ALL CROSSINGS WITH PUBLIC & PRIVATE UTILITIES PRIOR TO BEGINNING CONSTRUCTION AND DELIVERY OF PIPE. THE CONTRACTOR SHALL USE EXTREME CAUTION WITHIN THE VICINITY OF PUBLIC & PRIVATE UTILITY FACILITIES. THE CONTRACTOR WILL REQUEST THE PRESENCE OF THE RESPECTIVE UTILITY REPRESENTATIVES DURING CONSTRUCTION IN THE VICINITY OF THEIR FACILITIES EVEN IF A PROFILE OF THE UTILITY FACILITIES IS PROVIDED IN THESE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE PUBLIC & PRIVATE UTILITIES AND VERIFYING / OBTAINING THE LOCATION(S) OF THESE FACILITIES.
- ANY NGVD 29 AND NAVD 88 MONUMENT WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHOULD NOTIFY:

GEODETTIC INFORMATION CENTER
ATTN: MARK MAINTENANCE CENTER
ATTN: MCG - 162
500 EXECUTIVE BOULEVARD
ROCKVILLE, MD 20852
TELEPHONE: (301) 443-8319

CITY OF FORT PIERCE
PUBLIC WORKS DEPARTMENT
ATTN: JACK ANDREWS, P.E., CITY ENGINEER
FORT PIERCE, FL
- CONTRACTOR TO UTILIZE "APPROVED FOR CONSTRUCTION" PLANS ONLY. ANY PLANS NOT "APPROVED FOR CONSTRUCTION" SHALL BE CONSIDERED PRELIMINARY AND SHOULD NOT BE USED FOR BIDDING OR CONSTRUCTION.
- SHOP DRAWINGS FOR ALL STRUCTURES SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING.
- SHOP DRAWINGS ARE REQUIRED ON ALL STRUCTURES. THE ENGINEER REQUIRES FIVE (5) BUSINESS DAYS TO REVIEW SHOP DRAWINGS AFTER RECEIPT. ADDITIONAL TIME MAY BE REQUIRED IF LOCAL GOVERNMENT OR MUNICIPALITIES REQUIRE AN INTERNAL REVIEW AND APPROVAL PROCESS.
- CONCRETE SHALL BE CLASS 1 - 3,000 PSI MINIMUM COMPRESSIVE STRENGTH UNLESS NOTED OTHERWISE. REINFORCING SHALL BE GRADE 60 DEFORMED STEEL BARS IN ACCORDANCE ASTM A-615.
- CONTRACTOR SHALL PROTECT ALL EXISTING ABOVE OR UNDERGROUND STRUCTURES, LANDSCAPE FEATURES, TREES AND UTILITIES NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY ITEM DAMAGED BY CONSTRUCTION ACTIVITY TO MEET ALL APPLICABLE CURRENT CODES. ANY REPAIRED / REPLACED ITEMS ARE SUBJECT TO REVIEW AND APPROVAL BY APPLICABLE LOCAL JURISDICTIONAL AGENCY.
- ALL PROPOSED UTILITY MATERIALS, CONSTRUCTION METHODS, TESTING AND DISINFECTION SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT LOCAL UTILITY COMPANY STANDARDS AND AWWA CURRENT STANDARD. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AND UTILIZE A CURRENT COPY OF THE PLUS/USD SPECIFICATIONS AND ENSURE ALL CONSTRUCTION IS IN ACCORDANCE WITH THEIR STANDARDS. ANY CONFLICT WITH THE CONSTRUCTION DRAWINGS AND THE LOCAL UTILITY COMPANY SHALL BE RESOLVED UTILIZING THE MOST STRINGENT DIRECTIONS.
- ALL HORIZONTAL AND VERTICAL SURVEY CONTROL POINTS SHALL BE PROTECTED AND UNDISTURBED. IN THE EVENT THAT A CONTROL POINT IS DISTURBED OR DESTROYED, THE POINT SHALL BE RE-ESTABLISHED BY A FLORIDA REGISTERED LAND SURVEYOR. THE METHOD TO RE-ESTABLISH THE POINT SHALL BE APPROVED BY THE CITY / COUNTY ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL PREPARE A COMPLETE VIDEO RECORD OF THE PROJECT SITE BEFORE BEGINNING ANY WORK. THE VIDEO RECORD SHALL INCLUDE ALL ROADWAY, DRAINAGE AND UTILITIES POINTS OF CONNECTION AND SHALL EXTEND A MINIMUM OF 1800 FEET BEFORE THE WORK LIMITS TO DOCUMENT THE EXISTING CONDITIONS. THE CONTRACTOR SHALL ALSO VIDEO DOCUMENT ALL HAUL ROUTES NEEDED FOR THE OFF-SITE MOVEMENT OF EARTHWORK. COPIES OF THE VIDEO RECORD SHALL BE PROVIDED TO THE ENGINEER OF RECORD AND THE OWNER PRIOR TO SUBMITTAL OF THE FIRST PAY REQUEST. IF DAMAGE TO EXISTING INFRASTRUCTURE IS RECOGNIZED DURING THE COURSE OF THE PROJECT AND CANNOT BE IDENTIFIED AS A PRE-CONSTRUCTION CONDITION ON THE VIDEO RECORD, THE CONTRACTOR MAY BE REQUIRED TO MAKE PROPER REPAIRS.
- THE CONTRACTOR SHALL VIDEO TAPE THE EXTERIOR AND REAR YARDS OF ALL HOUSES / BUSINESSES IN THE PROJECT AREA.

