

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**DRIVEWAY CONNECTION PERMIT  
FOR ALL CATEGORIES**

**PART 1: PERMIT INFORMATION**

APPLICATION NUMBER: 2022-A-590-00026

Permit Category: J - Government Entity Access Classification: \_\_\_\_\_

Project: Driveway for Crane Creek M-1 Canal flow restoration

Permittee: Richard Koller

Section/Mile Post: 70050 / 8.310 State Road: 500

Section/Mile Post: / State Road: \_\_\_\_\_

**PART 2: PERMITTEE INFORMATION**

Permittee Name: Richard Koller

Permittee Mailing Address: 3910 S. Washington Ave, Suite 210

City, State, Zip: Titusville, Florida 32780

Telephone: (321) 269-2950 ext. \_\_\_\_\_

Engineer/Consultant/or Project Manager: \_\_\_\_\_

Engineer responsible for construction inspection: \_\_\_\_\_

NAME P.E. #

Mailing Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_ FAX, Mobile Phone, etc. Fax: / Mobile: \_\_\_\_\_

**PART 3: PERMIT APPROVAL**

The above application has been reviewed and is hereby approved subject to all Provisions as attached.

Permit Number: 2022-A-590-00026  
Department of Transportation

Signature: William Rickard Title: MAINTENANCE MANAGER/PERMITS

Department Representative's Printed Name William Rickard

Temporary Permit  YES  NO (If temporary, this permit is only valid for 6 months)

Special provisions attached  YES  NO

Date of Issuance: 8/2/2022

If this is a normal (non-temporary) permit it authorizes construction for one year from the date of issuance. This can only be extended by the Department as specified in 14-96.007(6).

**See following pages for General and Special Provisions**

Approved  
2022-A-590-00026  
William Rickard  
8/2/2022

**PART 4: GENERAL PROVISIONS**

1. Notify the Department of Transportation Maintenance Office at least 48 hours in advance of starting proposed work.  
Phone: 3216346086 , Attention: William Rickard
2. A copy of the approved permit must be displayed in a prominent location in the immediate vicinity of the connection construction.
3. Comply with Rule 14-96.008(1), F.A.C., Disruption of Traffic.
4. Comply with Rule 14-96.008(7), F.A.C., on Utility Notification Requirements.
5. All work performed in the Department's right of way shall be done in accordance with the most current Department standards, specifications and the permit provisions.
6. The permittee shall not commence use of the connection prior to a final inspection and acceptance by the Department.
7. Comply with Rule 14-96.003(3)(a), F.A.C., Cost of Construction.
8. If a Significant Change of the permittee's land use, as defined in Section 335.182, Florida Statutes, occurs, the Permittee must contact the Department.
9. Medians may be added and median openings may be changed by the Department as part of a Construction Project or Safety Project. The provision for a median might change the operation of the connection to be for right turns only.
10. All conditions in NOTICE OF INTENT WILL APPLY unless specifically changed by the Department.
11. All approved connection(s) and turning movements are subject to the Department's continuing authority to modify such connection(s) or turning movements in order to protect safety and traffic operations on the state highway or State Highway System.
12. **Transportation Control Features and Devices in the State Right of Way.** Transportation control features and devices in the Department's right of way, including, but not limited to, traffic signals, medians, median openings, or any other transportation control features or devices in the state right of way, are operational and safety characteristics of the State Highway and are not means of access. The Department may install, remove or modify any present or future transportation control feature or device in the state right of way to make changes to promote safety in the right of way or efficient traffic operations on the highway.
13. The Permittee for him/herself, his/her heirs, his/her assigns and successors in interest, binds and is bound and obligated to save and hold the State of Florida, and the Department, its agents and employees harmless from any and all damages, claims, expense, or injuries arising out of any act, neglect, or omission by the applicant, his/her heirs, assigns and successors in interest that may occur by reason of this facility design, construction, maintenance, or continuing existence of the connection facility, except that the applicant shall not be liable under this provision for damages arising from the sole negligence of the Department.
14. The Permittee shall be responsible for determining and notify all other users of the right of way.
15. Starting work on the State Right of Way means that I am accepting all conditions on the Permit.

Approved  
2022-A-590-00026  
William Rickard  
8/2/2022

**PART 5: SPECIAL PROVISIONS**

NON-CONFORMING CONNECTIONS:     YES     NO

If this is a non-conforming connection permit, as defined in Rule Chapters 14-96 and 14-97, then the following shall be a part of this permit.

1. The non-conforming connection(s) described in this permit is (are) not permitted for traffic volumes exceeding the Permit Category on page 1 of this permit, or as specified in "Other Special Provisions" below.
2. All non-conforming connections will be subject to closure or relocation when reasonable access becomes available in the future.

OTHER SPECIAL PROVISIONS:

**PART 6: APPEAL PROCEDURES**

You may petition for an administrative hearing pursuant to sections 120.569 and 120.57, Florida Statutes. If you dispute the facts stated in the foregoing Notice of Intended Department Action (hereinafter Notice), you may petition for a formal administrative hearing pursuant to section 120.57 (1), Florida Statutes. If you agree with the facts stated in the Notice, you may petition for an informal administrative hearing pursuant to section 120.57(2), Florida Statutes. You must file the petition with:

Clerk of Agency Proceedings  
Department of Transportation  
Haydon Burns Building  
605 Suwannee Street, M.S. 58  
Tallahassee, Florida 32399-0458

The petition for an administrative hearing must conform to the requirements of Rule 28-106.201(2) or Rule 28-106.301(2), Florida Administrative Code, and be filed with the Clerk of Agency Proceedings by 5:00 p.m. no later than 21 days after you received the Notice. The petition must include a copy of the Notice, be legible, on 8 1/2 by 11 inch white paper, and contain:

1. Your name, address, telephone number, any Department of Transportation identifying number on the Notice, if known, the name and identification number of each agency affected, if known, and the name, address, and telephone number of your representative, if any, which shall be the address for service purposes during the course of the proceeding.
2. An explanation of how your substantial interests will be affected by the action described in the Notice;
3. A statement of when and how you received the Notice;
4. A statement of all disputed issues of material fact. If there are none, you must so indicate;
5. A concise statement of the ultimate facts alleged, including the specific facts you contend warrant reversal or modification of the agency's proposed action, as well as an explanation of how the alleged facts relate to the specific rules and statutes you contend require reversal or modification of the agency's proposed action;
6. A statement of the relief sought, stating precisely the desired action you wish the agency to take in respect to the agency's proposed action.

If there are disputed issues of material fact a formal hearing will be held, where you may present evidence and argument on all issues involved and conduct cross-examination. If there are no disputed issues of material fact an informal hearing will be held, where you may present evidence or a written statement for consideration by the Department.

Mediation, pursuant to section 120.573, Florida Statutes, may be available if agreed to by all parties, and on such terms as may be agreed upon by all parties. The right to an administrative hearing is not affected when mediation does not result in a settlement.

Your petition for an administrative hearing shall be dismissed if it is not in substantial compliance with the above requirements of Rule 28-106.201(2) or Rule 28-106.301(2), Florida Administrative Code. If you fail to timely file your petition in accordance with the above requirements, you will have waived your right to have the intended action reviewed pursuant to chapter 120, Florida Statutes, and the action set forth in the Notice shall be conclusive and final.

Approved  
10026  
William Rickard  
8/2/2022

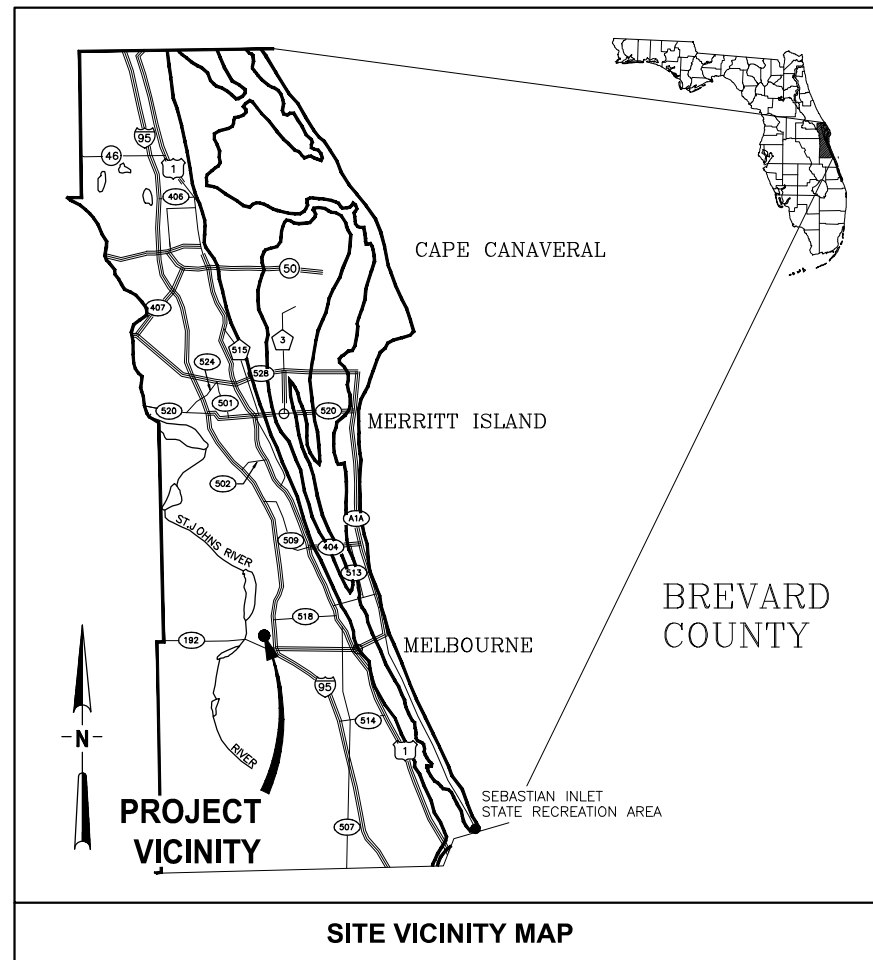
22x34

# CRANE CREEK

# M-1 CANAL FLOW RESTORATION

## VOLUME 2

PREPARED FOR:  
**ST. JOHNS RIVER WATER  
MANAGEMENT DISTRICT**



SITE VICINITY MAP

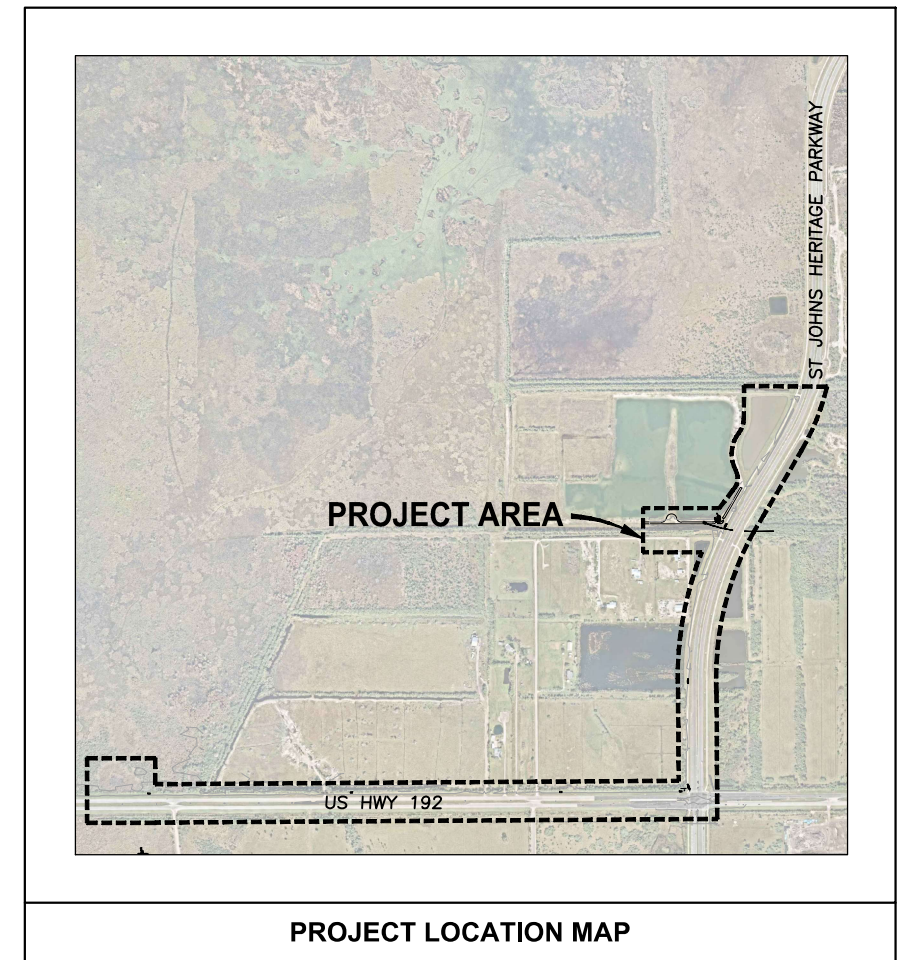


PREPARED BY:



CERTIFICATE OF AUTHORIZATION #1841  
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821

Always call 811 two full business days before you dig to  
have underground utilities located and marked.



PROJECT LOCATION MAP

**CONTRACT NO: 32116**

**PROJECT NO: 19750-066-01**

**BID DOCUMENTS**

BREVARD COUNTY RIGHT-OF-WAY REVIEW AND APPROVAL DOES NOT CONSTITUTE COUNTY APPROVAL OR REVIEW OF ANY PRIVATE PARTY DEED RESTRICTIONS, COVENANTS, PRIVATE EASEMENTS, OR OTHER PRIVATE AGREEMENTS. ANY CHANGES TO THE APPROVED MUST BE COORDINATED THROUGH THE PUBLIC WORKS ENGINEERING PROGRAM. THE APPLICANT ASSUMES THE RISK THAT THE RIGHT-OF-WAY PERMIT MAY REQUIRE ADDITIONAL COUNTY REVIEW INCLUDING ENGINEERING REVISIONS OR OTHER APPLICABLE COUNTY REVIEW PROCESSES SHOULD ANY ACTION TO ENFORCE ANY SUCH RESTRICTIONS REQUIRE REDESIGN OF THE PROJECT.

**JULY 2022**

2022-A-590-00026  
William Rickard  
8/2/2022

LAST SAVED: 7/13/2022 9:40 AMBY:JALLEN PLOTTED:7/25/2022 11:08 AMBY:JON W. ALLEN, JR.

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DWG NO	DESCRIPTION	EOR
GENERAL		
G1	COVER	A. GOODDEN
G2	DRAWING INDEX & ABBREVIATIONS	A. GOODDEN
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G4	LEGENDS AND SECTION DESIGNATIONS	A. GOODDEN
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G6	KEY MAP	A. GOODDEN
G7	BREVARD COUNTY PUBLIC WORKS ENGINEERINGS STD DEVELOPMENT NOTES	A. GOODDEN
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EC1-1	STORMWATER TREATMENT AREA EROSION CONTROL PLAN	A. GOODDEN
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DISCHARGE PIPELINE		
C6-1	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-2	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-3	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-4	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-5	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-6	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-7	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-8	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-9	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-10	DISCHARGE STORMWATER FORCEMAIN DETAILS	D. SHELDON
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C6-12	OUTFALL STRUCTURE DETAIL	A. GOODDEN
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EROSION CONTROL		
EC6-1	DISCHARGE SITE EROSION CONTROL PLAN	A. GOODDEN
EC6-2	DISCHARGE SITE EROSION CONTROL NOTES	A. GOODDEN
ELECTRICAL		
E1-1	ELECTRICAL LEGEND	H. DIETRICK
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E1-3	PUMP STATION ONE LINE DIAGRAM	H. DIETRICK
E1-4	PUMP STATION ELECTRICAL DETAILS	H. DIETRICK
E1-5	POWER CONTROL WIRING SCHEDULE	H. DIETRICK

Amy Liane Goodden, State of Florida, Professional Engineer License No. 60097.

This item has been digital signed and sealed by Amy Liane Goodden on the date indicated here.

Printed Copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Donald J. Sheldon, State of Florida, Professional Engineer License No. 90306.

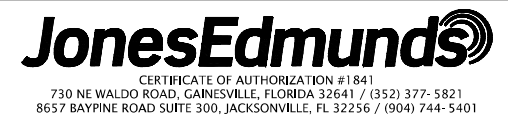
This item has been digital signed and sealed by Donald J. Sheldon on the date indicated here.

Printed Copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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 7/21/2022 9:21 AM JALLEN

BID DOCUMENTS

DESIGNED	A. GOODDEN			
DRAWN	J. ALLEN			
CHECKED	R. KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.



**CRANE CREEK**  
**M-1 CANAL FLOW RESTORATION**  
**VOLUME 2**

**DRAWING INDEX & ABBREVIATIONS**

Approved  
 2022-07-25  
 AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097  
 PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT.  
 INDEX NO: 19750-066-01-00021A  
 DWG NO: G2  
 PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

### GENERAL NOTES

### ABBREVIATIONS

- 1. TOPOGRAPHIC SURVEY INFORMATION FOR ALL AREAS EXCEPT THE STA SITE WAS PROVIDED BY SJRWMD REGISTERED PROFESSIONAL LAND SURVEYOR. THE EXISTING POND ON THE STORMWATER TREATMENT AREA IS SHOWN USING AS-BUILT DATA PROVIDED TO BREVARD COUNTY BY JR DAVIS. THE ST JOHNS HERITAGE PARKWAY PONDS, ROADWAY, AND SIDEWALKS ARE SHOWN USING AS-BUILT DATA PROVIDED TO BREVARD COUNTY BY DRMP.
- 2. THE HORIZONTAL DATUM IS BASED ON FLORIDA STATE PLANE EAST, NORTH AMERICAN DATUM 1983 (NAD83), 2011 ADJUSTMENT. VERTICAL INFORMATION SHOWN REFERS TO NATIONAL GEODETIC SURVEY (NGS) POINT NGS B712 2008 HAVING A RECORDED ELEVATION OF 16.36 FEET (NAVD 88).
- 3. INFORMATION SHOWN HEREIN REPRESENTS CONDITIONS AS THEY EXISTED ON THE SURVEY DATE OR AS RECORDED IN THE AS-BUILT DATA AND CAN ONLY BE CONSIDERED INDICATIVE OF CONDITIONS AT THAT TIME.
- 4. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION INCLUDING BUT NOT LIMITED TO SOD, LANDSCAPING, ETC. NEW SOD SHALL MATCH ADJACENT SOD OR IF NONE IS PRESENT IT SHALL BE A BAHIA/ BERMUDA MIX.
- 5. EXISTING DRAINAGE STRUCTURES WITHIN CONSTRUCTION LIMITS SHALL REMAIN, UNLESS OTHERWISE NOTED.
- 6. EXISTING PAVEMENTS DAMAGED DUE TO CONSTRUCTION ARE TO BE REPLACED IN-KIND AT THE SAME LOCATION, WIDTH, AND GEOMETRY UNLESS OTHERWISE SHOWN IN THE PLANS. CONTRACTOR SHALL RECONSTRUCT ROADWAY AND DRIVEWAY PAVEMENT TO EXISTING GRADES UNLESS OTHERWISE SPECIFIED. REPAIRS SHALL BE MADE IN ACCORDANCE WITH REQUIREMENTS OF THE ROW OWNER.
- 7. CONTRACTOR WILL REMOVE BURIED OUT OF SERVICE UTILITY LINES WITHIN THE LIMITS OF ALL EXCAVATION. THE COST OF THIS WORK WILL BE INCIDENTAL TO AND INCLUDED IN THE COST OF THE WORK BEING PERFORMED WHEN THE LINES ARE ENCOUNTERED.
- 8. ALL EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- 9. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.
- 10. THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS THROUGH SUNSHINE ONE CALL OF FLORIDA, INC. (1-800-432-4770) TWO BUSINESS DAYS IN ADVANCE OF BEGINNING CONSTRUCTION ON THE JOB SITE.
- 11. CONTRACTOR SHALL NOTIFY SJRWMD IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR OMISSIONS IN CONSTRUCTION PLANS THAT WOULD AFFECT THE CONSTRUCTION OF THE PROJECT.
- 12. DISPOSAL OF ALL EXCESS EARTHWORK MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR. DISPOSAL SITES SHALL BE AS DIRECTED BY SJRWMD, AS THE OWNER.
- 13. CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF THE FLORIDA STATE TRENCH SAFETY ACT.
- 14. CONTRACTOR SHALL OBTAIN A TEMPORARY DEWATERING PERMIT PRIOR TO ANY DEWATERING ACTIVITIES. CONTRACTOR SHALL SUBMIT DEWATERING PLAN TO SJRWMD FOR APPROVAL. DURING DEWATERING OPERATIONS, CONTRACTOR SHALL NOT DISCHARGE DIRECTLY TO EXISTING WETLAND SYSTEMS, CANALS OR DITCHES.
- 15. CONTRACTOR TO ESTABLISH ALL LINES, GRADES, AND REFERENCE POINTS AS REQUIRED FOR WORK UNDER THIS CONTRACT. ALL PROJECT LAYOUTS SHALL BE DONE USING A PROFESSIONAL SURVEYOR & MAPPER LICENSED IN THE STATE OF FLORIDA.
- 16. CONTRACTOR TO PROVIDE ALL LABOR, INSTRUMENTS, STAKES AND OTHER MATERIALS NECESSARY FOR MARKING AND MAINTAINING ALL LINES AND GRADE.
- 17. ALL EXISTING TREES OUTSIDE THE GRADING LIMITS ARE TO REMAIN.
- 18. CONTRACTOR SHALL KEEP ALL SPOILS AND EQUIPMENT OUTSIDE OF THE TREE DRIPLINE FOR ALL TREES NOT DIRECTLY AFFECTED BY CONSTRUCTION
- 19. BURNING OF MATERIAL AND/OR DEBRIS IS PROHIBITED WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL LEGALLY DISPOSE OF ALL CLEARED/GRUBBED MATERIAL OFFSITE.
- 20. UNLESS OTHERWISE SPECIFIED ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2022), AND FDOT STANDARD PLANS (2022/2023).
- 21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A STAGING AREA FOR MATERIAL AND EQUIPMENT STORAGE. THIS MAY INCLUDE LOCATING A SITE, OBTAINING PERMITS, AND MAKING THE SITE SUITABLE FOR USE. THE CONTRACTOR SHALL NOT USE RIGHT-OF-WAY FOR STAGING MATERIAL AND EQUIPMENT.

- 22. THE CONTRACTOR SHALL PROVIDE MATERIAL AND CONSTRUCTION TESTING BY A FLORIDA QUALIFIED GEOTECHNICAL TESTING FIRM. ACCEPTANCE TESTING INCLUDES BUT IS NOT LIMITED TO CONCRETE, ROADWAY STABILIZATION AND BASE, ASPHALT DENSITY, AND LIMEROCK. RESULTS SHALL BE SUBMITTED TO THE DISTRICT.
- 23. AS-BUILT PLANS TO BE PROVIDED BY THE CONTRACTOR TO SJRWMD AND CERTIFIED BY A FLORIDA REGISTERED LAND SURVEYOR.
- 24. ANY EXISTING FENCING THAT IS DAMAGED OR TEMPORARILY REMOVED DURING CONSTRUCTION MUST BE REPLACED IN-KIND. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER REGARDING ANY FENCE REMOVAL OR REPLACEMENT.
- 25. FENCE ADJACENT TO US 192/SR 500 AND FENCE ADJACENT TO ST. JOHNS HERITAGE PARKWAY MUST BE IN PLACE AT ALL TIMES.
- 26. CONTRACTOR TO COORDINATE REMOVAL OF SALVAGE EQUIPMENT. PROVIDE SJRWMD MINIMUM OF 30 DAYS NOTICE TO REMOVE/RELOCATE EQUIPMENT.
- 27. THE CONTRACTOR WILL STABILIZE ALL EARTHWORK TO PREVENT EROSION.
- 28. ALL FLAT BERM TOPS WILL BE STABILIZED WITH SEED.
- 29. ALL SLOPES 4H:1V OR STEEPER SHALL BE STABILIZED WITH STAKED SOD.
- 30. CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE DURING ALL PHASES OF CONSTRUCTION. THE EXISTING DRAINAGE SHALL NOT BE BLOCKED OR ADVERSELY AFFECTED BY CONSTRUCTION.
- 31. IF PREHISTORIC OR HISTORIC ARTIFACTS, SUCH AS POTTERY OR CERAMICS, PROJECTILE POINTS, DUGOUT CANOES, METAL IMPLEMENTS, HISTORIC BUILDING MATERIALS, OR ANY OTHER PHYSICAL REMAINS THAT COULD BE ASSOCIATED WITH NATIVE AMERICAN, EARLY EUROPEAN, OR AMERICAN SETTLEMENT ARE ENCOUNTERED AT ANY TIME WITHIN THE PROJECT SITE AREA, THE PERMITTED PROJECT SHALL CEASE ALL ACTIVITIES INVOLVING SUBSURFACE DISTURBANCE IN THE VICINITY OF THE DISCOVERY. THE APPLICANT SHALL CONTACT THE FLORIDA DEPARTMENT OF STATE, DIVISION OF HISTORICAL RESOURCES, COMPLIANCE AND REVIEW SECTION AT (850)-245-6333. PROJECT ACTIVITIES SHALL NOT RESUME WITHOUT VERBAL AND/OR WRITTEN AUTHORIZATION. IN THE EVENT THAT UNMARKED HUMAN REMAINS ARE ENCOUNTERED DURING PERMITTED ACTIVITIES, ALL WORK SHALL STOP IMMEDIATELY, AND THE PROPER AUTHORITIES NOTIFIED IN ACCORDANCE WITH SECTION 872.05, FLORIDA STATUTES.

- @ AND
- AASHTO AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
- ADF AVERAGE DAILY FLOW
- ADJ ADJUSTABLE
- ALUM ALUMINUM
- ALT ALTERNATIVE
- AISI AMERICAN IRON STEEL INSTITUTE
- AMPS AMPERES
- ANSI AMERICAN NATIONAL STANDARDS INSTITUTE
- AR AIR RELEASE
- ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS
- AV AIR VACUUM
- AWWA AMERICAN WATER WORKS ASSOCIATION
- BLD BLIND
- BLDG BUILDING
- BF BLIND FLANGE
- BFOC BURIED FIBER OPTIC CABLE
- BFP BACKFLOW PREVENTOR
- BFV BUTTERFLY VALVE
- BMP BEST MANAGEMENT PRACTICES
- BO BLOW-OFF
- BTM BOTTOM
- BTM/BV BOTTOM OF BALL VALVE
- BW BLENDED WATER
- BYP BY-PASS
- CD CENTER OF DITCH/POND CENTER OF DITCH
- CEN CENTER
- CL, CL CENTERLINE
- CC CENTER TO CENTER
- CI CAST IRON
- CO CLEAN OUT
- CIP CAST IRON PIPE
- CISP CAST IRON SLIP PIECE
- CJ CONSTRUCTION JOINT
- CLR CLEAR
- CMF CONCRETE MONUMENT, FOUND
- CMP CORRUGATED METAL PIPE
- CONSTR CONSTRUCTION
- CONT CONTINUOUS
- CONC CONCRETE
- CON CONCENTRIC
- CORP CORPORATION
- CS CARBON STEEL
- CV CHECK VALVE
- DIA, Ø DIAMETER
- DBI DITCH BOTTOM INLET
- DI DUCTILE IRON
- DIV DIVISION
- DWG DRAWING
- EA EACH
- ECC ECCENTRIC
- EF EACH FACE
- EG SUCH AS
- EL ELEVATION
- ELB ELBOW
- EOP EDGE OF PAVEMENT
- EOR ENGINEER OF RECORD
- E/R EDGE OF ROAD
- ERCP ELLIPTICAL REINFORCED CONCRETE PIPE
- EW EACH WAY
- FAB FABRICATED
- FAC FLORIDA ADMINISTRATIVE CODE
- FCA FLANGED COUPLING ADAPTER
- FCV FLOW CONTROL VALVE
- FDOT FLORIDA DEPARTMENT OF TRANSPORTATION
- FF FINISHED FLOOR
- F/F FIBERGLASS
- FIN FINISHED
- FJ FLANGE JOINT
- FL FLOOR
- FLEX FLEXIBLE
- FLG FLANGE(D)
- FM FORCE MAIN
- FND FOUNDATION
- FNPT FEMALE NATIONAL PIPE THREAD
- FRP FIBER REINFORCED PLASTIC
- FS FLORIDA STATUTES
- GALV GALVANIZED
- GPM GALLONS PER MINUTE
- GR GRADE
- GRU GAINESVILLE REGIONAL UTILITIES
- GS GALVANIZED STEEL
- GV GATE VALVE

- HDD HORIZONTAL DIRECTIONAL DRILL
- HOPE HIGH DENSITY POLYETHYLENE
- HORIZ HORIZONTAL
- HP HORSEPOWER
- HR HOUR
- HWL HIGH WATER LEVEL
- ID INSIDE DIAMETER
- IE INVERT ELEVATION
- IF INSULATED FLANGE
- IPS IRON PIPE SIZE
- JT JOINT
- LB POUNDS
- LBR LIMEROCK BEARING RATIO
- LF LINEAR FEET
- LiDAR LIGHT DETECTION AND RANGING
- LOC LIMITS OF CONSTRUCTION
- LR LONG RADIUS
- LWL LOW WATER LEVEL
- M/F MALE/FEMALE
- MAX MAXIMUM
- MES MITERED END SECTION
- MFR MANUFACTURER
- MH MANHOLE
- MIN MINIMUM
- MJ MECHANICAL JOINT
- MNPT MALE NATIONAL PIPE THREAD
- N NORTH
- NAD NORTH AMERICAN DATUM
- NAVD NORTH AMERICAN VERTICAL DATUM
- NC NORMALLY CLOSED
- NEC NATIONAL ELECTRIC CODE
- NHW NORMAL HIGH WATER
- NIC NOT IN CONTRACT
- NLW NORMAL LOW WATER
- No, # NUMBER
- NOM NOMINAL
- NPT NATIONAL PIPE THREAD
- NRS NONRISING STEM
- NTS NOT TO SCALE
- NSF NATIONAL SANITATION FOUNDATION
- NW NORTHWEST
- OC ON CENTER
- OD OUTSIDE DIAMETER
- OHE OVERHEAD ELECTRIC
- OS&Y OUTSIDE STEM & YOKE
- OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
- PE PLAIN END
- PI PRESSURE INDICATOR/GAUGE
- PL PLATE
- P/L PROPERTY LINE
- PP POWER POLE
- PRV PRESSURE REDUCING VALVE
- PSF POUNDS PER SQUARE FOOT
- PSI POUNDS PER SQUARE INCH
- PV PLUG VALVE
- PVC POLYVINYL CHLORIDE
- PVMT PAVEMENT
- R RADIUS
- RCP REINFORCED CONCRETE PIPE
- RED REDUCER
- REINF REINFORCED
- REQ, REQ'D REQUIRED
- RF REDUCING FLANGE
- RJ RESTRAINED JOINT
- RPM REVOLUTIONS PER MINUTE
- RPOJ RESTRAINED PUSH ON JOINT
- RST REGIONAL STORMWATER TREATMENT
- RTU REMOTE TELEMETRY UNIT
- RW RAW WATER
- ROW RIGHT-OF-WAY
- S SOUTH
- SAN SANITARY
- SCH SCHEDULE
- SE SOUTHEAST
- SEC SHOULDERED-END COUPLING
- SIM SIMILAR
- SJRWMD ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
- SP STANDARD PLANS (FDOT)
- SPI STANDARD PLANS INDEX (FDOT)
- SQ SQUARE
- SR SURGE RELIEF
- SRV SURGE RELIEF VALVE
- SS, SST STAINLESS STEEL
- STS STORMWATER GRAVITY PIPE
- STA STORMWATER TREATMENT AREA
- STD STANDARD STRUCTURE
- STRUC STRUCTURE
- STL STEEL
- STS STORMWATER SYSTEM
- SY SQUARE YARD
- TBM TEMPORARY BENCHMARK
- TH TOTAL HEAD
- THD THREADED
- THK THICK
- TOB TOP OF BERM
- TOC TOP OF CONCRETE
- TOS TOE OF SLOPE
- TS THICKENED SLAB
- TYP TYPICAL
- UE UTILITY EASEMENT
- ULC ULTRASONIC LEVEL CONTROLLER
- VERT VERTICAL
- W WEST
- W/ WITH
- WM WATER MAIN
- WSE WATER SURFACE ELEVATION
- WT WEIGHT
- WWF WELDED WIRE FABRIC
- YR YEAR



City Hall  
 2240 Mineral Road  
 West Melbourne, FL 32908  
 Phone: (321) 727-7700  
 Fax: (321) 768-2399  
 www.westmelbourne.org

#### Development Closeout Checklist

- Complete all required construction inspections.
- Submit test results for compaction for pipe backfill, structure backfill (manholes and drainage structures) and for the road structural section (AC pavement and concrete).
- Submit materials tickets for concrete and AC pavement delivered to the project for public improvements.
- Provide As-builts for water, sewer, drainage, roads and site finish grades (note: city requirements exceed FDEP requirements). Please note that there are specific things the City requires for As-builts that are different than that required by other agencies. See the City's As-built drawing checklist.
- FDEP clearances for water and sewer improvements.
- Schedule a final construction walk through (submit as-builts prior to scheduling walk through).
- Prepare bill(s) of sale for public improvements constructed by the developer that are being transferred to the city (include only the cost of portion transferred). Provide separate accounting for road improvements, drainage improvements, water improvements and wastewater improvements. Bill of sale shall be signed and sealed by the engineer of record.
- Using the cost(s) from above provide a 2 year maintenance bond for 20% of the value, for improvements transferred to the city.
- Transfer easements for public improvements (min: 20' wide centered on improvements) to the city.
- Coordinated submittal of performance bonds, maintenance bonds, and bills of sale with the City Clerk, City Planning Department and City Attorney's office.

SAVED: 7/20/2022 7:13 AM JALLEN Y:\19750-SJRWMD\PROJECTS\066-01-CRANE CREEK\_M-1\_FLOW RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\GENERAL\19750066-VOL2-G03.DWG

BID DOCUMENTS

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**GENERAL NOTES AND ABBREVIATIONS**

ANY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097  
 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ANY LIANE GOODDEN ON THE DATE AT THE RIGHT  
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PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
 INDEX NO: 3  
 DWG NO: G3

Approved  
 2022  
 William Rickard  
 8/2/2022

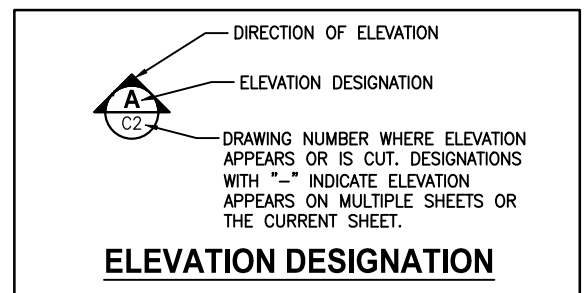
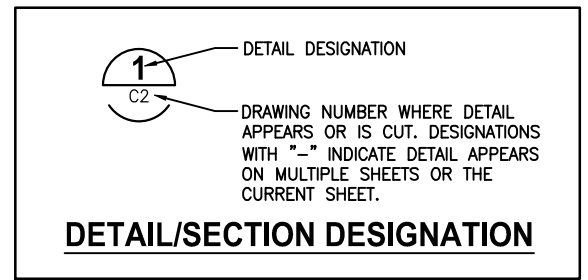
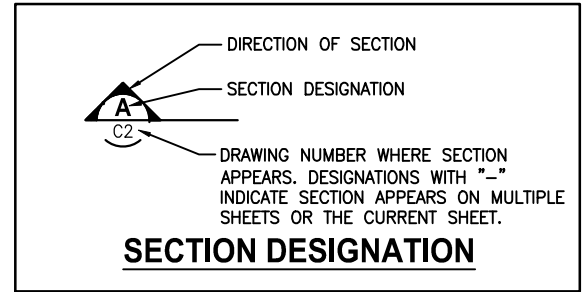
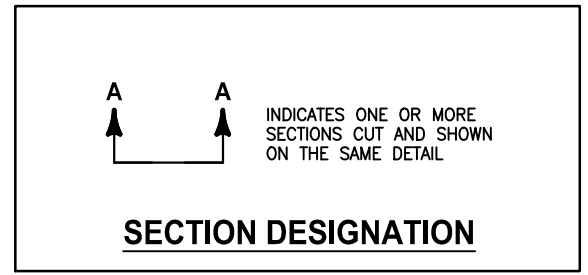
### CIVIL LEGEND

	MATCHLINE
	UTILITY EASEMENT
	RIGHT-OF-WAY BOUNDARY
	CENTERLINE
	LIMITS OF CONSTRUCTION
	SILT FENCE
	TURBIDITY CURTAIN
	LIMITS OF PLANTING
	GRADE BREAK
	WETLAND LINE
	PROPOSED CONTOUR
	EXISTING CONTOUR
	FENCE
	STORMWATER FORCE MAIN (HORIZONTAL DIRECTIONAL DRILL)
	STORMWATER FORCE MAIN (OPEN CUT)
	GRAVITY STORM PIPING
	REINFORCED CONCRETE PIPE (RCP)
	DITCH BOTTOM INLET
	MITERED END SECTION
	STRUCTURE/PIPE DESIGNATION
	STABILIZED DRIVE SURFACE
	ASPHALT SURFACE
	LIMITS OF MILLING AND RESURFACING
	LIMEROCK
	CROSS HATCHING INDICATES REMOVAL/DEMOLITION
	CONCRETE
	RIPRAP
	HEDGE, BUSH, SHRUBS, WOODS
	SPOT ELEVATION
	PROPOSED SIGN
	DRAWING DESIGNATION
	COORDINATE POINT
	DRAINAGE FLOW DIRECTION
	WATER LEVEL
	EXISTING CONCRETE MONUMENT, FOUND
	SLOPE INDICATOR
	ELEVATION TAG
	NORTHING AND EASTING COORDINATE STATE PLANE EAST
	SUBSURFACE UTILITY TEST HOLE LOCATION

N: 1364188.52  
E: 748399.55

### SURVEY LEGEND

	= CHAINLINK FENCE
	= WOOD FENCE
	= WIRE FENCE
	= BARBED WIRE FENCE
	= BURIED ELECTRIC LINE
	= BURIED TELEPHONE LINE
	= COMMUNICATION LINE
	= GAS LINE
	= OVERHEAD UTILITY LINE
	= WATER LINE
	= FORCE MAIN
	= OVERHEAD TRAFFIC CONTROL
	= TREE LINE
	= GUARDRAIL
	= ACRYLONITRILE BUTADIENE STYRENE PIPE
	= BURIED FIBER OPTIC CABLE
	= CORRUGATED METAL PIPE
	= CORRUGATED PLASTIC PIPE
	= POLYVINYL CHLORIDE PIPE
	= REINFORCED CONCRETE PIPE
	= LICENSED BUSINESS
	= PROFESSIONAL LAND SURVEYOR
	= REGISTERED LAND SURVEYOR
	= PROFESSIONAL SURVEYOR AND MAPPER
	= RIGHT OF WAY
	= TOP OF SILT ELEVATION
	= DEED BOOK
	= OFFICIAL RECORDS BOOK
	= PAGE
	= IDENTIFICATION
	= END OF INFORMATION
	= NORTH AMERICAN DATUM
	= NORTH AMERICAN VERTICAL DATUM
	= TRAVERSE POINT
	= SOUTHEASTERN SURVEYING & MAPPING CORPORATION
	= TELEPHONE
	= FLORIDA GAS TRANSMISSION COMPANY
	= FLORIDA POWER & LIGHT COMPANY
	= AIR RELEASE VALVE
	= BUSH
	= BURIED TELEPHONE PEDESTAL
	= CONCRETE MONUMENT
	= CLEAN OUT
	= COMBINATION UTILITY POLE
	= DRAINAGE MANHOLE
	= ELECTRIC SERVICE METER
	= FLAT GRATE INLET
	= FIRE HYDRANT
	= DOWN GUY
	= WATER SPIGOT
	= HAND HOLE
	= IRON PIPE
	= IRON ROD
	= IRRIGATION VALVE
	= LIGHT POLE
	= MAILBOX
	= MITERED END SECTION
	= NAIL W/DISC
	= UTILITY POLE
	= POST/BOLLARD
	= PUMP
	= RAILROAD SPIKE
	= NON-TRAFFIC SIGN
	= SPRINKLER
	= SEWER VALVE
	= TRAFFIC CONTROLLER CABINET
	= TRAFFIC SIGN
	= TRANSFORMER ON SLAB
	= TRAFFIC SIGNAL SPAN POLE
	= UTILITY MARKER
	= VAULT
	= WELL
	= WATER METER
	= WATER VALVE



### NOTES

- IN GENERAL, EXISTING FACILITIES AND UTILITIES ARE NOTED AS EXISTING AND/OR SHOWN IN LIGHT LINE WEIGHT (SCREENED). PROPOSED CONSTRUCTION IS SHOWN IN HEAVY LINE WEIGHT AND/OR IDENTIFIED AS PROPOSED. SCREENING IS ALSO USED IN ORDER TO CLARIFY DRAWINGS. FOR EXAMPLE, STRUCTURES ARE SCREENED ON MECHANICAL DRAWINGS TO HIGHLIGHT PIPING AND EQUIPMENT. THIS DRAFTING CONVENTION IS TYPICAL THROUGHOUT THE SET OF PLANS.
- THIS IS A STANDARD LEGEND DRAWING. SOME ITEMS MAY APPEAR IN LEGENDS AND NOT ON THE DRAWINGS.

Y:\19750-SJR\PROJECTS\066-01-CRANE CREEK\_M-1\_FLOW RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\GENERAL\19750066-VOL2-G04.DWG

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**LEGENDS AND SECTION DESIGNATIONS**

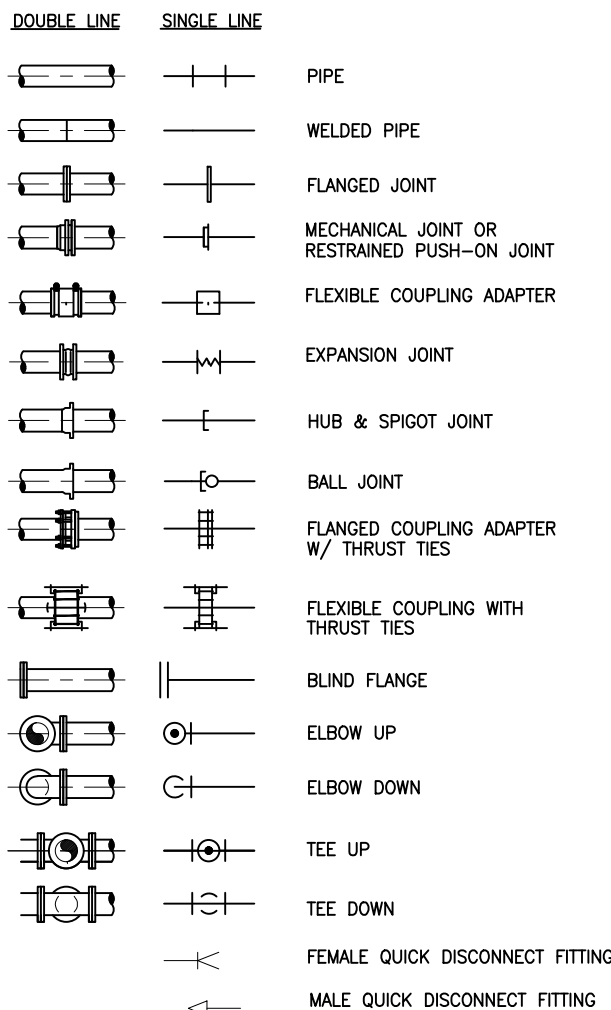
AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097  
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 DATE: JULY 2022  
 INDEX NO: William Rickard  
 DWS NO: G4  
 8/2/2022

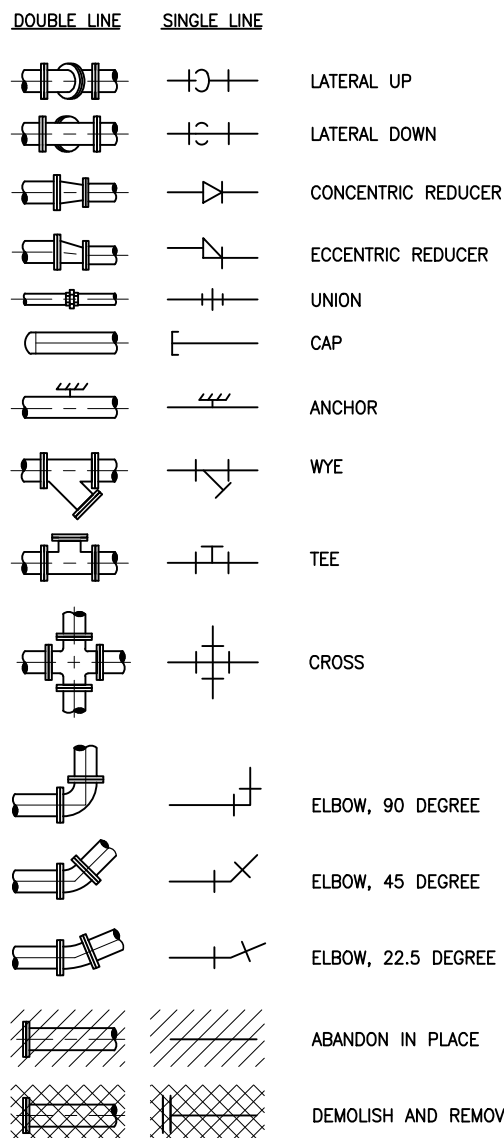
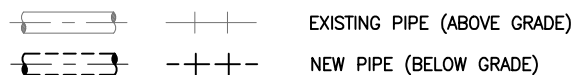
BID DOCUMENTS

### MECHANICAL LEGEND

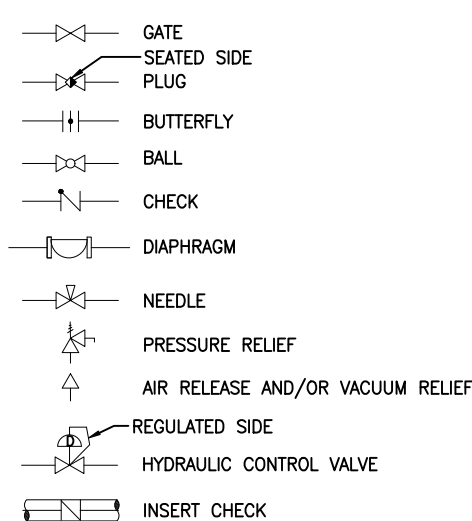
#### PIPING SYMBOLS



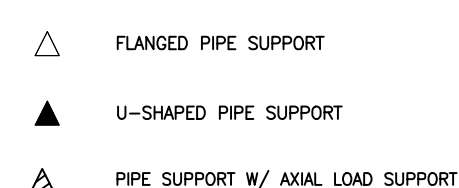
**NOTE:**  
EXISTING PIPE AND EQUIPMENT ARE SHOWN IN THE DRAWINGS AS LIGHT-LINED AND/OR SCREENED. PROPOSED PIPE AND EQUIPMENT ARE SHOWN IN THE DRAWINGS AS HEAVY-LINED. ABOVE GRADE PIPE AND EQUIPMENT ARE SHOWN IN DRAWINGS AS SOLID-LINED EXCEPT FOR PIPELINE PLANS AND PROFILES. BELOW GRADE PIPE AND EQUIPMENT ARE SHOWN IN DRAWINGS AS DASHED-LINED. SEE BELOW EXAMPLES:



#### VALVE SYMBOLS



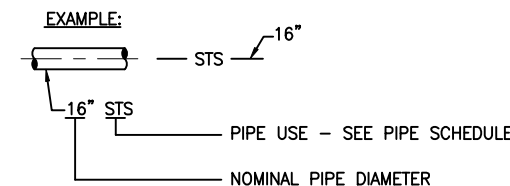
#### PIPE SUPPORT SYMBOLS



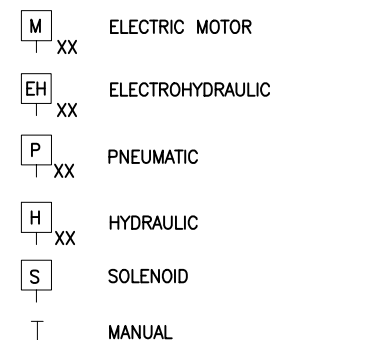
#### NOTE

1. THIS IS A STANDARD LEGEND DRAWING. SOME ITEMS MAY APPEAR IN LEGENDS AND NOT ON THE DRAWINGS.

#### PIPING DESIGNATION



#### ACTUATOR SYMBOLS



**NOTE:**  
ON LOSS OF PRIMARY POWER (PNEUMATIC, ELECTRICAL OR HYDRAULIC)  
XX: FO = FAIL OPEN  
FC = FAIL CLOSED  
FLP = FAIL TO LAST POSITION

### PIPE SCHEDULE

FLOW STREAM IDENTIFICATION	PIPE/DUCT MATERIAL	PIPE MATERIAL ABBREV	SPECIFICATION NUMBER	PIPE LINING	NORMAL MAX OPERATING PRESSURE (PSIG)	FIELD TEST PRESSURE (PSIG)	EXPOSED PIPE PAINT SYSTEM	COLOR CODE	SPECIFIC NOTES	RESTRAINT SYSTEM NOTES
FM-1	DUCTILE IRON	DI	15155	CERAMIC EPOXY	25	100	12	BROWN STRIPE	(A)	(1)
FM-2	HIGH DENSITY POLYETHYLENE (DI PIPE SIZE)	HDPE, DR11	15146	N/A	25	100	N/A	BROWN STRIPE	N/A	(2)
STS-1	REINFORCED CONCRETE (CLASS III)	RCP		N/A	5	N/A	N/A	N/A	N/A	N/A

#### GENERAL NOTES:

- COAT BURIED AND SUBMERGED PIPE PER PIPE SPECIFICATIONS.
- TEST LINES PER SECTION 15144 UNLESS NOTED OTHERWISE.
- ALL TRANSITIONS FROM HDPE TO DUCTILE IRON PIPE OR FITTINGS SHALL USE A WELDED HDPE TO MJ ADAPTER, AND SHALL BE FULLY RESTRAINED.

#### RESTRAINT SYSTEM NOTES:

- RESTRAIN EVERYTHING (FITTINGS, VALVES, PIPE JOINTS, ETC.) INCLUDING NEW TO EXISTING.
- RESTRAIN AT FITTINGS AND VALVES.

#### SPECIFIC NOTES:

- APPLY ABOVE GRADE PAINT SYSTEM ONLY TO PIPING EXPOSED TO SUNLIGHT. PIPING UNDER FACILITY CANOPY STRUCTURE SHALL BE CLASSIFIED AS EXPOSED TO SUNLIGHT.

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DRAWN	J. ALLEN			
CHECKED	R. KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.

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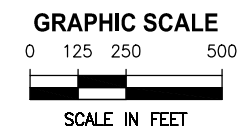
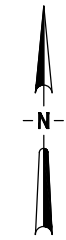
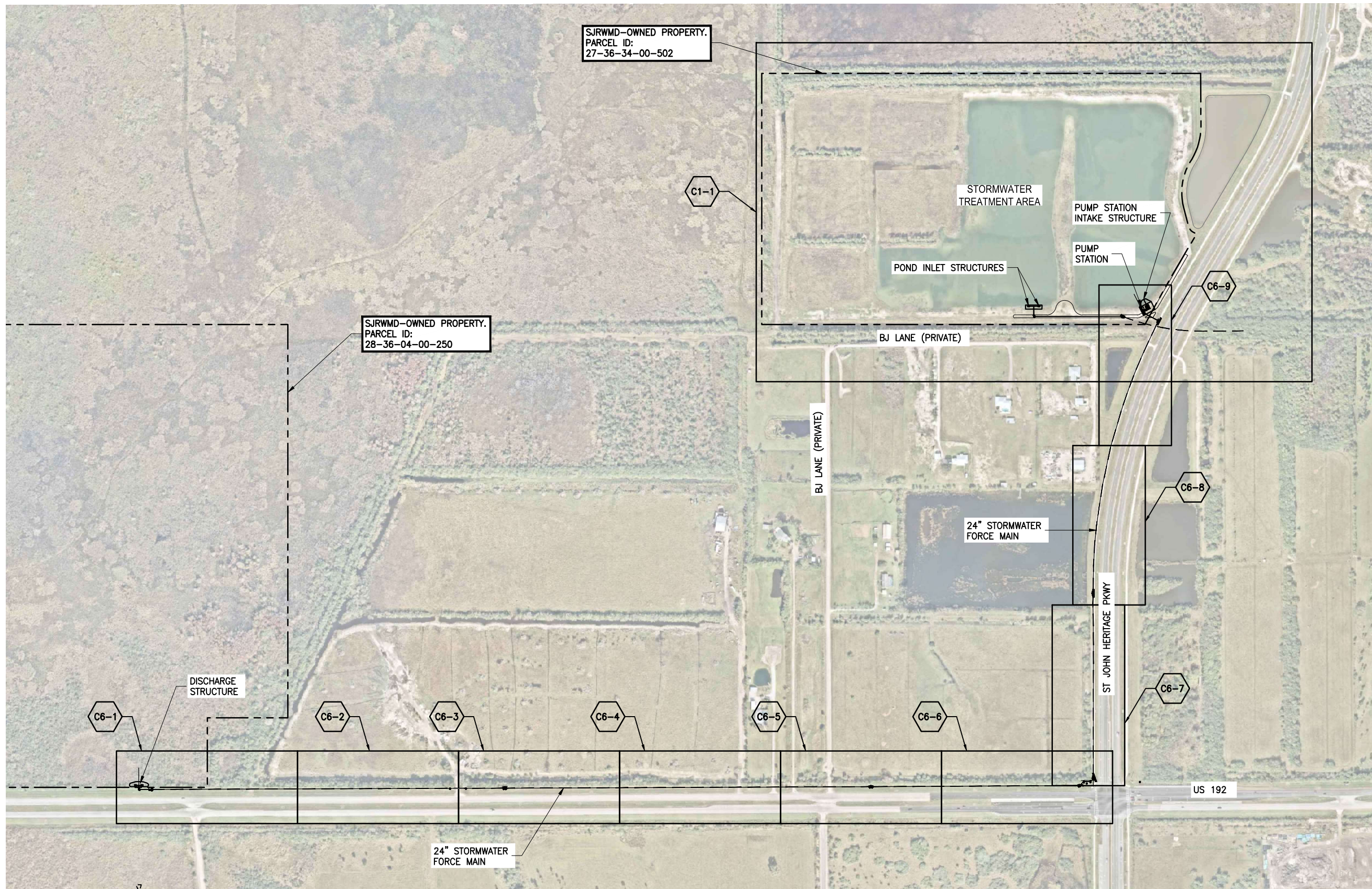
**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

**MECHANICAL LEGEND & PIPE  
SCHEDULE**

<small>DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA, LICENSE NUMBER 90306</small> THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DONALD J. SHELDON, JR. ON THE DATE INDICATED. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	PROJECT NO: 19750-066-01	DATE: JULY 2022
INDEX NO: William Rickard	DWG NO: G5	APPROVED 2022-07-26 8/2/2022



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 4/19/2022 9:58 AM PBOLLINGER



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LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**KEY MAP**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097

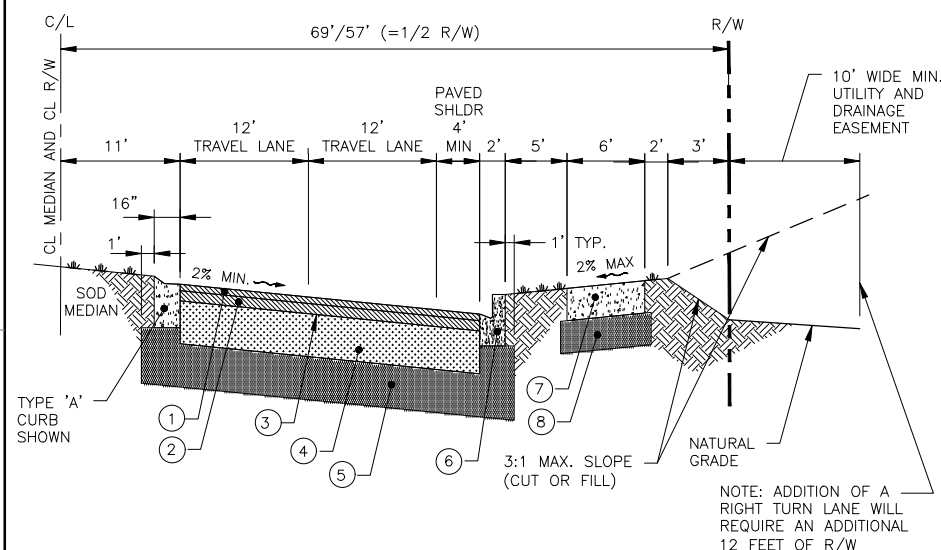
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PROJECT NO:	19750-066-01	DATE:	JULY 2022
INDEX NO:	William Rickard	DWG NO:	G6

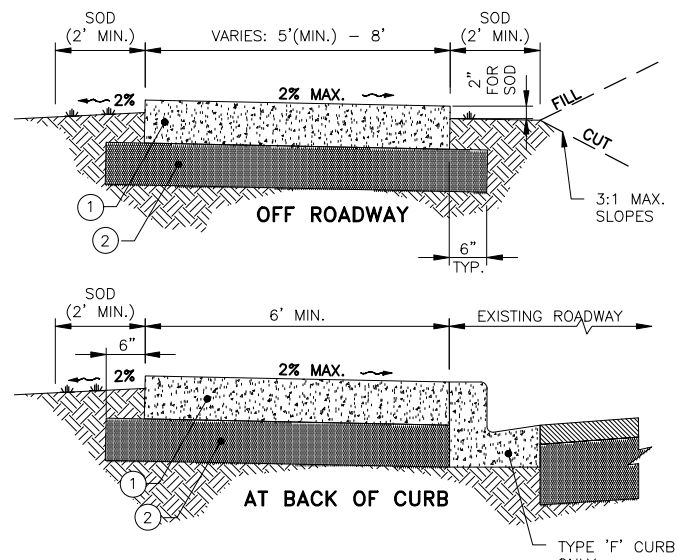
Approved  
 2022-07-26  
 8/2/2022





- ① FRICTION COURSE: 1-1/2" TYPE FC-12.5 OPEN GRADED FRICTION
- ② STRUCTURAL COURSE: 2" TYPE S-1 ASPHALTIC CONCRETE, OR SP-12.5 SUPERPAVE MIX, TESTED PER FDOT AND/OR BREVARD COUNTY STANDARD REQUIREMENTS
- ③ PRIME COAT: FDOT APPROVED PRIME COAT PER STANDARD SPECIFICATION SECTION 300
- ④ BASE COURSE: 10" LIMEROCK OR CEMENTED COQUINA, MIN. LBR OF 100, COMPACTED TO 98% DENSITY PER AASHTO T-180
- ⑤ SUBGRADE: 12" TYPE "B" STABILIZED TO A MIN. LBR OF 40, COMPACTED TO 98% DENSITY PER AASHTO T-180
- ⑥ CURB AND GUTTER: FDOT TYPE 'F' CURB AND GUTTER SHALL BE 3000 PSI MIN. AND CONSTRUCTED IN ACCORDANCE WITH FDOT INDEX 300
- ⑦ PEDWAY: 6" THICK FDOT CLASS 1, 3000 PSI FIBER REINFORCED CONCRETE WITH LIGHT BROOM FINISH. CROSS SLOPE SHALL BE BETWEEN 1.0% MIN. AND 2.0% MAX.
- ⑧ PEDWAY SUBGRADE: 6" TYPE "B" STABILIZED TO A MIN. LBR OF 40, COMPACTED TO 98% DENSITY PER AASHTO T-180

**ARTERIAL (MAJOR AND MINOR) URBAN - HALF CROSS SECTION**



- ① CONCRETE: 6", 3000 PSI FIBER REINFORCED. LIGHT BROOM FINISH, CURED WITH A WHITE CURING COMPOUND AS PER FDOT STANDARD SPECIFICATION SECTION 925-2.1.
- ② SUBGRADE: 6", COMPACTED TO A MINIMUM OF 98% MAX. DENSITY - AASHTO T-180

**PEDWAY CONSTRUCTION REQUIREMENTS**

1. PEDESTRIAN WAY SHALL BE CONSTRUCTED OF FDOT CLASS 1, 3000 PSI FIBER REINFORCED CONCRETE. NO UNDER TOLERANCE WILL BE ACCEPTED. IF 28 DAY BREAKS FALL BELOW STRENGTH, CONTRACTOR SHALL REMOVE AND RECONSTRUCT PEDWAY.
2. SIDEWALKS CONSTRUCTED ACROSS DRIVEWAYS SHALL MEET THE REQUIREMENTS OF FDOT DESIGN STANDARDS, LATEST EDITION, INDEX 515 "TURNOUTS".
3. SIDEWALK SLOPES AND RAMPS SHALL MEET ADA REQUIREMENTS AND THOSE OF FDOT INDEX 304.
4. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SODDED TO MATCH PREVIOUS CONDITION OR BETTER, BY CONTRACTOR.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF ANY ITEMS DAMAGED DURING CONSTRUCTION PROCESS, TO ORIGINAL CONDITION OR BETTER.
6. CONTRACTION JOINTS SHALL BE SAW CUT 1 1/2" DEEP (MIN.) ON 5-FOOT CENTERS; EXPANSION JOINTS SHALL BE AT MAX. 50-FOOT CENTERS, AT THE PC AND PT OF CURVES, JUNCTIONS WITH EXISTING AND NEW SIDEWALKS, AND WHERE NEW SIDEWALKS ABUT CURBS, DRIVEWAYS, AND SIMILAR STRUCTURES.
7. AN EIGHT (8) FOOT WIDE PEDWAY MAY BE CONSTRUCTED ON ONE SIDE OF THE STREET, VERSUS CONSTRUCTING A 5' WIDE SIDEWALK ON BOTH SIDES, ONLY UPON APPROVAL FROM LAND DEVELOPMENT.

**PEDWAY CONSTRUCTION DETAILS**

**STREET NAME SIGN NOTES:**

1. SIGNS IN PUBLIC R.O.W. SHALL BE GREEN WITH 5/8" WHITE BORDER AND WHITE LETTERS AND NUMBERS.
2. SIGNS IN PRIVATE R.O.W. SHALL BE WHITE WITH 5/8" BLACK BORDER AND BLACK LETTERS AND NUMBERS.
3. STREET NAME BLADES SHALL BE RIVETED TOGETHER AT EACH CORNER WITH 3/16" SMALL FLANGE AVEV RIVETS. ATTACH BLADES TO POST WITH CHERRY-MATE ALUMINUM RIVETS, # BALM8BP34, OR 5/16" X 2-1/2" S.S. BOLTS, 1-1/4" X 5/16" S.S. FENDER WASHERS, W/ S.S. STOP HEX NUT HAVING NYLON INSERTS (LOCK NUTS).

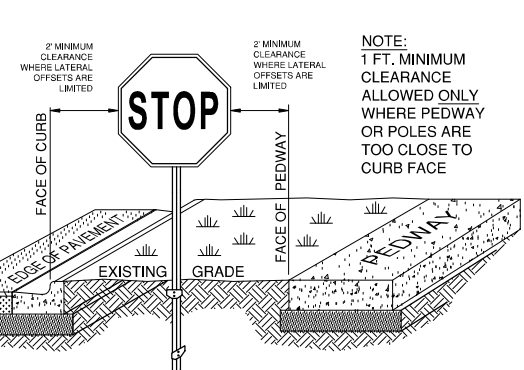
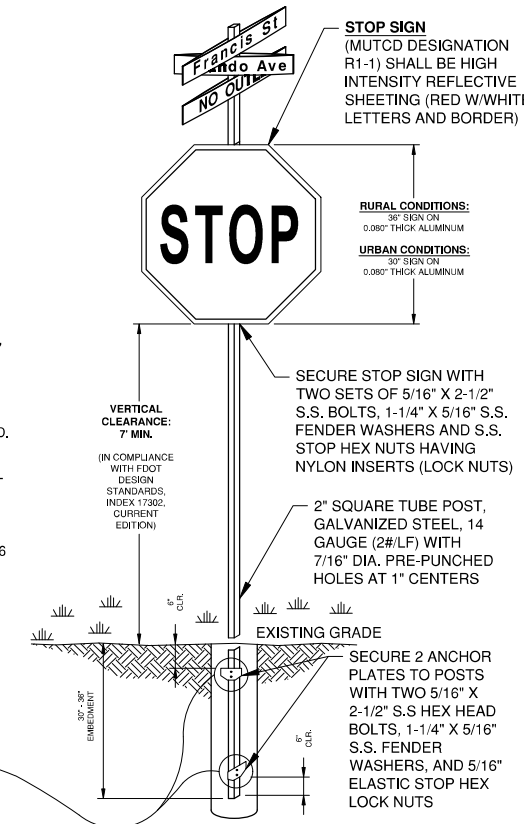
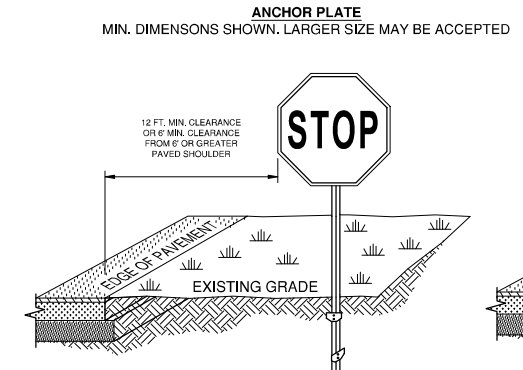
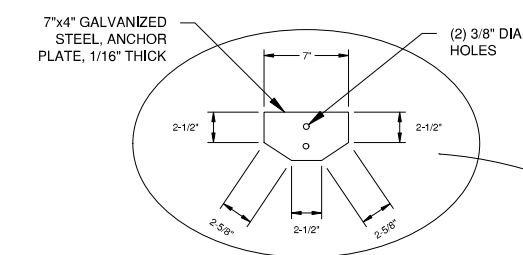
**STREET NAME SIGN LETTERING (MUTCD DESIGNATION D3-1):**

**CONVENTIONAL STREETS:**  
6" HIGH INITIAL UPPER CASE LETTERS, LOWER CASE LETTERS AT LEAST 4.5" HIGH. SIGN DIMENSIONS: 12" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

**LOCAL STREETS 25 MPH OR LESS:**  
4" HIGH INITIAL UPPER CASE LETTERS AND 3" HIGH LOWER CASE LETTERS MAY BE USED. SIGN DIMENSIONS: 9" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

**MULTI-LANE STREETS GREATER THAN 40 MPH:**  
8" HIGH INITIAL UPPER CASE LETTERS AND LOWER CASE LETTERS AT LEAST 6" HIGH. SIGN DIMENSIONS: 18" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

**"NO OUTLET" SIGN (MUTCD DESIGNATION W14-2A):**  
4" HIGH ALL-CAPITAL LETTERS, SIZE: 8" X 36" MIN. SEE MUTCD SECTION 2C.26



**STOP SIGN AND STREET MARKER DETAILS (EXHIBIT - 26)**

BID DOCUMENTS

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

**JonesEdmunds**

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**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

**BREVARD COUNTY LAND  
DEVELOPMENT EXHIBITS**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097

PROJECT NO: 19750-066-01 DATE: JULY 2022

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT

INDEX NO: 88 DWG NO: G8

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Approved  
2022  
William Rickard  
8/2/2022

SAVED: 7/20/2022 11:35 AM PBOLLINGER Y:\19750-SJRWMD\PROJECTS\066-01\_CRANE CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\GENERAL\19750066-VOL2-C08.DWG

NOTE: IN ADDITION TO THE PROPOSED GRADING SHOWN, THE CONTRACTOR SHALL INCLUDE IN THEIR PRICE 50,000 SF OF SLOPE GRADING REPAIRS AT VARIOUS LOCATIONS IN THE STA AS DIRECTED BY THE DISTRICT. THE GRADING REPAIRS WILL INCLUDE WORK BELOW THE WATER LINE TO APPROXIMATE ELEVATION 11.5-FT NAVD 88, APPLYING STAKED SOD TO REPAIRED SIDE SLOPES, AND HYDROSEEDING TOPS OF BANKS AND ALL OTHER AREAS DISTURBED BY THE REPAIR WORK.

ZONING: P-1 INSTITUTIONAL

NW CORNER OF SW 1/4 OF SW 1/4 SECTION 34-27-36  
 FND 3"x3" CM "LB 7426" (0.91'N, 7.34'E)  
 FND 5/8" IR NO ID (1.84'N, 5.02'E)  
 FOUND 5/8" IR NO ID (0.41'N, 4.12'E)

NOTE: ADDITIONAL SURVEY INFORMATION IS INCLUDED IN THE PROFESSIONAL BOUNDARY SURVEY PERFORMED BY SOUTHEASTERN SURVEYING AND MAPPING CORP. PLAN DATED FEB. 17, 2022. THIS SURVEY IS ALSO PART OF THE BREVARD COUNTY DEED, CFN 2022013940 FOR THIS PROPERTY.

DEED AND FLOODPLAIN/STORMWATER TREATMENT AREA EASEMENT FOUND IN ORB 9388 PG 2361-2364.

**PROJECT INFORMATION:**

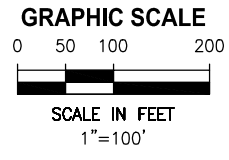
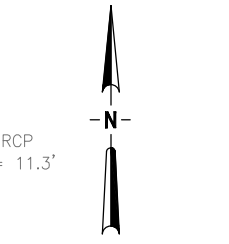
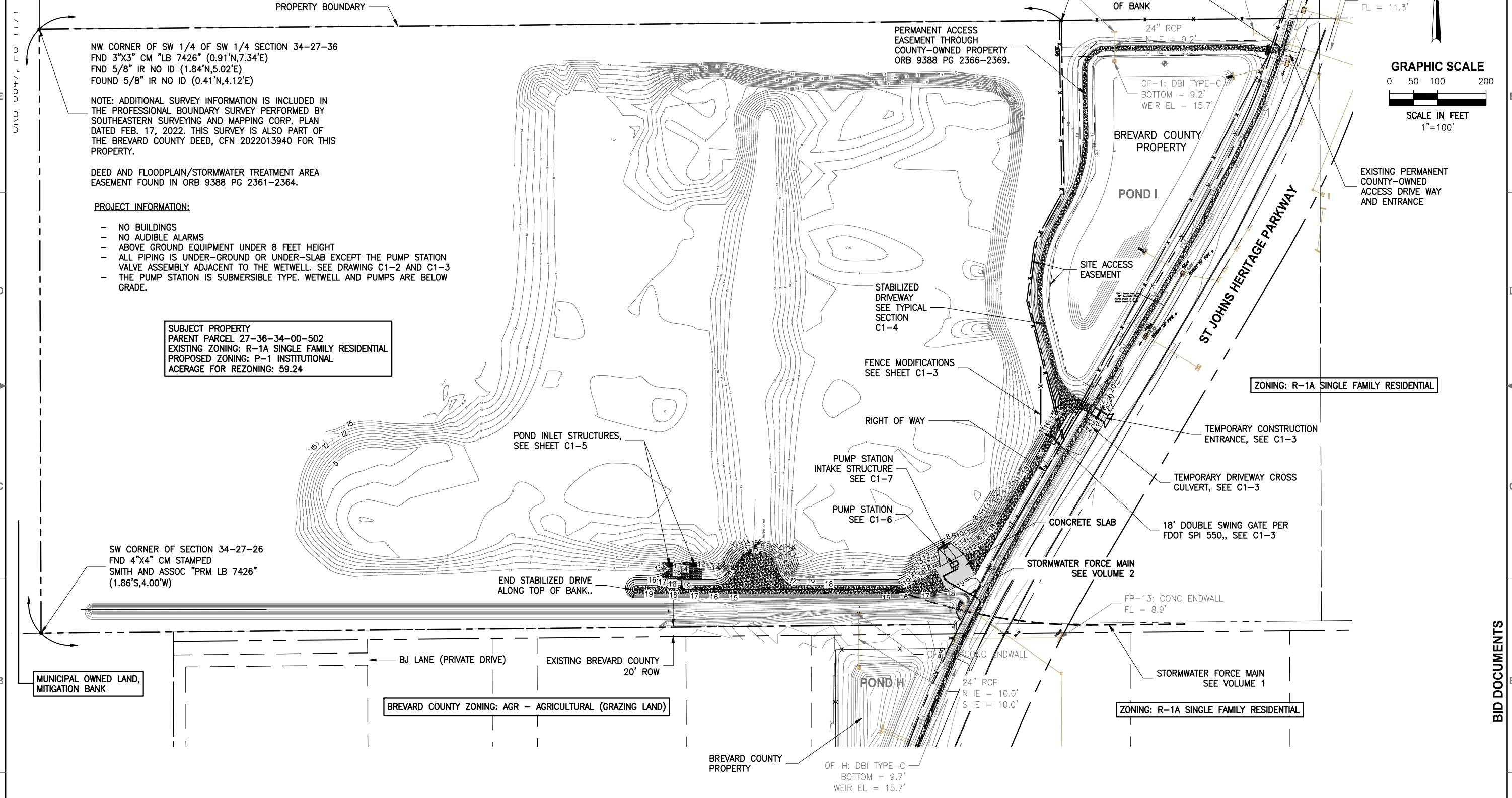
- NO BUILDINGS
- NO AUDIBLE ALARMS
- ABOVE GROUND EQUIPMENT UNDER 8 FEET HEIGHT
- ALL PIPING IS UNDER-GROUND OR UNDER-SLAB EXCEPT THE PUMP STATION VALVE ASSEMBLY ADJACENT TO THE WETWELL. SEE DRAWING C1-2 AND C1-3
- THE PUMP STATION IS SUBMERSIBLE TYPE. WETWELL AND PUMPS ARE BELOW GRADE.

SUBJECT PROPERTY  
 PARENT PARCEL 27-36-34-00-502  
 EXISTING ZONING: R-1A SINGLE FAMILY RESIDENTIAL  
 PROPOSED ZONING: P-1 INSTITUTIONAL  
 ACERAGE FOR REZONING: 59.24

SW CORNER OF SECTION 34-27-26  
 FND 4"x4" CM STAMPED  
 SMITH AND ASSOC "PRM LB 7426"  
 (1.86'S, 4.00'W)

MUNICIPAL OWNED LAND,  
 MITIGATION BANK

BREVARD COUNTY ZONING: AGR - AGRICULTURAL (GRAZING LAND)



Y:\19750-SJRWMD\PROJECTS\066-01-CRANE CREEK\_M-1\_FLOW RESTORATION DESIGN\CAD\VOLUME 2\DWG\CIVIL\19750066-VOL2-C1-01.DWG  
 7/13/2022 1:24 PM JALLEN

DESIGNED	A GOODDEN			
DRAWN	J ALLEN			
CHECKED	R KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	ADD ESMT INFO, MISC NOTES	JWA	RNK

**JonesEdmunds**  
 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

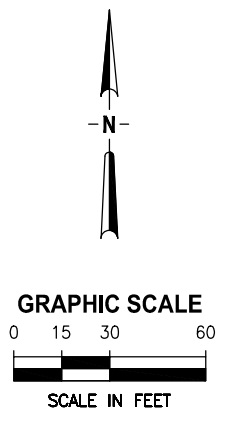
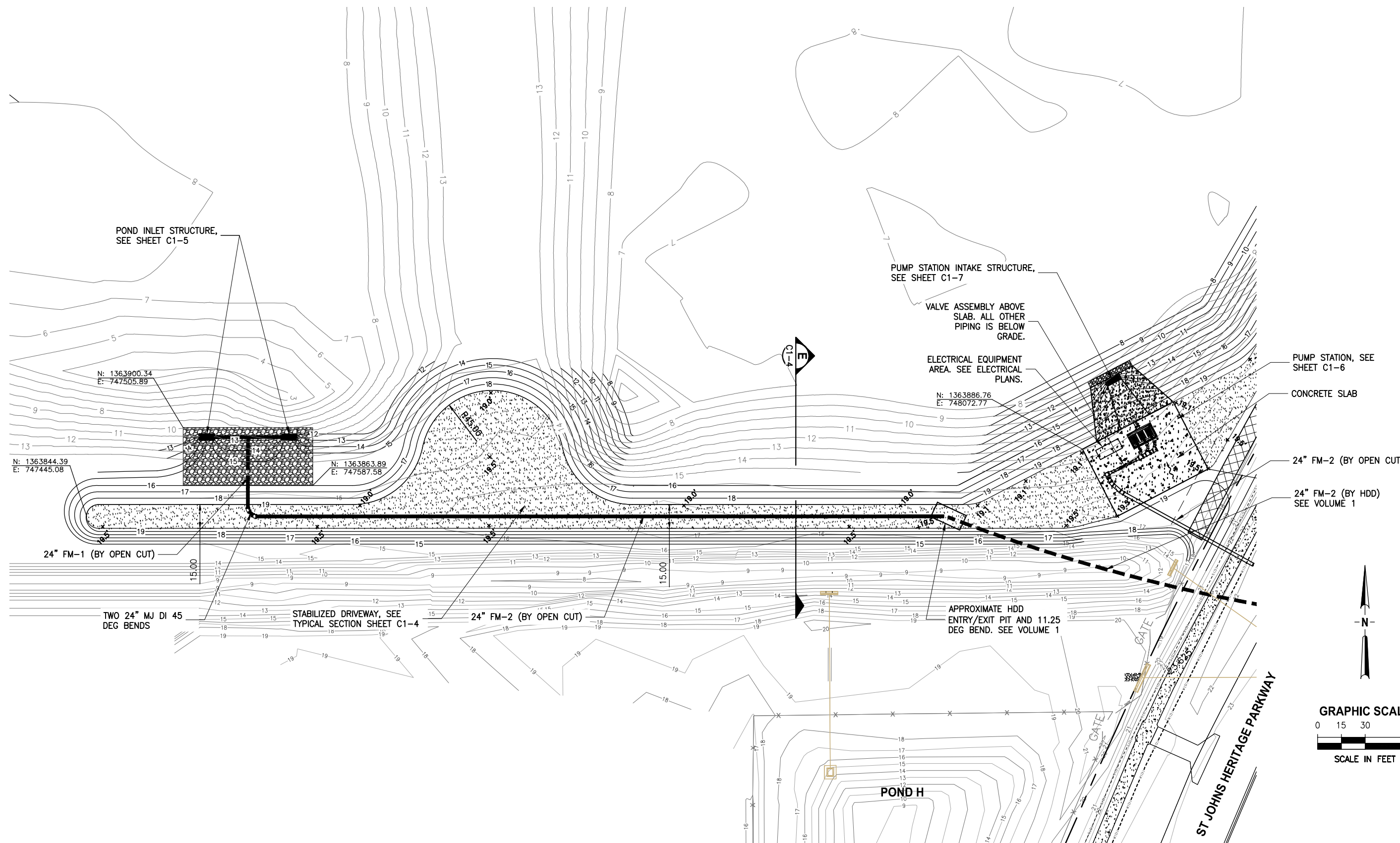
**STORMWATER TREATMENT AREA  
 OVERALL SITE PLAN**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097  
 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT.  
 PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
 INDEX NO: William Richard  
 DIVS NO: C1-1  
 8/2/2022

BID DOCUMENTS

Y:\19750-SJRWMD\PROJECTS\066-01\_CRANE\_CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\CIVIL\19750066-VOL2-C1-02.DWG  
 7/20/2022 1:57 PM JALLEN



LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	MISC REVS PER CITY COMMENTS	JWA	RNK

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

**JonesEdmunds**  

 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

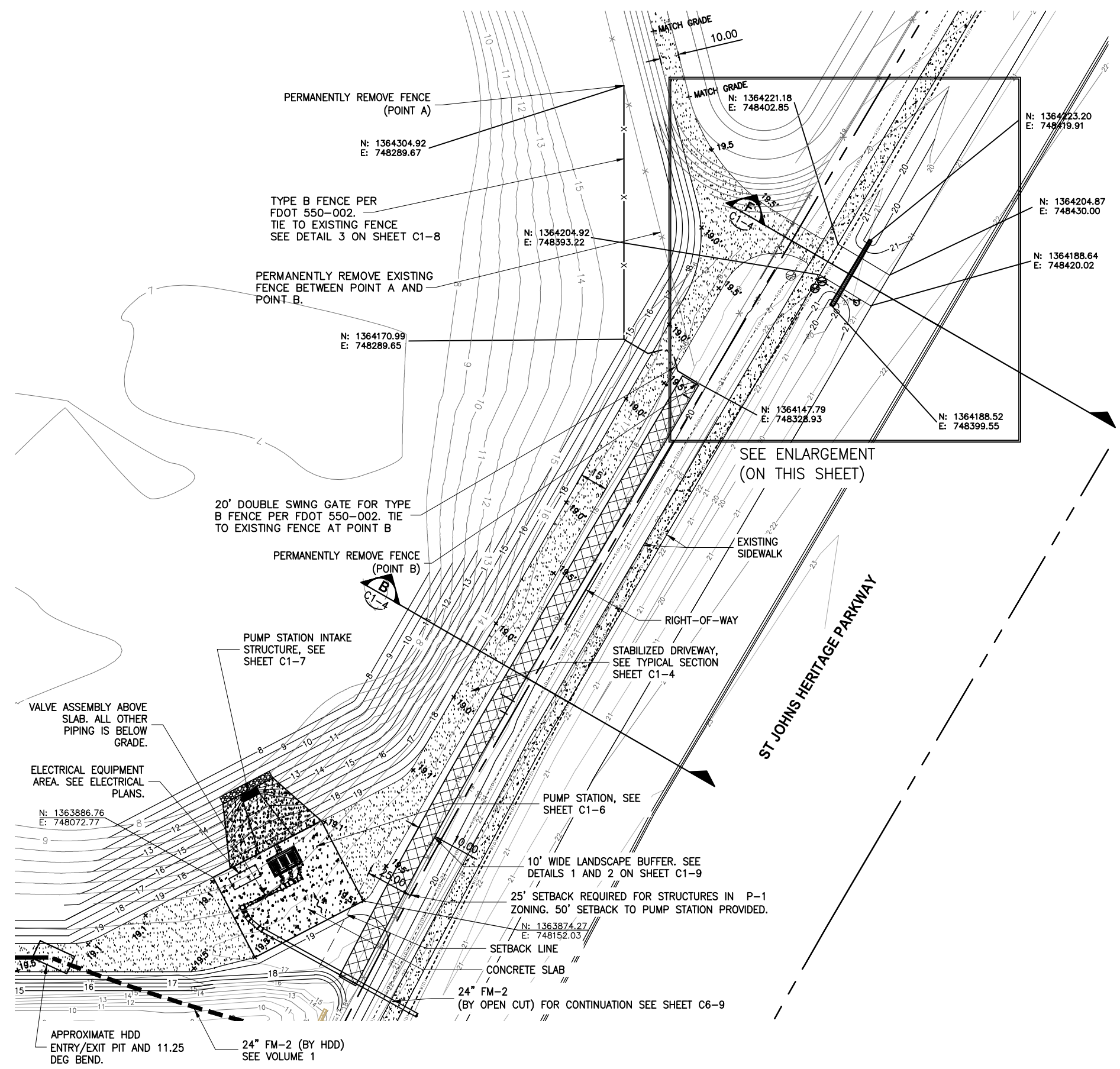
**STORMWATER TREATMENT AREA  
 GRADING PLAN WEST**

<small>                 AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097                  THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT.                  PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.             </small>	PROJECT NO: 19750-066-01	DATE: JULY 2022
<small>                 William Richard             </small>	INDEX NO: C1-2	DATE: 6/2/2022

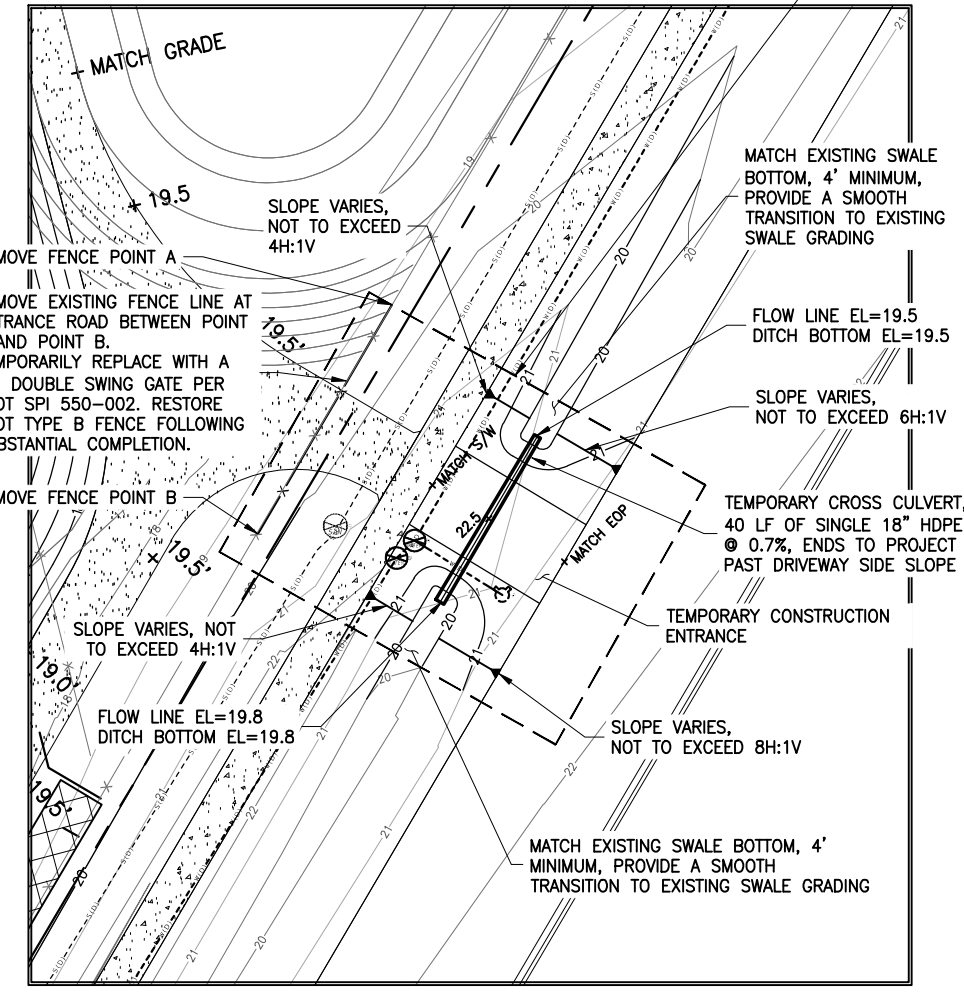
BID DOCUMENTS

Approved  
 2022 JUL 20 10:00 AM  
 William Richard  
 6/2/2022

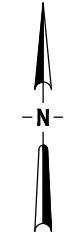
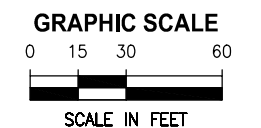
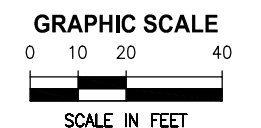
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 7/20/2022 1:57 PM JALLEN



LIMITS OF TEMPORARY IMPROVEMENTS, DEMOLISH OR REMOVE ALL EXISTING IMPROVEMENTS WITHIN LIMITS EXCEPT FOR SIDEWALK. AFTER SUBSTANTIAL COMPLETION OF PROJECT, RESTORE SWALE, ROADWAY AND SIDEWALK WITHIN THE ST JOHNS HERITAGE PARKWAY ROW TO ITS ORIGINAL CONDITION, SOD ALL DISTURBED AREA WITHIN THE ROW, ROADWAY RESTORATION SHALL BE IN ACCORDANCE WITH BREVARD COUNTY LAND DEVELOPMENT (B.C.L.D.) EXHIBIT 4, SEE SHEETS G9 AND G10



ENLARGEMENT



BID DOCUMENTS

LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	ADD LANDSCAPING AND MISC REVS	JWA	RNK

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

**JonesEdmunds**

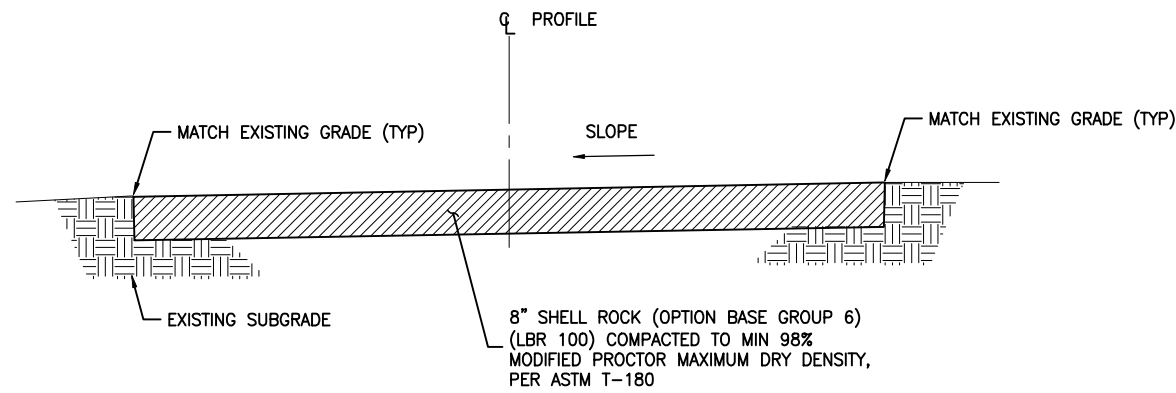
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 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

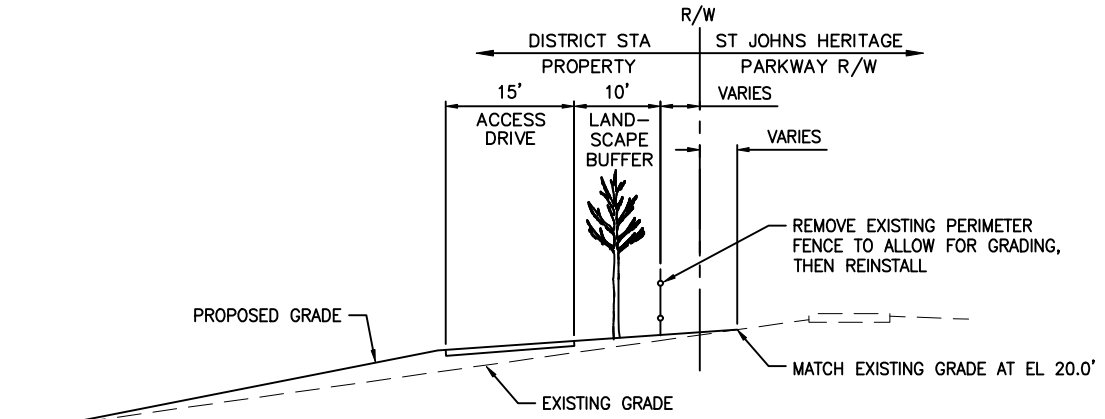
**STORMWATER TREATMENT AREA  
 GRADING PLAN EAST**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097	PROJECT NO: 19750-066-01	DATE: JULY 2022
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT	INDEX NO: C1-3	DWG NO: C1-3
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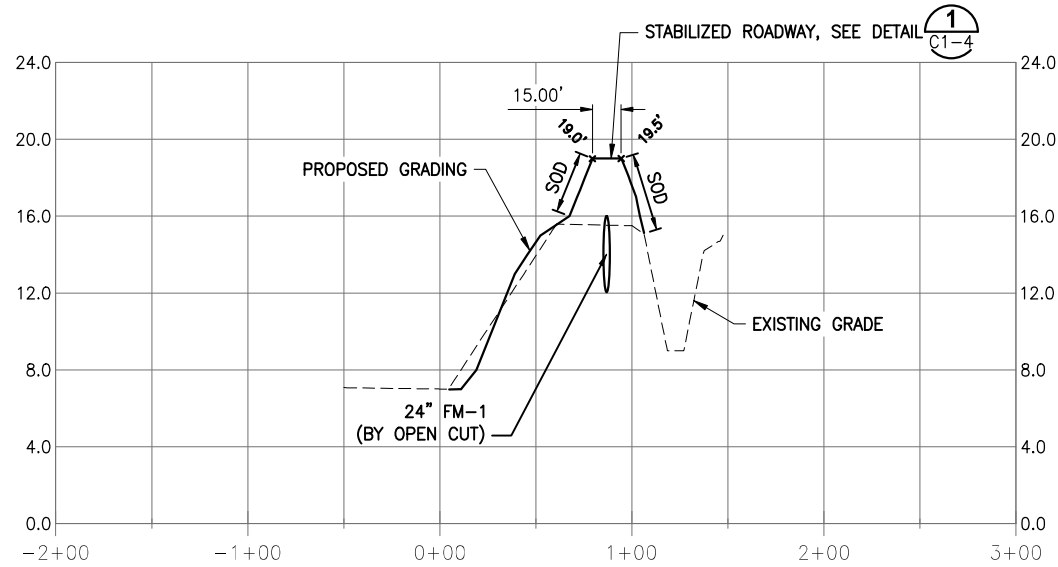
Approved  
 2022  
 William Richard  
 6/2/2022



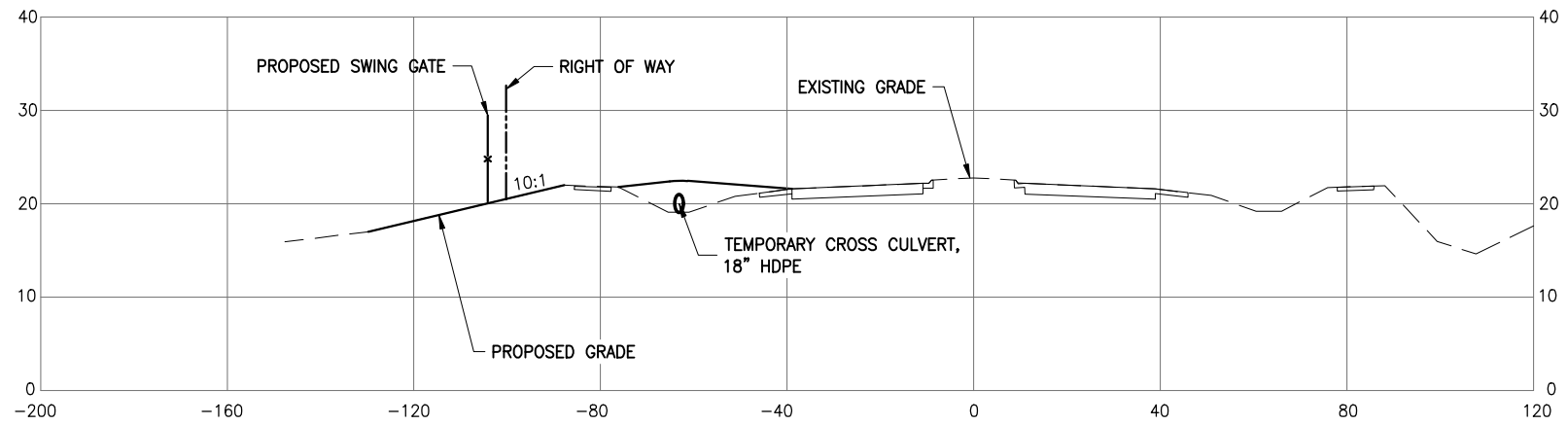
**TYPICAL STABILIZED DRIVEWAY SECTION** (1) NTS C1-4



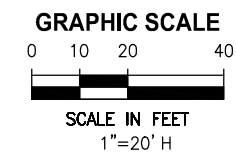
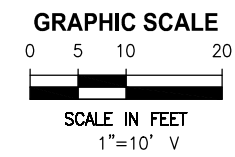
**TYPICAL EAST PERIMETER GRADING SECTION** (B) NTS C1-3



**SECTION E** (1) C1-2 1"=100' H 1"=10' V



**SECTION F** (1) C1-3 1"=20' H 1"=10' V



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BID DOCUMENTS

DESIGNED	A GOODDEN			
DRAWN	J ALLEN			
CHECKED	R KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	ADD PERIMETER SECTION	JWA	RNK