PAVING, GRADING AND DRAINAGE NOTES

- ALL UNSUITABLE MATERIALS, SUCH AS MUCK, ORGANIC MATERIAL AND OTHER DELETERIOUS MATERIAL AS CLASSIFIED BY AASHTO M-145, FOUND SHALL BE REMOVED DOWN TO ROCK OR SUITABLE MATERIAL, AND REPLACED WITH THE SPECIFIED FILL MATERIAL. IN MAXIMUM 12 INCH LIFTS COMPACTED TO NOT LESS THAN 100% MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE IN ACCORDANCE WITH AASHTO T-99. THICKNESS OF LAYERS MAY BE INCREASED, PROVIDED THAT THE EQUIPMENT AND METHODS USED ARE PROVEN BY FIELD DENSITY TESTING AND CAPABLE OF COMPACTING THICK LAYERS TO SPECIFIED DENSITIES.
- ALL AREAS SHALL BE CLEARED AND GRUBBED PRIOR TO CONSTRUCTION. THIS SHALL CONSIST OF THE COMPLETE REMOVAL AND DISPOSAL OF ALL TREES, BRUSH, STUMPS, GRASSES, WEEDS, RUBBISH AND ALL OTHER OBSTRUCTIONS RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE EXISTING GROUND TO A DEPTH OF ONE (1) FOOT. ITEMS DESIGNATED TO REMAIN, TO BE RELOCATED, OR TO BE ADJUSTED SHALL BE SO DESIGNATED ON THE DRAWINGS.
- FILL MATERIAL SHALL BE CLASSIFIED AS A-1, A-3, OR A-2-4 IN ACCORDANCE WITH AASHTO M-145 AND SHALL BE FREE FROM VEGETATION AND ORGANIC MATERIAL NOT MORE THAN 12% BY WEIGHT OF FILL MATERIAL. SHALL PASS THE NO. 200 SIEVE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CERTIFIED MATERIAL TEST RESULTS TO THE ENGINEER OF THE RECORD PRIOR TO THE RELEASE OF FINAL CERTIFICATION BY THE ENGINEER. TEST RESULTS MUST INCLUDE, BUT MAY NOT BE LIMITED TO, DENSITIES FOR SUBGRADE AND BASE DENSITIES AT UTILITY CROSSINGS, MANHOLES, INLETS, AND STRUCTURES. TEST SHALL INCLUDE ASPHALT GRADATION REPORTS, CONCRETE CYLINDERS, ETC. DENSITY TESTS SHALL

BE PERFORMED AT THREE (3) LOCATIONS AROUND ANY STRUCTURE. BEGIN TESTING IN THE FIRST FOOT ABOVE THE BOTTOM OF THE STRUCTURE AND THEN EVERY TWO FEET TO WITHIN TWO FEET OF THE FINISH GRADE. THESE DENSITY REQUIREMENTS ARE THE MINIMUM. THE CONTRACTOR SHALL VERIFY DENSITY REQUIREMENTS AND PROTOCOLS WITH THE LOCAL APPROVING AUTHORITY PRIOR TO CONSTRUCTION OR BIDDING OF THE PROJECT.

- ALL INLETS AND PIPE SHALL BE PROTECTED DURING CONSTRUCTION TO PREVENT SILTATION IN THE DRAINAGE SYSTEMS BY WAY OF TEMPORARY PLUGS AND PLYWOOD OR PLASTIC COVERS OVER THE INLETS. THE ENTIRE DRAINAGE SYSTEMS SHALL BE CLEARED OF ALL DEBRIS PRIOR TO FINAL ACCEPTANCE. ALL CONCRETE SHALL BE A MINIMUM 3,000 PSI. SOME LOCAL GOVERNMENT STORMWATER PROJECTS MAY REQUIRE TELEVISION OF THE STORM SEWER. CONTRACTOR SHOULD BE KNOWLEDGEABLE OF THIS REQUIREMENT PRIOR TO BIDDING OF THE PROJECT.
- ALL PROPOSED ELEVATIONS REFER TO FINISHED GRADES.
- THE CONTRACTOR MUST OBTAIN A WATER USE PERMIT PRIOR TO CONSTRUCTION DEWATERING UNLESS THE WORK QUALIFIES FOR A GENERAL PERMIT PURSUANT TO SUBSECTION 406-20 302(4), F. A.C.

STORM SEWER NOTES

- STANDARD SEPARATION FOR ALL WATER AND/OR WASTEWATER MAINS, HORIZONTAL AND VERTICAL, SHALL BE PER FEED REQUIREMENTS, PROVISIONS OF F.A.C. RULE 62.604 AND TEN STATES STANDARD OR LOCAL MUNICIPALITIES, WHICHEVER IS MORE STRINGENT.
- ALL DISTURBED OUTFALL DRAINAGE AREAS SHALL BE SODDED UPON COMPLETION OF GRADING AFTER AS-BUILT GRADE ELEVATIONS ARE APPROVED BY THE ENGINEER.
- PRIOR TO FINAL PAYMENT FOR RETENTION, DETENTION AND DRAINAGE DITCH QUANTITIES, ALL SLOPES AND SWALES SHALL BE SODDED TO AVOID EROSION.
- THERE IS TO BE NO OFF-SITE HAULING WITHOUT PRIOR APPROVAL AND ALL EXCAVATED MATERIAL SHALL BE USED ON-SITE. COORDINATION WITH THE OWNER IS REQUIRED FOR THE REMOVAL OF ANY UNSUITABLE MATERIALS.
- THE CONTRACTOR SHALL CONSTRUCT THE STORMWATER MANAGEMENT SYSTEM IN A MANNER SO AS TO MINIMIZE ANY ADVERSE IMPACTS OF THE WORKS ON FISH, WILDLIFE, NATURAL ENVIRONMENTAL VALUES AND WATER QUALITY ON OR OFF-SITE. THE CONTRACTOR SHALL INSTITUTE NECESSARY MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING BUT NOT LIMITED TO, CONSTRUCTION OF ANY FILL MATERIAL PLACED AROUND NEWLY INSTALLED STRUCTURES TO REDUCE EROSION, TURBIDITY, NUTRIENT LOADING AND SEDIMENTATION IN THE RECEIVING WATERS.
- WITHIN THIRTY (30) DAYS AFTER COMPLETION OF CONSTRUCTION OF THE SURFACE WATER MANAGEMENT SYSTEM, THE CONTRACTOR SHALL ASSIST THE DESIGN ENGINEER TO PROVIDE A WRITTEN STATEMENT OF COMPLETION AND CERTIFICATION BY A FLORIDA PROFESSIONAL ENGINEER. THESE STATEMENTS MUST SPECIFY THE ACTUAL DATE OF CONSTRUCTION COMPLETION AND MUST CERTIFY THAT ALL FACILITIES HAVE BEEN CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. THE CONSTRUCTION COMPLETION CERTIFICATION MUST INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING INFORMATION: THE LOCATION AND DIMENSIONS OF THE SURFACE WATER MANAGEMENT FACILITIES. ADDITIONALLY, IF DEVIATIONS FROM THE APPROVED DRAWINGS ARE DISCOVERED DURING THE CERTIFICATION PROCESS, THE CERTIFICATION MUST BE ACCOMPANIED BY A COPY OF THE APPROVED PERMIT DRAWINGS WITH DEVIATIONS NOTED. SEE ALSO AS-BUILT REQUIREMENTS.
- A STABLE PERMANENT AND ACCESSIBLE ELEVATION REFERENCE SHALL BE ESTABLISHED ON OR WITHIN ONE HUNDRED (100) FEET OF ALL PERMITTED DISCHARGE STRUCTURES NO LATER THAN THE SUBMISSION OF THE CERTIFICATION TO THE WATER MANAGEMENT DISTRICT. THE LOCATION OF THE ELEVATION REFERENCE MUST BE NOTED ON OR WITHIN THE CERTIFICATION REPORT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY EROSION OR SHOALING OF THE WATER QUALITY MANAGEMENT SYSTEM.
- INLETS (PER FDOT ROAD AND BRIDGE CONSTRUCTION SPECIFICATIONS 425 / 430): INCLUDES THE LIST OF MATERIALS / EQUIPMENT AND THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THREE (3) COMPACTION TESTS AT DIFFERENT LOCATIONS AND UNDER STRUCTURES OR PER LOCAL APPROVING AUTHORITY, WHICHEVER IS MORE STRINGENT.
- PIPE CULVERTS AND STORM SEWERS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH SECTION 430 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- HOPE (HIGH DENSITY POLYETHYLENE) CULVERT SHALL BE N-12 INSTALLED PER MANUFACTURER RECOMMENDATIONS. MANUFACTURER IS ADS (ADVANCED DRAINAGE SYSTEMS, INC.) AIR ENTRENCHED PIPE.
- REINFORCED CONCRETE PIPE SHALL BE ASTM C-76 CLASS III IN ACCORDANCE WITH SECTION 941 OF THE FDOT STANDARD SPECIFICATIONS.