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

**JonesEdmunds**

CERTIFICATE OF AUTHORIZATION #1841  
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

**STORMWATER TREATMENT AREA  
SECTIONS**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097

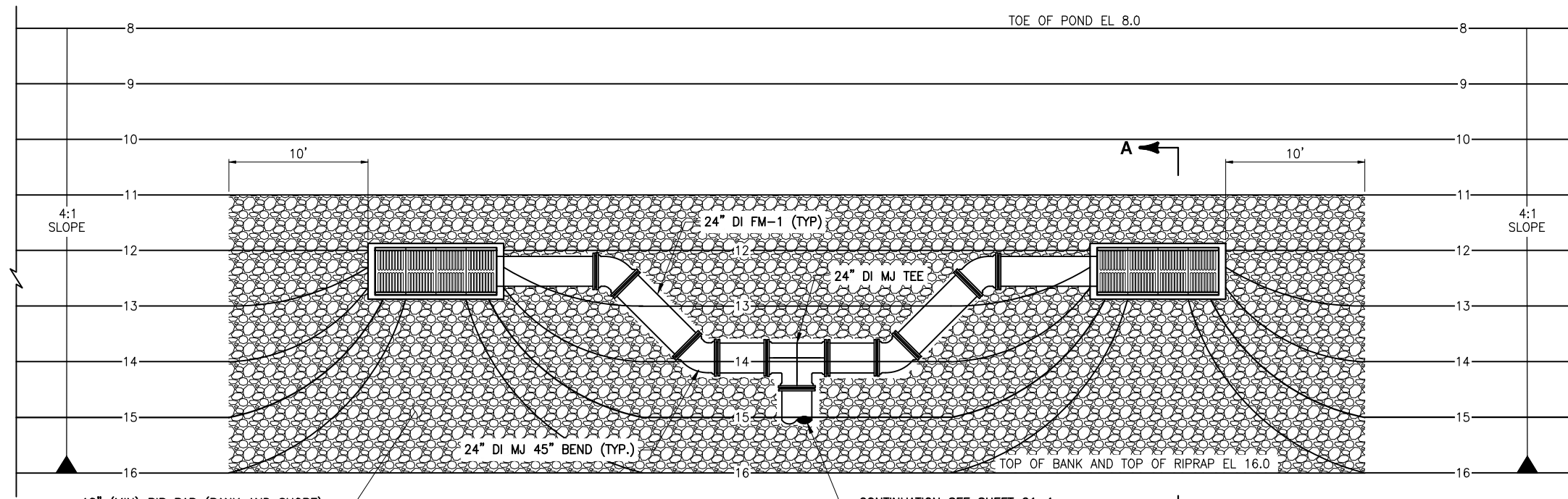
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PROJECT NO: 19750-066-01 DATE: JULY 2022

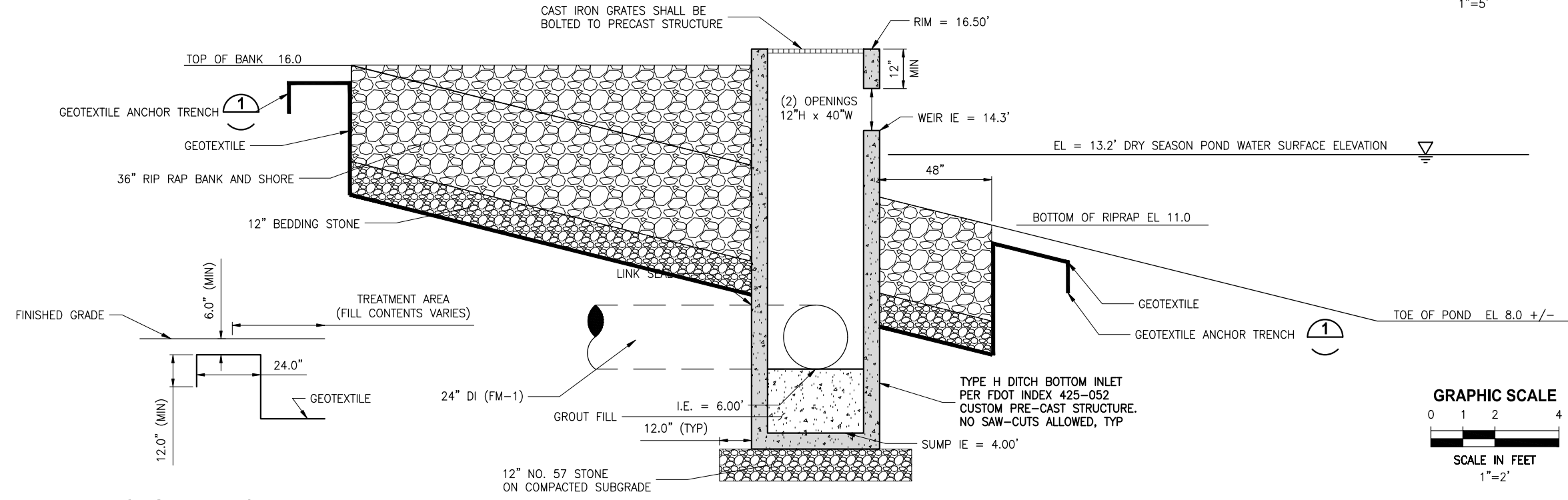
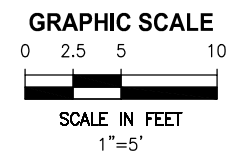
INDEX NO: William Richard DWG NO: C1-4

Approved 8/2/2022



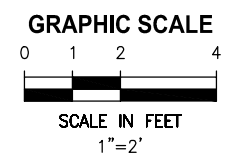
18" (MIN) RIP RAP (BANK AND SHORE)  
OVER 6" (MIN) BEDDING STONE PER  
FDOT SPECIFICATION 530 AND GEOTEXTILE  
TYPE D-2 PER FDOT SPECIFICATION 985

**PLAN VIEW**  
1"=5'



**ANCHOR TRENCH DETAIL**  
1"=2'

**SECTION A-A**  
1"=2'



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LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED A GOODDEN  
DRAWN J ALLEN  
CHECKED R KOLLER

**JonesEdmunds**  
CERTIFICATE OF AUTHORIZATION #1841  
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

**STORMWATER TREATMENT AREA INLET  
DETAILS**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097  
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT.  
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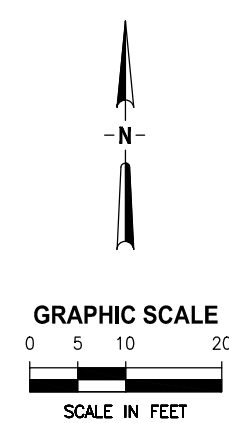
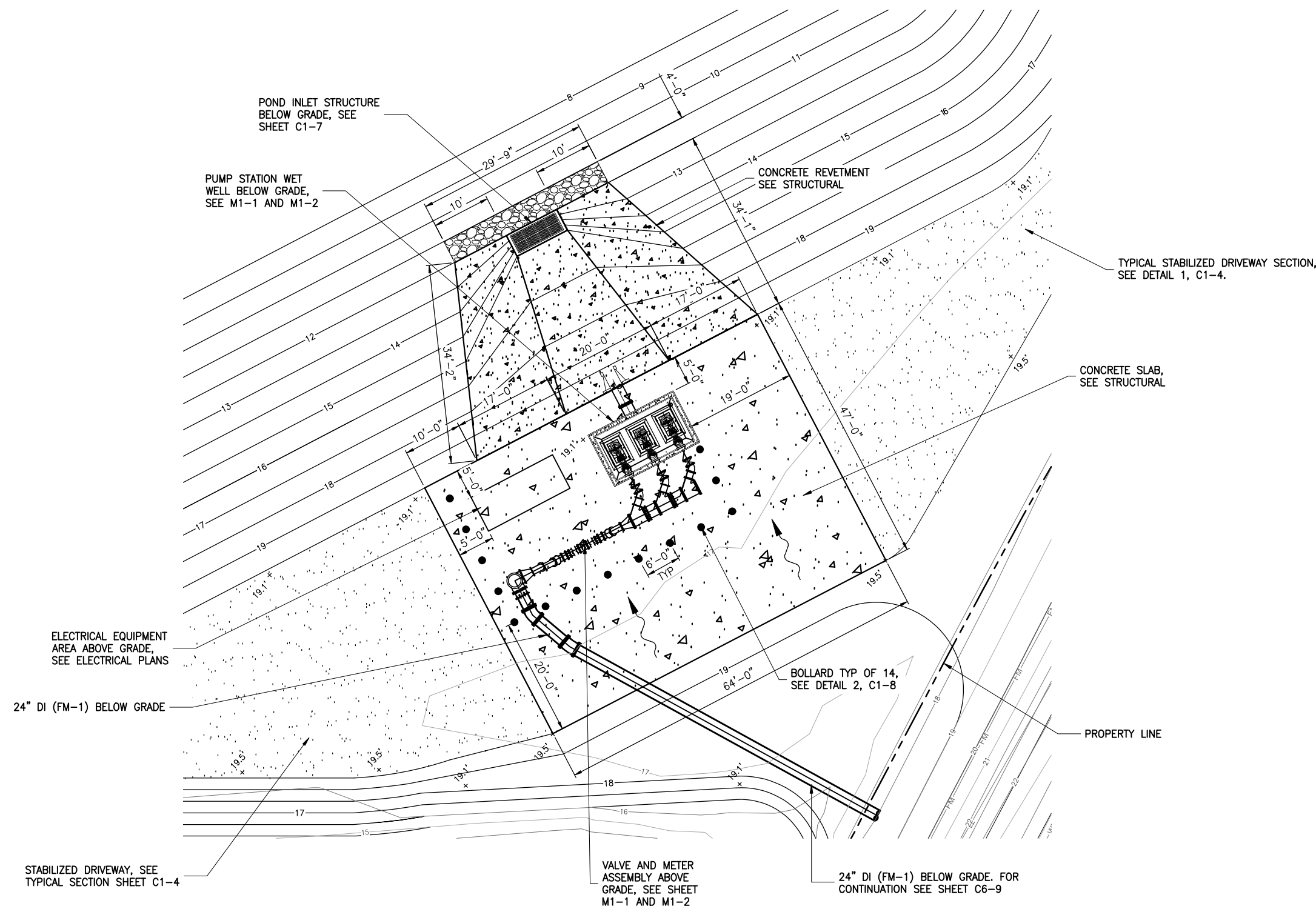
PROJECT NO: 19750-066-01  
DATE: JULY 2022  
INDEX NO: William Richard  
DWG NO: C1-5  
8/2/2022

BID DOCUMENTS

Approved  
2022  
William Richard  
8/2/2022



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 8:24 AM JALLEN  
 7/20/2022



LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	MISC LABELING REVISIONS	JWA	RNK

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

**JonesEdmunds**  
 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2

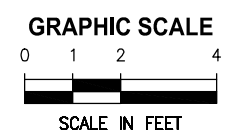
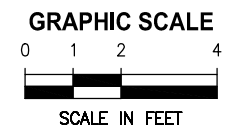
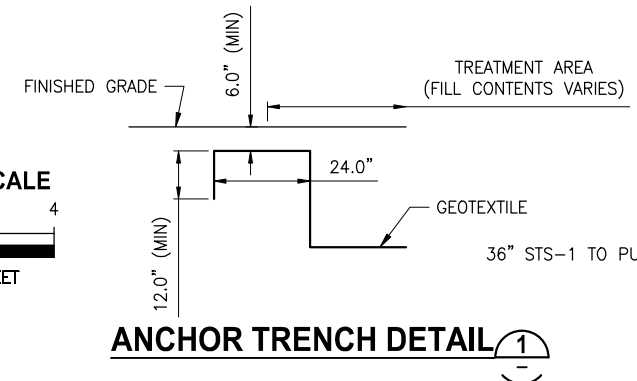
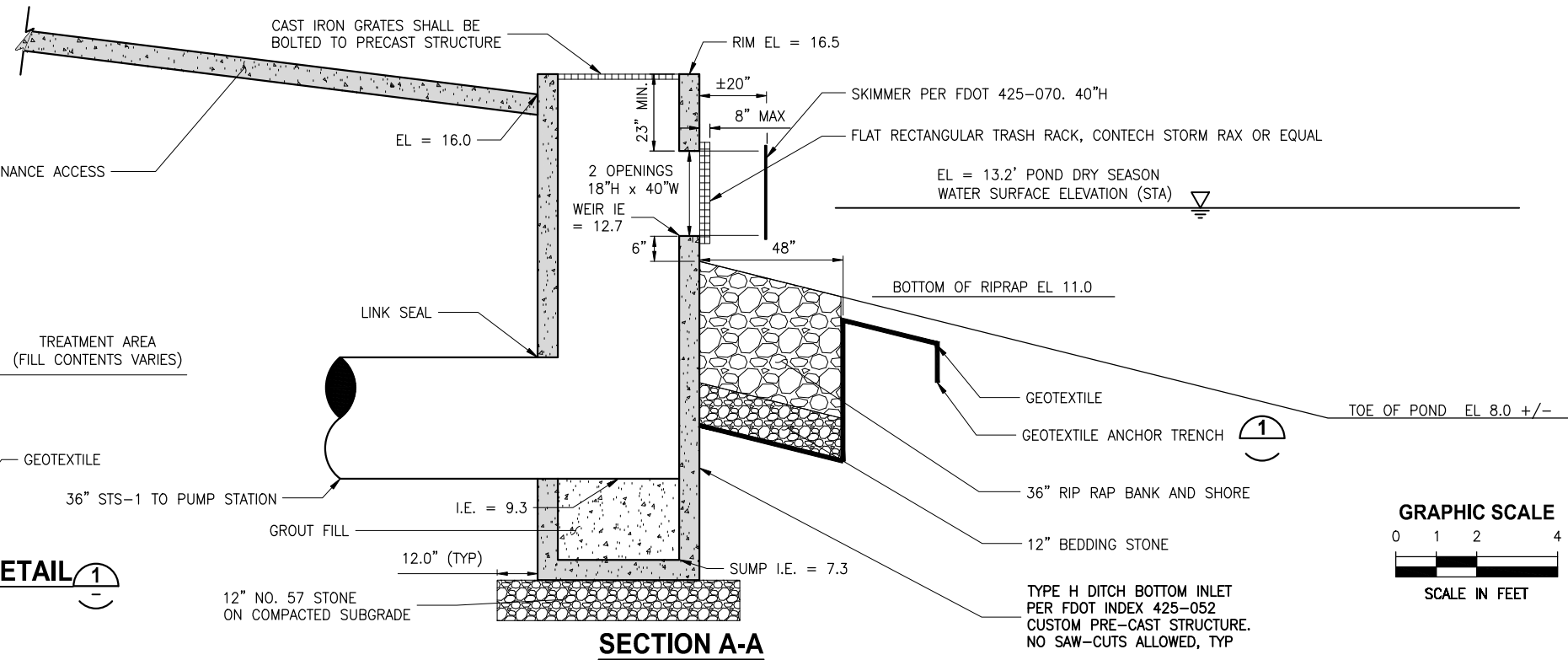
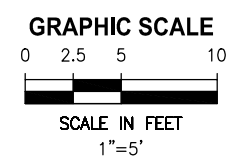
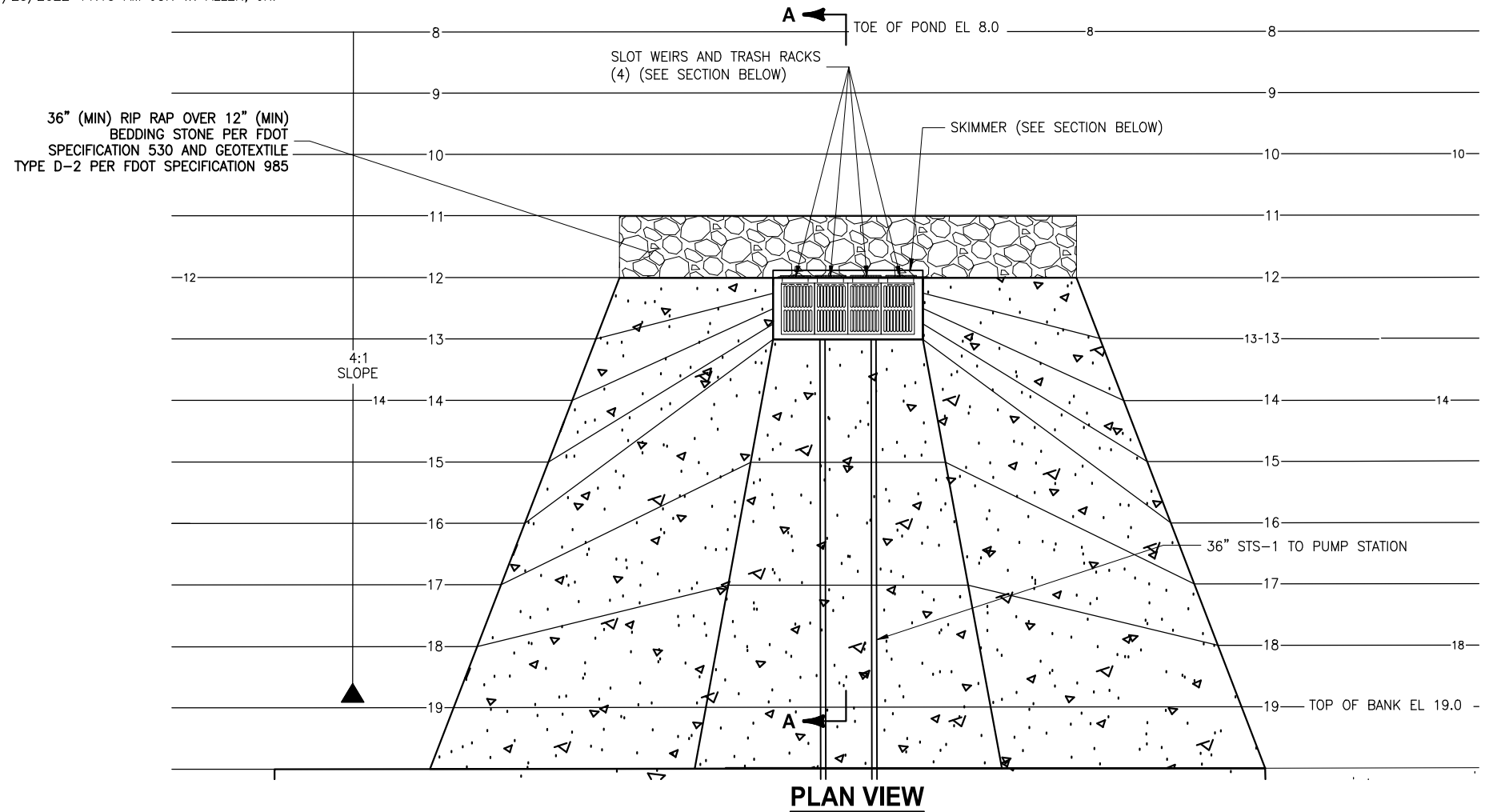
PUMP STATION SITE PLAN

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	PROJECT NO: 19750-066-01	DATE: JULY 2022
	INDEX NO: William Richard	DWG NO: C1-6

Approved  
 2022-07-26  
 William Richard  
 6/2/2022

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 3:21 PM JALLEN



LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED D. SHELDON  
 DRAWN J. ALLEN  
 CHECKED R. KOLLER

**JonesEdmunds**  

 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

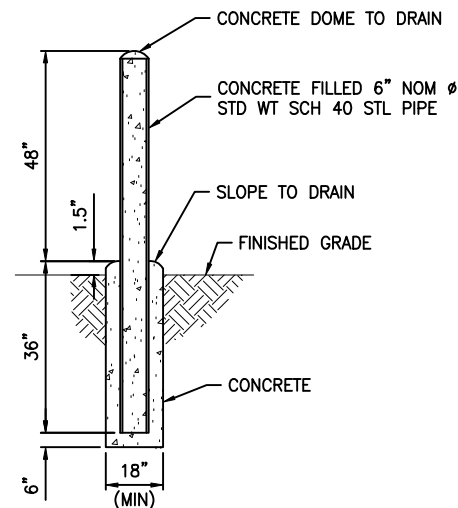
**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**PUMP STATION INTAKE PLAN AND  
 SECTION**

Approved  
 2022-07-26  
 William Richard  
 8/2/2022

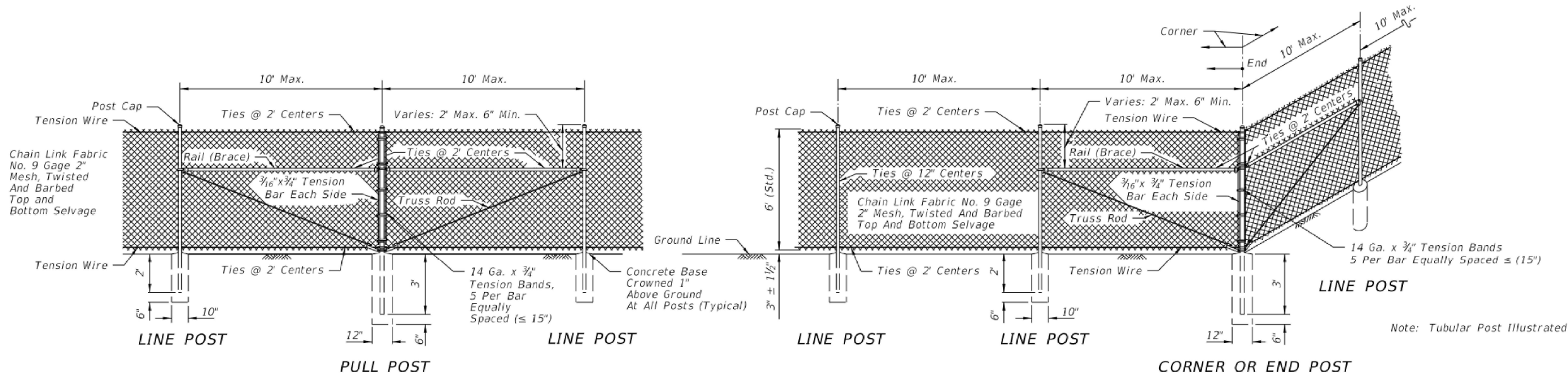
DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA, LICENSE NUMBER 90306	PROJECT NO: 19750-066-01	DATE: JULY 2022
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DONALD J. SHELDON, JR. ON THE DATE INDICATED.	INDEX NO.:	DWG NO.: C1-7
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- NOTES:**
- A. ACTUAL INSTALLATION LOCATION OF EACH BOLLARD SHALL BE AS SHOWN ON THE DRAWINGS OR AS DIRECTED IN THE FIELD.
  - B. PAINT ALL PIPING MATERIALS OSHA SAFETY YELLOW.

**BOLLARD DETAIL 2**  
NTS C1-6



**FDOT TYPE B FENCING ILLUSTRATIVE DETAIL 3**  
REFER TO FDOT STANDARD INDEX 550-002 FOR COMPLETE REQUIREMENTS C1-3, C1-6

Y:\19750-SJRWMD\PROJECTS\066-01\_CRANE\_CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\CIVIL\19750066-VOL2-C1-08.DWG  
 7/8/2022 2:59 PM PBOLLINGER

DESIGNED	A GOODDEN			
DRAWN	J ALLEN			
CHECKED	R KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	ADD FENCE DETAIL	JWA	RNK

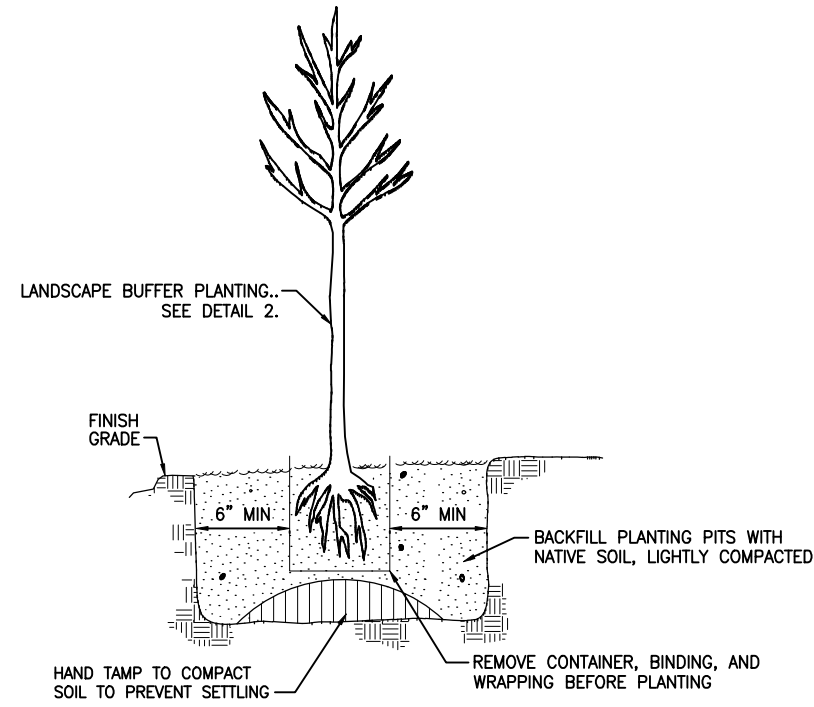
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 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

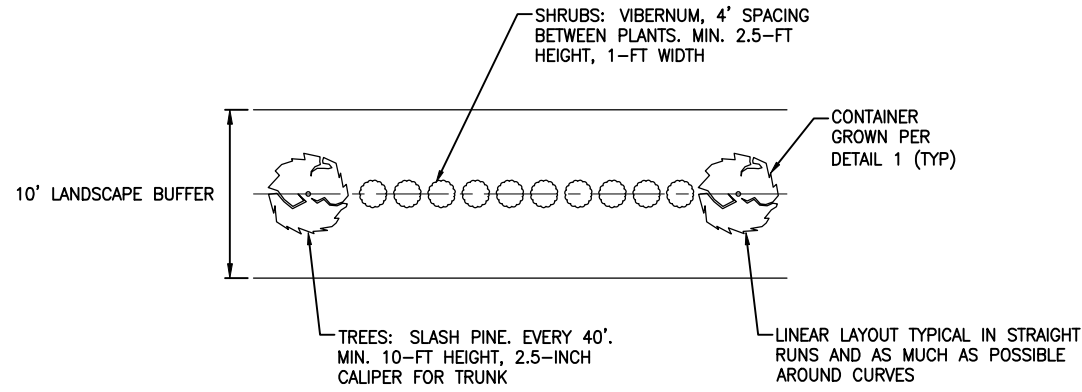
**CIVIL DETAILS**

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INDEX NO: DWG NO: C1-8	Approved 2022-05-30-00026 William Richard 6/2/2022	

BID DOCUMENTS



**TREES AND SHRUBS PLANTING DETAIL** 1  
NTS C1-3



- PLANTING PLAN NOTES:**
1. ALL PLANT MATERIAL SHALL BE CONTAINER GROWN FLORIDA #1 OR BETTER AS OUTLINED BY NURSERY PLANTS, DIVISION OF PLANT INDUSTRY, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
  2. PLANTING WILL NOT BE CONDUCTED UNTIL THE AS-BUILT SURVEY HAS BEEN REVIEWED AND ACCEPTED BY THE OWNER AND ENGINEER.

**LANDSCAPE BUFFER LAYOUT DETAIL** 2  
NTS C1-3

SAVED: 6/16/2022 4:17 PM JALLEN Y:\19750-SJRWMD\PROJECTS\066-01\_CRANE\_CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\CIVIL\19750066-VOL2-C1-09.DWG

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LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	ADD LANDSCAPE DETAIL	JWA	RNK

DESIGNED A GOODDEN  
 DRAWN J ALLEN  
 CHECKED R KOLLER

**JonesEdmunds**  
 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

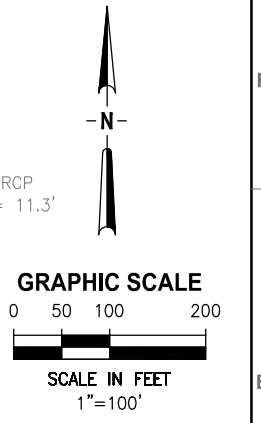
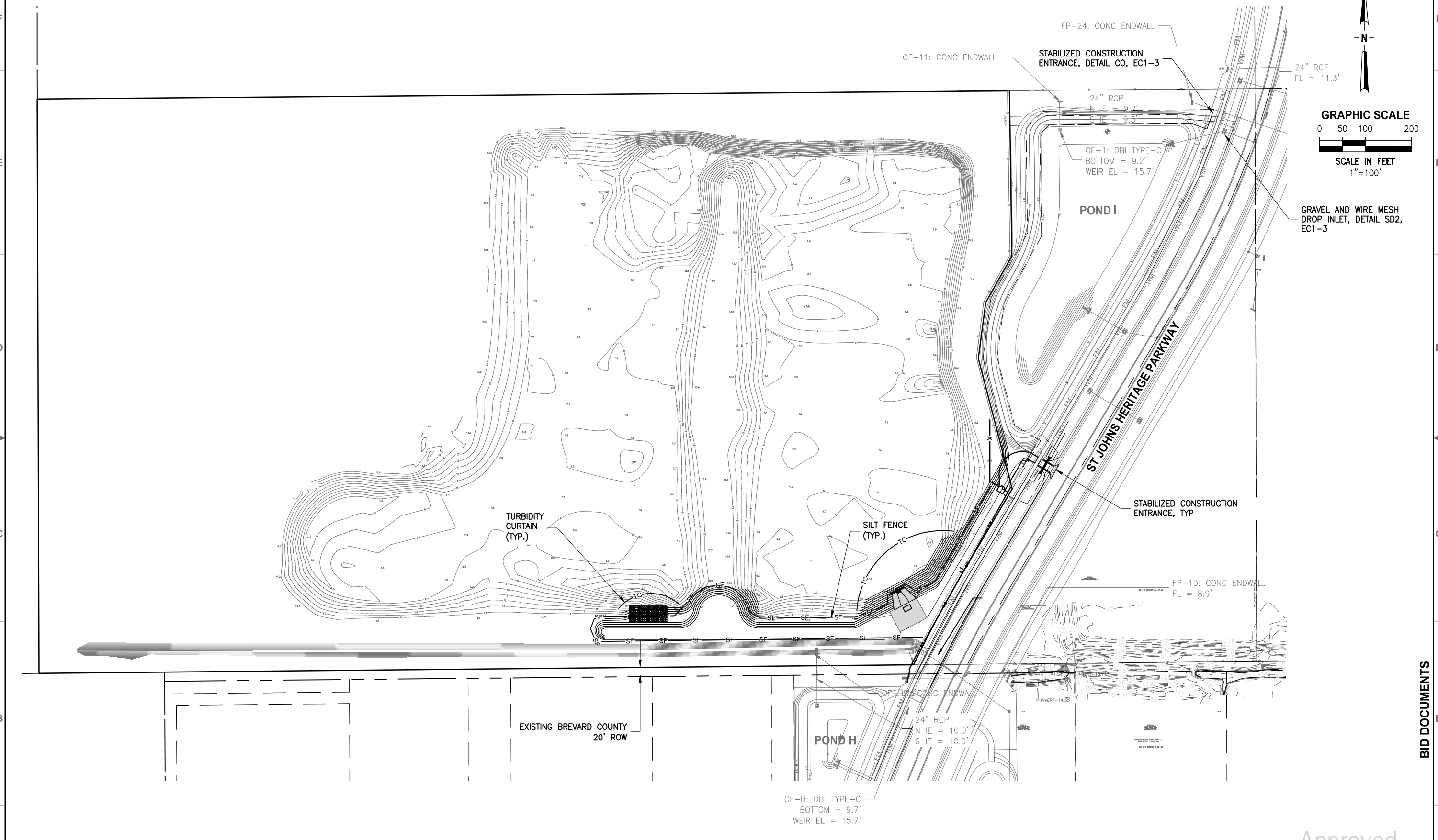
**CIVIL DETAILS**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097  
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PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
 INDEX NO: William Richard  
 DIVS NO: C1-9  
 8/2/2022

Approved

Y:\19750-SURWMD\PROJECTS\066-01\_CRANE\_CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\EROSION CONTROL\19750066-VOL2-EC1-1.DWG  
 7/20/2022 10:03 AM JALLEN



LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

**JonesEdmunds**  

 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**STORMWATER TREATMENT AREA  
 EROSION CONTROL PLAN**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	PROJECT NO: 19750-066-01	DATE: JULY 2022
INDEX NO: EC1-1	DWS NO: EC1-1	

BID DOCUMENTS

Approved  
 2022-07-25  
 William Richard  
 8/2/2022

CONTRACTOR REQUIREMENTS

Table with 4 main columns: SITE DESCRIPTION, GENERAL, SPILL PREVENTION, and MAINTENANCE/INSPECTION PROCEDURES. Includes sub-sections like SEQUENCE OF MAJOR ACTIVITIES, CONTROLS, EROSION AND SEDIMENT CONTROLS, and SPILL CONTROL PRACTICES.

SAVED: 7/20/2022 3:22 PM JALLEN Y:\19750-SJRWMD\PROJECTS\066-01-CRANE CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\EROSION CONTROL\19750066-VOL2-EC1-2.DWG

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Table with columns: LTR., DATE, REVISIONS, BY, APPRD., DESIGNED (A GOODDEN), DRAWN (J ALLEN), CHECKED (R KOLLER).

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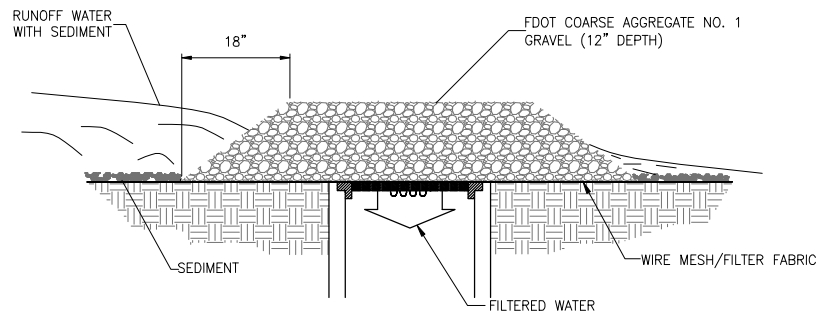
CRANE CREEK M-1 CANAL FLOW RESTORATION VOLUME 2

STORMWATER TREATMENT AREA EROSION CONTROL NOTES

Approval stamp: Approved 7/25/2022, Project No. 19750-066-01, Date: JULY 2022, Signature: William Richard

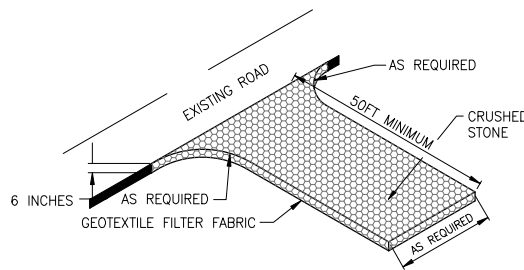
**SEDIMENT AND EROSION CONTROL NOTES**

1. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
2. BEST MANAGEMENT PRACTICES IN ADDITION TO THE ONES SHOWN ON THE PLAN SHEETS MUST BE PROVIDED IN ORDER TO PREVENT SILT FROM LEAVING THE PROJECT SITE DUE TO UNSEEN CONDITIONS AND ACCIDENTS.
3. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
4. WIRE MESH SHALL BE LAID OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM IF 12" BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 3/8" OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
5. FDOT NO.1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED ON SEDIMENT FILTER DETAIL (SEE DETAIL THIS SHEET). THE DEPTH OF STONE SHALL BE AT LEAST 12" OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18" ON ALL SIDES.
6. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
7. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 4". THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
8. NECESSARY REPAIRS TO BARRIERS SHALL BE ACCOMPLISHED PROMPTLY.
9. ANY SEDIMENT DEPOSITS REMAINING IN PLACE, AFTER THE FILTER BARRIERS, AND OR SILT FENCES ARE NO LONGER REQUIRED, SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
10. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR SHOULD BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED IMMEDIATELY.
11. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
12. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER DRAINAGE STRUCTURES AND SWALES AS WELL AS PROVIDE MEASURES TO PREVENT SILTATION OF STORMWATER TREATMENT SYSTEMS AND CONTROL STRUCTURES DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL MANAGE STORMWATER SUCH THAT IMPACT TO CONSTRUCTION IS MINIMIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK, INCLUDING PROVIDING EQUIPMENT, LABOR, FILL, ETC. NECESSARY TO REMEDIATE AND/OR RESTORE ALL AREAS IMPACTED BY EROSION, RUNOFF, AND STORMWATER.
13. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL" AVAILABLE AT [HTTP://WWW.FDOT.GOV/ROADWAY/DRAINAGE/FILES/EROSION-SEDIMENT-CONTROL.PDF](http://www.fdot.gov/roadway/drainage/files/erosion-sediment-control.pdf) AND "FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL" AVAILABLE AT [HTTPS://WWW.DEP.STATE.FL.US/WATER/NONPOINT/DOCS/EROSION/EROSION-INSPECTORS-MANUAL.PDF](https://www.dep.state.fl.us/water/nonpoint/docs/erosion/erosion-inspectors-manual.pdf).
14. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL DOWNSTREAM AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAILS (THIS SHEET) FOR TYPICAL CONSTRUCTION.
15. SOD SHALL BE PLACED IN AREAS WHICH REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITIES ARE MAINTAINED.
16. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL SHALL REMAIN IN PLACE UNTIL AFTER COMPLETION OF CONSTRUCTION, AND REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED.
17. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
18. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO THE OWNER FOR ALL FDEP INQUIRES, RELATIVE TO PERMIT COMPLIANCE, INCLUDING EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.
19. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS AND SPECIFICATIONS AND THE SJRWMD AND FDEP RULES AND REGULATIONS.



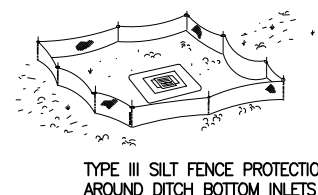
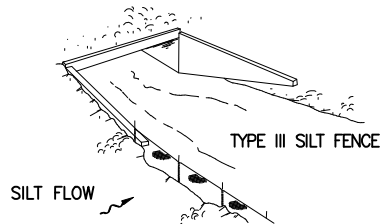
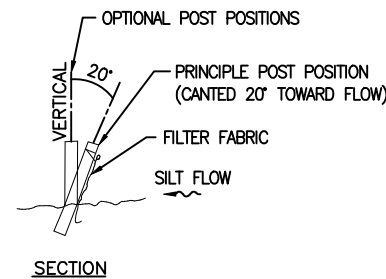
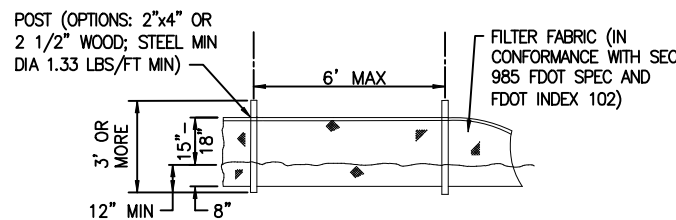
**GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER DETAIL** (Sd2)

NTS



**STABILIZED CONSTRUCTION ENTRANCE** (Co)

NTS



**TYPE III SILT FENCE**

**NOTES:**

- DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
- WHEN JOINING BUTT ENDS OF SILT FENCE FABRIC; JOIN FABRIC ENDS, WRAP AROUND A POST 360-DEGREES, AND SET POST.

**TYPICAL SILT FENCE** (Sd1)

NTS

**STORMWATER POLLUTION PREVENTION PLAN**

INSPECTIONS MUST OCCUR AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM EVENT THAT IS 0.50 INCHES OR GREATER

INSPECTOR: \_\_\_\_\_ FDEP NPDES STORMWATER IDENTIFICATION NUMBER: \_\_\_\_\_

LOCATION	RAIN DATA	TYPE OF CONTROL (SEE BELOW)	DATE INSTALLED / MODIFIED	CURRENT CONDITION (SEE BELOW)	CORRECTIVE ACTION / OTHER REMARKS

CONDITION CODE:  
 G = GOOD  
 C = NEEDS TO BE CLEARED  
 M = MARGINAL, NEEDS MAINTENANCE OR REPLACEMENT SOON  
 P = POOR, NEEDS IMMEDIATE MAINTENANCE OR REPLACEMENT  
 O = OTHER

CONTROL TYPE CODES

1. SILT FENCE	10. STORM DRAIN INLET PROTECTION	19. REINFORCED SOIL RETAINING SYSTEM	28. TREE PROTECTION
2. EARTH DIKES	11. VEGETATIVE BUFFER STRIP	20. GABION	29. DETENTION POND
3. STRUCTURAL DIVISION	12. VEGETATIVE PRESERVATION AREA	21. SEDIMENT BASIN	30. RETENTION POND
4. SWALE	13. RETENTION POND	22. TEMPORARY SEED / SOD	31. WASTE DISPOSAL / HOUSEKEEPING
5. SEDIMENT TRAP	14. CONSTRUCTION ENTRANCE STABILIZATION	23. PERMANENT SEED / SOD	32. DAM
6. CHECK DAM	15. PERIMETER DITCH	24. MULCH	33. SAND BAG
8. PIPE SLOPE DRAIN	16. CURB AND GUTTER	25. WATTLES	34. OTHER
9. LEVEL SPREADERS	17. PAVED ROAD SURFACE	26. GEOTEXTILE	
9. LEVEL SPREADERS	18. ROCK OUTLET PROTECTION	27. RIP-RAP	

INSPECTOR INFORMATION:

NAME: \_\_\_\_\_ QUALIFICATION: \_\_\_\_\_ DATE: \_\_\_\_\_

THE ABOVE SIGNATURE ALSO SHALL CERTIFY THAT THIS FACILITY IS IN COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN AND THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES IF THERE ARE NOT ANY INCIDENTS OF NON-COMPLIANCE IDENTIFIED ABOVE.

\*\*\*\*\*

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

NAME (RESPONSIBLE AUTHORITY) \_\_\_\_\_ DATE \_\_\_\_\_

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 4/18/2022 6:16 PM AGOODDEN

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LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

**JonesEdmunds**

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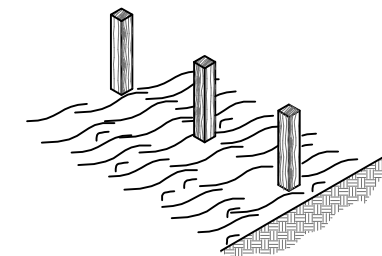
**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

**DETAILS**

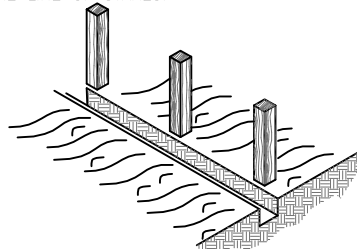
AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097	PROJECT NO: 19750-066-01	DATE: JULY 2022
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 William Richard  
 8/2/2022

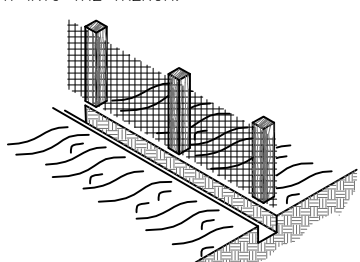
A. SET THE STAKES.



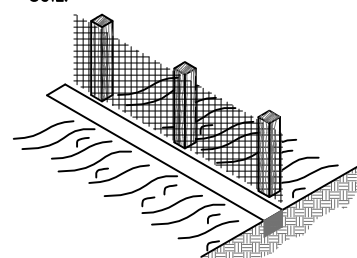
B. EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.



C. STAPLE SILT FENCE TO STAKES AND EXTEND IT INTO THE TRENCH.



D. BACKFILL AND COMPACT THE EXCAVATED SOIL.



**CONSTRUCTION OF A SILT FENCE DETAIL 1**

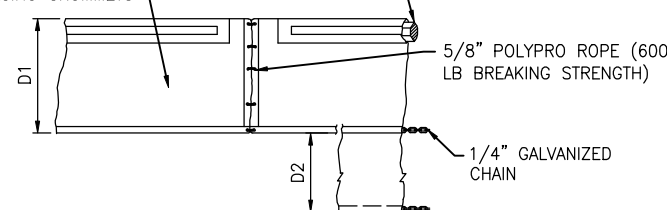
NTS

18oz NYLON REINF PVC FABRIC (300 PSI TEST) WITH LACING GROMMETS

CLOSED CELL SOLID PLASTIC FOAM FLOTATION (6" DIA EQUIV) (12 LBS PER FT BUOYANCY)

5/16" VINYL SHEATHED EAW STEEL CABLE (9800 LBS BREAKING STRENGTH) WITH GALVANIZED CONNECTORS (TOOL FREE DISCONNECT)

CLOSED CELL SOLID PLASTIC FOAM FLOTATION (8" DIA EQUIV) (17 LBS PER FT BUOYANCY)



**TYPE 1**

D1 = 5' STD (SINGLE PANEL FOR DEPTHS 5' OR LESS)  
D2 = 5' STD (ADDITIONAL PANEL FOR DEPTHS 5')

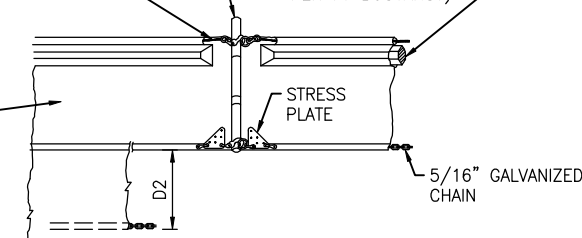
CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALL FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTICE: COMPONENTS OF TYPES 1 AND 2 MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES 1 AND 2 SHALL BE AS APPROVED BY THE ENGINEER.

SLOTTED PVC CONNECTOR PIPE (METAL COLLAR REINFORCED)

18oz NYLON REINF PVC FABRIC (300 PSI TEST)

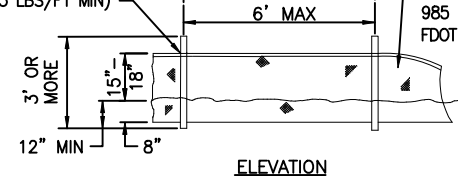
STRESS PLATE



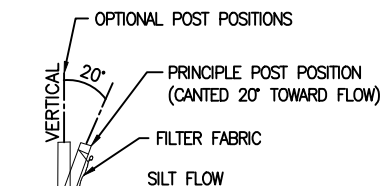
**TYPE 2**

**TYPICAL FLOATING TURBIDITY BARRIER DETAIL**

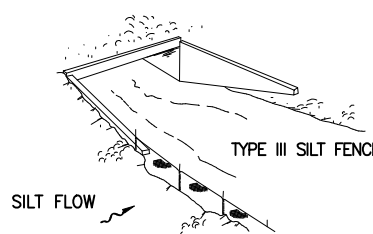
POST (OPTIONS: 2"x4" OR 2 1/2" WOOD; STEEL MIN DIA 1.33 LBS/FT MIN)



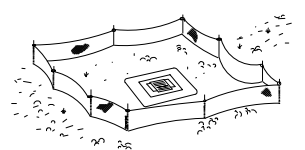
ELEVATION



SECTION



TYPE III SILT FENCE



TYPE III SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS

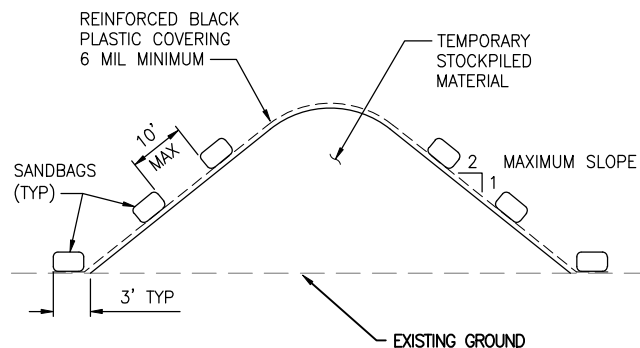
**TYPE III SILT FENCE**

NOTES:

- A. DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
- B. WHEN JOINING BUTT ENDS OF SILT FENCE FABRIC; JOIN FABRIC ENDS, WRAP AROUND A POST 360-DEGREES, AND SET POST.

**FDOT INDEX NUMBER 102 SILT FENCE DETAIL 3**

NTS



NOTES:

- 1. ALL SEAMS SHALL BE TAPED OR WEIGHTED DOWN FULL LENGTH. ALL SEAMS SHALL HAVE A MINIMUM 12" OVERLAP.
- 2. SEAMS PARALLEL TO THE SLOPE CONTOUR SHALL HAVE THE UPHILL SHEET OVERLAP THE DOWN HILL SHEET.
- 3. NO SURFACE RUN-OFF SHALL BE ALLOWED TO RUN UNDER THE PLASTIC COVERING.
- 4. DRAINAGE FROM AREAS COVER BY REINFORCED PLASTIC SHEETING SHALL BE CONTROLLED SUCH THAT NO DISCHARGE OCCURS DIRECTLY ONTO UNCONTROLLED DISTURBED AREAS OF THE CONSTRUCTION SITE.

**TEMPORARY STOCKPILE COVERING**

NTS

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LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED A GOODDEN  
DRAWN J ALLEN  
CHECKED R KOLLER

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CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2

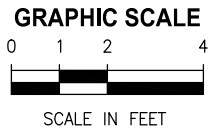
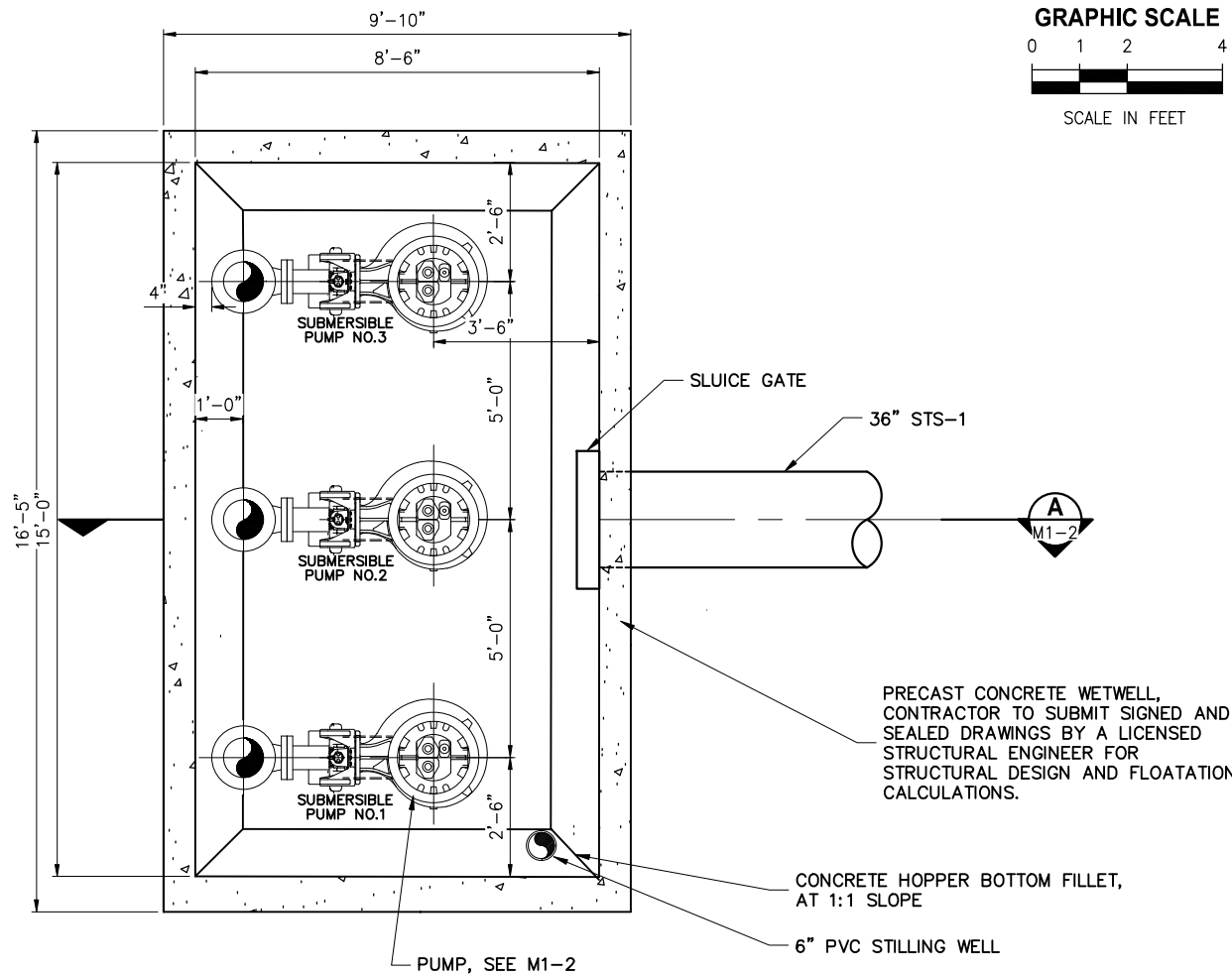
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AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097	PROJECT NO: 19750-066-01	DATE: JULY 2022
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Approved  
2022-08-02  
William Richard  
8/2/2022





**LOWER PLAN 1**

PRECAST CONCRETE WETWELL,  
CONTRACTOR TO SUBMIT SIGNED AND  
SEALED DRAWINGS BY A LICENSED  
STRUCTURAL ENGINEER FOR  
STRUCTURAL DESIGN AND FLOATION  
CALCULATIONS.

CONCRETE HOPPER BOTTOM FILLET,  
AT 1:1 SLOPE

6" PVC STILLING WELL

PUMP, SEE M1-2

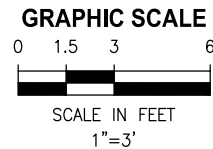
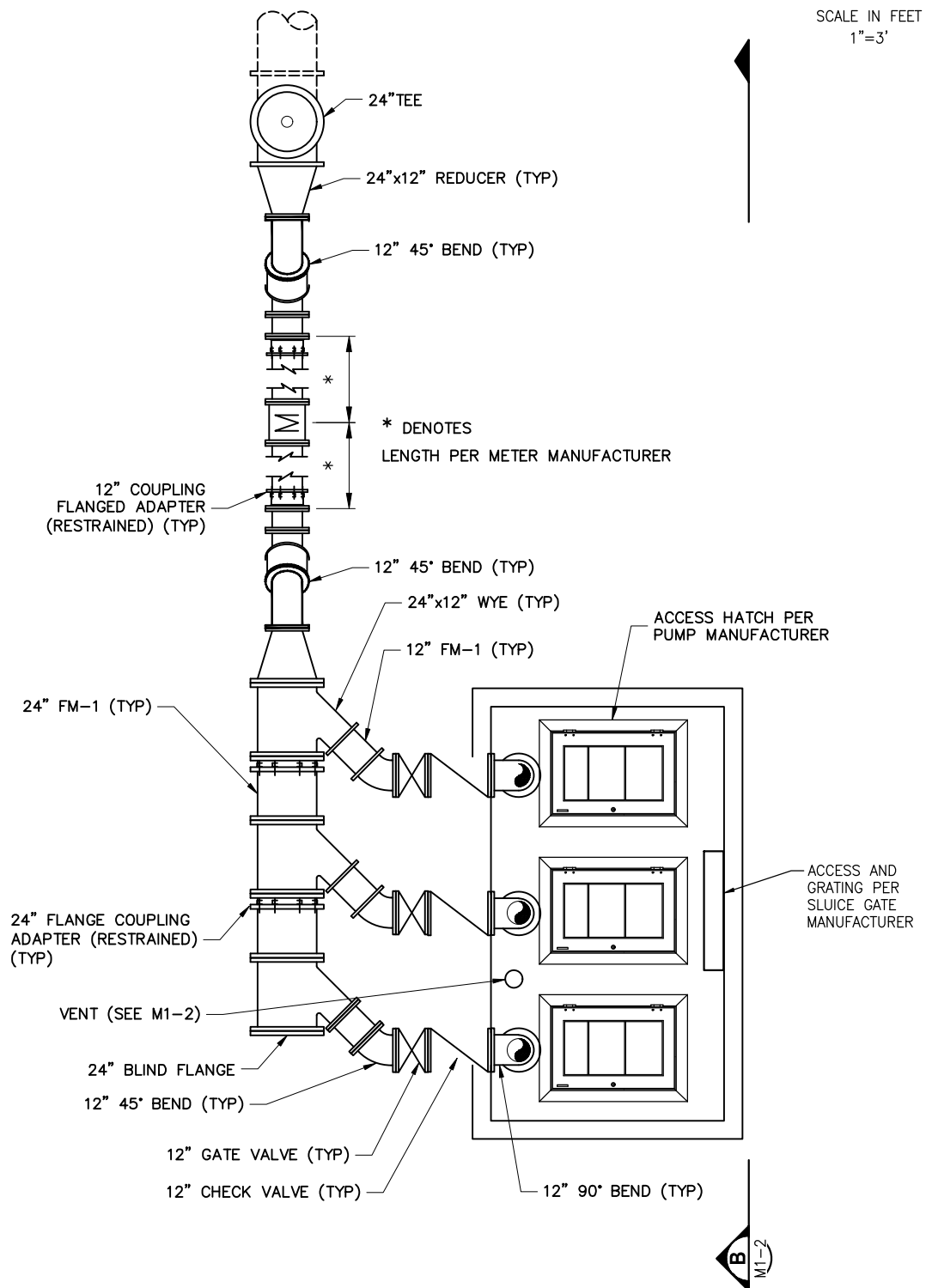
SLUICE GATE

36" STS-1

SUBMERSIBLE  
PUMP NO.3

SUBMERSIBLE  
PUMP NO.2

SUBMERSIBLE  
PUMP NO.1



\* DENOTES  
LENGTH PER METER MANUFACTURER

12" COUPLING  
FLANGED ADAPTER  
(RESTRAINED) (TYP)

12" 45° BEND (TYP)

24"x12" WYE (TYP)

12" FM-1 (TYP)

ACCESS HATCH PER  
PUMP MANUFACTURER

24" FM-1 (TYP)

24" FLANGE COUPLING  
ADAPTER (RESTRAINED)  
(TYP)

ACCESS AND  
GRATING PER  
SLUICE GATE  
MANUFACTURER

VENT (SEE M1-2)

24" BLIND FLANGE

12" 45° BEND (TYP)

12" GATE VALVE (TYP)

12" CHECK VALVE (TYP)

12" 90° BEND (TYP)

**UPPER PLAN 1**

Y:\19750-SURWMD\PROJECTS\066-01\_CRANE CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\MECHANICAL\19750066-VOL2-M1-1.DWG  
 7/20/2022 11:18 AM JALLEN

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED D. SHELDON  
 DRAWN J. ALLEN  
 CHECKED R. KOLLER

**JonesEdmunds**  
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 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

**PUMP STATION PLAN**

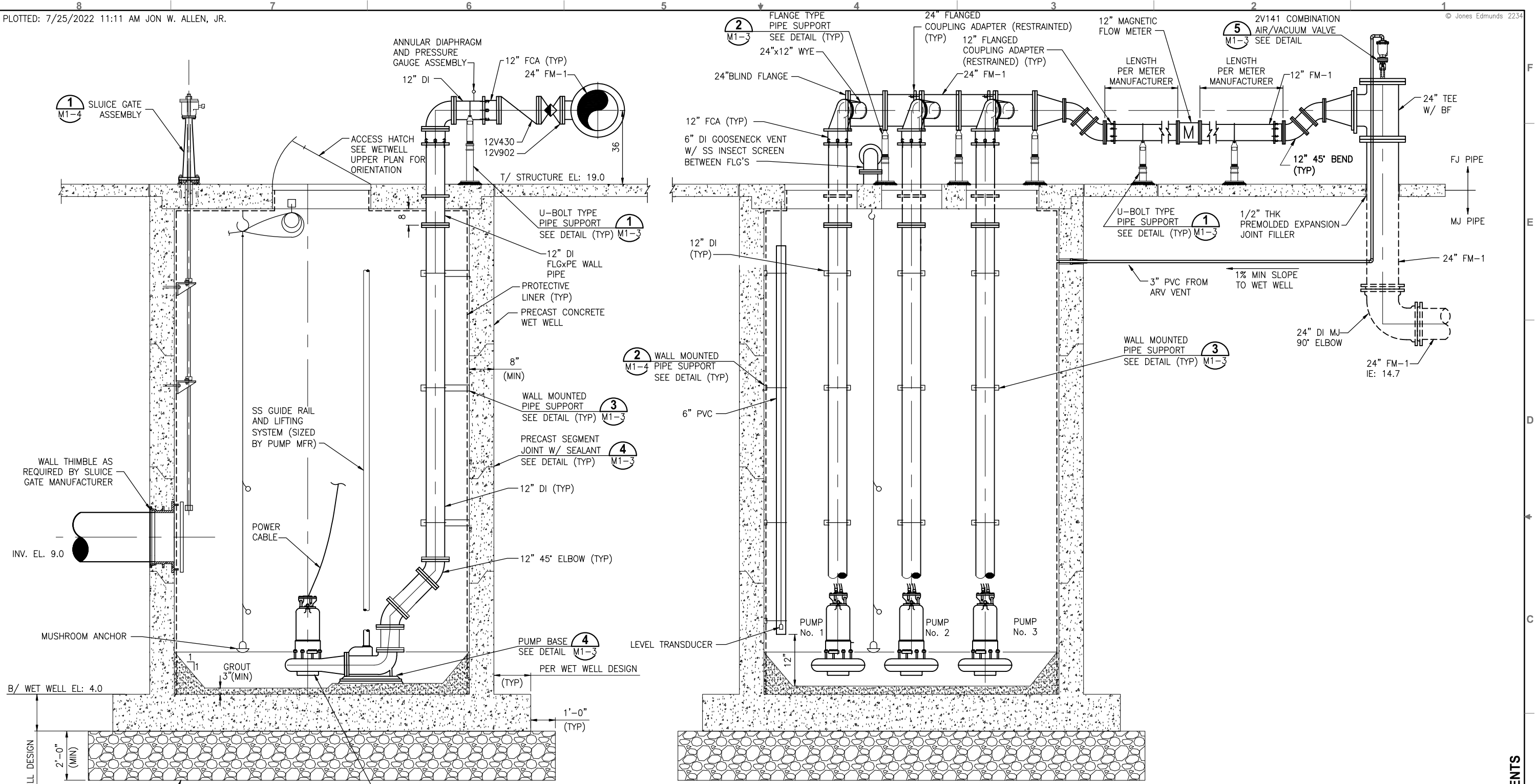
DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA,  
 LICENSE NUMBER 90306  
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 DONALD J. SHELDON, JR. ON THE DATE INDICATED.  
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PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
 INDEX NO: William Richard  
 DWG NO: M1-1  
 8/2/2022

BID DOCUMENTS

Approved

Y:\19750-SURWMD\PROJECTS\066-01\_CRANE\_CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\MECHANICAL\19750066-VOL2-M1-2.DWG  
 7/20/2022 10:06 AM JALLEN



**SECTION A**  
N.T.S.

**SECTION B**  
N.T.S.

PUMP LEVEL CONTROL		
FUNCTION	CONTROLLED BY	ELEVATION
HIGH LEVEL ALARM - ALL PUMPS OFF	FLOAT	15.1
LAG - LAG PUMP ON	TRANSDUCER	14.5
LAG PUMP ON	TRANSDUCER	13.9
LEAD PUMP ON	TRANSDUCER	13.5
ALL PUMPS OFF	TRANSDUCER	13.0
LOW LEVEL ALARM - ALL PUMPS OFF	FLOAT	12.8

DESIGNED	D. SHELDON
DRAWN	J. ALLEN
CHECKED	R. KOLLER

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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**PUMP STATION SECTIONS**

Approved  
 2022-08-02  
 William Richard  
 8/2/2022

PROJECT NO.	19750-066-01	DATE	JULY 2022
INDEX NO.		DWG NO.	M1-2

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**PIPE SUPPORT  
DIMENSION TABLE**

PIPE SIZE	A	B	C		D
			MIN	MAX	
INCHES					
4	4	9	9 1/4	14	3
5	4	9	10	14 3/4	3
6	4	9	10 1/2	15 1/4	3
8	4	9	11 3/4	16 1/2	3
10	4	9	13 1/2	18 1/4	3
12	4	9	15	19 3/4	3
14	4	11	16 1/4	20 3/4	3
16	4	11	17 3/4	22 1/4	3
18	6	13 1/2	19 1/2	24	4
20	6	13 1/2	21	25 1/2	4
24	6	13 1/2	23 3/4	28 1/4	4

**NOTES:**

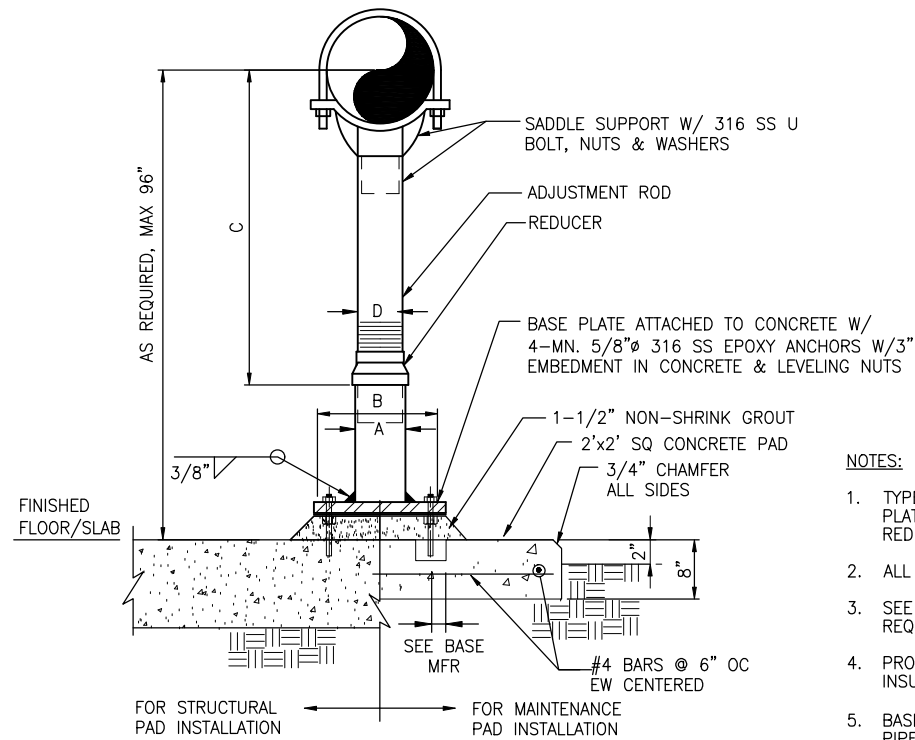
- TYPE 1 PIPE SUPPORT: PIPE SADDLE, ADJUSTMENT ROD, BASE PLATE, ETC. SHALL BE HOT DIP GALVANIZED CARBON STEEL. REDUCER SHALL BE CAST IRON.
- ALL HARDWARE SHALL BE 316 SS.
- SEE PLANS AND SECTIONS FOR PIPE CENTERLINE ELEVATION REQUIREMENTS.
- PROVIDE RIGID INSULATION PROTECTION SHIELD WHERE PIPING IS INSULATED.
- BASE PLATES SHALL BE SQUARE AND BE 3/8-INCH THICK FOR PIPE SIZES THROUGH 10-INCH. FOR ALL LARGER PIPES BEING SUPPORTED, THE BASE PLATES SHALL BE 1/2-INCH THICK.

**PIPE SUPPORT  
DIMENSION TABLE**

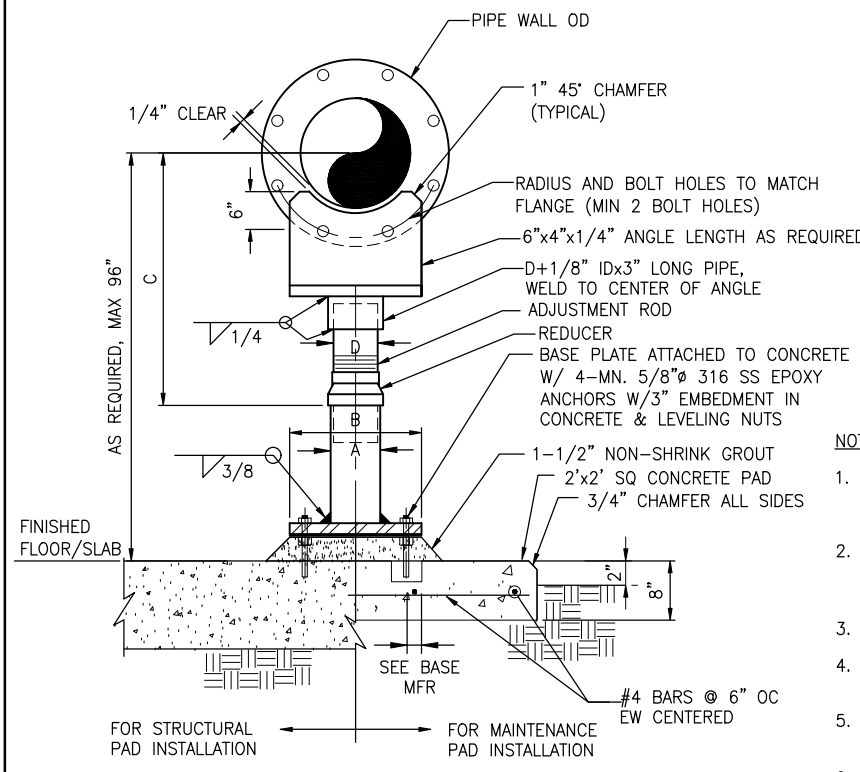
PIPE SIZE	A	B	C		D
			MIN	MAX	
INCHES					
4	4	9	9 1/4	14	3
5	4	9	10	14 3/4	3
6	4	9	10 1/2	15 1/4	3
8	4	9	11 3/4	16 1/2	3
10	4	9	13 1/2	18 1/4	3
12	4	9	15	19 3/4	3
14	4	11	16 1/4	20 3/4	3
16	4	11	17 3/4	22 1/4	3
18	6	13 1/2	19 1/2	24	4
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24	6	13 1/2	23 3/4	28 1/4	4

**NOTES:**

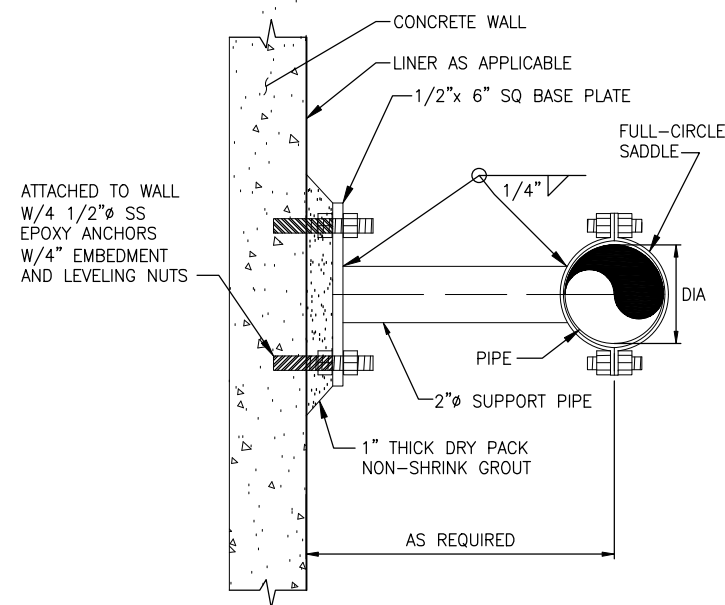
- TYPE 1 PIPE SUPPORT: PLATE, PIPE SADDLE, ADJUSTMENT ROD, BASE PLATE, ETC. SHALL BE HOT DIP GALVANIZED CARBON STEEL. REDUCER SHALL BE CAST IRON.
- HOT DIP GALVANIZE ENTIRE PIPE SUPPORT AND STEEL BASE PLATE AFTER FABRICATION (EXCEPT FOR STAINLESS STEEL FASTENING HARDWARE).
- ALL HARDWARE SHALL BE 316 SS.
- SEE PLANS AND SECTIONS FOR PIPE CENTERLINE ELEVATION REQUIREMENTS.
- PROVIDE RIGID INSULATION PROTECTION SHIELD WHERE PIPING IS INSULATED.
- BASE PLATES SHALL BE SQUARE AND BE 3/8-INCH THICK FOR PIPE SIZES THROUGH 10-INCH. FOR ALL LARGER PIPES BEING SUPPORTED, THE BASE PLATES SHALL BE 1/2-INCH THICK.



**PIPE SUPPORT - U-BOLT TYPE 1**  
NTS



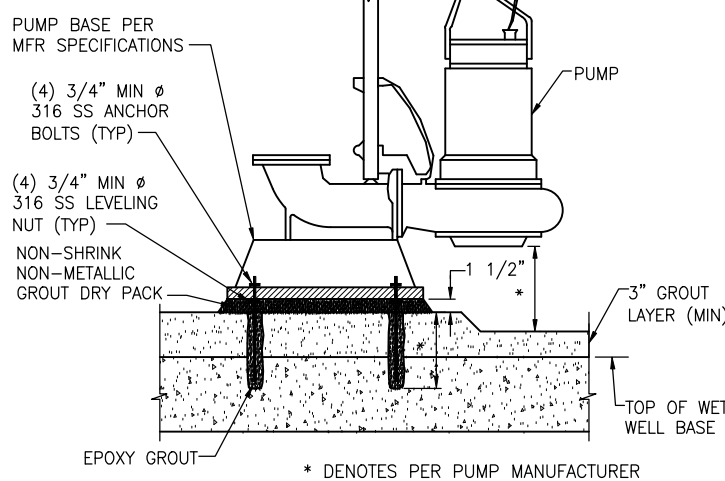
**FLANGE TYPE PIPE SUPPORT DETAIL 2**  
NTS



**NOTES:**

- ALL HARDWARE, PLATE, SADDLE, PIPE SUPPORT, ETC. SHALL BE 316 SERIES SS.
- SUPPORT PIPE SHALL BE SCH 40.

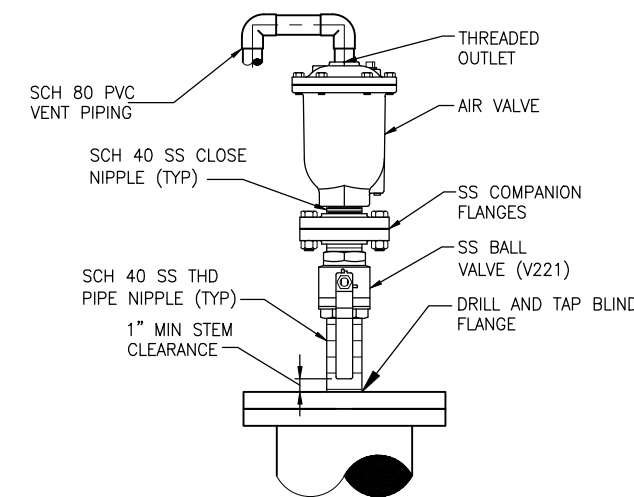
**PIPE SUPPORT - WALL MOUNTED 3**  
NTS



**NOTE:**

- FORM BENCH AS DIRECTED BY PUMP MANUFACTURER.

**PUMP BASE DETAIL 4**  
NTS



**NOTES:**

- SEE DRAWINGS FOR AIR VALVE TYPE AND INLET DIAMETER.
- BALL VALVE AND NIPPLES SHALL HAVE THE SAME DIAMETER AS THE AIR VALVE INLET.
- VERIFY SIZE OF VALVE PRIOR TO ORDERING ANCILLARY PARTS, DRILLING OR TAPPING.
- VENT PIPING SHALL BE DRAINED TO WET WELL AS SHOWN ON THE PLANS.

**FLANGE MOUNTED AIR VALVE 5**  
NTS

SAVED: 12/17/2021 4:22 PM PBOLLINGER Y:\19750-SURWMD\PROJECTS\066-01-CRANE CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\MECHANICAL\19750066-VOL2-M1-3.DWG

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED D. SHELDON  
DRAWN J. ALLEN  
CHECKED R. KOLLER

**JonesEdmunds**  
CERTIFICATE OF AUTHORIZATION #1841  
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

**PUMP STATION DETAILS**

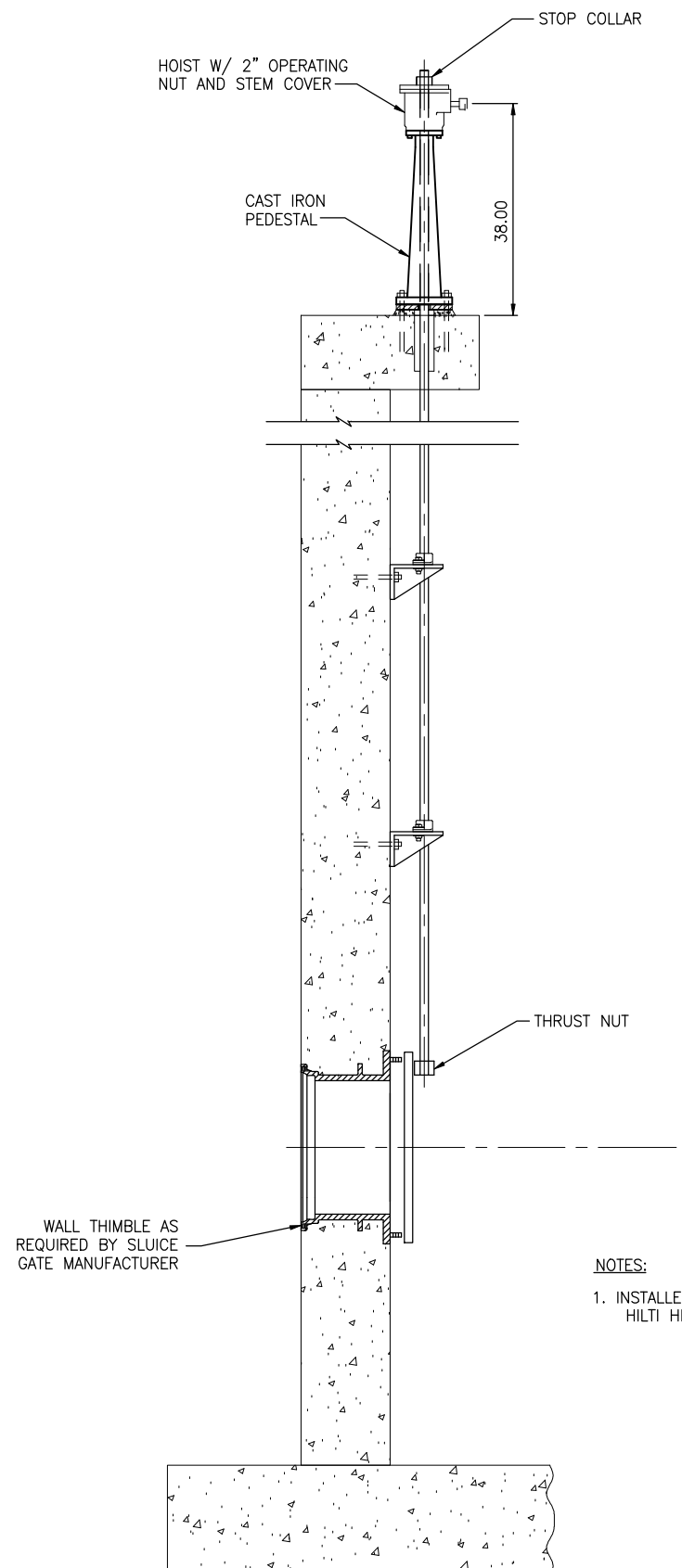
Approved  
2022-07-25  
William Richard  
8/2/2022

DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA, LICENSE NUMBER 90306  
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PROJECT NO: 19750-066-01  
DATE: JULY 2022  
INDEX NO: William Richard  
DWS NO: M1-3

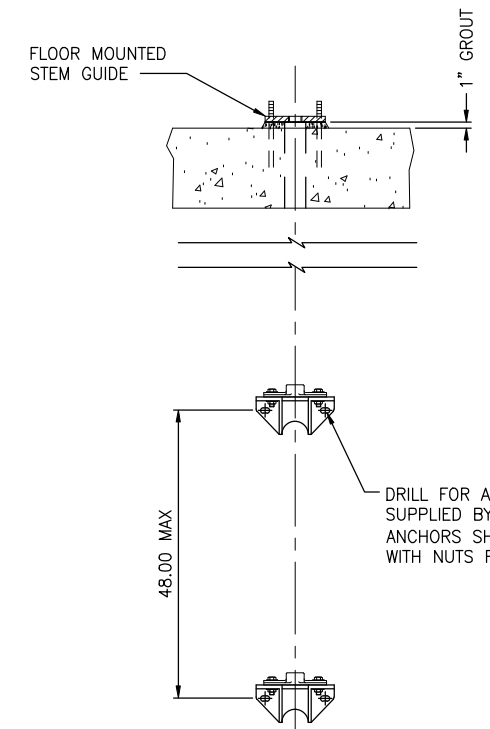
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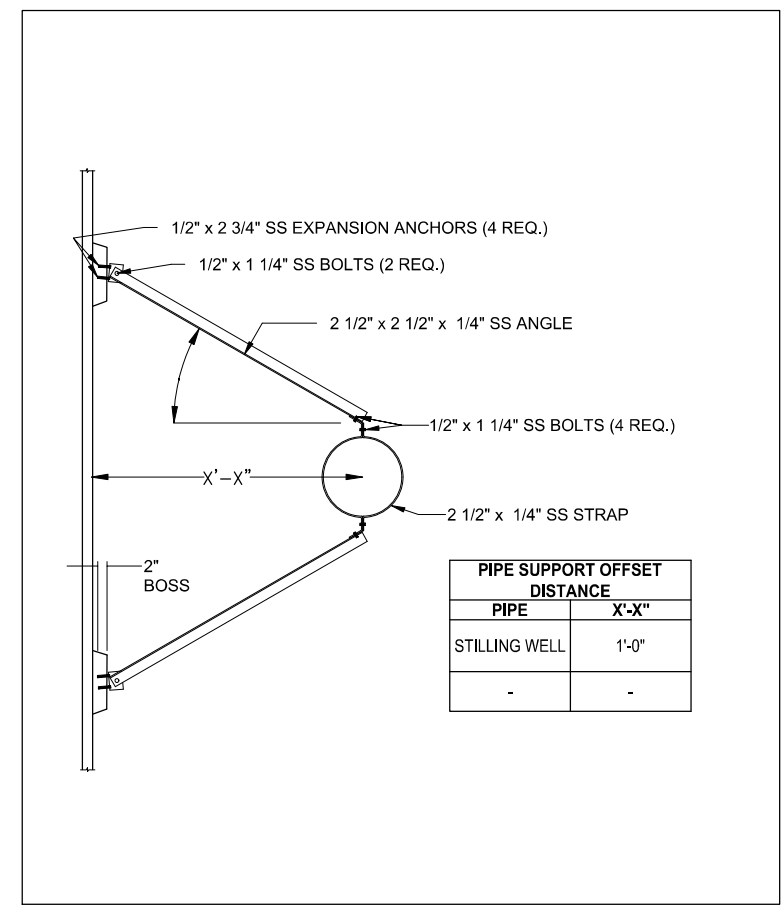
**ELEVATION**

- NOTES:**
1. INSTALLER SUPPLIED ADHESIVE SHALL BE HILTI HIT HY150 OR EQUAL.



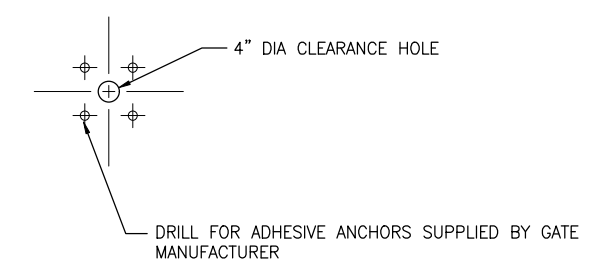
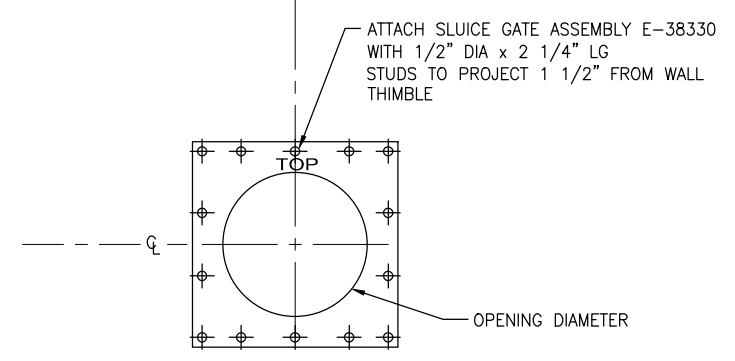
**FRONT**

**SLUICE GATE DETAIL 1**  
NTS



PIPE SUPPORT OFFSET DISTANCE	
PIPE	X'-X"
STILLING WELL	1'-0"
-	-

**SS PIPE SUPPORT DETAIL 2**  
NTS



**PLAN**

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED D. SHELDON  
 DRAWN J. ALLEN  
 CHECKED R. KOLLER

**JonesEdmunds**  

 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

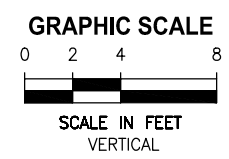
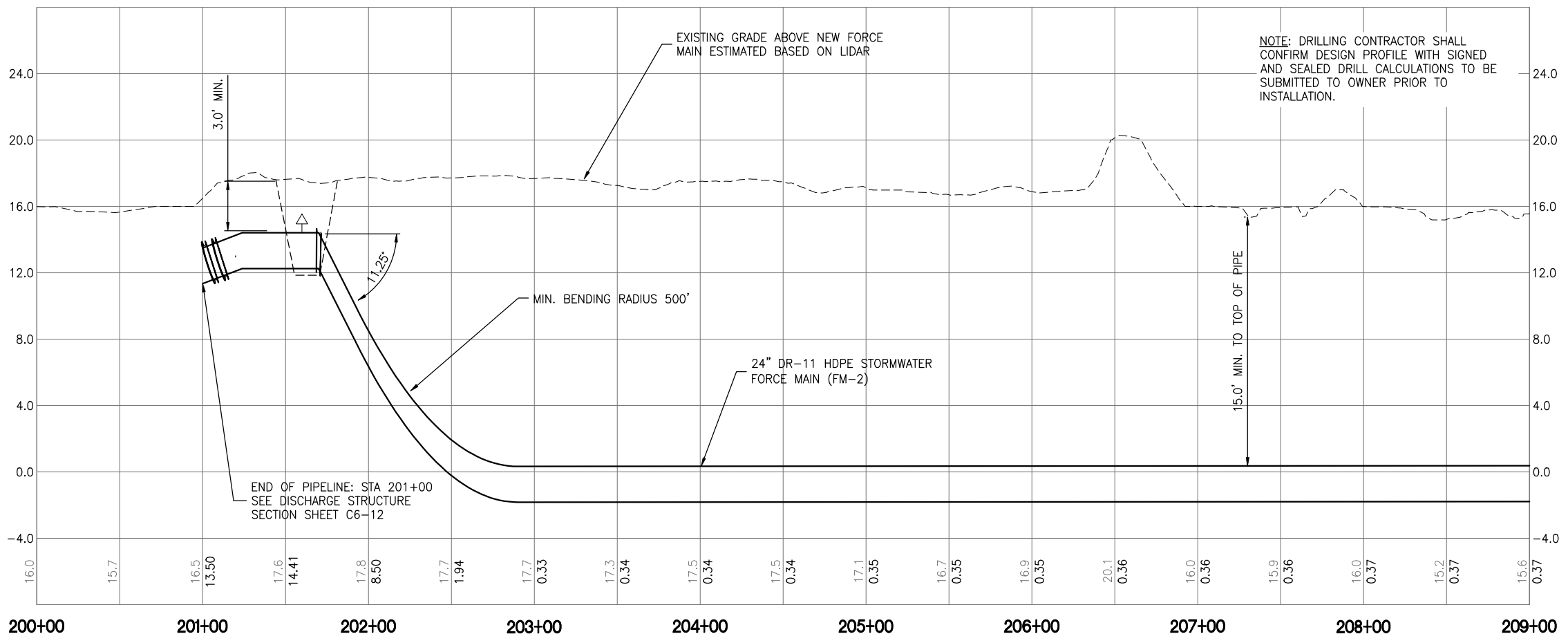
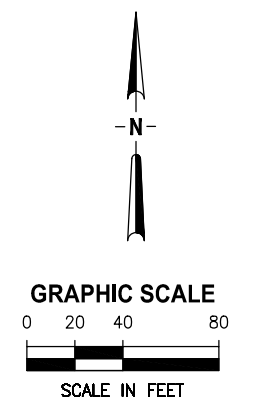
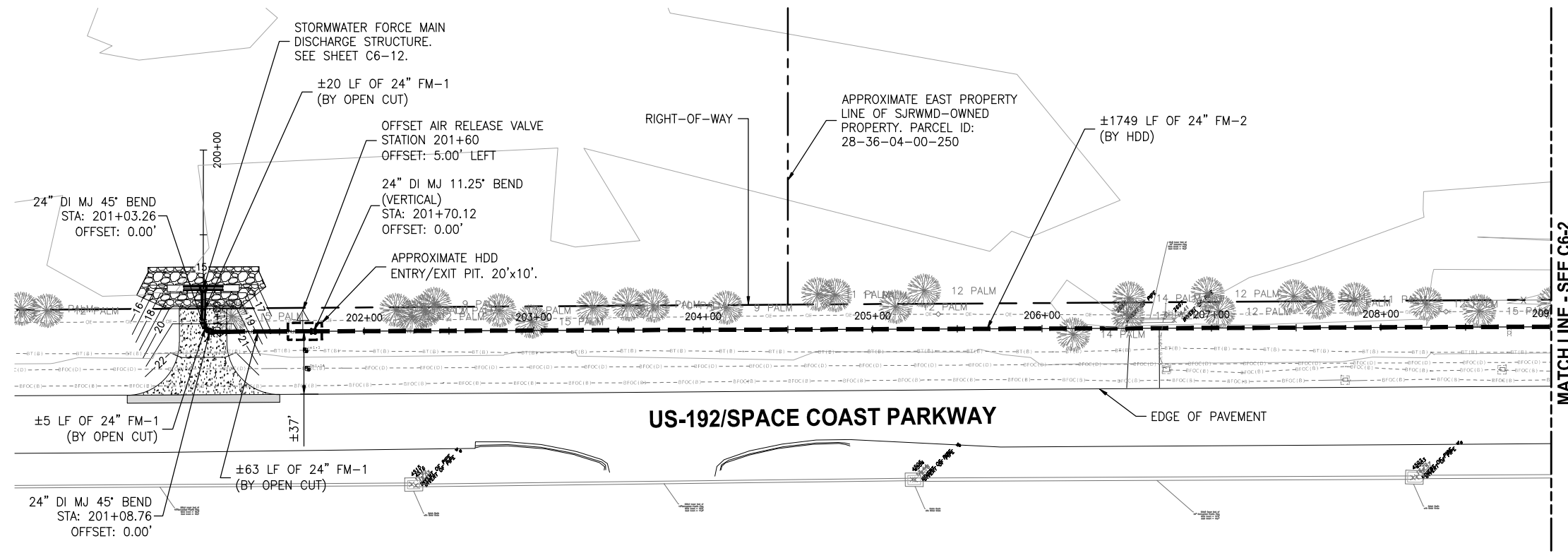
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PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
 INDEX NO: William Richard  
 DWG NO: M1-4  
 8/2/2022

BID DOCUMENTS

Approved  
 2022-08-02  
 William Richard



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 7/20/2022

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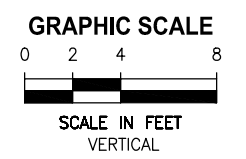
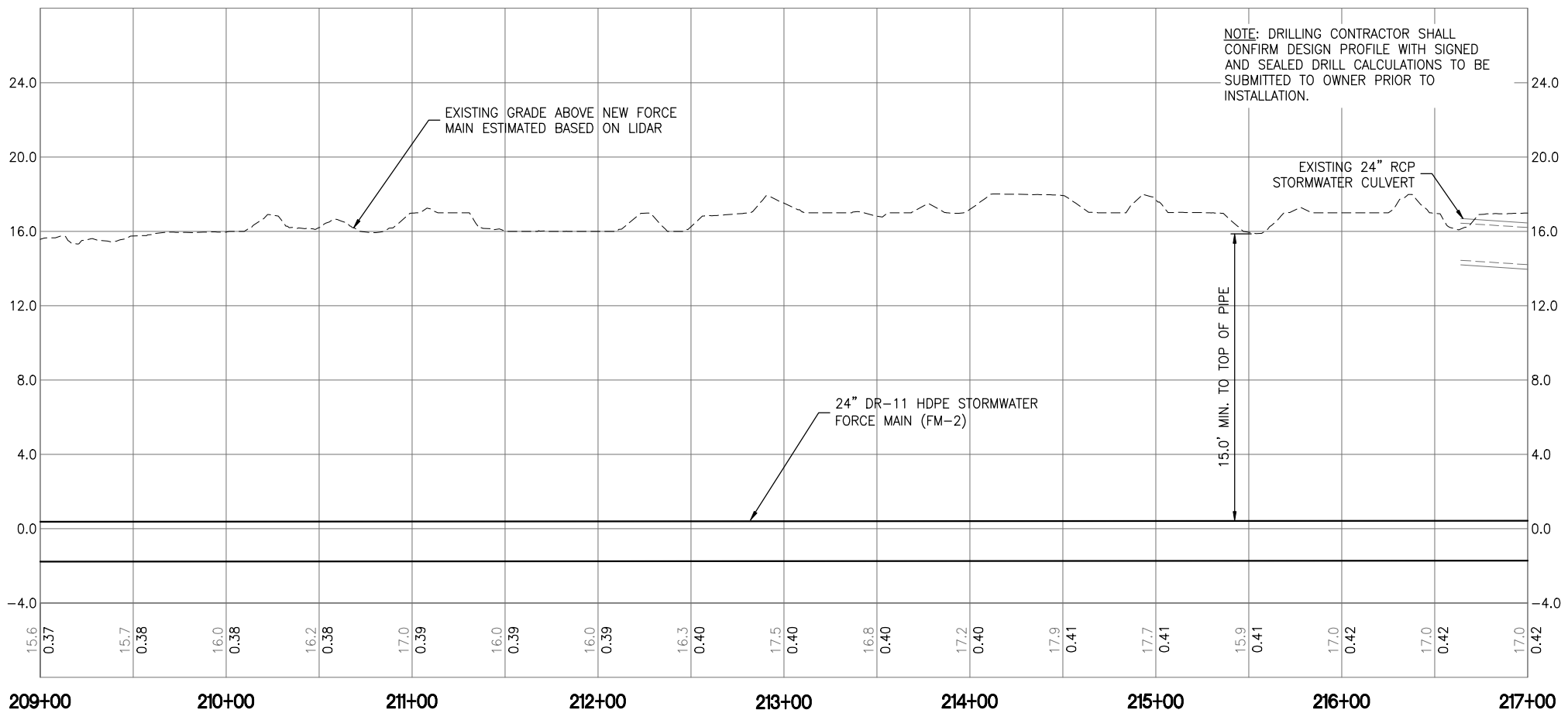
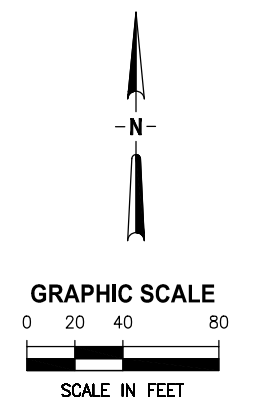
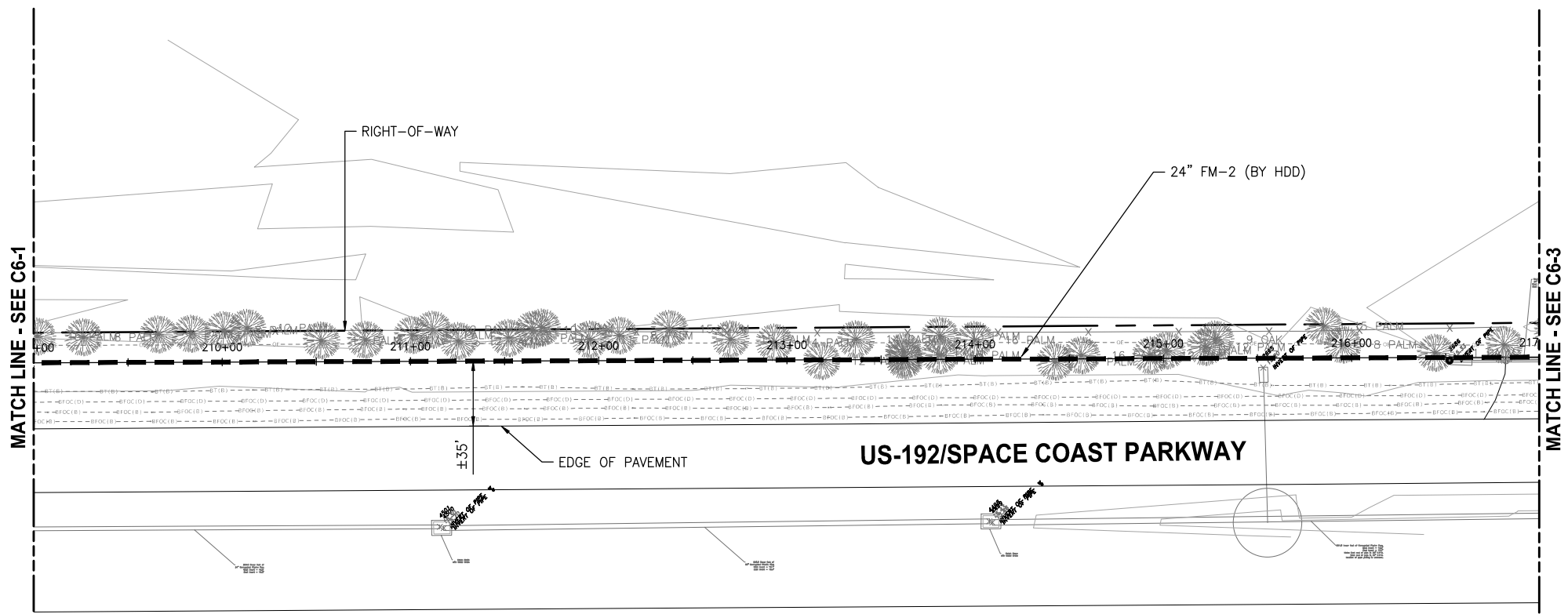
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DRAWN	J. ALLEN
CHECKED	R. KOLLER
BY	
APPRD.	
LTR.	DATE
REVISIONS	

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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN  
 PLAN AND PROFILE**

Approved  
 2022-07-20  
 DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA LICENSE NUMBER 90306  
 PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
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DRAWN	J. ALLEN			
CHECKED	R. KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.

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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

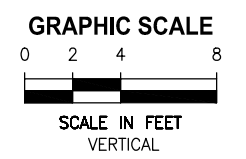
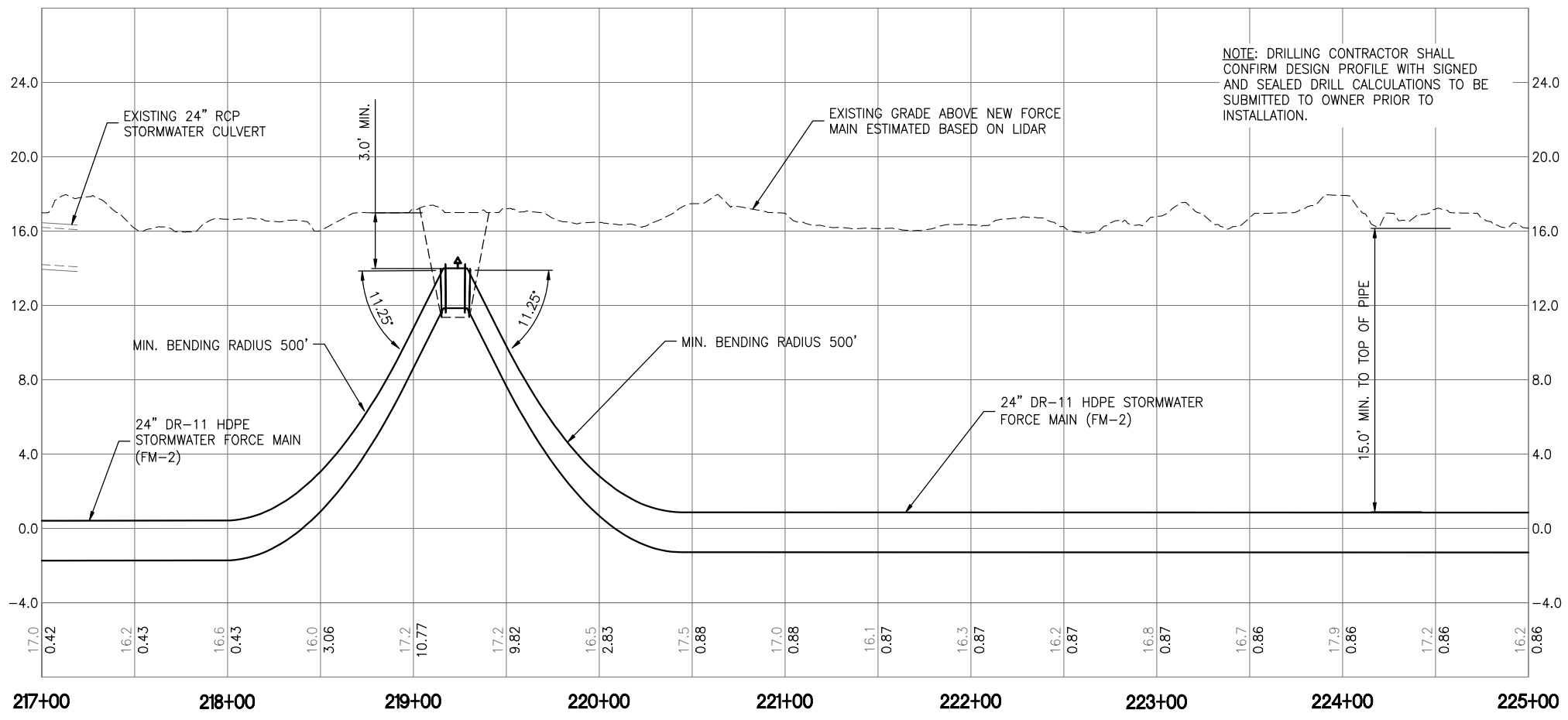
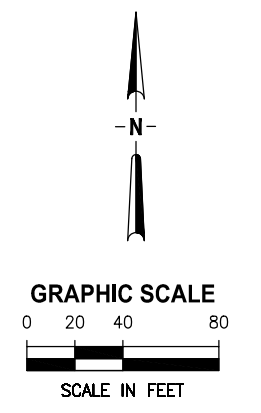
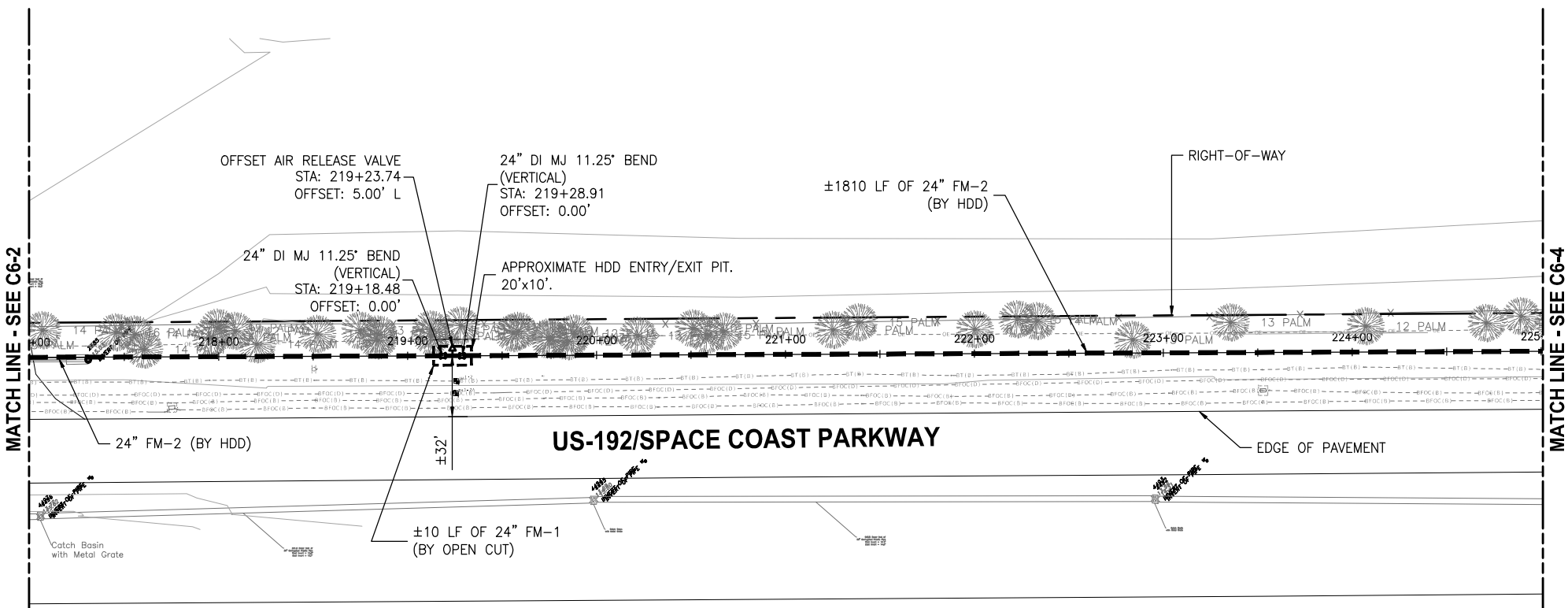
**DISCHARGE STORMWATER FORCEMAIN  
 PLAN AND PROFILE**

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 2022-19750-00021A  
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 DRAWN J ALLEN  
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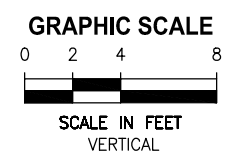
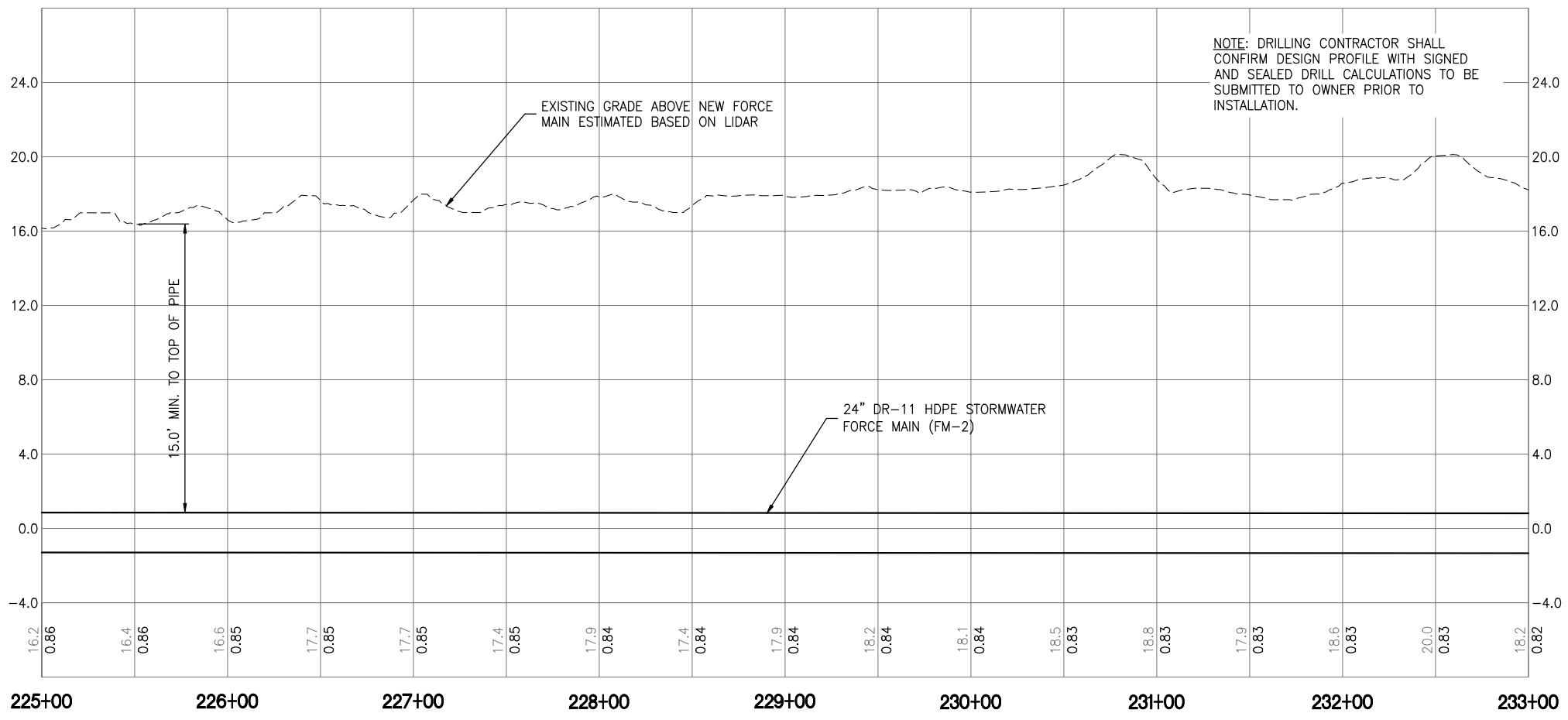
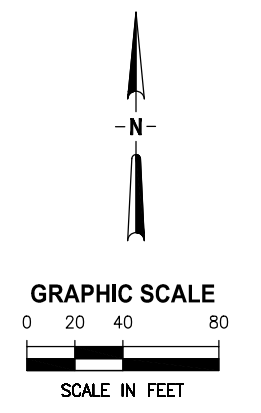
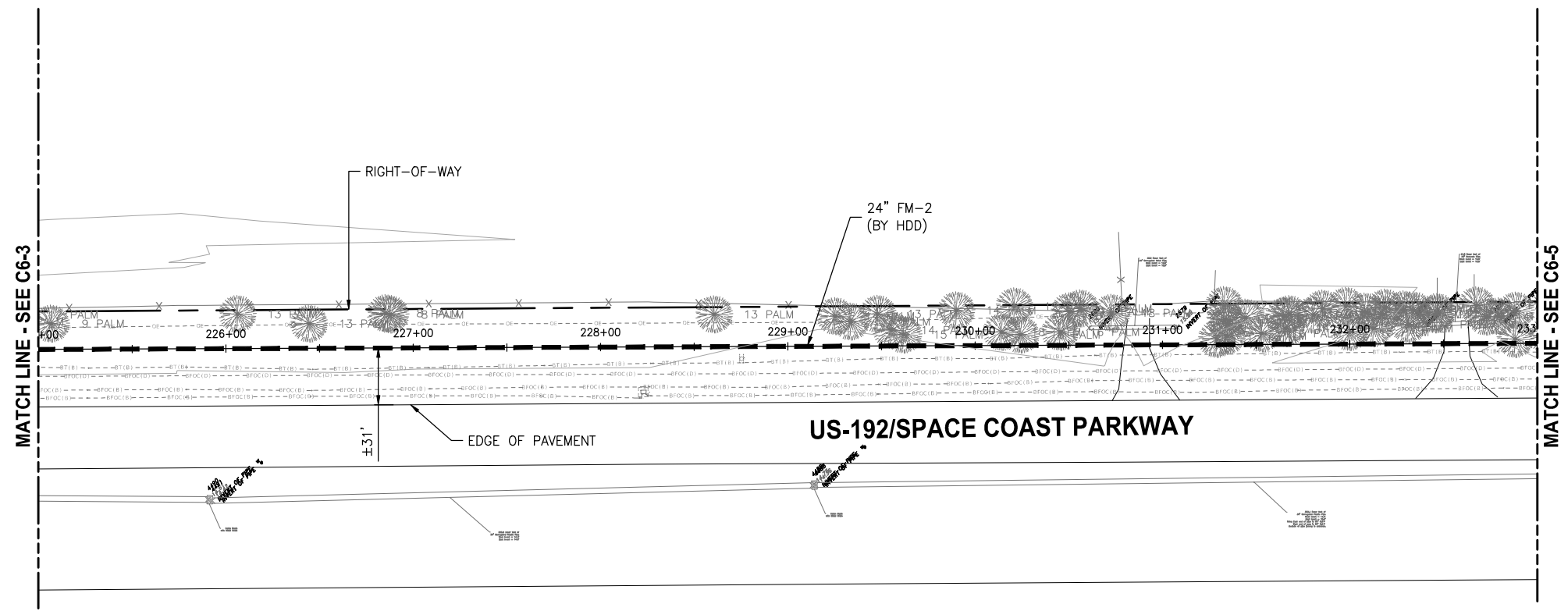
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 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN  
 PLAN AND PROFILE**

Approved  
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 PROJECT NO: 19750-066-01 DATE: JULY 2022  
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LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED **D. SHELDON**  
 DRAWN **J. ALLEN**  
 CHECKED **R. KOLLER**

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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN  
 PLAN AND PROFILE**

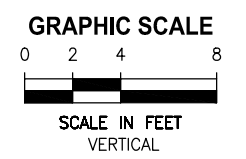
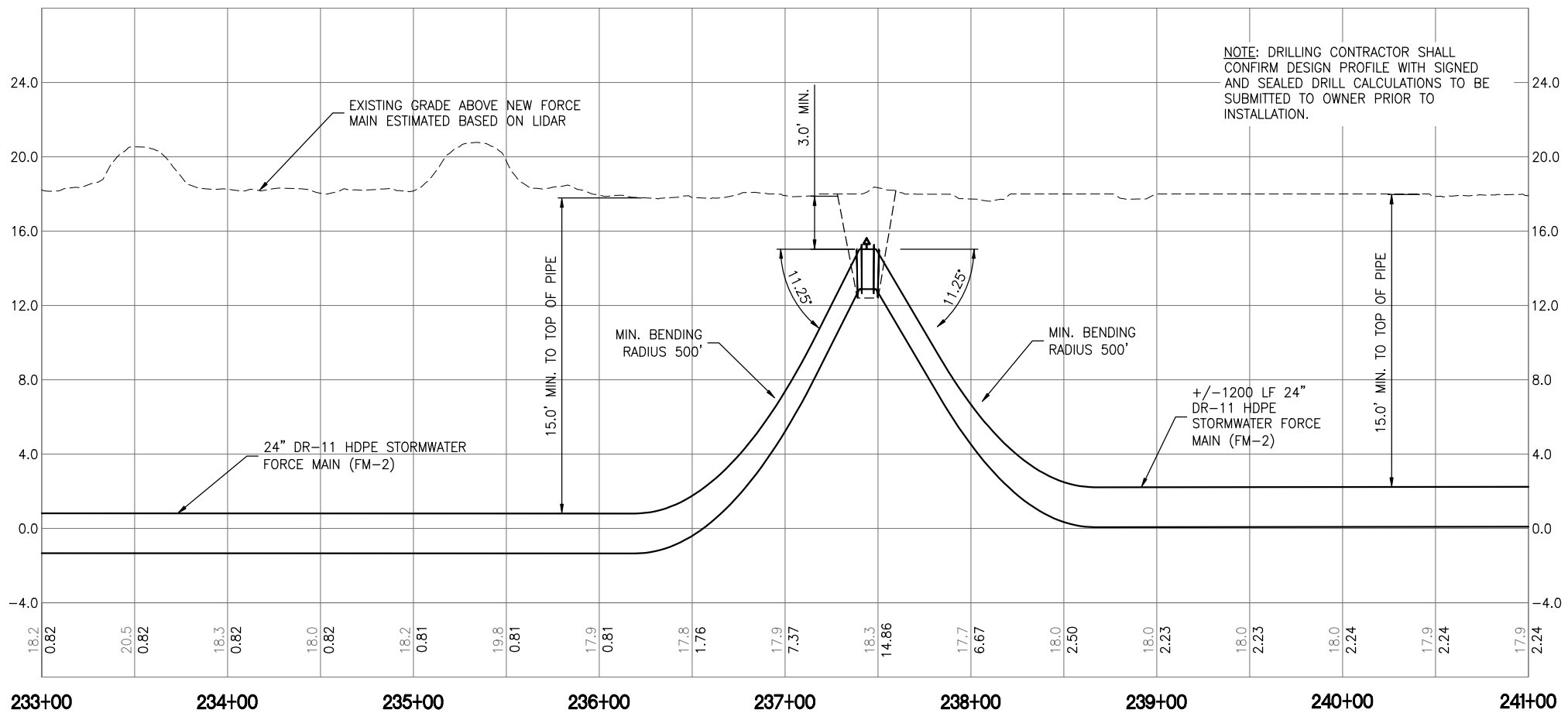
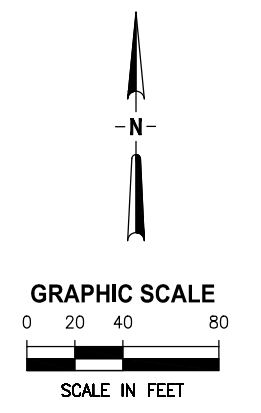
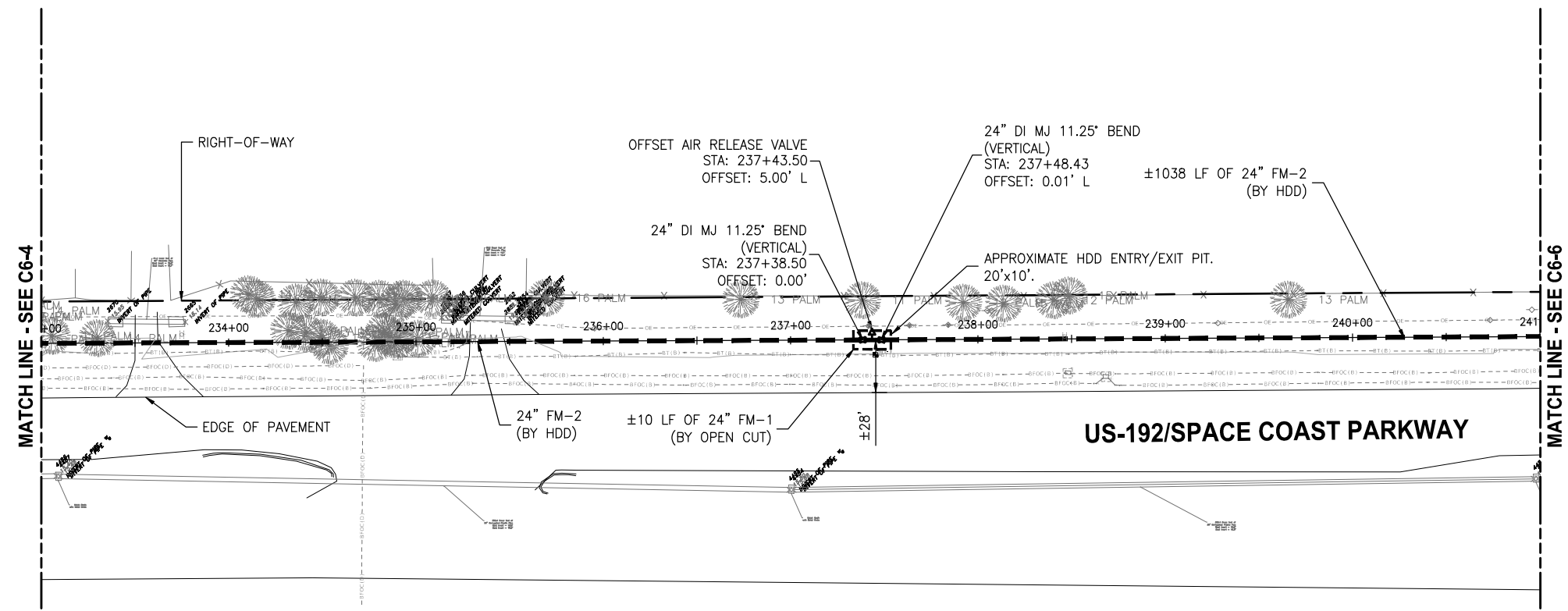
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PROJECT NO: 19750-066-01  
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 DWG NO: C6-4

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 2022-19750-066-01  
 8/2/2022

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DESIGNED	D SHELDON			
DRAWN	J ALLEN			
CHECKED	R KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.

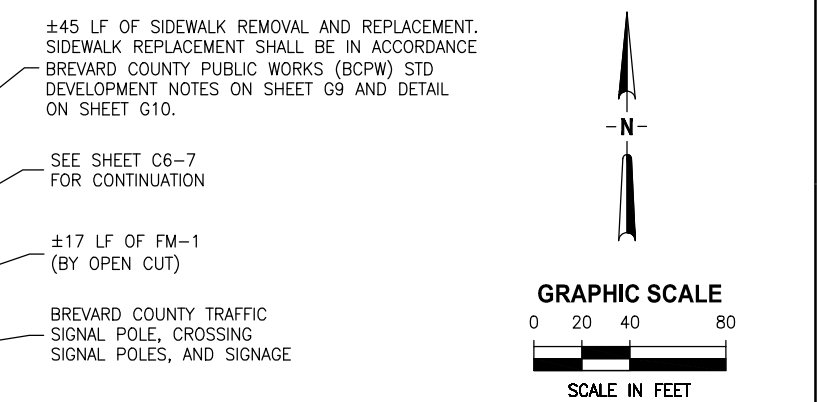
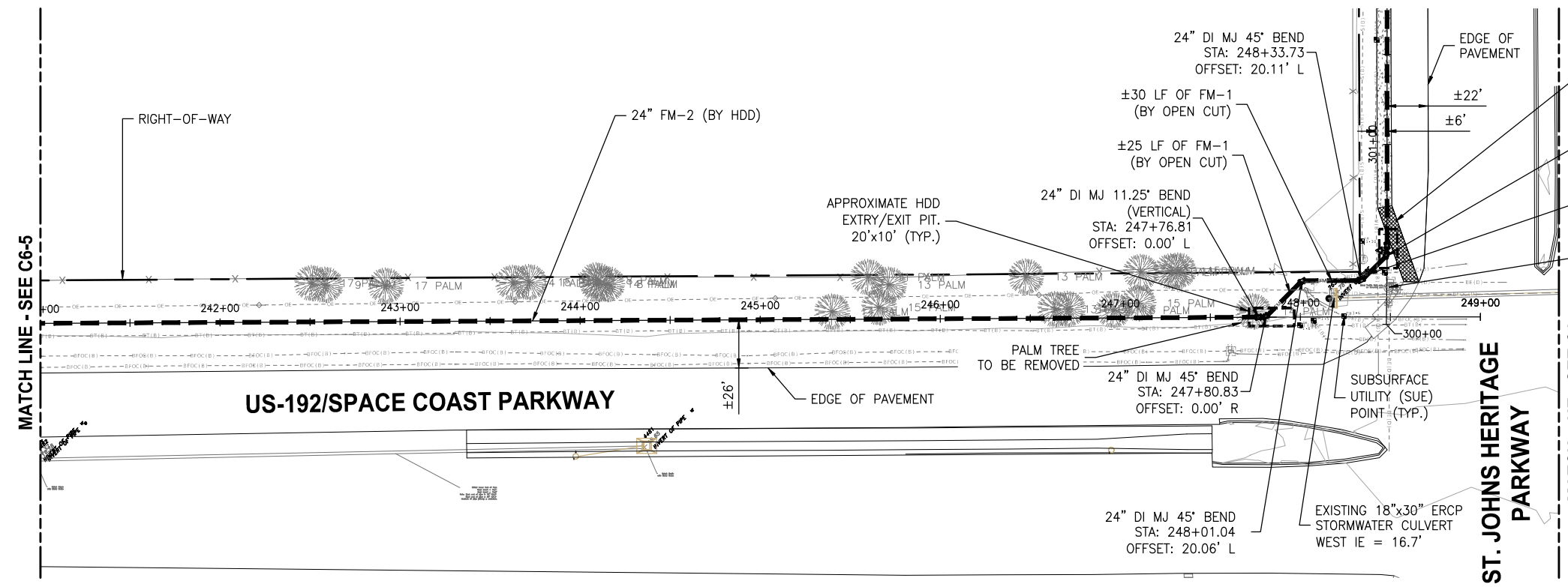
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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

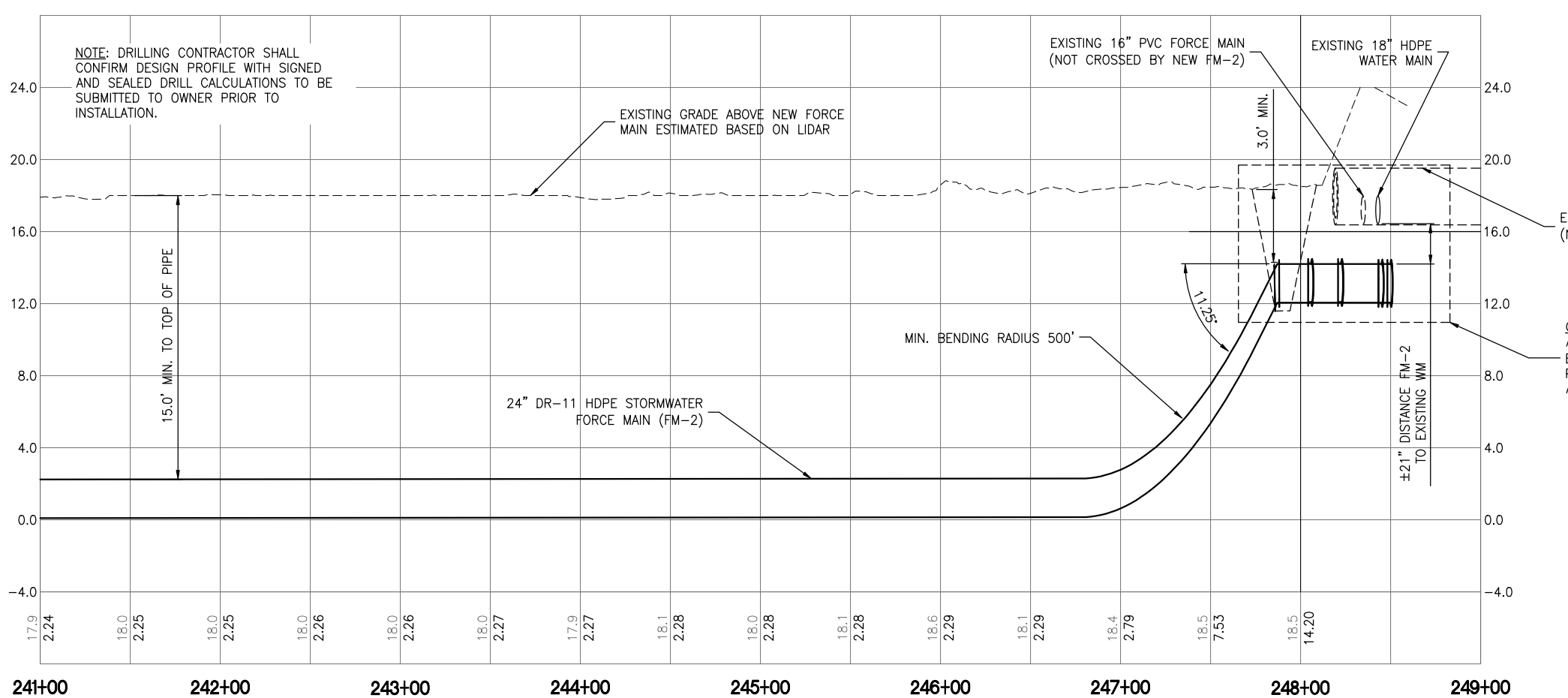
**DISCHARGE STORMWATER FORCEMAIN  
 PLAN AND PROFILE**

Approved  
 2022-07-20  
 PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
 INDEX NO: 3/2/2022  
 DWG NO: C6-5

DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA LICENSE NUMBER 90306  
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- NOTES:
- CONTRACTOR SHALL PROTECT TRAFFIC SIGNAL POLE AND FOUNDATION, WHICH ARE OWNED AND MAINTAINED BY BREVARD COUNTY, FROM DAMAGE DURING UTILITY EXCAVATION, BACKFILLING AND COMPACTION VIA SHORING OR OTHER SUITABLE SUPPORT METHOD. SUBMIT A PLAN FOR ENGINEER AND BREVARD COUNTY APPROVAL PRIOR TO THE WORK IN THIS AREA.
  - CONTRACTOR SHALL PROTECT TRAFFIC SIGNAGE (COUNTY OWNED AT THE INTERSECTION AND ALONG SJHP), TELEPHONE POLE GUY WIRES, AND EXISTING BURIED UTILITY MARKERS FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE DAMAGED SIGNAGE IN ACCORDANCE WITH BREVARD COUNTY REQUIREMENTS (SEE DETAIL ON SHEET G10).
  - CONTRACTOR SHALL PROVIDE SHORING AT LEAST 2' FROM RIGHT-OF-WAY LINES AS NECESSARY TO ENSURE NO ENCROACHMENT OF WORK OUT OF RIGHT-OF-WAY.
  - CONTRACTOR SHALL FIELD LOCATE BY HAND-DIGGING TO VERIFY EXISTING UTILITY LOCATION, SIZE, MATERIAL, DEPTH, ELEVATION, ETC. WITHIN 10' OF BOTH SIDES OF THE UTILITY TO BE CONSTRUCTED, INCLUDING AT ALL CROSSING AND CONNECTION POINTS.
  - CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS IN ADVANCE OF WORK AND SHALL REPAIR ANY DAMAGE TO EXISTING UTILITIES TO THE SATISFACTION OF THE UTILITY OWNER.



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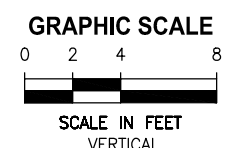
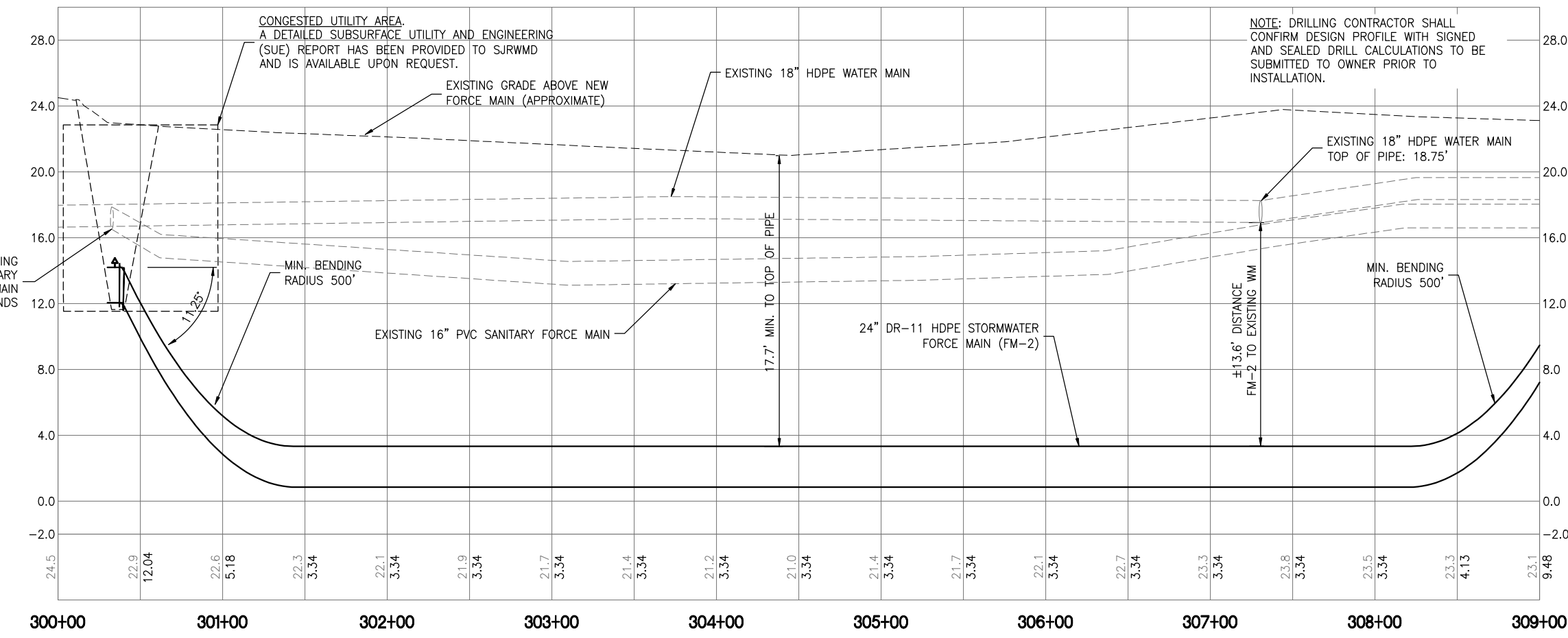
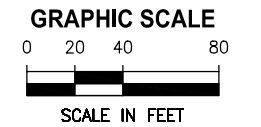
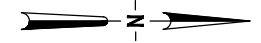
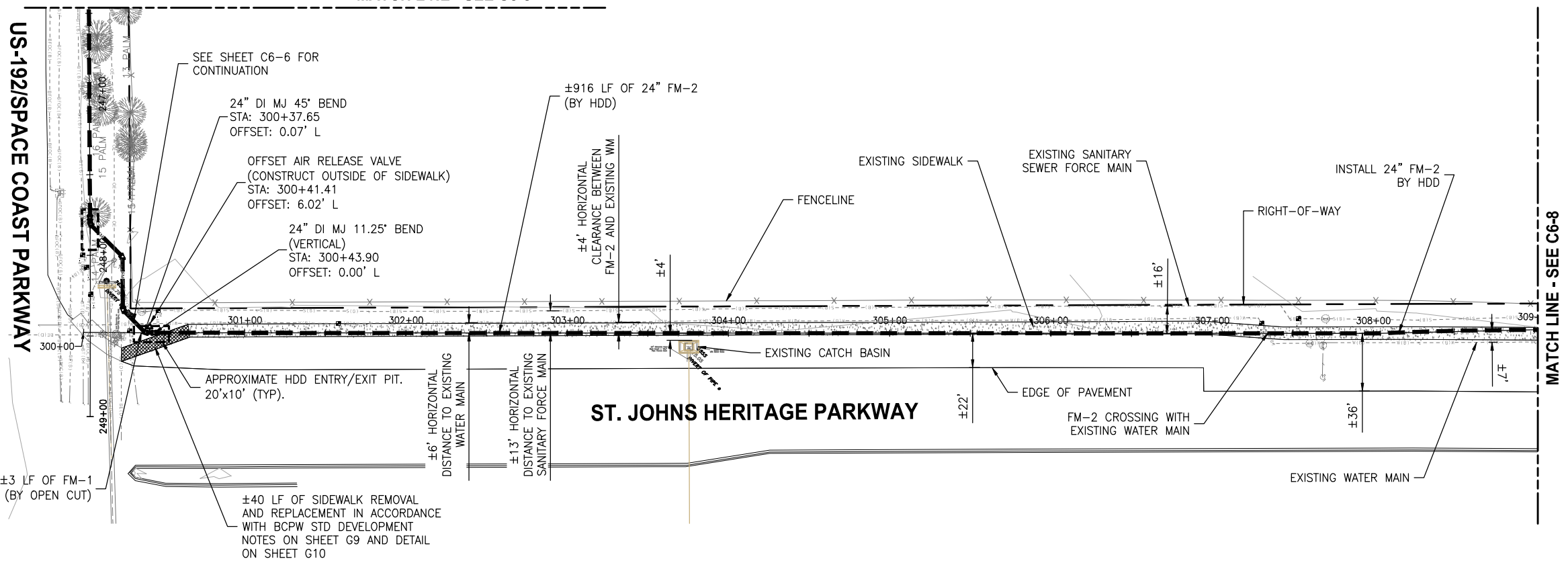
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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN  
 PLAN AND PROFILE**

APPROVED  
 2022-07-20  
 DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA LICENSE NUMBER 90306  
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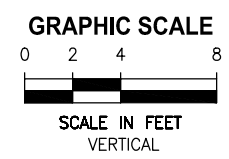
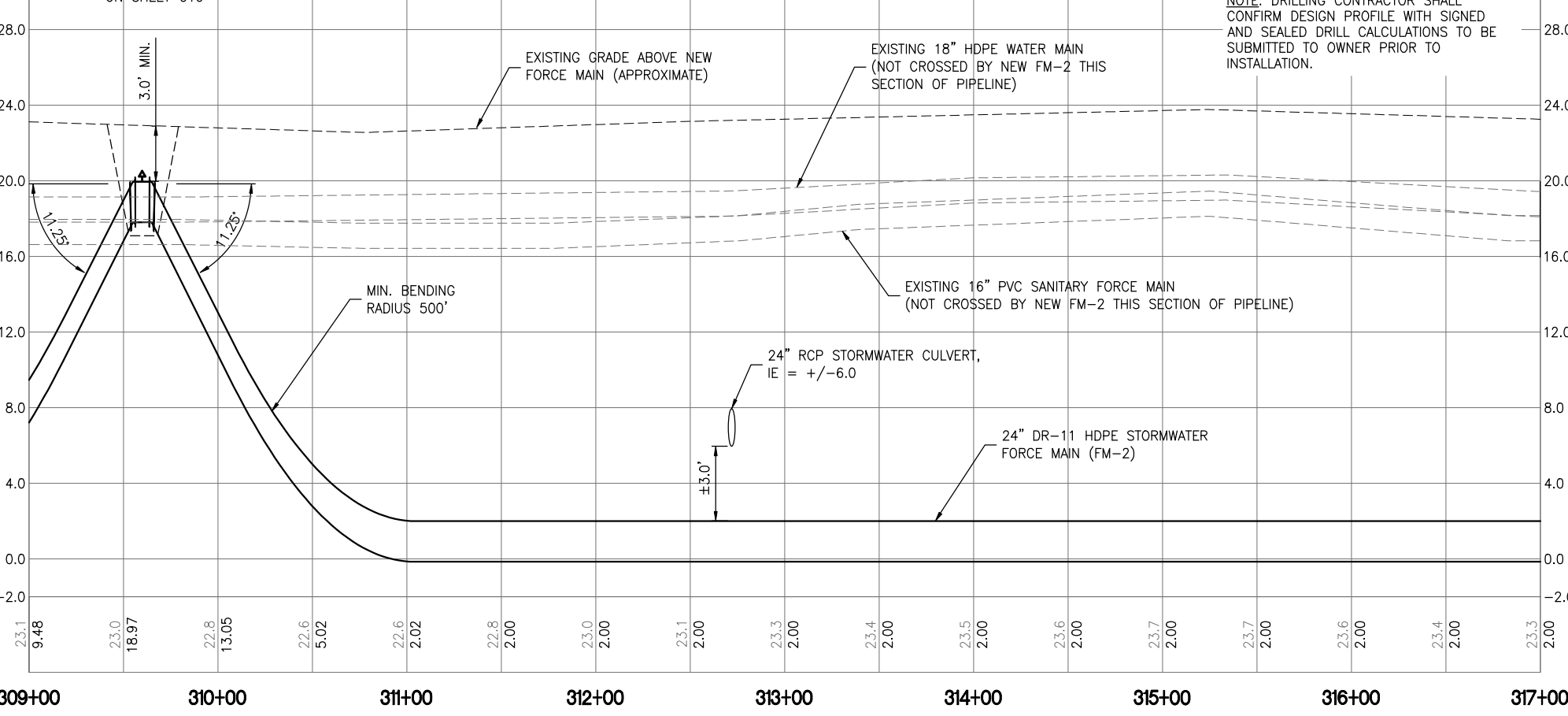
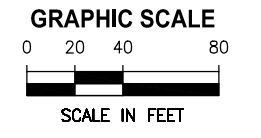
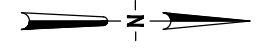
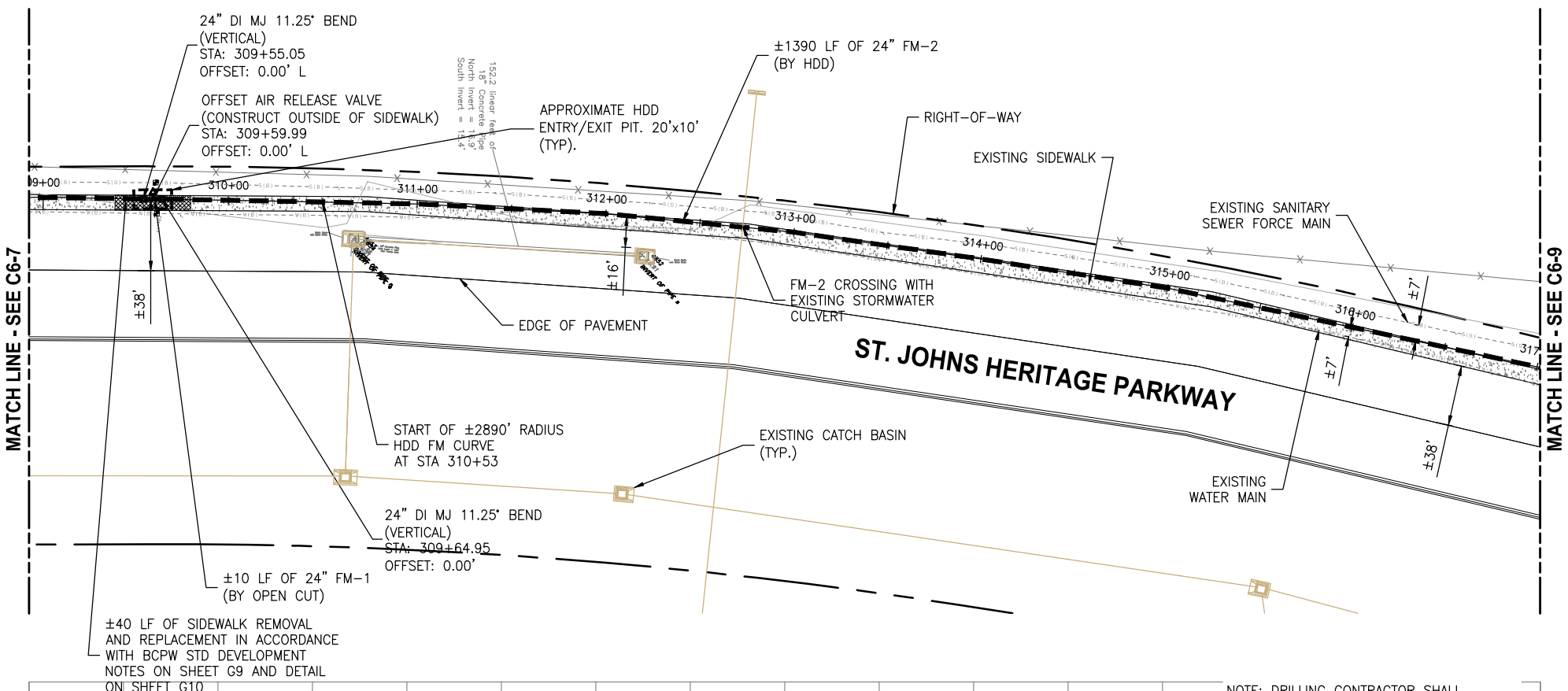
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CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2

DISCHARGE STORMWATER FORCEMAIN  
 PLAN AND PROFILE

Approved  
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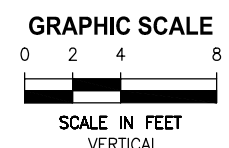
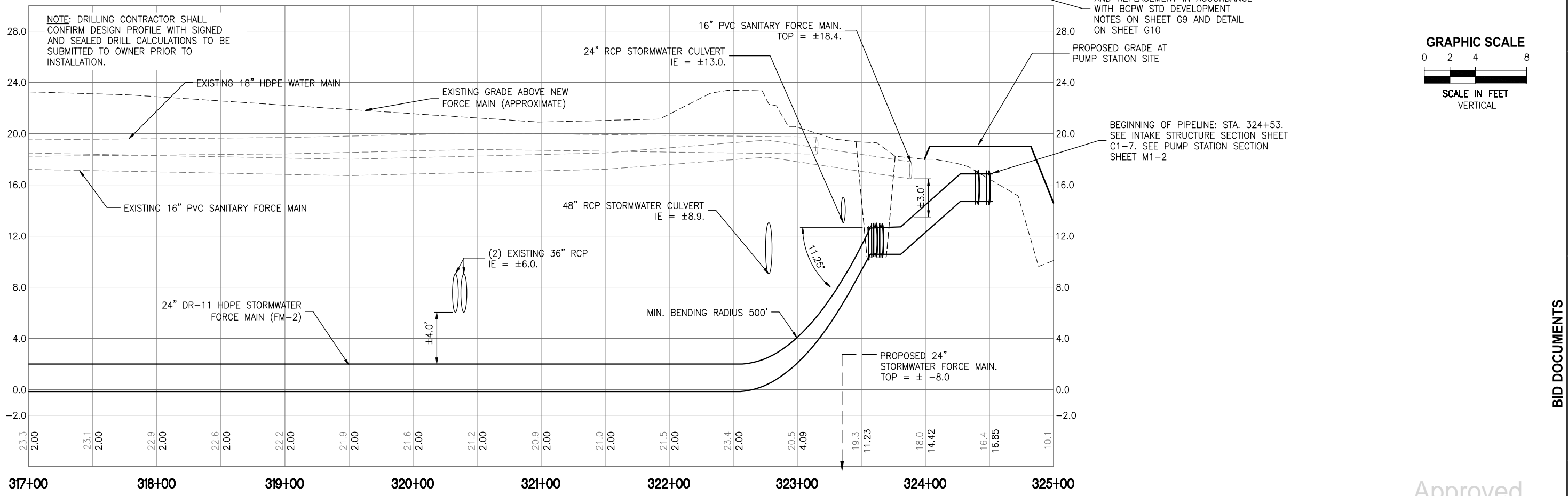
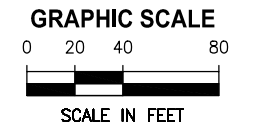
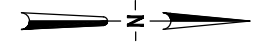
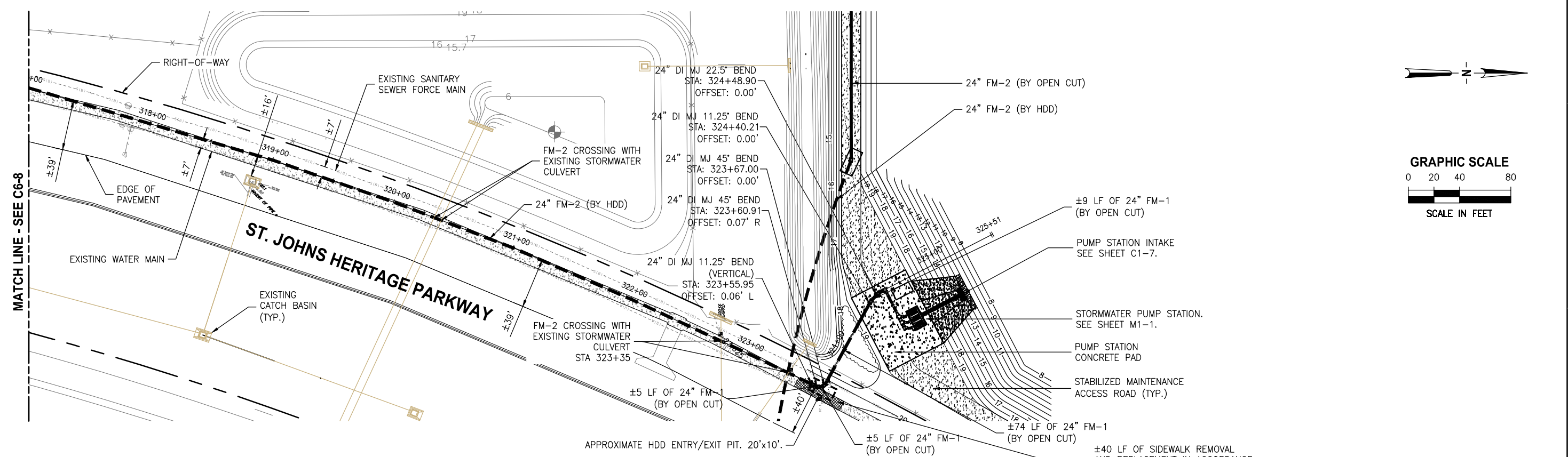
**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN  
 PLAN AND PROFILE**

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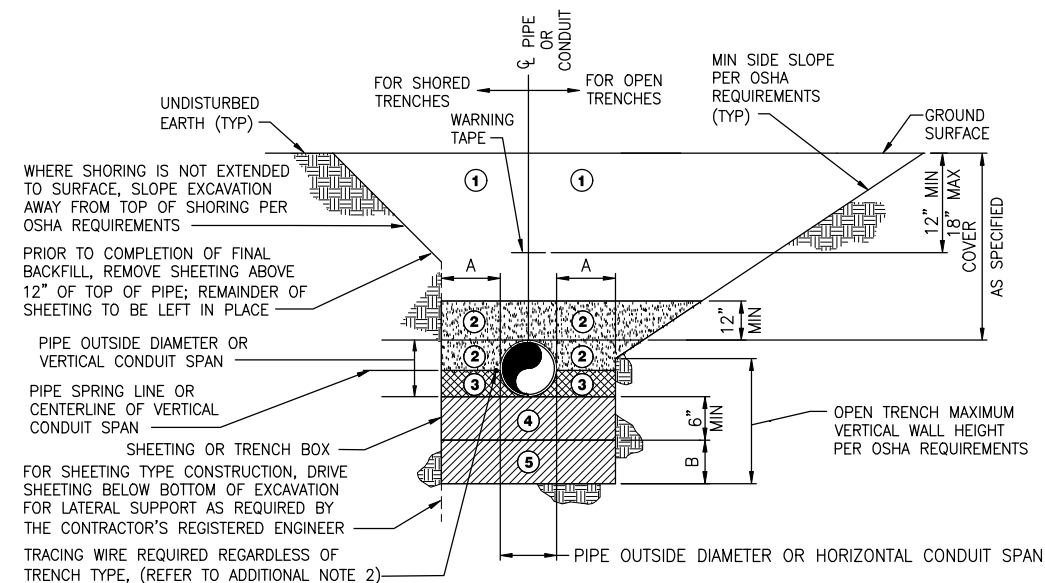
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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN  
 PLAN AND PROFILE**

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NOMINAL PIPE DIAMETER OR HORIZONTAL CONDUIT SPAN (INCHES)	ADDITIONAL EXCAVATION DEPTH (1)	
	A (INCHES)	B (INCHES)
LESS THAN 24	12	12
24 AND GREATER	18	18

ZONE NO.	ZONE NAME	MATERIAL	COMPACTION
1	FINAL BACKFILL	AS SPECIFIED	AT LEAST 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY ASTM D-1557 (98% WHEN UNDER PAVEMENT)
2	INITIAL BACKFILL		
3	HAUNCHING		
4	BEDDING		
5	FOUNDATION		

(1) REQUIRED WHERE UNSUITABLE MATERIAL IS ENCOUNTERED.

**TRENCH ZONE NOTES:**

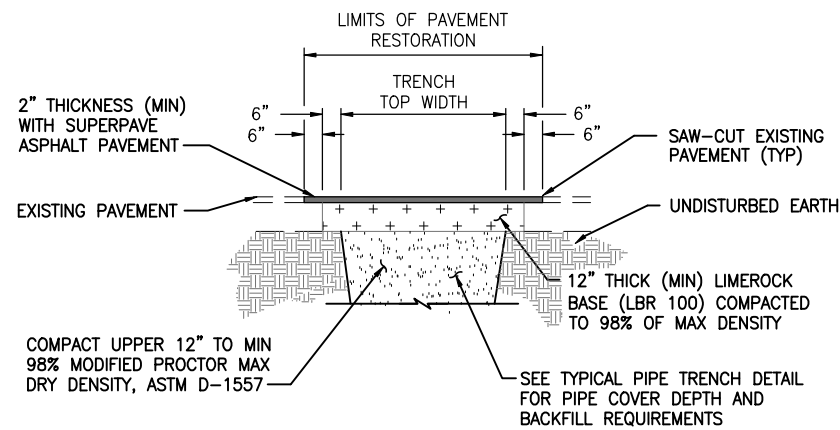
- FINAL BACKFILL SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT. REFER TO ADDITIONAL NOTE 3.
  - INITIAL BACKFILL SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT. ALL LIFTS SHALL BE COMPACTED BY HAND TAMPING OR AN APPROVED METHOD OF MECHANICAL TAMPING. REFER TO ADDITIONAL NOTE 3.
  - HAUNCHING SHALL BE IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT. ALL LIFTS SHALL BE COMPACTED BY HAND TAMPING. HAUNCHING SHALL BE BROUGHT UP EQUALLY ON BOTH SIDES OF THE PIPE.
  - BEDDING SHALL BE INSTALLED IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT, AND SHALL BE COMPACTED BY HAND OR MECHANICAL TAMPING. PROPERLY SHAPED BELL HOLES SHALL BE EXCAVATED IN THE BEDDING TO PERMIT ASSEMBLY OF THE PIPE. REFER TO ADDITIONAL NOTE 3.
- NATIVE, UNDISTURBED MATERIAL IN COMPLETELY DEWATERED TRENCHES MEETING THE COMPACTION AND MATERIAL REQUIREMENTS FOR COMPACTED BEDDING MATERIAL NEED NOT BE REPLACED OR REWORKED, EXCEPT FOR SHAPING OF THE BELL HOLES, AND WHERE REFILL IS REQUIRED.
- FOUNDATION SHALL BE REQUIRED WHERE UNSUITABLE MATERIAL IS ENCOUNTERED. FOUNDATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS FOR BEDDING. REFER TO ADDITIONAL NOTE 3.

**ADDITIONAL NOTES:**

- FOR TRENCHES IN VEHICULAR TRAFFIC AREAS OR BENEATH SURFACE IMPROVEMENTS (EG, SLABS, ASPHALT, ETC.) SEE CONTRACT SPECIFICATIONS FOR ADDITIONAL COMPACTION REQUIREMENTS. SEE DRAWINGS FOR SURFACE IMPROVEMENT AND /OR RESTORATION DETAILS WHERE APPLICABLE.
- TRACING WIRE SHALL BE INSTALLED ON THE SIDE OF THE PIPE AND ATTACHED TO THE PIPE EVERY 10' W/ A NYLON WIRE TIE. IF THE WIRE IS DAMAGED OR NEEDS TO BE EXTENDED A 3M WATERPROOF TYPE UF SPLICE SHALL BE INSTALLED TO REPAIR THE WIRE. THE ENDS OF THE TRACING WIRE SHALL BE BROUGHT UP IN EVERY VALVE BOX ON THE LINE AND AT THE HYDRANT VALVES. THERE SHALL BE A MINIMUM COIL OF 3' LEFT UNDER THE VALVE BOX COVER. THE WIRE SHALL BE TESTED TO VERIFY CONDUCTIVITY.
- ALTERNATIVE LIFT THICKNESSES, NOT EXCEEDING 12 INCHES LOOSE MEASUREMENT, ARE ACCEPTABLE IN TRENCH ZONES 1, 2, 4, AND 5 PROVIDED 1) THE LIFT THICKNESS DOES NOT EXCEED THE MAXIMUM VALUE RECOMMENDED IN WRITING BY THE APPLICABLE PIPE MANUFACTURER AND 2) FIELD TEST RESULTS CONFIRM THAT THE SPECIFIED COMPACTION REQUIREMENTS ARE BEING MET.

**TYPICAL UTILITY TRENCH DETAIL**

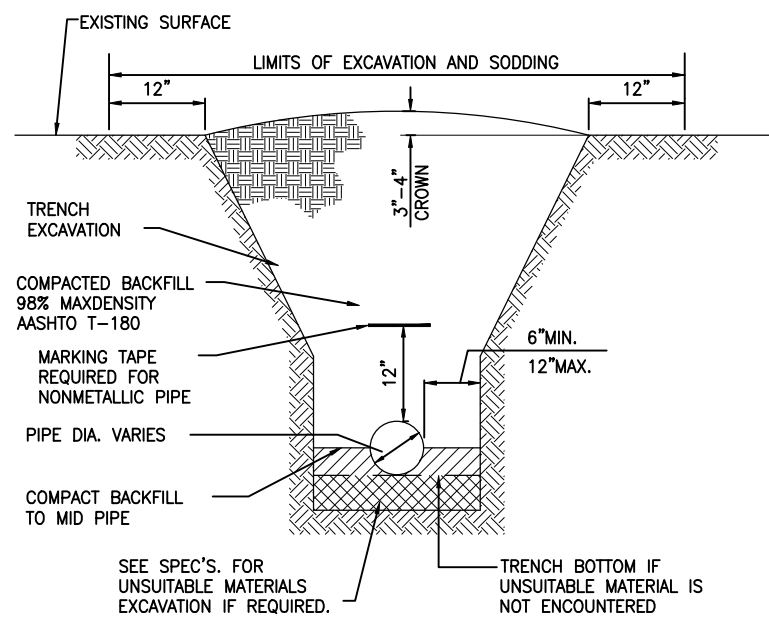
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**NOTE:**  
ASPHALT PAVEMENT RESTORATION DETAIL APPLIES TO ROADS, DRIVEWAYS, PRIVATE ROADS, DRIVES, MISCELLANEOUS PATCHES, AND SIMILAR RESTORATION. WORK IN THE BREVARD COUNTY RIGHT-OF-WAY SHALL BE RESTORED IN ACCORDANCE WITH THE BREVARD COUNTY STANDARDS AND DETAILS.

**TYPICAL ASPHALT PAVEMENT RESTORATION DETAIL**

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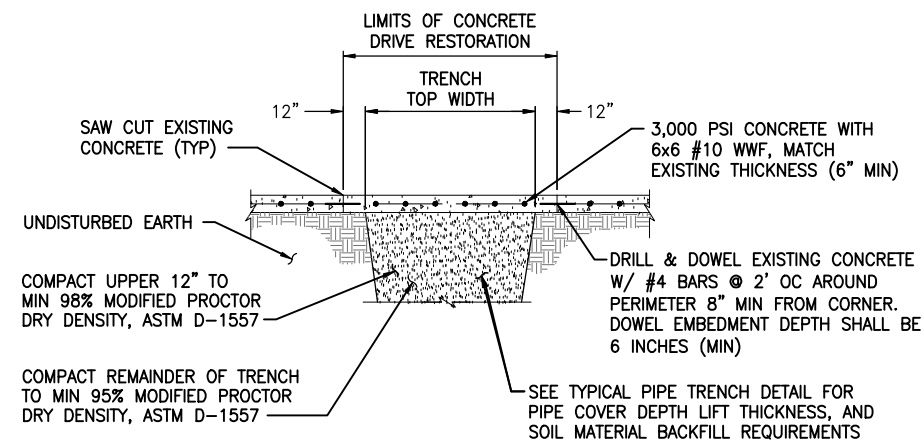


**NOTES :**

- DEWATERING SHALL CONTINUE UNTIL BACKFILL IS COMPACTED AT LEAST 2 FEET ABOVE PIPE.
- SURFACE TREATED PAVEMENT JOINTS SHALL BE LAPPED AND FEATHERED.
- CONTRACTOR SHALL SLOPE TRENCH IN ACCORDANCE WITH OSHA STANDARDS SHOW IN ABOVE TABLE B-1.

**TYPICAL TRENCH IN UNPAVED AREAS DETAIL**

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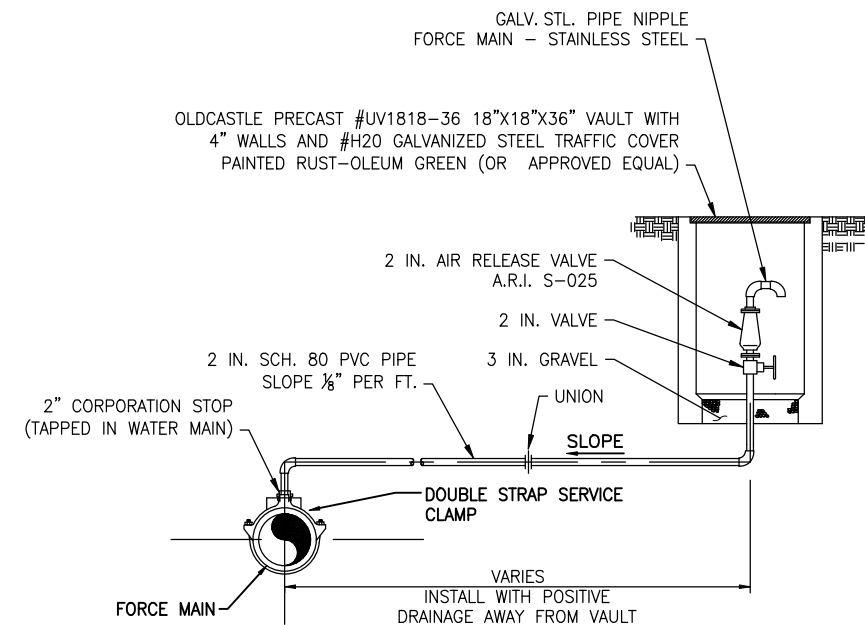


**NOTES:**

- DRILL AND DOWEL 1 LOCATION EACH SIDE FOR CURB REPAIR.
- MATCH EXISTING GRADE AND FINISH.

**TYPICAL CONCRETE DRIVEWAY RESTORATION DETAIL**

NTS



**OFFSET AIR RELEASE VALVE DETAIL**

NTS

1

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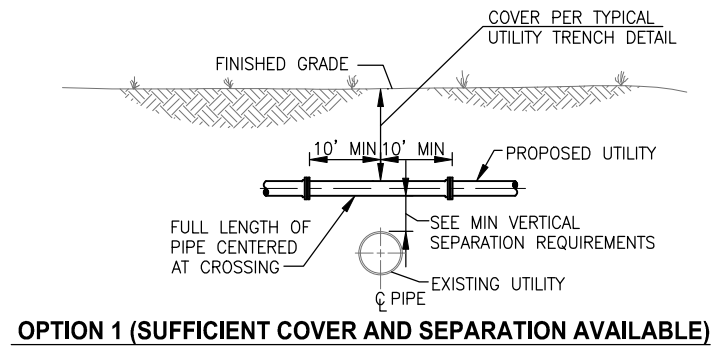
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M-1 CANAL FLOW RESTORATION  
VOLUME 2**

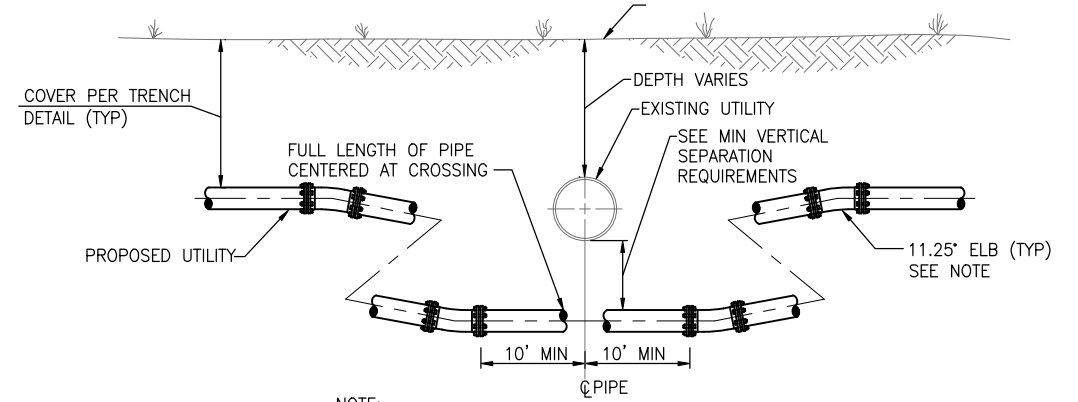
**DISCHARGE STORMWATER FORCEMAIN  
PLAN AND PROFILE**

APPROVED  
DONALD J. SHELDON JR., PROFESSIONAL ENGINEER,  
STATE OF FLORIDA, LICENSE NUMBER 90306  
PROJECT NO. 19750-066-01 DATE: JULY 2022  
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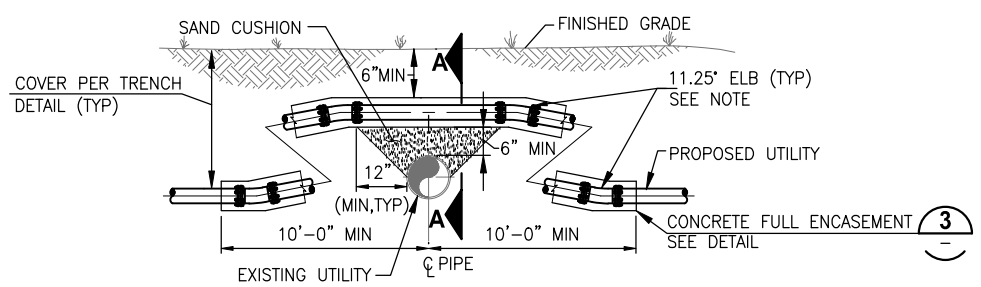
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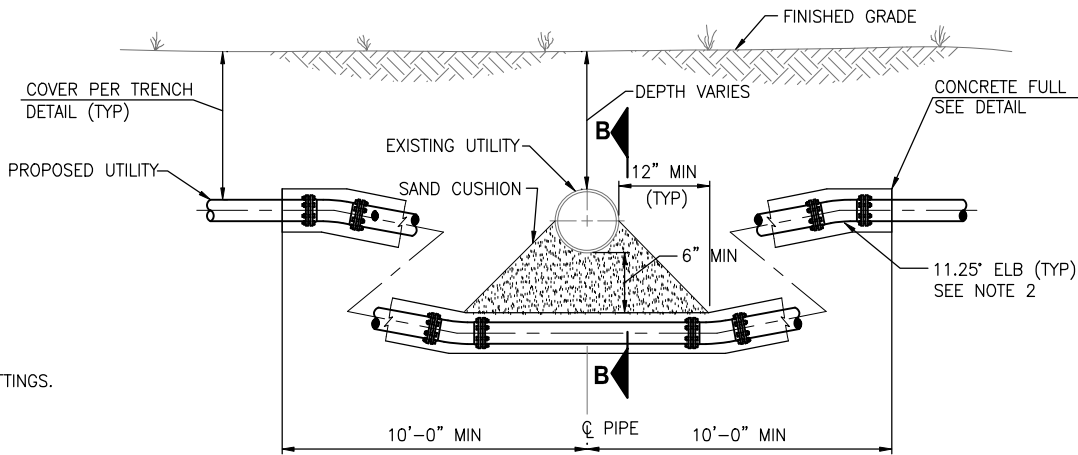
**OPTION 1 (SUFFICIENT COVER AND SEPARATION AVAILABLE)**



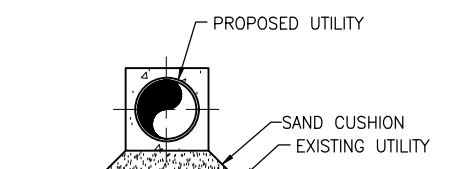
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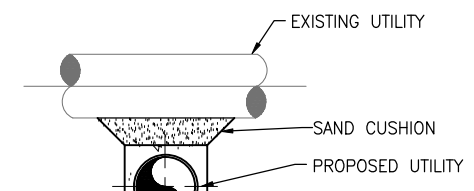
**ALTERNATE OPTION 1 (SUFFICIENT COVER OR SEPARATION NOT AVAILABLE)**



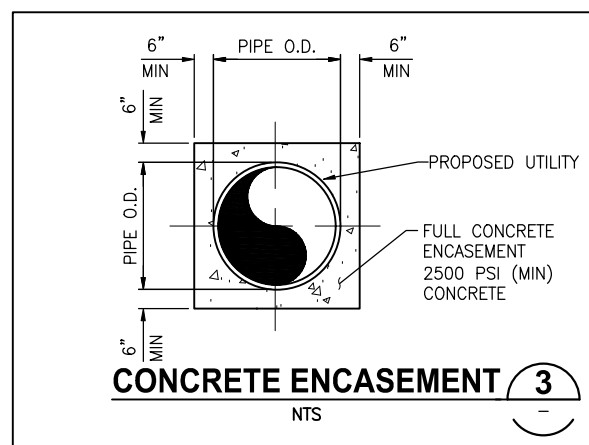
**ALTERNATE OPTION 2 (SUFFICIENT SEPARATION NOT AVAILABLE)**



**SECTION A-A**



**SECTION B-B**



**CONCRETE ENCASEMENT 3**

- NOTES:
- FOR PROPOSED WATER MAINS, THIS OPTION IS ONLY ALLOWED WITH APPROVAL OF THE ENGINEER AND FDEP ON A CASE BY CASE BASIS.
  - WITH APPROVAL OF ENGINEER, CONTRACTOR MAY DEFLECT PIPE AS SPECIFIED INSTEAD OF USING FITTINGS.

PROPOSED UTILITY	EXISTING UTILITY						COMMENTS
	POTABLE WATER	GRAVITY SANITARY SEWER	SEWAGE FORCE MAIN	STORM	RECLAIMED WATER	ELECTRIC TELECOMMUNICATIONS	
POTABLE WATER	1'-0"	1'-6"	1'-6"	1'-0"	1'-0"	1'-0"	SEE NOTE 1
GRAVITY SANITARY SEWER	1'-6"	1'-0"	1'-0"	1'-6"	1'-6"	1'-0"	
SEWAGE FORCE MAIN	1'-6"	1'-0"	1'-0"	1'-0"	1'-6"	1'-0"	SEE NOTE 2
STORM	1'-0"	1'-6"	1'-0"	1'-0"	1'-0"	1'-0"	
RECLAIMED WATER	1'-0"	1'-6"	1'-6"	1'-0"	1'-0"	1'-0"	SEE NOTE 2
ELECTRIC TELECOMMUNICATIONS	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	

NOTE:  
1. ONLY OPTION 1 CONSTRUCTION IS ALLOWED WITHOUT APPROVAL OF ENGINEER.

**MINIMUM VERTICAL SEPARATION REQUIREMENTS**



PROPOSED UTILITY	MINIMUM HORIZONTAL SEPARATION EXISTING UTILITY					
	POTABLE WATER	GRAVITY SANITARY SEWER	SEWAGE FORCE MAIN	STORM	RECLAIMED WATER	ELECTRIC TELECOMMUNICATIONS
POTABLE WATER	1'-0"	10'-0"	10'-0"	3'-0"	3'-0"	3'-0"
GRAVITY SANITARY SEWER	10'-0"	1'-0"	1'-0"	3'-0"	3'-0"	3'-0"
SEWAGE FORCE MAIN	10'-0"	1'-0"	1'-0"	3'-0"	3'-0"	3'-0"
STORM	3'-0"	3'-0"	3'-0"	1'-0"	3'-0"	3'-0"
RECLAIMED WATER	3'-0"	3'-0"	3'-0"	3'-0"	1'-0"	3'-0"
ELECTRIC TELECOMMUNICATIONS	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	2'-0"

NOTE:  
UTILITIES SHALL NOT BE INSTALLED WITHIN THE DRIP LINE OF TREES WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.



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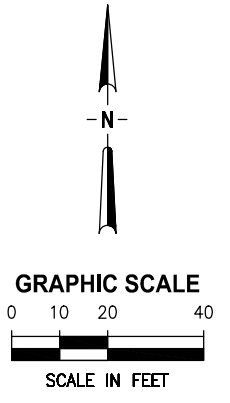
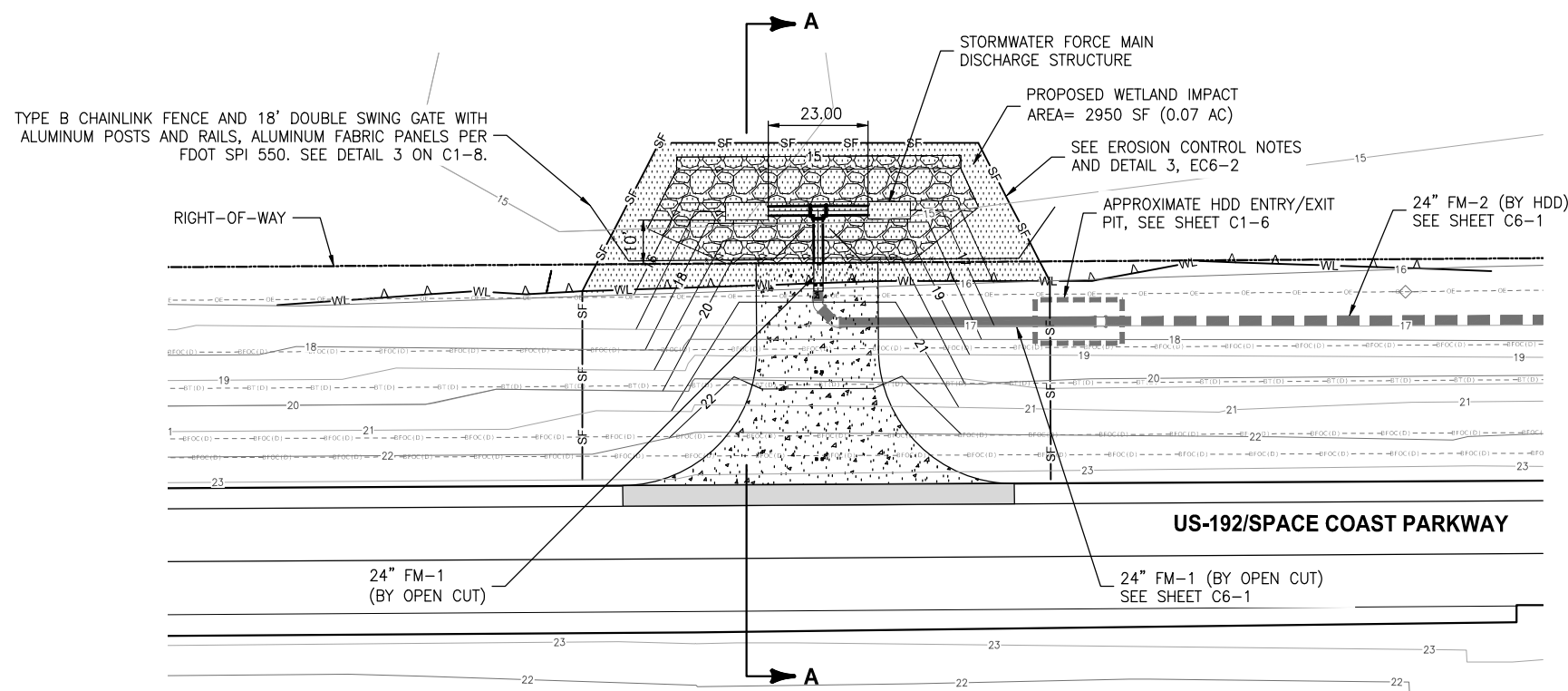
**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN  
 PLAN AND PROFILE**

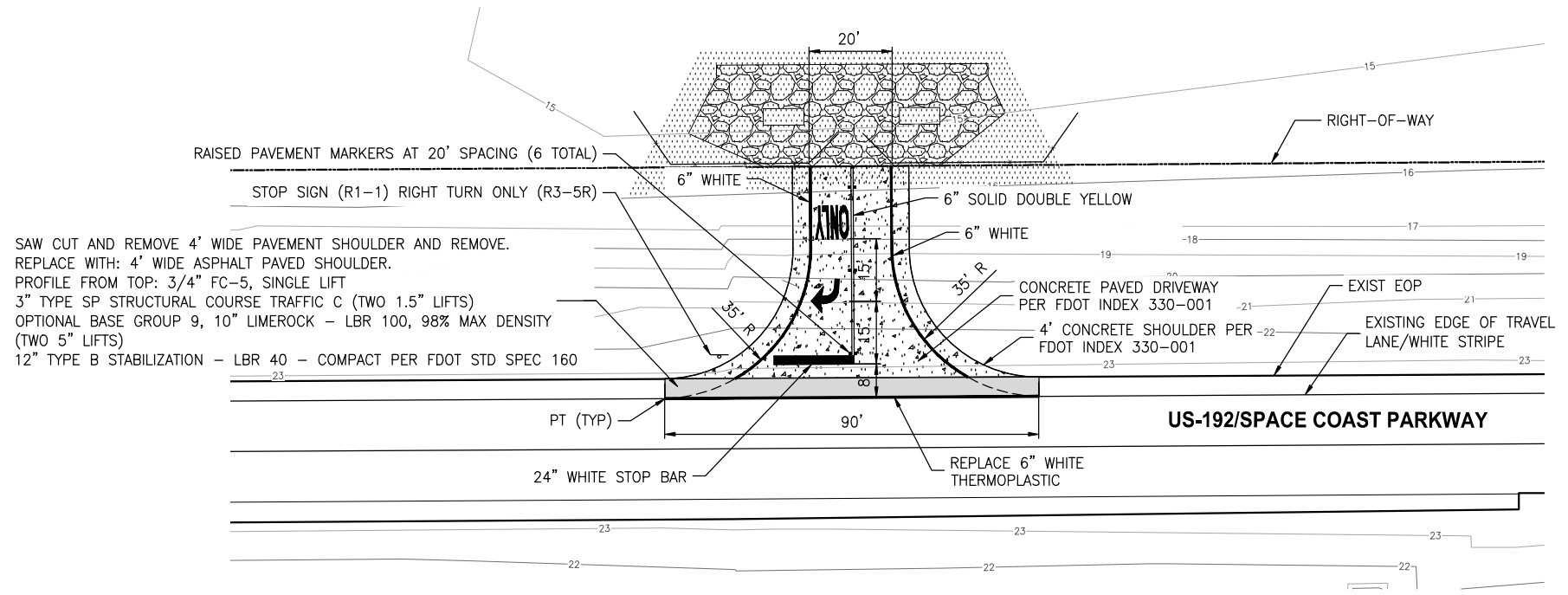
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PROJECT NO: 19750-066-01  
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 INDEX NO: 11  
 DWG NO: C6-11

Approved  
 William Richard  
 8/2/2022



**OUTFALL STRUCTURE DETAIL**



**DRIVEWAY PAVEMENT AND MARKINGS DETAIL**

- FDOT GENERAL NOTES:**
1. ALL WORK PERFORMED WITHIN THE FDOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH 2022/2023 EDITION OF THE FDOT STANDARDS PLANS FOR ROAD AND BRIDGE CONSTRUCTION, JAN. 2022 SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE 2017 UTILITY ACCOMMODATION MANUAL.
  2. ALL EXCAVATIONS WITHIN TEN (10) FEET OF THE TRAVEL LANES AND GREATER THAN THREE (3) INCHES DEEP MUST BE FILLED IN OR HAVE A SHOULDER TREATMENT PLACED AT THE DROP-OFF PER INDEX #102-600 OF FDOT 2022/2023 STANDARDS PLANS INDEXES AT THE END OF THE WORK DAY.
  3. CONTRACTOR SHALL CONTACT FDOT TWO WEEKS IN ADVANCE AND SET UP A PRE-CONSTRUCTION MEETING PRIOR TO STARTING ANY WORK IN FDOT RIGHT-OF-WAY.
  4. ALL TRAFFIC CONTROL DEVICES MUST BE IN PLACE BEFORE WORK CAN START.
  5. MAINTENANCE OF TRAFFIC TO BE SUPERVISED BY A FDOT CERTIFIED WORK TRAFFIC SUPERVISOR.
  6. ENGINEER'S CERTIFICATIONS TOGETHER WITH AS-BUILT PLANS ARE REQUIRED TO BE SUBMITTED WITHIN 30 DAYS OF COMPLETION WORK WITHIN FDOT RIGHT-OF-WAY.
  7. SOD ALL UNPAVED AREAS WITHIN FDOT RIGHT-OF-WAY THAT ARE DISTURBED BY CONSTRUCTION PER FDOT STANDARDS PLANS INDEX #570-010.
  8. THE CONTRACTOR SHALL COMPLY WITH TRAFFIC CONTROL REQUIREMENTS IN ACCORDANCE WITH FDOT STANDARD PLANS 102-602 AND 102-603,
  9. THE CONTRACTOR SHALL SOD SHOULDERS IN ACCORDANCE WITH FDOT STANDARD PLAN 570-010.
  10. ALL PAVEMENT MARKINGS ARE TO BE PAINTED UNLESS NOTED OTHERWISE. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION 971.

Y:\19750-SRRMMD\PROJECTS\066-01-CRANE CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\CIVIL\19750066-VOL2-C06-12.DWG  
 7/25/2022 8:34 AM JALLEN

DESIGNED	A GOODDEN			
DRAWN	J ALLEN			
CHECKED	R KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.

**JonesEdmunds**  
 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

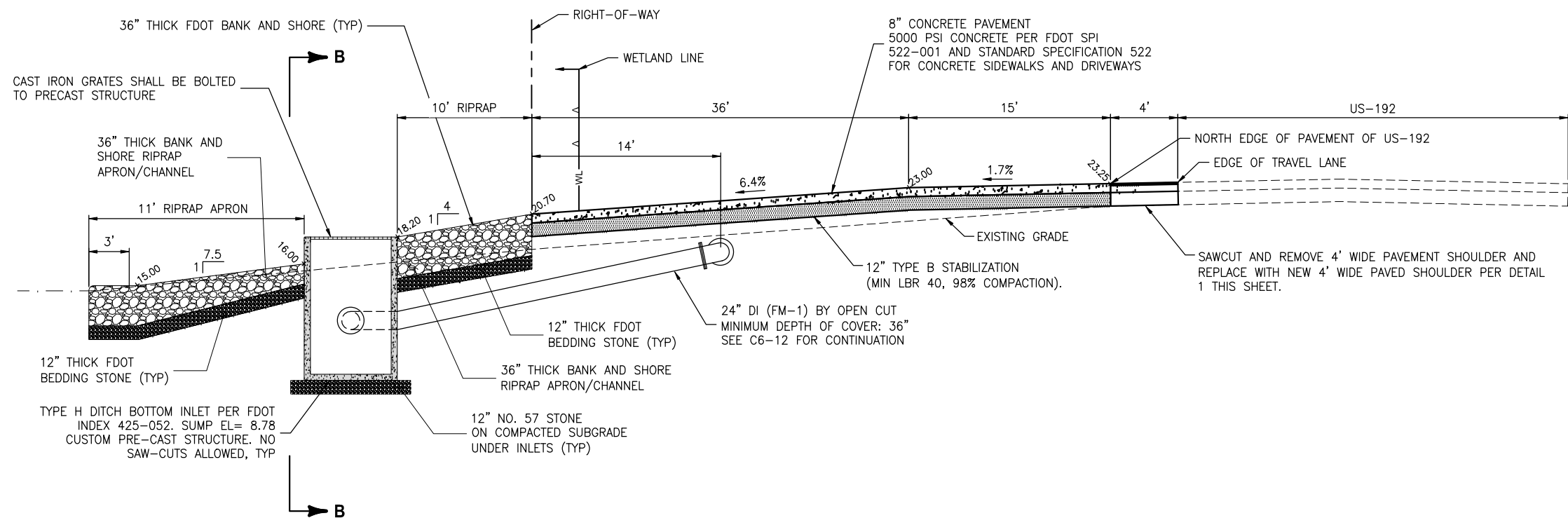
**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**OUTFALL STRUCTURE DETAIL**

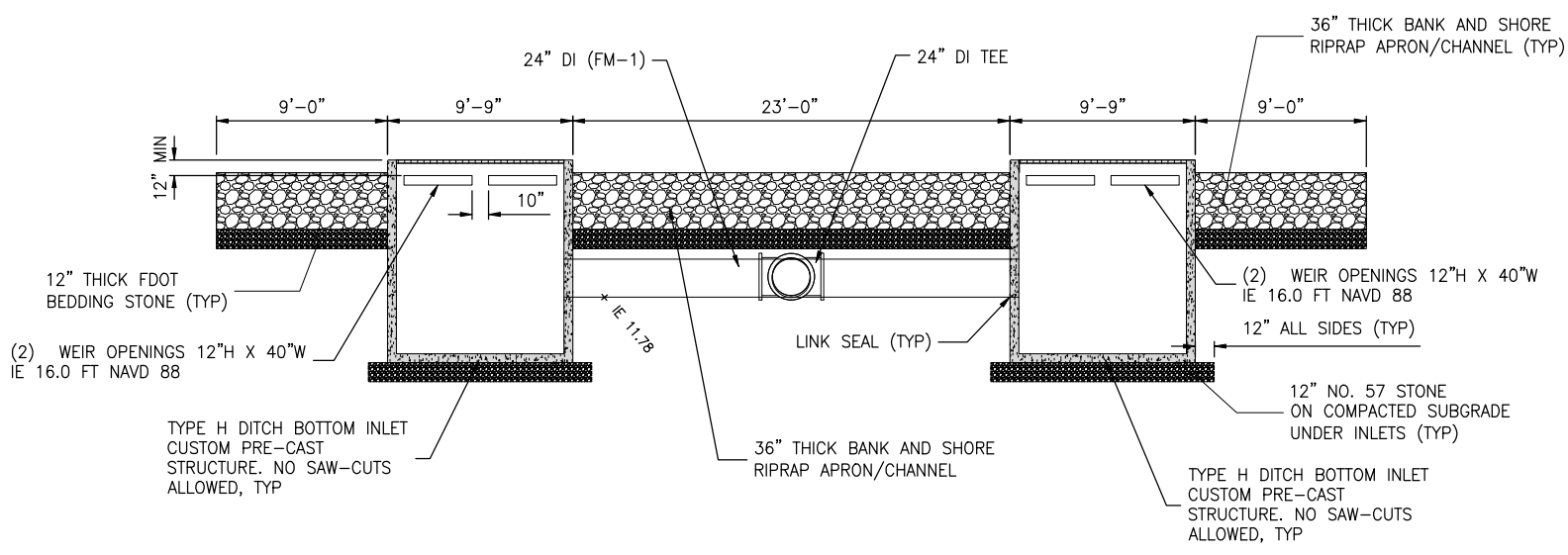
Approved  
 2022-07-22  
 ANY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097  
 PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ANY LIANE GOODDEN ON THE DATE AT THE RIGHT.  
 INDEX NO: C6-12  
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 8/2/2022

BID DOCUMENTS

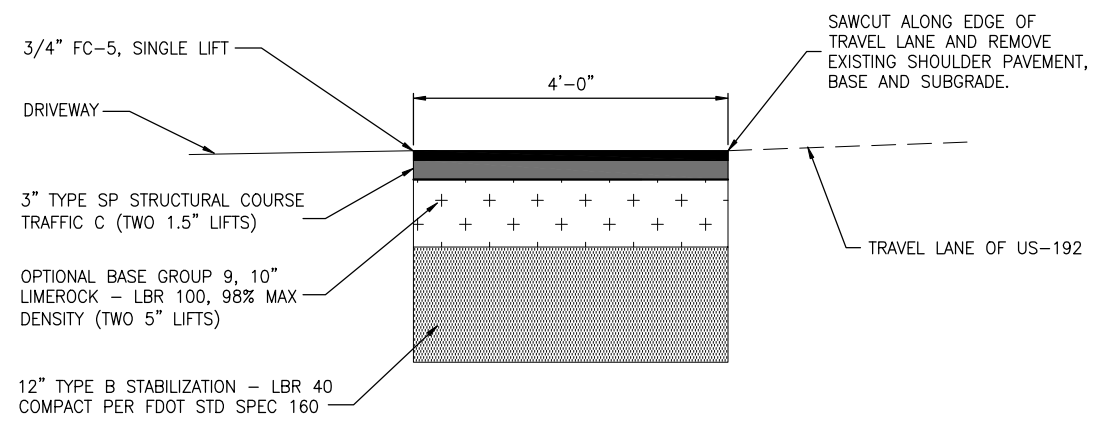




SECTION A-A  
NTS



SECTION B-B  
NTS



DETAIL 1 - MAINLINE SHOULDER DETAIL FOR US-192  
NTS

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 7/20/2022 3:21 PM JALLEN

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**OUTFALL STRUCTURE DETAIL**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097  
 PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT.  
 INDEX NO: C6-13  
 PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.  
 8/2/2022

BID DOCUMENTS

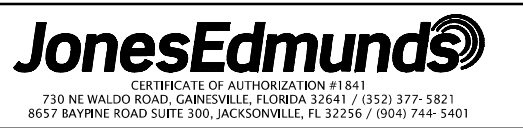
CONTRACTOR REQUIREMENTS

Table with 4 main columns: SITE DESCRIPTION, GENERAL, SPILL PREVENTION, and MAINTENANCE/INSPECTION PROCEDURES. Each column contains detailed project specifications, requirements, and procedures.

SAVED: 4/18/2022 6:20 PM AGOODDEN Y:\19750-SURVMD\PROJECTS\066-01\_CRANE CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\EROSION CONTROL\19750066-VOL2-EC6-1.DWG

BID DOCUMENTS

Approval table with columns: LTR., DATE, REVISIONS, BY, APPRD. Includes rows for DESIGNED (A GOODDEN), DRAWN (J ALLEN), and CHECKED (R KOLLER).

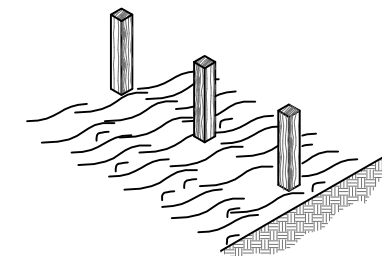


CRANE CREEK M-1 CANAL FLOW RESTORATION VOLUME 2

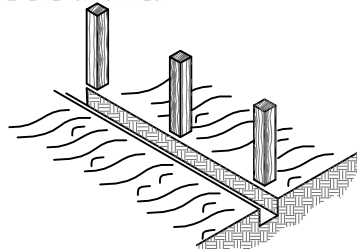
DISCHARGE SITE EROSION CONTROL PLAN

Approved 2022 07/25/2022. Project No: 19750-066-01. Date: JULY 2022. Includes digital signature and verification text.

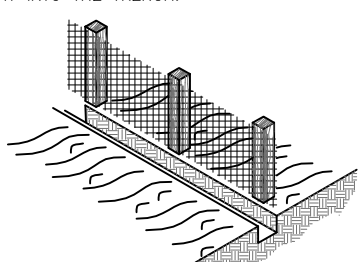
A. SET THE STAKES.



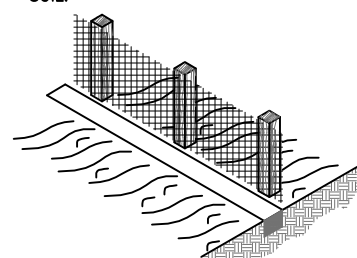
B. EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.



C. STAPLE SILT FENCE TO STAKES AND EXTEND IT INTO THE TRENCH.



D. BACKFILL AND COMPACT THE EXCAVATED SOIL.



**CONSTRUCTION OF A SILT FENCE DETAIL 1**

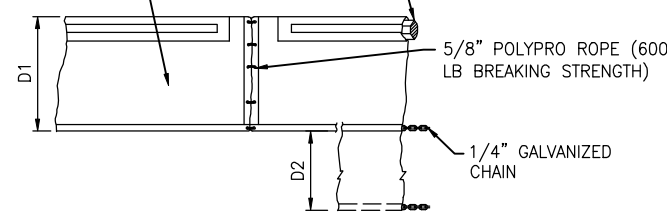
NTS

18oz NYLON REINF PVC FABRIC (300 PSI TEST) WITH LACING GROMMETS

CLOSED CELL SOLID PLASTIC FOAM FLOTATION (6" DIA EQUIV) (12 LBS PER FT BUOYANCY)

5/16" VINYL SHEATHED EAW STEEL CABLE (9800 LBS BREAKING STRENGTH) WITH GALVANIZED CONNECTORS (TOOL FREE DISCONNECT)

CLOSED CELL SOLID PLASTIC FOAM FLOTATION (8" DIA EQUIV) (17 LBS PER FT BUOYANCY)



**TYPE 1**

D1 = 5' STD (SINGLE PANEL FOR DEPTHS 5' OR LESS)  
D2 = 5' STD (ADDITIONAL PANEL FOR DEPTHS 5')

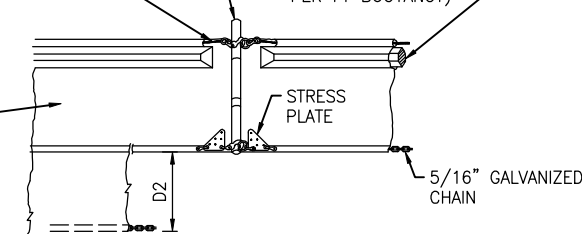
CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALL FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTICE: COMPONENTS OF TYPES 1 AND 2 MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES 1 AND 2 SHALL BE AS APPROVED BY THE ENGINEER.