FILTER FABRIC (STORM PIPE JOINTS)

THE CONTRACTOR SHALL WRAP ALL STORM PIPE JOINTS. CONSTRUCTION SHALL BE PER F.D.O.T. INDEX NO. 430-001 WITH WOVEN GEOTEXTILE TYPE D-3 (IF D.O.T. SECTION 985) SECURED W/ STRAPPING. ALL JOINTS SHALL BE WRAPPED FOR A MINIMUM OF 18 INCHES FROM THE BAND OR JOINT OR BELL AND SIGQUAT AS APPLICABLE.

DEWATERING

STORM SEWER PIPES AND STRUCTURES AND UTILITIES SHALL BE LAID "IN THE DRY". UNLESS OTHERWISE APPROVED IN WRITING BY THE UTILITY AND ENGINEER OF RECORD, THE CONTRACTOR, AT NO DIRECT COST TO THE OWNER, SHALL PERFORM ALL DEWATERING ACTIVITIES. DEWATERING SHALL BE PERFORMED BY THE CONTRACTOR USING THE FOLLOWING METHODS: SOCK DRAINS, WELL POINT SYSTEM, SUMP PUMPS OR OTHER METHODS AS APPROVED BY THE ENGINEER. DEWATERING SYSTEMS SHALL BE UTILIZED IN ACCORDANCE WITH GOOD STANDARD PRACTICE AND MUST BE EFFICIENT ENOUGH TO LOWER THE WATER LEVEL IN THE TRENCH TO A LEVEL CONTINUOUS TO KEEP THE TRENCH BOTTOM AND SIDES FIRM AND DRY. IF THE MATERIAL ENCOUNTERED AT TRENCH GRADE IS SUITABLE FOR THE PASSAGE OF WATER WITHOUT DESTROYING THE SIDES OR UTILITY FOUNDATION OF THE TRENCH, SUMPS MAY BE PROVIDED AT INTERVALS AT THE SIDE OF THE MAIN TRENCH EXCAVATION, WITH PUMPS USED TO LOWER THE WATER LEVEL BY TAKING THEIR SUCTION FROM SAID SUMPS. DISCHARGE FROM DEWATERING SHALL BE DISPOSED OF IN SUCH A MANNER THAT IT WILL NOT INTERFERE WITH NORMAL DRAINAGE OF THE AREA IN WHICH THE WORK IS BEING PERFORMED. CREATE A PUBLIC NUISANCE OR FORM PONDING. ALL DISCHARGE SHALL BE IN ACCORDANCE WITH ANY SPVMD ISSUED PERMITS. THE OPERATIONS SHALL CAUSE INJURY TO ANY PORTION OF THE WORK OR GRASS, ETC. OR PROGRESS OR TO THE SURFACE OF STREETS OR TO PRIVATE PROPERTY. THE ENGINEER OF RECORD AND NECESSARY REGULATORY AGENCIES, PRIOR TO CONSTRUCTION, SHALL APPROVE THE PROPOSED DEWATERING METHOD(S) AND SCHEDULE. ADDITIONALLY, WHERE PRIVATE PROPERTY WILL BE INVOLVED, THE CONTRACTOR SHALL OBTAIN ADVANCE PERMISSION FROM THE PROPERTY OWNER.

CONFLICTS

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME ACQUAINTED WITH EXISTING CONDITIONS AND TO LOCATE STRUCTURES AND STORM PIPES ALONG THE PROPOSED STORM PIPE ALIGNMENT IN ORDER TO AVOID CONFLICTS. WHERE ACTUAL CONFLICTS ARE UNAVOIDABLE, WORK SHALL BE COORDINATED WITH THE FACILITY OWNER AND PERFORMED SO AS TO CAUSE AS LITTLE INTERFERENCE AS POSSIBLE WITH THE SERVICE RENDERED BY THE FACILITY. DISTURBED OR AFFECTED UTILITIES SHALL BE NOTIFIED PRIOR TO EXCAVATION IN THEIR VICINITY. CONTRACTOR TO POTHOLE ALL CONFLICTS OF EXISTING UTILITIES AND PROPOSED IMPROVEMENTS AT LEAST 10 DAYS PRIOR TO CONSTRUCTION TO CONFIRM CONFLICT RESOLUTION SHOWN ON THE PLANS.