SLOTTED PVC CONNECTOR PIPE (METAL COLLAR REINFORCED)

18oz NYLON REINF PVC FABRIC (300 PSI TEST)

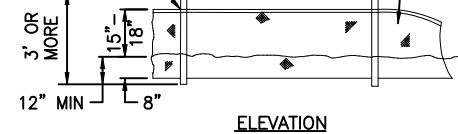
STRESS PLATE



**TYPE 2**

**TYPICAL FLOATING TURBIDITY BARRIER DETAIL**

POST (OPTIONS: 2"x4" OR 2 1/2" WOOD; STEEL MIN DIA 1.33 LBS/FT MIN)



ELEVATION

6' MAX

3' OR MORE

12" MIN

15"

18"

8"

15"

18"

8"

12" MIN

15"

18"

8"

12" MIN

15"

18"

8"

12" MIN

15"

18"

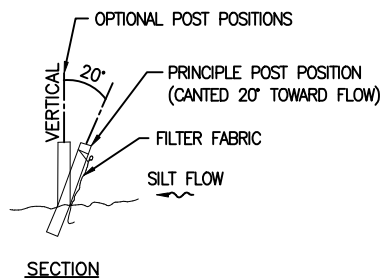
8"

12" MIN

15"

18"

8"



SECTION

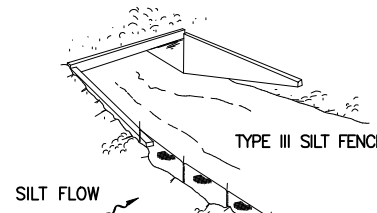
OPTIONAL POST POSITIONS

PRINCIPLE POST POSITION (CANTED 20° TOWARD FLOW)

20°

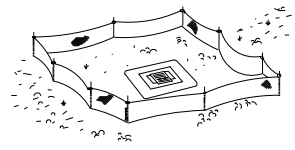
FILTER FABRIC

SILT FLOW



TYPE III SILT FENCE

SILT FLOW



TYPE III SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS

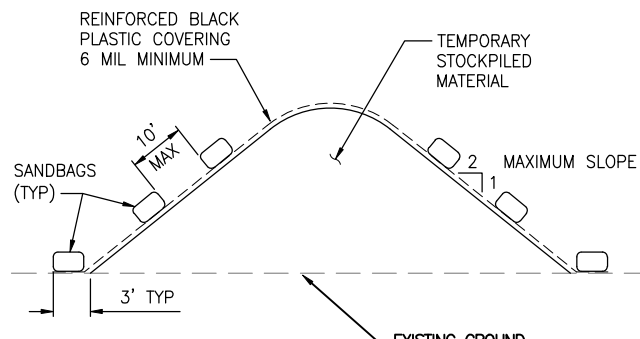
**TYPE III SILT FENCE**

NOTES:

- A. DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
- B. WHEN JOINING BUTT ENDS OF SILT FENCE FABRIC; JOIN FABRIC ENDS, WRAP AROUND A POST 360-DEGREES, AND SET POST.

**FDOT INDEX NUMBER 102 SILT FENCE DETAIL 3**

NTS



NOTES:

- 1. ALL SEAMS SHALL BE TAPED OR WEIGHTED DOWN FULL LENGTH. ALL SEAMS SHALL HAVE A MINIMUM 12" OVERLAP.
- 2. SEAMS PARALLEL TO THE SLOPE CONTOUR SHALL HAVE THE UPHILL SHEET OVERLAP THE DOWN HILL SHEET.
- 3. NO SURFACE RUN-OFF SHALL BE ALLOWED TO RUN UNDER THE PLASTIC COVERING.
- 4. DRAINAGE FROM AREAS COVER BY REINFORCED PLASTIC SHEETING SHALL BE CONTROLLED SUCH THAT NO DISCHARGE OCCURS DIRECTLY ONTO UNCONTROLLED DISTURBED AREAS OF THE CONSTRUCTION SITE.

**TEMPORARY STOCKPILE COVERING**

NTS

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

**JonesEdmunds**  
 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**DISCHARGE SITE EROSION CONTROL  
 NOTES**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097	PROJECT NO: 19750-066-01	DATE: JULY 2022
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT	INDEX NO: William Richard	DWG NO: EC6-2
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	8/2/2022	

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 12/23/2021 2:23 PM JALLEN

BID DOCUMENTS

**FDOT STANDARD PLANS FOR WORK WITHIN US HIGHWAY 192  
FROM 2022-2023 FDOT STANDARD PLANS**

**INCLUDES THE FOLLOWING INDEX NUMBERS:  
102-602, 102-603, 570-010, 711-001**





**NOTE: THESE STANDARD PLANS ARE REPRODUCED AND INCLUDED IN THIS SET OF DRAWINGS PER FDOT'S REQUIREMENTS. ALL OTHER REQUIREMENTS IN THE CONTRACT DOCUMENTS FOR ADHERENCE TO FDOT STANDARD PLANS, SPECIFICATIONS AND MANUALS SHALL ALSO APPLY WHETHER REPRODUCED HERE OR NOT.**

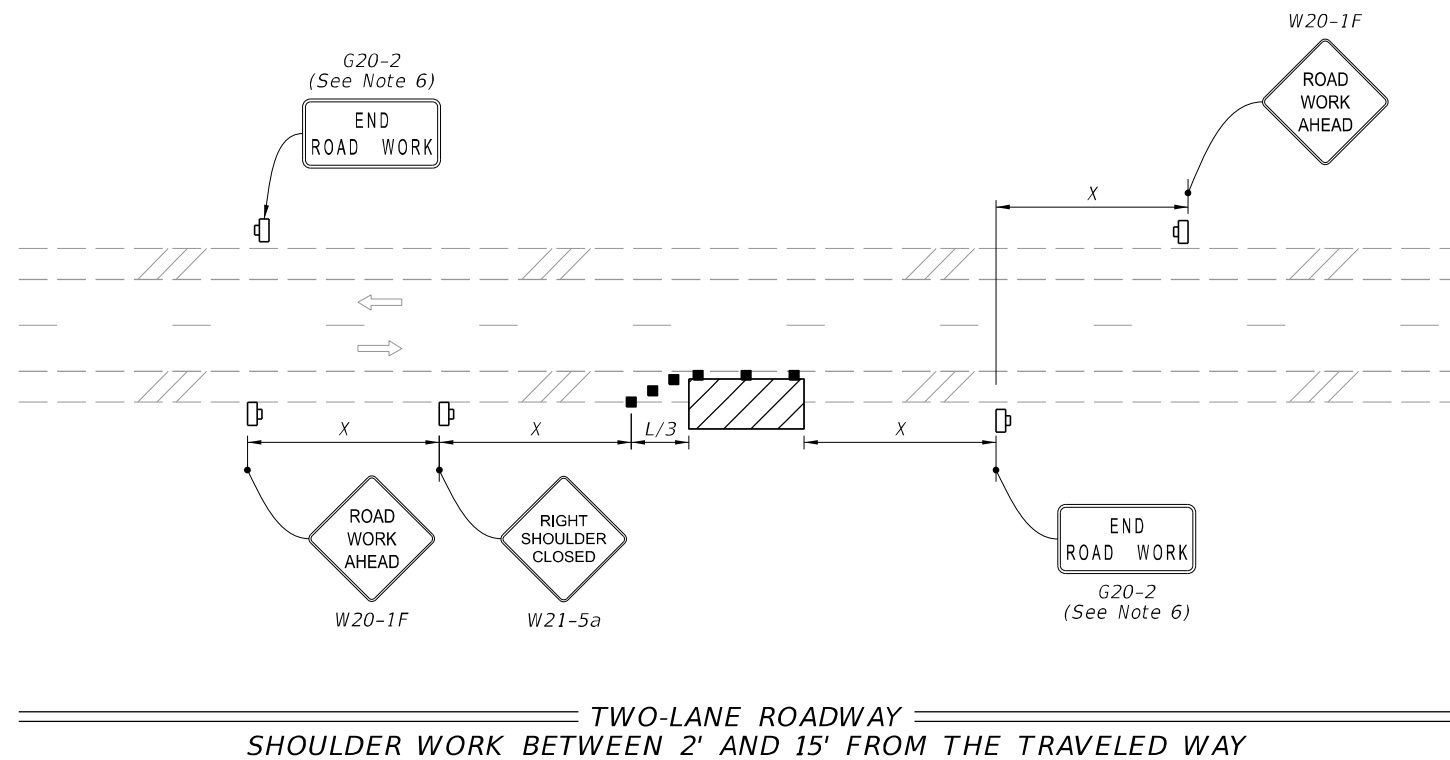
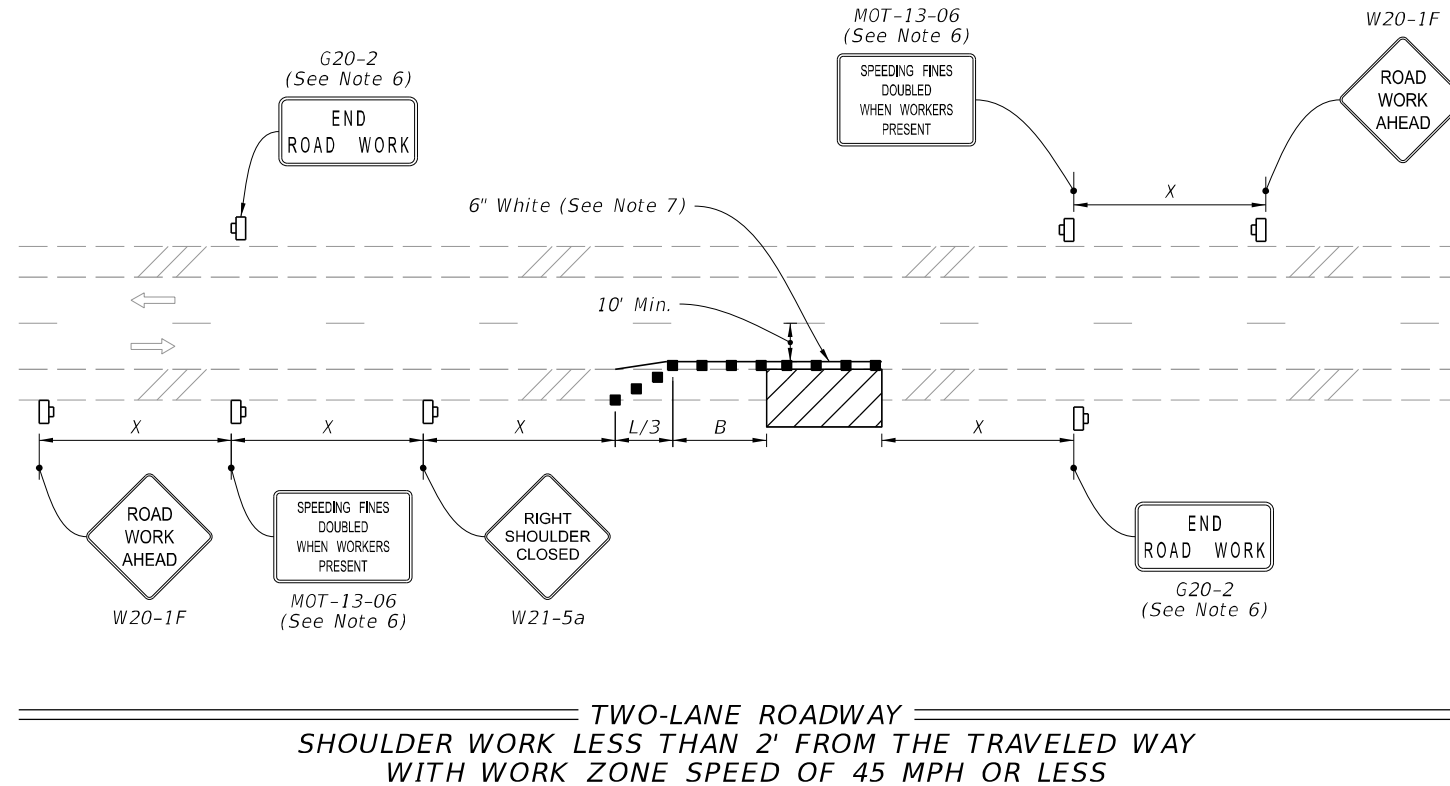
Approved  
2022-A-590-00026  
William Rickard  
8/2/2022

**NOTE:**

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

**SYMBOLS:**

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



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LAST REVISION	DESCRIPTION:
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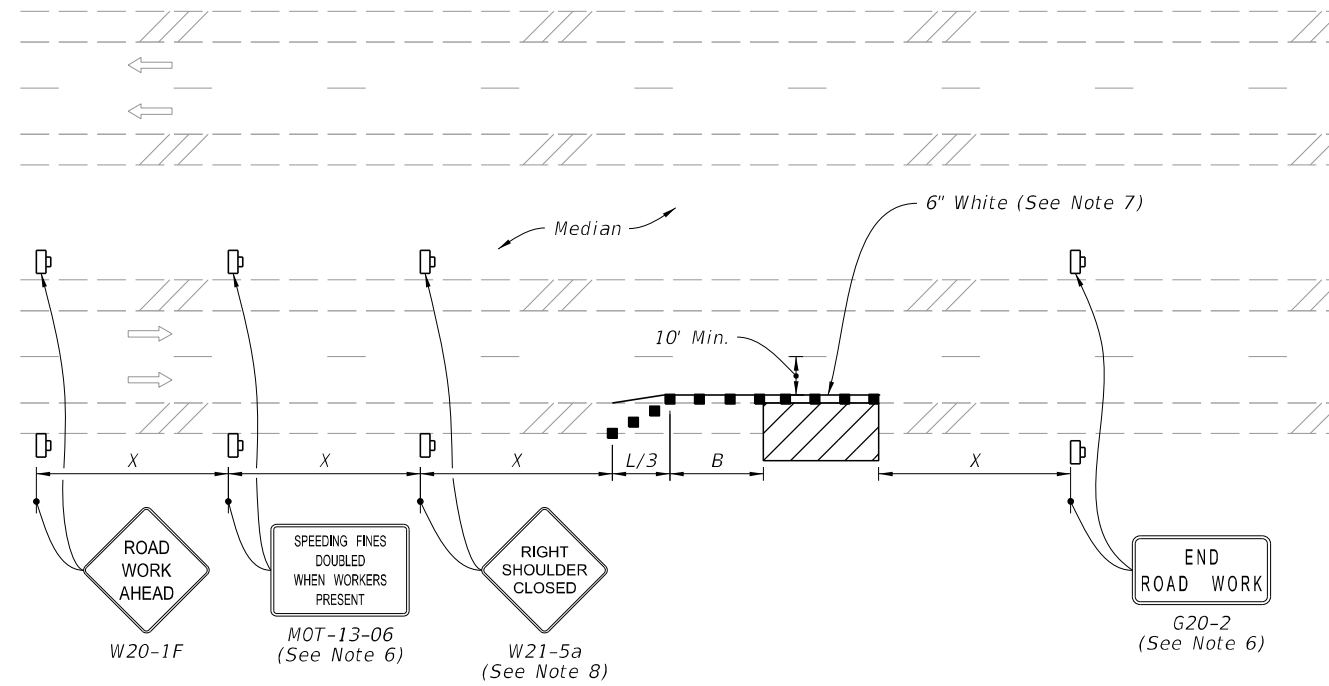

**FY 2022-23**  
**STANDARD PLANS**

**TWO-LANE AND MULTILANE, WORK ON SHOULDER**

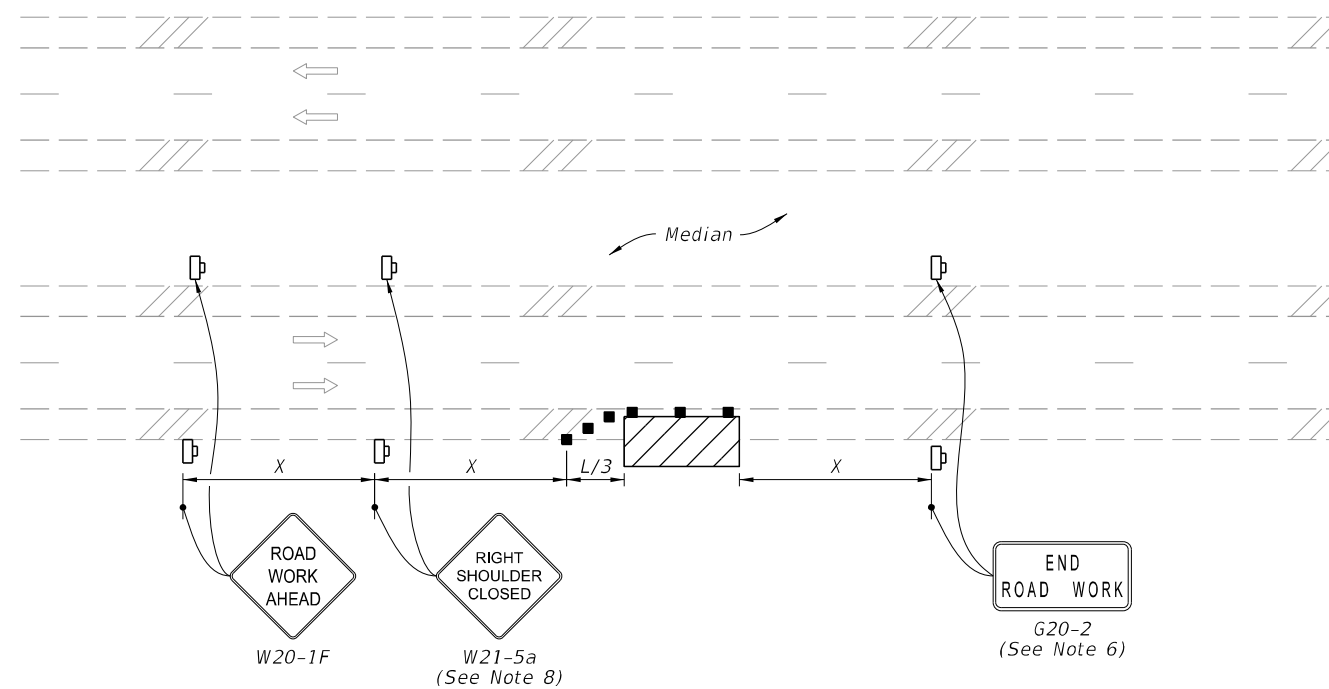
INDEX	SHEET
102-602	1 of 2

Approved  
 2022-A-590-00026  
 William Rickard  
 8/2/2022

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



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

**SYMBOLS:**

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

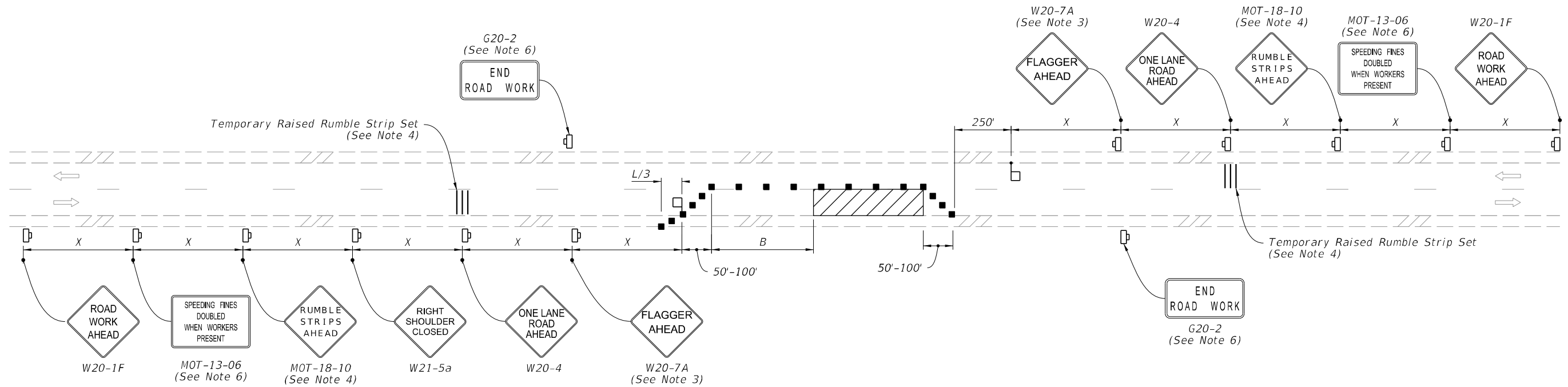
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 2022-A-590-00026  
 William Rickard  
 8/2/2022

LAST REVISION 11/01/20	REVISION	DESCRIPTION:
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**FDOT**  
 FY 2022-23  
 STANDARD PLANS

TWO-LANE AND MULTILANE, WORK ON SHOULDER

INDEX SHEET  
 102-602 2 of 2



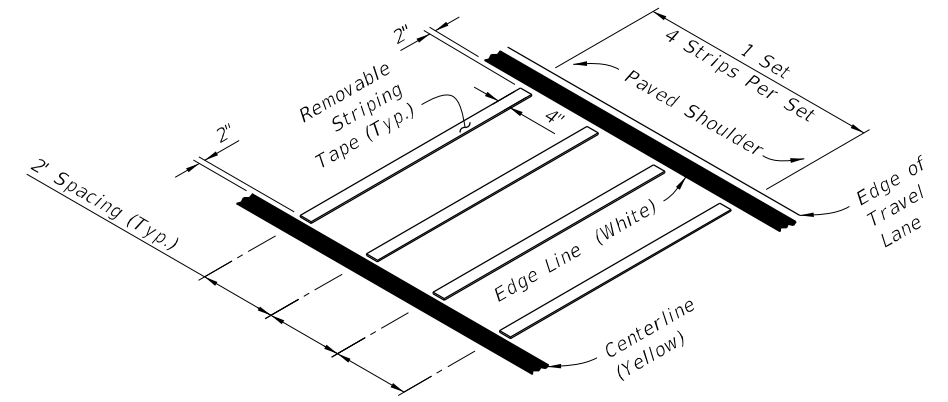
**NOTES:**

- This Index applies to Two-Lane, Two-Way Roadways with work within the traveled way.
- L = Taper Length  
B = Buffer Length  
X = Work Zone Sign Spacing  
See Index 102-600 for "L", "B", "X" and channelizing device spacing values.
- Optionally, use "Flagger Ahead" sign with symbol (W20-7) instead of "Flagger Ahead" sign with text (W20-7A).
- Use temporary raised rumble strips when the existing posted speed is 55 mph or greater and the work duration is greater than 60 minutes. If temporary raised rumble strips are not used, omit "Rumble Strips Ahead" signs (MOT-18-10) and associated work zone sign spacing.
- Additional one-way control may be provided by the following means:
  - Flag-carrying vehicle
  - Official vehicle
  - Pilot vehicles
  - Traffic signals
- The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign spacing, may be omitted when the work operation will be in place for 24 hours or less.
- Automated Flagger Assistance Devices (AFADs) may be used in accordance with Specification Sections 102, 990 and the APL vendor drawings.
- Railroad Crossings:
  - If an active railroad crossing is located closer to the Work Area than the queue length plus 300 feet, extend the Buffer Space as shown on Sheet 2.
  - If the queuing of vehicles across an active railroad crossing cannot be avoided, provide a uniformed traffic control officer or flagger at the highway-rail grade crossing to prevent vehicles from stopping within the highway-rail grade crossing, even if automatic train warning devices are in place.

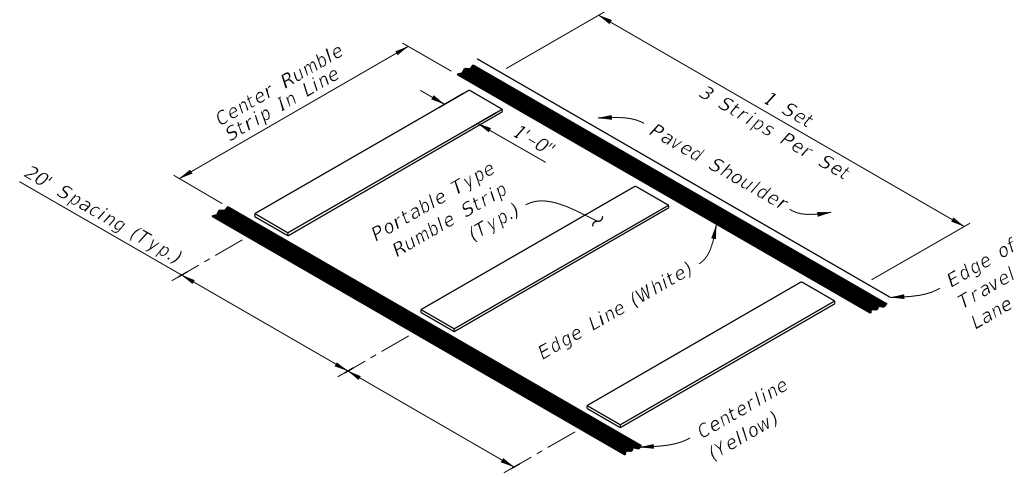
When flaggers are the sole means of one-way control, the flaggers must be in sight of each other or in direct communication at all times.

**SYMBOLS:**

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



**OPTION - 1  
REMOVABLE STRIPING TYPE**



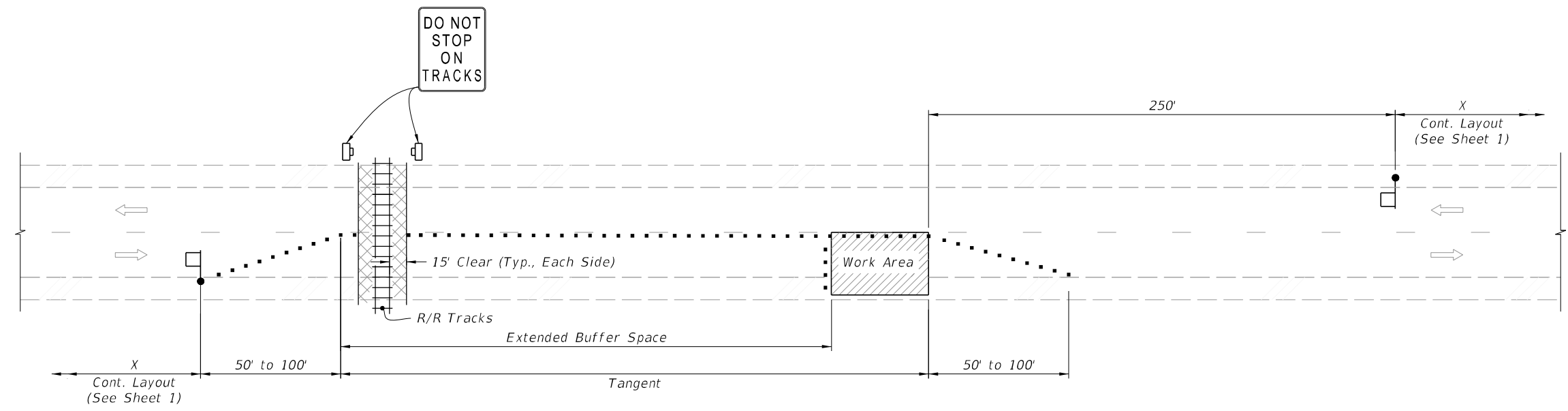
**OPTION - 2  
PORTABLE TYPE**

**RUMBLE STRIP SETS**

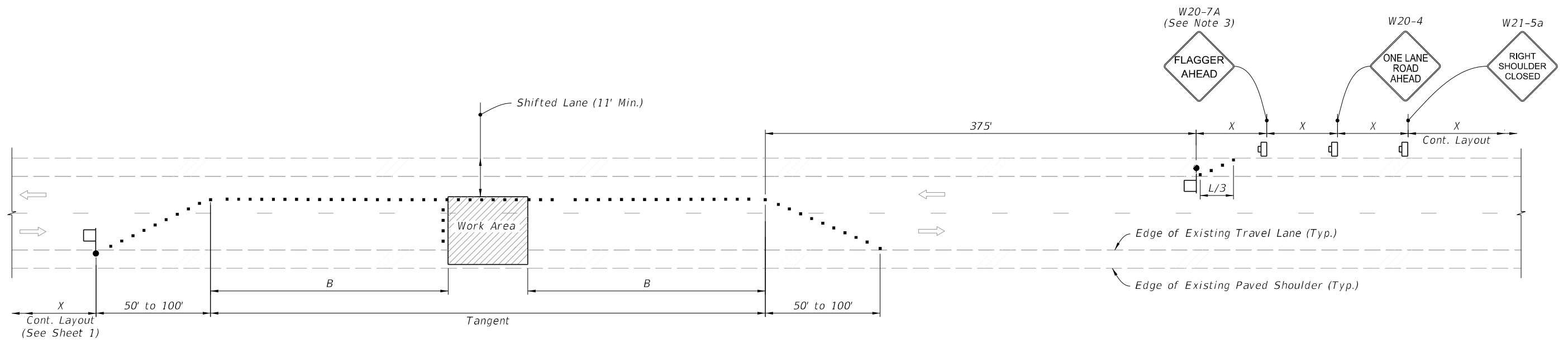
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2022-A-590-00026  
William Rickard  
8/2/2022

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LAST REVISION 11/01/21	REVISION	DESCRIPTION:		FY 2022-23 STANDARD PLANS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX SHEET 102-603 1 of 2
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



TEMPORARY RAILROAD CROSSING BUFFER SPACE EXTENSION



TEMPORARY LANE SHIFT TO SHOULDER WHEN WORK AREA ENCROACHES ON THE CENTERLINE  
(For Work Operations In place 24 Hours or Less)

**SYMBOLS:**

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

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LAST REVISION	DESCRIPTION:
11/01/21	

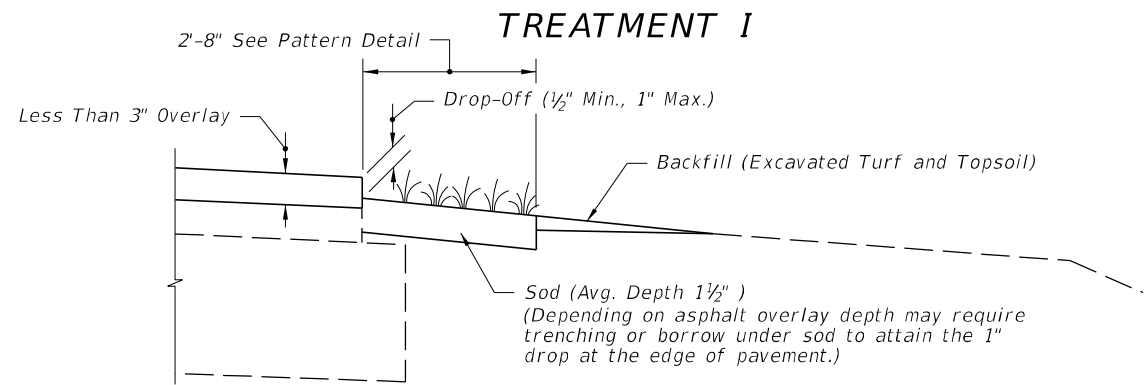

**FY 2022-23  
STANDARD PLANS**

**TWO-LANE, TWO-WAY  
WORK WITHIN THE TRAVEL WAY**

INDEX	SHEET
102-603	2 of 2

Approved  
**SPECIAL CONDITIONS** 100026  
 William Rickard  
 8/2/2022

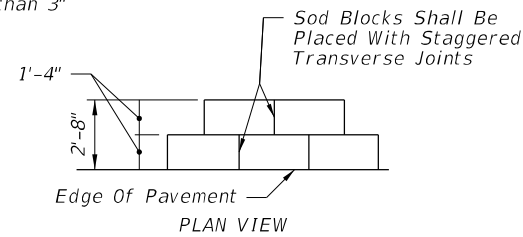




**COMPLETED SHOULDER**

**CRITERIA FOR USING TREATMENT I**

- Project \_\_\_
- is resurfacing, widening and resurfacing or construction of shoulder pavement
  - is rural or is urban without curb and gutter
  - resurfacing build-up is less than 3"



**PATTERN DETAIL**

**GENERAL NOTES**

1. Treatment I:

If trenching under sod is necessary to achieve the required Drop-Off, excavated topsoil is to be used for filling voids and low areas at the edge of pavement or for flushing along the edge of sod. Excess material to be uniformly distributed over the shoulder.

2. Treatment II:

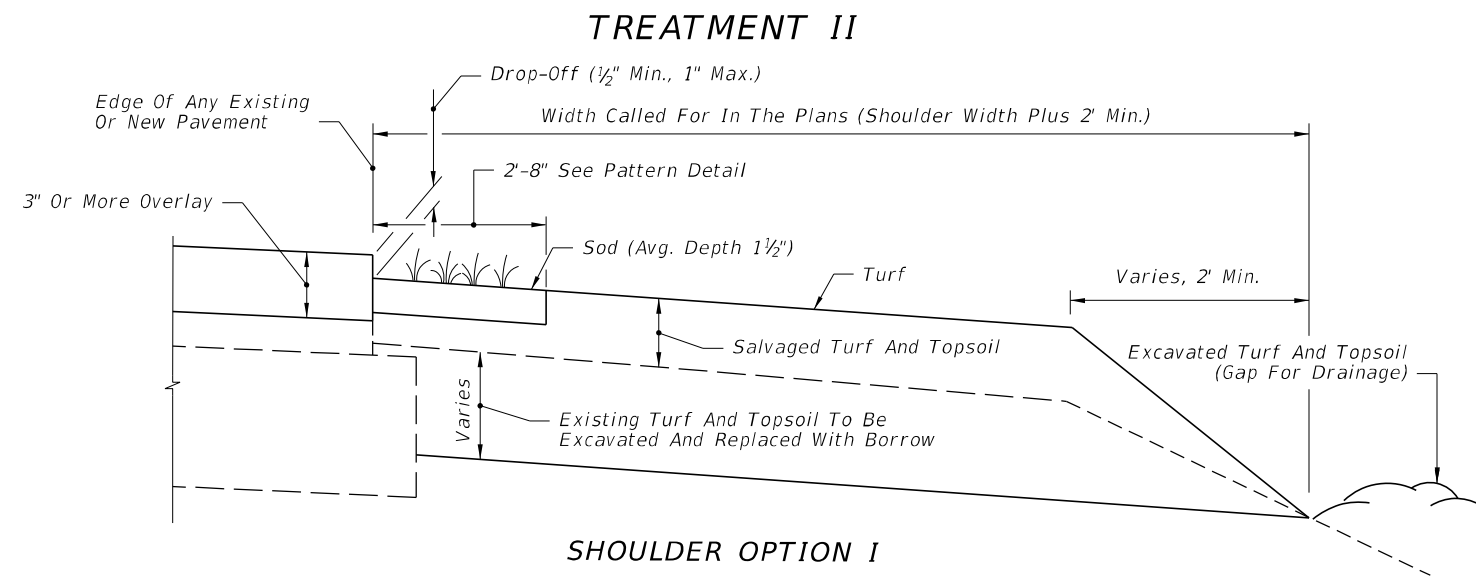
- A. Borrow must meet the requirements for a "Select" material in accordance with Index 120-001 and Specification 120.
- B. Borrow may be used in lieu of excavated turf and topsoil when economically feasible. There will be no additional payment for substituting borrow for excavated turf and topsoil.

3. Special attention is to be directed at achieving the required Drop-Off at the edge of pavement, within the dimension range shown.

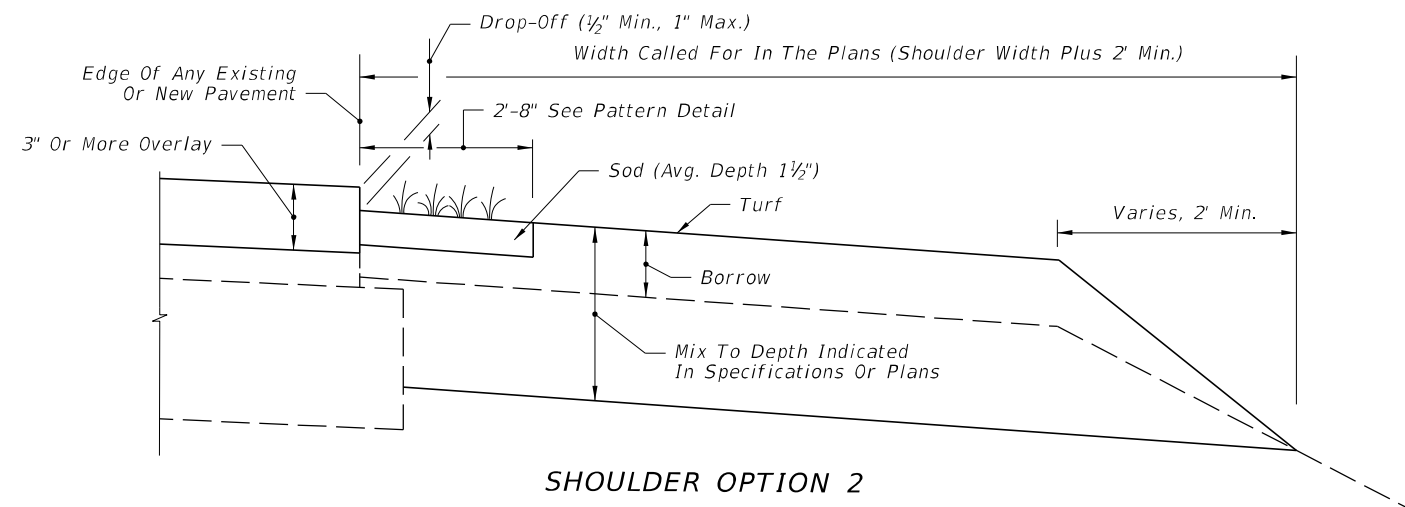
4. Activities such as clearing, grading, and excavating that will disturb one or more acres of land require coverage under the Generic Permit for Stormwater Discharge from Large and Small Construction Activities from the Florida Department of Environmental Protection, and implementation of appropriate pollution prevention measures to minimize erosion and sedimentation and properly manage stormwater.

5. Turf Establishment:

- A. Wildflowers destroyed by shoulder sodding and turf operations are to be reestablished under the seeding rates prescribed for permanent wildflower #2 Group shown by table on Index 570-001.
- B. Establish turf in accordance with Specification 570.



**SHOULDER OPTION I**



**SHOULDER OPTION 2**

**CRITERIA FOR USING TREATMENT II**

- Project \_\_\_
- is resurfacing or construction of shoulder pavement
  - is rural or is urban without curb and gutter
  - resurfacing build-up is 3" or more

A SIMILAR TREATMENT MAY BE USED FOR PROJECTS THAT REQUIRE SHOULDER WIDENING. DETAILS ARE TO BE SHOWN IN THE PLANS.

9/22/2021 10:12:19 AM

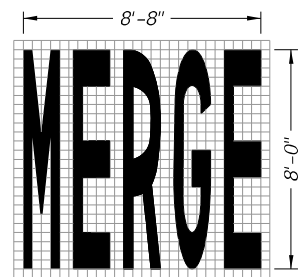
LAST REVISION 11/01/18	DESCRIPTION:
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**FY 2022-23  
STANDARD PLANS**

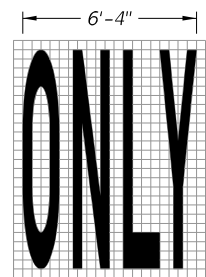
**SHOULDER SODDING AND  
TURF ON EXISTING FACILITIES**

INDEX 570-010	SHEET 1 of 1
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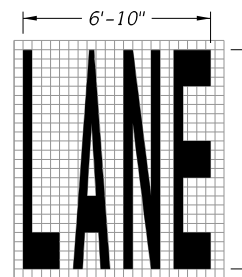
Approved  
 2022-A-590-00026  
 William Rickard  
 8/2/2022



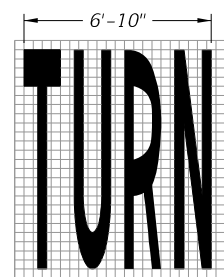
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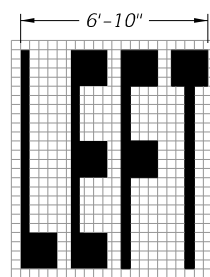
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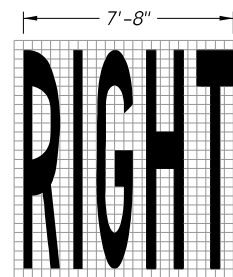
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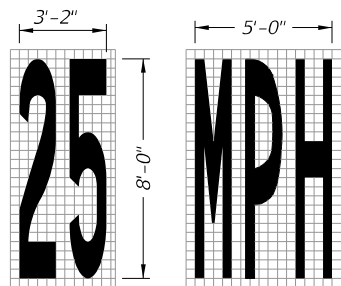
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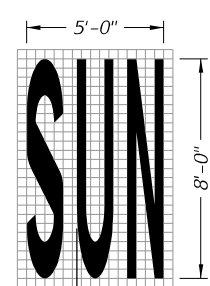
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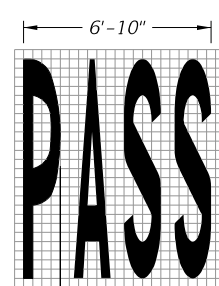
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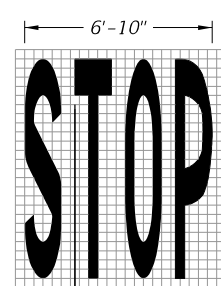
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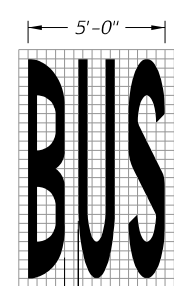
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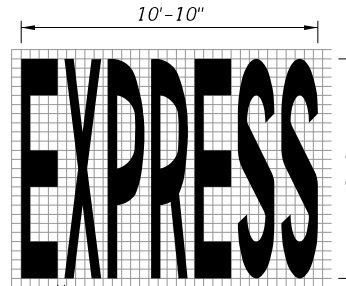
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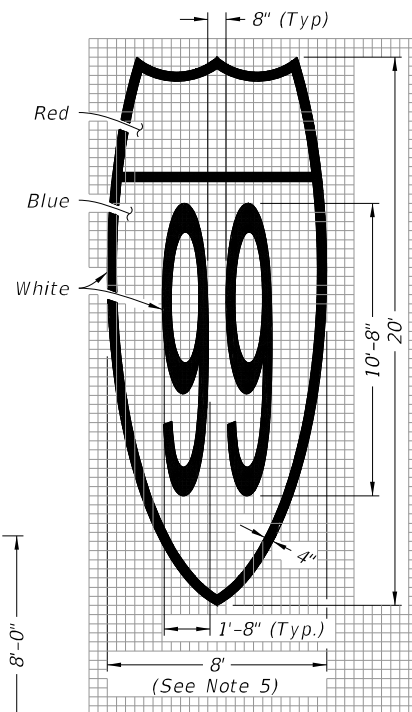
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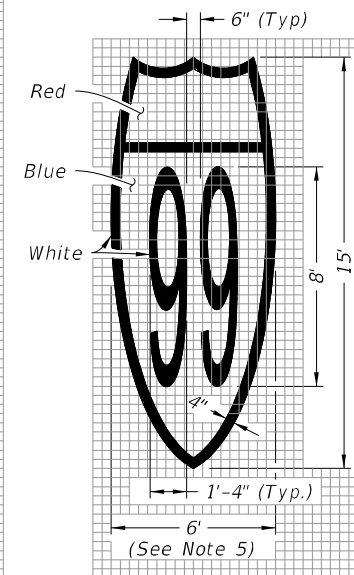


43 S.F.



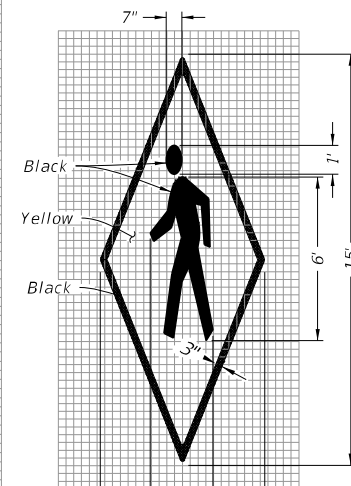
Route Shield for Limited Access Roadways (Interstate Route Shield Shown; U.S. and State Route Shield Similar)

128 S.F.



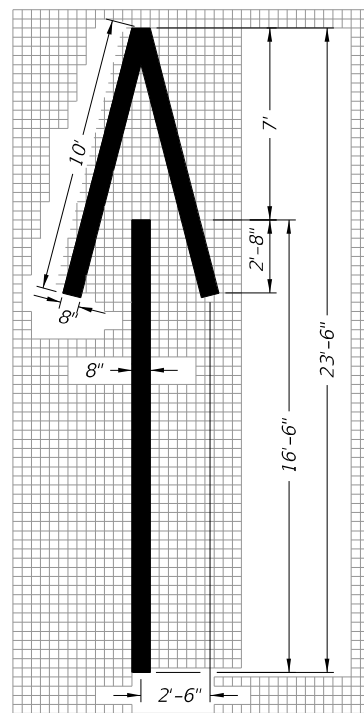
Route Shield for Arterials and Collectors (Interstate Route Shield Shown; U.S. and State Route Shield Similar)

72 S.F.

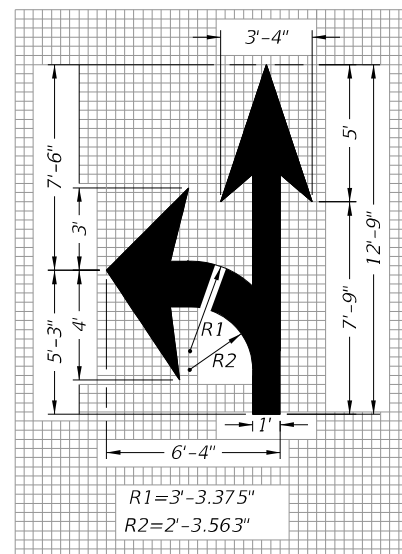


In Pavement Warning Marking

45 S.F.

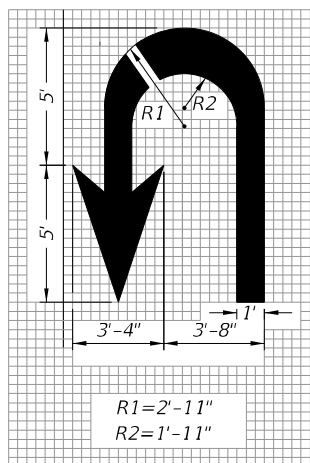


Wrong-Way Arrow  
24 S.F.



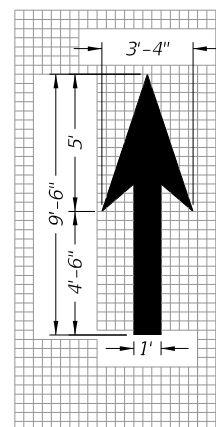
R1=3'-3.375"  
R2=2'-3.563"

Turn and Through Lane-Use Arrow  
29 S.F.

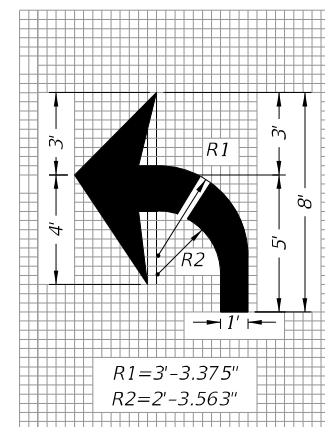


R1=2'-11"  
R2=1'-11"

U Turn Lane-Use Arrow  
27 S.F.

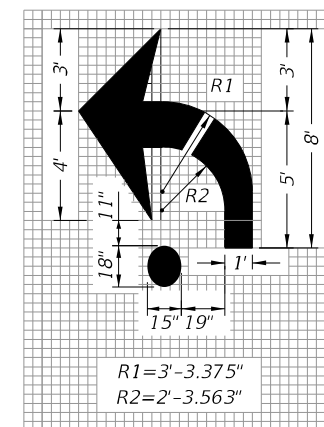


Through Lane-Use Arrow  
12 S.F.



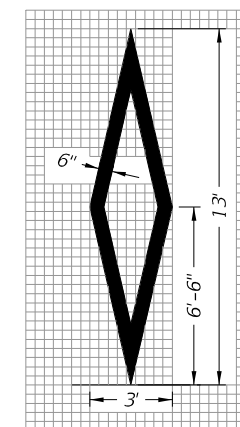
R1=3'-3.375"  
R2=2'-3.563"

Turn Lane-Use Arrow (Left Turn Shown - Right Turn Similar)  
17 S.F.



R1=3'-3.375"  
R2=2'-3.563"

Roundabout Approach Arrow  
19 S.F.



Preferential Lane Symbol  
11 S.F.

PAVEMENT MESSAGES NOTES:

1. Place all pavement messages 25' back from the stop line.
2. Dimensions are within 1" ±.
3. All grids are 4" x 4".
4. All pavement messages must be white except Route Shields and In Pavement Warning Markings.
5. Increase width of route shield for routes with three digits.

PAVEMENT MESSAGE AND ARROW DETAILS

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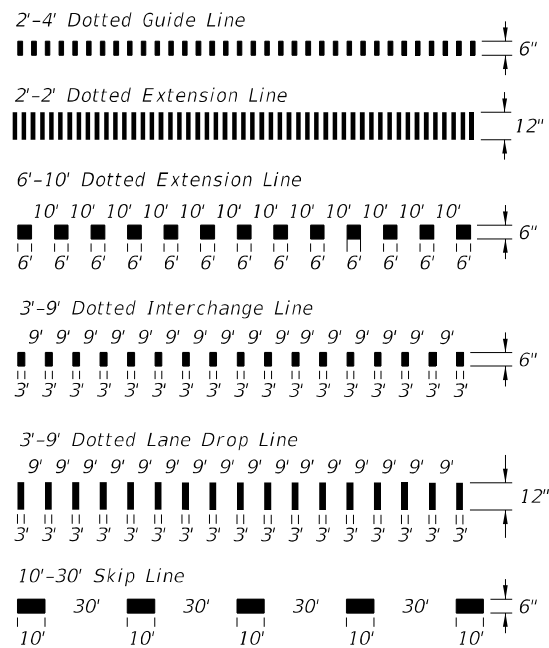
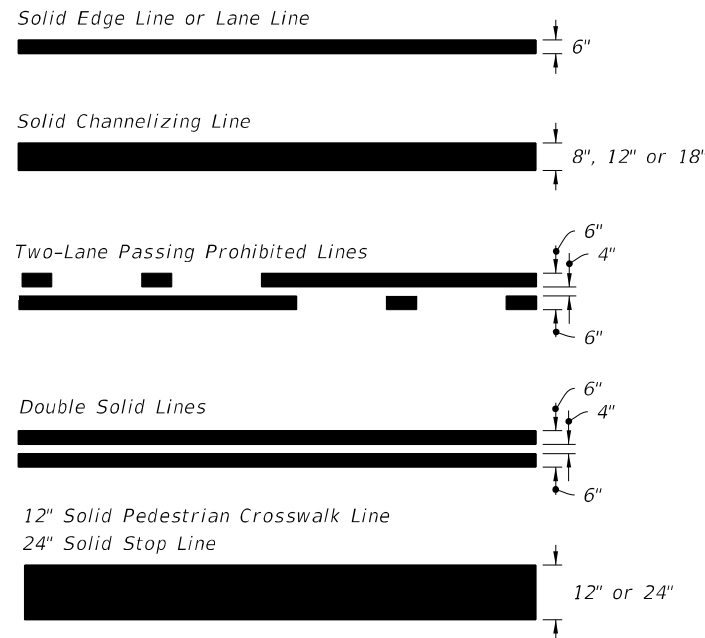


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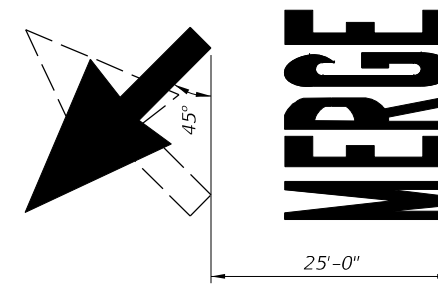
PAVEMENT MARKINGS

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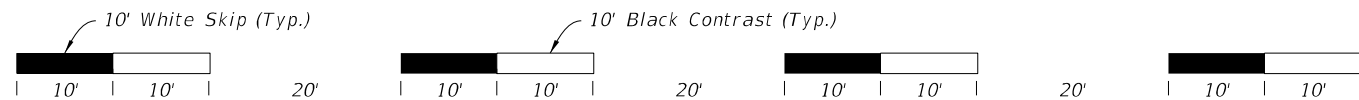
Approved  
2022-A-590-00026  
William Rickard  
8/2/2022



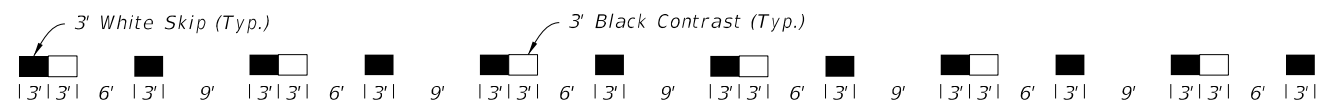
PAVEMENT MARKING LINES



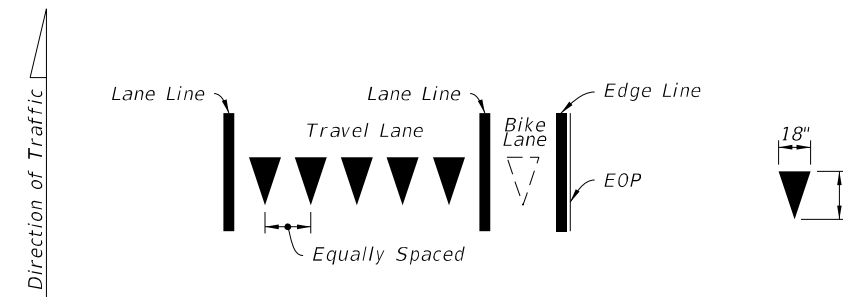
MARKINGS FOR MERGE



10'-30' SKIP LINE WITH SHADOW MARKINGS



DOTTED LINE WITH ALTERNATING SHADOW MARKINGS  
(3'-9' Dotted Line Shown, Other Dotted Lines Similar)

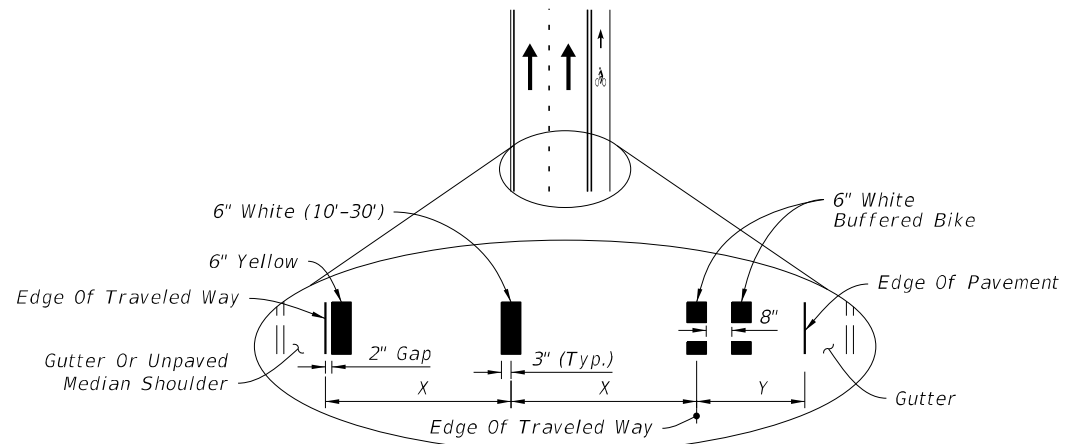


Yield Lines consist of five - 18" X 27" white triangles which face traffic. Equally space triangles within traffic lane. When a bike lane is present, add one additional triangle in the center of the bike lane.

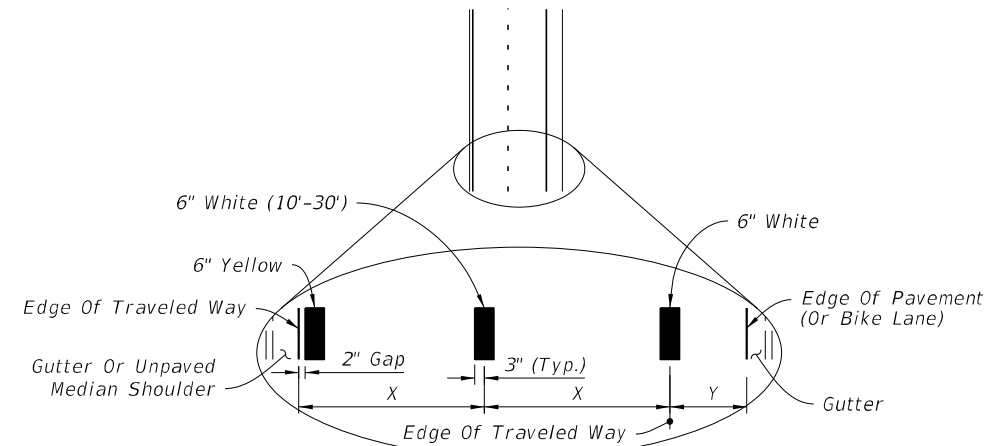
YIELD LINES

9/22/2021 3:12:28 PM

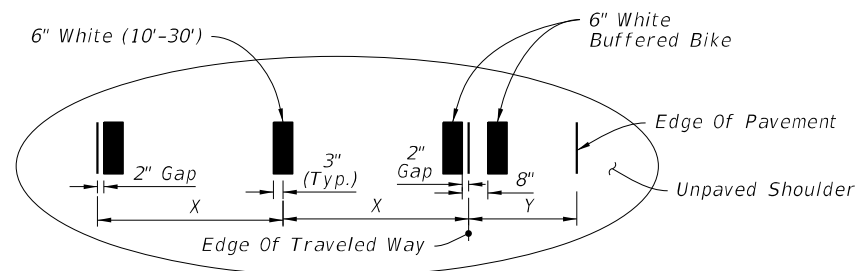
LAST REVISION	DESCRIPTION:
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**CURB AND GUTTER**

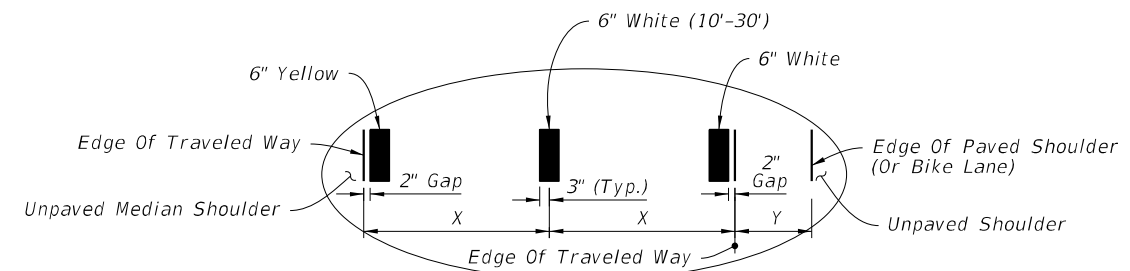


**CURB AND GUTTER**



**FLUSH SHOULDER**

X = LANE WIDTH (FT.)  
Y = BUFFERED BIKE LANE WIDTH (FT.)

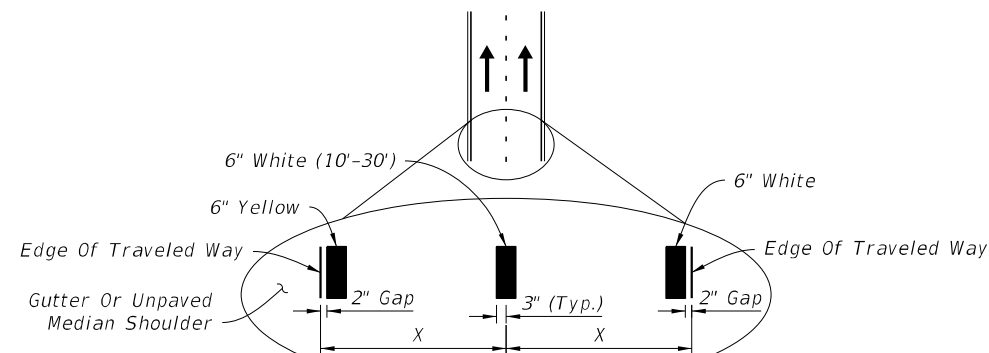


**FLUSH SHOULDER**

X = LANE WIDTH (FT.)  
Y = PAVED SHOULDER / BIKE LANE

==== STRIPING FOR BUFFERED BIKE LANE =====

==== STRIPING WITH SHOULDER OR NON-BUFFERED BIKE LANE =====



X = LANE WIDTH (FT.)

==== STRIPING WITH NO SHOULDER OR BIKE LANE =====

**NOTES:**

1. Lane widths (X) may not be same for each lane in the section.
2. For placement of RPMs, see Index 706-001.

9/22/2021 3:12:31 PM

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2022-11-30-00026  
William Rickard  
8/2/2022

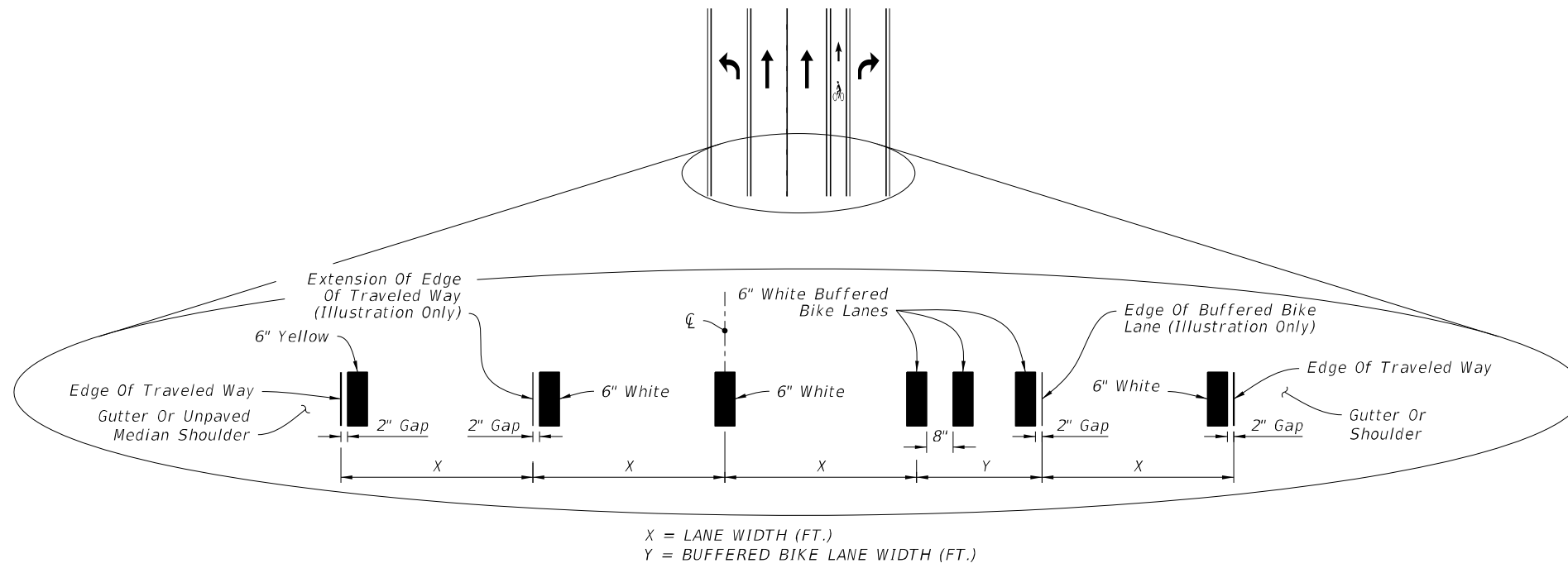
**PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS**

LAST REVISION 11/01/21	REVISION	DESCRIPTION:
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**FDOT** FY 2022-23  
STANDARD PLANS

**PAVEMENT MARKINGS**

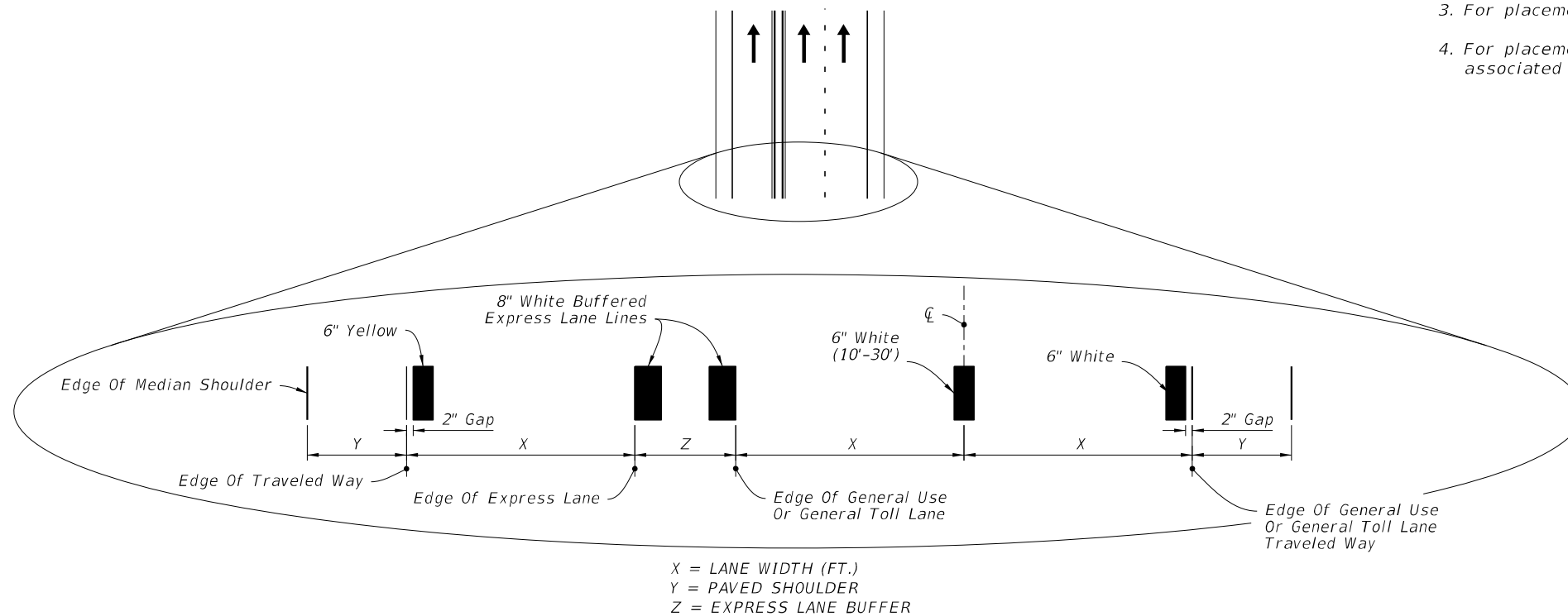
INDEX 711-001	SHEET 3 of 13
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**INTERSECTION APPROACH STRIPING WITH TURN LANES AND BUFFERED BIKE LANE KEY HOLE**

**NOTES:**

1. Lane widths (X) may not be same for each lane in the section.
3. For placement of RPMs, see Index 706-001.
4. For placement of Express Lane markers and associated RPMs, see the Plans.



**BUFFERED EXPRESS LANE STRIPING**

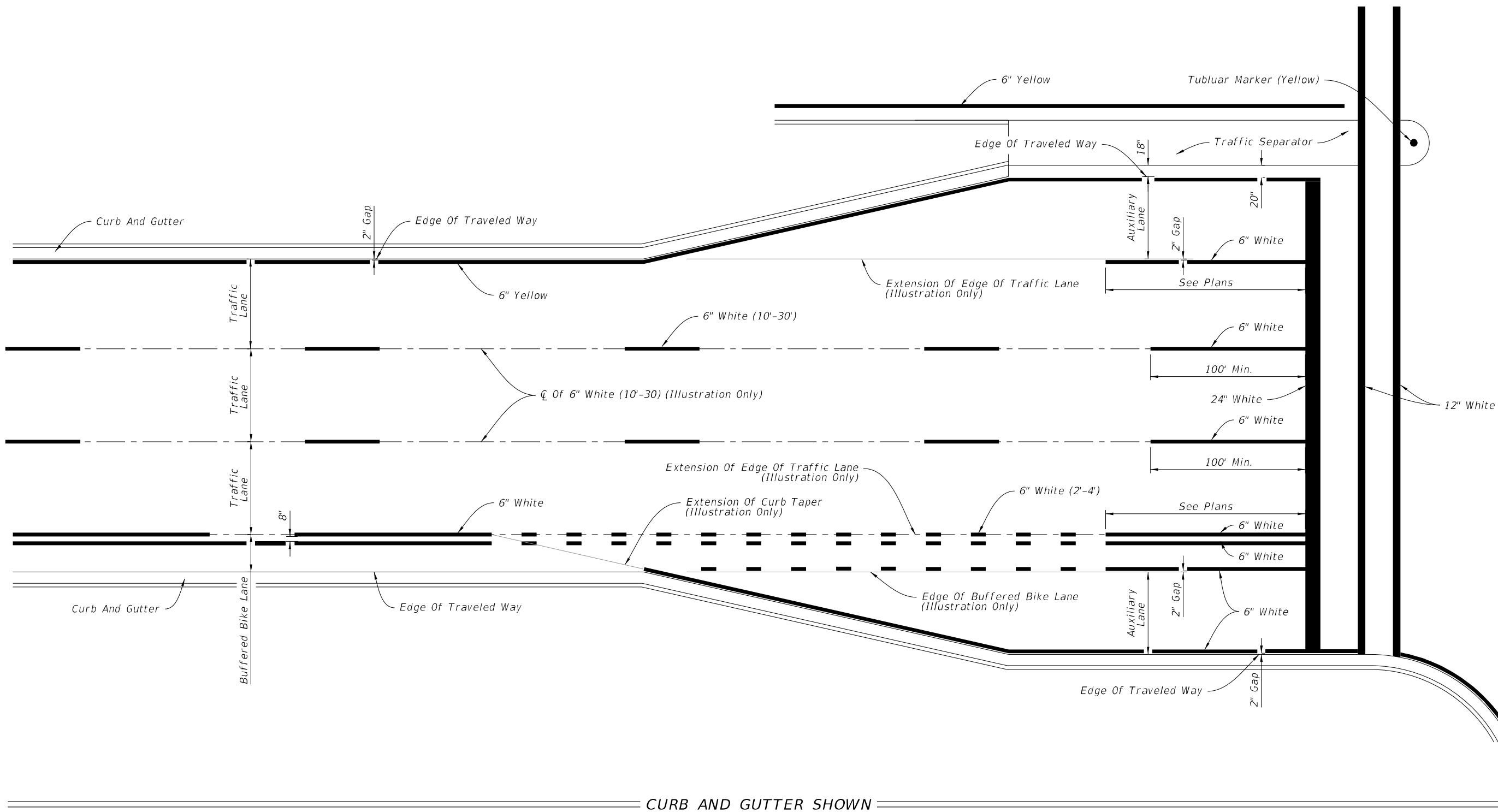
**PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS**

3:12:35 PM 9/22/2021

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 2022-11-09-00026  
 William Rickard  
 8/2/2022

11/4/2021 11:36:10 AM



CURB AND GUTTER SHOWN

Approved  
 2022-11-30-00026  
 William Rickard  
 8/2/2022

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

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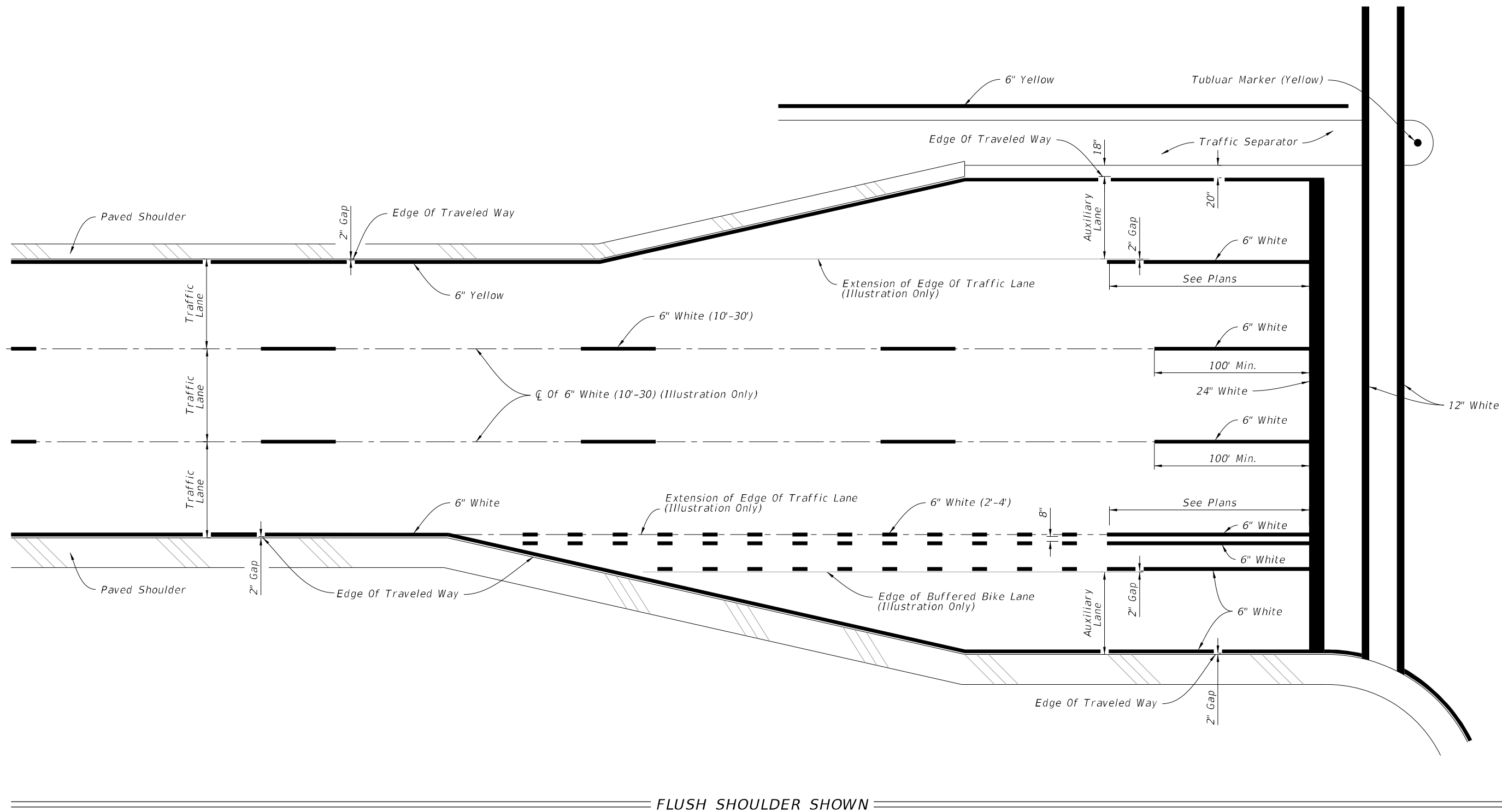
LAST REVISION	DESCRIPTION:
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 STANDARD PLANS

PAVEMENT MARKINGS

11/4/2021 11:38:11 AM



FLUSH SHOULDER SHOWN

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

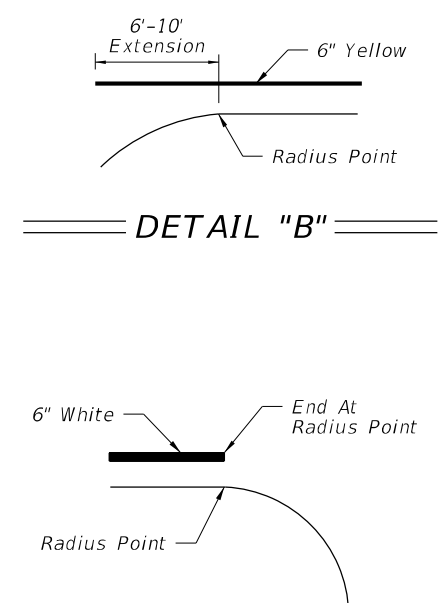
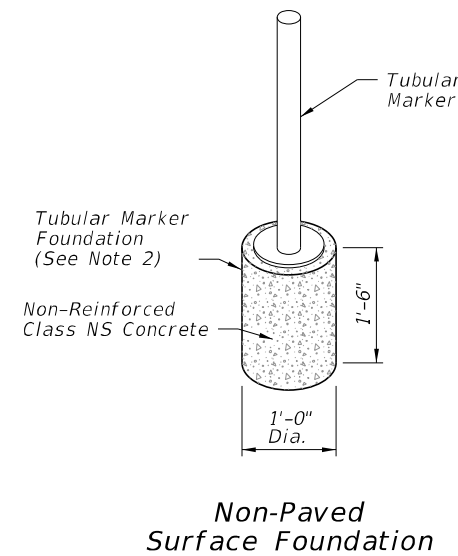
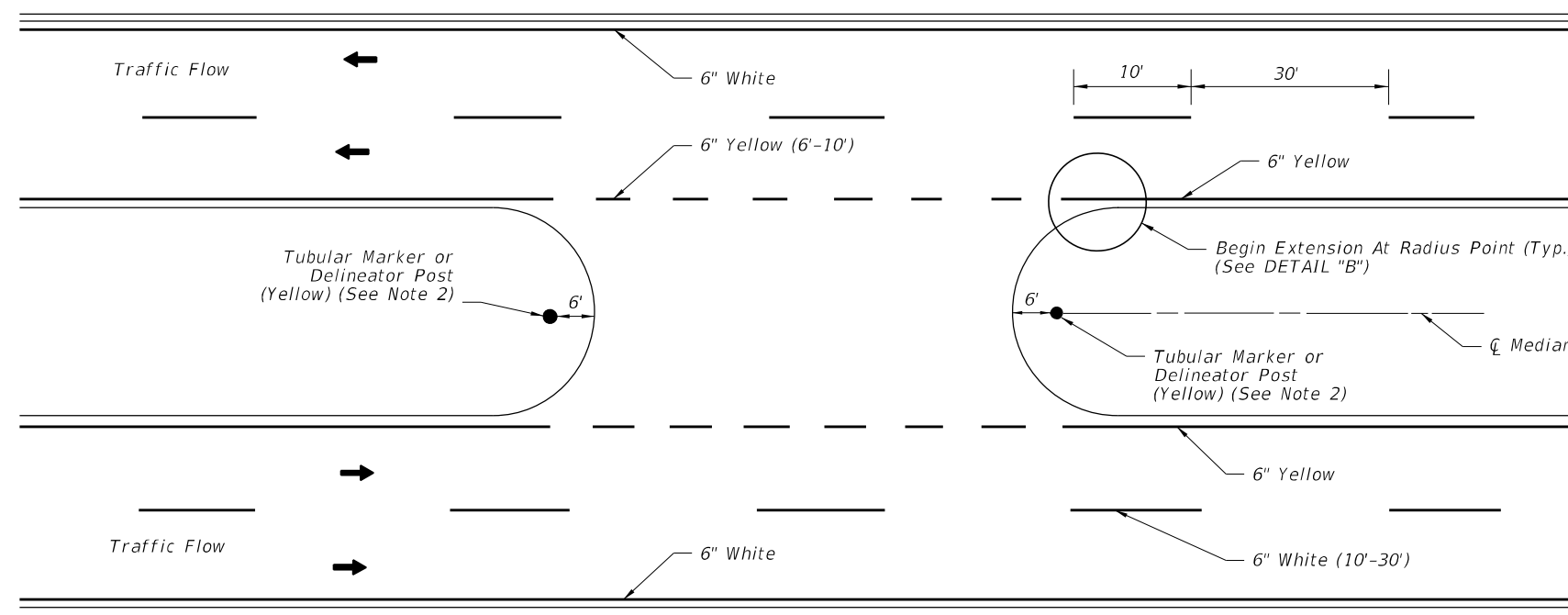
LAST REVISION	DESCRIPTION:
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PAVEMENT MARKINGS

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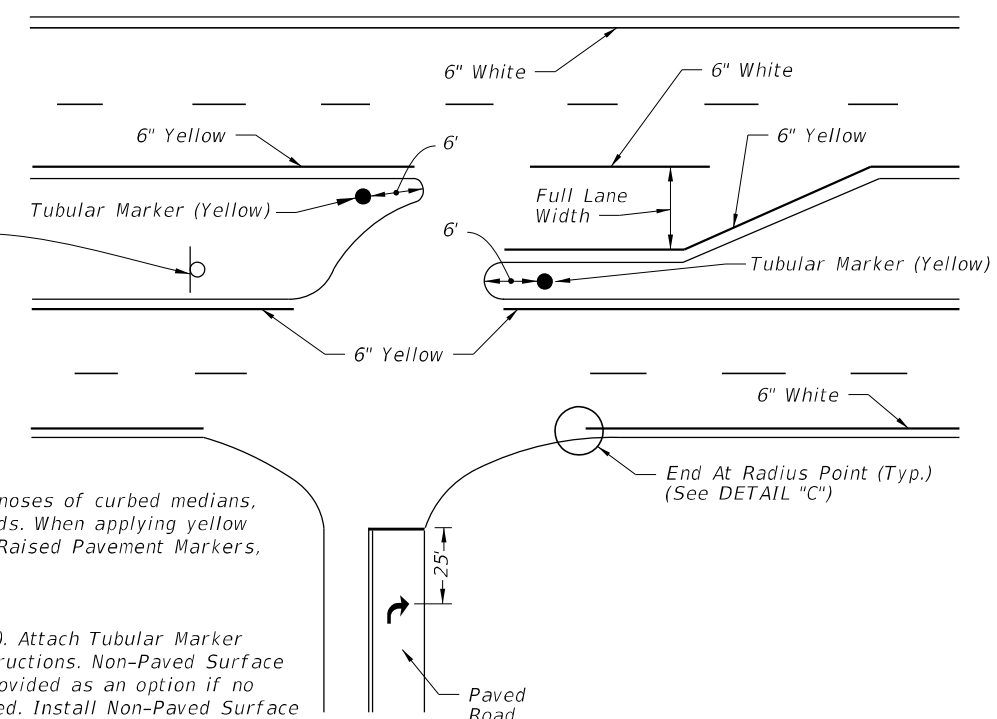
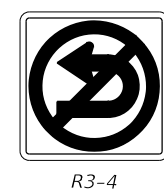
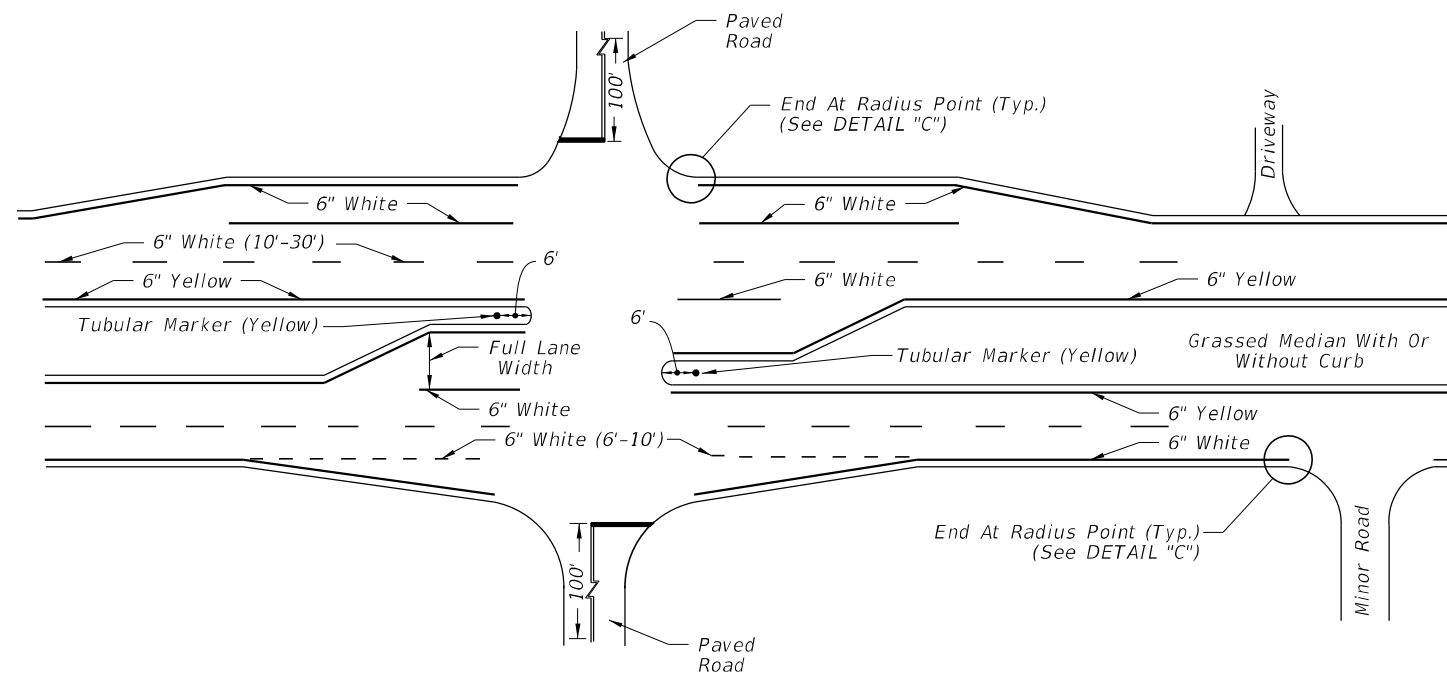
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 2022-11-30-00026  
 William Rickard  
 8/2/2022



PAVEMENT MARKINGS AND DELINEATORS FOR MEDIAN CROSSOVER

DETAIL "A"

DETAIL "C"



NOTE:

- Apply yellow reflective paint to the noses of curbed medians, traffic separators, and raised islands. When applying yellow reflective paint in conjunction with Raised Pavement Markers, see Index 706-001.
- Options for grassed medians:
  - A. Option 1: Tubular Marker (Yellow). Attach Tubular Marker according to manufacturer's instructions. Non-Paved Surface Foundation (See Detail "A") is provided as an option if no other suitable surface is provided. Install Non-Paved Surface Foundation flush with the surrounding ground surface.
  - B. Option 2: Delineator Post. Use yellow retro-reflective sheeting on both sides of the delineator. Install the post so that the top is 4'-0" above the grade at the edge of the pavement.
- Extend double yellow centerlines 100' back from intersection on all approaches or 50' for unmarked cross roads.

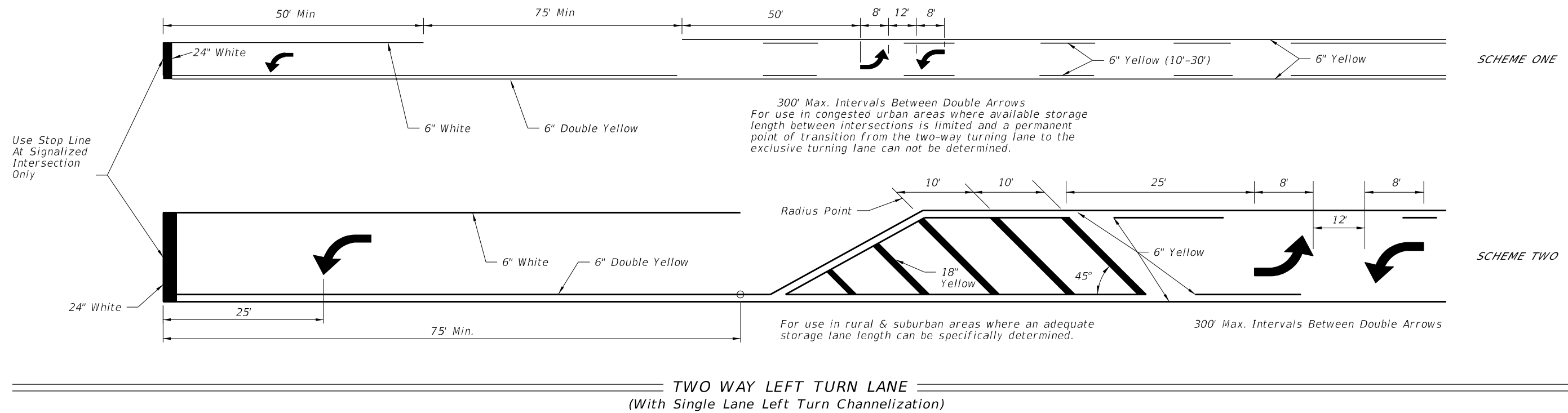
PAVEMENT MARKINGS FOR INTERSECTIONS WITH MAJOR AND MINOR ROADS

3:12:45 PM 9/22/2021

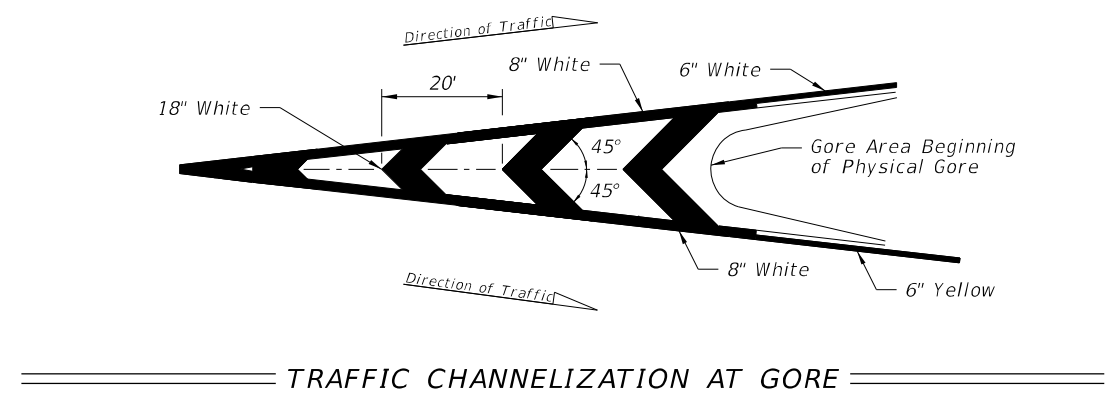
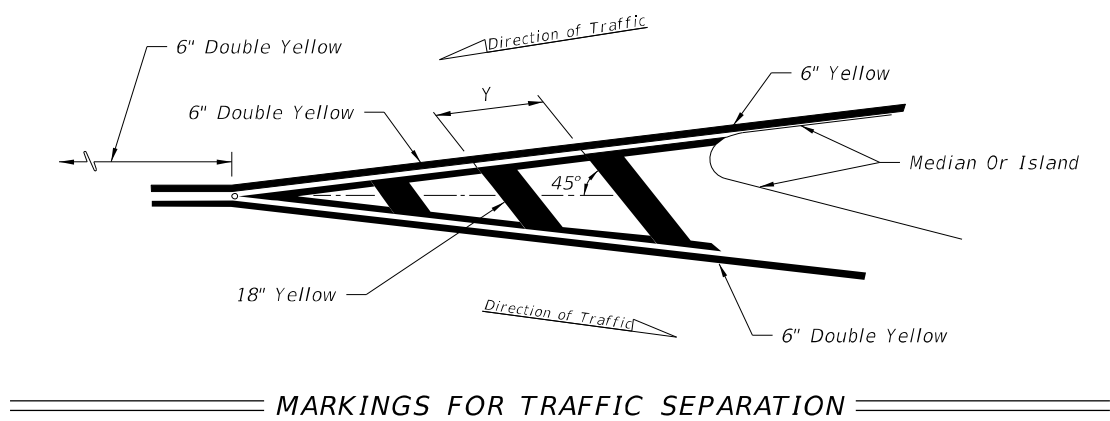
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POSTED SPEED LIMIT MPH	"y" (FT.)
30 OR LESS	10
35	20
40	20
45	30
50 OR MORE	40



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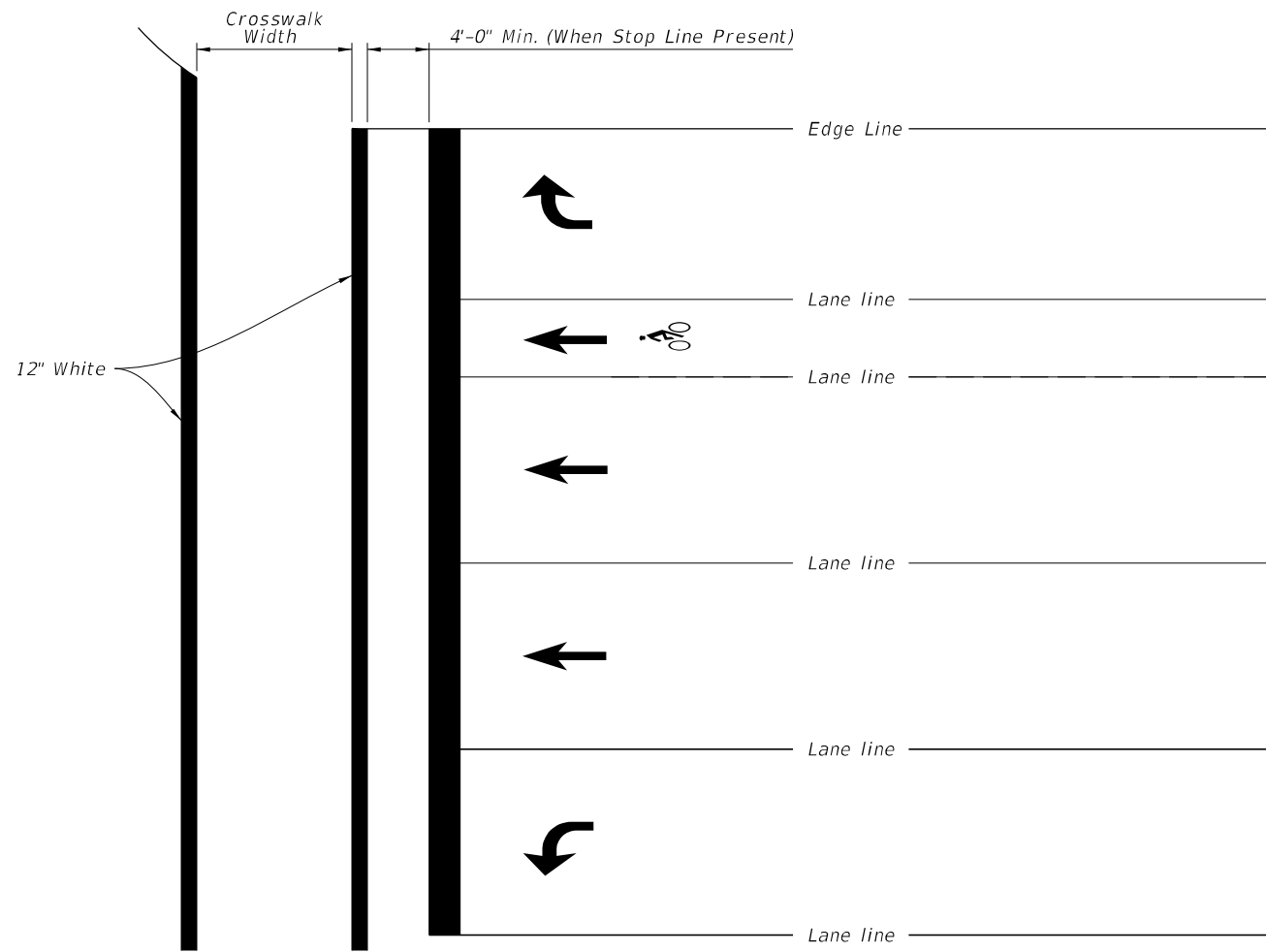
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11/01/21	

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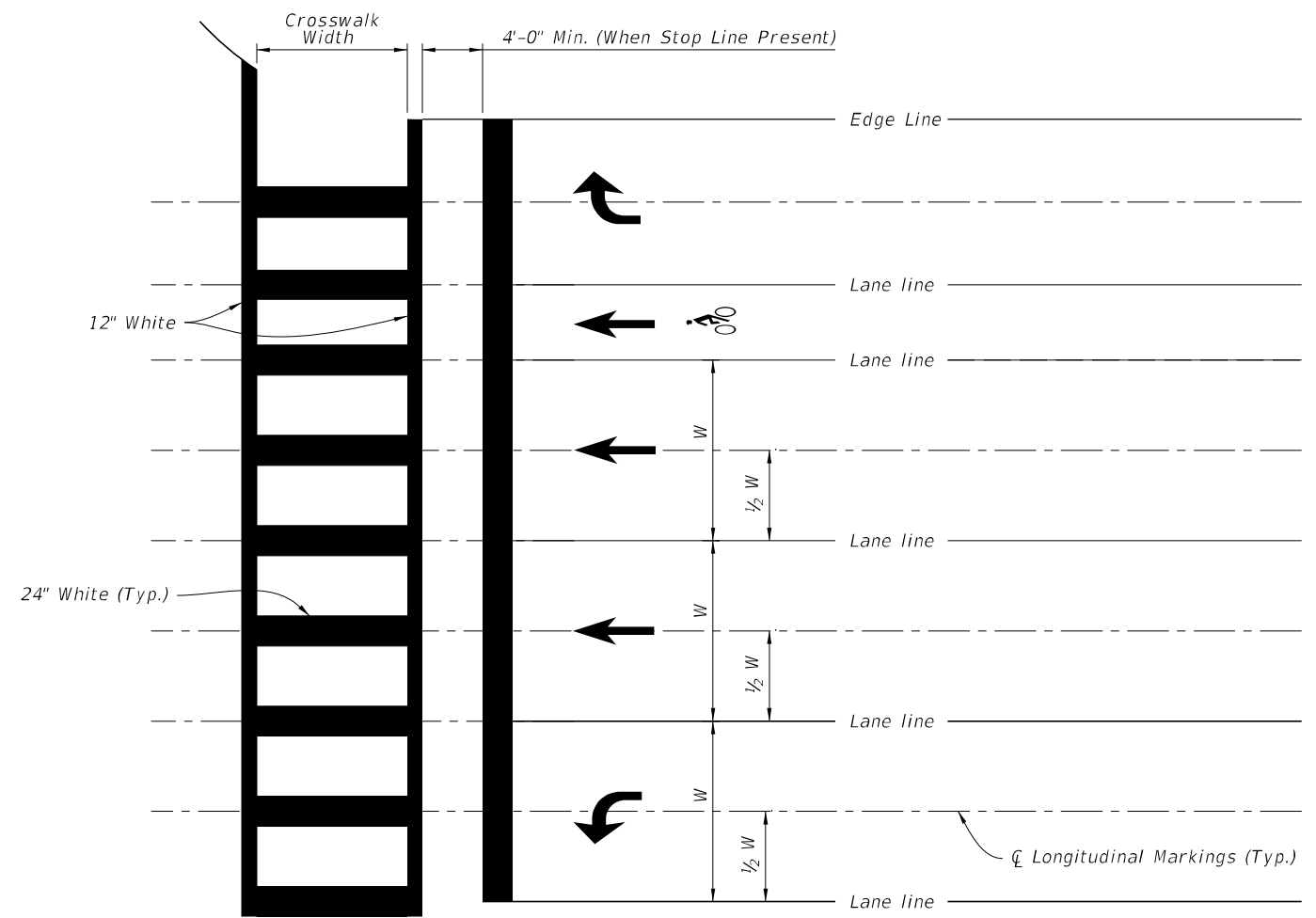
PAVEMENT MARKINGS

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 William Rickard  
 8/2/2022



STANDARD CROSSWALK DETAILS



SPECIAL EMPHASIS CROSSWALK DETAILS

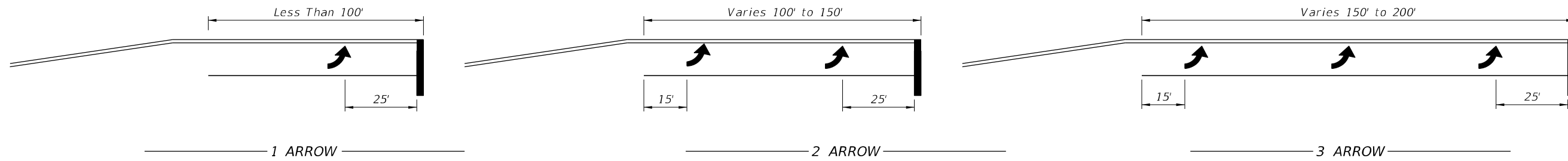
**NOTES:**

1. For crosswalk width, exceed width of the adjacent sidewalk, but do not make width less than 6' for intersection crosswalks and 10' for midblock crosswalks. Measure width from the inside of the transverse crosswalk markings.
2. When the Special Emphasis Crosswalk is not perpendicular to the lane lines, make the longitudinal markings parallel to the lane lines.
3. Refer to Index 522-002 when Curb Ramps are present.

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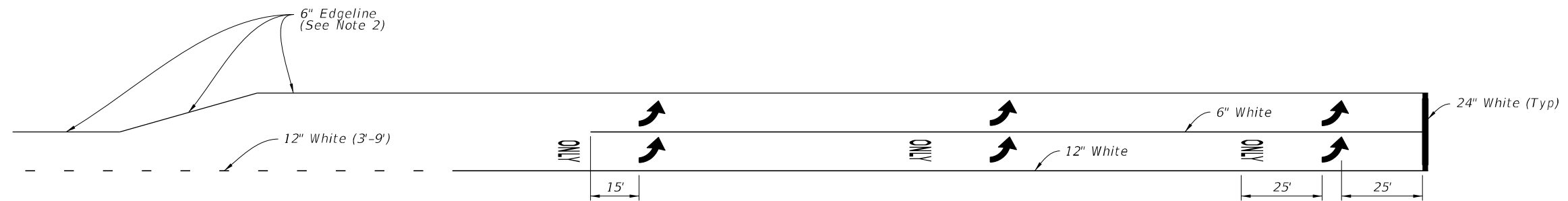
LAST REVISION 11/01/21	REVISION DESCRIPTION:	 FY 2022-23 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 9 of 13
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2022-A-590-00026  
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8/2/2022

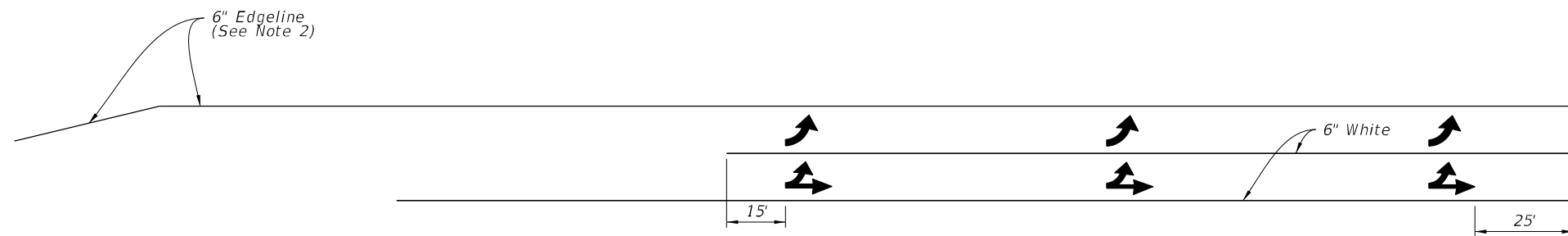


Arrow should be evenly spaced between first and last arrow. Turn lanes longer than 200' add one arrow for each 100' additional length.

ARROW SPACING



Through Lane Becomes Exclusive Left Turn



Through Lane Becomes Optional Left Turn (Drop Lane)

TURNS LANE MARKINGS

NOTES:

1. This Index also applies to right turn lanes.
2. Make Edgeline pavement markings yellow for left-turn lanes and white for right-turn lanes.

ARROW SPACING AND TURN LANE MARKINGS

3:13:02 PM  
9/22/2021

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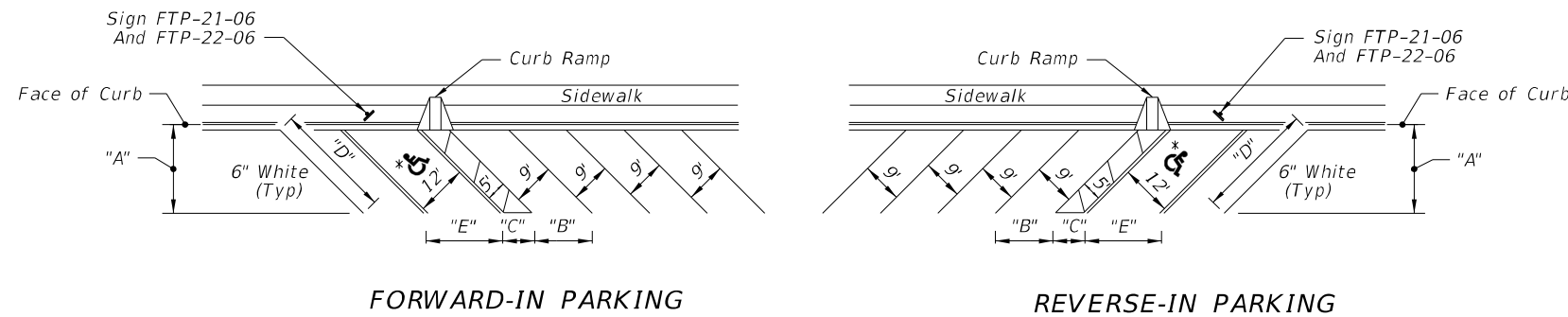
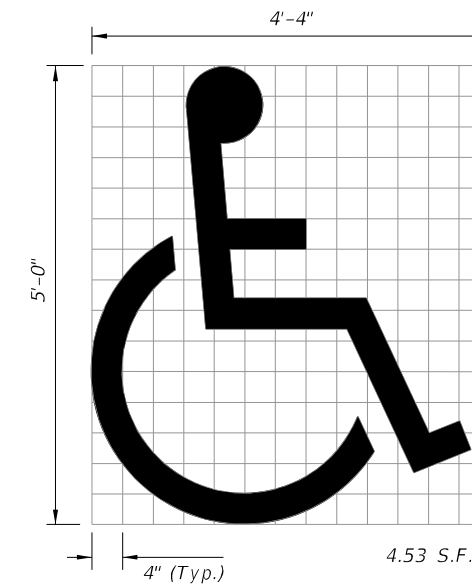
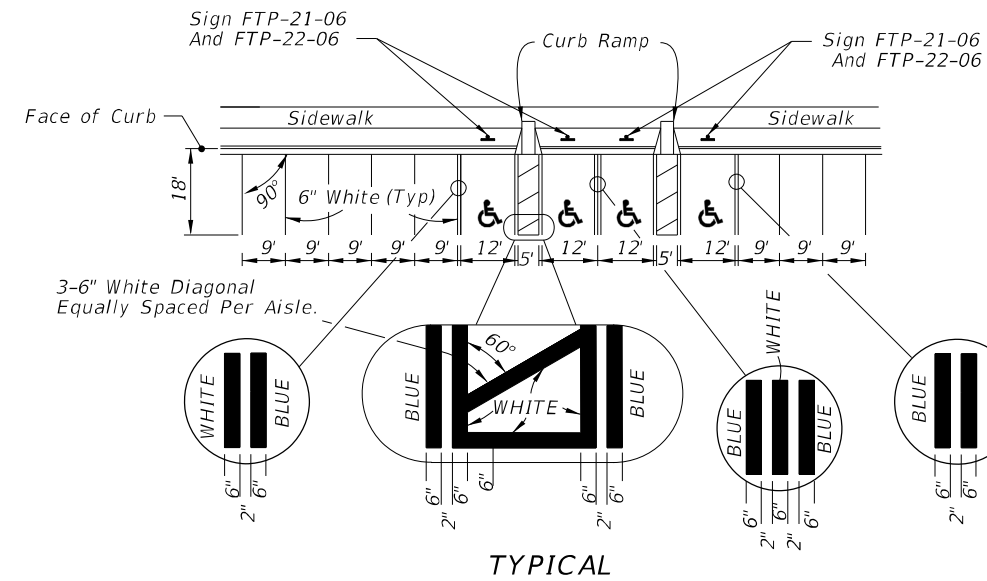
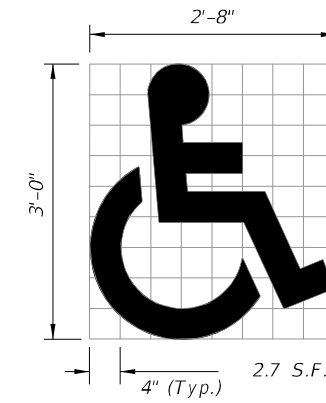
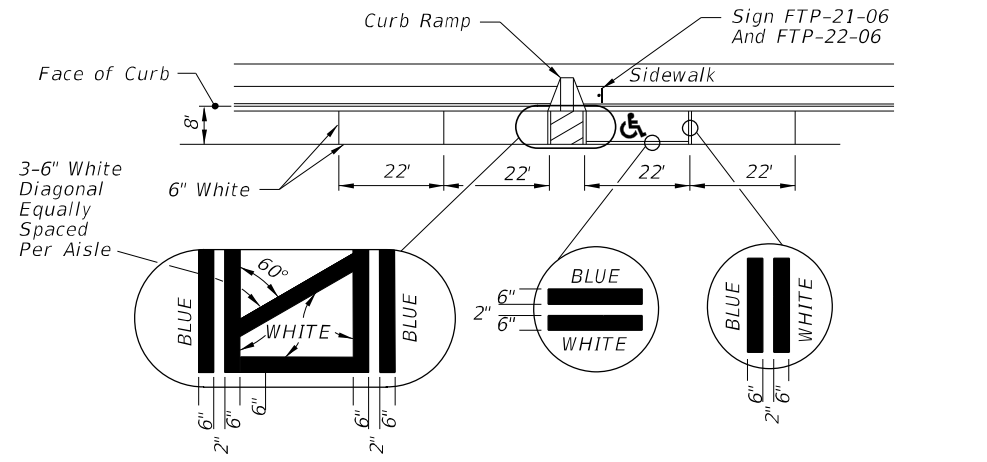


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PAVEMENT MARKINGS

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002-K-05-00026  
William Rickard  
8/2/2022



\* FOR ACCESSIBLE MARKINGS - SEE ABOVE

DIMENSIONS					
∠ θ	"A"	"B"	"C"	"D"	"E"
45°	17'-0"	12'-9"	7'-0"	24'-0"	17'-0"

UNIVERSAL SYMBOL OF ACCESSIBILITY

NOTES:

1. Dimensions are to the centerline of markings.
2. An Access Aisle is required for each accessible space when angle parking is used.
3. Criteria for pavement markings only, not public sidewalk curb ramp locations. For ramp locations refer to plans.
4. Mount FTP-22-06 sign below the FTP-21-06 sign.
5. Use of the pavement symbol in accessible parking spaces is optional. When pavement symbol is used, the symbol is either 3'-0" or 5'-0" high and white in color.

PAVEMENT MARKING FOR PARKING

9/22/2021 3:13:05 PM

LAST REVISION	DESCRIPTION:
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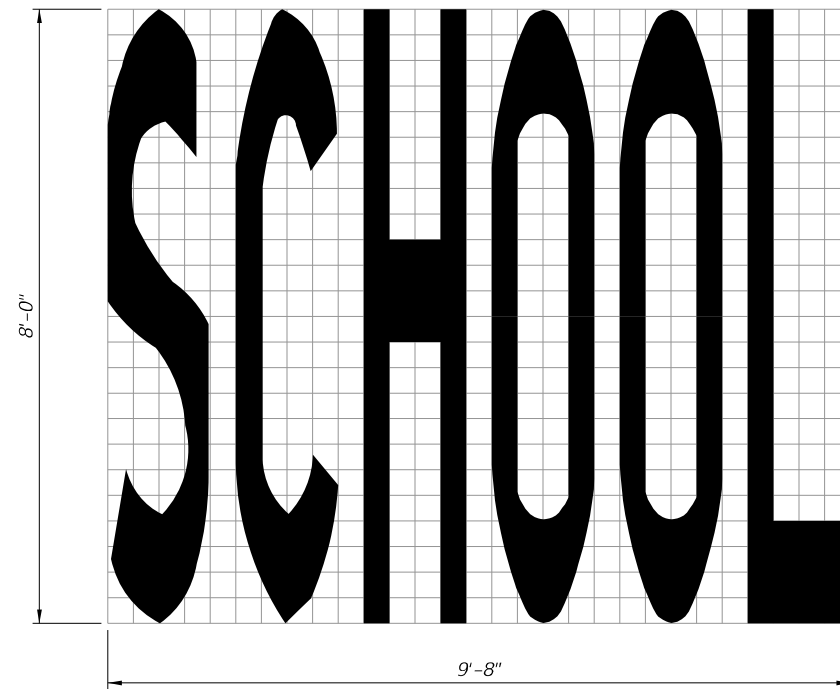
**FY 2022-23**  
**STANDARD PLANS**

**PAVEMENT MARKINGS**

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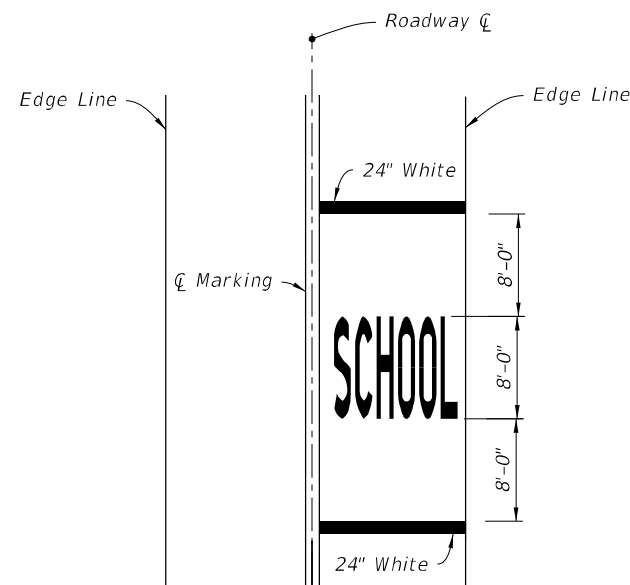
33 S.F.



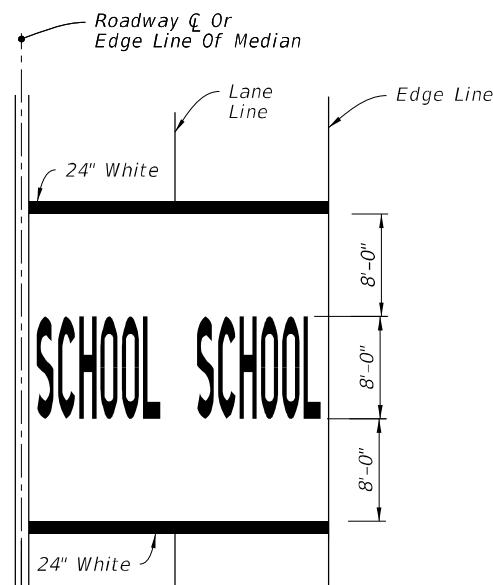
SCHOOL PAVEMENT MARKING

**NOTES:**

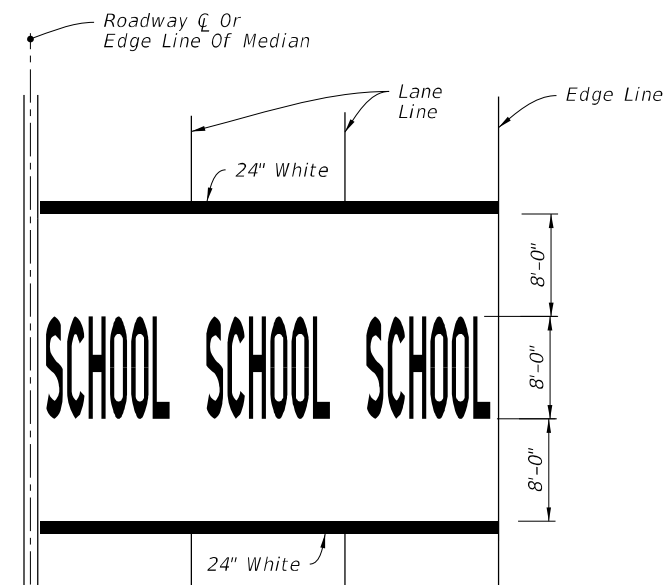
1. All grids are 4" x 4".
2. Pavement Marking Should Not Extend Into Opposing Lane.
3. Center School Pavement Marking in lane.



SINGLE-LANE APPROACH



TWO-LANE APPROACH



MULTI-LANE APPROACH  
(Three or More)

MARKINGS FOR SCHOOL ZONES

9/22/2021 3:13:12 PM

LAST REVISION 11/01/21	REVISION	DESCRIPTION:
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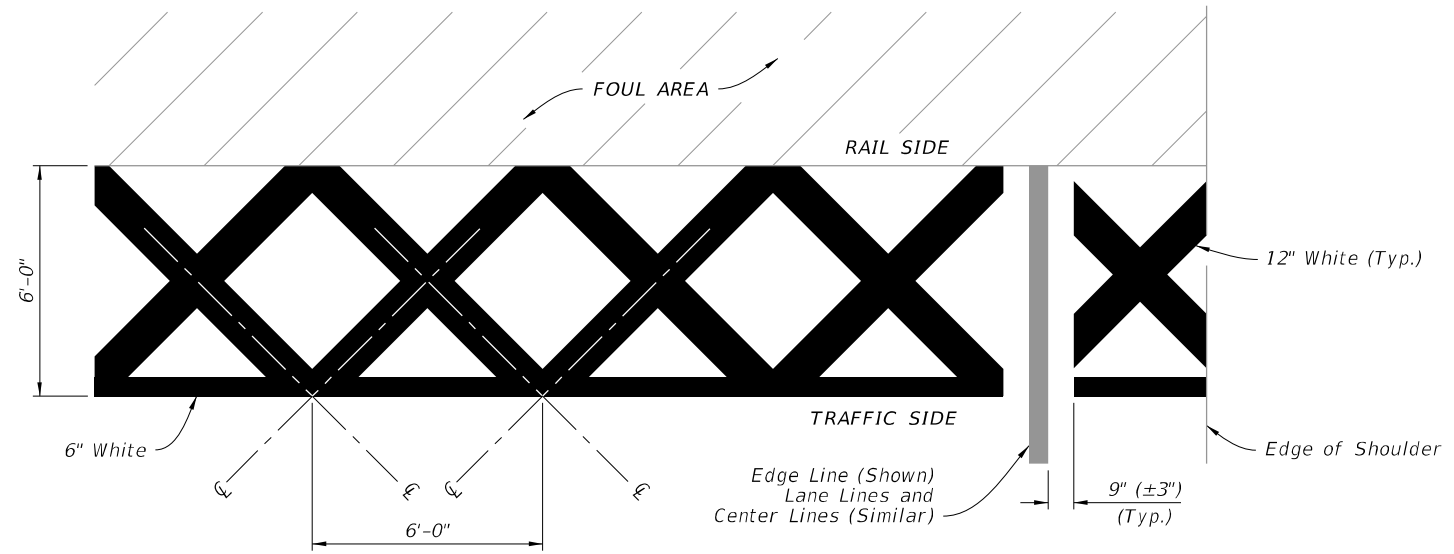
**FY 2022-23  
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PAVEMENT MARKINGS

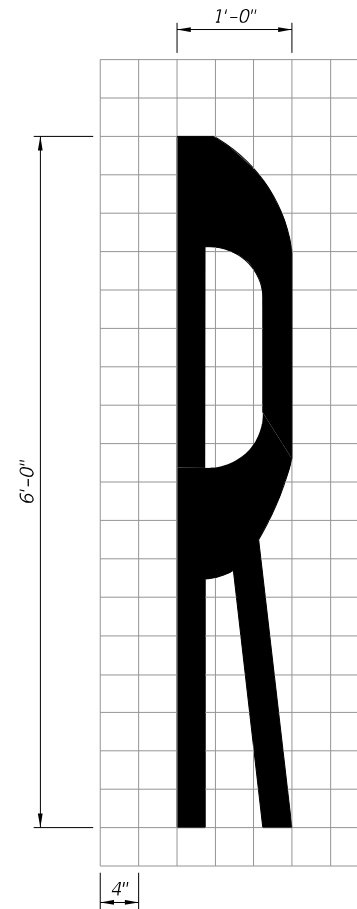
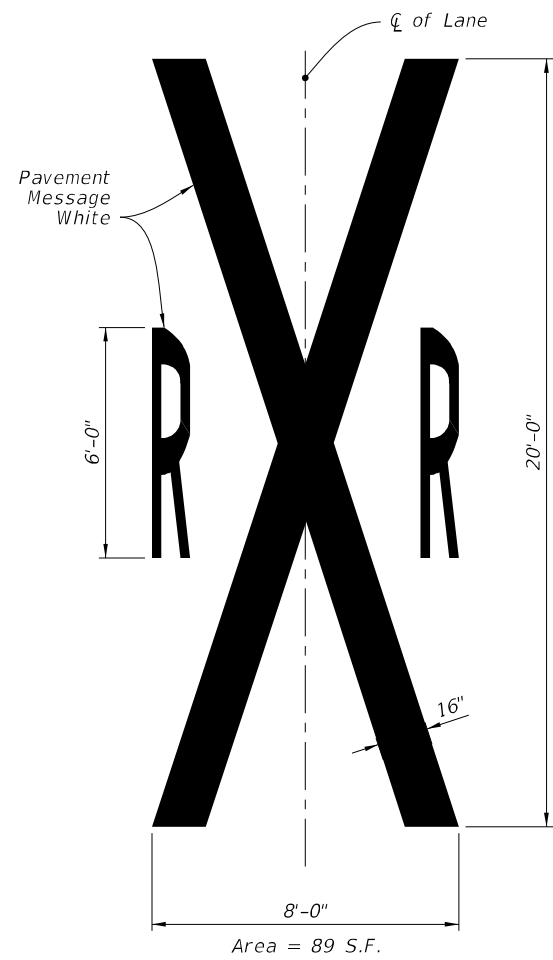
INDEX 711-001	SHEET 12 of 13
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Approved  
 2022-A-590-00026  
 William Rickard  
 8/23/2022

**NOTE:**  
Orient Railroad Dynamic Envelope Marking as shown in the Plans.



RAILROAD DYNAMIC ENVELOPE (RDE) PAVEMENT MARKING DETAIL



RAILROAD CROSSING PAVEMENT MESSAGE

3:13:20 PM  
9/22/2021

LAST REVISION 11/01/21	REVISION	DESCRIPTION:	 FY 2022-23 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 13 of 13
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Approved  
2022-A-590-00026  
William Rickard  
8/22/2022

Owner/Applicant Signature Authorization

Project Name: Crane Creek / M-1 Canal Flow Restoration

Application and/or Permit # (if available): FDOT Utility, Access and Drainage Permits

I hereby designate and authorize the agent listed below to act on my behalf, or on behalf of the St John's River Water Management District, as the agent in the processing of this application for the permits indicated above; and to furnish on request supplemental information in support of this application.

Printed Name of Authorized Agent: Richard Koller, PE

Signature of Authorized Agent: \_\_\_\_\_

Date: \_\_\_\_\_

Typed/Printed Name of Owner/Applicant: Michael Register, PE

Title: Executive Director, SJRWMD

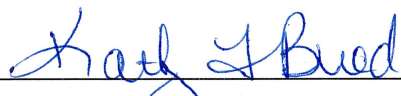
Signature of Owner/Applicant: 

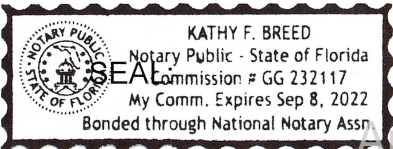
Date: 04/04/2022

State of Florida

County of ~~Brevard~~ Putnam

The foregoing instrument was acknowledged before me this 4<sup>th</sup> day of April, 20 22 by Mike Register, who is personally known to me or has produced \_\_\_\_\_ as identification, and who did or did not take an oath.

  
Signature of Notary



Approved  
2022-A-590-00026  
William Rickard  
8/2/2022

**UTILITY PERMIT**

**PERMIT NO:** 2020-H-590-00067

**STATE ROAD INFORMATION**

<b>County:</b> Brevard	<b>Section:</b> 70220000	<b>State Road No:</b> SR 9	<b>Beginning Mile Post:</b> 21.342	<b>Ending Mile Post:</b> 21.342
---------------------------	-----------------------------	-------------------------------	---------------------------------------	------------------------------------

**APPLICANT INFORMATION**

The Utility Agency Owner (UAO) shall be identified in this Applicant Information Box. When the UAO is a City or County and desires to have the Utility Builder make a joint permit applicant, as prescribed in Section 2.1(4) of the 2017 Utility Accommodation Manual (UAM), the Utility Builder shall also be identified in this Applicant Information Box. A Utility Builder alone cannot apply for a utility permit without the City or County adding them as a joint applicant.

<b>Utility Agency/Owner (UAO)</b>		<b>Utility Builder (only applicable when the UAO is a City or County)</b>	
Name:	<u>St. Johns River Water Management District</u>	Name:	_____
Contact Person:	<u>St. Johns River Water Management District</u>	Contact Person:	_____
Address:	<u>525 Community College Parkway</u>	Address:	_____
City:	<u>Palm Bay</u>	City:	_____
State:	<u>Florida</u>	State:	_____
Zip:	<u>32909</u>	Zip:	_____
Telephone:	<u>(321) 676-6604 ext. _____</u>	Telephone:	_____
Email:	<u>mvanheden@sjrwmd.com</u>	Email:	_____

**WORK DESCRIPTION**

The Applicant(s) requests permission from the Florida Department of Transportation (FDOT) to construct, operate, and maintain the utilities as described below and as depicted in the incorporated documentation.  
**Directional Bore across the 300-foot wide I-95 Right-of-way with 300 linear feet of 24-inch DR-11 DIPS HDPE Stormwater Force Main.**

Utility Work No: \_\_\_\_\_

Additional sheets are attached and are incorporated into this permit Yes  No   
For FDEP certification, the FDOT agency report is attached in accordance with UAM Section 2.4.1 (13) Yes  No

**TRAFFIC CONTROL (TCP)**

The TCP will comply with the following 600 series index(es) 611  
 A TCP has been attached and incorporated into this permit application in compliance with UAM Section 2.4.2.

MOT Technician's contact information (may be supplied at the two (2) business day notification to FDOT):  
Name: \_\_\_\_\_ Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

**COMMENCEMENT OF WORK**

The UAO and/or Utility Builder shall commence actual construction in good faith within sixty (60) calendar days after approval of the permit application. If the beginning date is more than sixty (60) calendar days from the date of approval, the UAO and/or Utility Builder must review the permit with the FDOT Approving Engineer listed to make sure no changes have occurred to the transportation facility that would affect the permit's continued approval. The UAO and/or Utility Builder shall make good faith efforts to expedite the work and complete the work within the calendar days indicated.

Anticipated Start Date: 5/1/2020  
Calendar days needed to completed: 365

Approved  
2020-H-590-00067  
William Rickard  
5/27/2020



Florida Department of Transportation  
**UTILITY PERMIT**

**PERMIT NO:** 2020-H-590-00067

**APPLICANT SIGNATURE**

By the below signature(s) the UAO and/or Utility Builder agree(s) to construct, operate, and maintain the work as noted in the above Work Description, shown in plans and incorporated documents, in compliance with the UAM, all instructions noted in the FDOT Special Instructions Box, and special instructions incorporated into this permit. The UAO and/or Utility Builder declares, the location of all existing utilities that it owns or has an interest in, both aerial and underground, are accurately shown on the plans of the work areas. In accordance with UAM Section 2.8, the UAO and/or Utility Builder further declares that a letter of notification was delivered to the owners of other facilities within the work areas and that those listed below are the only facility owners known to be involved or potentially impacted by the proposed work.

Date Notified:	Name of other facility owners (attach additional sheets if necessary).
<u>9/26/2019</u>	<u>AT&amp;T Distribution</u>
<u>9/26/2019</u>	<u>Brevard County Public Works Engineering</u>
<u>9/26/2019</u>	<u>Bright House Networks, LLC Brevard</u>
<u>9/26/2019</u>	<u>CenturyLink</u>
<u>9/26/2019</u>	<u>City of Melbourne Utilities Administration</u>

Utility Agency/Owner

Utility Builder (when applicable)

Signature: MARC VAN HEDEN (digital signature) Date: 3/5/2020  
 Name (printed): MARC VAN HEDEN  
 Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Name (printed): \_\_\_\_\_  
 Title: \_\_\_\_\_

**FDOT PROJECT INFORMATION**

Pursuant to UAM Section 2.1(10), the utility work is within FDOT projects listed below and must have a Utility Work Schedule for each project approved prior to commencement of work within the FDOT project limits:

**There are NO FDOT constructions (proposed or underway).**  
**This work is NOT related to an approved utility work schedule.**

**FDOT SPECIAL INSTRUCTIONS**

In accordance with UAM Section 2.7, FDOT incorporates the below and attached special instructions into this permit.

Additional FDOT Special Instructions are attached and incorporated into this permit. Yes  No

**PERMIT APPROVAL**

By signature below, FDOT gives permission to the UAO and /or Utility Builder to construct, operate, and maintain the utilities indicated in this Utility Permit in compliance with the UAM, all incorporated documents, and special instructions. Any changes to the approved work must be approved by the FDOT's Approving Engineer and attached and incorporated into this permit in accordance with UAM Section 2.11.

Approving Engineer: William Rickard (digital signature) Date: 5/27/2020  
 Name: William Rickard  
 Title: MAINTENANCE MANAGER/PERMITS

Notification of Utility Work to be provided to: Telephone (321) 634-6100 ext. \_\_\_\_\_ or Email: william.rickard@dot.state.fl.us

Rep. Name: Luz Carrera Telephone 2392845930 Email: luz.carrera@dbiservices.com  
 An FDOT Representative is required to be present on the worksite prior to commencement of work. Yes  No

2020-H-590-00067  
William Rickard  
5/27/2020

Florida Department of Transportation  
**UTILITY PERMIT**

**PERMIT NO:** 2020-H-590-00067

**CERTIFICATION**

I, the undersigned UAO and/or Utility Builder, hereby CERTIFY that the utilities were constructed and inspected in compliance with the UAM all incorporated documents, and special instructions. Pursuant to UAM Section 2.11, all changes have been approved by the FDOT's Approving Engineer and incorporated into this permit along with all other material certifications, test results, bore logs, approved plans changes, as-built plans or other required documentation.

I also CERTIFY that work began on \_\_\_\_\_ and was completed on \_\_\_\_\_ and that the area was left in as good or better condition than when the work began.

Utility Agency/Owner

Utility Builder (when applicable)

Signature: \_\_\_\_\_ Date \_\_\_\_\_

Signature: \_\_\_\_\_ Date \_\_\_\_\_

Name (printed): \_\_\_\_\_

Name (printed): \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

**FINAL INSPECTION OF WORK**

The work was inspected and found to be in non-compliance as noted below:

All issues of non-compliance listed above have been brought into compliance and/or FDOT has no outstanding issues that need to be addressed by the UAO and/or Utility Builder. However, this final inspection does not release the UAO and/or Utility Builder of their continuing responsibilities pursuant to Rule 14-46.001, the UAM, all incorporated documents, and special instructions.

FDOT Inspector: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Approved  
2020-H-590-00067  
William Rickard  
5/27/2020

**PERMIT NO.:** 2020-H-590-00067

**STATE ROAD INFORMATION:**

Brevard SR 9, Section: 70220000, Begin MP: 21.342, End MP: 21.342, Brevard SR 9, Section: 70220000, Begin MP: 21.342, End MP: 21.342, Brevard SR 9, Section: 70220000, Begin MP: 21.342, End MP: 21.342

**NAME OF OTHER FACILITY OWNERS / DATE NOTIFIED:**

Facility Name: City of West Melbourne, Date Notified: 9/26/2019, Facility Name: Crown Castle Fiber, Date Notified: 9/26/2019, Facility Name: Florida City Gas, Date Notified: 9/26/2019, Facility Name: Florida Gas Transmission Company, Date Notified: 9/26/2019, Facility Name: Florida Power & Light, Date Notified: 9/26/2019, Facility Name: Jacobs, Date Notified: 9/26/2019, Facility Name: Uniti Fiber LLC, Date Notified: 9/26/2019

**FDOT PROJECT INFORMATION:**

There are NO FDOT constructions (proposed or underway).  
This work is NOT related to an approved Utility Work Schedule.

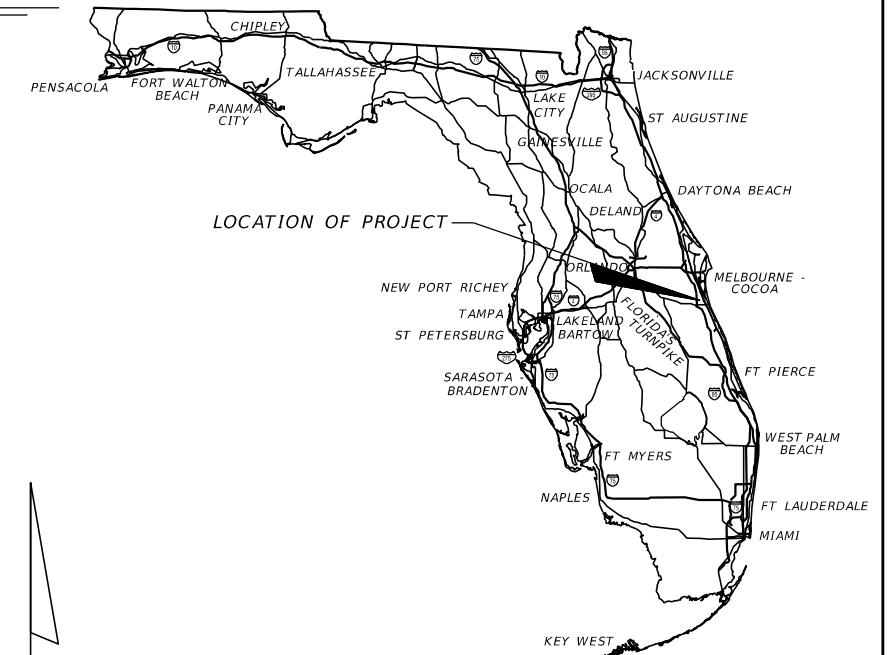
**THE WORK WAS INSPECTED AND FOUND TO BE IN NON-COMPLIANCE AS NOTED BELOW:**

Approved  
2020-H-590-00067  
William Rickard  
5/27/2020

SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT

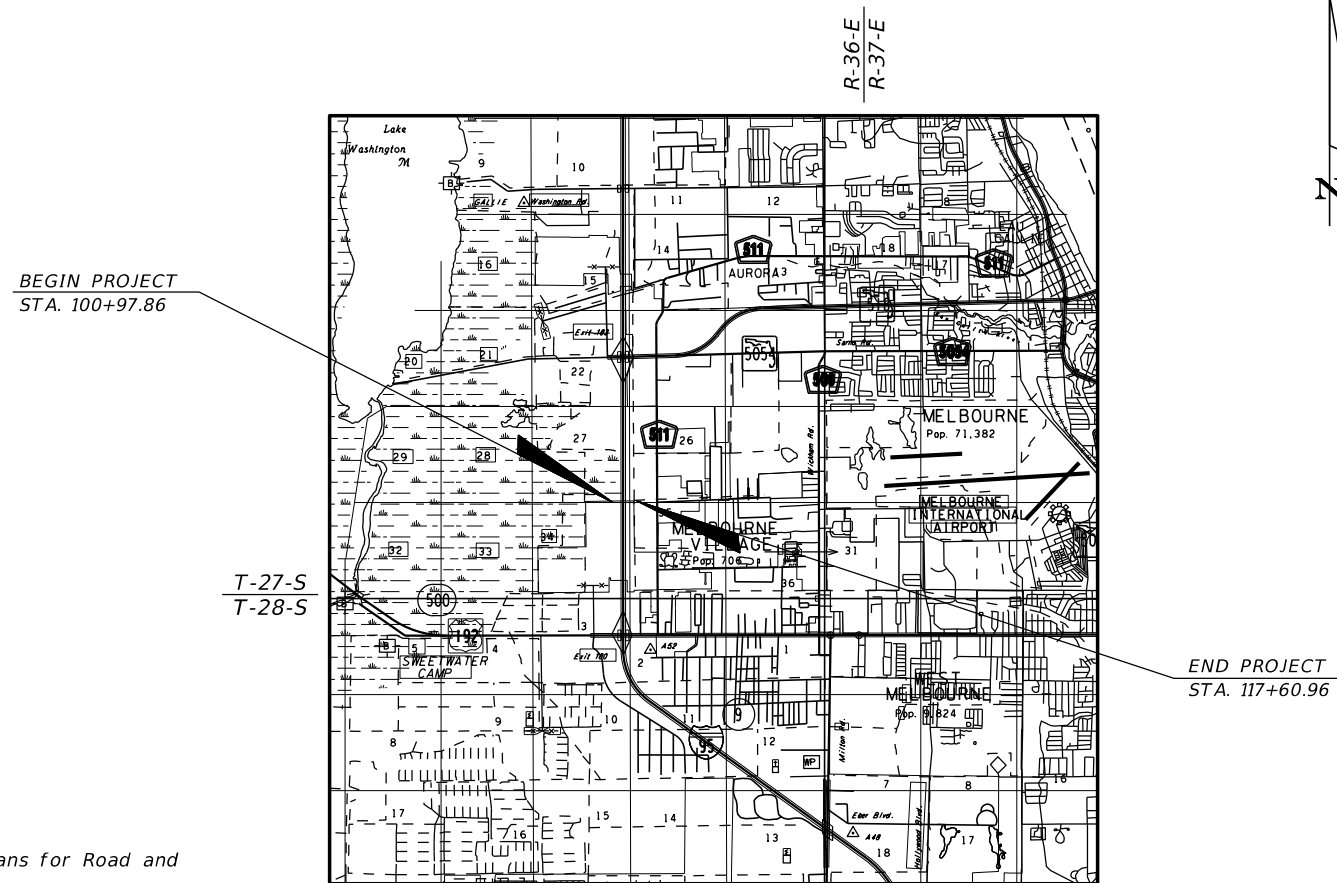
UTILITY PLANS

CRANE CREEK M-1 CANAL  
FLOW RESTORATION



INDEX OF UTILITY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2	GENERAL NOTES
3-6	UTILITY PLAN
7-10	UTILITY PROFILE
11	SUMMARY OF VERIFIED UTILITIES



UTILITY PLANS

ENGINEER OF RECORD:  
CLINTON C. SMITH, P.E. NO. 67711  
HANSON PROFESSIONAL SERVICES INC.  
8075 GATE PARKWAY WEST, SUITE 204  
JACKSONVILLE, FL 32216-3685  
(904) 737-0090

GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY2019-20 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road Construction and associated IRs are available at the following website: <http://www.fdot.gov/design/standardplans>

APPLICABLE IRs:

Standard Plans for Bridge Construction are included in the Structures Plans Component

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, July 2020 Standard Specifications for Road and Bridge Construction at the following website: <http://www.fdot.gov/programmanagement/Implemented/SpecBooks>

July 2017 FDOT Utility Accommodation Manual

PERMITTING SUBMITTAL

Approved  
2020-H-590-0007  
William Richard  
5/27/2020  
SHEET NO. 1

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

GENERAL NOTES

1. BENCHMARK ELEVATIONS SHOWN ON THE PLANS ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
2. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE DESIGNATED Vv, Vh, AND Vvh) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.
3. UTILITY/AGENCY OWNERS:

<u>COMPANY</u>	<u>TELEPHONE NUMBER</u>
BREVARD COUNTY PUBLIC WORKS - TRAFFIC SIGNALS & FIBER	(321) 633-2077
FLORIDA CITY GAS - GAS	(321) 638-3424
FLA GAS TRANS. - MELBOURNE - GAS PIPELINE	(407) 838-7171
FLORIDA POWER & LIGHT - BREVARD - ELECTRIC	(386) 586-6403
LEVEL 3 COMMUNICATIONS - FIBER OPTIC	(877) 366-8344 x2
CITY OF MELBOURNE UTILITIES ADMINISTRATION - WATER DISTRIBUTION	(321) 608-5106
CITY OF MELBOURNE UTILITIES ADMINISTRATION - WASTEWATER RE-USE	(321) 608-5106
CITY OF MELBOURNE UTILITIES ADMINISTRATION - SEWAGE COLLECTION	(321) 608-5106
CENTURYLINK (FORMERLY QWEST COMMUNICATIONS) - FIBER OPTIC	(303) 992-9931
AT&T DISTRIBUTION - TELEPHONE	(561) 997-0240
UNITI FIBER LLC - FIBER OPTIC	(251) 259-0807
BRIGHT HOUSE NETWORKS, LLC BREVARD - FIBER OPTIC	(321) 757-6451
CITY OF WEST MELBOURNE - WATER	(321) 837-7771
CITY OF WEST MELBOURNE - SEWER	(321) 984-0485
CROWN CASTLE FIBER	(786) 610-7059

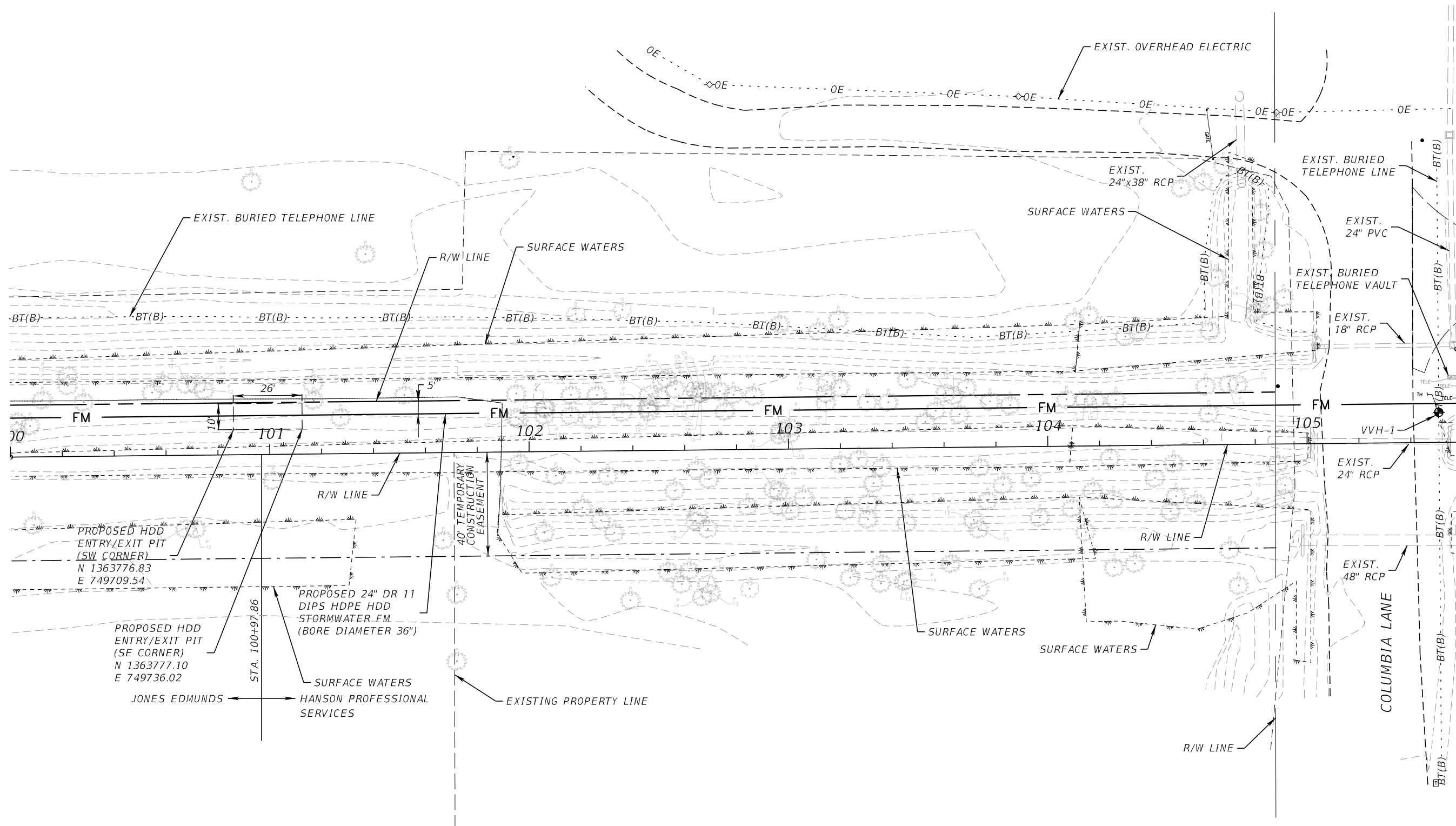
4. SPECIAL EVENT DAYS FOR THIS PROJECT INCLUDE: TBD
5. NO ACCESS WILL BE ALLOWED (PARKING, ETC.) WITHIN THE I-95 LIMITED ACCESS RIGHT OF WAY.
6. ITS LINES IN AREA - MUST CONTACT D5 DISTRICT TRAFFIC OPERATIONS - JIM MILLER AT 386-943-5322 FOR ITS INFORMATION. CONTRACTOR IS RESPONSIBLE TO NOTIFY FDOT IMMEDIATELY IF ITS IS COMPROMISED.

ENVIRONMENTAL RESOURCE REQUIREMENTS

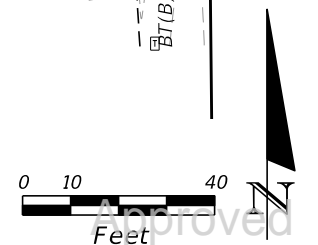
1. THE USE OF DRILLING FLUIDS SHALL NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF STATE GROUND WATER QUALITY CRITERIA OR STANDARDS, AS DEFINED IN CHAPTER 62-520, F.A.C.
2. AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF ANY DIRECTIONAL DRILLING ACTIVITIES, CONTRACTOR SHALL PROVIDE ALL-HOURS TELEPHONE CONTACT INFORMATION OF ALL CONTRACTORS RESPONSIBLE FOR DRILLING AND FOR CONTAINMENT AND CLEANUP IN THE EVENT OF A DRILLING FLUID FRAC-OUT OR SPILL.
3. THE CONTRACTOR SHALL AT ALL TIMES DURING DIRECTIONAL DRILLING ACTIVITIES, MAINTAIN APPROPRIATE EQUIPMENT AND MATERIALS IN A READILY-ACCESSIBLE LOCATION AND CONDITION, TO EFFECTIVELY CONTAIN AND CLEAN UP A DRILLING FLUID FRAC-OUT OR SPILL.
4. THE CONTRACTOR SHALL AT ALL TIMES DURING DIRECTIONAL DRILLING ACTIVITIES, ENSURE THAT APPROPRIATELY-TRAINED PERSONNEL MONITOR DOWNHOLE EQUIPMENT POSITION, DRILLING FLUID CIRCULATION AND PRESSURES, AND ACTIVELY MONITOR THE ENTIRE UTILITY LINE ROUTE FOR SURFACE FRAC-OUT OF DRILLING FLUIDS.
5. ALL DRILLING ACTIVITIES SHALL BE DISCONTINUED AND THE DRILLING FLUID OR SLURRY SHALL BE CONTAINED USING APPROPRIATE METHODS AS SOON AS POSSIBLE. IN THE EVENT OF A DRILLING FLUID FRAC-OUT OR SPILL, REMOVAL OF DRILLING FLUID OR SLURRY FROM WETLANDS AND OTHER SURFACE WATERS SHALL BE INITIATED AND COMPLETED IN THE MOST EXPEDITIOUS MANNER PRACTICAL. REMOVED DRILLING FLUID SHALL BE CONTAINED OR DISPOSED OF IN AN APPROPRIATE UPLAND LOCATION. ANY FRAC-OUT OR SPILL OF DRILLING FLUID INTO WETLANDS OR OTHER SURFACE WATERS SHALL BE REPORTED TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION WITHIN 24 HOURS FOLLOWING DETECTION OF THE SPILL OR FRAC-OUT.
6. CONTRACTOR SHALL STABILIZE AND REPLANT ALL DISTURBED / CLEARED PORTIONS OF THE TEMPORARY CONSTRUCTION EASEMENT AREA. REPLANT AT 8-FOOT ON CENTER WITH 15-GALLON WAX MYRTLE (MYRICA CERIFERA), OR OWNER APPROVED EQUIVALENT, WITH MINIMUM PLANT HEIGHT OF 10-FEET AT THE TIME OF PLANTING.

REVISIONS				CLINTON C. SMITH, P.E. P.E. LICENSE NUMBER 67711 HANSON PROFESSIONAL SERVICES INC. 8075 GATE PARKWAY WEST, SUITE 204 JACKSONVILLE, FL 32216-3685 CERTIFICATE OF AUTHORIZATION 00007961	COUNTY		SHEET NO. <b>GENERAL NOTES</b> 5/27/2020 2
DATE	DESCRIPTION	DATE	DESCRIPTION		BREVARD		

Approved  
 2020-H-590-00067  
 William Rickard  
 5/27/2020



SEE SHEET 4 - MATCHLINE STA. 105+60



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CLINTON C. SMITH, P.E.  
 P.E. LICENSE NUMBER 67711  
 HANSON PROFESSIONAL SERVICES INC.  
 8075 GATE PARKWAY WEST, SUITE 204  
 JACKSONVILLE, FL 32216-3685  
 CERTIFICATE OF AUTHORIZATION 00007961

	COUNTY	
	BREVARD	

UTILITY PLAN

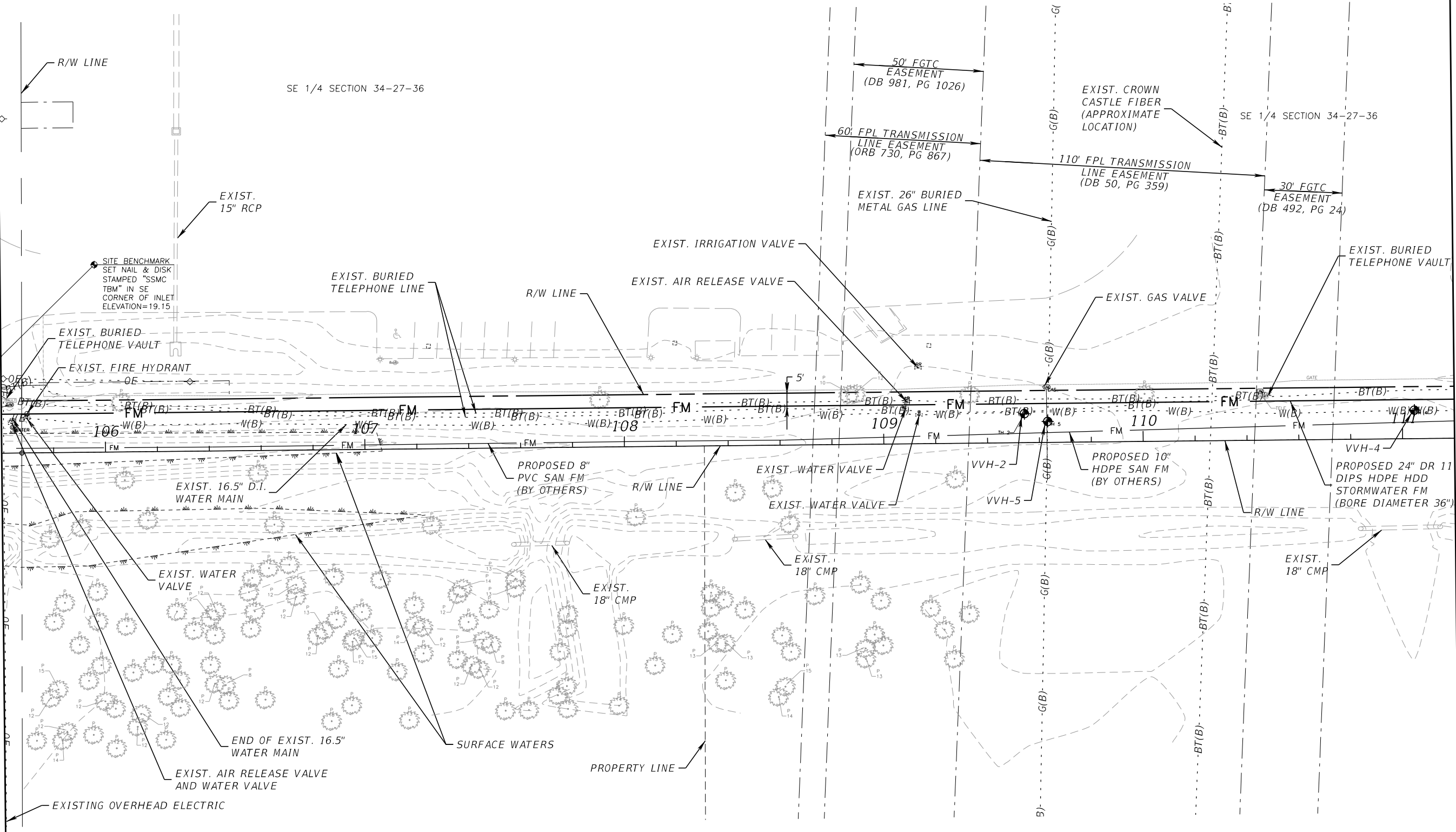
Approved  
 2020-H-590-00067  
 William Rickard  
 5/27/2020  
 SHEET No. 3

SEE SHEET 3 - MATCHLINE STA. 105+60

SEE SHEET 5 - MATCHLINE STA. 111+20

SE 1/4 SECTION 34-27-36

SE 1/4 SECTION 34-27-36



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CLINTON C. SMITH, P.E.  
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 HANSON PROFESSIONAL SERVICES INC.  
 8075 GATE PARKWAY WEST, SUITE 204  
 JACKSONVILLE, FL 32216-3685  
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	COUNTY	
	BREVARD	

**UTILITY PLAN**

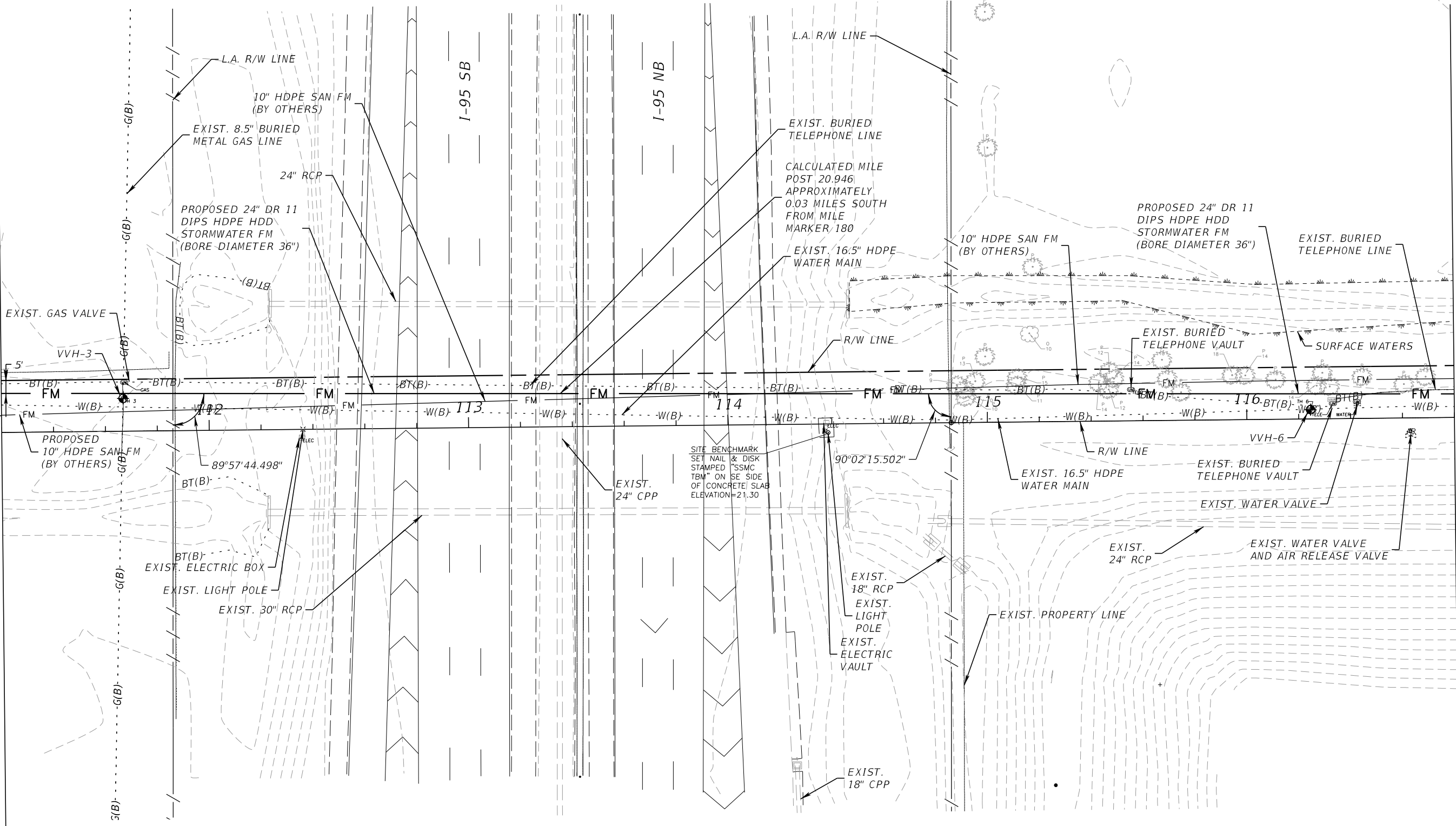
2020-H-590-00067  
 William Rickard  
 5/27/2020

SHEET NO. 4

300' FDOT RIGHT-OF-WAY

SEE SHEET 4 - MATCHLINE STA. 111+20

SEE SHEET 6 - MATCHLINE STA. 116+80



Approved  
2020-H-590-00067  
William Rickard  
5/27/2020  
SHEET NO. 5

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

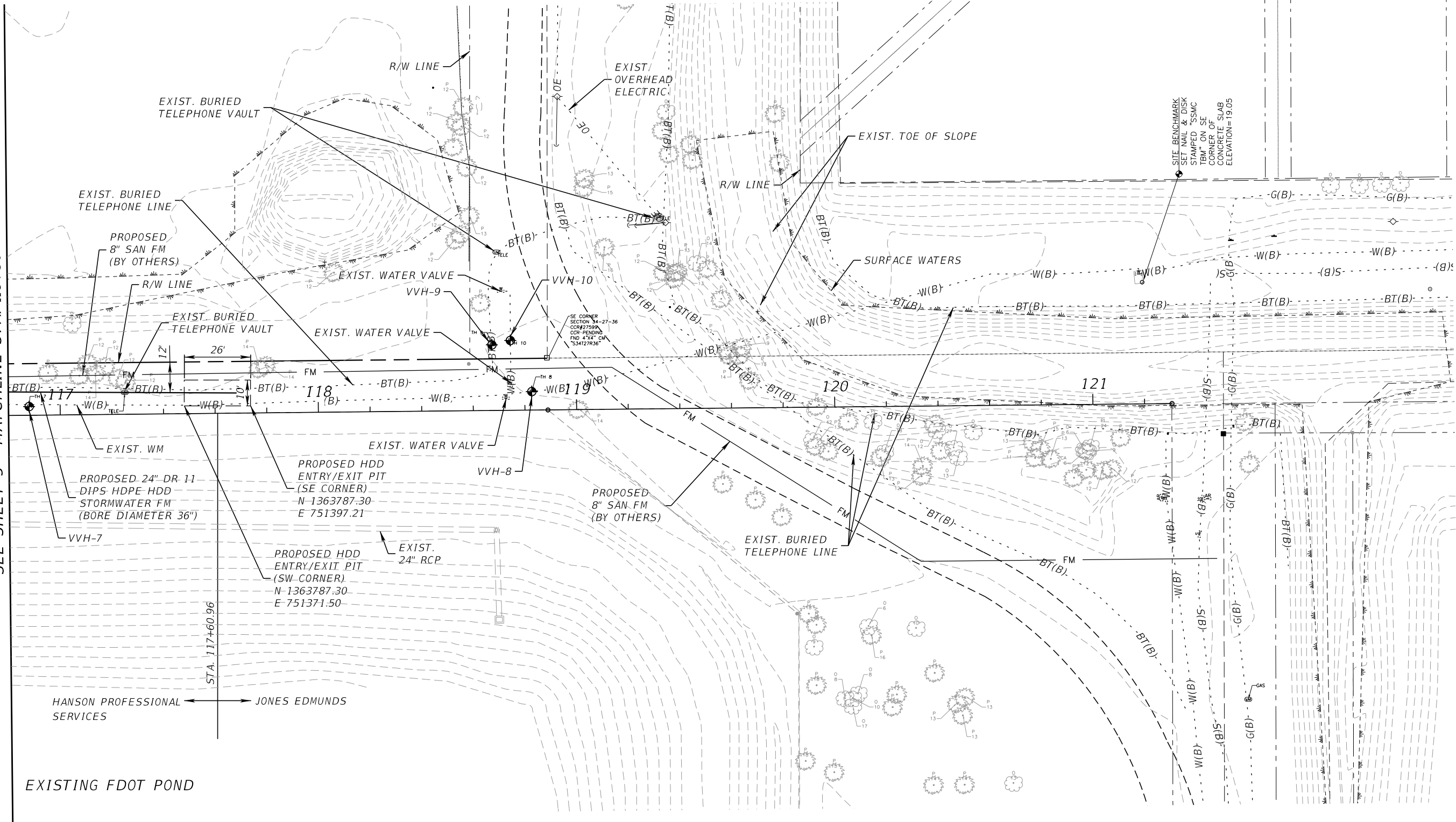
CLINTON C. SMITH, P.E.  
P.E. LICENSE NUMBER 67711  
HANSON PROFESSIONAL SERVICES INC.  
8075 GATE PARKWAY WEST, SUITE 204  
JACKSONVILLE, FL 32216-3685  
CERTIFICATE OF AUTHORIZATION 00007961

	COUNTY	
	BREVARD	

UTILITY PLAN



SEE SHEET 5 - MATCHLINE STA. 116+80



HANSON PROFESSIONAL SERVICES  
JONES EDMUNDS SERVICES

EXISTING FDOT POND



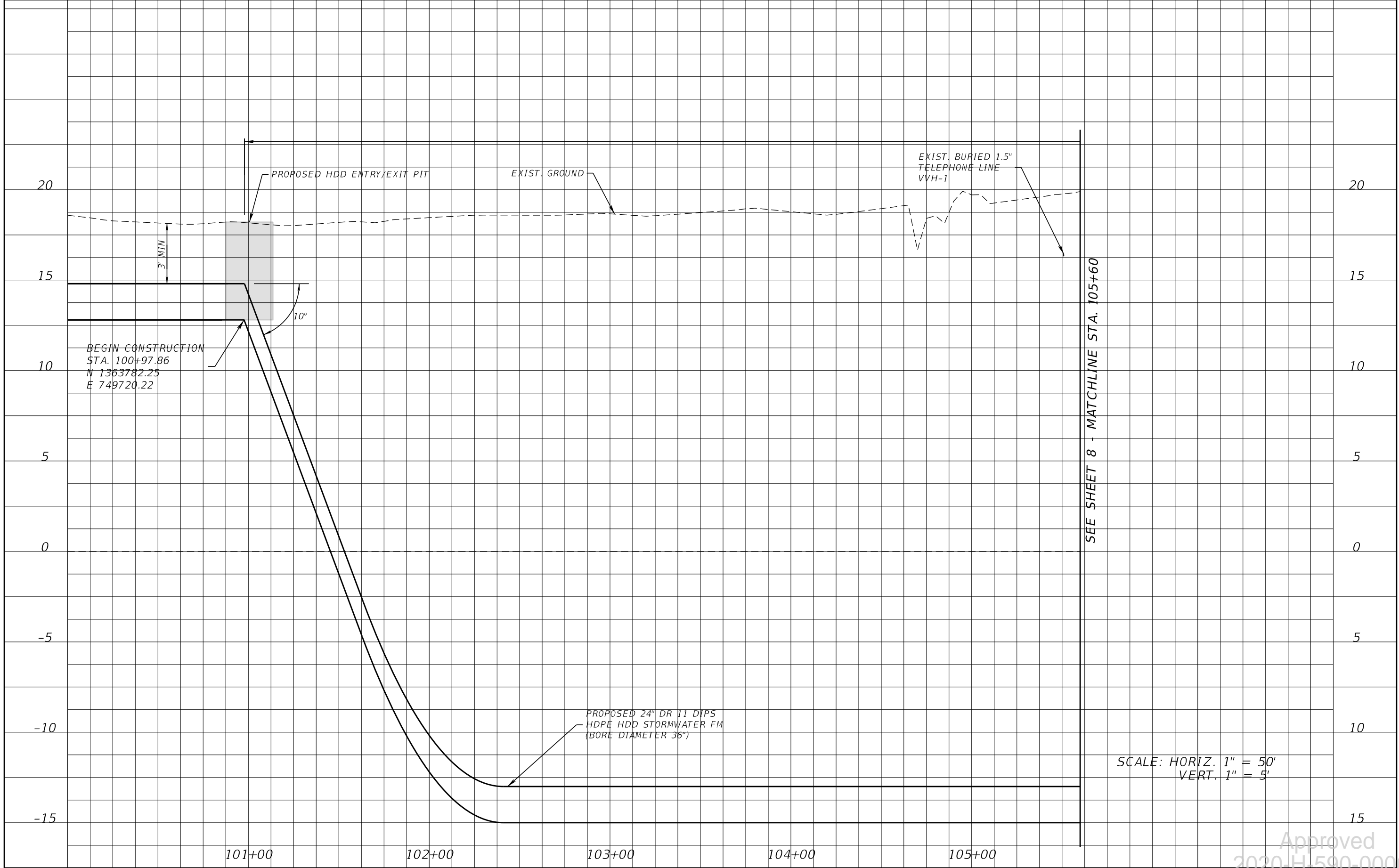
CLINTON C. SMITH, P.E.  
P.E. LICENSE NUMBER 67711  
HANSON PROFESSIONAL SERVICES INC.  
8075 GATE PARKWAY WEST, SUITE 204  
JACKSONVILLE, FL 32216-3685  
CERTIFICATE OF AUTHORIZATION 00007961

COUNTY	
BREVARD	

UTILITY PLAN

2020-H-590-00067  
William Rickard  
5/27/2020  
SHEET NO. 6

REVISIONS	
DATE	DESCRIPTION



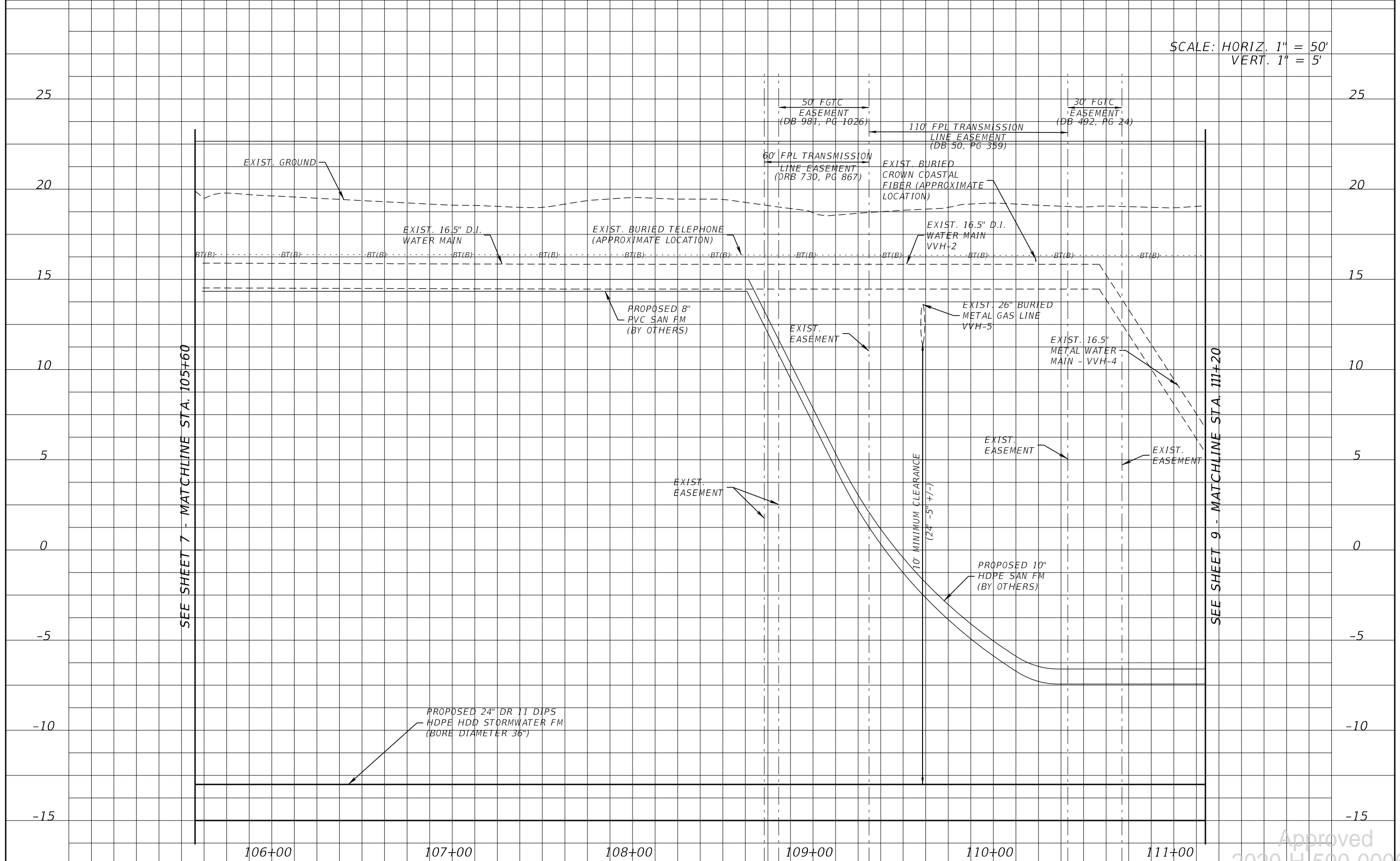
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CLINTON C. SMITH, P.E.  
P.E. LICENSE NUMBER 67711  
HANSON PROFESSIONAL SERVICES INC.  
8075 GATE PARKWAY WEST, SUITE 204  
JACKSONVILLE, FL 32216-3685  
CERTIFICATE OF AUTHORIZATION 00007961

	COUNTY	
	BREVARD	

Approved  
2020-H-590-00067  
William Richard  
SHEET NO. 7  
**UTILITY PROFILES** 5/27/2020

SCALE: HORIZ. 1" = 50'  
VERT. 1" = 5'



SEE SHEET 7 - MATCHLINE STA. 105+60

SEE SHEET 9 - MATCHLINE STA. 111+20

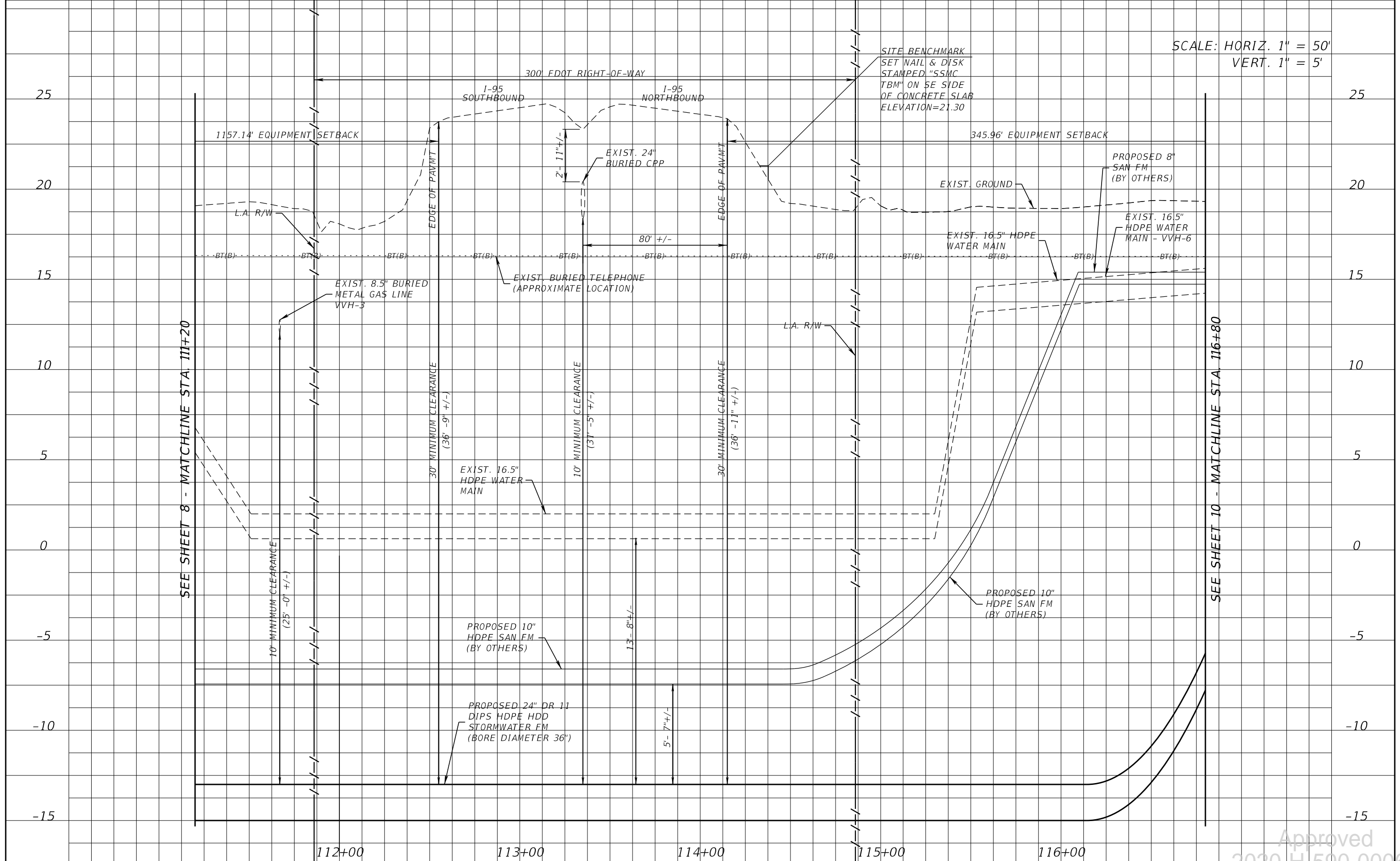
REVISIONS		REVISIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION

CLINTON C. SMITH, P.E.  
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CERTIFICATE OF AUTHORIZATION 00007961

	COUNTY	
	BREVARD	

Approved  
2020-H-590-00067  
William Richard  
SHEET NO. 8  
**UTILITY PROFILES** 5/27/2020

SCALE: HORIZ. 1" = 50'  
VERT. 1" = 5'



SEE SHEET 8 - MATCHLINE STA. 111+20

SEE SHEET 10 - MATCHLINE STA. 116+80

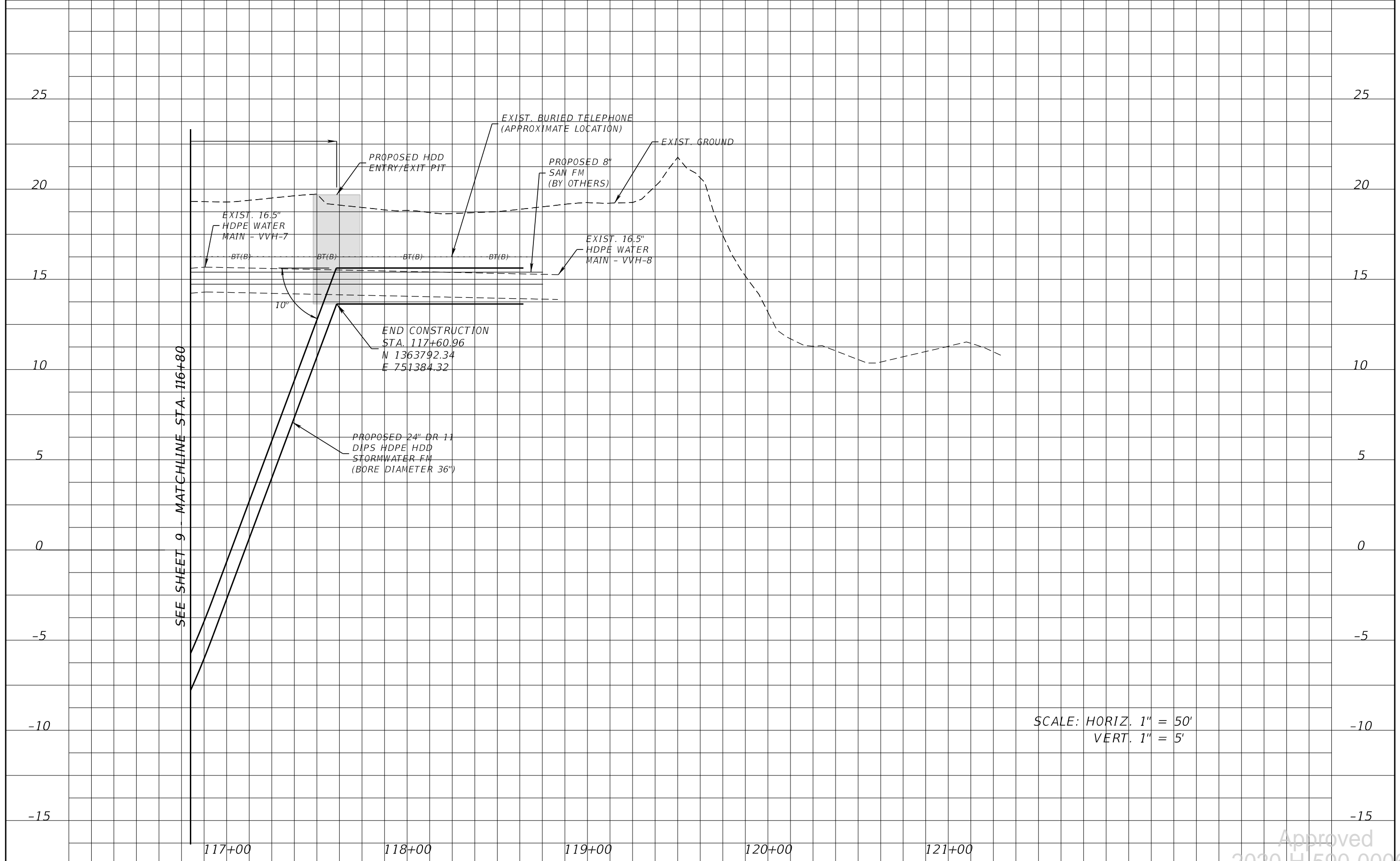
112+00      113+00      114+00      115+00      116+00

REVISIONS		REVISIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION

CLINTON C. SMITH, P.E.  
P.E. LICENSE NUMBER 67711  
HANSON PROFESSIONAL SERVICES INC.  
8075 GATE PARKWAY WEST, SUITE 204  
JACKSONVILLE, FL 32216-3685  
CERTIFICATE OF AUTHORIZATION 00007961

	COUNTY	
	BREVARD	

Approved  
2020-H-590-00067  
William Richard  
SHEET NO. 9  
**UTILITY PROFILES** 5/27/2020



SEE SHEET 9 - MATCHLINE STA. 116+80

10°

END CONSTRUCTION  
 STA. 117+60.96  
 N 1363792.34  
 E 751384.32

PROPOSED 24" DR 11  
 DIPS HDPE HDD  
 STORMWATER FM  
 (BORE DIAMETER 36")

117+00

118+00

119+00

120+00

121+00

SCALE: HORIZ. 1" = 50'  
 VERT. 1" = 5'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

CLINTON C. SMITH, P.E.  
 P.E. LICENSE NUMBER 67711  
 HANSON PROFESSIONAL SERVICES INC.  
 8075 GATE PARKWAY WEST, SUITE 204  
 JACKSONVILLE, FL 32216-3685  
 CERTIFICATE OF AUTHORIZATION 00007961

	COUNTY	
	BREVARD	

**UTILITY PROFILES** 5/27/2020

Approved  
 2020-H-590-00067  
 William Richard  
 SHEET NO. 10

**SUMMARY OF VERIFIED UTILITIES**

Vvh #	UTILITY DESCRIPTION (Owner, Type)	SIZE	MATERIALS	B and/or C			EXISTING GROUND ELEVATION	TOP ELEVATION	COMMENTS
				STATION	OFFSET	LT/RT			
VVH-1	BT, AT&T	1.5"	DBC	105+50.90	11.57	LT	19.69	16.44	
VVH-2	WM, BREVARD COUNTY	16.5"	DIP	109+54.36	11.15	LT	18.82	15.82	
VVH-3	GM, ENERGY TRANSFER	8.5"	MET	111+66.92	12.62	LT	19.01	12.76	
VVH-4	WM, BREVARD COUNTY	16.5"	MET	111+04.71	10.96	LT	18.88	9.13	
VVH-5	GM, ENERGY TRANSFER	26"	MET	109+63.32	8.05	LT	18.86	13.61	
VVH-6	WM, BREVARD COUNTY	16.5"	HDPE	116+24.59	3.59	LT	18.38	14.88	
VVH-7	WM, BREVARD COUNTY	16.5"	HDPE	116+88.03	3.35	LT	18.78	15.68	
VVH-8	WM, BREVARD COUNTY	16.5"	HDPE	118+83.85	7.13	LT	19.01	15.26	
VVH-9	BT, AT&T	1"	DBC	118+67.49	25.38	LT	19.00	16.25	
VVH-10	WM, BREVARD COUNTY	16.5"	HDPE	118+74.66	27.03	LT	19.02	14.87	

<p align="center"><b>REVISIONS</b></p> <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				DATE	DESCRIPTION	DATE	DESCRIPTION					<p>CLINTON C. SMITH, P.E. P.E. LICENSE NUMBER 67711 HANSON PROFESSIONAL SERVICES INC. 8075 GATE PARKWAY WEST, SUITE 204 JACKSONVILLE, FL 32216-3685 CERTIFICATE OF AUTHORIZATION 00007961</p>		<p align="center">COUNTY <b>BREVARD</b></p>		<p align="center"><b>SUMMARY OF VERIFIED UTILITIES</b></p>		<p align="center">Approved 2020-H-590-00067 William Rickard 5/27/2020 SHEET NO. 11</p>	
DATE	DESCRIPTION	DATE	DESCRIPTION																



Approved  
2020-H-590-00067  
William Rickard  
5/27/2020



Approved  
2020-H-590-00067  
William Rickard  
5/27/2020





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Approved  
2020-H-590-00067  
William Rickard  
5/27/2020



Approved  
2020-H-590-00067  
William Rickard  
5/27/2020

# PHOTOGRAPHS



Photograph 1 – Facing East, Area Around Boring B-5 on East Side of I-95.



Photograph 2 – Facing West, Area Around Boring B-5 on East Side of I-95.



**Ardaman & Associates, Inc.**

Approved  
2020-H-590-00067  
William Rickard  
18-23-5319  
5/27/2020

# PHOTOGRAPHS



Photograph 3 – Facing West, Area Around Boring B-6 on West Side of I-95.



Photograph 4 – Facing South, Area around Boring B-6 on West Side of I-95.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**DRIVEWAY CONNECTION PERMIT  
FOR ALL CATEGORIES**

**PART 1: PERMIT INFORMATION**

APPLICATION NUMBER: 2022-A-590-00026

Permit Category: J - Government Entity Access Classification: \_\_\_\_\_

Project: Driveway for Crane Creek M-1 Canal flow restoration

Permittee: Richard Koller

Section/Mile Post: 70050 / 8.310 State Road: 500

Section/Mile Post: / State Road: \_\_\_\_\_

**PART 2: PERMITTEE INFORMATION**

Permittee Name: Richard Koller

Permittee Mailing Address: 3910 S. Washington Ave, Suite 210

City, State, Zip: Titusville, Florida 32780

Telephone: (321) 269-2950 ext. \_\_\_\_\_

Engineer/Consultant/or Project Manager: \_\_\_\_\_

Engineer responsible for construction inspection: \_\_\_\_\_

NAME P.E. #

Mailing Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_ FAX, Mobile Phone, etc. Fax: / Mobile: \_\_\_\_\_

**PART 3: PERMIT APPROVAL**

The above application has been reviewed and is hereby approved subject to all Provisions as attached.

Permit Number: 2022-A-590-00026  
Department of Transportation

Signature: William Rickard Title: MAINTENANCE MANAGER/PERMITS

Department Representative's Printed Name William Rickard

Temporary Permit  YES  NO (If temporary, this permit is only valid for 6 months)

Special provisions attached  YES  NO

Date of Issuance: 8/2/2022

If this is a normal (non-temporary) permit it authorizes construction for one year from the date of issuance. This can only be extended by the Department as specified in 14-96.007(6).

**See following pages for General and Special Provisions**

Approved  
2022-A-590-00026  
William Rickard  
8/2/2022

**PART 4: GENERAL PROVISIONS**

1. Notify the Department of Transportation Maintenance Office at least 48 hours in advance of starting proposed work.  
Phone: 3216346086 , Attention: William Rickard
2. A copy of the approved permit must be displayed in a prominent location in the immediate vicinity of the connection construction.
3. Comply with Rule 14-96.008(1), F.A.C., Disruption of Traffic.
4. Comply with Rule 14-96.008(7), F.A.C., on Utility Notification Requirements.
5. All work performed in the Department's right of way shall be done in accordance with the most current Department standards, specifications and the permit provisions.
6. The permittee shall not commence use of the connection prior to a final inspection and acceptance by the Department.
7. Comply with Rule 14-96.003(3)(a), F.A.C., Cost of Construction.
8. If a Significant Change of the permittee's land use, as defined in Section 335.182, Florida Statutes, occurs, the Permittee must contact the Department.
9. Medians may be added and median openings may be changed by the Department as part of a Construction Project or Safety Project. The provision for a median might change the operation of the connection to be for right turns only.
10. All conditions in NOTICE OF INTENT WILL APPLY unless specifically changed by the Department.
11. All approved connection(s) and turning movements are subject to the Department's continuing authority to modify such connection(s) or turning movements in order to protect safety and traffic operations on the state highway or State Highway System.
12. **Transportation Control Features and Devices in the State Right of Way.** Transportation control features and devices in the Department's right of way, including, but not limited to, traffic signals, medians, median openings, or any other transportation control features or devices in the state right of way, are operational and safety characteristics of the State Highway and are not means of access. The Department may install, remove or modify any present or future transportation control feature or device in the state right of way to make changes to promote safety in the right of way or efficient traffic operations on the highway.
13. The Permittee for him/herself, his/her heirs, his/her assigns and successors in interest, binds and is bound and obligated to save and hold the State of Florida, and the Department, its agents and employees harmless from any and all damages, claims, expense, or injuries arising out of any act, neglect, or omission by the applicant, his/her heirs, assigns and successors in interest that may occur by reason of this facility design, construction, maintenance, or continuing existence of the connection facility, except that the applicant shall not be liable under this provision for damages arising from the sole negligence of the Department.
14. The Permittee shall be responsible for determining and notify all other users of the right of way.
15. Starting work on the State Right of Way means that I am accepting all conditions on the Permit.

Approved  
2022-A-590-00026  
William Rickard  
8/2/2022

**PART 5: SPECIAL PROVISIONS**

NON-CONFORMING CONNECTIONS:     YES     NO

If this is a non-conforming connection permit, as defined in Rule Chapters 14-96 and 14-97, then the following shall be a part of this permit.

1. The non-conforming connection(s) described in this permit is (are) not permitted for traffic volumes exceeding the Permit Category on page 1 of this permit, or as specified in "Other Special Provisions" below.
2. All non-conforming connections will be subject to closure or relocation when reasonable access becomes available in the future.

OTHER SPECIAL PROVISIONS:

**PART 6: APPEAL PROCEDURES**

You may petition for an administrative hearing pursuant to sections 120.569 and 120.57, Florida Statutes. If you dispute the facts stated in the foregoing Notice of Intended Department Action (hereinafter Notice), you may petition for a formal administrative hearing pursuant to section 120.57 (1), Florida Statutes. If you agree with the facts stated in the Notice, you may petition for an informal administrative hearing pursuant to section 120.57(2), Florida Statutes. You must file the petition with:

Clerk of Agency Proceedings  
Department of Transportation  
Haydon Burns Building  
605 Suwannee Street, M.S. 58  
Tallahassee, Florida 32399-0458

The petition for an administrative hearing must conform to the requirements of Rule 28-106.201(2) or Rule 28-106.301(2), Florida Administrative Code, and be filed with the Clerk of Agency Proceedings by 5:00 p.m. no later than 21 days after you received the Notice. The petition must include a copy of the Notice, be legible, on 8 1/2 by 11 inch white paper, and contain:

1. Your name, address, telephone number, any Department of Transportation identifying number on the Notice, if known, the name and identification number of each agency affected, if known, and the name, address, and telephone number of your representative, if any, which shall be the address for service purposes during the course of the proceeding.
2. An explanation of how your substantial interests will be affected by the action described in the Notice;
3. A statement of when and how you received the Notice;
4. A statement of all disputed issues of material fact. If there are none, you must so indicate;
5. A concise statement of the ultimate facts alleged, including the specific facts you contend warrant reversal or modification of the agency's proposed action, as well as an explanation of how the alleged facts relate to the specific rules and statutes you contend require reversal or modification of the agency's proposed action;
6. A statement of the relief sought, stating precisely the desired action you wish the agency to take in respect to the agency's proposed action.

If there are disputed issues of material fact a formal hearing will be held, where you may present evidence and argument on all issues involved and conduct cross-examination. If there are no disputed issues of material fact an informal hearing will be held, where you may present evidence or a written statement for consideration by the Department.

Mediation, pursuant to section 120.573, Florida Statutes, may be available if agreed to by all parties, and on such terms as may be agreed upon by all parties. The right to an administrative hearing is not affected when mediation does not result in a settlement.

Your petition for an administrative hearing shall be dismissed if it is not in substantial compliance with the above requirements of Rule 28-106.201(2) or Rule 28-106.301(2), Florida Administrative Code. If you fail to timely file your petition in accordance with the above requirements, you will have waived your right to have the intended action reviewed pursuant to chapter 120, Florida Statutes, and the action set forth in the Notice shall be conclusive and final.