SOD

- THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE PLANT BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETAL TYPE AND FREE FROM WEEDS, FUNGUS, INSECTS AND DISEASE OF ANY KIND. ALL SODDED AREAS SHALL BE GRASSED AS SPECIFIED ON PLANS AND GUARANTEED FOR NINETY DAYS FROM DATE OF REPLACEMENT. SURVIVAL OF ALL RELOCATED TREES SHALL BE GUARANTEED FOR 1 YEAR AFTER TRANSPLANTING.
- SODDING SHALL CONSIST OF SITE PREPARATION, FURNISHING AND PLACING SOD, STAPLES AND FERTILIZER AND IRRIGATING AT THE RATES AND MANNER DESCRIBED IN THIS SPECIFICATION FOR THE DESIGNATED AREAS.
- UNLESS NOTED OTHERWISE ON LANDSCAPE PLANS, SOD SHALL BE ARGENTINE BAHIA GRASS AND SHALL BE 12-INCH BY 12-INCH SQUARES OR OTHER COMMERCIALY AVAILABLE RECTANGLES. THE SOD SHALL BE SUFFICIENTLY THICK (MINIMUM THICKNESS OF 2 INCHES) TO PROVIDE A DENSE STAND OF LIVE GRASS. THE SOD SHALL HAVE BEEN GROWN ON MINERAL SOIL. SOD SHALL BE LIVE, FRESH, AND UNINJURED AT THE TIME OF PLANTING AND SHALL BE PROTECTED FROM DRYING OUT BY SHADING AND WATERING FROM THE TIME IT IS DUG UNTIL PLANTING.
- FERTILIZER SHALL BE EITHER IN THE LIQUID OR DRY FORM. FERTILIZER SHALL BE UNIFORM IN COMPOSITION, FREE-FLOWING AND SUITABLE FOR APPLICATION WITH STANDARD EQUIPMENT. THE FERTILIZER SHALL CONFORM TO THE FLORIDA FERTILIZER LAWS IN EFFECT ON THE DATE OF IT BEING PLACED AND SHALL BE DELIVERED IN BAGS, BOTTLES, DRUMS, OR OTHER CONVENIENT CONTAINERS. EACH FULLY LABELED AND BEARING THE NAME, TRADEMARK, ANALYSIS, AND WARRANTY OF THE PRODUCT. FERTILIZER SHALL HAVE AN AVAILABLE PLANT FOOD ANALYSIS OF 16-0-10 OR EQUIVALENT PLANT FOOD VALUE AND SHALL BE MIXED WITH THE TOP 3/4 TO 1 INCHES OF SOIL. FERTILIZER SHALL BE APPLIED AT THE RATE OF 1 POUND PER 1,000 SQ. FT. NOT TO EXCEED 2-1/2 LBS. PER YEAR. ALL FERTILIZERS MUST BE AT LEAST 50% SLOW RELEASE NITROGEN AND CONTAIN NO PHOSPHORUS UNLESS THE SITE HAS BEEN TESTED AND VERIFIED AS PHOSPHORUS DEFICIENT BY THE UF-IFAS EXTENSION OFFICE. ALL FERTILIZER APPLICATION SHALL BE IN ACCORDANCE WITH MARTIN COUNTY ORDINANCES.
- STAPLES FOR SOD PLACED ON SIDE SLOPES 3:1 & STEEPER SHALL BE BLACK IRON WIRE NOT SMALLER THAN 14 GAUGE, AND BENT FROM A LENGTH OF WIRE AT LEAST 25 INCHES LONG INTO A V WITH A 1 INCH WIDTH AT THE CROWN. COST OF STAPLES SHALL BE INCIDENTAL TO THE SOD UNIT PRICE.
- WATER USED FOR IRRIGATION MAY BE OBTAINED FROM ANY APPROVED SOURCE. IT SHALL BE FREE OF EXCESS AND HARMFUL CHEMICALS, ACIDS, ALKALIES, OR ANY SUBSTANCE, WHICH IS HARMFUL TO PLANT GROWTH.
- WHERE SODDING WILL BE DONE, ALL LOOSE ROCK, WOODY MATERIAL, AND OTHER OBSTRUCTIONS THAT WILL INTERFERE WITH SODDING SHALL BE REMOVED AND THE AREA SHALL BE REASONABLY SMOOTH AND UNIFORM. LIME AND FERTILIZER WILL BE APPLIED IN THE SAME QUANTITY AND MANNER AS SPECIFIED BY THE MANUFACTURER.
- THE SOD STRIPS SHALL BE LAID IN A STAGGERED PATTERN WITH SNUG EVEN JOINTS. ALL JOINTS SHALL BE BUTTED TIGHT TO PREVENT VOIDS. IMMEDIATELY FOLLOWING SOD PLACEMENT, IT SHALL BE ROLLED OR TAMPED TO INSURE SOLID CONTACT OF ROOT MAT TO SOIL SURFACE. THE SOD SHALL BE SECURELY ANCHORED TO THE SOIL BY PINNING WITH

STAPLES OR WOODEN PEGS WHEN PLACED ON SLOPES 3:1 OR STEEPER. COST OF STAPLES AND PEGS SHALL BE INCIDENTAL TO THE SOD UNIT PRICE. PIN OR PEG EACH SEPARATE PIECE OF SOD PLACED OR EVERY 3 FEET ALONG EACH CONTINUOUS STRIP OF SOD.