Approved  
8/2/2022  
William Rickard

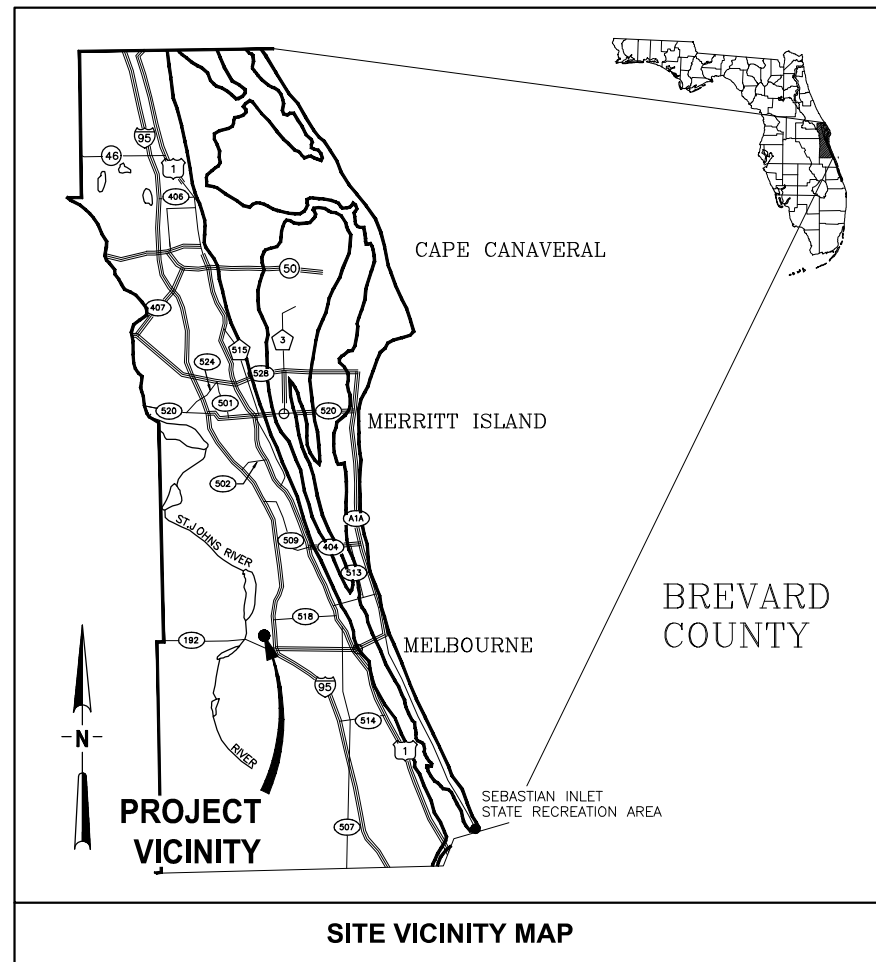
22x34

# CRANE CREEK

# M-1 CANAL FLOW RESTORATION

## VOLUME 2

PREPARED FOR:  
**ST. JOHNS RIVER WATER  
MANAGEMENT DISTRICT**



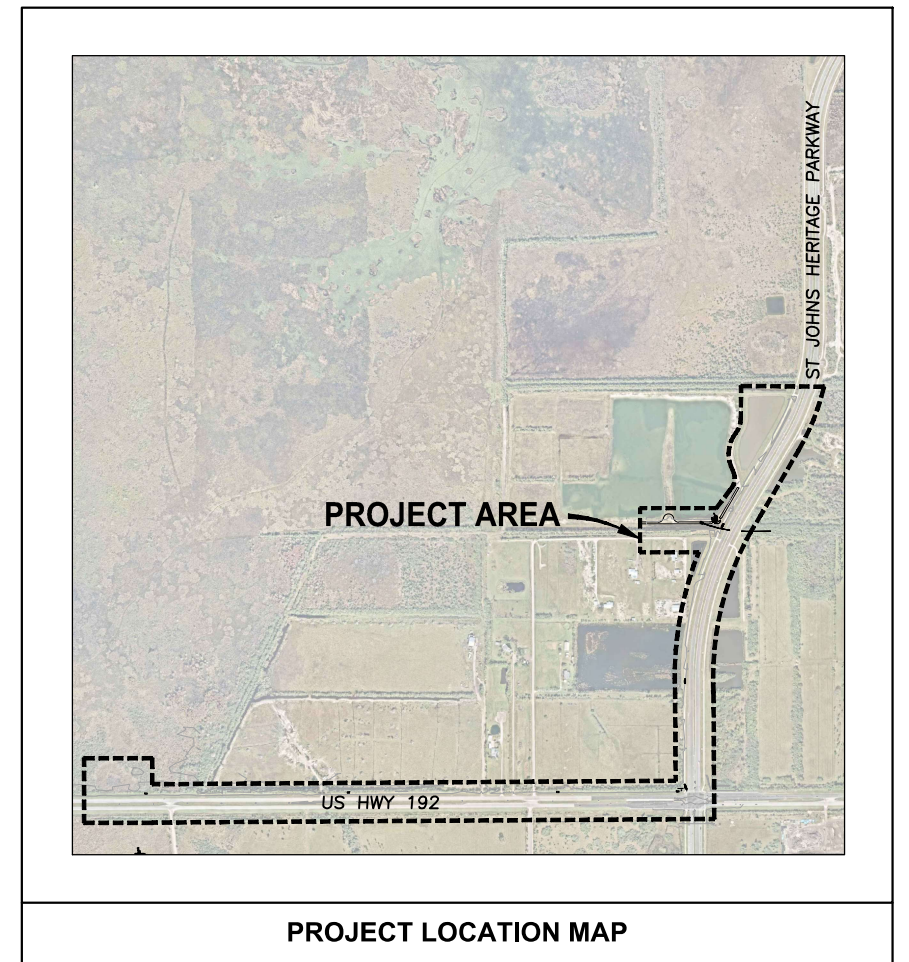
SITE VICINITY MAP



PREPARED BY:



CERTIFICATE OF AUTHORIZATION #1841  
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821



PROJECT LOCATION MAP

**CONTRACT NO: 32116**

**PROJECT NO: 19750-066-01**

**BID DOCUMENTS**

BREVARD COUNTY RIGHT-OF-WAY REVIEW AND APPROVAL DOES NOT CONSTITUTE COUNTY APPROVAL OR REVIEW OF ANY PRIVATE PARTY DEED RESTRICTIONS, COVENANTS, PRIVATE EASEMENTS, OR OTHER PRIVATE AGREEMENTS. ANY CHANGES TO THE APPROVED MUST BE COORDINATED THROUGH THE PUBLIC WORKS ENGINEERING PROGRAM. THE APPLICANT ASSUMES THE RISK THAT THE RIGHT-OF-WAY PERMIT MAY REQUIRE ADDITIONAL COUNTY REVIEW INCLUDING ENGINEERING REVISIONS OR OTHER APPLICABLE COUNTY REVIEW PROCESSES SHOULD ANY ACTION TO ENFORCE ANY SUCH RESTRICTIONS REQUIRE REDESIGN OF THE PROJECT.

**JULY 2022**

2022-A-590-00026  
William Rickard  
8/2/2022

LAST SAVED: 7/13/2022 9:40 AMBY:JALLEN PLOTTED:7/25/2022 11:08 AMBY:JON W. ALLEN, JR.



DRAWING INDEX		
DWG NO	DESCRIPTION	EOR
GENERAL		
G1	COVER	A. GOODDEN
G2	DRAWING INDEX & ABBREVIATIONS	A. GOODDEN
G3	GENERAL NOTES AND ABBREVIATIONS	A. GOODDEN
G4	LEGENDS AND SECTION DESIGNATIONS	A. GOODDEN
G5	MECHANICAL LEGEND & PIPE SCHEDULE	D. SHELDON
G6	KEY MAP	A. GOODDEN
G7	BREVARD COUNTY PUBLIC WORKS ENGINEERINGS STD DEVELOPMENT NOTES	A. GOODDEN
G8	BREVARD COUNTY LAND DEVELOPMENT EXHIBITS	A. GOODDEN
STORMWATER TREATMENT AREA		
C1-1	STORMWATER TREATMENT AREA OVERALL SITE PLAN	A. GOODDEN
C1-2	STORMWATER TREATMENT AREA GRADING PLAN WEST	A. GOODDEN
C1-3	STORMWATER TREATMENT AREA GRADING PLAN EAST	A. GOODDEN
C1-4	STORMWATER TREATMENT AREA SECTIONS	A. GOODDEN
C1-5	STORMWATER TREATMENT AREA INLET DETAILS	A. GOODDEN
C1-6	PUMP STATION SITE PLAN	A. GOODDEN
C1-7	PUMP STATION INTAKE PLAN AND SECTION	A. GOODDEN
C1-8	CIVIL DETAILS	A. GOODDEN
C1-9	CIVIL DETAILS	A. GOODDEN
EROSION CONTROL		
EC1-1	STORMWATER TREATMENT AREA EROSION CONTROL PLAN	A. GOODDEN
EC1-2	STORMWATER TREATMENT AREA EROSION CONTROL NOTES	A. GOODDEN
EC1-3	DETAILS	A. GOODDEN
EC1-4	DETAILS	A. GOODDEN
STRUCTURAL		
S1-1	STRUCTURAL GENERAL NOTES	M. THUE
S1-2	WEST PUMP STATION PLAN WITH SECTIONS AND DETAILS	M. THUE
MECHANICAL		
M1-1	PUMP STATION PLAN	D. SHELDON
M1-2	PUMP STATION SECTIONS	D. SHELDON
M1-3	PUMP STATION DETAILS	D. SHELDON
M1-4	PUMP STATION DETAILS	D. SHELDON
DISCHARGE PIPELINE		
C6-1	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-2	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-3	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-4	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-5	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-6	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-7	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-8	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-9	DISCHARGE STORMWATER FORCEMAIN PLAN AND PROFILE	D. SHELDON
C6-10	DISCHARGE STORMWATER FORCEMAIN DETAILS	D. SHELDON
C6-11	DISCHARGE STORMWATER FORCEMAIN DETAILS	D. SHELDON
C6-12	OUTFALL STRUCTURE DETAIL	A. GOODDEN
C6-13	OUTFALL STRUCTURE DETAIL	A. GOODDEN
EROSION CONTROL		
EC6-1	DISCHARGE SITE EROSION CONTROL PLAN	A. GOODDEN
EC6-2	DISCHARGE SITE EROSION CONTROL NOTES	A. GOODDEN
ELECTRICAL		
E1-1	ELECTRICAL LEGEND	H. DIETRICK
E1-2	PUMP STATION ELECTRICAL SITE PLAN	H. DIETRICK
E1-3	PUMP STATION ONE LINE DIAGRAM	H. DIETRICK
E1-4	PUMP STATION ELECTRICAL DETAILS	H. DIETRICK
E1-5	POWER CONTROL WIRING SCHEDULE	H. DIETRICK

Amy Liane Goodden, State of Florida, Professional Engineer License No. 60097.

This item has been digital signed and sealed by Amy Liane Goodden on the date indicated here.

Printed Copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Donald J. Sheldon, State of Florida, Professional Engineer License No. 90306.

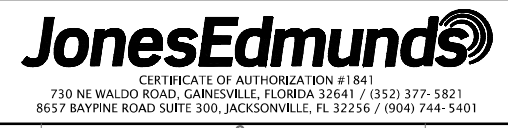
This item has been digital signed and sealed by Donald J. Sheldon on the date indicated here.

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 7/21/2022 9:21 AM JALLEN

BID DOCUMENTS

DESIGNED	A. GOODDEN			
DRAWN	J. ALLEN			
CHECKED	R. KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.



**CRANE CREEK**  
**M-1 CANAL FLOW RESTORATION**  
**VOLUME 2**

**DRAWING INDEX & ABBREVIATIONS**

Approved  
 2022

PROJECT NO:	19750-066-01	DATE:	JULY 2022
INDEX NO:		DWG NO:	G2

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097  
 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT.  
 PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

GENERAL NOTES

ABBREVIATIONS

- 1. TOPOGRAPHIC SURVEY INFORMATION FOR ALL AREAS EXCEPT THE STA SITE WAS PROVIDED BY SJRWMD REGISTERED PROFESSIONAL LAND SURVEYOR. THE EXISTING POND ON THE STORMWATER TREATMENT AREA IS SHOWN USING AS-BUILT DATA PROVIDED TO BREVARD COUNTY BY JR DAVIS. THE ST JOHNS HERITAGE PARKWAY PONDS, ROADWAY, AND SIDEWALKS ARE SHOWN USING AS-BUILT DATA PROVIDED TO BREVARD COUNTY BY DRMP.

- 22. THE CONTRACTOR SHALL PROVIDE MATERIAL AND CONSTRUCTION TESTING BY A FLORIDA QUALIFIED GEOTECHNICAL TESTING FIRM. ACCEPTANCE TESTING INCLUDES BUT IS NOT LIMITED TO CONCRETE, ROADWAY STABILIZATION AND BASE, ASPHALT DENSITY, AND LIMEROCK. RESULTS SHALL BE SUBMITTED TO THE DISTRICT.

- @ AND
& AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ADF AVERAGE DAILY FLOW
ADJ ADJUSTABLE
ALUM ALUMINUM

- HDD HORIZONTAL DIRECTIONAL DRILL
HOPE HIGH DENSITY POLYETHYLENE
HORIZ HORIZONTAL
HP HORSEPOWER



City Hall
2240 Mineral Road
West Melbourne, FL 32908
Phone: (321) 727-7700
Fax: (321) 768-2399
www.westmelbourne.org

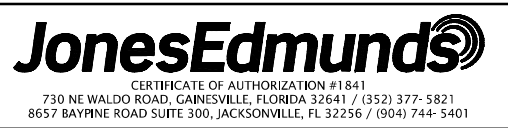
Development Closeout Checklist

- Complete all required construction inspections.
Submit test results for compaction for pipe backfill, structure backfill (manholes and drainage structures) and for the road structural section (AC pavement and concrete).

SAVED: 7/20/2022 7:13 AM JALLEN Y:\19750-SJRWMD\PROJECTS\066-01-CRANE CREEK\_M-1\_FLOW RESTORATION DESIGN\CAD\VOLUME 2\DWGS\GENERAL\19750066-VOL2-G03.DWG

BID DOCUMENTS

Table with columns: LTR., DATE, REVISIONS, BY, APPRD., DESIGNED (A GOODDEN), DRAWN (J ALLEN), CHECKED (R KOLLER)



CRANE CREEK M-1 CANAL FLOW RESTORATION VOLUME 2

GENERAL NOTES AND ABBREVIATIONS

Approval stamp: Approved 8/2/2022, Project No: 19750-066-01, Date: JULY 2022, Printed copies of this document are not considered signed and the signature must be verified on any electronic copies.

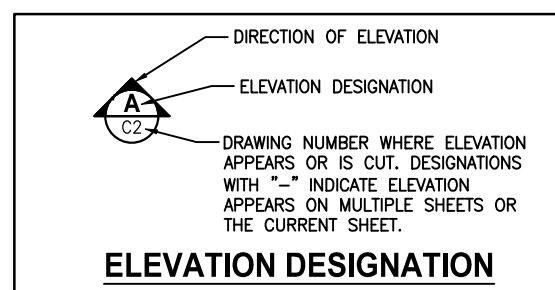
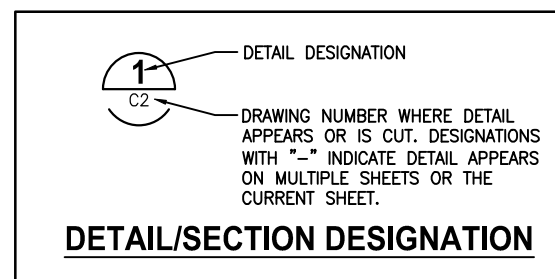
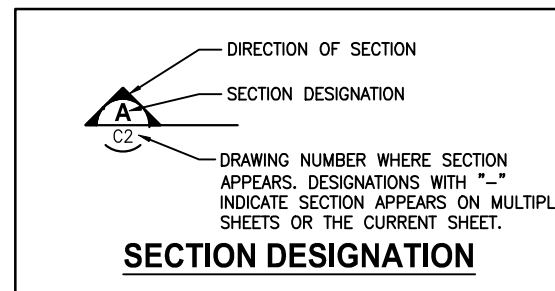
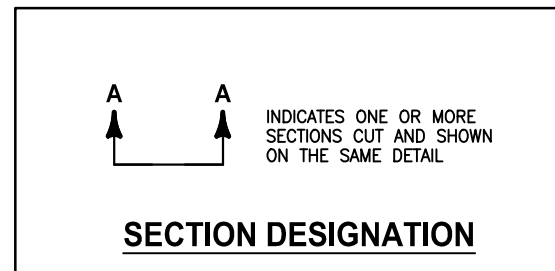
**CIVIL LEGEND**

- MATCHLINE
- UTILITY EASEMENT
- RIGHT-OF-WAY BOUNDARY
- CENTERLINE
- LIMITS OF CONSTRUCTION
- SILT FENCE
- TURBIDITY CURTAIN
- LIMITS OF PLANTING
- GRADE BREAK
- WETLAND LINE
- PROPOSED CONTOUR
- EXISTING CONTOUR
- FENCE
- STORMWATER FORCE MAIN (HORIZONTAL DIRECTIONAL DRILL)
- STORMWATER FORCE MAIN (OPEN CUT)
- GRAVITY STORM PIPING
- REINFORCED CONCRETE PIPE (RCP)
- DITCH BOTTOM INLET
- MITERED END SECTION
- STRUCTURE/PIPE DESIGNATION
- STABILIZED DRIVE SURFACE
- ASPHALT SURFACE
- LIMITS OF MILLING AND RESURFACING
- LIMEROCK
- CROSS HATCHING INDICATES REMOVAL/DEMOLITION
- CONCRETE
- RIPRAP
- HEDGE, BUSH, SHRUBS, WOODS
- SPOT ELEVATION
- PROPOSED SIGN
- DRAWING DESIGNATION
- COORDINATE POINT
- DRAINAGE FLOW DIRECTION
- WATER LEVEL
- EXISTING CONCRETE MONUMENT, FOUND
- SLOPE INDICATOR
- ELEVATION TAG
- NORTHING AND EASTING COORDINATE
- SUBSURFACE UTILITY TEST HOLE LOCATION

N: 1364188.52  
E: 748399.55

**SURVEY LEGEND**

- = CHAINLINK FENCE
- = WOOD FENCE
- = WIRE FENCE
- = BARBED WIRE FENCE
- = BURIED ELECTRIC LINE
- = BURIED TELEPHONE LINE
- = COMMUNICATION LINE
- = GAS LINE
- = OVERHEAD UTILITY LINE
- = WATER LINE
- = FORCE MAIN
- = OVERHEAD TRAFFIC CONTROL
- = TREE LINE
- = GUARDRAIL
- = ACRYLONITRILE BUTADIENE STYRENE PIPE
- = BURIED FIBER OPTIC CABLE
- = CORRUGATED METAL PIPE
- = CORRUGATED PLASTIC PIPE
- = POLYVINYL CHLORIDE PIPE
- = REINFORCED CONCRETE PIPE
- = LICENSED BUSINESS
- = PROFESSIONAL LAND SURVEYOR
- = REGISTERED LAND SURVEYOR
- = PROFESSIONAL SURVEYOR AND MAPPER
- = RIGHT OF WAY
- = TOP OF SILT ELEVATION
- = DEED BOOK
- = OFFICIAL RECORDS BOOK
- = PAGE
- = IDENTIFICATION
- = END OF INFORMATION
- = NORTH AMERICAN DATUM
- = NORTH AMERICAN VERTICAL DATUM
- = TRAVERSE POINT
- = SOUTHEASTERN SURVEYING & MAPPING CORPORATION
- = TELEPHONE
- = FLORIDA GAS TRANSMISSION COMPANY
- = FLORIDA POWER & LIGHT COMPANY
- = AIR RELEASE VALVE
- = BUSH
- = BURIED TELEPHONE PEDESTAL
- = CONCRETE MONUMENT
- = CLEAN OUT
- = COMBINATION UTILITY POLE
- = DRAINAGE MANHOLE
- = ELECTRIC SERVICE METER
- = FLAT GRATE INLET
- = FIRE HYDRANT
- = DOWN GUY
- = WATER SPIGOT
- = HAND HOLE
- = IRON PIPE
- = IRON ROD
- = IRRIGATION VALVE
- = LIGHT POLE
- = MAILBOX
- = MITERED END SECTION
- = NAIL W/DISC
- = UTILITY POLE
- = POST/BOLLARD
- = PUMP
- = RAILROAD SPIKE
- = NON-TRAFFIC SIGN
- = SPRINKLER
- = SEWER VALVE
- = TRAFFIC CONTROLLER CABINET
- = TRAFFIC SIGN
- = TRANSFORMER ON SLAB
- = TRAFFIC SIGNAL SPAN POLE
- = UTILITY MARKER
- = VAULT
- = WELL
- = WATER METER
- = WATER VALVE



- NOTES**
- IN GENERAL, EXISTING FACILITIES AND UTILITIES ARE NOTED AS EXISTING AND/OR SHOWN IN LIGHT LINE WEIGHT (SCREENED). PROPOSED CONSTRUCTION IS SHOWN IN HEAVY LINE WEIGHT AND/OR IDENTIFIED AS PROPOSED. SCREENING IS ALSO USED IN ORDER TO CLARIFY DRAWINGS. FOR EXAMPLE, STRUCTURES ARE SCREENED ON MECHANICAL DRAWINGS TO HIGHLIGHT PIPING AND EQUIPMENT. THIS DRAFTING CONVENTION IS TYPICAL THROUGHOUT THE SET OF PLANS.
  - THIS IS A STANDARD LEGEND DRAWING. SOME ITEMS MAY APPEAR IN LEGENDS AND NOT ON THE DRAWINGS.

SAVED: 7/20/2022 7:14 AM JALLEN Y:\19750-SJRMD\PROJECTS\066-01-CRANE CREEK\_M-1\_FLOW RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\GENERAL\19750066-VOL2-G04.DWG

BID DOCUMENTS

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

**JonesEdmunds**

CERTIFICATE OF AUTHORIZATION #1841  
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

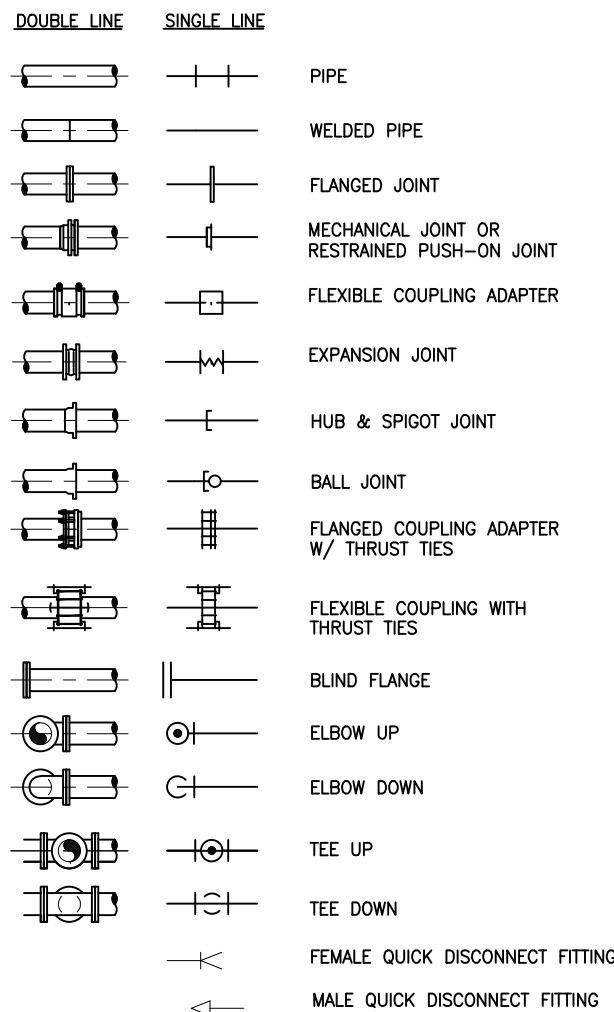
**LEGENDS AND SECTION DESIGNATIONS**

<p>AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097</p> <p>THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT.</p> <p>PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.</p>	<p>PROJECT NO: 19750-066-01</p> <p>DATE: JULY 2022</p> <p>INDEX NO: G4</p> <p>DWG NO: G4</p>
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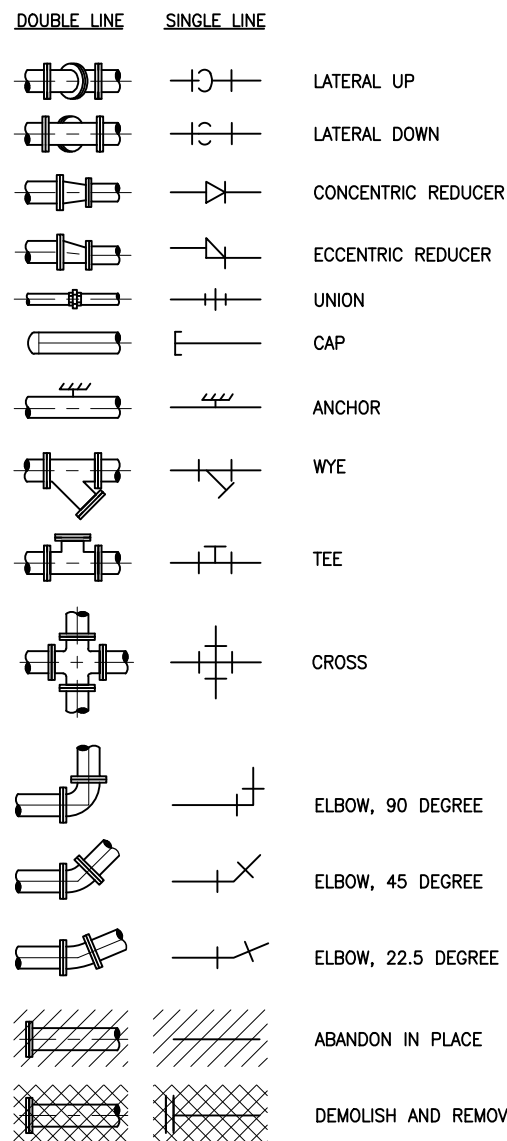
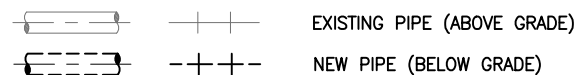
Approved  
2022-07-26  
William Rickard  
8/2/2022

### MECHANICAL LEGEND

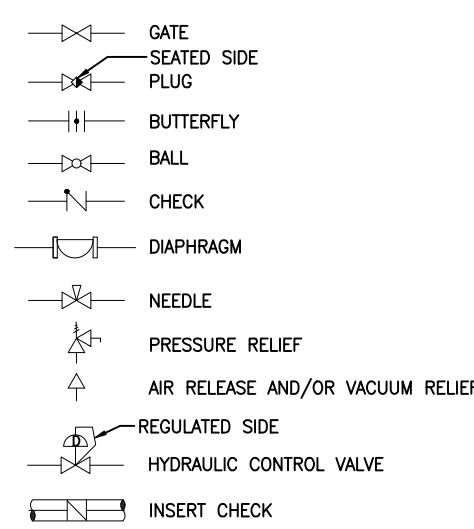
#### PIPING SYMBOLS



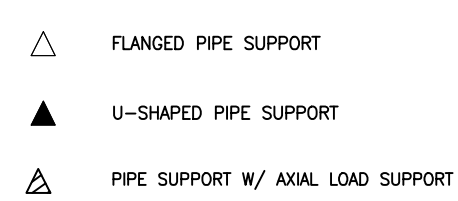
**NOTE:**  
EXISTING PIPE AND EQUIPMENT ARE SHOWN IN THE DRAWINGS AS LIGHT-LINED AND/OR SCREENED. PROPOSED PIPE AND EQUIPMENT ARE SHOWN IN THE DRAWINGS AS HEAVY-LINED. ABOVE GRADE PIPE AND EQUIPMENT ARE SHOWN IN DRAWINGS AS SOLID-LINED EXCEPT FOR PIPELINE PLANS AND PROFILES. BELOW GRADE PIPE AND EQUIPMENT ARE SHOWN IN DRAWINGS AS DASHED-LINED. SEE BELOW EXAMPLES:



#### VALVE SYMBOLS



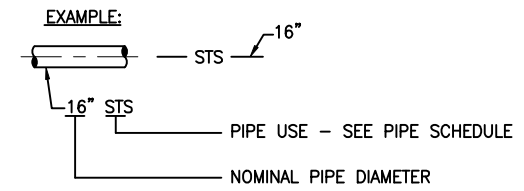
#### PIPE SUPPORT SYMBOLS



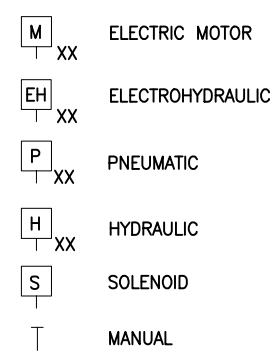
#### NOTE

1. THIS IS A STANDARD LEGEND DRAWING. SOME ITEMS MAY APPEAR IN LEGENDS AND NOT ON THE DRAWINGS.

#### PIPING DESIGNATION



#### ACTUATOR SYMBOLS



**NOTE:**  
ON LOSS OF PRIMARY POWER (PNEUMATIC, ELECTRICAL OR HYDRAULIC)  
XX: FO = FAIL OPEN  
FC = FAIL CLOSED  
FLP = FAIL TO LAST POSITION

### PIPE SCHEDULE

FLOW STREAM IDENTIFICATION	PIPE/DUCT MATERIAL	PIPE MATERIAL ABBREV	SPECIFICATION NUMBER	PIPE LINING	NORMAL MAX OPERATING PRESSURE (PSIG)	FIELD TEST PRESSURE (PSIG)	EXPOSED PIPE PAINT SYSTEM	COLOR CODE	SPECIFIC NOTES	RESTRAINT SYSTEM NOTES
FM-1	DUCTILE IRON	DI	15155	CERAMIC EPOXY	25	100	12	BROWN STRIPE	(A)	(1)
FM-2	HIGH DENSITY POLYETHYLENE (DI PIPE SIZE)	HDPE, DR11	15146	N/A	25	100	N/A	BROWN STRIPE	N/A	(2)
STS-1	REINFORCED CONCRETE (CLASS III)	RCP		N/A	5	N/A	N/A	N/A	N/A	N/A

#### GENERAL NOTES:

- COAT BURIED AND SUBMERGED PIPE PER PIPE SPECIFICATIONS.
- TEST LINES PER SECTION 15144 UNLESS NOTED OTHERWISE.
- ALL TRANSITIONS FROM HDPE TO DUCTILE IRON PIPE OR FITTINGS SHALL USE A WELDED HDPE TO MJ ADAPTER, AND SHALL BE FULLY RESTRAINED.

#### RESTRAINT SYSTEM NOTES:

- RESTRAIN EVERYTHING (FITTINGS, VALVES, PIPE JOINTS, ETC.) INCLUDING NEW TO EXISTING.
- RESTRAIN AT FITTINGS AND VALVES.

#### SPECIFIC NOTES:

- APPLY ABOVE GRADE PAINT SYSTEM ONLY TO PIPING EXPOSED TO SUNLIGHT. PIPING UNDER FACILITY CANOPY STRUCTURE SHALL BE CLASSIFIED AS EXPOSED TO SUNLIGHT.

SAVED: 7/15/2022 11:33 AM JALLEN Y:\19750-SURWMD\PROJECTS\066-01\_CRANE CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\GENERAL\19750066-VOL2-005.DWG

BID DOCUMENTS

DESIGNED	D. SHELDON			
DRAWN	J. ALLEN			
CHECKED	R. KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.

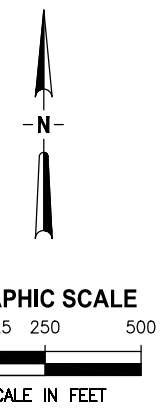
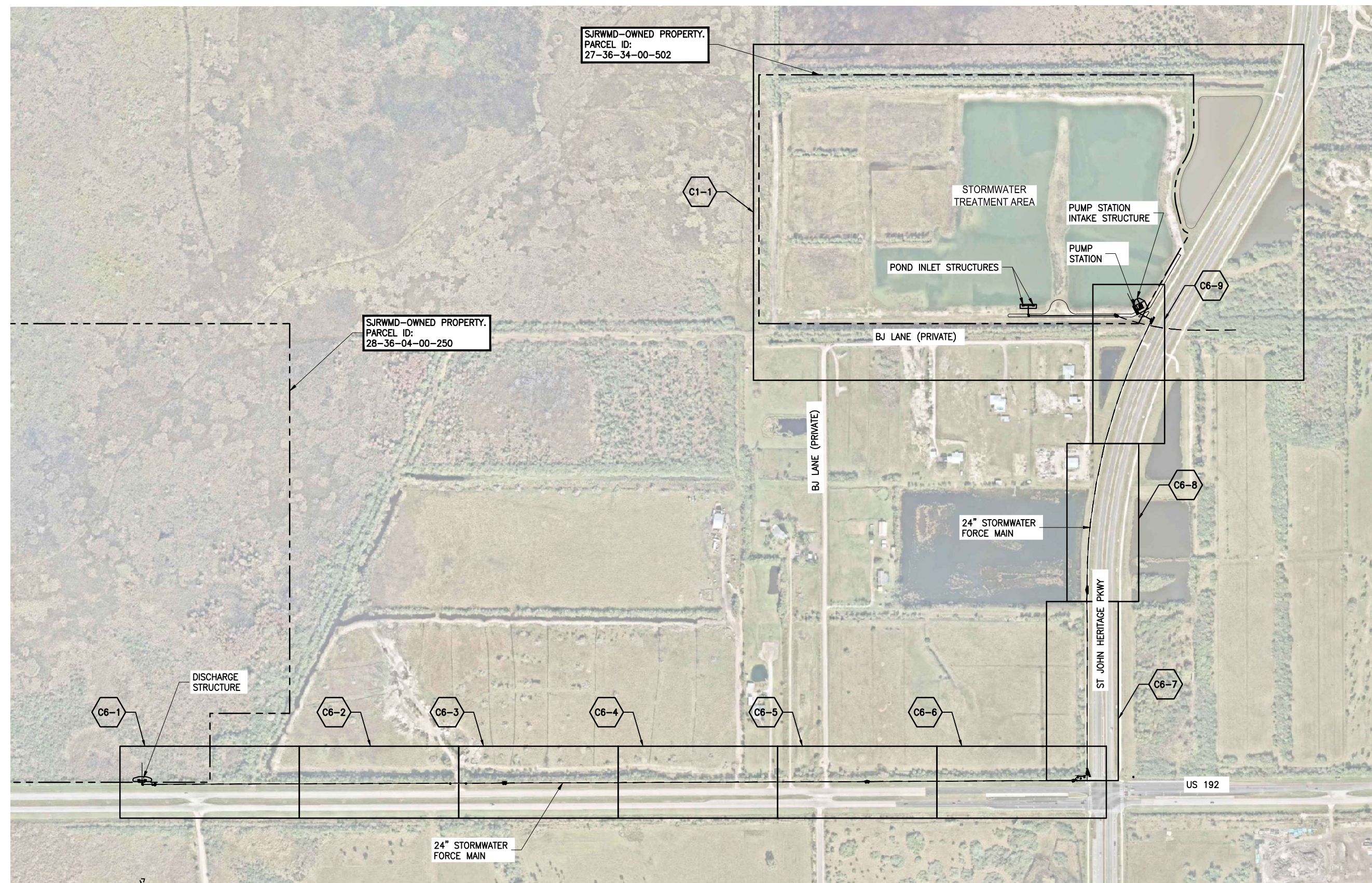
**JonesEdmunds**  
CERTIFICATE OF AUTHORIZATION #1841  
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

**MECHANICAL LEGEND & PIPE  
SCHEDULE**

APPROVED  
2022-07-26  
DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA, LICENSE NUMBER 90306  
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DONALD J. SHELDON, JR. ON THE DATE INDICATED.  
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PROJECT NO: 19750-066-01  
DATE: JULY 2022  
INDEX NO: William Rickard  
DWG NO: G5  
8/2/2022

Y:\19750-SJRWM\PROJECTS\066-01\_CRANE\_CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\GENERAL\19750066-VOL2-G06.DWG  
 4/19/2022 9:58 AM PBOLLINGER



LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

**JonesEdmunds**  

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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**KEY MAP**

Approved  
 2022-07-26  
 William Rickard  
 8/2/2022

PROJECT NO:	19750-066-01	DATE:	JULY 2022
INDEX NO:	G6	DWG NO:	G6

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097  
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BID DOCUMENTS

# BREVARD COUNTY PUBLIC WORKS ENGINEERING STANDARD DEVELOPMENT NOTES

## GENERAL

1. ALL CONSTRUCTION SHALL CONFORM TO FDOT DESIGN STANDARDS (LATEST EDITION), FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION (LATEST EDITION), BREVARD COUNTY UTILITY SERVICES CRITERIA FOR WATER AND SANITARY SEWER SYSTEMS, AND BREVARD COUNTY CODE OF ORDINANCES.
2. ISSUANCE OF CERTIFICATE OF COMPLETION: UPON COMPLETION OF CONSTRUCTION OF THE PROJECT AND PRIOR TO SCHEDULING OF THE FINAL INSPECTION, THE APPLICANT OR THEIR AUTHORIZED REPRESENTATIVE, SHALL PROVIDE THE FOLLOWING DOCUMENTATION TO BREVARD COUNTY PUBLIC WORKS ENGINEERING:
  - a. A CERTIFICATE OF COMPLETION - REQUEST FOR FINAL INSPECTION FORM. THE FORM MUST BE FROM A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA WITH THEIR SEAL AFFIXED. THE FORM CERTIFIES THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS.
  - b. A COMPLETE SET OF TESTING REPORTS FOR ALL TESTS PERFORMED ON THE PROJECT WITHIN THE COUNTY RIGHT-OF-WAY AND/OR FOR ALL SUBDIVISION CONSTRUCTION REGARDLESS OF PUBLIC OR PRIVATE.
  - c. THREE SETS OF AS-BUILT DRAWINGS MEETING THE REQUIREMENTS OF SECTION 61917, F.A.C., AND SIGNED AND SEALED BY A SURVEYOR LICENSED IN THE STATE OF FLORIDA. AT A MINIMUM, ALL AS-BUILT DRAWINGS MUST INCLUDE:
    - i. ROAD/PAVEMENT ELEVATIONS; ROADWAY CROSS SLOPES; PAVEMENT WIDTH; PAVEMENT SPOT ELEVATIONS NECESSARY TO CONFIRM STORMWATER DRAINAGE PATTERNS AT INTERSECTIONS AND SIDEWALKS; CURB SLOPES;
    - ii. STORMWATER PIPE SIZES AND INVERT ELEVATIONS; LOCATION OF OUTFALL STRUCTURE(S) WITH AS-BUILT ELEVATIONS FOR ALL CONTROL STRUCTURE & SKIMMER ELEVATIONS SHOWN ON THE APPROVED PLANS; TOP OF BANK, GRADE BREAKS, BOTTOM ELEVATIONS FOR ALL STORMWATER PONDS OR BEHM AREAS;
    - iii. ANY OTHER ADDITIONAL AS-BUILT DATA THAT IS APPLICABLE TO THE PROJECT TO ENSURE COMPLETION IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS.
  - d. PIPE INSPECTION VIDEO PER FDOT REQUIREMENTS. (IF APPLICABLE PER NOTE 4 OF DRAINAGE NOTES)
  - e. IF A MUNICIPALITY IS ACCEPTING A PUBLIC WATER AND/OR SEWER SYSTEM, THERE MUST BE DOCUMENTATION INDICATING MUNICIPAL ACCEPTANCE OF THE CONSTRUCTION OF THE WATER AND/OR SEWER SYSTEM.
  - f. PUBLIC WORKS ENGINEERING WILL NOT SIGN OFF ON A TEMPORARY CERTIFICATE OF OCCUPANCY (TCO) FROM THE BREVARD COUNTY BUILDING DEPARTMENT UNTIL THE AS-BUILT DRAWINGS AND OTHER DOCUMENTATION LISTED ABOVE HAVE BEEN SUBMITTED AND REVIEWED BY PUBLIC WORKS ENGINEERING.
  - g. PROJECTS CONNECTED TO THE BREVARD COUNTY WATER, SANITARY SEWER, AND/OR RECLAIMED WATER SYSTEMS MUST OBTAIN FINAL APPROVAL FOR THE PROJECT DIRECTLY FROM BREVARD COUNTY UTILITY SERVICES AS OUTLINED IN THE BREVARD COUNTY CRITERIA FOR WATER AND SANITARY SEWERAGE SYSTEMS.
3. UPON APPROVAL OF FINAL INSPECTION, AN ENGINEER'S CERTIFIED COST ESTIMATE WILL BE REQUIRED ALONG WITH A 2-YEAR MAINTENANCE BOND FOR ALL IMPROVEMENTS WITHIN THE COUNTY RIGHT-OF-WAY AS REQUIRED BY CHAPTER 86 OF THE BREVARD COUNTY CODE OF ORDINANCES. THE MAINTENANCE BOND SHALL BE 25% OF THE ENGINEER'S CERTIFIED COST ESTIMATE.
4. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO THE COUNTY INFRASTRUCTURE DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE STRUCTURAL INTEGRITY OF THE ROADWAY ASPHALT, BASE, AND STABILIZED SUB-BASE, SIDEWALKS, STORMWATER DRAINAGE SYSTEM, DRAINAGE STRUCTURES, CURBS, GROUND COVER, WATER SYSTEMS, SANITARY SEWER SYSTEMS, AND RECLAIMED WATER SYSTEMS. ALL REPAIRS SHALL BE COMPLETED IN ACCORDANCE WITH FDOT AND BREVARD COUNTY STANDARDS. ALL REPAIRS SHALL BE COMPLETED PRIOR TO THE FINAL INSPECTION OF THE PROJECT. SIDEWALK PATCHING WILL NOT BE ACCEPTABLE.
5. A VISUAL OR MECHANICAL INTERIOR INSPECTION OF EXISTING CULVERTS WILL BE REQUIRED PRIOR TO THE FINAL INSPECTION.
6. ALL DISTURBED AREAS WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE SODED. SEED & MULCH IS NOT ACCEPTABLE. SOD SHALL MATCH EXISTING SOD TYPE. BAHIA SOD SHALL BE USED IN AREAS ADJACENT TO VACANT PROPERTY. DISTURBED AREAS OUTSIDE THE CONSTRUCTION LIMITS WILL BE SODED AT THE CONTRACTOR'S EXPENSE.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL SURVEY MONUMENTATION. ANY SURVEY MONUMENTATION DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE REPLACED BY A FLORIDA LICENSED SURVEYOR PRIOR TO ISSUANCE OF A CERTIFICATE OF COMPLETION FOR THE PROJECT.
8. REGARDLESS OF PRIVATE OR PUBLIC DEDICATION, THERE SHALL BE NO UTILITY CONNECTIONS OR METER BOXES WITHIN PROPOSED OR EXISTING SIDEWALKS OR DRIVEWAY AREAS.
9. ALL DIRECTIONAL BORES SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 555, DIRECTIONAL BORES AND THE FDOT UTILITIES ACCOMMODATION MANUAL.
10. ALL DIRECTIONAL BORES MUST EXTEND A MINIMUM OF EIGHT(8) FEET PAST THE EDGE OF PAVEMENT OF ANY ROADWAY OR COMMERCIAL DRIVEWAY. FOR RESIDENTIAL DRIVEWAYS AND SIDEWALKS, THE BORE MUST EXTEND THREE (3) FEET PAST THE EDGE ON EITHER SIDE.
11. THE CONTRACTOR SHALL CONTROL DUST GENERATED BY THIS PROJECT AT ALL TIMES. SHALL PROVIDE STREET SWEEPING AS REQUIRED, AND PREVENT SEDIMENT FROM ENTERING INTO THE EXISTING DRAINAGE SYSTEM AT ALL TIMES.
12. THE CONTRACTOR SHALL NOT EXCEED NOISE LEVELS AS SPECIFIED IN BREVARD COUNTY CODE OF ORDINANCES SECTION 62-2271.
13. ALL STRIPING AND PAVEMENT MARKINGS IN THE COUNTY RIGHT-OF-WAY SHALL BE THERMOPLASTIC AND SHALL NOT BE APPLIED UNTIL A MINIMUM OF 30 DAYS AFTER THE PLACEMENT OF THE FINAL ASPHALT SURFACE. IN THE INTERIM, STRIPING SHALL BE PAINT AND ANY REQUIRED RPM'S INSTALLED PER THE PLANS. DO NOT STRIPE ACROSS MANHOLE LIDS OR DRAINAGE GRATES.
14. REFLECTIVE PAVEMENT MARKINGS (RPM'S) SHALL BE INSTALLED IN ALL LOCATIONS AS REQUIRED BY FDOT DESIGN STANDARD (LATEST EDITION)
15. ANY PAVEMENT MARKINGS AND RPM'S THAT ARE DESTROYED, DAMAGED, OR DIMINISHED BY CONSTRUCTION ACTIVITIES FOR UP TO 500 FEET IN EITHER DIRECTION BEYOND THE LIMITS OF CONSTRUCTION SHALL BE REPLACED OR REFURBISHED BY THE CONTRACTOR.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE COUNTY RIGHT-OF-WAY FOR THE DURATION OF CONSTRUCTION. AT A MINIMUM, THE CONTRACTOR SHALL MOW THE RIGHT-OF-WAY ON AN AS NEEDED BASIS AND MAINTAIN THE DRAINAGE CONVEYANCE SYSTEM. ADDITIONAL MAINTENANCE MAY BE REQUIRED ON A CASE BY CASE BASIS.

## TRAFFIC CONTROL

1. **MOT PLAN REVIEW:** A PROJECT-SPECIFIC MAINTENANCE OF TRAFFIC (MOT) PLAN OR ROADWAY CLOSURE MOT/DETOUR PLAN MUST BE SUBMITTED TO BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) FOR APPROVAL A MINIMUM OF TWO (2) WEEKS PRIOR TO START OF CONSTRUCTION. THE MOT PLAN SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND FDOT STANDARD INDEX 800 SERIES (LATEST EDITIONS). PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS OR VMS) MAY BE REQUIRED TO SUPPLEMENT THE STANDARD MOT SIGNAGE.
2. **ROAD CLOSURES:** THE CONTRACTOR SHALL NOTIFY BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF THE PROPOSED START DATE OF CONSTRUCTION WITHIN THE RIGHT-OF-WAY. FOR EACH PHASE OF CONSTRUCTION, IF APPLICABLE. CONSTRUCTION SHALL NOT BEGIN UNTIL THE MOT PLAN IS APPROVED AND NOTIFICATIONS HAVE BEEN SENT TO AFFECTED AGENCIES. CERTAIN LOCATIONS MAY REQUIRE WORK IN THE RIGHT-OF-WAY TO BE PERFORMED AT NIGHT ONLY.

3. **LANE CLOSURES:** THE CONTRACTOR SHALL NOTIFY BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) A MINIMUM OF ONE (1) WEEK IN ADVANCE OF THE PROPOSED START DATE OF CONSTRUCTION WITHIN THE RIGHT-OF-WAY. CONSTRUCTION SHALL NOT BEGIN UNTIL THE MOT PLAN IS APPROVED AND NOTIFICATIONS HAVE BEEN SENT TO AFFECTED AGENCIES. NO LANE CLOSURES WILL BE PERMITTED DURING PEAK HOUR TRAFFIC VOLUMES.
4. ALL TRAFFIC CONTROL DEVICES SHALL MEET THE REQUIREMENTS OF THE MUTCD FOR STREETS AND HIGHWAYS, FDOT STANDARDS (LATEST EDITIONS), AND BREVARD COUNTY LAND DEVELOPMENT EXHIBIT #26.

## DRAINAGE - ROADWAYS

1. ALL DRAINAGE SYSTEM CONSTRUCTION SHALL CONFORM TO FDOT STANDARD SPECIFICATIONS AND FDOT DESIGN STANDARDS (LATEST EDITIONS).
2. ALL RETICULINE STEEL GRATES SHALL BE HOT DIPPED GALVANIZED AND HAVE A TRAFFIC BEARING H-20 LOAD RATING.
3. ALL GRATES UTILIZED WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE TRAFFIC BEARING H-20 LOADING.
4. ALL STORMWATER PIPING WITHIN THE ROAD RIGHT-OF-WAY, REGARDLESS OF PUBLIC OR PRIVATE, OR STORMWATER PIPING THAT CONVEYS STORMWATER UNDER THE ROADWAY BETWEEN STORMWATER TREATMENT PONDS, SHALL BE INSPECTED PER SECTIONS 430-4.3, 430-4.8.1, AND 430-4.8.2 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION). A COPY OF THE PIPE VIDEO SHALL BE PROVIDED TO THE COUNTY AS PART OF THE SUBMITTAL OF THE CERTIFICATION OF COMPLETION REQUEST FOR FINAL INSPECTION. THE COUNTY SHALL BE NOTIFIED ONE WEEK PRIOR TO THE START OF THE PIPE VIDEO INSPECTION PROCESS.
5. ALL OPEN CUTS SHALL CONFORM TO LAND DEVELOPMENT EXHIBIT #26. FOR ALL OPEN CUTS, THE FLOWABLE FILL AND TEMPORARY ASPHALT SHALL BE INSTALLED WITHIN TWO (2) DAYS OF THE EXCAVATION (UNLESS OTHERWISE APPROVED IN WRITING BY BREVARD COUNTY PUBLIC WORKS ENGINEERING). PERMANENT ASPHALT INCLUDING MILLING AND RESURFACING, IF NEEDED, SHALL BE COMPLETED WITHIN THIRTY (30) DAYS OF EXCAVATION.
6. THE CONTRACTOR SHALL REMOVE THE SHOULDER OF THE ROADWAY TO A POINT WHERE THE BASE MATERIAL OF THE EXISTING ROADWAY MEETS THE MINIMUM THICKNESS OF THE PROPOSED ROADWAY/COMMERCIAL DRIVEWAY CONNECTION.

## CONCRETE PAVING AND SIDEWALK

1. ALL DRIVEWAYS SHALL BE CONSTRUCTED PER FDOT INDEX 515 AND/OR BREVARD COUNTY STANDARD EXHIBITS UNLESS OTHERWISE NOTED.
2. ALL CONCRETE SHALL MEET FDOT DESIGN MIX AND SPECIFICATIONS. CURING METHOD SHALL BE IN ACCORDANCE WITH THE FDOT SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION).
3. ALL SIDEWALKS WITHIN THE COUNTY RIGHT-OF-WAY OR WITHIN A PUBLIC SIDEWALK EASEMENT SHALL BE CONSTRUCTED OF 6-INCH THICK, 3000-PSI CONCRETE WITH FIBER MESH REINFORCEMENT. CONCRETE SIDEWALKS (OR PEDWAYS) AND CONCRETE DRIVEWAY APRONS SHALL BE CONSTRUCTED OVER SOILS COMPACTED TO 98% DENSITY, OF AASHTO T-190. SHOULD EXISTING SOILS BE FOUND UNSUITABLE FOR COMPACTION, ADDITIONAL COMPATIBLE MATERIALS SHALL BE BROUGHT TO THE SITE FOR USE AS SUBGRADE. ALTERNATE METHODS OF COMPACTION MAY BE REQUIRED TO AVOID DAMAGE TO SURROUNDING PROPERTIES.
4. CONSTRUCT SIDEWALK JOINTS PURSUANT TO FDOT INDEX 310 (LATEST EDITION). EXPANSION JOINTS SHALL BE EVERY 50 FEET, AND BETWEEN NEW AND OLD CONCRETE.
5. TWO BY FOUR FORM BOARDS SHALL NOT BE USED FOR SIDEWALK/DRIVEWAY CONSTRUCTION. FORM BOARDS SHALL MATCH PROPOSED CONCRETE THICKNESS. SLIP FORMS SHALL NOT BE USED FOR SIDEWALK CONSTRUCTION. FIXED FORMWORK SHALL BE REQUIRED PER FDOT INDEX 300.
6. THE CONTRACTOR SHALL PROVIDE A 3-FOOT CURB TRANSITION AT ALL CURB TERMINATIONS.
7. ALL SIDEWALK AND ACCESS RAMP CONSTRUCTION SHALL COMPLY WITH THE DEPARTMENT OF JUSTICE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, FDOT DESIGN STANDARDS (LATEST EDITION), AND BREVARD COUNTY DEVELOPMENT REQUIREMENTS.

## ASPHALT PAVING AND TESTING

THE FOLLOWING TESTING REQUIREMENTS APPLY TO:

- a. ALL PUBLIC AND PRIVATE SUBDIVISION PROJECTS PERMITTED THROUGH BREVARD COUNTY PLANNING AND DEVELOPMENT;
- b. ALL SITE PLAN PROJECTS PERMITTED THROUGH BREVARD COUNTY PLANNING AND DEVELOPMENT REQUIRING WORK IN THE COUNTY RIGHT-OF-WAY;
- c. ALL PROJECTS PERMITTED THROUGH BREVARD COUNTY PUBLIC WORKS FOR WORK WITHIN THE COUNTY RIGHT-OF-WAY.

SECTIONS WITHIN THE FDOT STANDARD SPECIFICATIONS LIMITING TESTING REQUIREMENTS BASED ON LOT SIZE, SUB-LOT SIZE, TONNAGE, MINIMUM THICKNESS, OR SPREAD RATE WILL NOT APPLY TO THE PROJECTS LISTED ABOVE. AT A MINIMUM, ONE SET OF TESTS WILL BE REQUIRED FOR ALL PAVING PROJECTS LARGER THAN 50 TONS TOTAL AND ADDITIONAL TESTING MAY BE REQUIRED ON A CASE BY CASE EVALUATION OF THE PROJECT. TESTING REQUIREMENTS AT THE ASPHALT PLANT WILL NOT APPLY.

## FOR S-TYPE ASPHALT AS SPECIFIED IN THE 2000-2004 FDOT STANDARD SPECIFICATION :

1. THE CONTRACTOR SHALL PROVIDE A DESIGN MIX SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA AND APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 331-4 (2000). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE EXTRACTION/GRADATION TESTS IN ACCORDANCE WITH SECTION 331-4.4.2 (2000).
3. THE CONTRACTOR SHALL PROVIDE MARSHALL STABILITY TESTING IN ACCORDANCE WITH SECTION 331-5.5.1 (2000).
4. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-13 (2000).
5. THE CONTRACTOR SHALL PROVIDE SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH SECTION 330-13.3 (2000).
6. QUALITY CONTROL CORE BORINGS SHALL BE OBTAINED FOR THICKNESS PER SECTION 330-2.2 ROADWAY (2004) AND DENSITY PER SECTION 330-11, TABLE 330-3 (2000).
7. ASPHALT TEST RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES WILL NOT BE ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.

## FOR SUPERPAVE (SP) ASPHALT AS SPECIFIED IN THE 2010 FDOT STANDARD SPECIFICATION :

1. THE CONTRACTOR SHALL PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 334-2 & 334-3 (2010). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 334-5. (2010) HOWEVER, THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
3. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL, DENSITY, AND THICKNESS TESTING IN ACCORDANCE WITH SECTIONS 334-3, 334-4, 334-5, AND 334-5.2.3 (2010).
4. ASPHALT TESTING RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES, AS NOTED IN TABLE 334-5, NOTE 2, OF SECTION 334-5 (2010) WILL NOT BE ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.
5. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2010).
6. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH 330-12 (2010).

## FOR FRICTION COURSE FC-5 AS SPECIFIED IN THE 2010 FDOT STANDARD SPECIFICATION :

1. THE CONTRACTOR SHALL PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 337-4 (2010). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 337-5 & 337-6 (2010). THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
3. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2010).
4. QUALITY CONTROL CORE BORINGS SHALL BE OBTAINED FOR THICKNESS TESTING USING SECTION 334-5.2.3 (2010).
5. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH SECTION 330-12 (2010).

## FOR SUPERPAVE FRICTION COURSES FC-9.5 & FC-12.5 AS SPECIFIED IN THE 2010 FDOT STANDARD SPECIFICATIONS:

1. THE CONTRACTOR SHALL PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 337-4 (2010). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 337-5 & 337-6 (2010). THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT, AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
3. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL, DENSITY, AND THICKNESS TESTING IN ACCORDANCE WITH SECTIONS 337-1, 337-3, 337-4, 337-6, 337-8, AND 334-5.2.3 (2010).
4. ASPHALT TESTING RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES, AS NOTED IN TABLE 334-5, NOTE 2, OF SECTION 334-5 (2010) WILL NOT BE ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.
5. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2010).
6. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH 330-12 (2010).

## CONCRETE BOX CULVERT NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH FDOT DESIGN STANDARDS (LATEST EDITION), FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND BREVARD COUNTY STANDARDS.
2. PRIOR TO START OF CONSTRUCTION, THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING STRUCTURAL ENGINEERING DRAWINGS (SIGNED & SEALED BY A PROFESSIONAL ENGINEER LICENSED & REGISTERED IN THE STATE OF FLORIDA) FOR ALL COMPONENTS OF THE CONCRETE BOX CULVERTS, INCLUDING WINGWALLS, TOE SLAB & CUTOFF WALLS, AND HEADWALLS. THE DRAWINGS SHALL INCLUDE QUANTITIES TABULATIONS FOR CLASS IV CONCRETE (CUBIC YARDS), AND REINFORCING STEEL (POUNDS). THE DESIGN MUST BE BASED ON FDOT'S LOAD & RESISTANCE FACTOR DESIGN (LRFD) PROGRAM. SEPARATE DRAWINGS ARE REQUIRED FOR ALL WINGWALLS, TOE SLABS & CUTOFF WALLS, AND HEADWALLS, WHICH MUST BE CAST-IN-PLACE PER FDOT SPECIFICATIONS.
3. ALL BOX CULVERT MATERIALS THAT ARE TO BE INSTALLED UNDER ROADWAYS AND/OR DRIVEWAYS ARE TO BE DELIVERED TO SITE (AND PASS INITIAL INSPECTIONS) PRIOR TO START OF DEMOLITION OF EXISTING SYSTEM.
4. CONCRETE (PRECAST OR CAST-IN-PLACE) REQUIREMENTS: CLASS IV (5500 PSI).
5. REINFORCING STEEL REQUIREMENTS: ASTM A615 GRADE 60 DEFORMED BAR UNLESS OTHERWISE NOTED, WITH A MINIMUM CLEARANCE OF 3" (THREE INCHES), UNLESS OTHERWISE SHOWN. EQUAL AREA SUBSTITUTION OF WELDED WIRE (WWW) REINFORCEMENT IS PERMITTED.
6. REFER TO FDOT INDEX 292 FOR PRECAST CONCRETE BOX CULVERT SLAB & WALL THICKNESSES, REINFORCEMENT AREAS, GENERAL NOTES (SHEET 2 OF 14), AND WELDED WIRE REINFORCEMENT BENDING DIAGRAMS (SHEET 14 OF 14).
7. REFER TO FDOT INDEX 289 FOR CONCRETE BOX CULVERT DETAILS RELATED TO LRFD.
8. REFER TO FDOT INDEX 291 FOR SUPPLEMENTAL DETAILS FOR PRECAST CONCRETE BOX CULVERTS.
9. IF REQUIRED, BY-PASS PUMPING AND/OR PIPING SHALL BE APPROVED BY BREVARD COUNTY PUBLIC WORKS PRIOR TO THE START OF CONSTRUCTION.

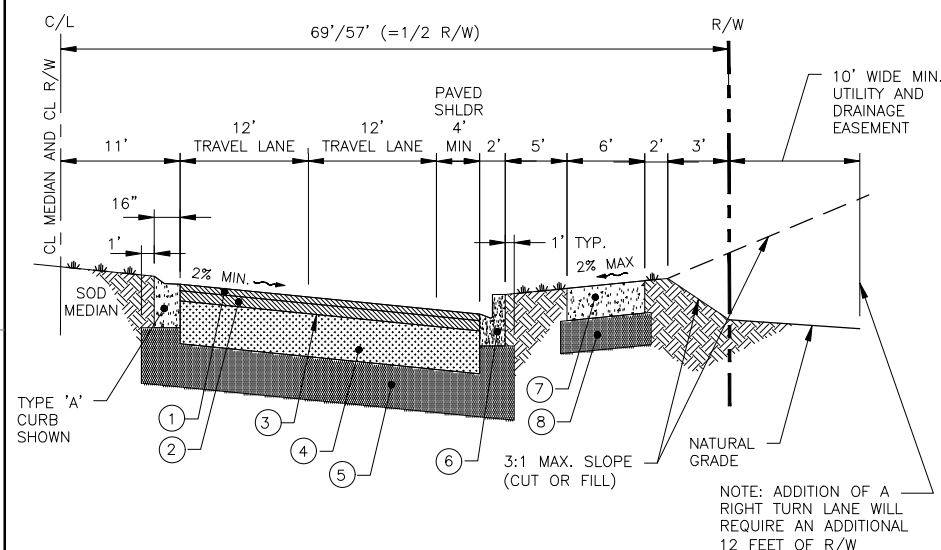
THESE NOTES APPLY ONLY TO WORK WITHIN BREVARD COUNTY RIGHT-OF-WAY AND OTHER AREAS COVERED BY THE BREVARD COUNTY RIGHT OF WAY PERMIT. IN CASE OF CONFLICT BETWEEN THESE NOTES AND OTHER PARTS OF THE CONTRACT DOCUMENTS, THESE NOTES SHALL GOVERN UNLESS APPROVED OTHERWISE BY THE OWNER AND BREVARD COUNTY.

PROJECT NAME: DWG DESIGNED/DRAWN BY: <b>JB</b>	DATE: <b>10-10-12</b>	REVISION: <b>1. FOR DISTRIBUTION</b>	BY: <b>JB</b>	PREPARED BY: <b>PUBLIC WORKS DEPARTMENT</b>	DATE: <b>OCTOBER 2012</b>	APPROVED BY: <b>RICHARD B. SZPYRKA, P.E.</b>	<b>BREVARD COUNTY PUBLIC WORKS ENGINEERING STANDARD DEVELOPMENT NOTES</b>	SHEET <b>1</b> OF <b>1</b>
CHECKED BY: <b>RBS</b>				 <b>Jones Edmunds</b> CERTIFICATE OF AUTHORIZATION #1841 2725 JUDGE FRANK JAMESON WAY, RM. 204, B.D.G. A, VIERA, FL 32940 PH. (321) 637-5437, FX. (321) 633-2083				
DESIGNED: <b>A GOODDEN</b>				<b>CRANE CREEK M-1 CANAL FLOW RESTORATION VOLUME 2</b>				
DRAWN: <b>J ALLEN</b>				<b>BREVARD COUNTY PUBLIC WORKS ENGINEERING'S STD DEVELOPMENT NOTES</b>				
CHECKED: <b>R KOLLER</b>				ANY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.				
DATE	REVISIONS	BY	APPRD.					

SAVED: 7/20/2022 6:59 AM JALLEN Y:\19750-066-01\_CRANE\_CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\GENERAL\19750066-VOL2-G07.DWG

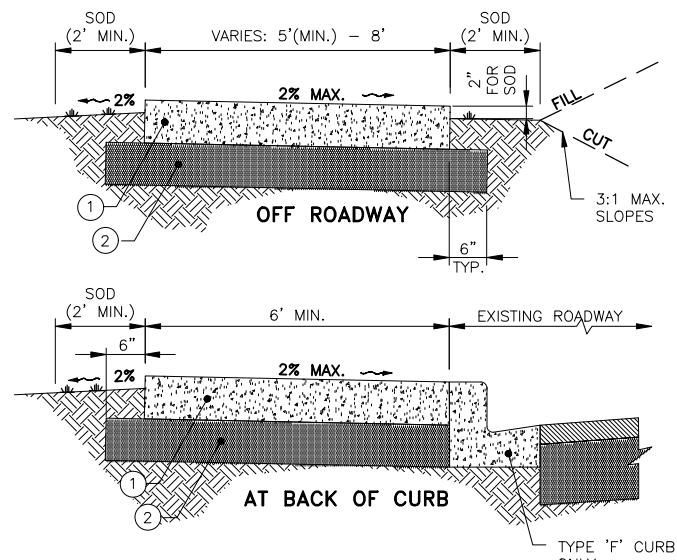
BID DOCUMENTS

Approved  
2022-08-26  
William Rickard  
8/2/2022



- ① FRICTION COURSE: 1-1/2" TYPE FC-12.5 OPEN GRADED FRICTION
- ② STRUCTURAL COURSE: 2" TYPE S-1 ASPHALTIC CONCRETE, OR SP-12.5 SUPERPAVE MIX, TESTED PER FDOT AND/OR BREVARD COUNTY STANDARD REQUIREMENTS
- ③ PRIME COAT: FDOT APPROVED PRIME COAT PER STANDARD SPECIFICATION SECTION 300
- ④ BASE COURSE: 10" LIMEROCK OR CEMENTED COQUINA, MIN. LBR OF 100, COMPACTED TO 98% DENSITY PER AASHTO T-180
- ⑤ SUBGRADE: 12" TYPE "B" STABILIZED TO A MIN. LBR OF 40, COMPACTED TO 98% DENSITY PER AASHTO T-180
- ⑥ CURB AND GUTTER: FDOT TYPE 'F' CURB AND GUTTER SHALL BE 3000 PSI MIN. AND CONSTRUCTED IN ACCORDANCE WITH FDOT INDEX 300
- ⑦ PEDWAY: 6" THICK FDOT CLASS 1, 3000 PSI FIBER REINFORCED CONCRETE WITH LIGHT BROOM FINISH. CROSS SLOPE SHALL BE BETWEEN 1.0% MIN. AND 2.0% MAX.
- ⑧ PEDWAY SUBGRADE: 6" TYPE "B" STABILIZED TO A MIN. LBR OF 40, COMPACTED TO 98% DENSITY PER AASHTO T-180

**ARTERIAL (MAJOR AND MINOR) URBAN - HALF CROSS SECTION**



- ① CONCRETE: 6", 3000 PSI FIBER REINFORCED. LIGHT BROOM FINISH, CURED WITH A WHITE CURING COMPOUND AS PER FDOT STANDARD SPECIFICATION SECTION 925-2.1.
- ② SUBGRADE: 6", COMPACTED TO A MINIMUM OF 98% MAX. DENSITY - AASHTO T-180

**PEDWAY CONSTRUCTION REQUIREMENTS**

1. PEDESTRIAN WAY SHALL BE CONSTRUCTED OF FDOT CLASS 1, 3000 PSI FIBER REINFORCED CONCRETE. NO UNDER TOLERANCE WILL BE ACCEPTED. IF 28 DAY BREAKS FALL BELOW STRENGTH, CONTRACTOR SHALL REMOVE AND RECONSTRUCT PEDWAY.
2. SIDEWALKS CONSTRUCTED ACROSS DRIVEWAYS SHALL MEET THE REQUIREMENTS OF FDOT DESIGN STANDARDS, LATEST EDITION, INDEX 515 "TURNOUTS".
3. SIDEWALK SLOPES AND RAMPS SHALL MEET ADA REQUIREMENTS AND THOSE OF FDOT INDEX 304.
4. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SODDED TO MATCH PREVIOUS CONDITION OR BETTER, BY CONTRACTOR.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF ANY ITEMS DAMAGED DURING CONSTRUCTION PROCESS, TO ORIGINAL CONDITION OR BETTER.
6. CONTRACTION JOINTS SHALL BE SAW CUT 1 1/2" DEEP (MIN.) ON 5-FOOT CENTERS; EXPANSION JOINTS SHALL BE AT MAX. 50-FOOT CENTERS, AT THE PC AND PT OF CURVES, JUNCTIONS WITH EXISTING AND NEW SIDEWALKS, AND WHERE NEW SIDEWALKS ABUT CURBS, DRIVEWAYS, AND SIMILAR STRUCTURES.
7. AN EIGHT (8) FOOT WIDE PEDWAY MAY BE CONSTRUCTED ON ONE SIDE OF THE STREET, VERSUS CONSTRUCTING A 5' WIDE SIDEWALK ON BOTH SIDES, ONLY UPON APPROVAL FROM LAND DEVELOPMENT.

**PEDWAY CONSTRUCTION DETAILS**

**STREET NAME SIGN NOTES:**

1. SIGNS IN PUBLIC R.O.W. SHALL BE GREEN WITH 5/8" WHITE BORDER AND WHITE LETTERS AND NUMBERS.
2. SIGNS IN PRIVATE R.O.W. SHALL BE WHITE WITH 5/8" BLACK BORDER AND BLACK LETTERS AND NUMBERS.
3. STREET NAME BLADES SHALL BE RIVETED TOGETHER AT EACH CORNER WITH 3/16" SMALL FLANGE AVEV RIVETS. ATTACH BLADES TO POST WITH CHERRY-MATE ALUMINUM RIVETS, # BALM8BP34, OR 5/16" X 2-1/2" S.S. BOLTS, 1-1/4" X 5/16" S.S. FENDER WASHERS, W/ S.S. STOP HEX NUT HAVING NYLON INSERTS (LOCK NUTS).

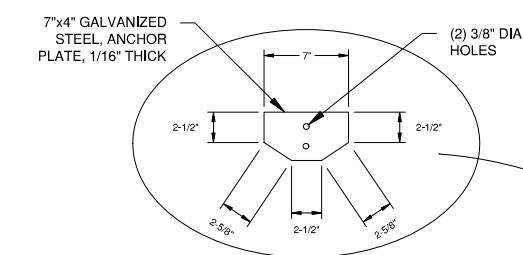
**STREET NAME SIGN LETTERING (MUTCD DESIGNATION D3-1):**

**CONVENTIONAL STREETS:**  
6" HIGH INITIAL UPPER CASE LETTERS, LOWER CASE LETTERS AT LEAST 4.5" HIGH. SIGN DIMENSIONS: 12" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

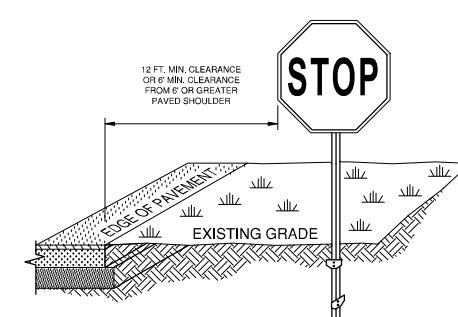
**LOCAL STREETS 25 MPH OR LESS:**  
4" HIGH INITIAL UPPER CASE LETTERS AND 3" HIGH LOWER CASE LETTERS MAY BE USED. SIGN DIMENSIONS: 9" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

**MULTI-LANE STREETS GREATER THAN 40 MPH:**  
8" HIGH INITIAL UPPER CASE LETTERS AND LOWER CASE LETTERS AT LEAST 6" HIGH. SIGN DIMENSIONS: 18" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

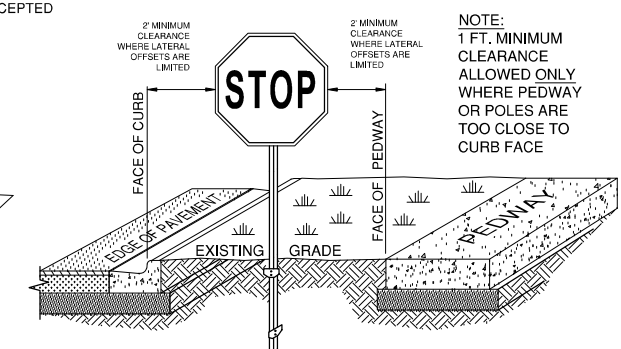
**"NO OUTLET" SIGN (MUTCD DESIGNATION W14-2A):**  
4" HIGH ALL-CAPITAL LETTERS, SIZE: 8" X 36" MIN. SEE MUTCD SECTION 2C.26



**ANCHOR PLATE**  
MIN. DIMENSIONS SHOWN. LARGER SIZE MAY BE ACCEPTED

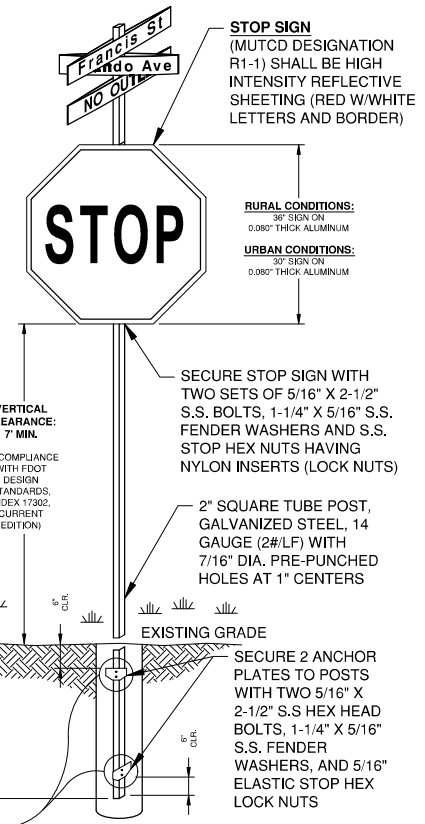


**HORIZONTAL CLEARANCE (WITHOUT CURB AND GUTTER)**



**HORIZONTAL CLEARANCE (WITH CURB AND GUTTER)**

**STOP SIGN AND STREET MARKER DETAILS (EXHIBIT - 26)**



Y:\19750-SJRWD\PROJECTS\066-01-CRANE CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\GENERAL\19750066-VOL2-C08.DWG  
 7/20/2022 11:35 AM PBOLLINGER

BID DOCUMENTS

DESIGNED	A GOODDEN			
DRAWN	J ALLEN			
CHECKED	R KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.

**JonesEdmunds**

CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK M-1 CANAL FLOW RESTORATION VOLUME 2**

**BREVARD COUNTY LAND DEVELOPMENT EXHIBITS**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT

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

PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
 INDEX NO: William Rickard  
 DWG NO: G8  
 8/2/2022

Approved

NOTE: IN ADDITION TO THE PROPOSED GRADING SHOWN, THE CONTRACTOR SHALL INCLUDE IN THEIR PRICE 50,000 SF OF SLOPE GRADING REPAIRS AT VARIOUS LOCATIONS IN THE STA AS DIRECTED BY THE DISTRICT. THE GRADING REPAIRS WILL INCLUDE WORK BELOW THE WATER LINE TO APPROXIMATE ELEVATION 11.5-FT NAVD 88, APPLYING STAKED SOD TO REPAIRED SIDE SLOPES, AND HYDROSEEDING TOPS OF BANKS AND ALL OTHER AREAS DISTURBED BY THE REPAIR WORK.

ZONING: P-1 INSTITUTIONAL

NW CORNER OF SW 1/4 OF SW 1/4 SECTION 34-27-36  
 FND 3"x3" CM "LB 7426" (0.91'N, 7.34'E)  
 FND 5/8" IR NO ID (1.84'N, 5.02'E)  
 FOUND 5/8" IR NO ID (0.41'N, 4.12'E)

NOTE: ADDITIONAL SURVEY INFORMATION IS INCLUDED IN THE PROFESSIONAL BOUNDARY SURVEY PERFORMED BY SOUTHEASTERN SURVEYING AND MAPPING CORP. PLAN DATED FEB. 17, 2022. THIS SURVEY IS ALSO PART OF THE BREVARD COUNTY DEED, CFN 2022013940 FOR THIS PROPERTY.

DEED AND FLOODPLAIN/STORMWATER TREATMENT AREA EASEMENT FOUND IN ORB 9388 PG 2361-2364.

**PROJECT INFORMATION:**

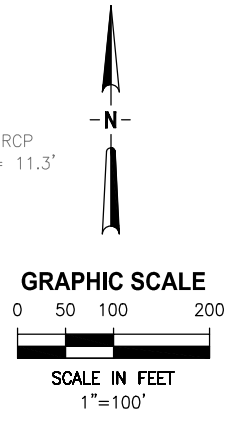
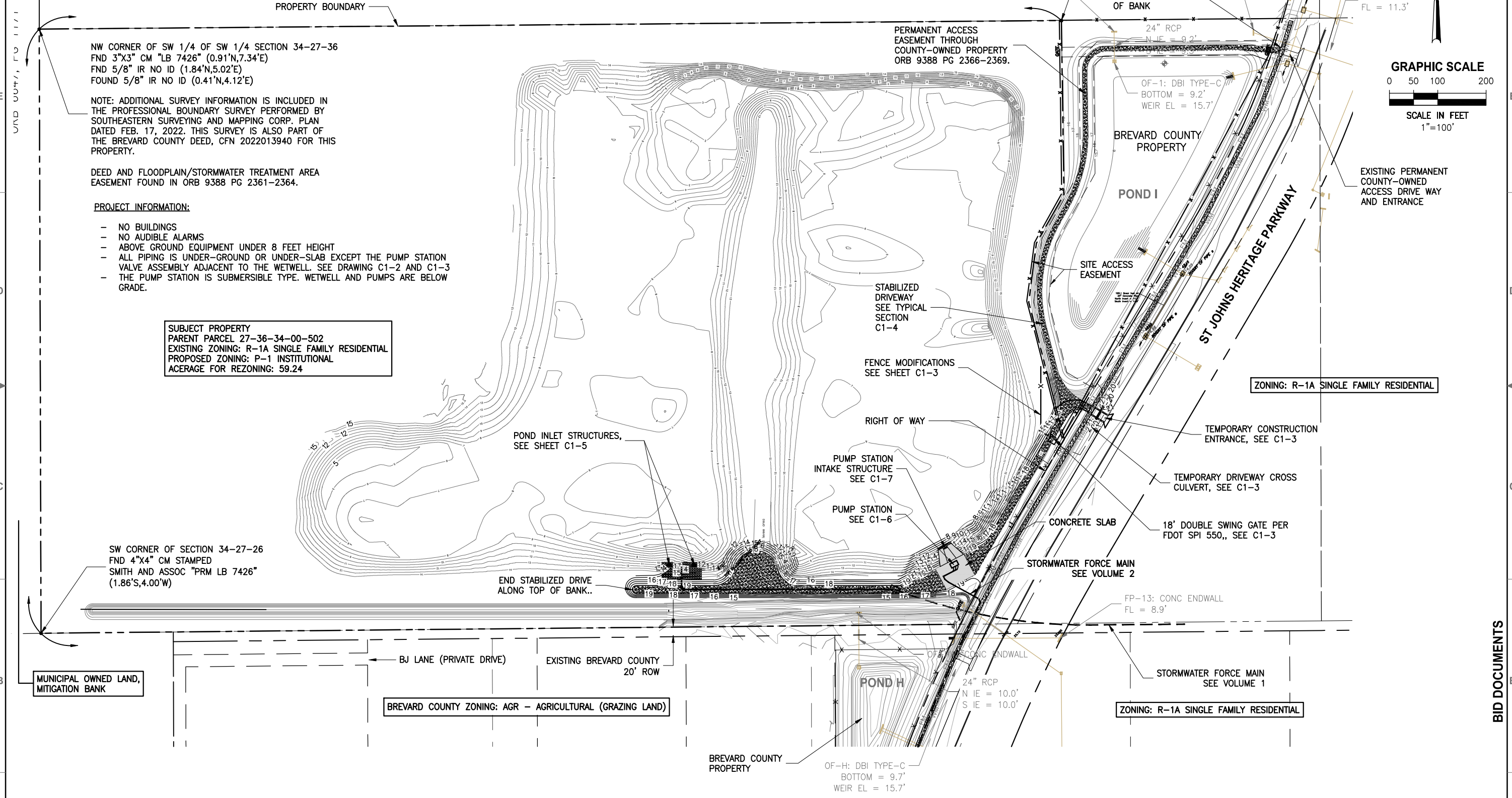
- NO BUILDINGS
- NO AUDIBLE ALARMS
- ABOVE GROUND EQUIPMENT UNDER 8 FEET HEIGHT
- ALL PIPING IS UNDER-GROUND OR UNDER-SLAB EXCEPT THE PUMP STATION VALVE ASSEMBLY ADJACENT TO THE WETWELL. SEE DRAWING C1-2 AND C1-3
- THE PUMP STATION IS SUBMERSIBLE TYPE. WETWELL AND PUMPS ARE BELOW GRADE.

SUBJECT PROPERTY  
 PARENT PARCEL 27-36-34-00-502  
 EXISTING ZONING: R-1A SINGLE FAMILY RESIDENTIAL  
 PROPOSED ZONING: P-1 INSTITUTIONAL  
 ACERAGE FOR REZONING: 59.24

SW CORNER OF SECTION 34-27-26  
 FND 4"x4" CM STAMPED  
 SMITH AND ASSOC "PRM LB 7426"  
 (1.86'S, 4.00'W)

MUNICIPAL OWNED LAND,  
 MITIGATION BANK

BREVARD COUNTY ZONING: AGR - AGRICULTURAL (GRAZING LAND)



Y:\19750-SJRWMD\PROJECTS\066-01-CRANE CREEK\_M-1\_FLOW RESTORATION DESIGN\CAD\VOLUME 2\DWG\CIVIL\19750066-VOL2-C1-01.DWG  
 7/13/2022 1:24 PM JALLEN

DESIGNED	A GOODDEN			
DRAWN	J ALLEN			
CHECKED	R KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	ADD ESMT INFO, MISC NOTES	JWA	RNK

**JonesEdmunds**  
 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

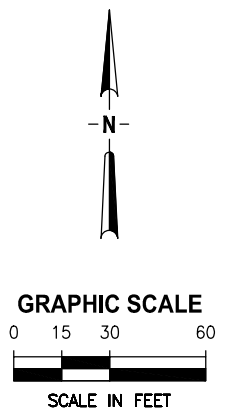
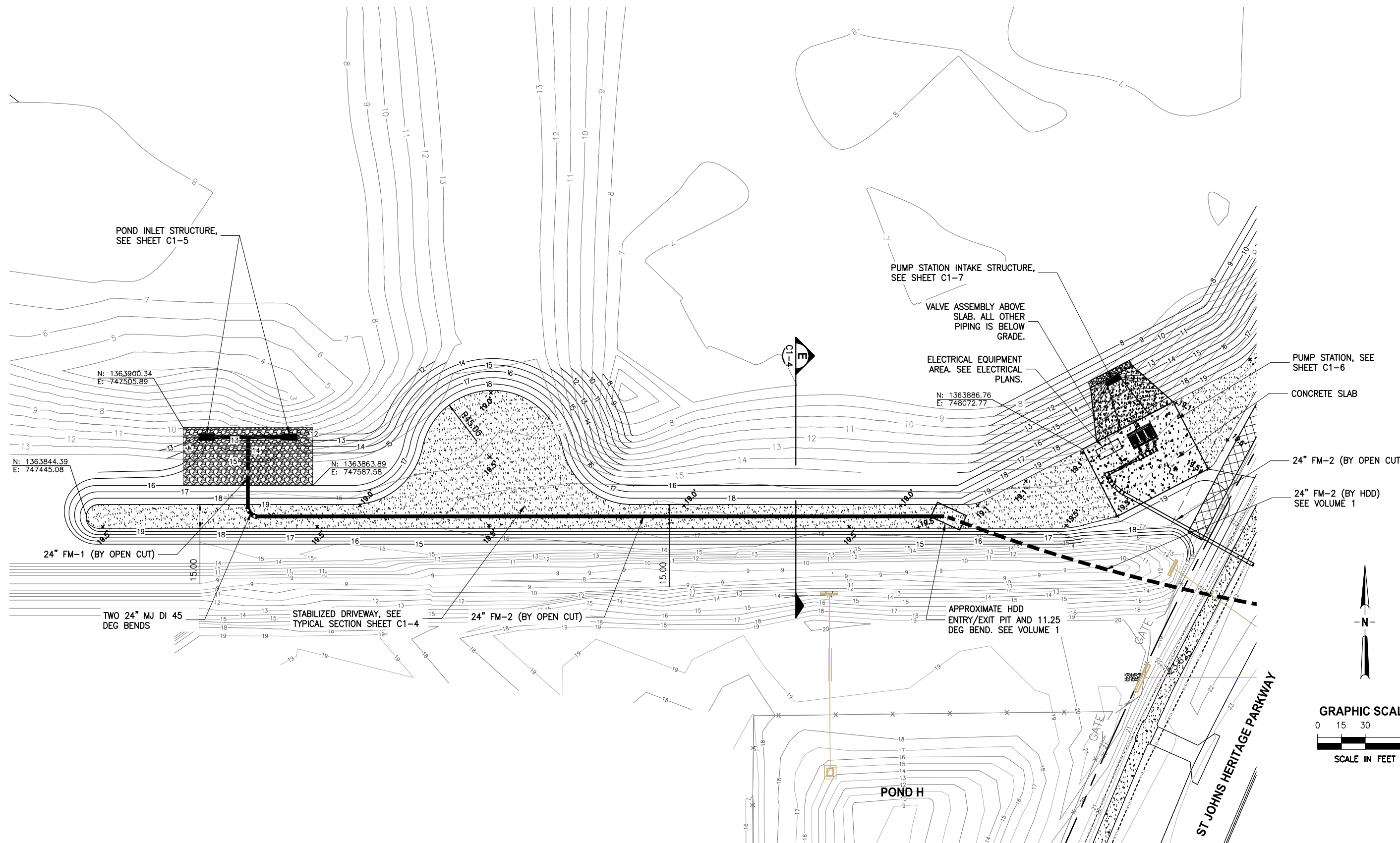
**STORMWATER TREATMENT AREA  
 OVERALL SITE PLAN**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097	PROJECT NO: 19750-066-01	DATE: JULY 2022
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT.	INDEX NO:	DWG NO: C1-1
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	8/2/2022	

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 7/20/2022 1:57 PM JALLEN



LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	MISC REVS PER CITY COMMENTS	JWA	RNK

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

**JonesEdmunds**  
 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

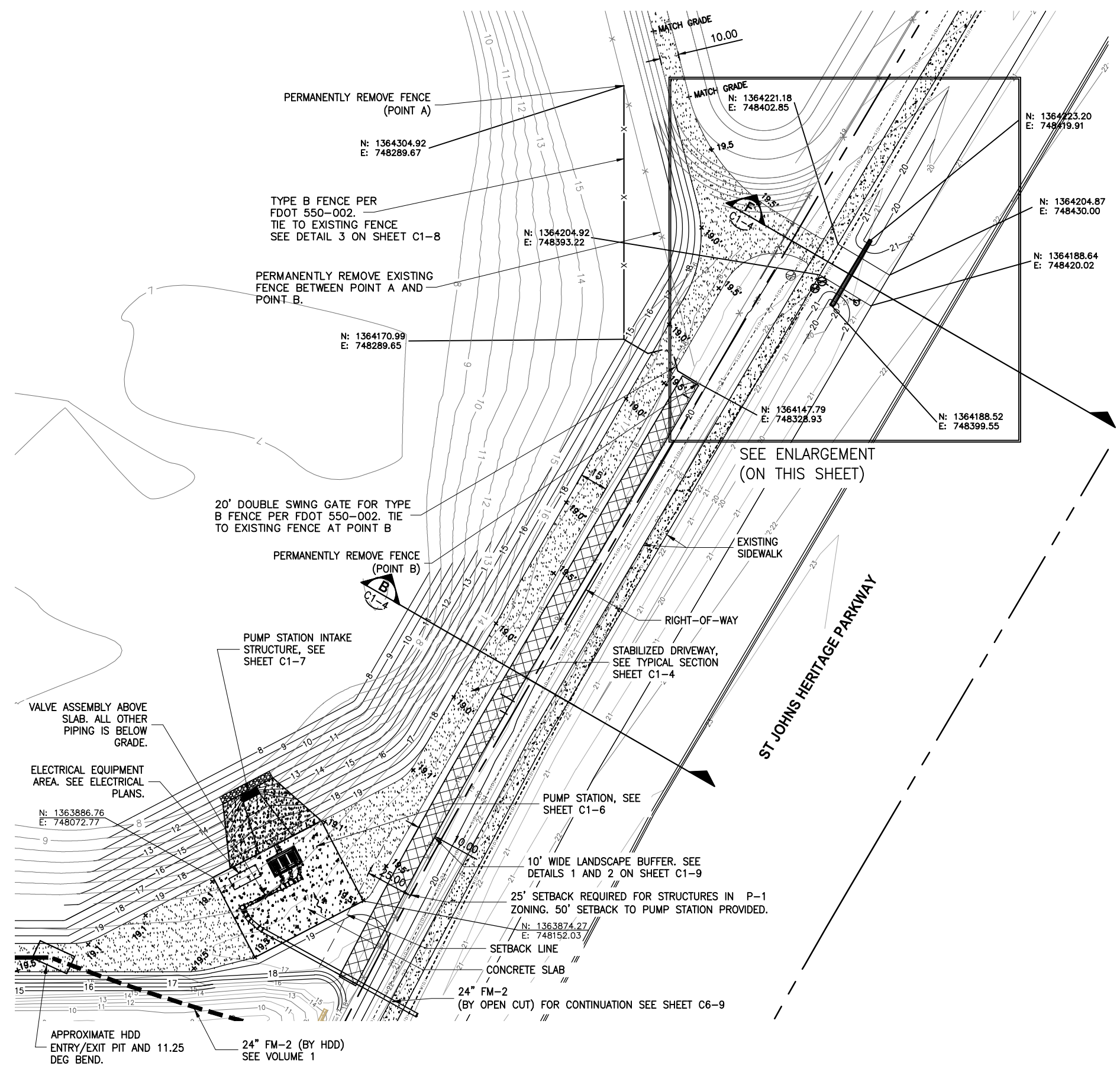
CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2

STORMWATER TREATMENT AREA  
 GRADING PLAN WEST

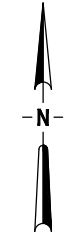
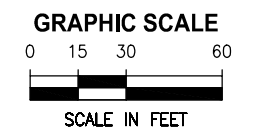
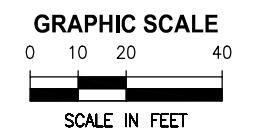
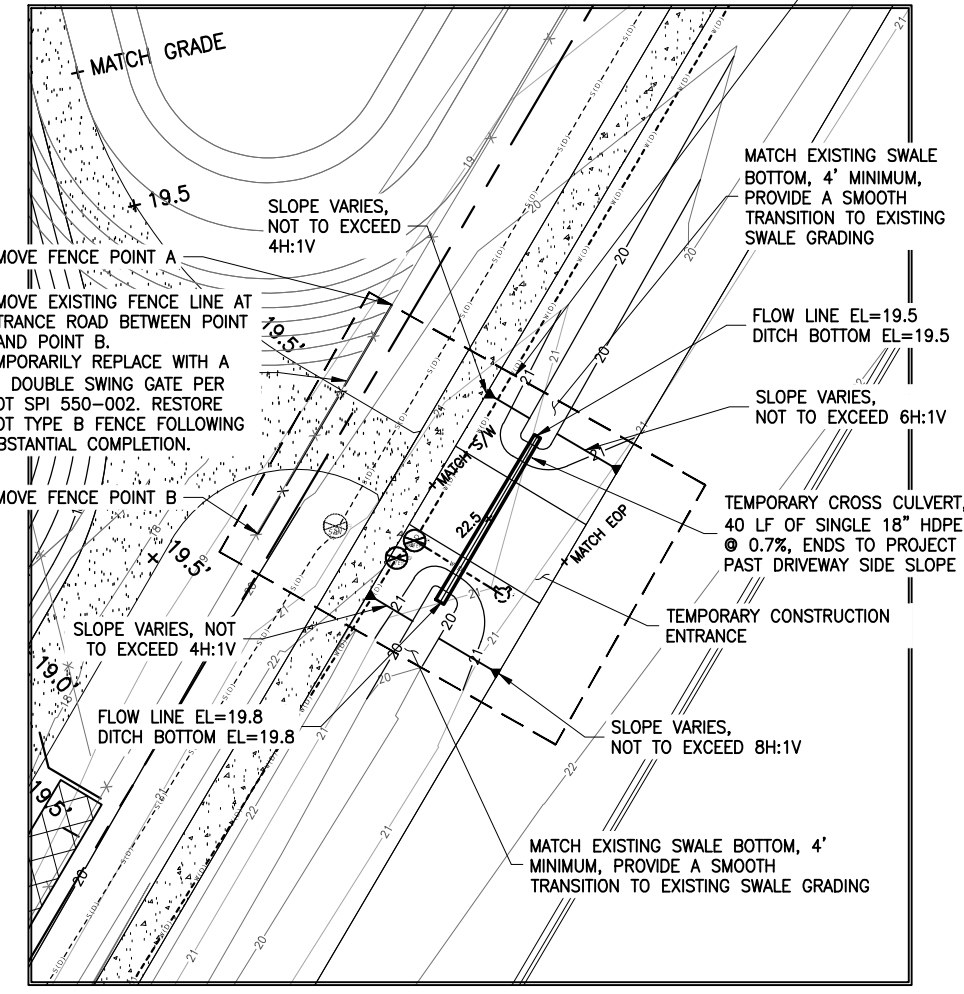
AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	PROJECT NO: 19750-066-01	DATE: JULY 2022
INDEX NO: William Richard	DWS NO: C1-2	DATE: 6/2/2022

BID DOCUMENTS

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LIMITS OF TEMPORARY IMPROVEMENTS, DEMOLISH OR REMOVE ALL EXISTING IMPROVEMENTS WITHIN LIMITS EXCEPT FOR SIDEWALK. AFTER SUBSTANTIAL COMPLETION OF PROJECT, RESTORE SWALE, ROADWAY AND SIDEWALK WITHIN THE ST JOHNS HERITAGE PARKWAY ROW TO ITS ORIGINAL CONDITION, SOD ALL DISTURBED AREA WITHIN THE ROW, ROADWAY RESTORATION SHALL BE IN ACCORDANCE WITH BREVARD COUNTY LAND DEVELOPMENT (B.C.L.D.) EXHIBIT 4, SEE SHEETS G9 AND G10



BID DOCUMENTS

LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	ADD LANDSCAPING AND MISC REVS	JWA	RNK

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

**JonesEdmunds**

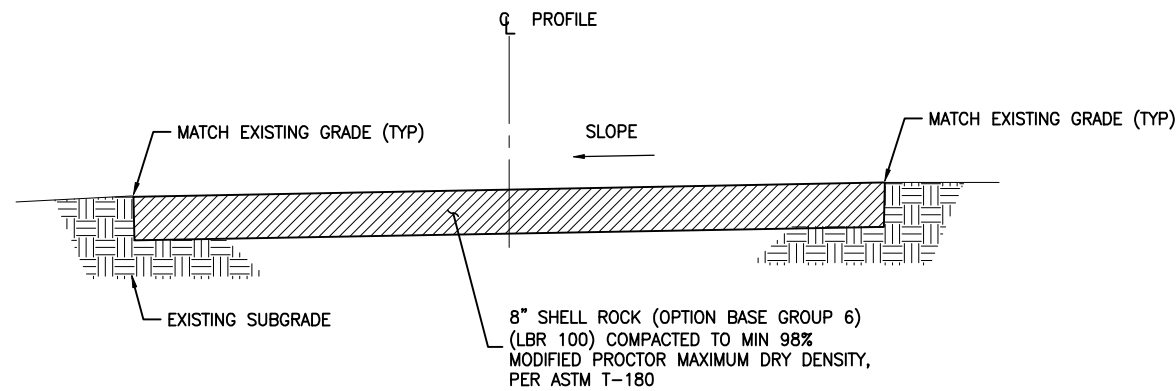
CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

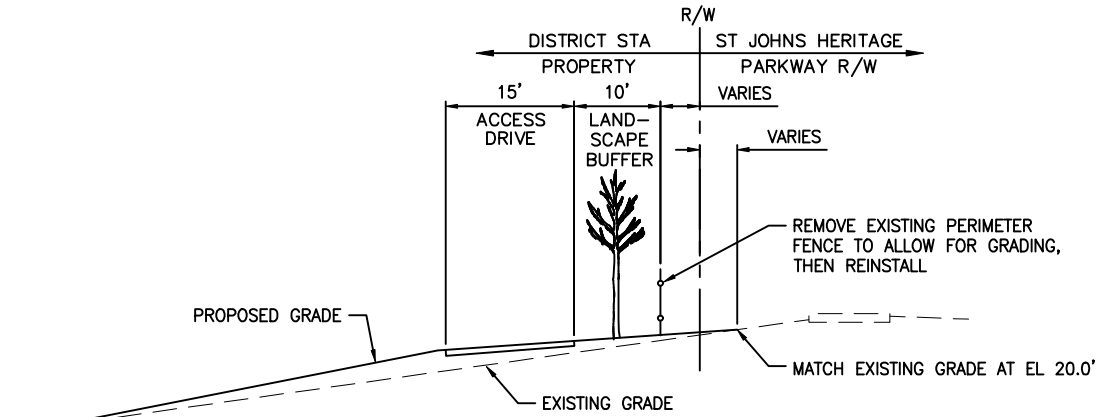
**STORMWATER TREATMENT AREA  
 GRADING PLAN EAST**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097	PROJECT NO: 19750-066-01	DATE: JULY 2022
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT	INDEX NO: C1-3	DWS NO: C1-3
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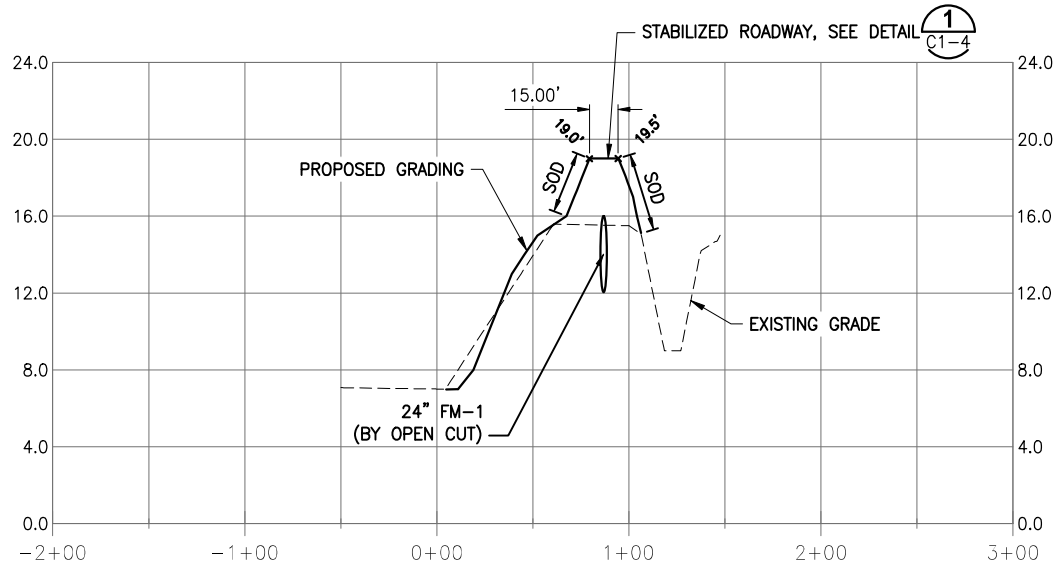
Approved  
 2022  
 William Richard  
 8/2/2022



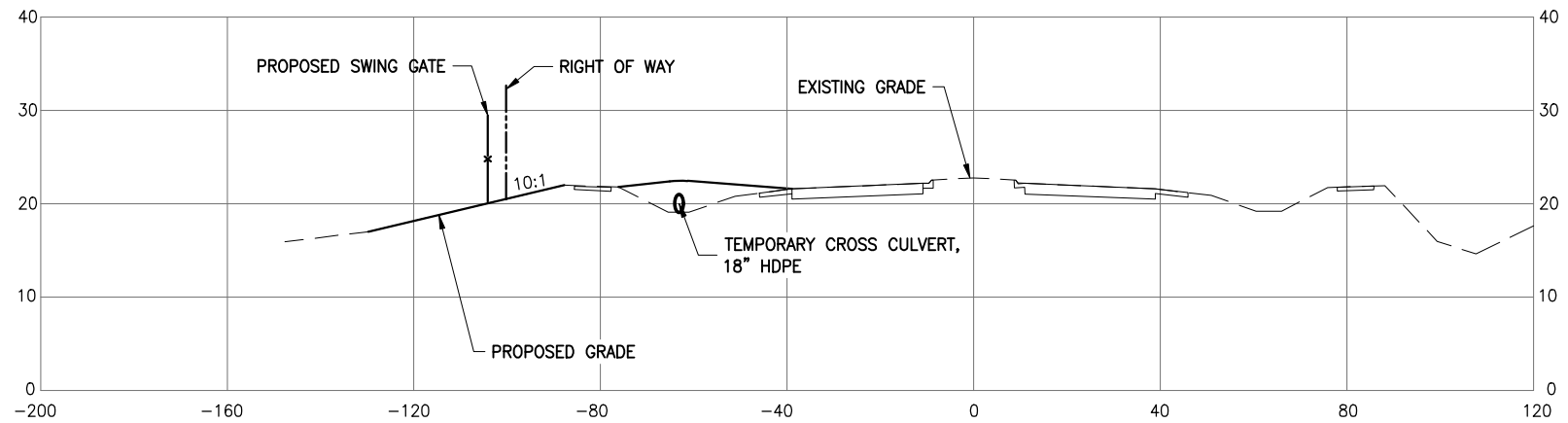
**TYPICAL STABILIZED DRIVEWAY SECTION 1**  
NTS C1-4



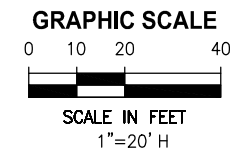
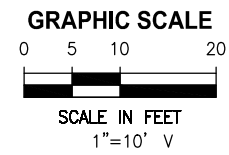
**TYPICAL EAST PERIMETER GRADING SECTION B**  
NTS C1-3



**SECTION E**  
1"=100' H  
1"=10' V C1-2



**SECTION F**  
1"=20' H  
1"=10' V C1-3



SAVED: 6/16/2022 8:43 AM JALLEN Y:\19750-SJRWMD\PROJECTS\066-01\_CRANE\_CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\CIVIL\19750066-VOL2-C1-04.DWG

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

DATE	6/14/22	REVISIONS	ADD PERIMETER SECTION	BY	JWA	RNK
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**JonesEdmunds**  
CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

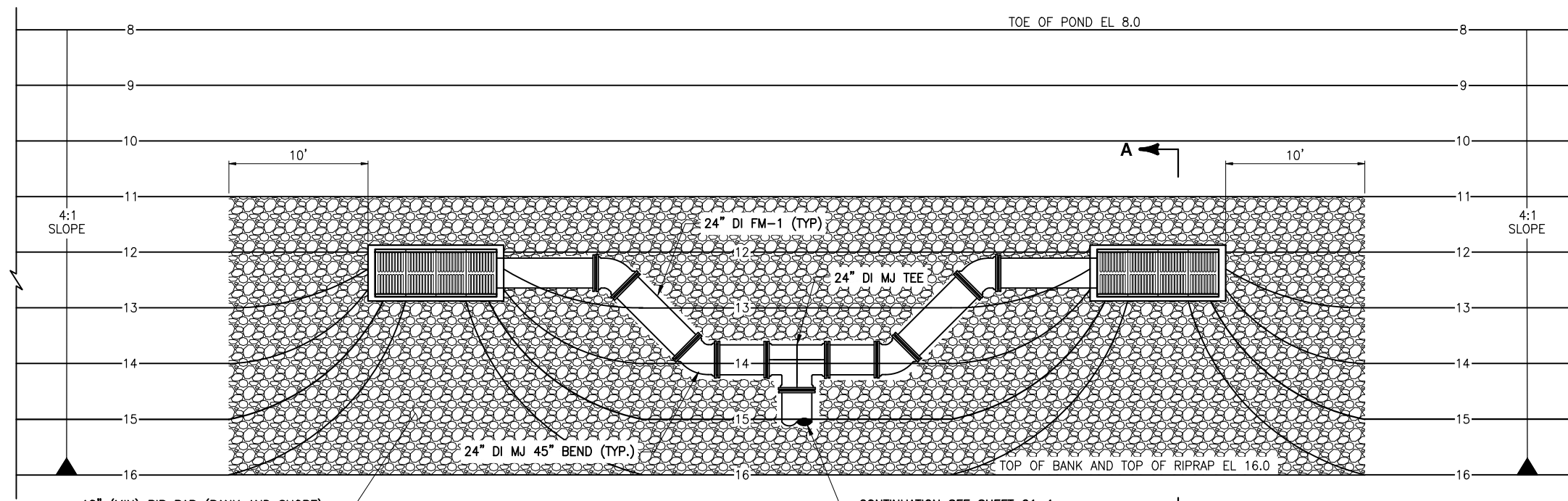
**STORMWATER TREATMENT AREA  
SECTIONS**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097  
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PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
 INDEX NO: William Richard  
 DWG NO: C1-4  
 8/2/2022

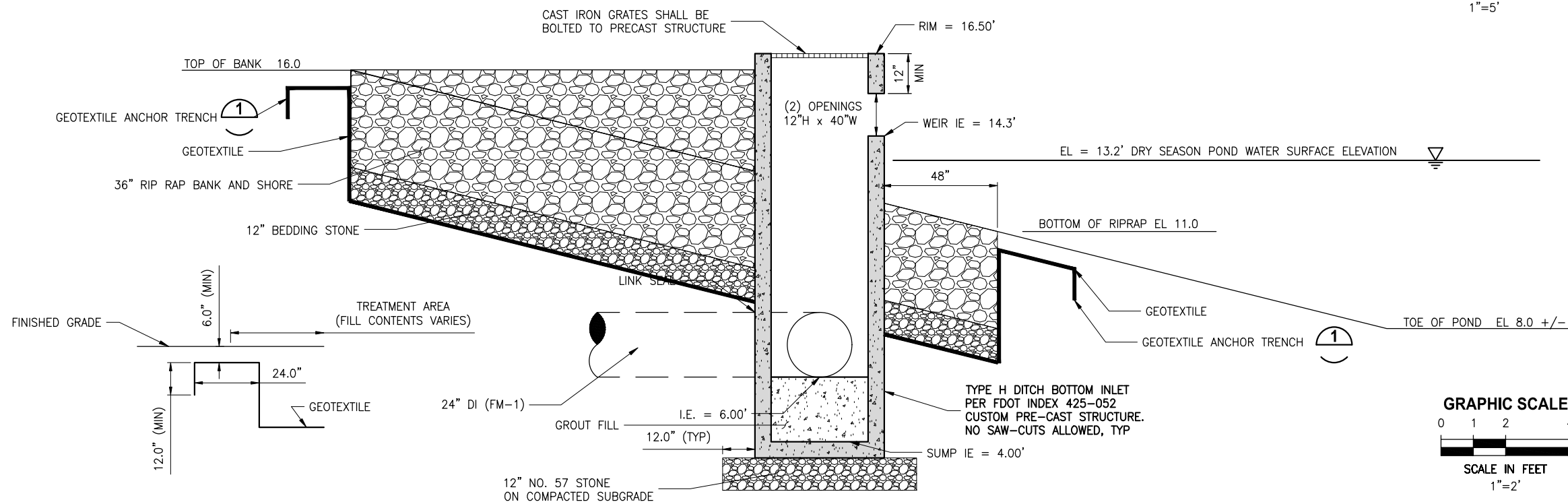
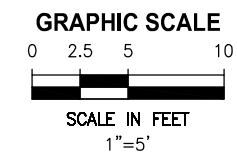
BID DOCUMENTS

Approved  
 2022-07-26  
 William Richard  
 8/2/2022



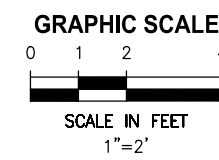
18" (MIN) RIP RAP (BANK AND SHORE)  
OVER 6" (MIN) BEDDING STONE PER  
FDOT SPECIFICATION 530 AND GEOTEXTILE  
TYPE D-2 PER FDOT SPECIFICATION 985

**PLAN VIEW**  
1"=5'



**ANCHOR TRENCH DETAIL**  
1"=2'

**SECTION A-A**  
1"=2'



Y:\19750-SJRMD\PROJECTS\066-01\_CRANE CREEK\_M-1\_FLOW RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\CIVIL\19750066-VOL2-C1-05.DWG  
 7/20/2022 8:22 AM JALLEN

BID DOCUMENTS

DESIGNED	A GOODDEN			
DRAWN	J ALLEN			
CHECKED	R KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.

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**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

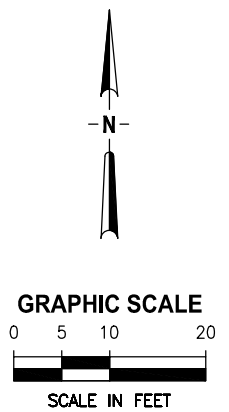
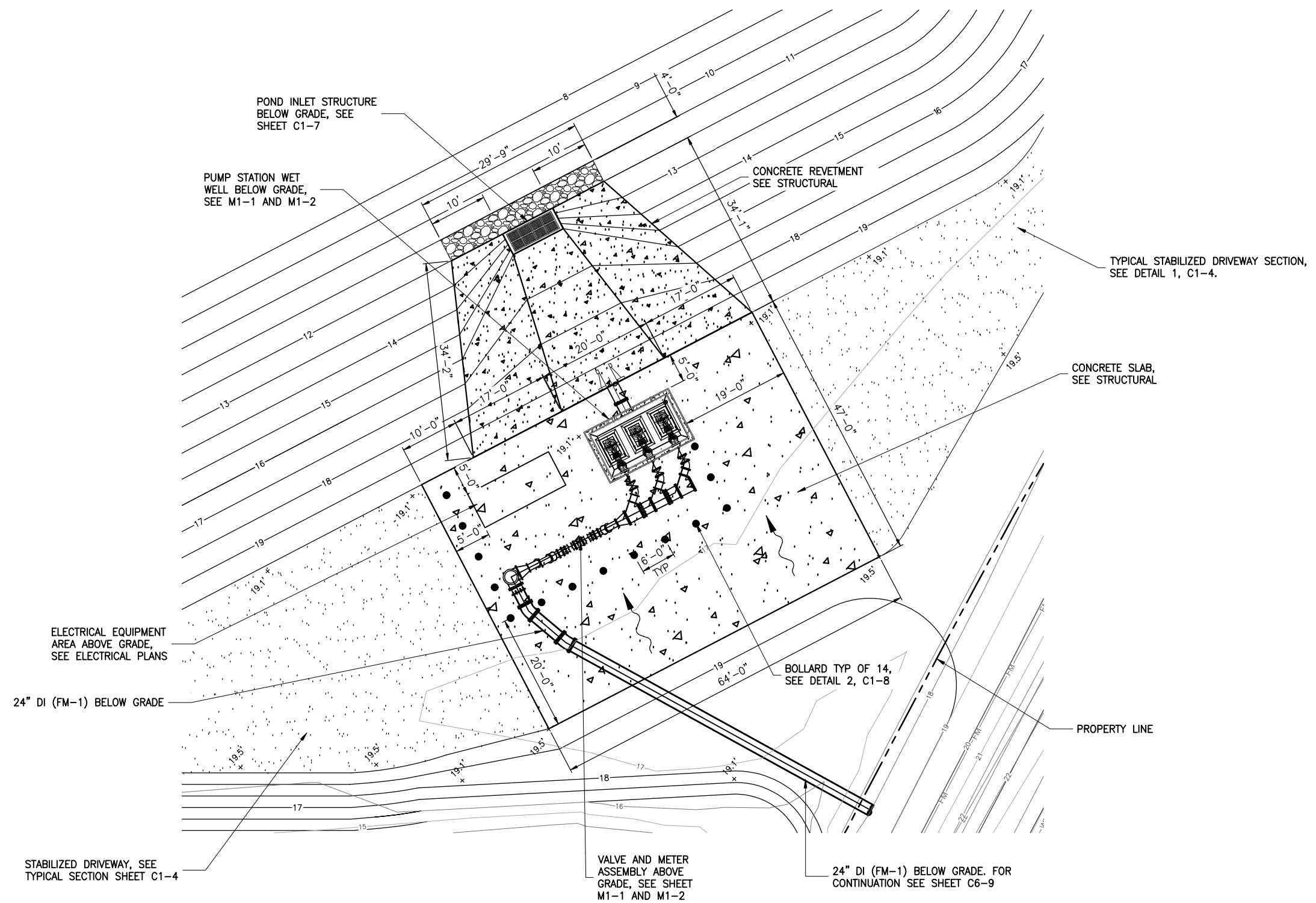
**STORMWATER TREATMENT AREA INLET  
DETAILS**

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 DATE: JULY 2022  
 INDEX NO: William Richard  
 DWG NO: C1-5  
 8/2/2022

Approved  
 2022  
 William Richard  
 8/2/2022

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 8:24 AM JALLEN  
 7/20/2022



LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	MISC LABELING REVISIONS	JWA	RNK

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DRAWN	J ALLEN
CHECKED	R KOLLER

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CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2

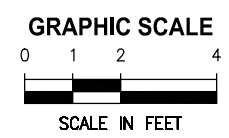
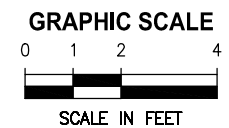
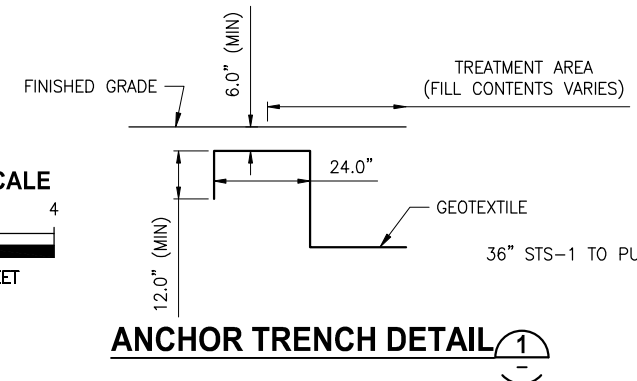
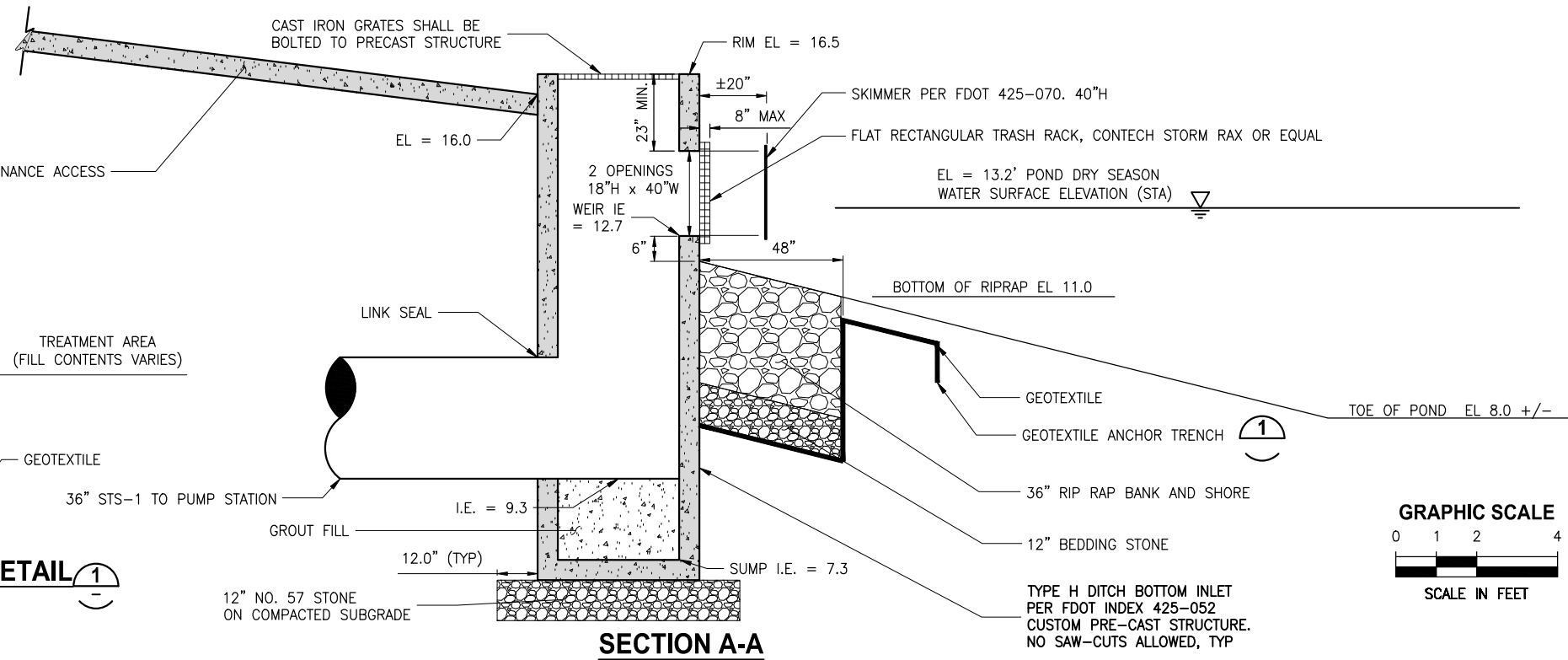
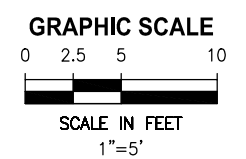
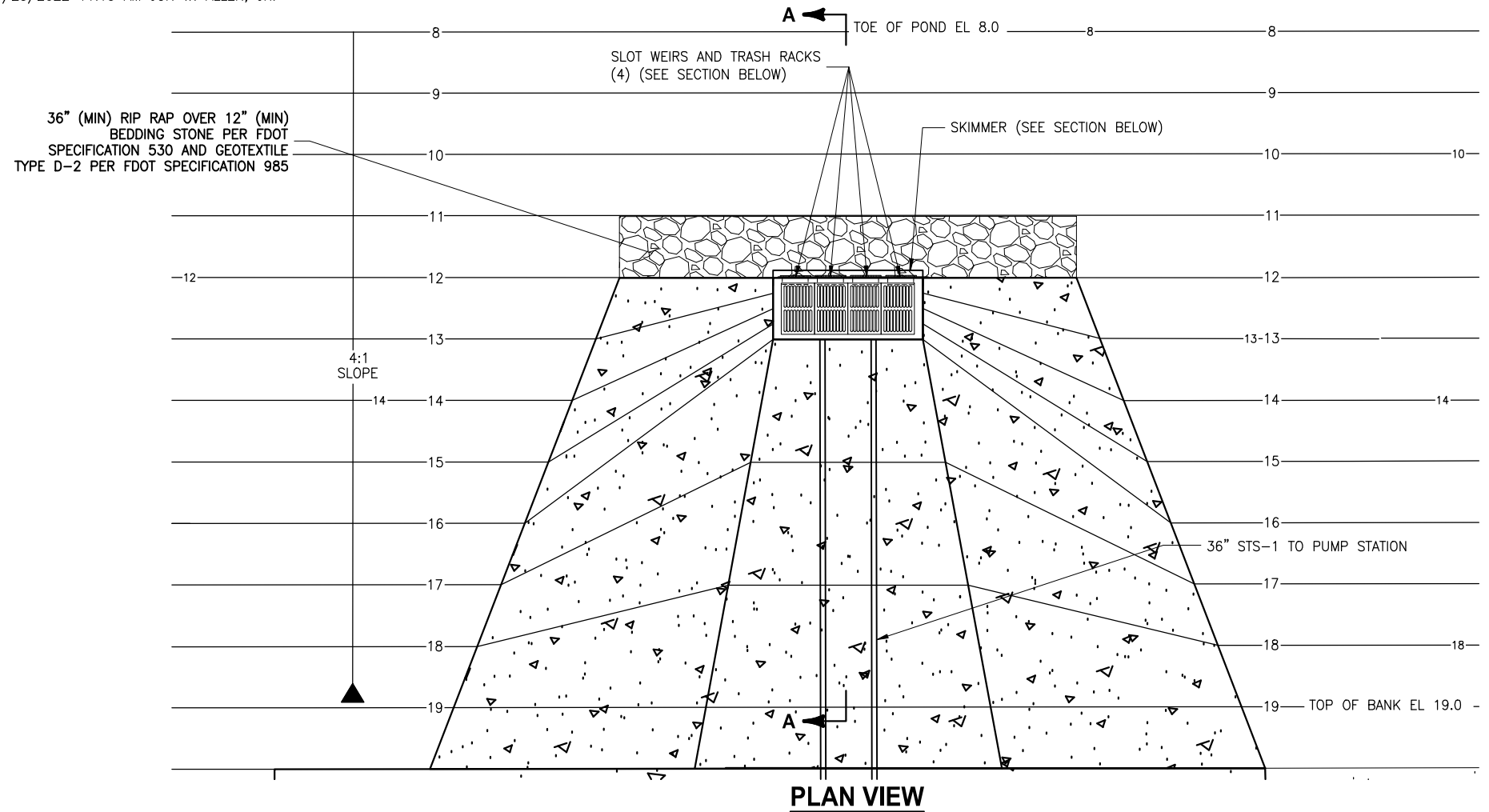
PUMP STATION SITE PLAN

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	INDEX NO: William Richard	DWG NO: C1-6

Approved  
 2022-07-26  
 William Richard  
 6/2/2022

BID DOCUMENTS

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 3:21 PM JALLEN



LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED D. SHELDON  
 DRAWN J. ALLEN  
 CHECKED R. KOLLER

**JonesEdmunds**  

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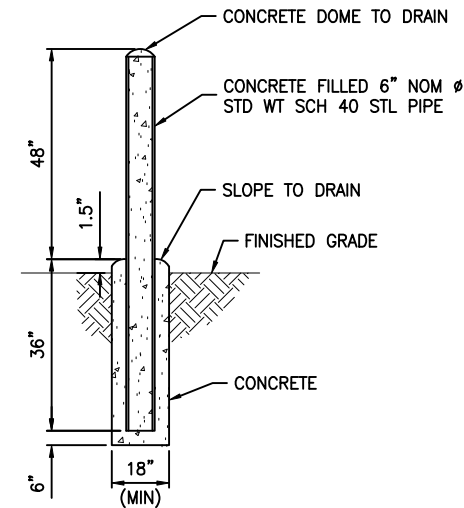
**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**PUMP STATION INTAKE PLAN AND  
 SECTION**

Approved  
 2022-07-26  
 William Richard  
 8/2/2022

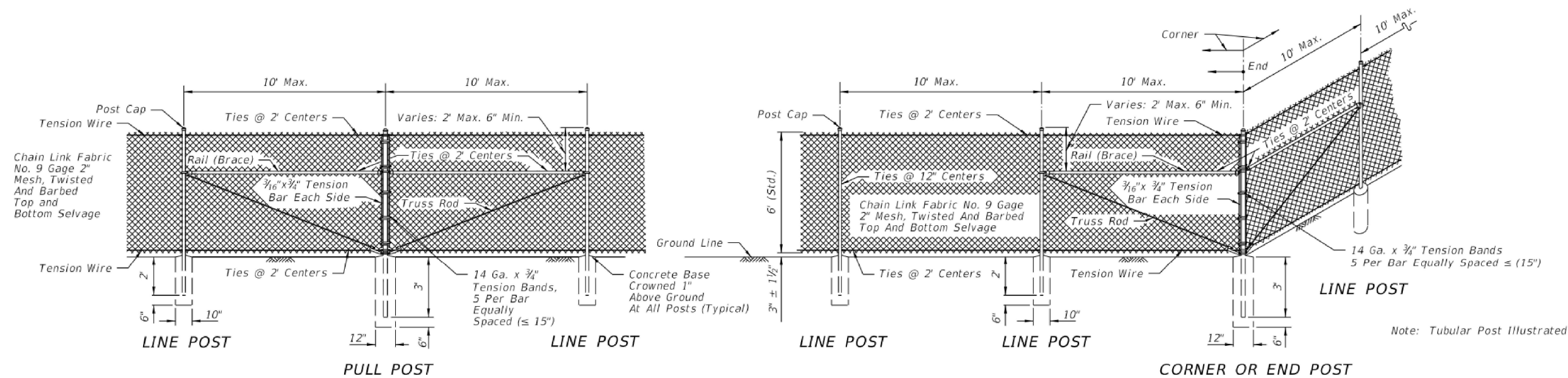
DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA, LICENSE NUMBER 90306	PROJECT NO: 19750-066-01	DATE: JULY 2022
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DONALD J. SHELDON, JR. ON THE DATE INDICATED.	INDEX NO.:	DWG NO.: C1-7
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BID DOCUMENTS



- NOTES:**
- A. ACTUAL INSTALLATION LOCATION OF EACH BOLLARD SHALL BE AS SHOWN ON THE DRAWINGS OR AS DIRECTED IN THE FIELD.
  - B. PAINT ALL PIPING MATERIALS OSHA SAFETY YELLOW.

**BOLLARD DETAIL 2**  
NTS (C1-6)



**FDOT TYPE B FENCING ILLUSTRATIVE DETAIL 3**  
REFER TO FDOT STANDARD INDEX 550-002 FOR COMPLETE REQUIREMENTS (C1-3, C1-6)

Y:\19750-SJRWMD\PROJECTS\066-01-CRANE CREEK\M-1\_FLOW RESTORATION DESIGN\CAD\VOLUME 2\DWGS\CIVIL\19750066-VOL2-C1-08.DWG  
 7/8/2022 2:59 PM PBOLLINGER

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DESIGNED	A GOODDEN			
DRAWN	J ALLEN			
CHECKED	R KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.
A	6/14/22	ADD FENCE DETAIL	JWA	RNK

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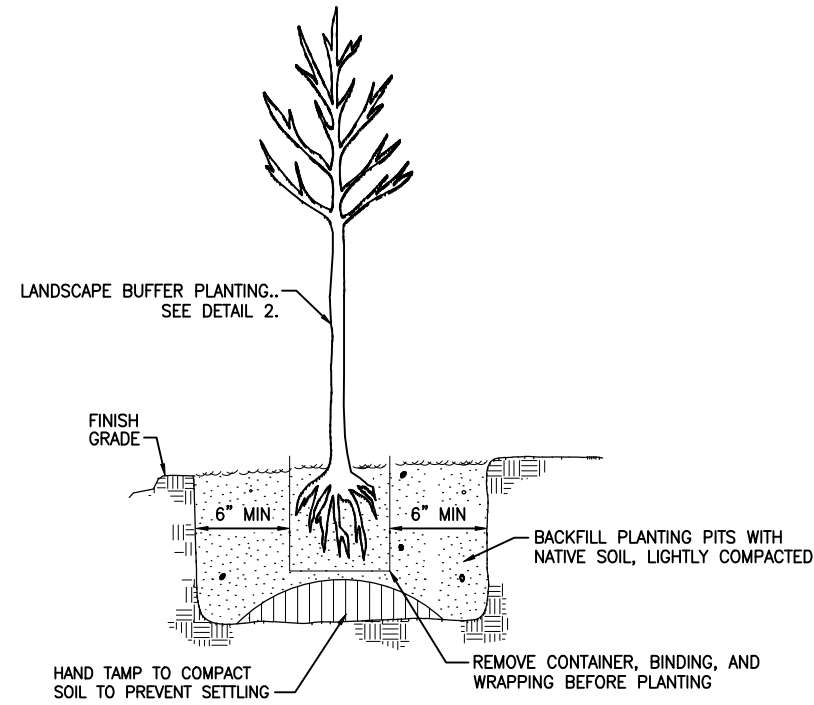
**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**CIVIL DETAILS**

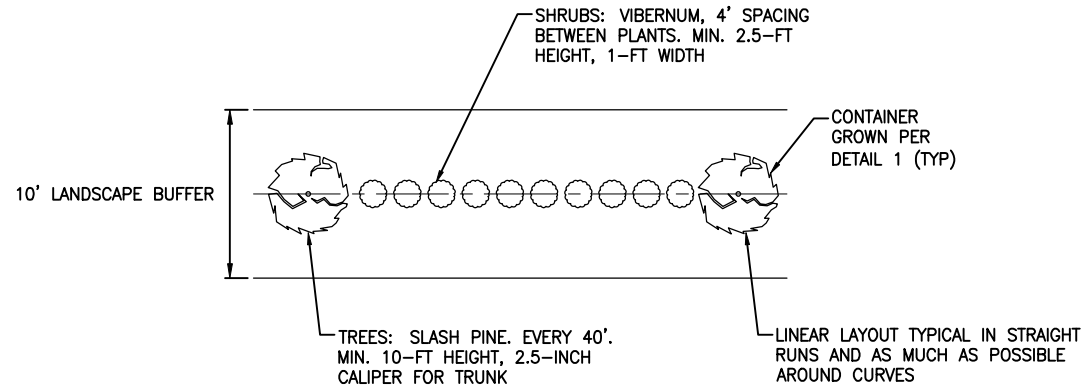
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 2022-07-26  
 William Richard  
 6/2/2022

PROJECT NO:	19750-066-01	DATE:	JULY 2022
INDEX NO:		DWG NO:	C1-8

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097  
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**TREES AND SHRUBS PLANTING DETAIL** 1  
NTS C1-3



- PLANTING PLAN NOTES:**
1. ALL PLANT MATERIAL SHALL BE CONTAINER GROWN FLORIDA #1 OR BETTER AS OUTLINED BY NURSERY PLANTS, DIVISION OF PLANT INDUSTRY, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
  2. PLANTING WILL NOT BE CONDUCTED UNTIL THE AS-BUILT SURVEY HAS BEEN REVIEWED AND ACCEPTED BY THE OWNER AND ENGINEER.

**LANDSCAPE BUFFER LAYOUT DETAIL** 2  
NTS C1-3

SAVED: 6/16/2022 4:17 PM JALLEN Y:\19750-SJRWMD\PROJECTS\066-01\_CRANE CREEK\_M-1\_FLOW RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\CIVIL\19750066-VOL2-C1-09.DWG

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A	6/14/22	ADD LANDSCAPE DETAIL	JWA	RNK

DESIGNED A GOODDEN  
DRAWN J ALLEN  
CHECKED R KOLLER

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**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

**CIVIL DETAILS**

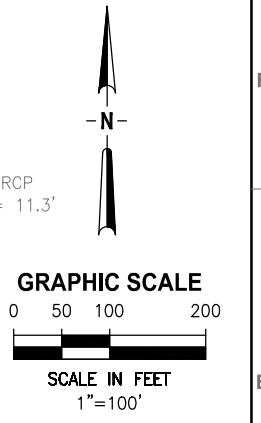
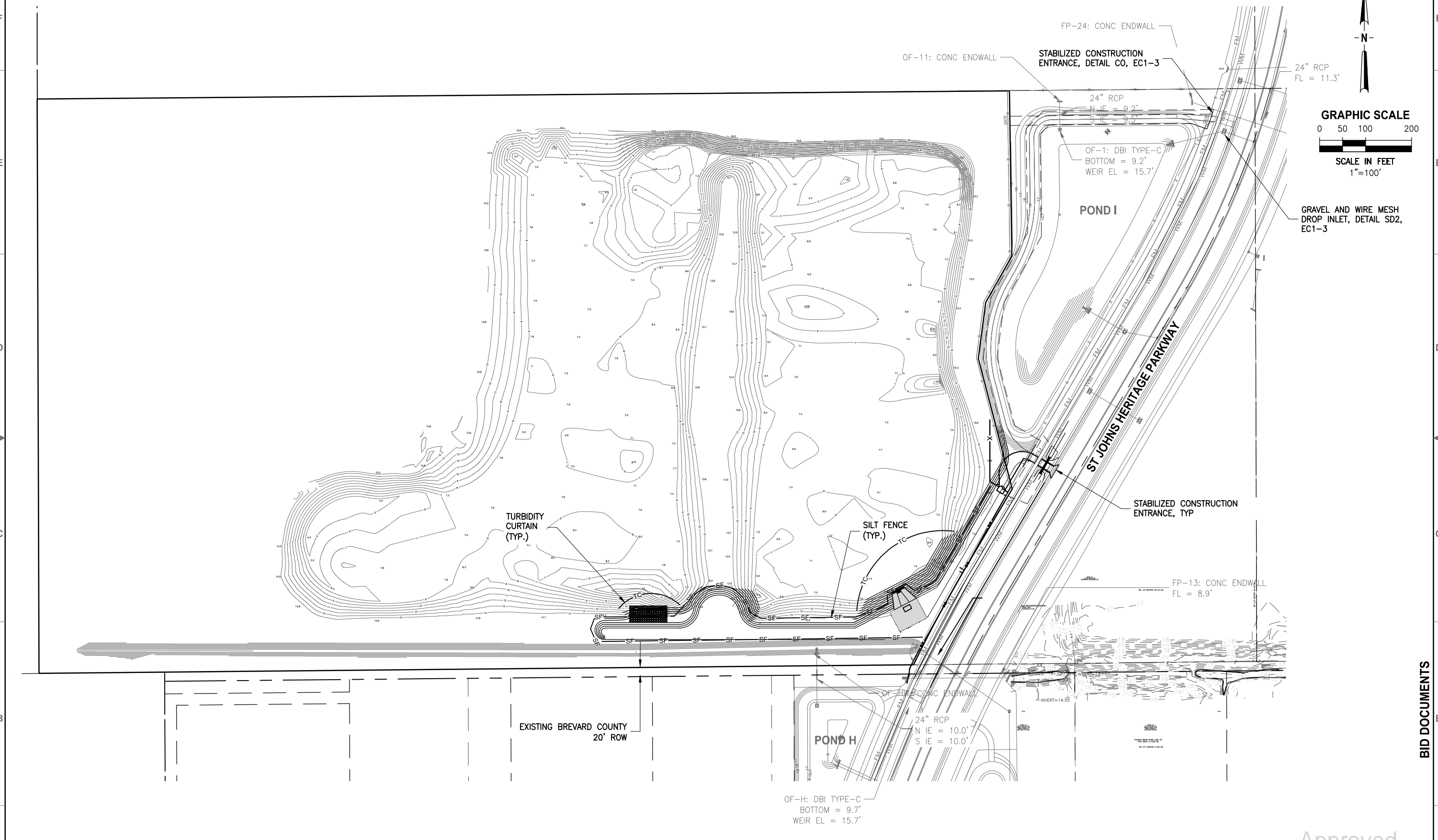
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PROJECT NO: 19750-066-01  
DATE: JULY 2022  
INDEX NO: William Richard  
DIVS NO: C1-9  
8/2/2022

Approved



Y:\19750-SURWMD\PROJECTS\066-01\_CRANE\_CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\EROSION CONTROL\19750066-VOL2-EC1-1.DWG  
 7/20/2022 10:03 AM JALLEN



LTR.	DATE	REVISIONS	BY	APPRD.

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DRAWN	J ALLEN
CHECKED	R KOLLER

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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**STORMWATER TREATMENT AREA  
 EROSION CONTROL PLAN**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097 THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	PROJECT NO: 19750-066-01	DATE: JULY 2022
INDEX NO: EC1-1	DWG NO: EC1-1	

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Approved  
 2022-07-26  
 William Richard  
 8/2/2022

CONTRACTOR REQUIREMENTS

Table with 4 main columns: SITE DESCRIPTION, GENERAL, SPILL PREVENTION, and MAINTENANCE/INSPECTION PROCEDURES. Includes sub-sections like SEQUENCE OF MAJOR ACTIVITIES, CONTROLS, STABILIZATION PRACTICES, and SPILL CONTROL PRACTICES.

SAVED: 7/20/2022 3:22 PM JALLEN Y:\19750-SJRWMD\PROJECTS\066-01-CRANE CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWG\EROSION CONTROL\19750066-VOL2-EC1-2.DWG

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Table with columns: LTR., DATE, REVISIONS, BY, APPRD., DESIGNED (A GOODDEN), DRAWN (J ALLEN), CHECKED (R KOLLER).

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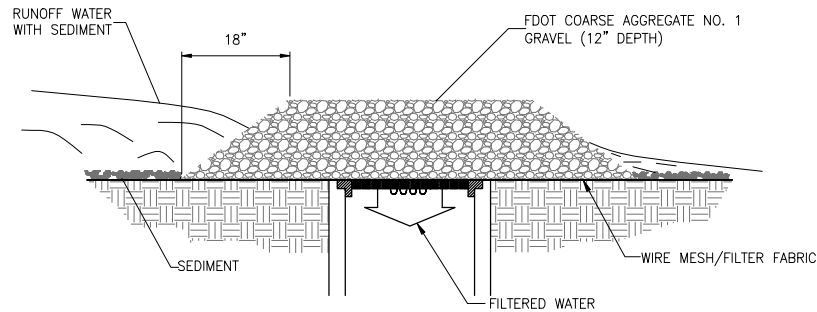
CRANE CREEK M-1 CANAL FLOW RESTORATION VOLUME 2

STORMWATER TREATMENT AREA EROSION CONTROL NOTES

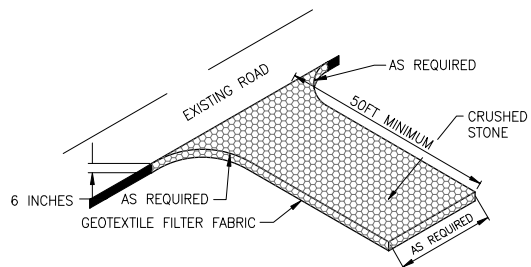
Approval stamp: Approved 7/25/2022, signed by William Richard, Project No. 19750-066-01, Date: JULY 2022.

**SEDIMENT AND EROSION CONTROL NOTES**

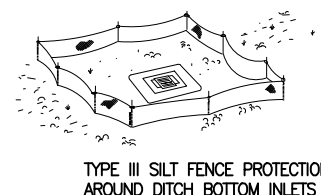
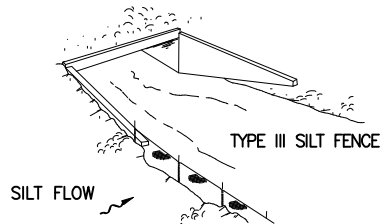
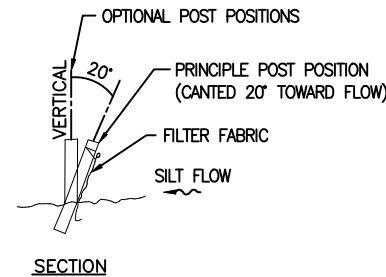
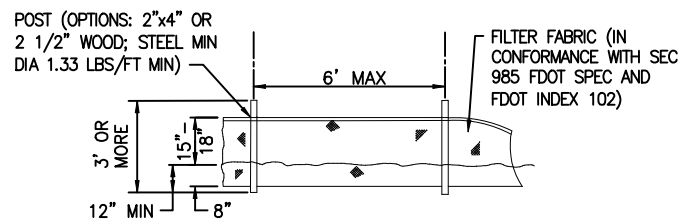
1. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
2. BEST MANAGEMENT PRACTICES IN ADDITION TO THE ONES SHOWN ON THE PLAN SHEETS MUST BE PROVIDED IN ORDER TO PREVENT SILT FROM LEAVING THE PROJECT SITE DUE TO UNSEEN CONDITIONS AND ACCIDENTS.
3. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
4. WIRE MESH SHALL BE LAID OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 12" BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 3/8" OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
5. FDOT NO.1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED ON SEDIMENT FILTER DETAIL (SEE DETAIL THIS SHEET). THE DEPTH OF STONE SHALL BE AT LEAST 12" OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18" ON ALL SIDES.
6. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
7. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 4". THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
8. NECESSARY REPAIRS TO BARRIERS SHALL BE ACCOMPLISHED PROMPTLY.
9. ANY SEDIMENT DEPOSITS REMAINING IN PLACE, AFTER THE FILTER BARRIERS, AND OR SILT FENCES ARE NO LONGER REQUIRED, SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
10. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR SHOULD BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED IMMEDIATELY.
11. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
12. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER DRAINAGE STRUCTURES AND SWALES AS WELL AS PROVIDE MEASURES TO PREVENT SILTATION OF STORMWATER TREATMENT SYSTEMS AND CONTROL STRUCTURES DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL MANAGE STORMWATER SUCH THAT IMPACT TO CONSTRUCTION IS MINIMIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK, INCLUDING PROVIDING EQUIPMENT, LABOR, FILL, ETC. NECESSARY TO REMEDIATE AND/OR RESTORE ALL AREAS IMPACTED BY EROSION, RUNOFF, AND STORMWATER.
13. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL" AVAILABLE AT [HTTP://WWW.FDOT.GOV/ROADWAY/DRAINAGE/FILES/EROSION-SEDIMENT-CONTROL.PDF](http://www.fdot.gov/roadway/drainage/files/erosion-sediment-control.pdf) AND "FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL" AVAILABLE AT [HTTPS://WWW.DEP.STATE.FL.US/WATER/NONPOINT/DOCS/EROSION/EROSION-INSPECTORS-MANUAL.PDF](https://www.dep.state.fl.us/water/nonpoint/docs/erosion/erosion-inspectors-manual.pdf).
14. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL DOWNSTREAM AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAILS (THIS SHEET) FOR TYPICAL CONSTRUCTION.
15. SOD SHALL BE PLACED IN AREAS WHICH REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITIES ARE MAINTAINED.
16. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL SHALL REMAIN IN PLACE UNTIL AFTER COMPLETION OF CONSTRUCTION, AND REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED.
17. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
18. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO THE OWNER FOR ALL FDEP INQUIRES, RELATIVE TO PERMIT COMPLIANCE, INCLUDING EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.
19. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS AND SPECIFICATIONS AND THE SJRWMD AND FDEP RULES AND REGULATIONS.



**GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER DETAIL** (Sd2)  
NTS



**STABILIZED CONSTRUCTION ENTRANCE** (Co)  
NTS



**TYPE III SILT FENCE**

- NOTES:**
- DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
  - WHEN JOINING BUTT ENDS OF SILT FENCE FABRIC; JOIN FABRIC ENDS, WRAP AROUND A POST 360-DEGREES, AND SET POST.

**TYPICAL SILT FENCE** (Sd1)  
NTS

**STORMWATER POLLUTION PREVENTION PLAN**  
INSPECTIONS MUST OCCUR AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM EVENT THAT IS 0.50 INCHES OR GREATER

INSPECTOR: \_\_\_\_\_ FDEP NPDES STORMWATER IDENTIFICATION NUMBER: \_\_\_\_\_

LOCATION	RAIN DATA	TYPE OF CONTROL (SEE BELOW)	DATE INSTALLED / MODIFIED	CURRENT CONDITION (SEE BELOW)	CORRECTIVE ACTION / OTHER REMARKS

CONDITION CODE:  
G = GOOD  
C = NEEDS TO BE CLEARED  
M = MARGINAL, NEEDS MAINTENANCE OR REPLACEMENT SOON  
P = POOR, NEEDS IMMEDIATE MAINTENANCE OR REPLACEMENT  
O = OTHER

CONTROL TYPE CODES

1. SILT FENCE	10. STORM DRAIN INLET PROTECTION	19. REINFORCED SOIL RETAINING SYSTEM	28. TREE PROTECTION
2. EARTH DIKES	11. VEGETATIVE BUFFER STRIP	20. GABION	29. DETENTION POND
3. STRUCTURAL DIVISION	12. VEGETATIVE PRESERVATION AREA	21. SEDIMENT BASIN	30. RETENTION POND
4. SWALE	13. RETENTION POND	22. TEMPORARY SEED / SOD	31. WASTE DISPOSAL / HOUSEKEEPING
5. SEDIMENT TRAP	14. CONSTRUCTION ENTRANCE STABILIZATION	23. PERMANENT SEED / SOD	32. DAM
6. CHECK DAM	15. PERIMETER DITCH	24. MULCH	33. SAND BAG
8. PIPE SLOPE DRAIN	16. CURB AND GUTTER	25. WATTLES	34. OTHER
9. LEVEL SPREADERS	17. PAVED ROAD SURFACE	26. GEOTEXTILE	
9. LEVEL SPREADERS	18. ROCK OUTLET PROTECTION	27. RIP-RAP	

INSPECTOR INFORMATION:  
NAME: \_\_\_\_\_ QUALIFICATION: \_\_\_\_\_ DATE: \_\_\_\_\_  
THE ABOVE SIGNATURE ALSO SHALL CERTIFY THAT THIS FACILITY IS IN COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN AND THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES IF THERE ARE NOT ANY INCIDENTS OF NON-COMPLIANCE IDENTIFIED ABOVE.

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

NAME (RESPONSIBLE AUTHORITY) \_\_\_\_\_ DATE \_\_\_\_\_

SAVED: 4/18/2022 6:16 PM AGOODDEN Y:\19750-SURWMD\PROJECTS\066-01\_CRANE\_CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\EROSION CONTROL\19750066-VOL2-EC1-3.DWG

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED A GOODDEN  
DRAWN J ALLEN  
CHECKED R KOLLER

**JonesEdmunds**  
CERTIFICATE OF AUTHORIZATION #1841  
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

**DETAILS**

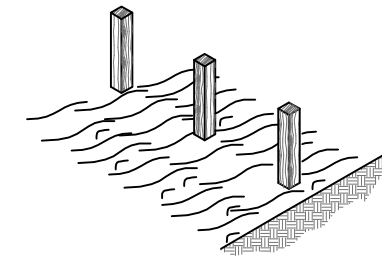
AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097  
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT  
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PROJECT NO: 19750-066-01  
DATE: JULY 2022  
INDEX NO: \_\_\_\_\_  
DWS NO: EC1-3

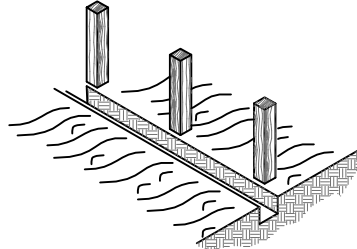
Approved  
2022  
William Richard  
8/2/2022

BID DOCUMENTS

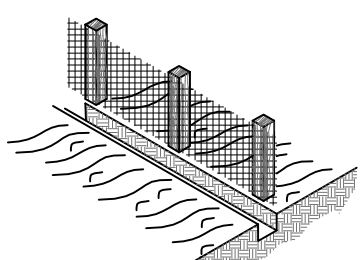
A. SET THE STAKES.



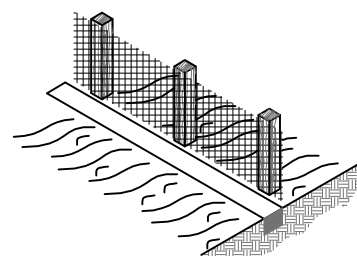
B. EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.



C. STAPLE SILT FENCE TO STAKES AND EXTEND IT INTO THE TRENCH.



D. BACKFILL AND COMPACT THE EXCAVATED SOIL.



**CONSTRUCTION OF A SILT FENCE DETAIL 1**

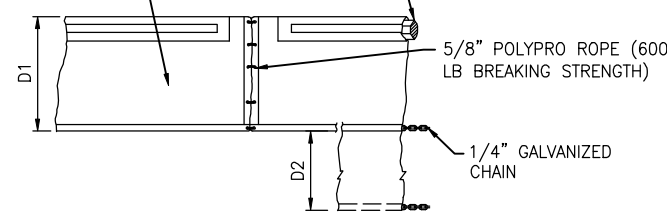
NTS

18oz NYLON REINF PVC FABRIC (300 PSI TEST) WITH LACING GROMMETS

CLOSED CELL SOLID PLASTIC FOAM FLOTATION (6" DIA EQUIV) (12 LBS PER FT BUOYANCY)

5/16" VINYL SHEATHED EAW STEEL CABLE (9800 LBS BREAKING STRENGTH) WITH GALVANIZED CONNECTORS (TOOL FREE DISCONNECT)

CLOSED CELL SOLID PLASTIC FOAM FLOTATION (8" DIA EQUIV) (17 LBS PER FT BUOYANCY)



18oz NYLON REINF PVC FABRIC (300 PSI TEST)

SLOTTED PVC CONNECTOR PIPE (METAL COLLAR REINFORCED)

STRESS PLATE

5/8" POLYPRO ROPE (600 LB BREAKING STRENGTH)

5/16" GALVANIZED CHAIN

**TYPE 1**

**TYPE 2**

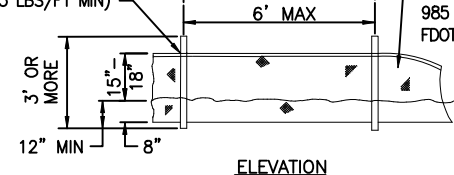
D1 = 5' STD (SINGLE PANEL FOR DEPTHS 5' OR LESS)  
D2 = 5' STD (ADDITIONAL PANEL FOR DEPTHS 5')

CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALL FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

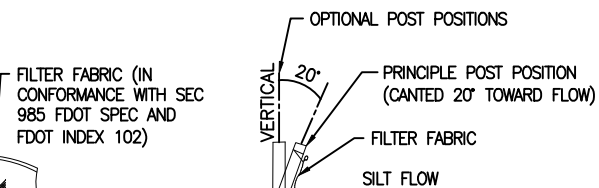
NOTICE: COMPONENTS OF TYPES 1 AND 2 MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES 1 AND 2 SHALL BE AS APPROVED BY THE ENGINEER.

**TYPICAL FLOATING TURBIDITY BARRIER DETAIL**

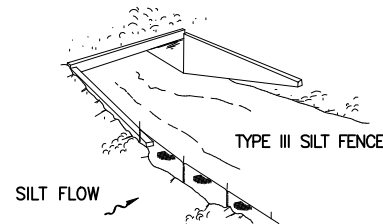
POST (OPTIONS: 2"x4" OR 2 1/2" WOOD; STEEL MIN DIA 1.33 LBS/FT MIN)



ELEVATION

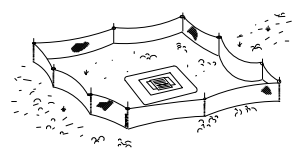


SECTION



TYPE III SILT FENCE

SILT FLOW



TYPE III SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS

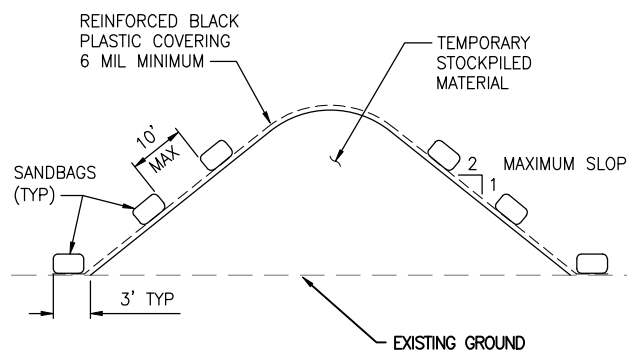
**TYPE III SILT FENCE**

NOTES:

- A. DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
- B. WHEN JOINING BUTT ENDS OF SILT FENCE FABRIC; JOIN FABRIC ENDS, WRAP AROUND A POST 360-DEGREES, AND SET POST.

**FDOT INDEX NUMBER 102 SILT FENCE DETAIL 3**

NTS



NOTES:

1. ALL SEAMS SHALL BE TAPED OR WEIGHTED DOWN FULL LENGTH. ALL SEAMS SHALL HAVE A MINIMUM 12" OVERLAP.
2. SEAMS PARALLEL TO THE SLOPE CONTOUR SHALL HAVE THE UPHILL SHEET OVERLAP THE DOWN HILL SHEET.
3. NO SURFACE RUN-OFF SHALL BE ALLOWED TO RUN UNDER THE PLASTIC COVERING.
4. DRAINAGE FROM AREAS COVER BY REINFORCED PLASTIC SHEETING SHALL BE CONTROLLED SUCH THAT NO DISCHARGE OCCURS DIRECTLY ONTO UNCONTROLLED DISTURBED AREAS OF THE CONSTRUCTION SITE.

**TEMPORARY STOCKPILE COVERING**

NTS

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LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED A GOODDEN  
DRAWN J ALLEN  
CHECKED R KOLLER

**JonesEdmunds**  
CERTIFICATE OF AUTHORIZATION #1841  
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

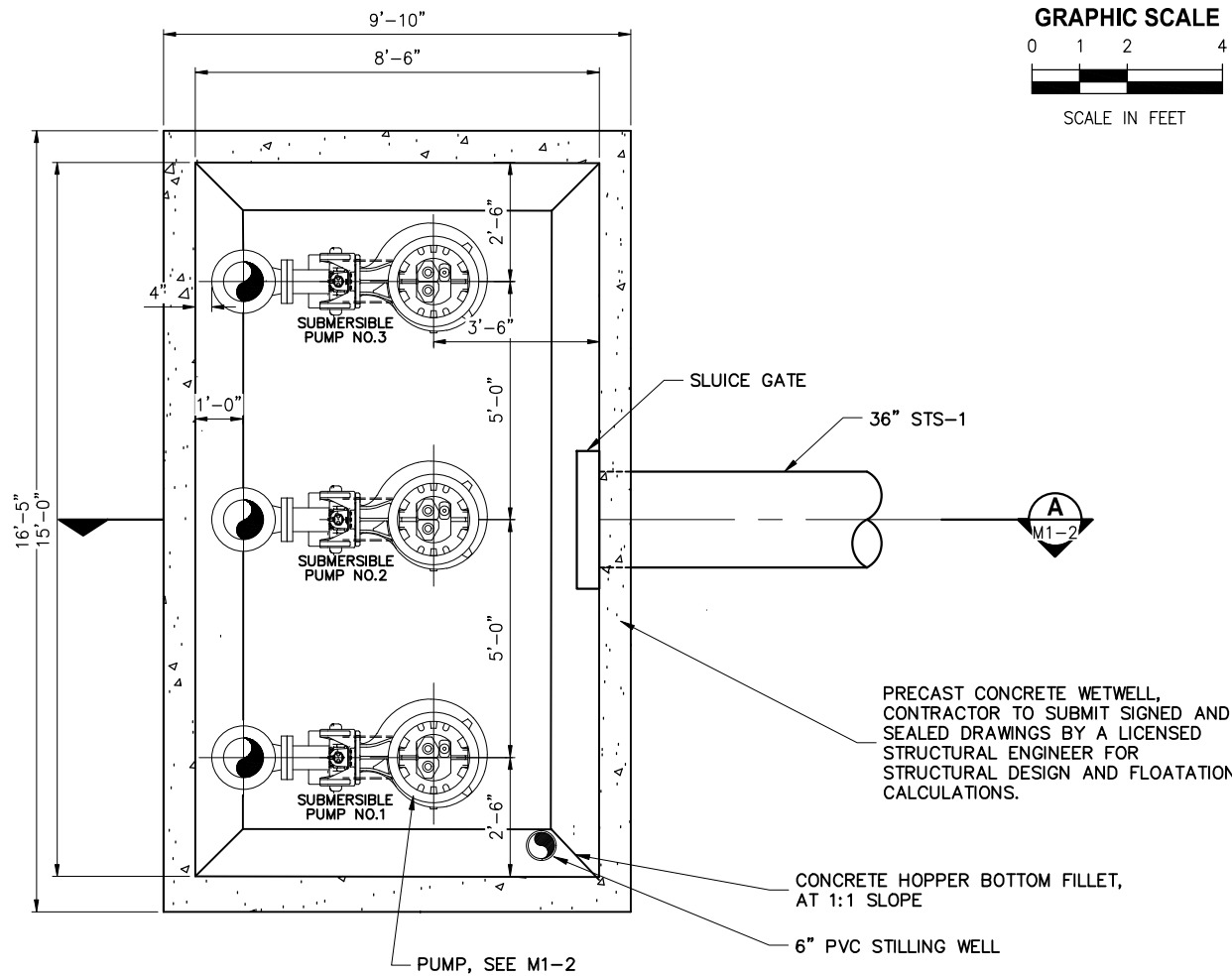
**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

**DETAILS**

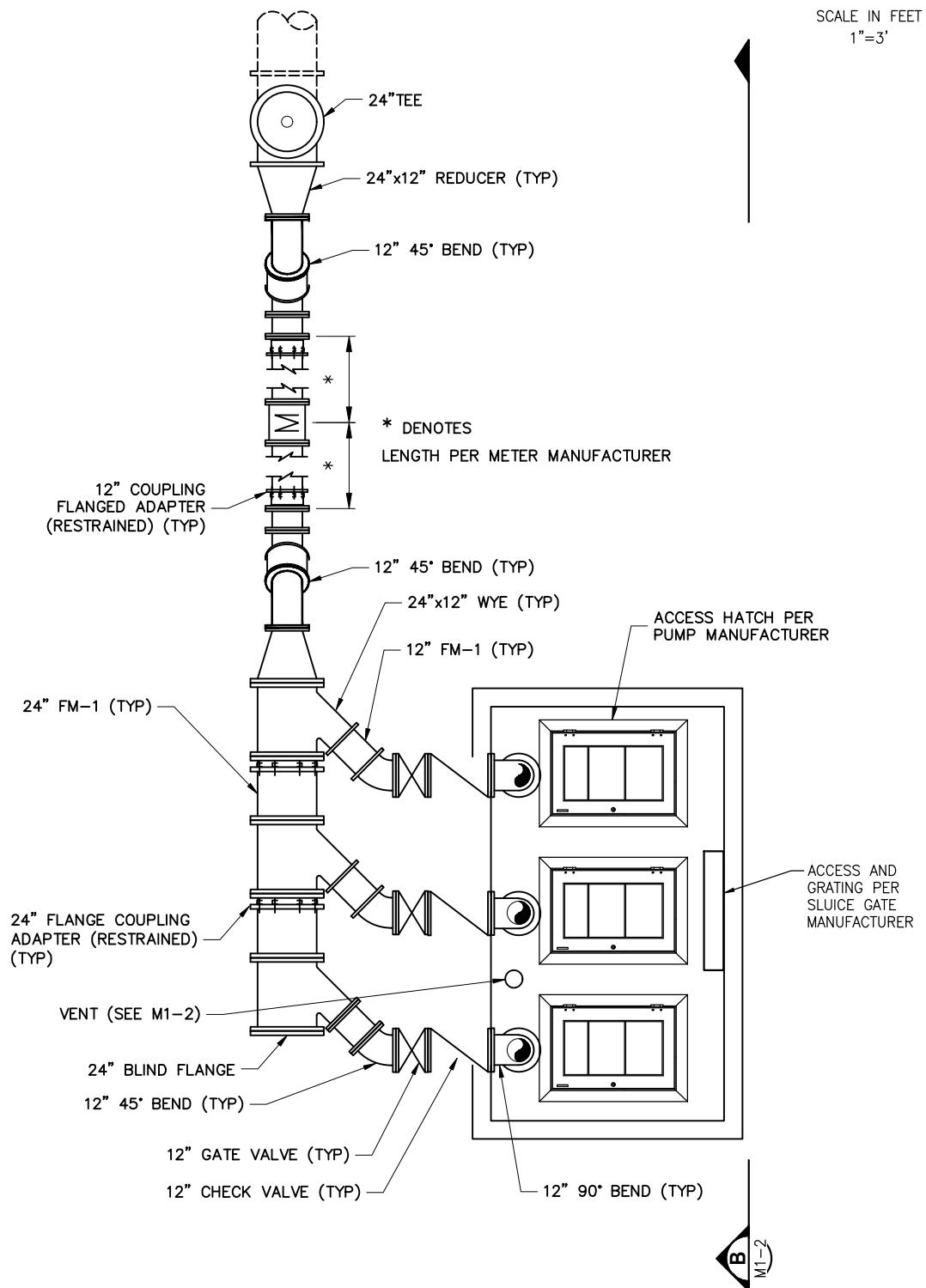
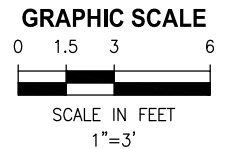
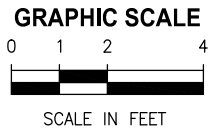
AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097	PROJECT NO: 19750-066-01	DATE: JULY 2022
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT	INDEX NO: William Richard	DWG NO: EC1-4
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BID DOCUMENTS

Approved  
2022-08-02  
William Richard  
8/2/2022



**LOWER PLAN 1**



**UPPER PLAN 1**

Y:\19750-SURWMD\PROJECTS\066-01\_CRANE CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\MECHANICAL\19750066-VOL2-M1-1.DWG  
 7/20/2022 11:18 AM JALLEN

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED D. SHELDON  
 DRAWN J. ALLEN  
 CHECKED R. KOLLER

**JonesEdmunds**  

 CERTIFICATE OF AUTHORIZATION #1841  
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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

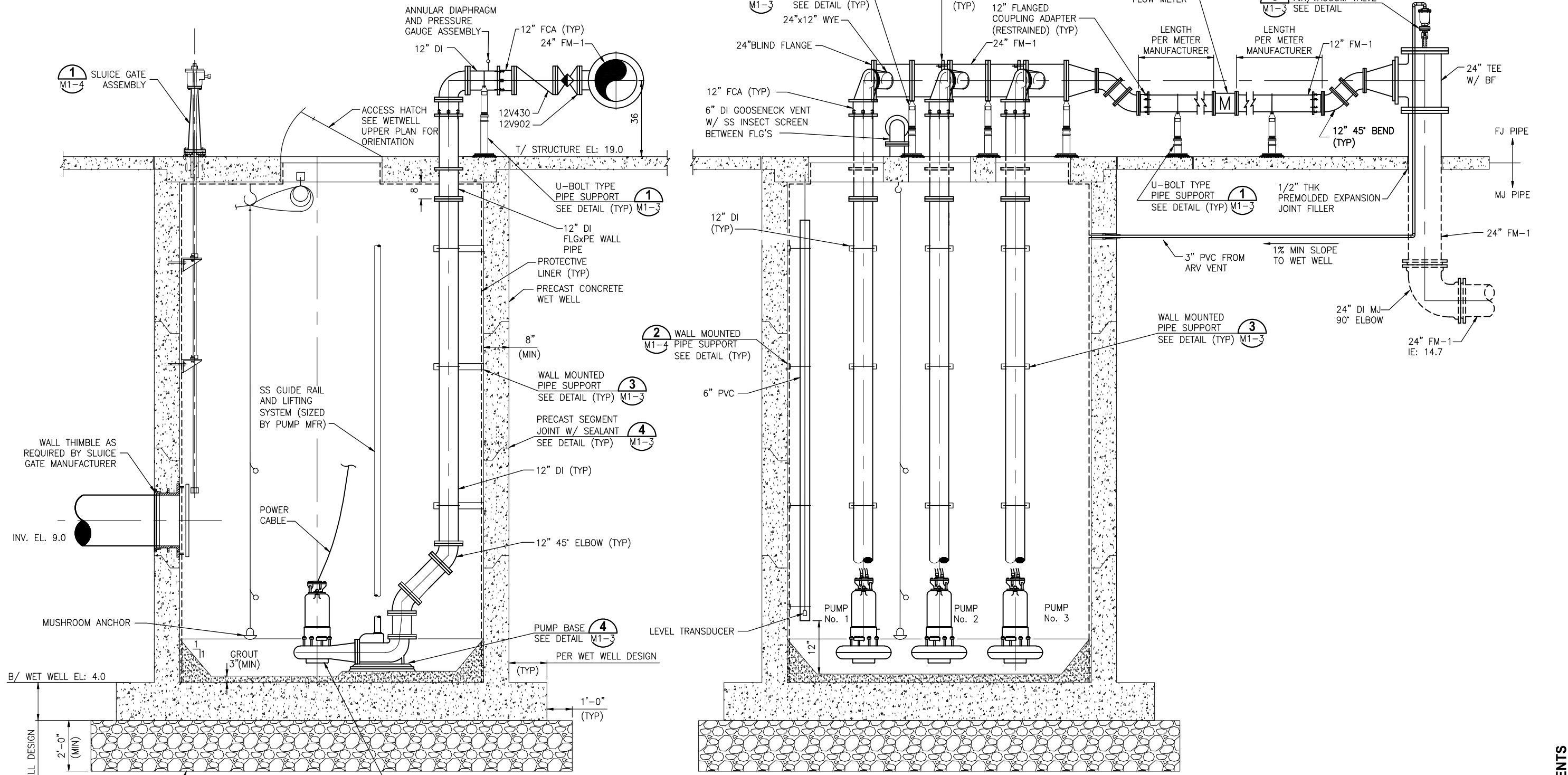
**PUMP STATION PLAN**

Approved  
 2022-07-26  
 William Richard  
 8/2/2022

<small>                 DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA,                  LICENSE NUMBER 90306                  THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY                  DONALD J. SHELDON, JR. ON THE DATE INDICATED.                  PRINTED COPIES OF THIS DOCUMENT ARE NOT                  CONSIDERED SIGNED AND SEALED AND THE SIGNATURE                  MUST BE VERIFIED ON ANY ELECTRONIC COPIES.             </small>	PROJECT NO: 19750-066-01	DATE: JULY 2022
INDEX NO.:	DWG NO.: M1-1	8/2/2022

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 7/20/2022 10:06 AM JALLEN



**SECTION A**  
N.T.S.

**SECTION B**  
N.T.S.

PUMP LEVEL CONTROL		
FUNCTION	CONTROLLED BY	ELEVATION
HIGH LEVEL ALARM - ALL PUMPS OFF	FLOAT	15.1
LAG - LAG PUMP ON	TRANSDUCER	14.5
LAG PUMP ON	TRANSDUCER	13.9
LEAD PUMP ON	TRANSDUCER	13.5
ALL PUMPS OFF	TRANSDUCER	13.0
LOW LEVEL ALARM - ALL PUMPS OFF	FLOAT	12.8

DESIGNED	D. SHELDON
DRAWN	J. ALLEN
CHECKED	R. KOLLER

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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**PUMP STATION SECTIONS**

Approved  
 2022-08-02  
 William Richard  
 8/2/2022

PROJECT NO.	DATE
19750-066-01	JULY 2022
INDEX NO.	DWG NO.
	M1-2

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BID DOCUMENTS

**PIPE SUPPORT  
DIMENSION TABLE**

PIPE SIZE	A	B	C		D
			MIN	MAX	
INCHES					
4	4	9	9 1/4	14	3
5	4	9	10	14 3/4	3
6	4	9	10 1/2	15 1/4	3
8	4	9	11 3/4	16 1/2	3
10	4	9	13 1/2	18 1/4	3
12	4	9	15	19 3/4	3
14	4	11	16 1/4	20 3/4	3
16	4	11	17 3/4	22 1/4	3
18	6	13 1/2	19 1/2	24	4
20	6	13 1/2	21	25 1/2	4
24	6	13 1/2	23 3/4	28 1/4	4

**NOTES:**

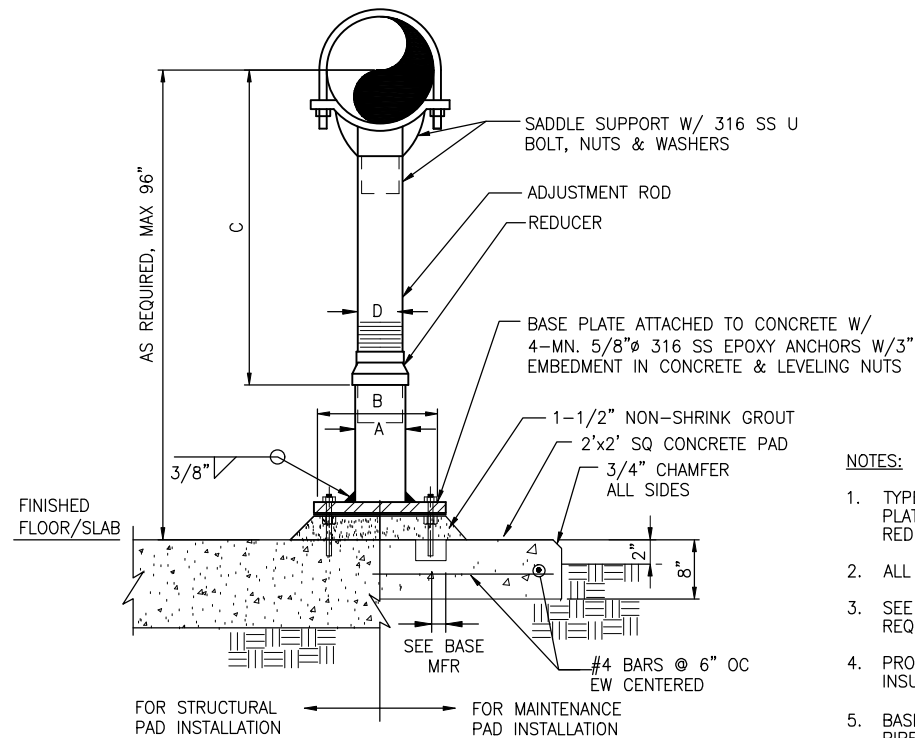
- TYPE 1 PIPE SUPPORT: PIPE SADDLE, ADJUSTMENT ROD, BASE PLATE, ETC. SHALL BE HOT DIP GALVANIZED CARBON STEEL. REDUCER SHALL BE CAST IRON.
- ALL HARDWARE SHALL BE 316 SS.
- SEE PLANS AND SECTIONS FOR PIPE CENTERLINE ELEVATION REQUIREMENTS.
- PROVIDE RIGID INSULATION PROTECTION SHIELD WHERE PIPING IS INSULATED.
- BASE PLATES SHALL BE SQUARE AND BE 3/8-INCH THICK FOR PIPE SIZES THROUGH 10-INCH. FOR ALL LARGER PIPES BEING SUPPORTED, THE BASE PLATES SHALL BE 1/2-INCH THICK.

**PIPE SUPPORT  
DIMENSION TABLE**

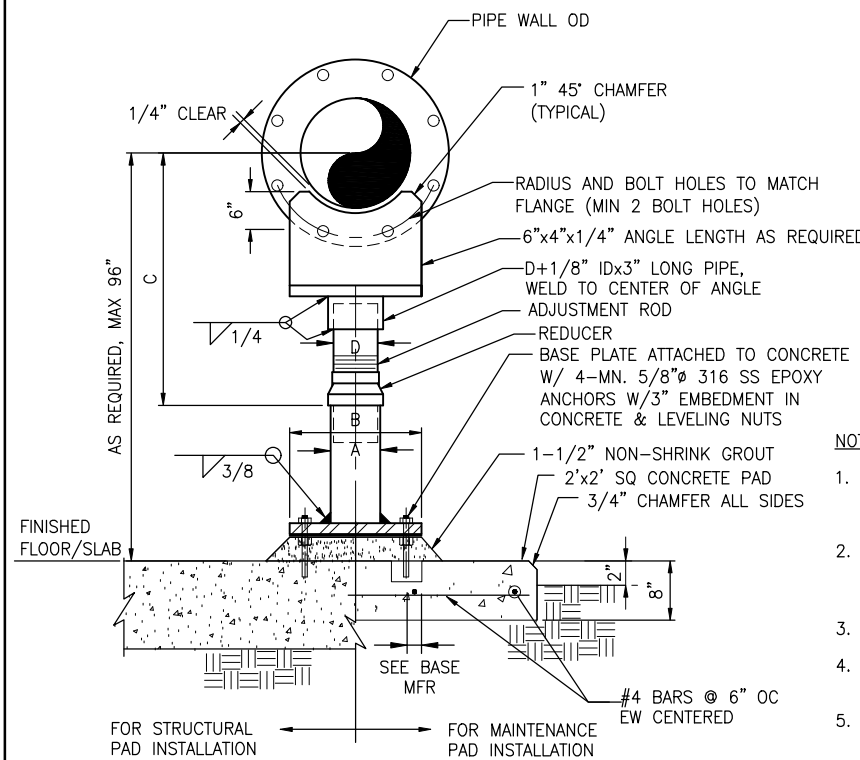
PIPE SIZE	A	B	C		D
			MIN	MAX	
INCHES					
4	4	9	9 1/4	14	3
5	4	9	10	14 3/4	3
6	4	9	10 1/2	15 1/4	3
8	4	9	11 3/4	16 1/2	3
10	4	9	13 1/2	18 1/4	3
12	4	9	15	19 3/4	3
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16	4	11	17 3/4	22 1/4	3
18	6	13 1/2	19 1/2	24	4
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**NOTES:**

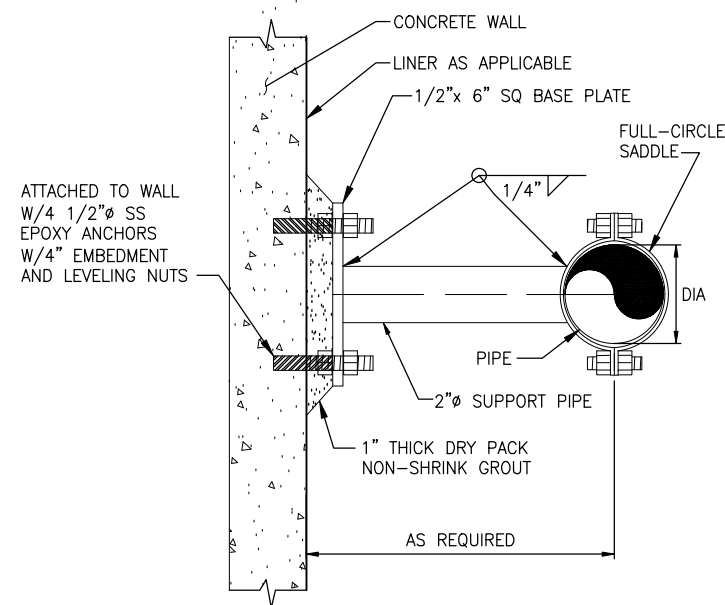
- TYPE 1 PIPE SUPPORT: PLATE, PIPE SADDLE, ADJUSTMENT ROD, BASE PLATE, ETC. SHALL BE HOT DIP GALVANIZED CARBON STEEL. REDUCER SHALL BE CAST IRON.
- HOT DIP GALVANIZE ENTIRE PIPE SUPPORT AND STEEL BASE PLATE AFTER FABRICATION (EXCEPT FOR STAINLESS STEEL FASTENING HARDWARE).
- ALL HARDWARE SHALL BE 316 SS.
- SEE PLANS AND SECTIONS FOR PIPE CENTERLINE ELEVATION REQUIREMENTS.
- PROVIDE RIGID INSULATION PROTECTION SHIELD WHERE PIPING IS INSULATED.
- BASE PLATES SHALL BE SQUARE AND BE 3/8-INCH THICK FOR PIPE SIZES THROUGH 10-INCH. FOR ALL LARGER PIPES BEING SUPPORTED, THE BASE PLATES SHALL BE 1/2-INCH THICK.



**PIPE SUPPORT - U-BOLT TYPE 1**  
NTS



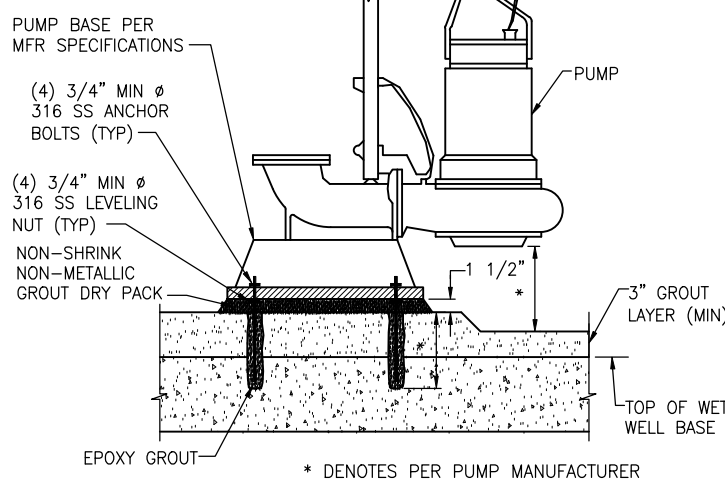
**FLANGE TYPE PIPE SUPPORT DETAIL 2**  
NTS



**NOTES:**

- ALL HARDWARE, PLATE, SADDLE, PIPE SUPPORT, ETC. SHALL BE 316 SERIES SS.
- SUPPORT PIPE SHALL BE SCH 40.

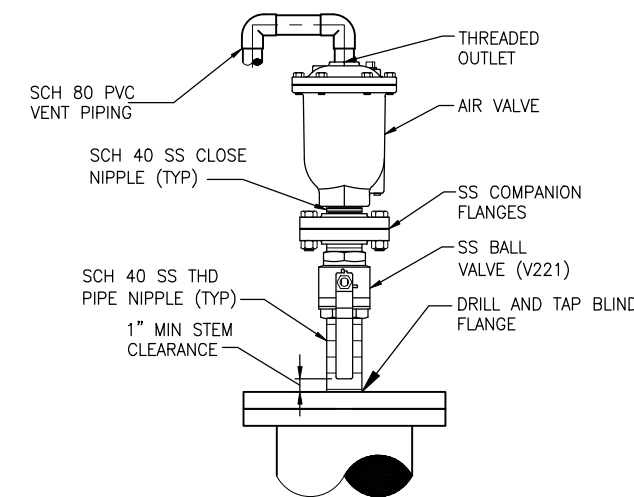
**PIPE SUPPORT - WALL MOUNTED 3**  
NTS



**NOTE:**

- FORM BENCH AS DIRECTED BY PUMP MANUFACTURER.

**PUMP BASE DETAIL 4**  
NTS



**NOTES:**

- SEE DRAWINGS FOR AIR VALVE TYPE AND INLET DIAMETER.
- BALL VALVE AND NIPPLES SHALL HAVE THE SAME DIAMETER AS THE AIR VALVE INLET.
- VERIFY SIZE OF VALVE PRIOR TO ORDERING ANCILLARY PARTS, DRILLING OR TAPPING.
- VENT PIPING SHALL BE DRAINED TO WET WELL AS SHOWN ON THE PLANS.

**FLANGE MOUNTED AIR VALVE 5**  
NTS

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LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED D. SHELDON  
DRAWN J. ALLEN  
CHECKED R. KOLLER

**JonesEdmunds**  
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8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

**PUMP STATION DETAILS**

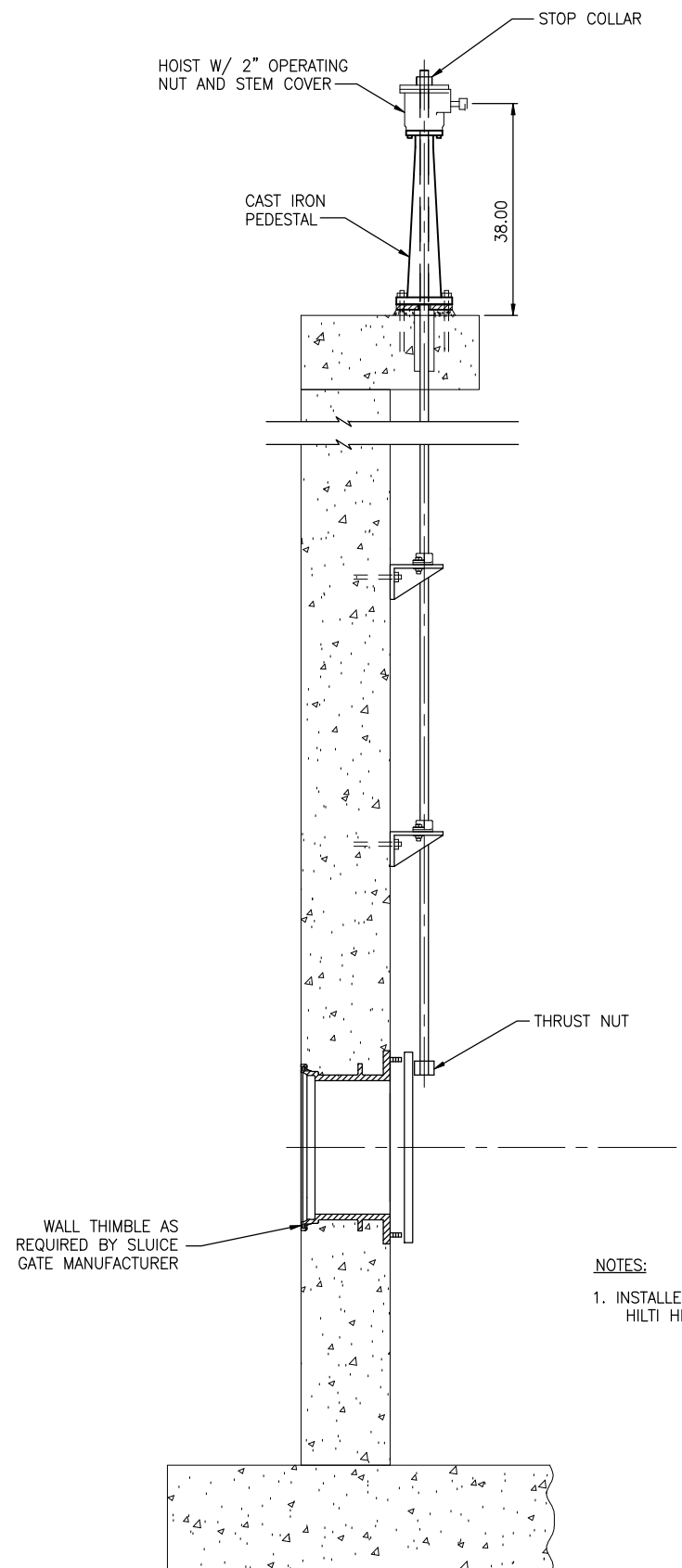
DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA,  
LICENSE NUMBER 90306  
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PROJECT NO. 19750-066-01  
DATE: JULY 2022  
INDEX NO. William Richard  
DWG NO. M1-3  
8/2/2022

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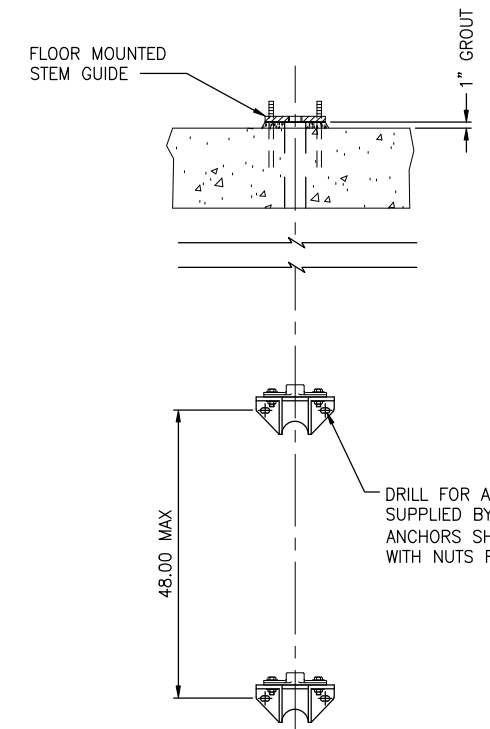
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2022-08-02  
William Richard  
8/2/2022

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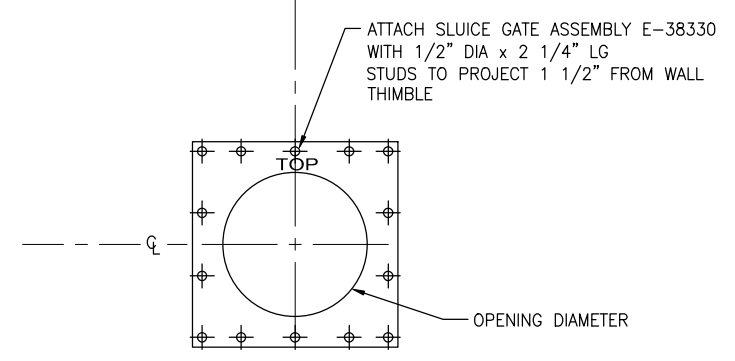


**ELEVATION**

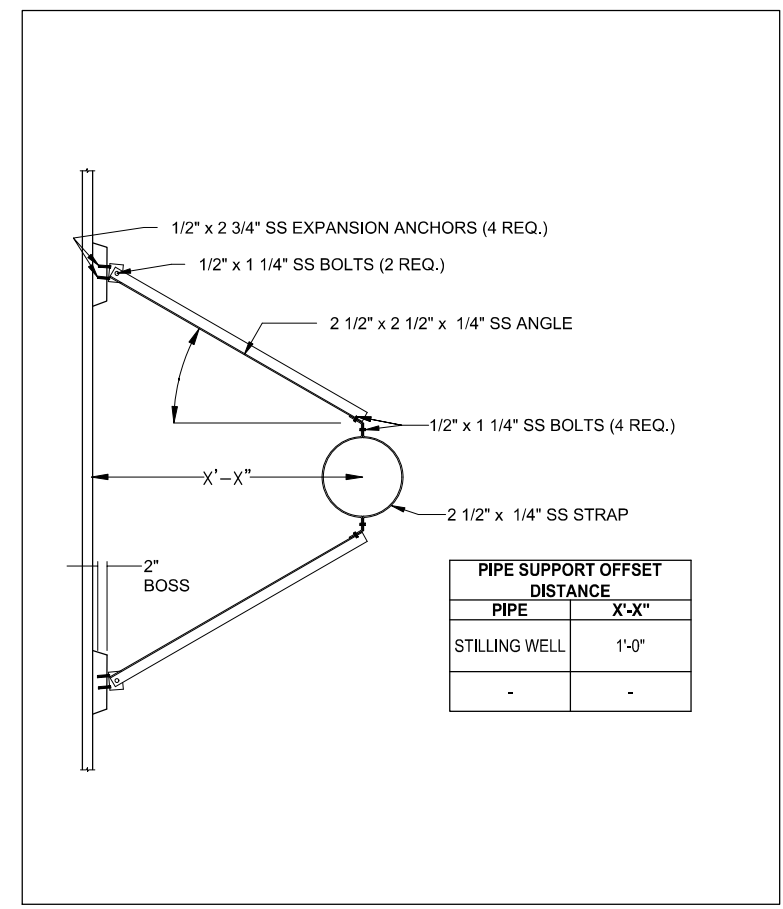
**NOTES:**  
 1. INSTALLER SUPPLIED ADHESIVE SHALL BE HILTI HIT HY150 OR EQUAL.



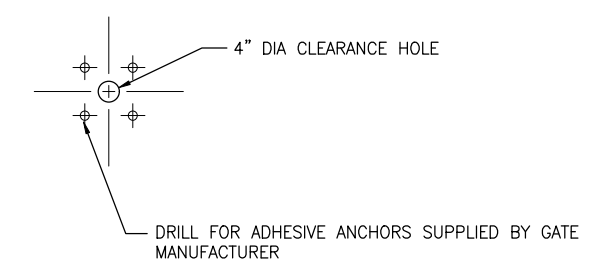
**FRONT**



**SLUICE GATE DETAIL 1**  
 NTS



**SS PIPE SUPPORT DETAIL 2**  
 NTS



**PLAN**

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	D. SHELDON
DRAWN	J. ALLEN
CHECKED	R. KOLLER

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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

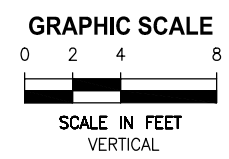
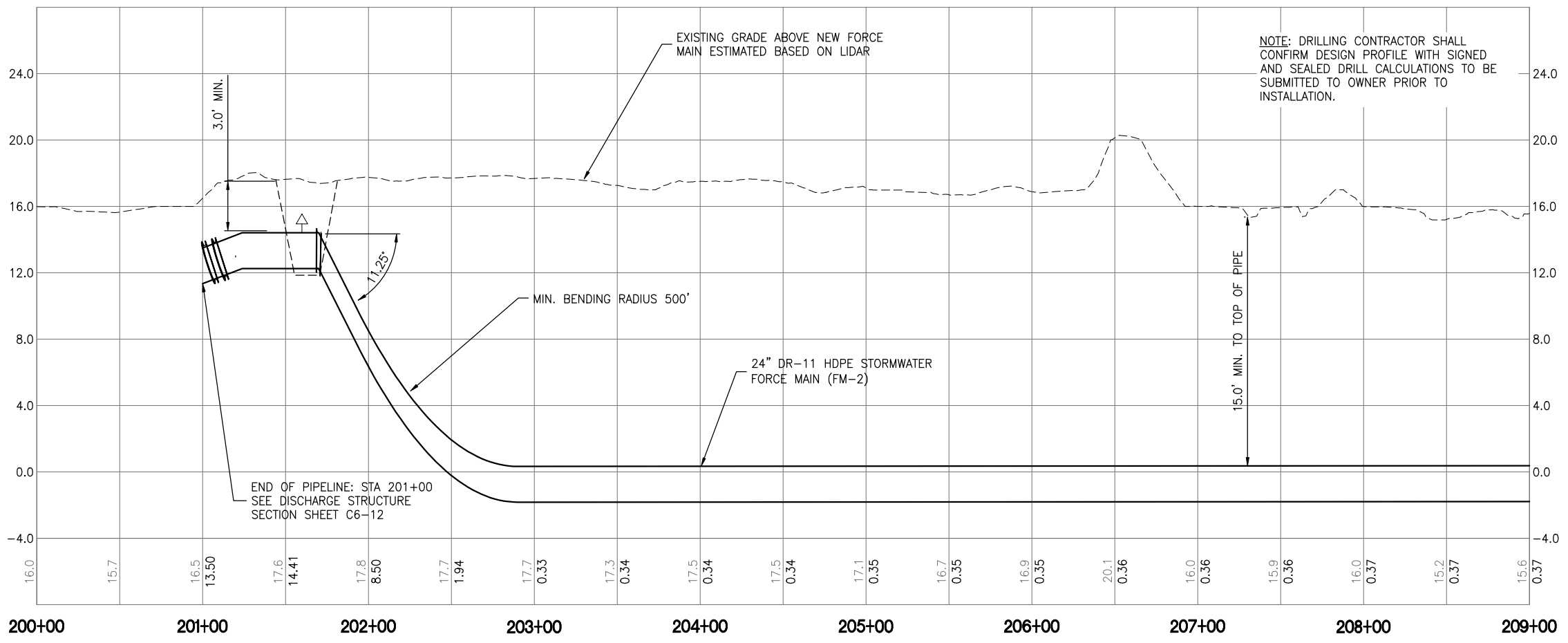
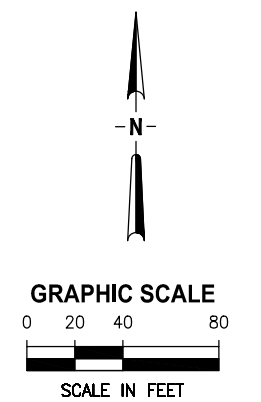
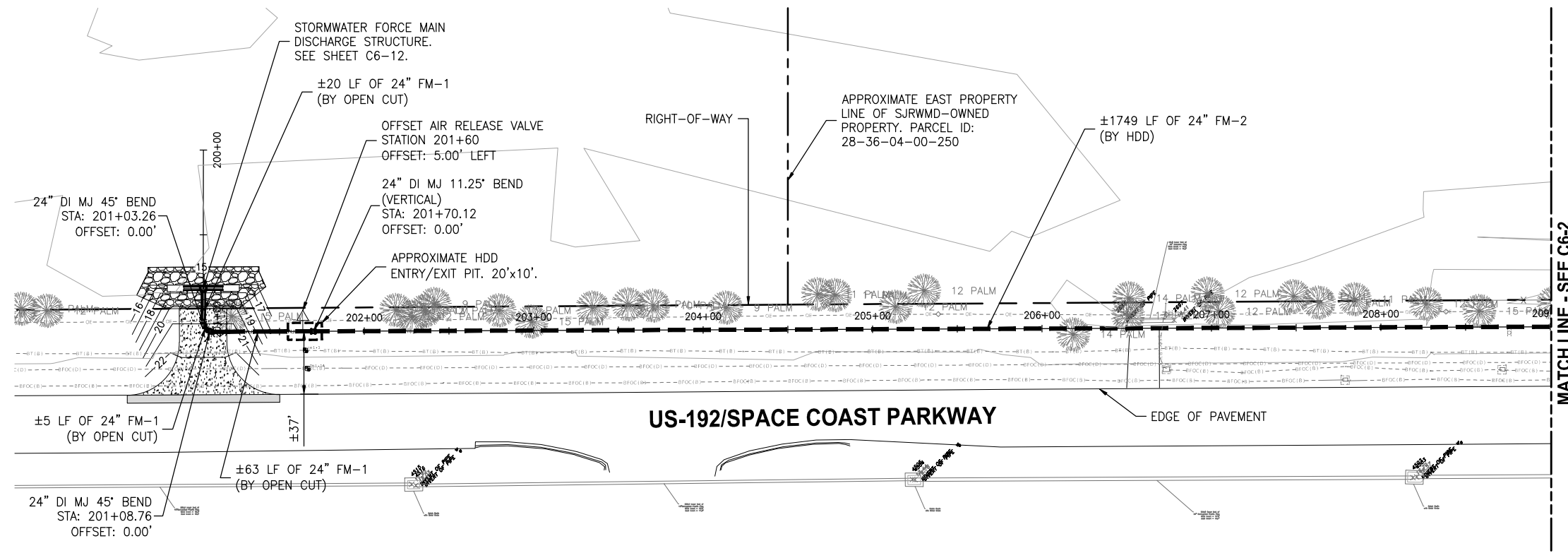
**PUMP STATION DETAILS**

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INDEX NO: M1-4	DWG NO: M1-4	

Approved  
 2022-07-26  
 William Richard  
 8/2/2022

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 JON W. ALLEN  
 7/20/2022 10:18 AM

DESIGNED	D. SHELDON
DRAWN	J. ALLEN
CHECKED	R. KOLLER
BY	
APPRD.	
REVISIONS	
DATE	
LTR.	