SOIL EROSION PLAN

- NO POLLUTION OR EROSION CAUSED BY THIS PROJECT WILL BE ALLOWED IN THE STORMWATER DRAINAGE SYSTEM. THE CONTRACTOR SHALL INSTALL ANY DEVICES NECESSARY TO PREVENT POLLUTION OR EROSION. THE COST OF POLLUTION AND EROSION CONTROL SHALL BE INCIDENTAL TO THE COST OF THE CONSTRUCTION.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC SOIL EROSION CONTROL PLAN. IN GENERAL, THE SOIL EROSION CONTROL PLAN SHALL REQUIRE THAT ALL ON-SITE SOILS WILL REMAIN ON-SITE AND WILL NOT ERODE INTO THE ADJACENT ROADSIDE ADJACENT PROPERTIES OR RETENTION DITCHES. ALL EXISTING SWALES SHALL REMAIN SODDED DURING CONSTRUCTION. THE CONTRACTOR SHALL SCARIFY ONLY AS NECESSARY TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL SCARIFY AREAS TO PLACE VARIOUS PIPE WORK. AFTER PLACEMENT OF THE PIPE, THESE TRENCHES SHALL BE BACKFILLED TO 18% MODIFIED PROCTOR AASHTO T-180. PRIOR TO DISCHARGE FROM THE SITE, SILTATION BARRIERS SHALL BE UTILIZED AS PER THE MOST RECENT FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL. INSPECTOR'S MANUAL. THE DRAINAGE WHICH OUTFALLS TO THE RETENTION AREAS SHALL BE STABILIZED AND SODDED IMMEDIATELY UPON COMPLETION OF CONSTRUCTION. ANY DEWATERING OR PUMPING OF WATER INTO THE ROADSIDE SWALES OR RETENTION SWALES SHALL BE STAKED WITH SILTATION FENCES AS PER THE MOST RECENT FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL TO AVOID FILLING THESE AREAS. UPON COMPLETION OF THE SITE WORK, ALL AREAS SHALL BE SODDED TO AVOID EROSION. CONTRACTOR IS REQUIRED TO COMPLY WITH ALL STATE WATER QUALITY CRITERIA. SPECIFICALLY, NO OFF-SITE DISCHARGES WILL BE ALLOWED WHICH EXCEED THE STATE TURBIDITY CRITERIA.

WATER QUALITY NOTES

- THE CONTRACTOR MUST MAINTAIN A COPY OF THE LATEST LOCAL WATER MANAGEMENT DISTRICT SURFACE WATER PERMIT, COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY DISTRICT REPRESENTATIVES. THE CONTRACTOR SHALL REVIEW THE COMPLETE PERMIT PRIOR TO COMMENCEMENT OF THE ACTIVITY AUTHORIZED BY THE PERMIT.
- ALL ACTIVITIES SHALL BE IMPLEMENTED AS SET FORTH IN THE PLANS, SPECIFICATIONS AND PERFORMANCE CRITERIA AS APPROVED BY LOCAL SURFACE WATER PERMIT. ANY DEVIATION FROM THE PERMITTED ACTIVITY AND THE CONDITIONS FOR THE PERMIT SHALL BE CONSIDERED A VIOLATION OF THE PERMIT. PRIOR TO ANY WORK COVERED BY A PERMIT FROM SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), A NOTICE OF CONSTRUCTION COMMENCEMENT (FORM 0980) MUST BE SUBMITTED TO SFWMD BY THE PERMITTEE OR AUTHORIZED AGENT.
- THE LOCAL WATER MANAGEMENT DISTRICT AUTHORIZED STAFF, UPON PROPER IDENTIFICATION, MUST BE GRANTED PERMISSION TO ENTER, INSPECT AND OBSERVE THE SITE TO INSURE CONFORMITY WITH THE PLANS AND SPECIFICATIONS APPROVED BY THE PERMIT.
- PRIOR TO AND DURING CONSTRUCTION, THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES (BEST MANAGEMENT PRACTICES) REQUIRED TO RETAIN SEDIMENT ON-SITE AND TO PREVENT VIOLATIONS OF STATE WATER QUALITY STANDARDS. BEST PRACTICES MUST BE IN ACCORDANCE WITH THE GUIDELINES AND SPECIFICATIONS IN CHAPTER 6 OF THE FLORIDA LAND DEVELOPMENT MANUAL: A GUIDE TO SOUND LAND AND WATER MANAGEMENT (FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATIONS 1988). WHICH ARE HEREBY INCORPORATED BY REFERENCE, UNLESS A PROJECT'S SPECIFIC EROSION AND SEDIMENT CONTROL PLAN IS APPROVED AS PART OF THE SPVMD PERMIT, IN WHICH CASE THE PRACTICES MUST BE IN ACCORDANCE WITH THE PLAN. IF SITE'S SPECIFIC CONDITIONS REQUIRE ADDITIONAL MEASURES DURING ANY PHASE OF CONSTRUCTION OR OPERATION TO PREVENT EROSION OR CONTROL SEDIMENT, BEYOND THOSE SPECIFIED IN THE EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL BEST MANAGEMENT PRACTICES AS NECESSARY. IN ACCORDANCE WITH THE SPECIFICATIONS IN CHAPTER 6 OF THE FLORIDA LAND DEVELOPMENT MANUAL: A GUIDE TO SOUND LAND AND WATER MANAGEMENT (FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION 1988), THE CONTRACTOR SHALL CORRECT ANY EROSION OR SHOALING THAT CAUSES ADVERSE IMPACTS TO THE WATER RESOURCES AT NO ADDITIONAL COST TO OWNER.
- WITHIN 30 DAYS AFTER COMPLETION OF THE STORMWATER SYSTEM, THE CONTRACTOR MUST ASSIST IN SUBMITTING TO THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT ENVIRONMENTAL ENGINEER, THE FOLLOWING INFORMATION IN WRITING TO A REGISTERED PROFESSIONAL, SIGNED AND SEALED BY AN APPROPRIATE PROFESSIONAL REGISTERED IN THE STATE OF FLORIDA AND TWO SETS OF AS-BUILT DRAWINGS WHEN: A) REQUIRED BY A SPECIAL CONDITION OF THIS PERMIT; B) THE UTILITY LOCATIONS AND THE SURFACE WATER MANAGEMENT SYSTEM DO NOT SUBSTANTIALLY DIFFERS FROM PERMITTED PLANS. THIS SUBMITTAL WILL SERVE TO NOTIFY THE DISTRICT STAFF THAT THE SYSTEM IS READY FOR INSPECTION AND APPROVAL.
- STABILIZATION MEASURES SHALL BE INITIATED FOR EROSION AND SEDIMENT CONTROL ON DISTURBED AREAS AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN SEVEN (7) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
- THE STORMWATER MANAGEMENT SYSTEM MUST BE COMPLETE IN ACCORDANCE WITH THE PERMITTED PLANS AND PERMIT CONDITIONS PRIOR TO THE INITIATION OF THE PERMITTED USE OF SITE INFRASTRUCTURE. THE SYSTEM MUST BE COMPLETED IN ACCORDANCE WITH THE PERMITTED PLANS AND PERMIT CONDITIONS PRIOR TO TRANSFERRING RESPONSIBILITY FOR OPERATION AND MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM TO A RESPONSIBLE ENTITY.
- IF DEWATERING IS TO OCCUR DURING ANY PHASE OF CONSTRUCTION OR THEREAFTER AND THE SURFACE WATER PUMP(S), WELL(S) OR FACILITIES ARE CAPABLE OF WITHDRAWING ONE MILLION GALLONS OF WATER PER DAY OR MORE OR AN AVERAGE OF 1800,000 GALLONS PER DAY OR MORE OVER A YEAR AND ANY DISCHARGE IS TO BE OFF-SITE, THE CONTRACTOR MUST APPLY FOR AND OBTAIN A CONSUMPTIVE USE PERMIT (400-2) FROM THE SFWMD. CONTRACTOR SHALL NOTIFY ENGINEER IF ADDITIONAL INFORMATION OR APPLICATION MATERIALS ARE NEEDED.
- WATER QUALITY MONITORING SHALL BE PERFORMED DAILY. SAMPLING SHALL BE PERFORMED IN THE MIDDLE OF ADJACENT CHANNELS MEASURING FOR TURBIDITY, 100 FEET UPSTREAM AND 100 FEET DOWNSTREAM OF DISCHARGES. WHEN TURBIDITY EXCEEDS 20 NTUS ABOVE BACKGROUND LEVELS AT A SAMPLE POINT 100 FEET UPSTREAM OF DISCHARGES AND / OR 10 NTUS ABOVE BACKGROUND LEVELS AT A SAMPLE POINT 100 FEET DOWNSTREAM OF DISCHARGES, WORK MUST CEASE AND REMEDIAL MEASURES MUST BE PERFORMED TO RETURN CONDITIONS TO ACCEPTABLE TURBIDITY LEVELS. CONTRACTOR MUST RECEIVE ENGINEER'S APPROVAL PRIOR TO RESTARTING WORK. SAMPLE POINT LOCATIONS ARE IDENTIFIED IN THE SPVMD PERMITS.
- THE CONTRACTOR SHALL PLACE TURBIDITY BARRIERS AT ALL OUTFALLS PRIOR TO CONSTRUCTION. ALL CUT / FILL WILL BE RELOCATED WITHIN THE EXISTING RIGHT-OF-WAY. THE CONTRACTOR SHALL MAINTAIN TURBIDITY CONTROL MEASURES PRIOR TO COMMENCEMENT OF CONSTRUCTION, MAINTAIN SOD CONTROLS IN WORKING ORDER THROUGHOUT THE CONSTRUCTION PERIOD, ASSURE THAT TURBID DISCHARGES FROM THE PROJECT TO PROTECTED WATERS AND WETLANDS DO NOT EXCEED LIMITS STATED IN NOTE 8 AND REMOVE SOD CONTROLS AFTER COMPLETION OF CONSTRUCTION.

EARTHWORK AND RELATED OPERATIONS

- THE CONTRACTOR SHALL PROVIDE A QUALITY CONTROL PLAN FOR MONITORING OF ALL EARTHWORK AND RELATED OPERATIONS. THE QUALITY CONTROL PLAN SHALL INCLUDE AS A MINIMUM, ALL TESTS THAT WILL BE PERFORMED INCLUDING THE PROPOSED TEST FREQUENCIES, ALL MATERIAL SOURCES, THE NAME AND BACKGROUND OF THE PERSON THAT THE CONTRACTOR'S QUALITY CONTROL PERSONNEL WILL BE PERFORMING THE QUALITY CONTROL TESTING.
- THE TESTING LABORATORY THAT IS RETAINED TO PERFORM THE CONTRACTOR'S QUALITY CONTROL TESTING MUST BE CERTIFIED BY A RECOGNIZED QUALIFYING AGENCY SUCH AS FDOT, CMEC OR AASHTO FOR THE TYPE OF WORK TO BE PERFORMED.
- THE QUALITY CONTROL PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL, PRIOR TO THE START OF ANY EARTHWORK OR RELATED OPERATION.
- UTILIZATION OF MATERIALS WITHIN ANY ROADWAY CROSS-SECTION SHALL BE IN ACCORDANCE WITH FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION) UNLESS OTHERWISE SHOWN ON THE PLANS.
- IF THE EXISTING FILL IS CLASSIFIED AS A-2-4 BASED ON AASHTO M-145 CRITERIA, THE MAXIMUM PERMISSIBLE MOISTURE CONTENT SHALL BE 2 PERCENT ABOVE THE OPTIMUM MOISTURE CONTENT.

COMPACTION

- WHERE THERE ARE EXISTING STRUCTURES ADJACENT TO THE SITE THAT MAY BE AFFECTED BY THE SELF-PROPELLED STEEL DRUM VIBRATORY EQUIPMENT, DENSIFICATION MUST BE PERFORMED USING EQUIPMENT THAT WILL SATISFY THE REQUIRED DENSIFICATION WITHOUT THE RISK OF DAMAGE TO THE EXISTING STRUCTURE(S).
- LOADERS AND HEAVY PLATE COMPACTORS ARE TWO TYPES OF EQUIPMENT THAT HAVE BEEN USED SUCCESSFULLY.
- DENSIFICATION PROCEDURES MUST COMPLY WITH THE CAPABILITY OF THE EQUIPMENT EMPLOYED.
- WHEN SELF-PROPELLED STEEL DRUM VIBRATORY EQUIPMENT CANNOT BE USED AS SPECIFIED, VIBRATORY PLATE COMPACTORS MAY BE USED. WHEN THIS CONDITION OCCURS, THE OVERALL DENSIFICATION PROCEDURE MUST BE REVISED TO COMPLY WITH THE EQUIPMENT EMPLOYED. IN GENERAL, SMALL PLATE COMPACTORS WILL BE EFFECTIVE TO A MAXIMUM DEPTH OF 6 TO 8 INCHES.

SOIL RECOMMENDATION AND REQUIREMENTS

PLEASE REFER TO ANDERSON ANDRE CONSULTING ENGINEERS, INC. REPORT AACE FILE NO. 20-194, DATED JULY 07, 2020

- STRIPPING AND GRUBBING:
DURING THE GRUBBING OPERATION, ROOTS WITH A DIAMETER GREATER THAN 1/2 INCH, OR SMALL ROOTS IN A DENSE STATE, SHOULD BE GRUBBED AND COMPLETELY REMOVED WITHIN AND TO A DISTANCE OF 5 FEET BEYOND ROADWAY LIMITS. PROOF-ROLLING THE CLEARED SURFACE IS RECOMMENDED TO LOCATE ANY UNIFORM SOFT AREAS OR UNSUITABLE SOIL OR LOOSE TO LOOSE FINE SAND SOILS WITHIN THE TOP 3/4 TO 1 FEET, AND TO PREPARE THE EXISTING SURFACE FOR THE ADDITION OF THE FILL SOILS (AS REQUIRED). ONE COVERAGE CONSISTS OF PARALLEL PASSES OF THE VIBRATORY ROLLER TRAVELING AT "WALKING SPEED". EACH PASS SHOULD OVERLAP THE PRECEDING PASS BY 50% TO INSURE COMPLETE COVERAGE. SUBSEQUENT COVERAGES SHOULD BE CONDUCTED IN A DIRECTION PERPENDICULAR TO THE PRECEDING COVERAGE. IN AREAS THAT CONTINUE TO "YIELD" REMOVE ALL DELETERIOUS MATERIAL AND REPLACE WITH A

CLEAN, COMPACTED SAND BACKFILL. THE PROOF ROLLING SHOULD PRODUCE A DENSITY EQUIVALENT TO 98% OF THE MODIFIED PROCTOR (AASHTO T-180) MAXIMUM DRY DENSITY VALUE FOR A DEPTH OF 3 FEET IN THE ROADWAY AREA. ADDITIONAL PASSES MAY BE REQUIRED IF THESE MINIMUM DENSITY REQUIREMENTS ARE NOT ACHIEVED.

- FILL REPLACEMENTS:
 - WHERE FILL IS TO BE PLACED ON NATURAL GROUND, THE SURFACE MUST FIRST BE PREPARED AS OUTLINED ABOVE. THE FILL AT GRADE SHOULD EXTEND A MINIMUM OF FIVE FEET (5') BEYOND THE STRUCTURE OUTLINE.
 - FILL SHOULD BE A UNIFORM FREE DRAINING GRANULAR SOIL (CLEAN SAND), INORGANIC (CLASSIFIED AS SPGW) CONTAINING NOT MORE THAN 5% (BY WEIGHT) FIBROUS ORGANIC MATERIALS AND BE PLACED IN LAYERS NOT TO EXCEED 12 INCHES LOOSE MEASURE AND COMPACTED AS OUTLINED ABOVE. SUFFICIENT COMPACTIVE EFFORT SHOULD BE APPLIED TO OBTAIN A MINIMUM OF 98% OF THE MODIFIED PROCTOR (AASHTO T-180) MAXIMUM VALUE.
 - FILL MATERIAL HAVING SILT/CLAY-SIZE FINES IN EXCESS OF 10% SHOULD NOT BE USED, INCLUDING CYCLONE SAND MATERIAL.
 - REFER TO LANDSCAPING PLANS FOR GUIDANCE ON ANY FILL MATERIAL TO BE LOCATED IN ANY PLANTING AREAS.
- EXCAVATION AND BACKFILLING:
 - WHERE EXCAVATION AND BACKFILLING ARE REQUIRED, THE SOILS SHOULD BE REMOVED TO THE SPECIFIED DEPTH. SUFFICIENT COMPACTIVE EFFORT MUST THEN BE APPLIED TO THE EXCAVATED SURFACE TO OBTAIN A MINIMUM OF 98% OF THE MODIFIED PROCTOR (AASHTO T-180) MAXIMUM VALUE. BACKFILL SHALL BE UNIFORM FREE DRAINING GRANULAR SOIL (CLEAN SAND) AND BE PLACED IN LAYERS NOT TO EXCEED 12 INCHES LOOSE MEASURE. SUFFICIENT COMPACTIVE EFFORT SHOULD BE APPLIED TO EACH LAYER TO OBTAIN A MINIMUM OF 98% OF THE MODIFIED PROCTOR (AASHTO T-180) MAXIMUM VALUE. THE EXCAVATED SURFACE AND EACH LAYER OF BACKFILL SHOULD BE COMPACTED WITH A SELF-PROPELLED STEEL DRUM VIBRATORY ROLLER HAVING A MINIMUM TOTAL APPLIED FORCE OF 180 TONS.
- FOOTING EXCAVATION:
 - SEE SOILS LABORATORY RECOMMENDATIONS.
- GROUNDWATER:
 - HEAVY RAINFALL AND / OR A HIGH WATER TABLE MAY OCCUR BEFORE THE EARTHWORK COMMENCES, OR DURING THE EARTHWORK OPERATION. WHEN THESE CONDITIONS OCCUR AND THE SITE PREPARATION CANNOT BE ACHIEVED AS SPECIFIED, AN EXCAVATION OF THE EXISTING CONDITIONS SHOULD BE CONDUCTED AND THE SPECIFICATIONS REVISED ACCORDINGLY.
 - PAYING AREAS SUITABLE FILL MATERIAL AND THE COMPACTION OF FILL SOILS:
 - ALL FILL MATERIAL SHOULD BE FREE OF ORGANIC MATERIALS, SUCH AS ROOTS AND VEGETATION AS A GENERAL GUIDE TO AID THE CONTRACTOR, USE FILLINGS WITH 3 TO 12 PERCENT BY DRY WEIGHT OF MATERIAL, PASSING THE U.S. STANDARDS NO. 200 SIEVE SIZE, WITH PROPER MOISTURE CONTROL. THESE SOILS SHOULD DENSITY USING VIBRATORY COMPACTION METHODS. SOILS WITH MORE THAN 12% PASSING THE NO. 200 SIEVE WILL BE MORE DIFFICULT TO COMPACT.
 - ALL IMPORTED FILL SHALL HAVE RADIUM 226 CONTENT LESS THAN 1.0 PCI PER GRAM.

EXCAVATION FOR STRUCTURES AND PIPES

- EARTHWORK AND RELATED OPERATIONS PERFORMED ON STRUCTURES AND PIPES SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 125 OF THE FLORIDA STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION (LATEST EDITION) UNLESS OTHERWISE SHOWN ON THE PLANS.
- REMOVAL OF UNSUITABLE, ORGANIC OR PLASTIC MATERIAL SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE AND SHALL BE INCIDENTAL TO OTHER WORK.
- UTILIZATION OF MATERIALS WITHIN THE WORK LIMITS SHALL BE AS DIRECTED BY THE GEOTECHNICAL ENGINEER UNLESS OTHERWISE SHOWN ON THE PLANS.

PIPE AND STRUCTURE BACKFILL

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE IF EXCAVATED SOILS MEET THE REQUIREMENTS OF THE PROJECT PLANS AND SPECIFICATIONS RELATIVE TO MATERIAL CLASSIFICATION. PIPE AND STRUCTURE BACKFILL MATERIAL SHALL BE LIMITED TO MATERIAL CLASSIFIED AS A-1, A-3 AND A-2-4 IN ACCORDANCE WITH AASHTO M-145 AND SHALL BE COMPACTED IN ACCORDANCE WITH F.D.O.T. SECTION 125 REQUIREMENTS.
- IF THE BACKFILL MATERIAL IS CLASSIFIED AS A-2-4 BASED ON AASHTO M-145 CRITERIA, THE MAXIMUM PERMISSIBLE MOISTURE CONTENT SHALL BE 2 PERCENT ABOVE THE OPTIMUM MOISTURE CONTENT.

CLEAN-UP

- THE CONTRACTOR SHALL MAINTAIN THE JOB SITE IN A NEAT CONDITION AT ALL TIMES AND SHALL RESTORE / REPAIR ALL DRIVEWAYS, SIDEWALKS, UTILITIES, LANDSCAPING, IRRIGATION SYSTEMS, ETC., AFFECTED BY CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIALS, DEBRIS, EQUIPMENT, ETC., FROM THE JOBSITE IMMEDIATELY AFTER COMPLETION OF CONSTRUCTION OPERATIONS.
- FOR FURTHER SITE MAINTENANCE REQUIREMENTS THE CONTRACTOR IS REFERRED TO THE "AGREEMENT BETWEEN OWNER AND CONTRACTOR".
- UNLESS OTHERWISE SPECIFIED OR NOTED, ALL DISTURBED AREAS TO BE RESTORED BY CONTRACTOR TO PRE-CONSTRUCTION CONDITION OR BETTER PRIOR TO ACCEPTANCE BY THE OWNER OR LOCAL APPROVING AUTHORITY.

FOUNDATION PREPARATION

- CONSTRUCTION METHODS: AREAS ON WHICH FILTER FABRIC AND ARTICULATED CONCRETE BLOCK MATRESSES ARE TO BE PLACED SHALL BE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS. ALL EXCAVATIONS SHALL BE REINFORCED WITH ARTICULATED CONCRETE BLOCK MATS SHALL BE FREE OF VOIDS, PITS, OR DEPRESSIONS AND SHALL BE PROOF-ROLLED TO A MINIMUM OF 120% OF THE ASTM D-698 DENSITY. VOIDS, PITS OR DEPRESSIONS SHALL BE BROUGHT TO GRADE BY BACKFILL IN ACCORDANCE WITH THE APPLICABLE SPECIFICATION. ALL OBSTRUCTIONS TO THE WORK, SUCH AS ROOTS AND PROJECTING STONES LARGER THAN 1 INCH REMAINING ON THE SURFACE, SHALL BE REMOVED AND ALL OF THE SOFT OR LOW DENSITY POCKETS OF MATERIAL REMOVED MUST BE FILLED WITH SELECTED MATERIAL AND COMPACTED TO A MINIMUM D-100% OF THE AREA D-100% OF THE AREA. SPECIAL CONSIDERATION FOR BURIED OBSTRUCTIONS (I.E. STUMPS, DEBRIS, ETC.) WILL BE AS SHOWN ON THE DRAWINGS.
- EXCAVATION AND PREPARATION FOR ANCHOR TRENCHES, SIDE TRENCHES, AND TOE TRENCHES OR APRONS SHALL BE DONE IN ACCORDANCE TO THE LINES, GRADES AND DIMENSIONS SHOWN ON THE DRAWINGS.
- INSPECTION AND APPROVAL: IMMEDIATELY PRIOR TO PLACING THE FILTER FABRIC AND ARTICULATED CONCRETE BLOCK MATRESSES, THE PREPARED AREA SHALL BE INSPECTED BY THE OWNER'S REPRESENTATIVE AND APPROVAL OBTAINED BEFORE ANY FABRIC OR MATRESSES ARE PLACED THEREON.

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PAVEMENT MARKING AND SIGNAGE

- PAVEMENT MARKINGS: THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS & LABOR REQUIRED TO COMPLETE THE PROJECT WORK IN THIS SECTION. MATERIALS AND CONSTRUCTION METHODS FOR APPLYING PAINTED TRAFFIC STRIPES AND MARKINGS, COMPLETE WITH REFLECTIVE GLASS SPHERES, SHALL CONFORM TO THE REQUIREMENTS OF SECTION 710 AND 711, FDOT SPECIFICATIONS. TRAFFIC PAINT SHALL BE APPLIED IN ALL LOCATIONS SHOWN ON THE PLANS. IN THE EVENT THAT BRICK PAVERS ARE UTILIZED IN AN AREA PLANNED FOR STRIPING, COLORED BRICKS SHALL BE USED IN LIEU OF PAINT.
- SIGNAGE: THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR NEEDED, INCLUDING ALL SUPPORTING ELEMENTS, TO INSTALL SIGNS AT THE LOCATIONS SHOWN ON THE PLANS. MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO SECTION 700, FDOT SPECIFICATIONS. STOP SIGNS ARE TO BE HIGH INTENSITY REFERENCE PER FDOT STANDARDS, LOCAL COUNTY/CITY STANDARD AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. IF THE PROJECT IS WITHIN A COMMUNITY DEVELOPMENT DISTRICT (OR THE LIKE) WITH SEPARATE SIGNAGE REQUIREMENTS, SUCH AS ARCHITECTURAL POSTS OR SIGN BODIES, ETC., IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO BE FAMILIAR WITH THESE REQUIREMENTS AND PROVIDE SIGNS MEETING THESE REQUIREMENTS. AT NO TIME SHALL ANY SIGNS NOT MEET THE SAFETY REQUIREMENTS SET FORTH BY FDOT.
- TURN LANES SHALL BE STRIPED PER FDOT INDEX 711-001 IN THEIR ENTIRETY TO INCLUDE EDGE STRIPING, CROSS WALKS, AND TURN ARROW PLACEMENT. ALL FINAL ROADWAY STRIPING SHALL BE THERMOPLASTIC INSTALLED PER F