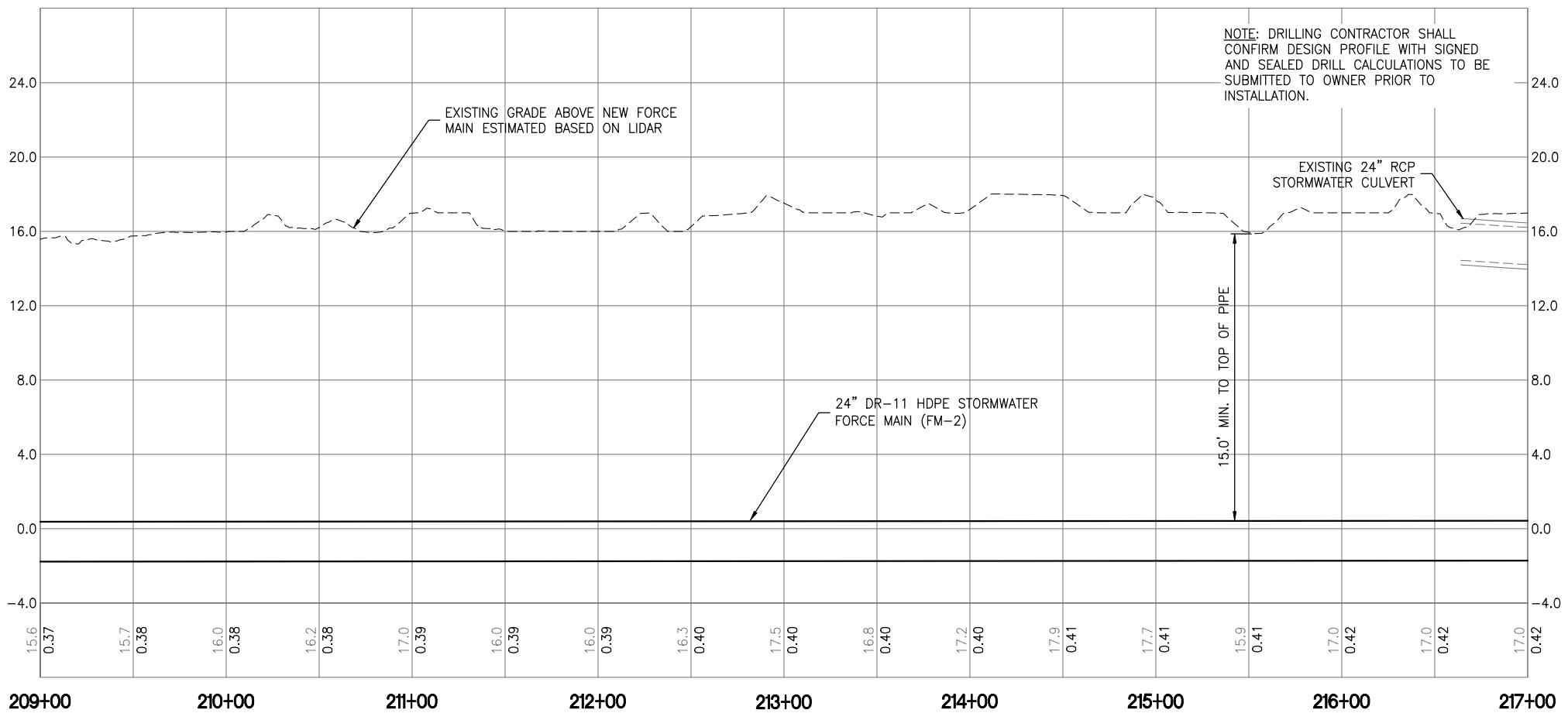
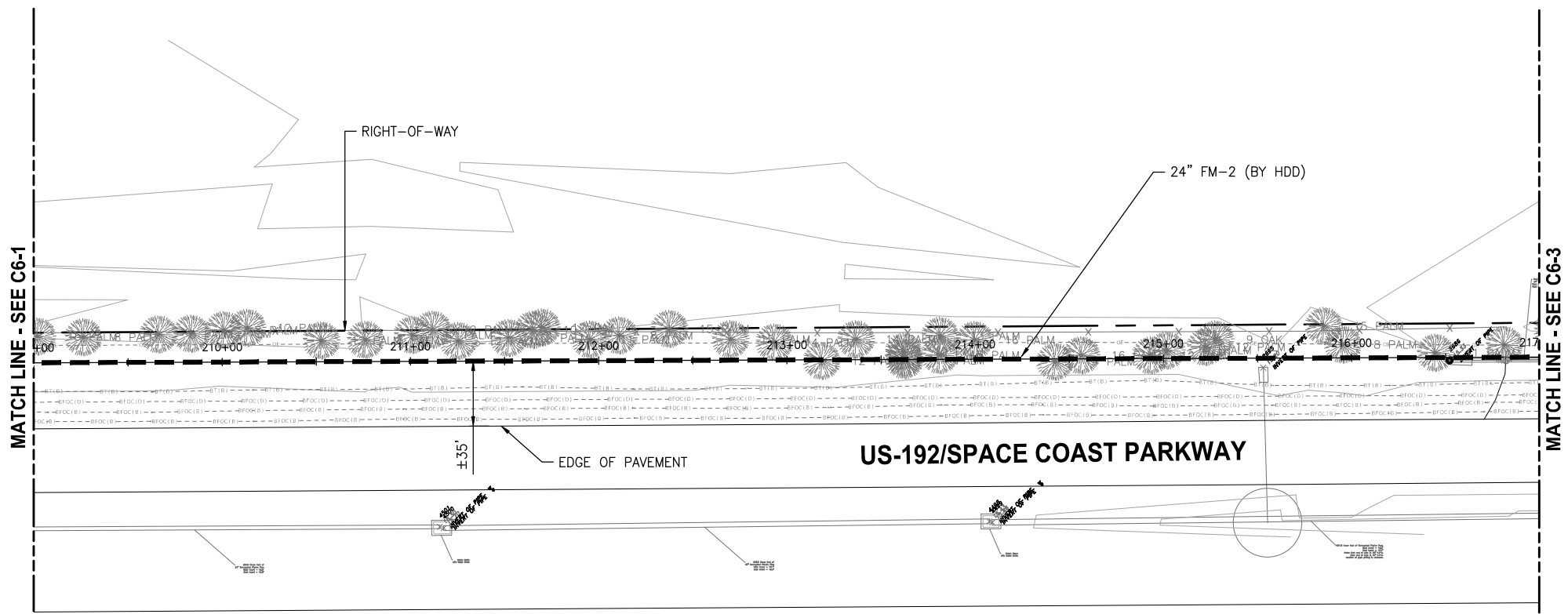
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 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN  
 PLAN AND PROFILE**

Approved  
 2022-19750-00021A  
 DONALD J. SHELDON, JR., P.E., STATE OF FLORIDA LICENSE NUMBER 90306  
 PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
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 INDEX NO: 8/2/2022  
 DWG NO: C6-1

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DRAWN	J. ALLEN			
CHECKED	R. KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.

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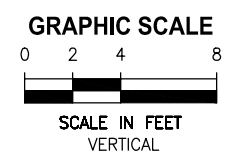
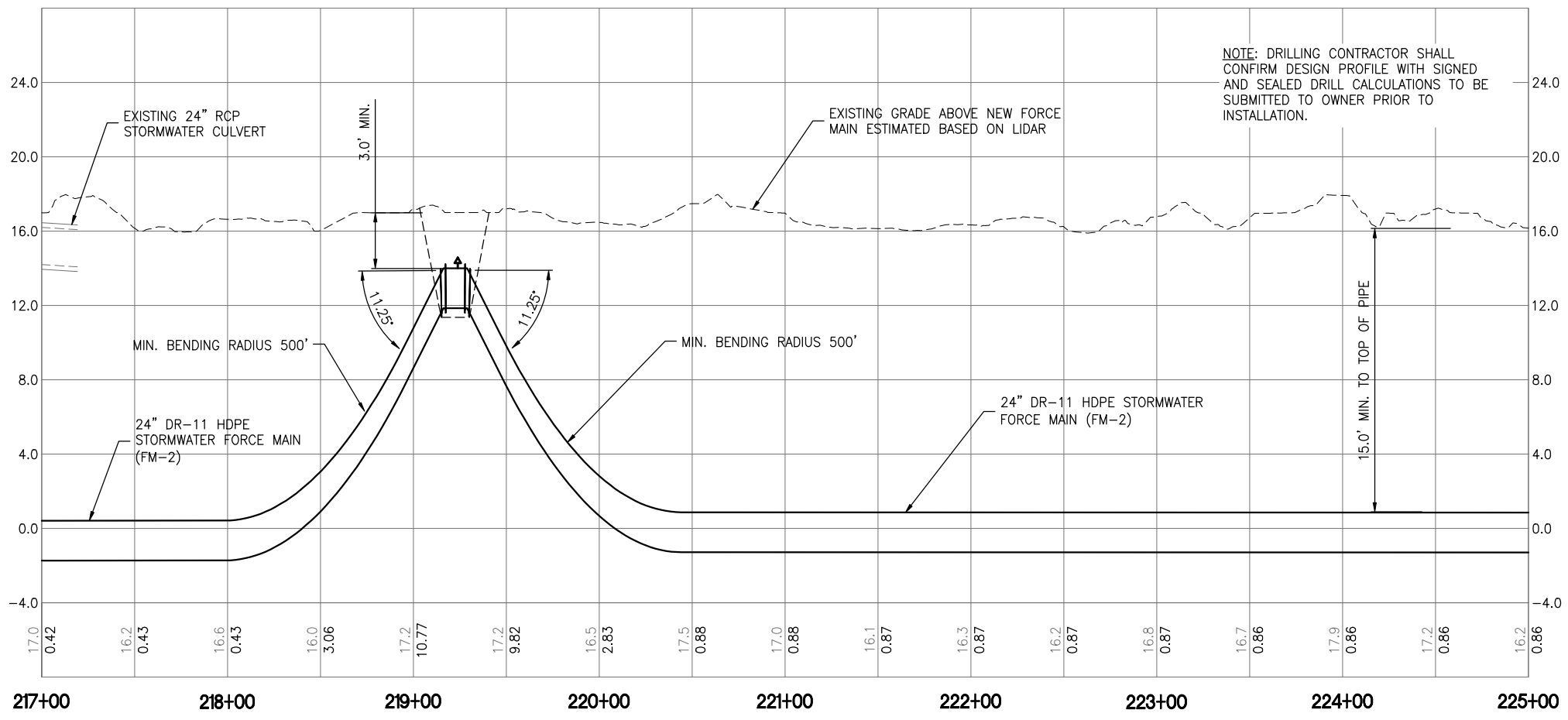
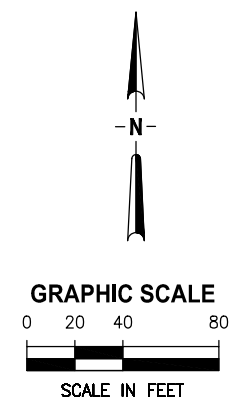
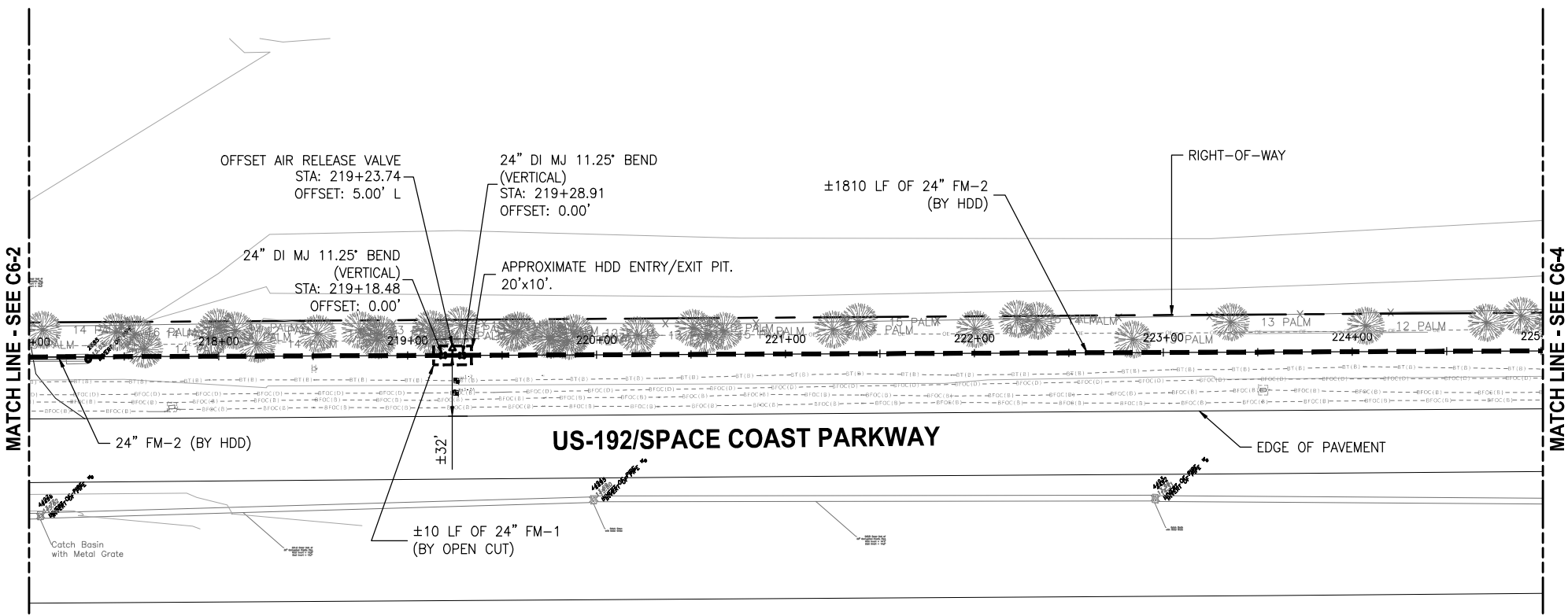
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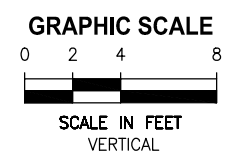
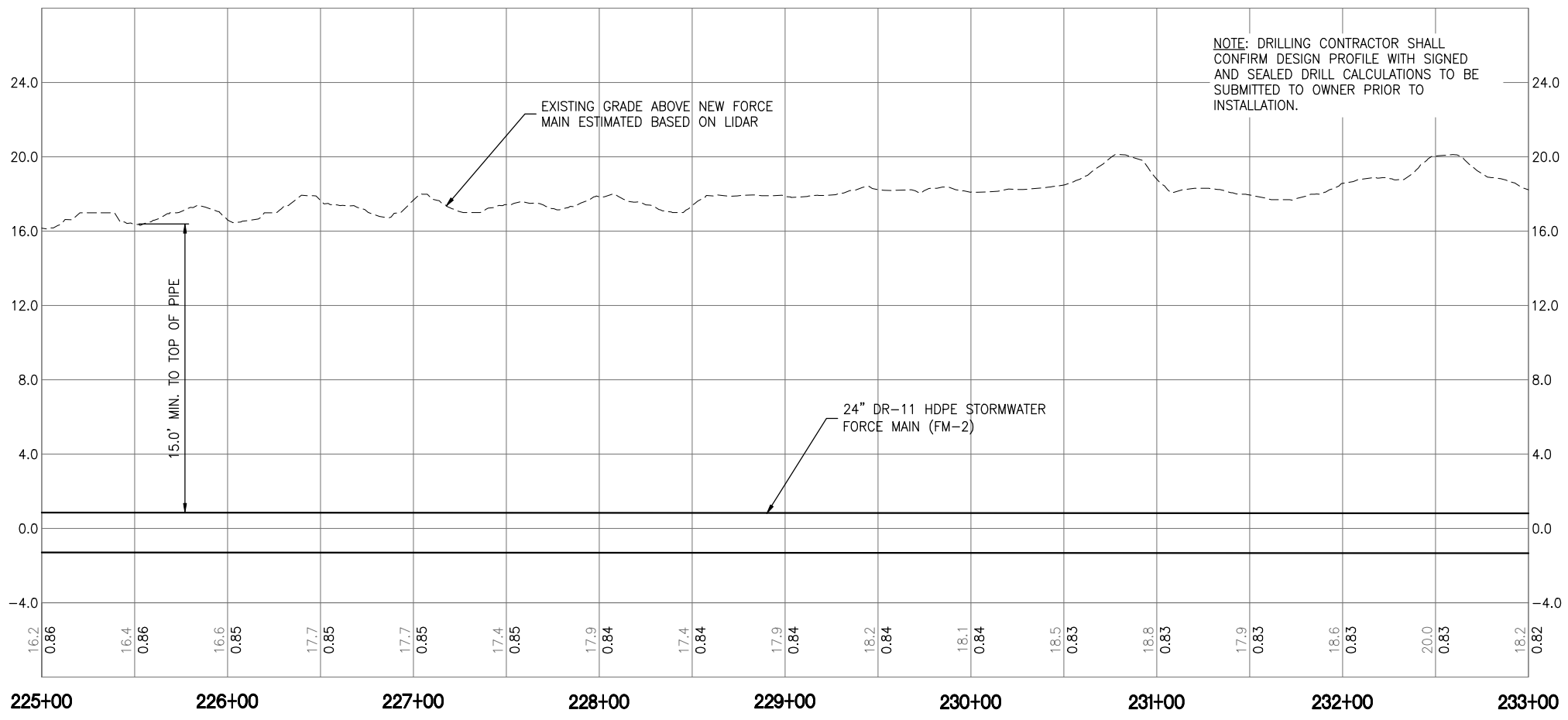
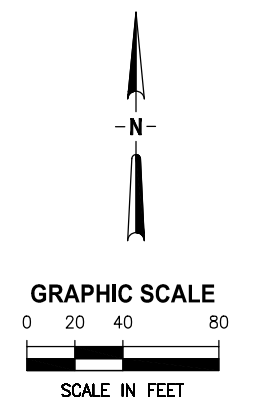
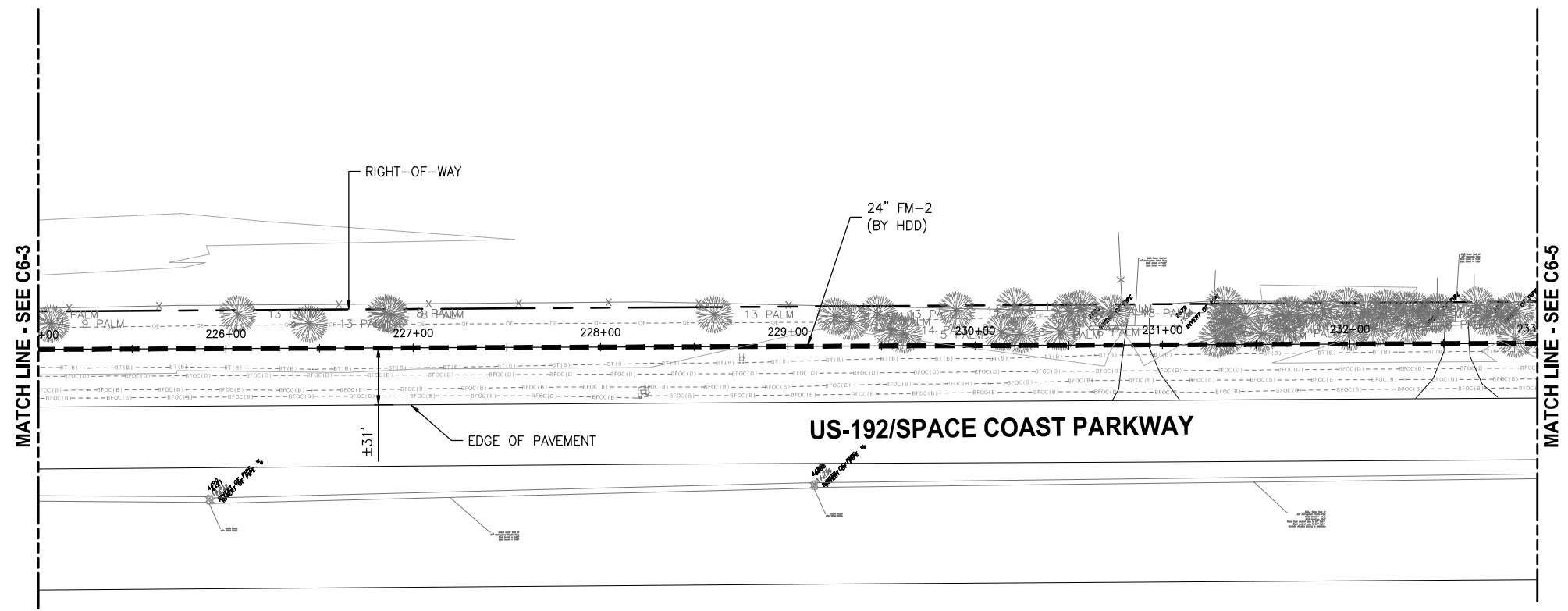
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NOTE: DRILLING CONTRACTOR SHALL CONFIRM DESIGN PROFILE WITH SIGNED AND SEALED DRILL CALCULATIONS TO BE SUBMITTED TO OWNER PRIOR TO INSTALLATION.

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 DRAWN J. ALLEN  
 CHECKED R. KOLLER

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CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2

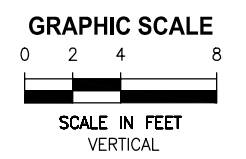
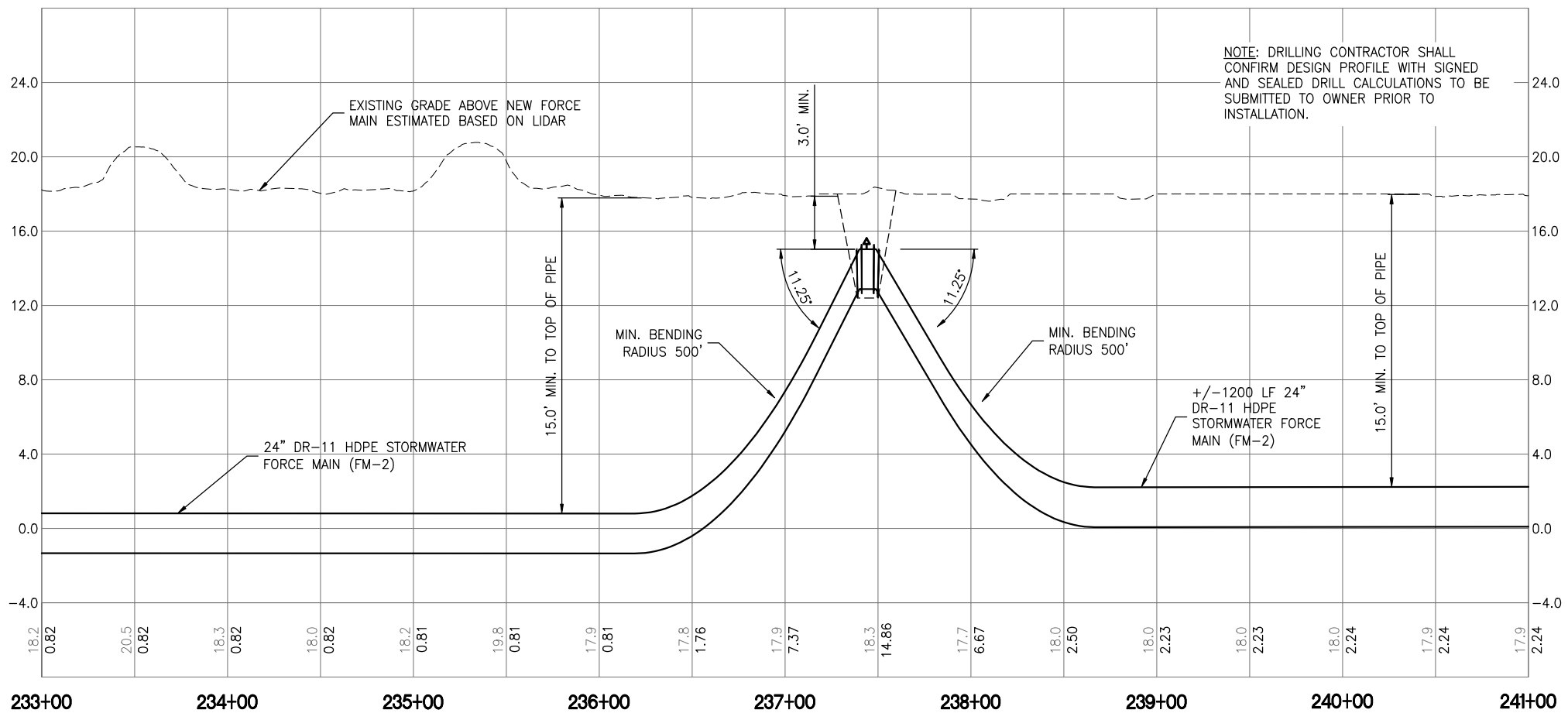
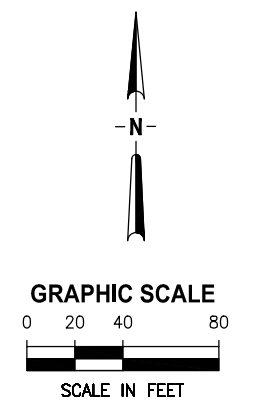
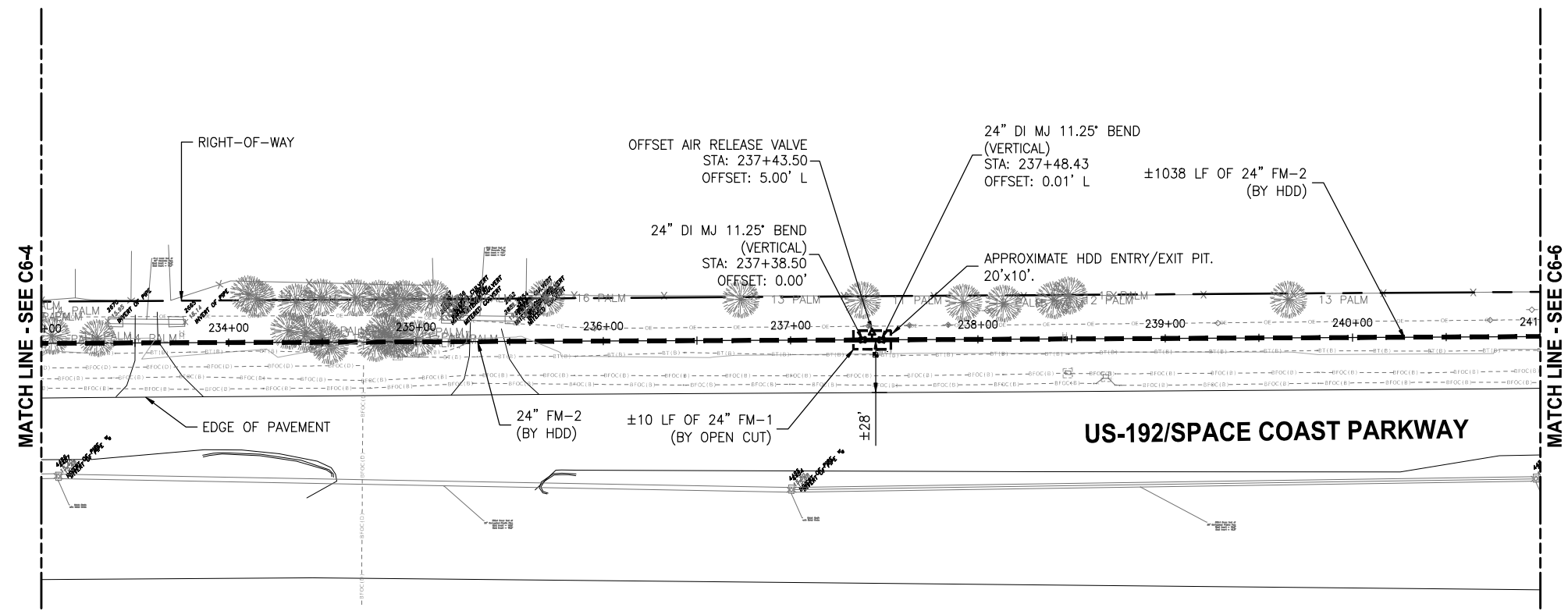
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 DWG NO: C6-4

Approved

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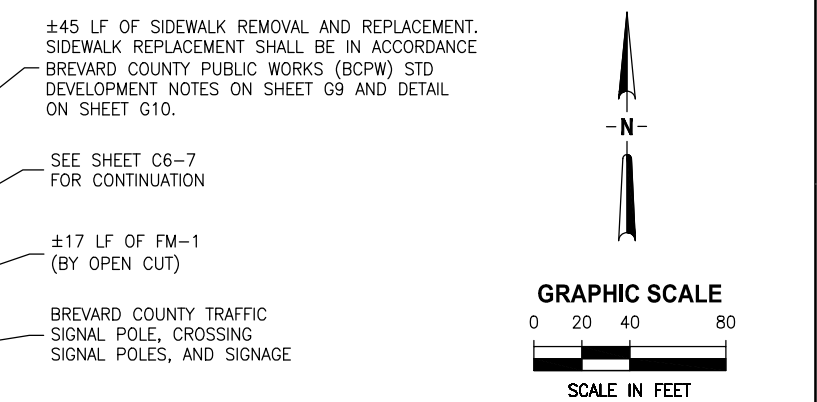
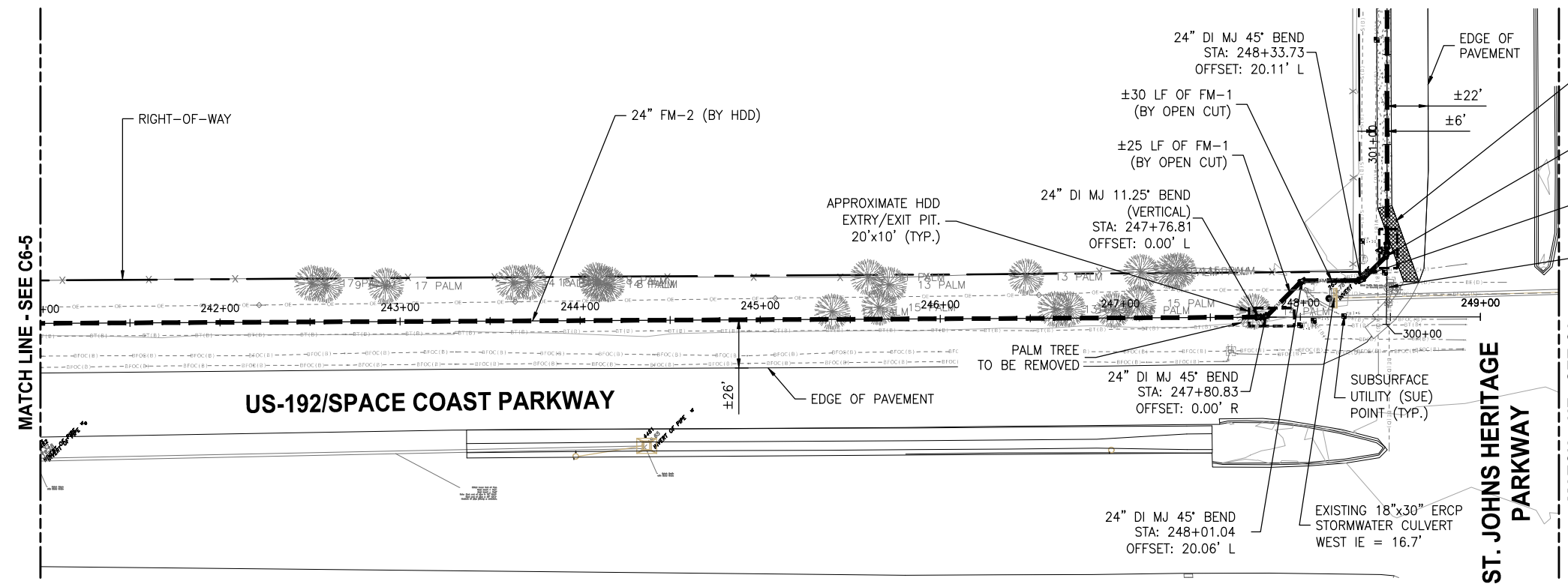
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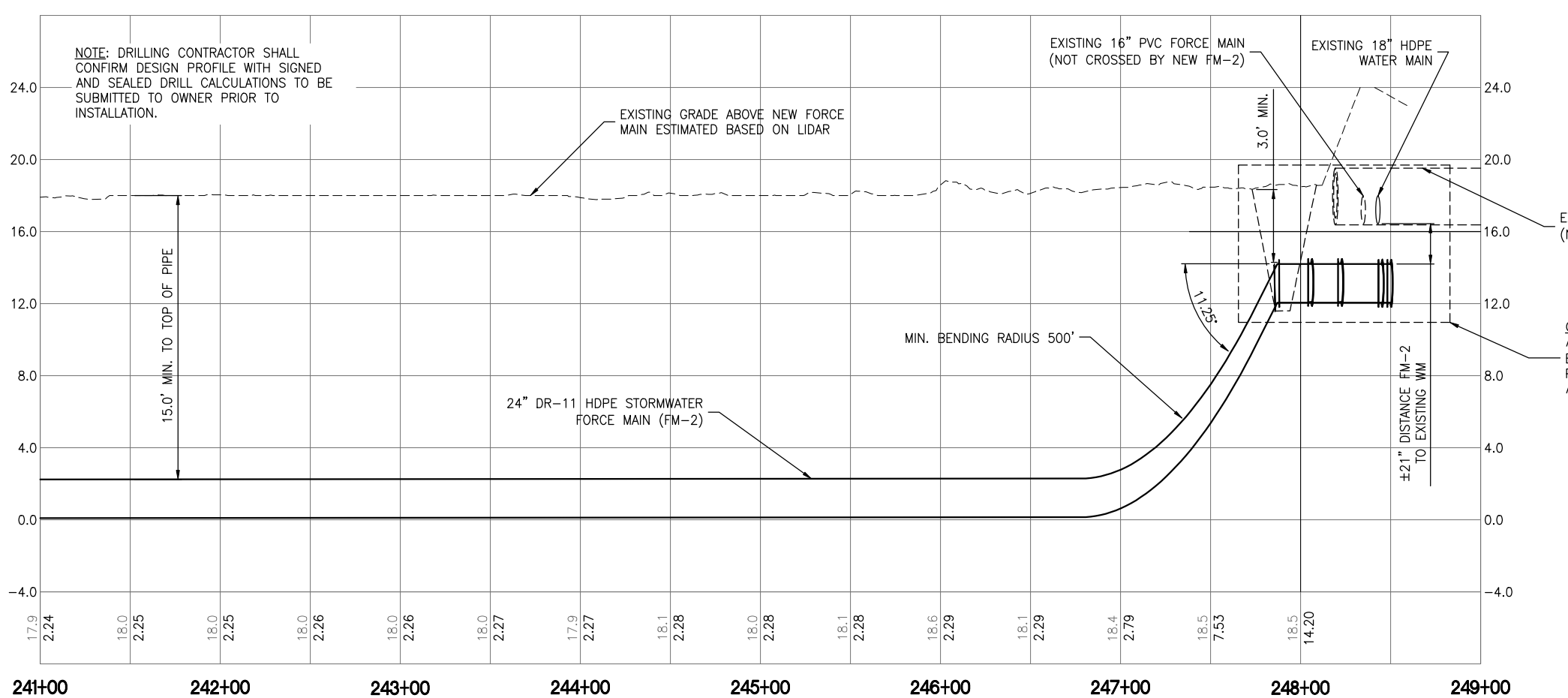
**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN  
 PLAN AND PROFILE**

Approved  
 2022-07-20  
 PROJECT NO: 19750-066-01 DATE: JULY 2022  
 INDEX NO: C6-5  
 8/2/2022



- NOTES:
- CONTRACTOR SHALL PROTECT TRAFFIC SIGNAL POLE AND FOUNDATION, WHICH ARE OWNED AND MAINTAINED BY BREVARD COUNTY, FROM DAMAGE DURING UTILITY EXCAVATION, BACKFILLING AND COMPACTION VIA SHORING OR OTHER SUITABLE SUPPORT METHOD. SUBMIT A PLAN FOR ENGINEER AND BREVARD COUNTY APPROVAL PRIOR TO THE WORK IN THIS AREA.
  - CONTRACTOR SHALL PROTECT TRAFFIC SIGNAGE (COUNTY OWNED AT THE INTERSECTION AND ALONG SJHP), TELEPHONE POLE GUY WIRES, AND EXISTING BURIED UTILITY MARKERS FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE DAMAGED SIGNAGE IN ACCORDANCE WITH BREVARD COUNTY REQUIREMENTS (SEE DETAIL ON SHEET G10).
  - CONTRACTOR SHALL PROVIDE SHORING AT LEAST 2' FROM RIGHT-OF-WAY LINES AS NECESSARY TO ENSURE NO ENCROACHMENT OF WORK OUT OF RIGHT-OF-WAY.
  - CONTRACTOR SHALL FIELD LOCATE BY HAND-DIGGING TO VERIFY EXISTING UTILITY LOCATION, SIZE, MATERIAL, DEPTH, ELEVATION, ETC. WITHIN 10' OF BOTH SIDES OF THE UTILITY TO BE CONSTRUCTED, INCLUDING AT ALL CROSSING AND CONNECTION POINTS.
  - CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS IN ADVANCE OF WORK AND SHALL REPAIR ANY DAMAGE TO EXISTING UTILITIES TO THE SATISFACTION OF THE UTILITY OWNER.



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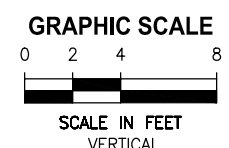
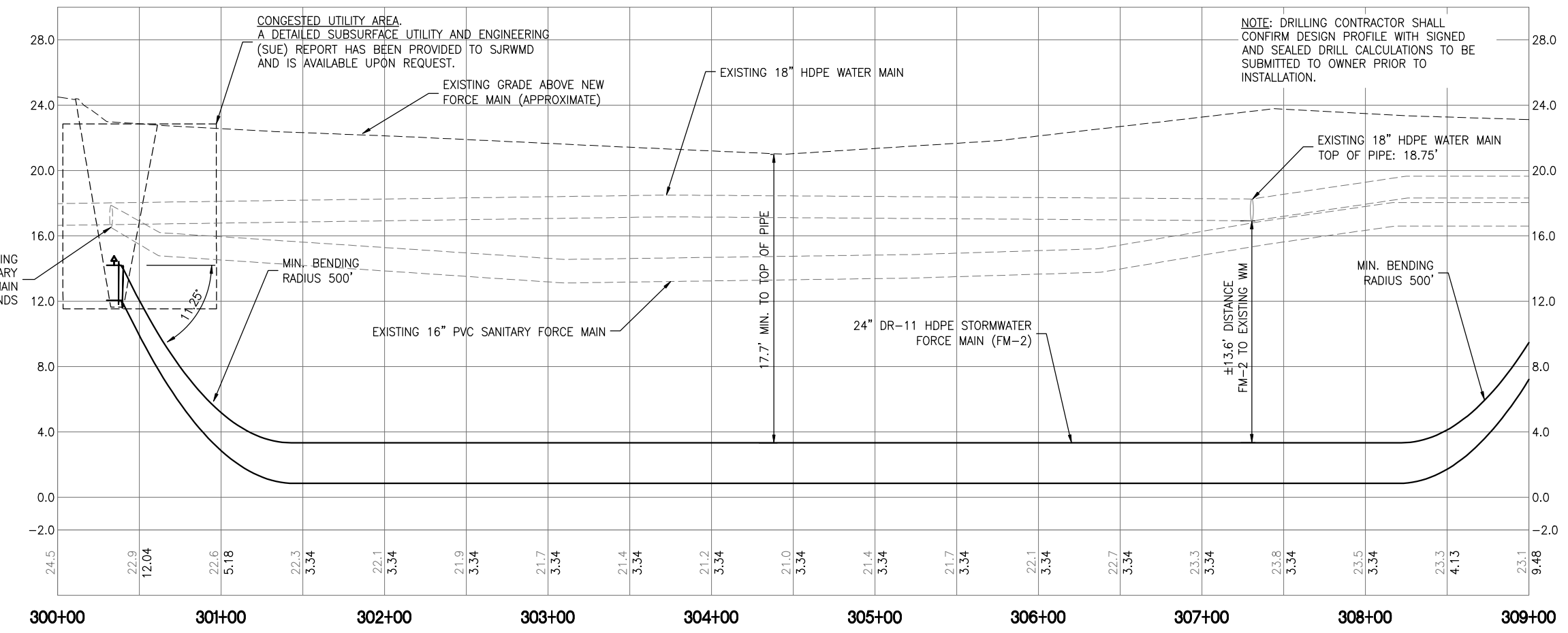
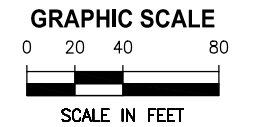
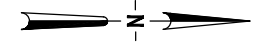
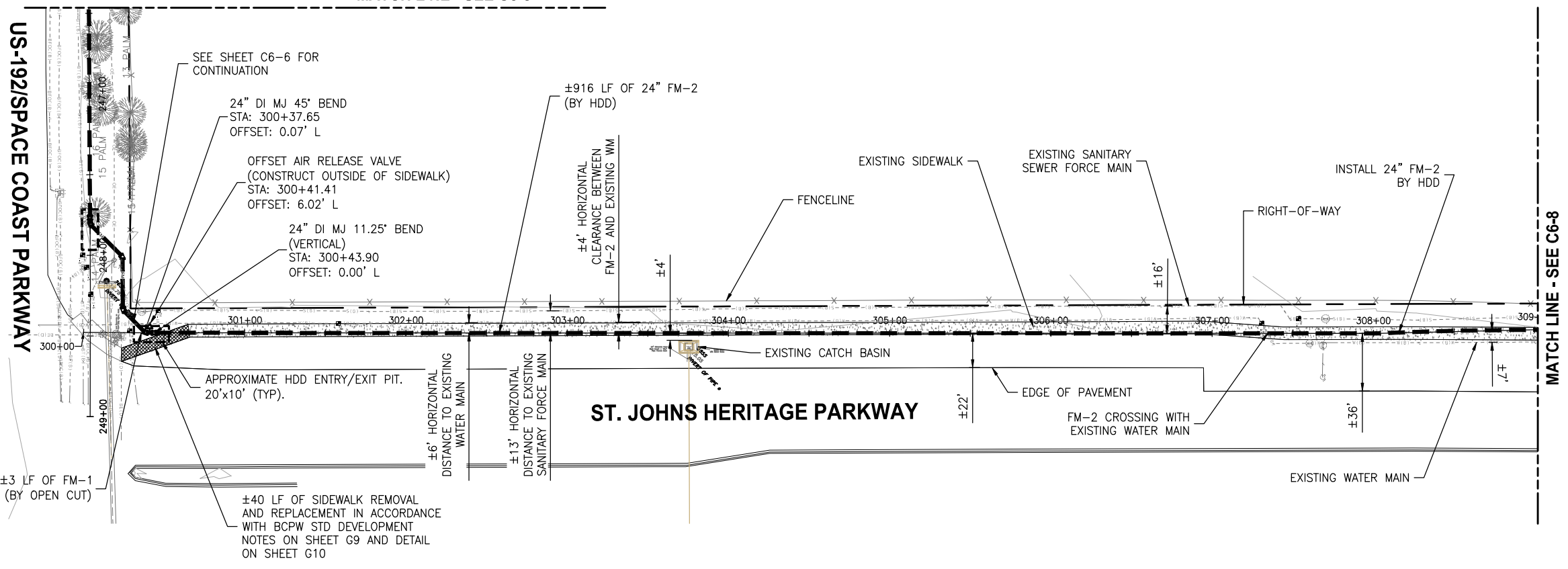
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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN  
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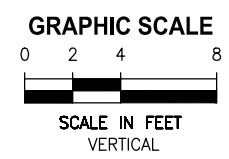
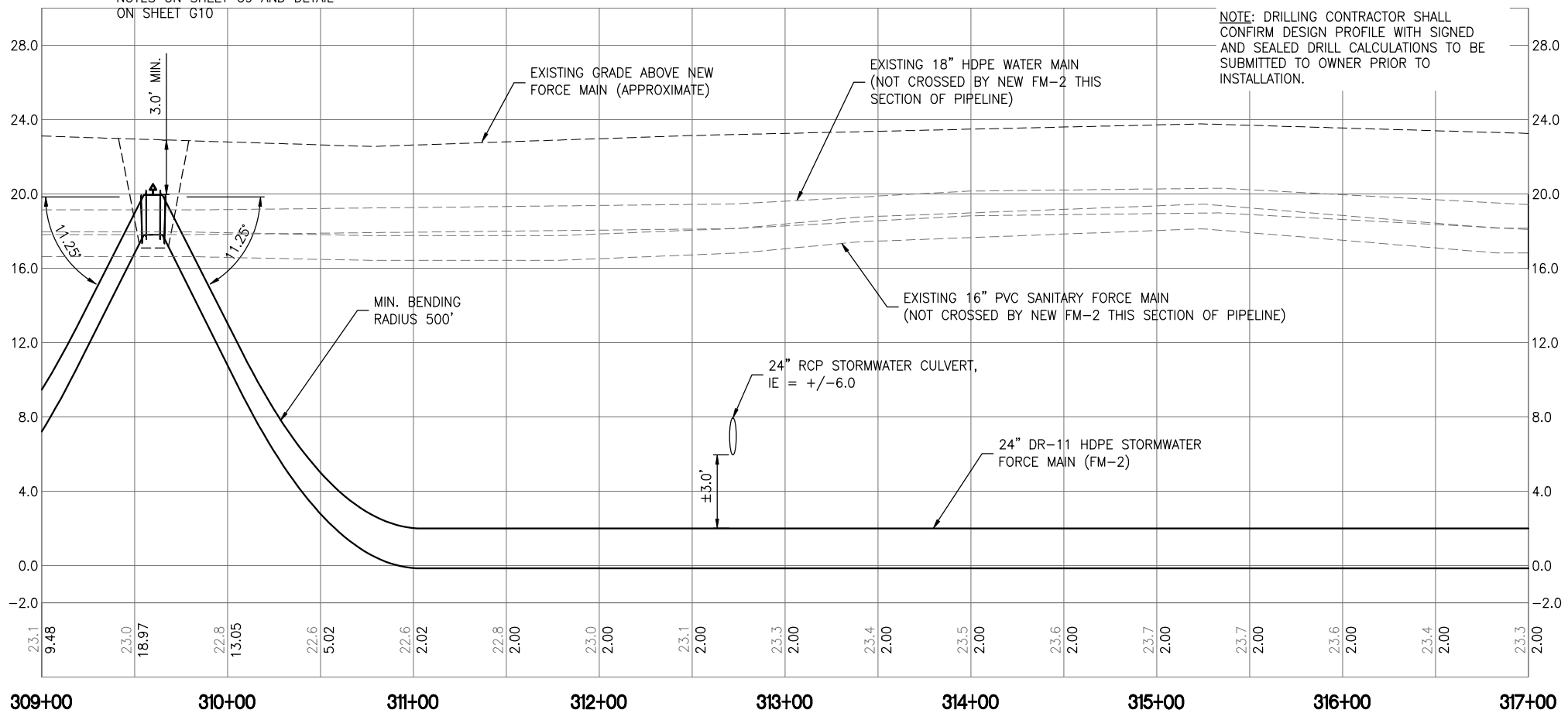
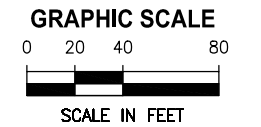
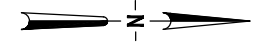
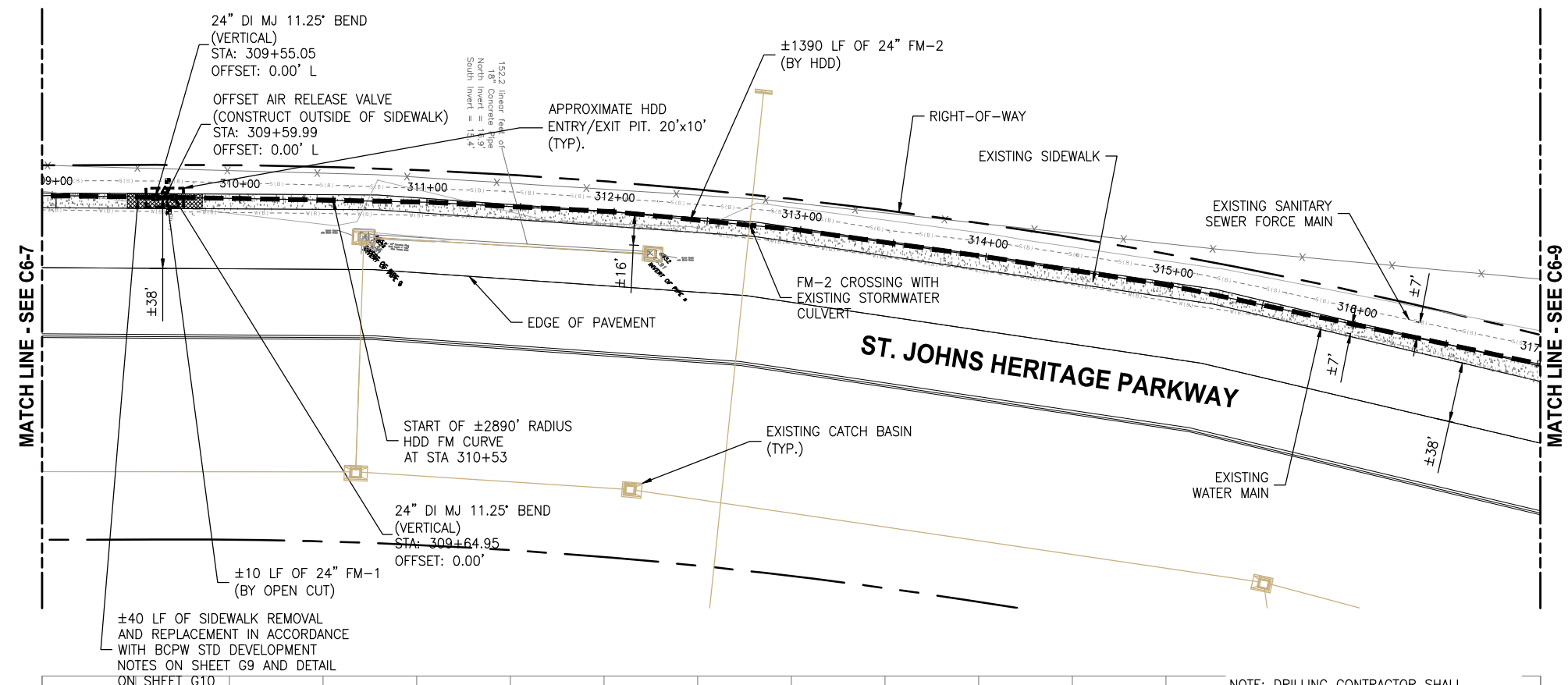
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CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
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DISCHARGE STORMWATER FORCEMAIN  
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**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
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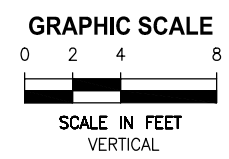
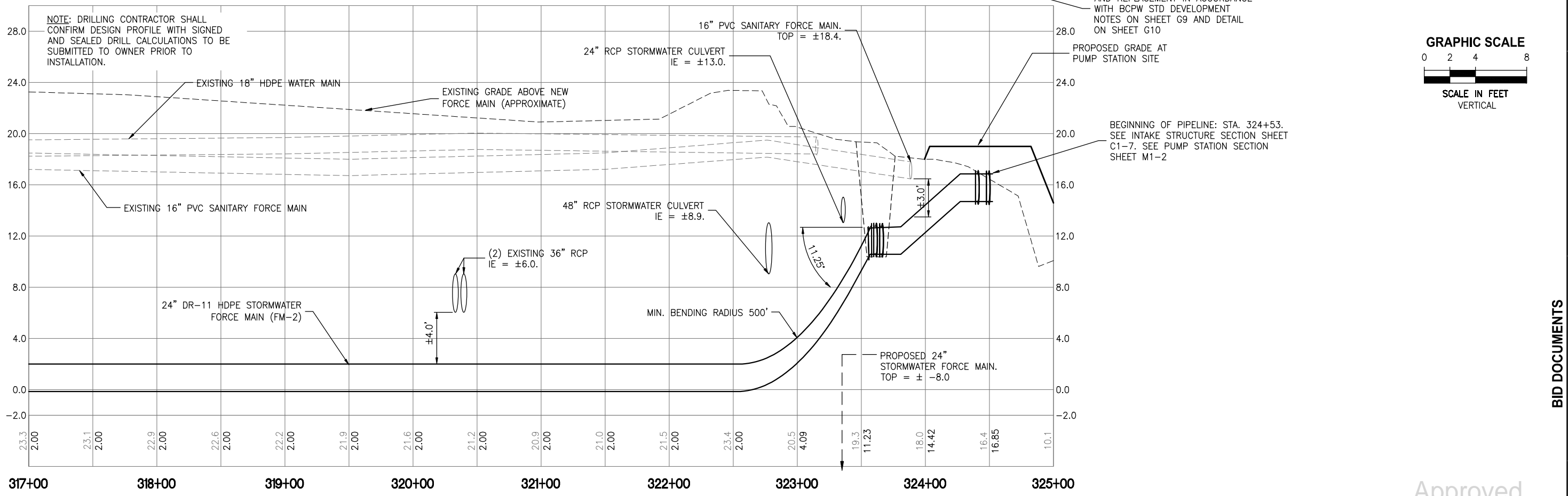
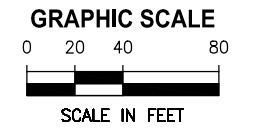
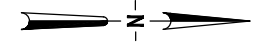
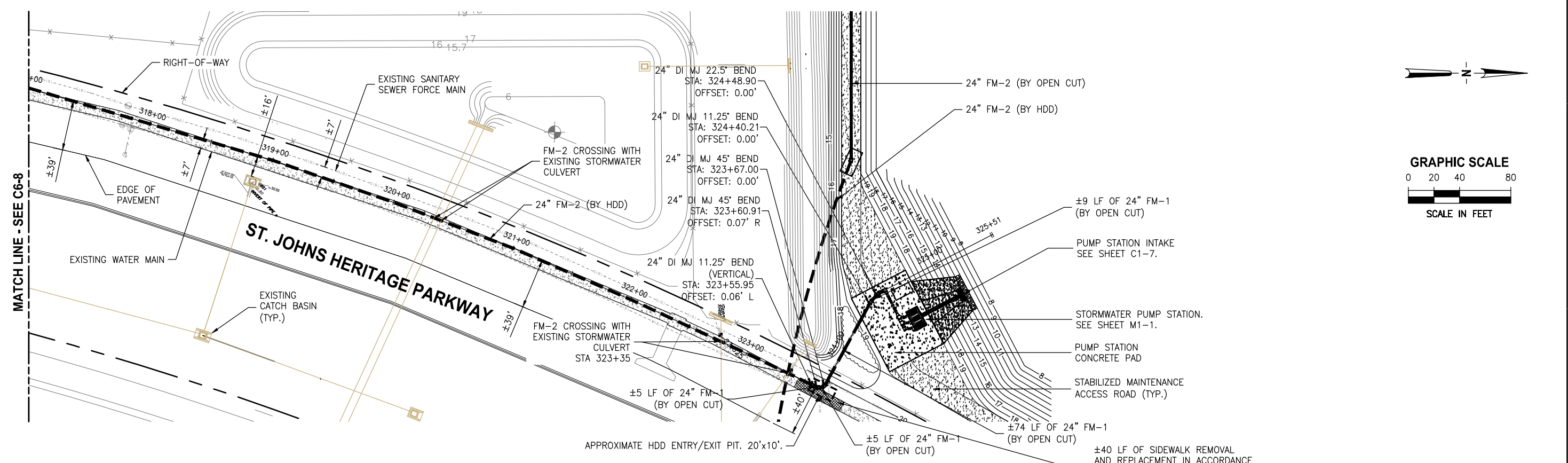
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CHECKED	R. KOLLER
BY	
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DATE	
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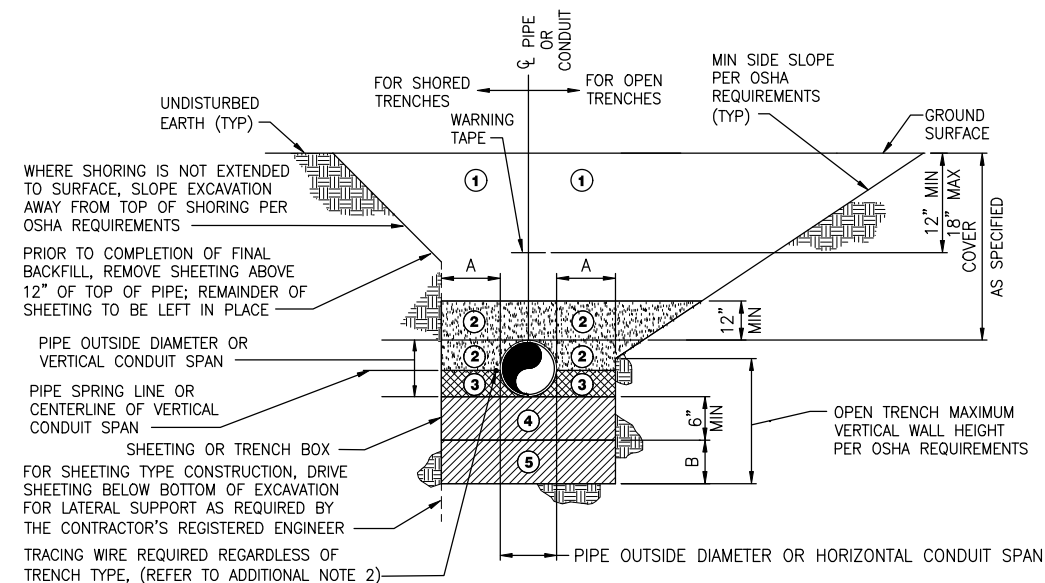
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NOMINAL PIPE DIAMETER OR HORIZONTAL CONDUIT SPAN (INCHES)	ADDITIONAL EXCAVATION DEPTH (1)	
	A (INCHES)	B (INCHES)
LESS THAN 24	12	12
24 AND GREATER	18	18

ZONE NO.	ZONE NAME	MATERIAL	COMPACTION
1	FINAL BACKFILL	AS SPECIFIED	AT LEAST 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY ASTM D-1557 (98% WHEN UNDER PAVEMENT)
2	INITIAL BACKFILL		
3	HAUNCHING		
4	BEDDING		
5	FOUNDATION		

(1) REQUIRED WHERE UNSUITABLE MATERIAL IS ENCOUNTERED.

**TRENCH ZONE NOTES:**

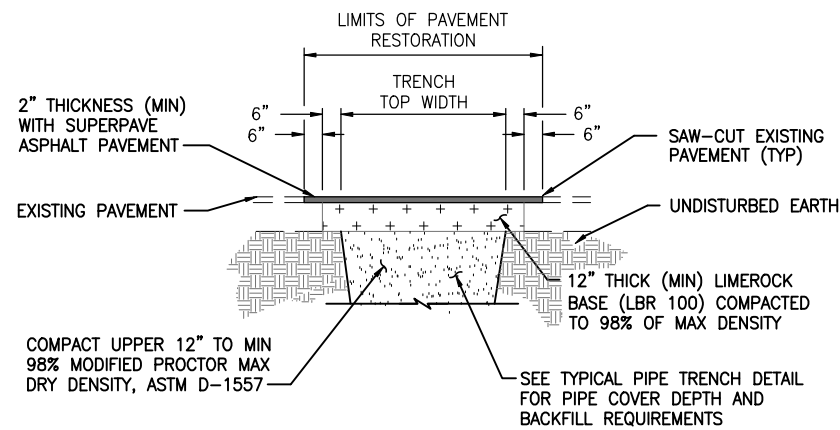
- FINAL BACKFILL SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT. REFER TO ADDITIONAL NOTE 3.
  - INITIAL BACKFILL SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT. ALL LIFTS SHALL BE COMPACTED BY HAND TAMPING OR AN APPROVED METHOD OF MECHANICAL TAMPING. REFER TO ADDITIONAL NOTE 3.
  - HAUNCHING SHALL BE IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT. ALL LIFTS SHALL BE COMPACTED BY HAND TAMPING. HAUNCHING SHALL BE BROUGHT UP EQUALLY ON BOTH SIDES OF THE PIPE.
  - BEDDING SHALL BE INSTALLED IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT, AND SHALL BE COMPACTED BY HAND OR MECHANICAL TAMPING. PROPERLY SHAPED BELL HOLES SHALL BE EXCAVATED IN THE BEDDING TO PERMIT ASSEMBLY OF THE PIPE. REFER TO ADDITIONAL NOTE 3.
- NATIVE, UNDISTURBED MATERIAL IN COMPLETELY DEWATERED TRENCHES MEETING THE COMPACTION AND MATERIAL REQUIREMENTS FOR COMPACTED BEDDING MATERIAL NEED NOT BE REPLACED OR REWORKED, EXCEPT FOR SHAPING OF THE BELL HOLES, AND WHERE REFILL IS REQUIRED.
- FOUNDATION SHALL BE REQUIRED WHERE UNSUITABLE MATERIAL IS ENCOUNTERED. FOUNDATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS FOR BEDDING. REFER TO ADDITIONAL NOTE 3.

**ADDITIONAL NOTES:**

- FOR TRENCHES IN VEHICULAR TRAFFIC AREAS OR BENEATH SURFACE IMPROVEMENTS (EG, SLABS, ASPHALT, ETC.) SEE CONTRACT SPECIFICATIONS FOR ADDITIONAL COMPACTION REQUIREMENTS. SEE DRAWINGS FOR SURFACE IMPROVEMENT AND /OR RESTORATION DETAILS WHERE APPLICABLE.
- TRACING WIRE SHALL BE INSTALLED ON THE SIDE OF THE PIPE AND ATTACHED TO THE PIPE EVERY 10' W/ A NYLON WIRE TIE. IF THE WIRE IS DAMAGED OR NEEDS TO BE EXTENDED A 3M WATERPROOF TYPE UF SPLICE SHALL BE INSTALLED TO REPAIR THE WIRE. THE ENDS OF THE TRACING WIRE SHALL BE BROUGHT UP IN EVERY VALVE BOX ON THE LINE AND AT THE HYDRANT VALVES. THERE SHALL BE A MINIMUM COIL OF 3' LEFT UNDER THE VALVE BOX COVER. THE WIRE SHALL BE TESTED TO VERIFY CONDUCTIVITY.
- ALTERNATIVE LIFT THICKNESSES, NOT EXCEEDING 12 INCHES LOOSE MEASUREMENT, ARE ACCEPTABLE IN TRENCH ZONES 1, 2, 4, AND 5 PROVIDED 1) THE LIFT THICKNESS DOES NOT EXCEED THE MAXIMUM VALUE RECOMMENDED IN WRITING BY THE APPLICABLE PIPE MANUFACTURER AND 2) FIELD TEST RESULTS CONFIRM THAT THE SPECIFIED COMPACTION REQUIREMENTS ARE BEING MET.

**TYPICAL UTILITY TRENCH DETAIL**

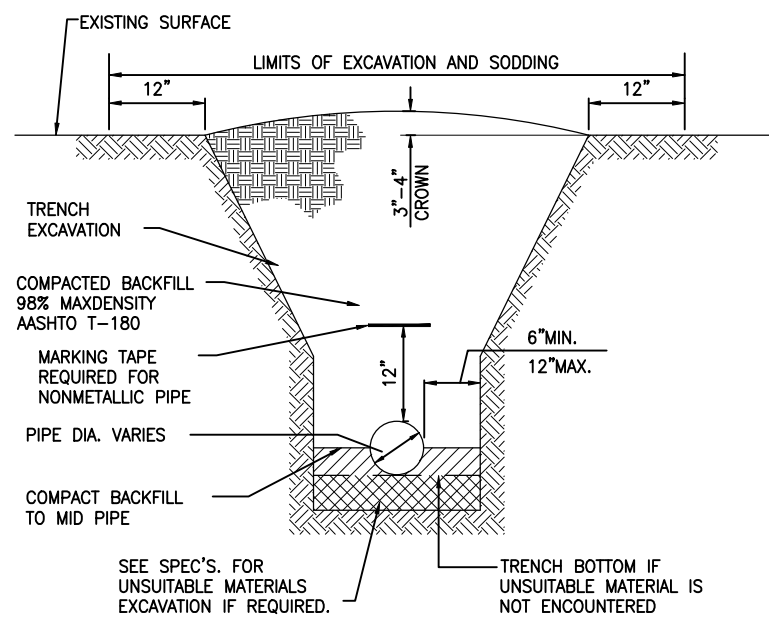
NTS



**NOTE:**  
ASPHALT PAVEMENT RESTORATION DETAIL APPLIES TO ROADS, DRIVEWAYS, PRIVATE ROADS, DRIVES, MISCELLANEOUS PATCHES, AND SIMILAR RESTORATION. WORK IN THE BREVARD COUNTY RIGHT-OF-WAY SHALL BE RESTORED IN ACCORDANCE WITH THE BREVARD COUNTY STANDARDS AND DETAILS.

**TYPICAL ASPHALT PAVEMENT RESTORATION DETAIL**

NTS

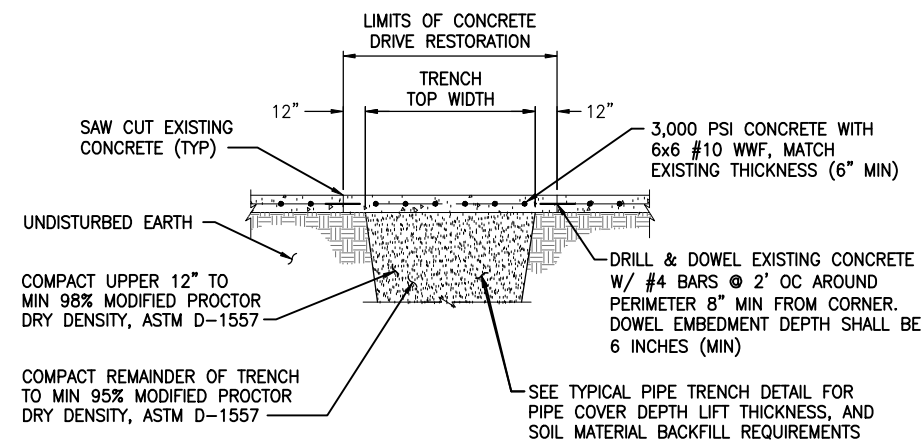


**NOTES :**

- DEWATERING SHALL CONTINUE UNTIL BACKFILL IS COMPACTED AT LEAST 2 FEET ABOVE PIPE.
- SURFACE TREATED PAVEMENT JOINTS SHALL BE LAPPED AND FEATHERED.
- CONTRACTOR SHALL SLOPE TRENCH IN ACCORDANCE WITH OSHA STANDARDS SHOW IN ABOVE TABLE B-1.

**TYPICAL TRENCH IN UNPAVED AREAS DETAIL**

NTS

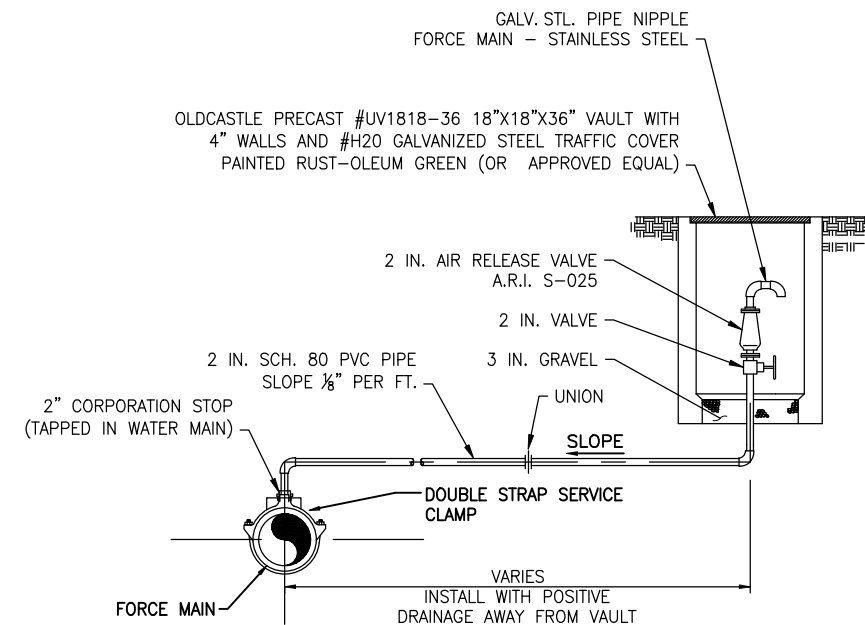


**NOTES:**

- DRILL AND DOWEL 1 LOCATION EACH SIDE FOR CURB REPAIR.
- MATCH EXISTING GRADE AND FINISH.

**TYPICAL CONCRETE DRIVEWAY RESTORATION DETAIL**

NTS



**OFFSET AIR RELEASE VALVE DETAIL**

NTS

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED D. SHELDON  
 DRAWN J. ALLEN  
 CHECKED R. KOLLER

**JonesEdmunds**  
 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

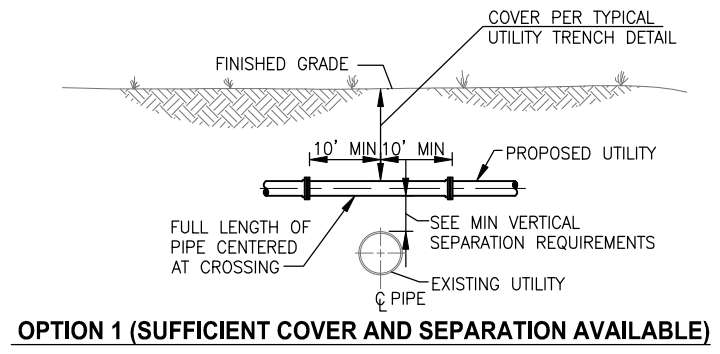
**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**DISCHARGE STORMWATER FORCEMAIN  
 PLAN AND PROFILE**

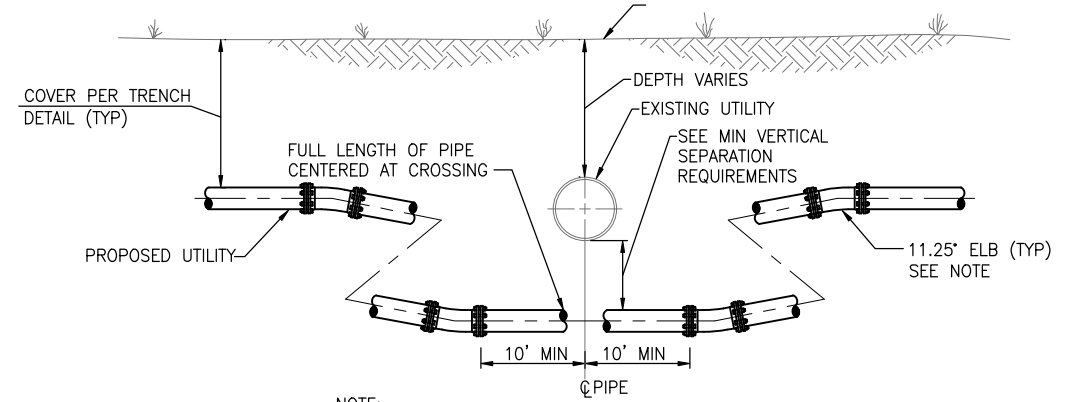
APPROVED  
 DONALD J. SHELDON JR., PROFESSIONAL ENGINEER,  
 STATE OF FLORIDA, LICENSE NUMBER 90306  
 PROJECT NO. 19750-066-01 DATE: JULY 2022  
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 7/15/2022 11:12 AM JALLEN

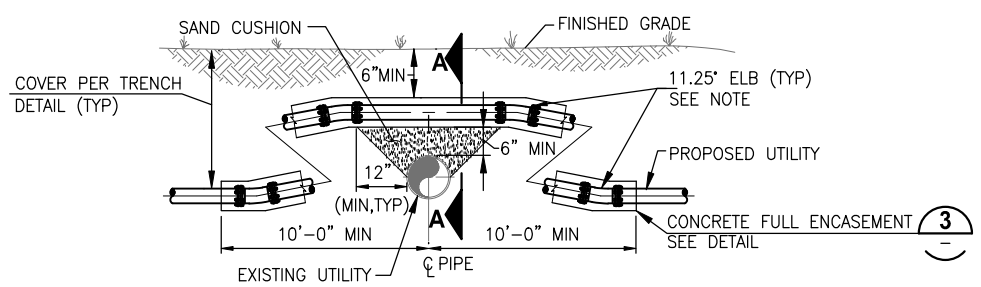
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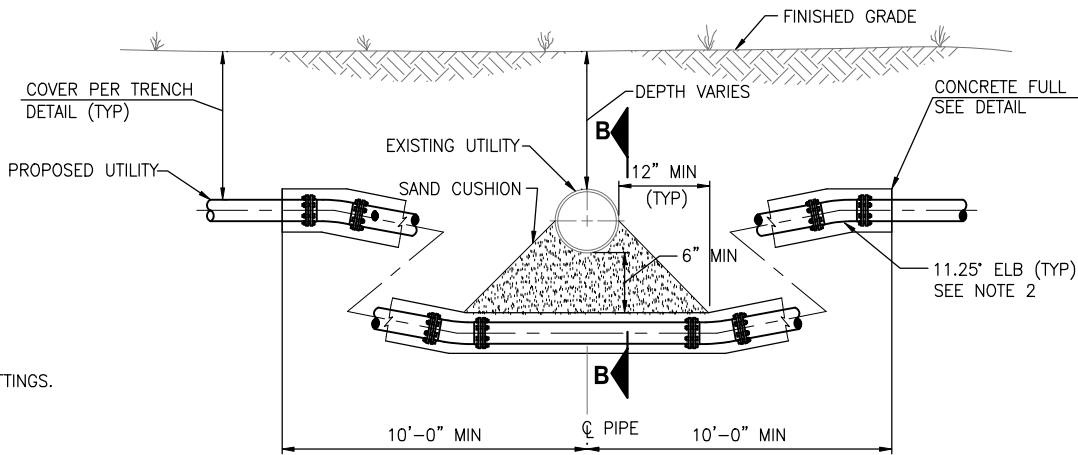
**OPTION 1 (SUFFICIENT COVER AND SEPARATION AVAILABLE)**



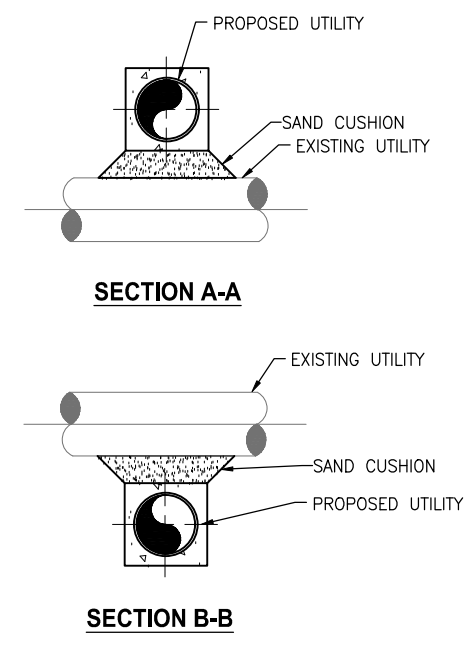
**OPTION 2 (SUFFICIENT SEPARATION AVAILABLE)**



**ALTERNATE OPTION 1 (SUFFICIENT COVER OR SEPARATION NOT AVAILABLE)**

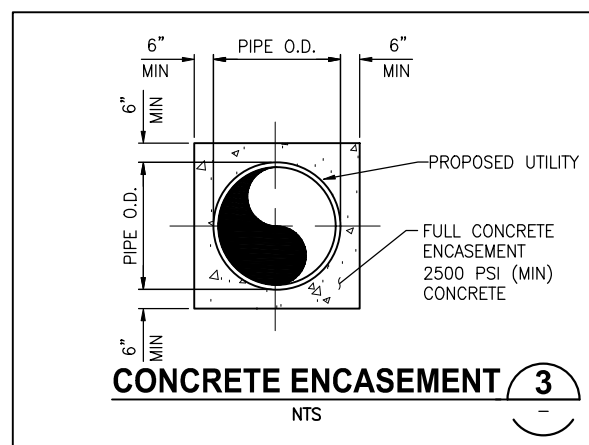


**ALTERNATE OPTION 2 (SUFFICIENT SEPARATION NOT AVAILABLE)**



**SECTION A-A**

**SECTION B-B**



**CONCRETE ENCASEMENT**

- NOTES:
- FOR PROPOSED WATER MAINS, THIS OPTION IS ONLY ALLOWED WITH APPROVAL OF THE ENGINEER AND FDEP ON A CASE BY CASE BASIS.
  - WITH APPROVAL OF ENGINEER, CONTRACTOR MAY DEFLECT PIPE AS SPECIFIED INSTEAD OF USING FITTINGS.

PROPOSED UTILITY	EXISTING UTILITY						COMMENTS
	POTABLE WATER	GRAVITY SANITARY SEWER	SEWAGE FORCE MAIN	STORM	RECLAIMED WATER	ELECTRIC TELECOMMUNICATIONS	
POTABLE WATER	1'-0"	1'-6"	1'-6"	1'-0"	1'-0"	1'-0"	SEE NOTE 1
GRAVITY SANITARY SEWER	1'-6"	1'-0"	1'-0"	1'-6"	1'-6"	1'-0"	
SEWAGE FORCE MAIN	1'-6"	1'-0"	1'-0"	1'-0"	1'-6"	1'-0"	SEE NOTE 2
STORM	1'-0"	1'-6"	1'-0"	1'-0"	1'-0"	1'-0"	
RECLAIMED WATER	1'-0"	1'-6"	1'-6"	1'-0"	1'-0"	1'-0"	SEE NOTE 2
ELECTRIC TELECOMMUNICATIONS	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	

NOTE:  
1. ONLY OPTION 1 CONSTRUCTION IS ALLOWED WITHOUT APPROVAL OF ENGINEER.

**MINIMUM VERTICAL SEPARATION REQUIREMENTS**



PROPOSED UTILITY	MINIMUM HORIZONTAL SEPARATION EXISTING UTILITY					
	POTABLE WATER	GRAVITY SANITARY SEWER	SEWAGE FORCE MAIN	STORM	RECLAIMED WATER	ELECTRIC TELECOMMUNICATIONS
POTABLE WATER	1'-0"	10'-0"	10'-0"	3'-0"	3'-0"	3'-0"
GRAVITY SANITARY SEWER	10'-0"	1'-0"	1'-0"	3'-0"	3'-0"	3'-0"
SEWAGE FORCE MAIN	10'-0"	1'-0"	1'-0"	3'-0"	3'-0"	3'-0"
STORM	3'-0"	3'-0"	3'-0"	1'-0"	3'-0"	3'-0"
RECLAIMED WATER	3'-0"	3'-0"	3'-0"	3'-0"	1'-0"	3'-0"
ELECTRIC TELECOMMUNICATIONS	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	2'-0"

NOTE:  
UTILITIES SHALL NOT BE INSTALLED WITHIN THE DRIP LINE OF TREES WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.



SAVED: 4/14/2022 3:17 PM PBOLLINGER Y:\19750-SURWMD\PROJECTS\066-01\_CRANE CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD VOLUME 2\DWGS\CIVIL\19750066-VOL2-C06-11.DWG

DESIGNED	D. SHELDON			
DRAWN	J. ALLEN			
CHECKED	R. KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.

**JonesEdmunds**  
 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

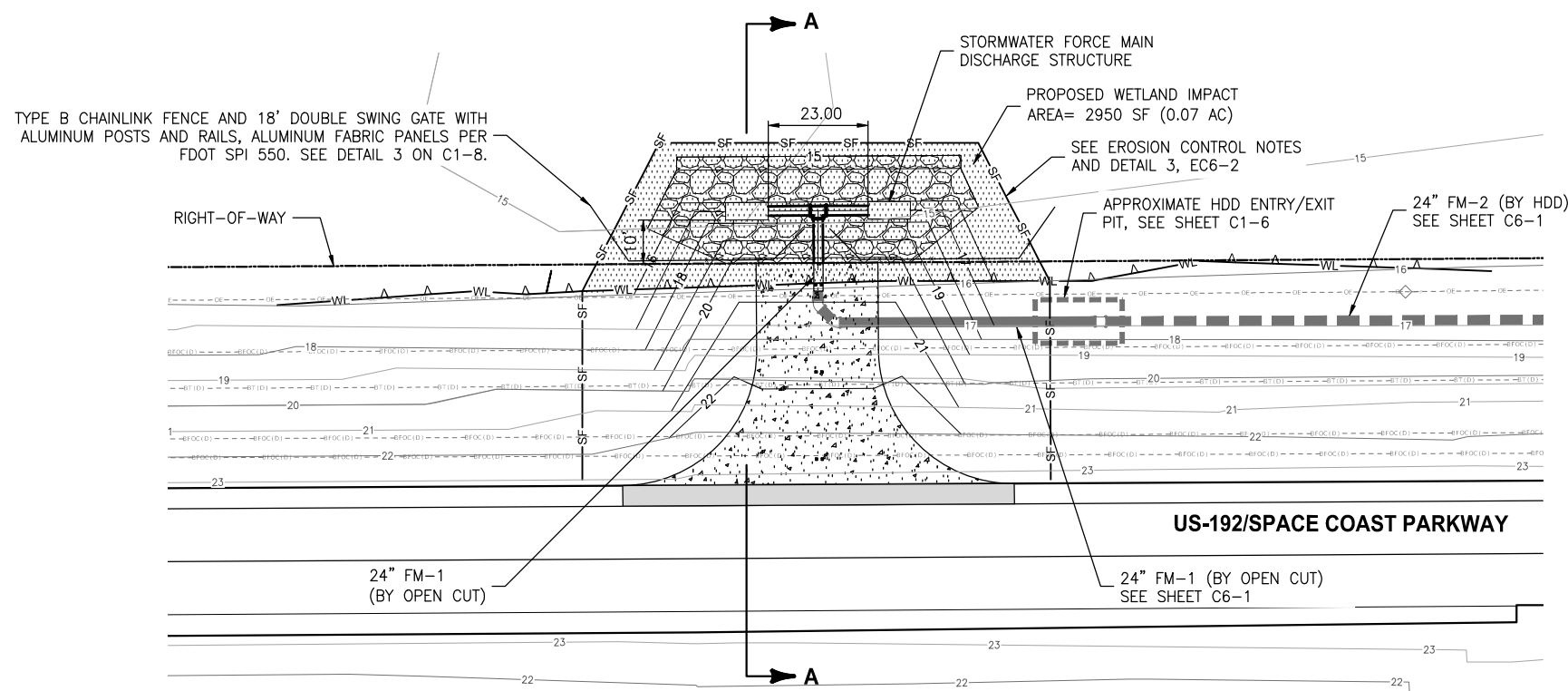
**DISCHARGE STORMWATER FORCEMAIN  
 PLAN AND PROFILE**

DONALD J. SHELDON JR., PROFESSIONAL ENGINEER,  
 STATE OF FLORIDA, LICENSE NUMBER 90396  
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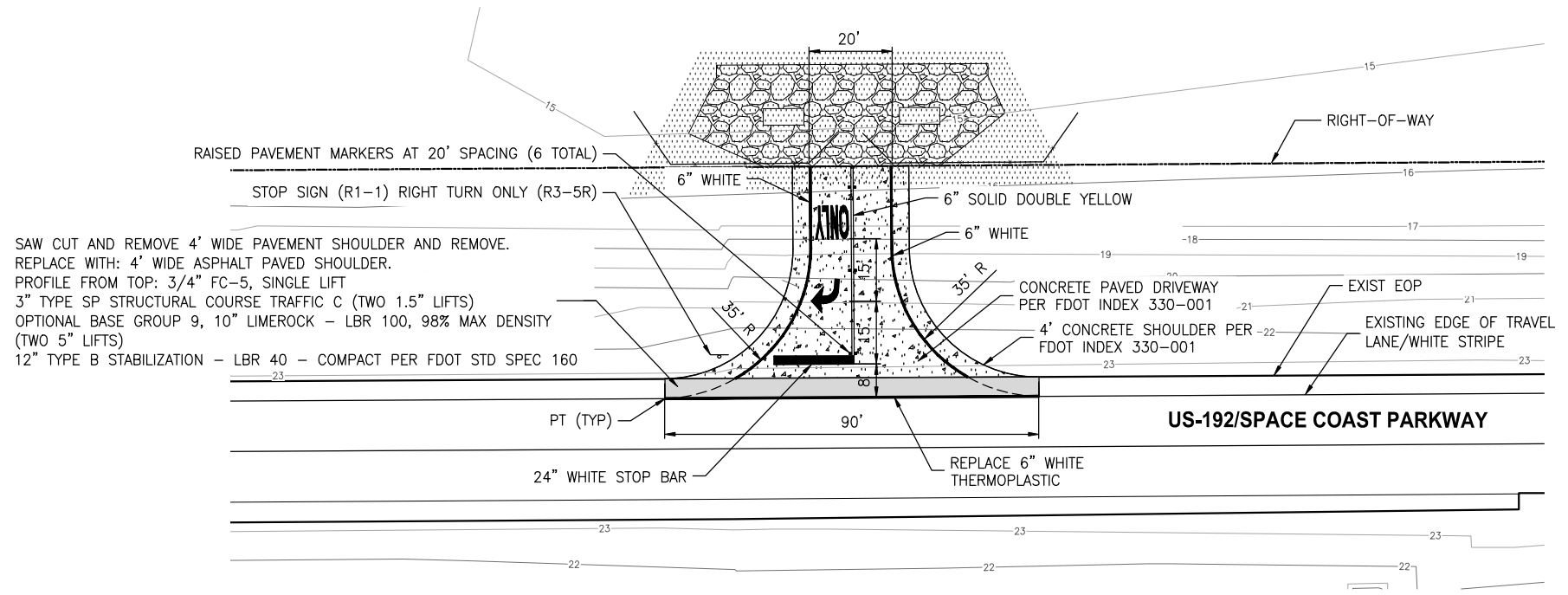
PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
 INDEX NO: 19750-066-01-0026  
 DWG NO: C6-11

BID DOCUMENTS

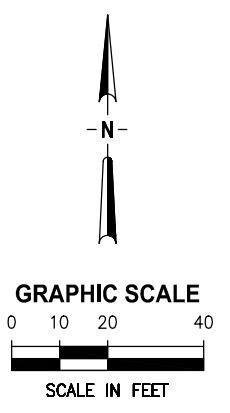
Approved  
 4/22/2022  
 William Richard  
 8/2/2022



**OUTFALL STRUCTURE DETAIL**



**DRIVEWAY PAVEMENT AND MARKINGS DETAIL**



- FDOT GENERAL NOTES:**
1. ALL WORK PERFORMED WITHIN THE FDOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH 2022/2023 EDITION OF THE FDOT STANDARDS PLANS FOR ROAD AND BRIDGE CONSTRUCTION, JAN. 2022 SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE 2017 UTILITY ACCOMMODATION MANUAL.
  2. ALL EXCAVATIONS WITHIN TEN (10) FEET OF THE TRAVEL LANES AND GREATER THAN THREE (3) INCHES DEEP MUST BE FILLED IN OR HAVE A SHOULDER TREATMENT PLACED AT THE DROP-OFF PER INDEX #102-600 OF FDOT 2022/2023 STANDARDS PLANS INDEXES AT THE END OF THE WORK DAY.
  3. CONTRACTOR SHALL CONTACT FDOT TWO WEEKS IN ADVANCE AND SET UP A PRE-CONSTRUCTION MEETING PRIOR TO STARTING ANY WORK IN FDOT RIGHT-OF-WAY.
  4. ALL TRAFFIC CONTROL DEVICES MUST BE IN PLACE BEFORE WORK CAN START.
  5. MAINTENANCE OF TRAFFIC TO BE SUPERVISED BY A FDOT CERTIFIED WORK TRAFFIC SUPERVISOR.
  6. ENGINEER'S CERTIFICATIONS TOGETHER WITH AS-BUILT PLANS ARE REQUIRED TO BE SUBMITTED WITHIN 30 DAYS OF COMPLETION WORK WITHIN FDOT RIGHT-OF-WAY.
  7. SOD ALL UNPAVED AREAS WITHIN FDOT RIGHT-OF-WAY THAT ARE DISTURBED BY CONSTRUCTION PER FDOT STANDARDS PLANS INDEX #570-010.
  8. THE CONTRACTOR SHALL COMPLY WITH TRAFFIC CONTROL REQUIREMENTS IN ACCORDANCE WITH FDOT STANDARD PLANS 102-602 AND 102-603,
  9. THE CONTRACTOR SHALL SOD SHOULDERS IN ACCORDANCE WITH FDOT STANDARD PLAN 570-010.
  10. ALL PAVEMENT MARKINGS ARE TO BE PAINTED UNLESS NOTED OTHERWISE. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION 971.

Y:\19750-SRRMMD\PROJECTS\066-01-CRANE CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\CIVIL\19750066-VOL2-C06-12.DWG  
 7/25/2022 8:34 AM JALLEN

DESIGNED	A GOODDEN			
DRAWN	J ALLEN			
CHECKED	R KOLLER			
LTR.	DATE	REVISIONS	BY	APPRD.

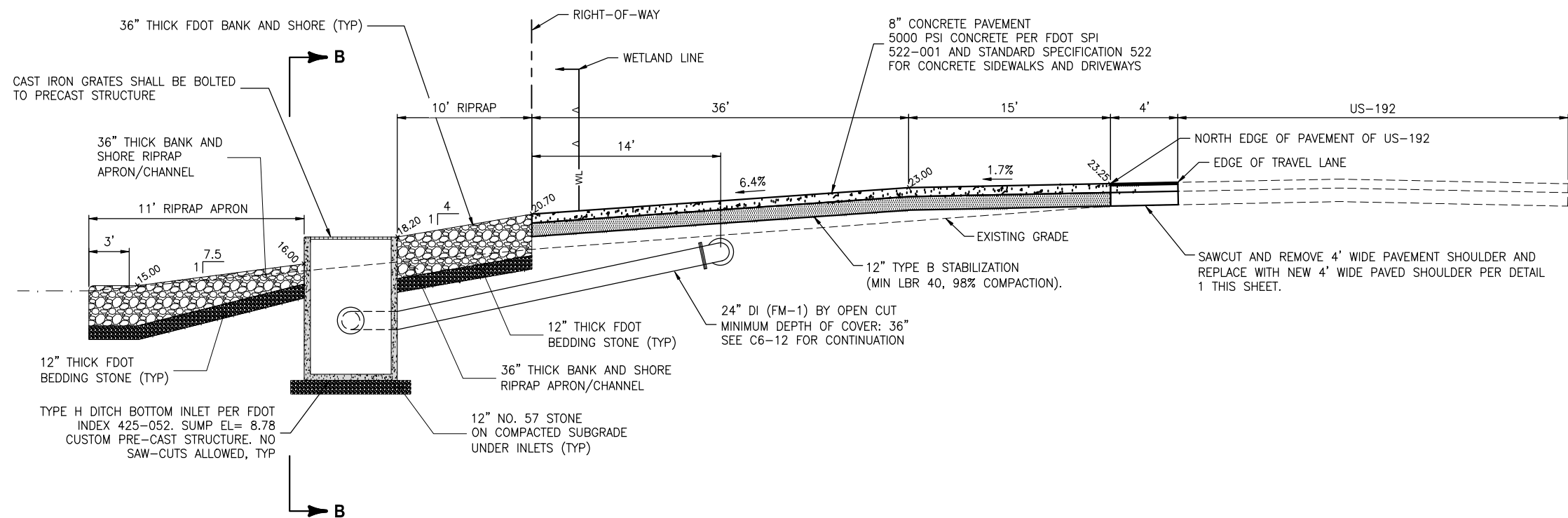
**JonesEdmunds**  
 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

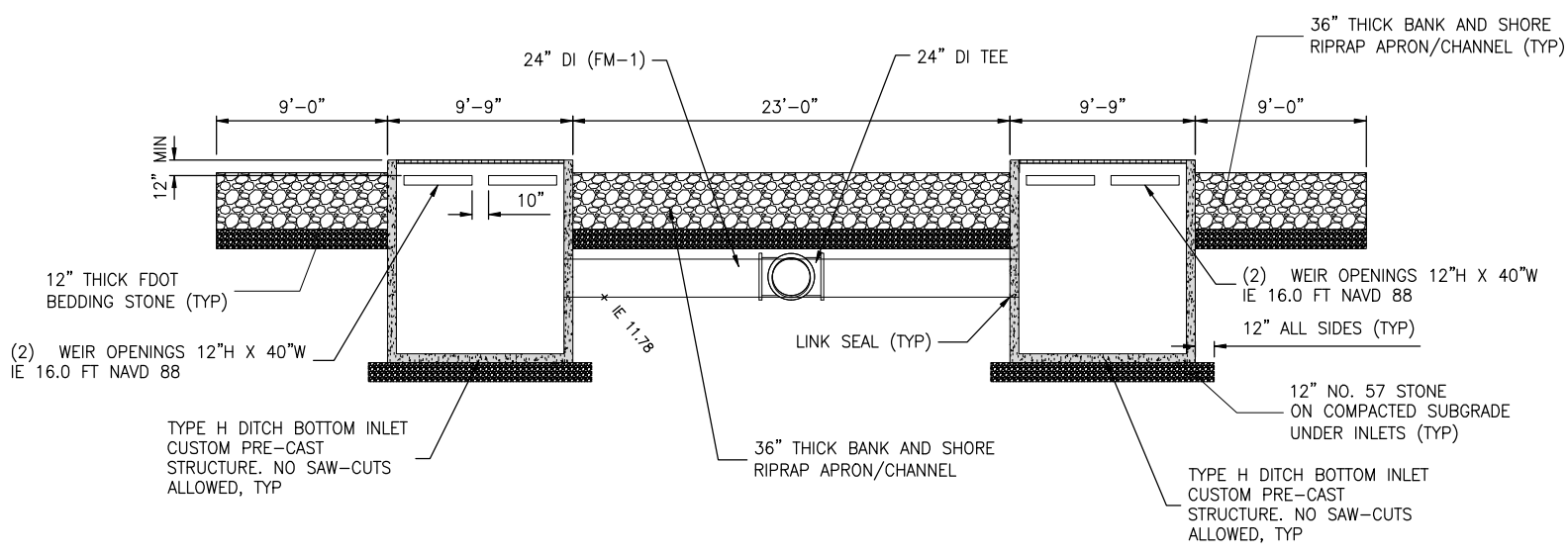
**OUTFALL STRUCTURE DETAIL**

Approved  
 2022-07-22  
 AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097  
 PROJECT NO: 19750-066-01  
 DATE: JULY 2022  
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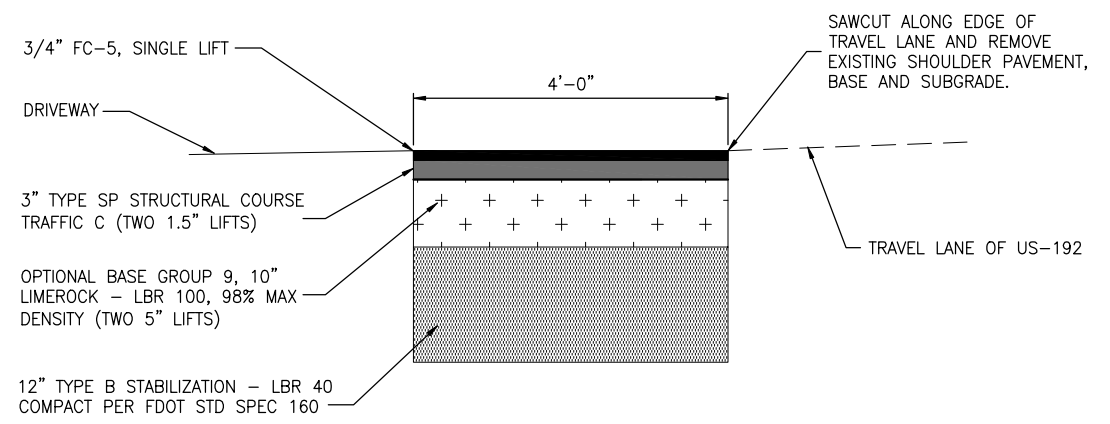
BID DOCUMENTS



SECTION A-A  
NTS



SECTION B-B  
NTS



DETAIL 1 - MAINLINE SHOULDER DETAIL FOR US-192  
NTS

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7/20/2022 3:21 PM JALLEN

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

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 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
 M-1 CANAL FLOW RESTORATION  
 VOLUME 2**

**OUTFALL STRUCTURE DETAIL**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097	PROJECT NO:	DATE:
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT.	19750-066-01	JULY 2022
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		C6-13

BID DOCUMENTS

Approved  
 2022 JUL 20 10:50 AM  
 7/20/2022

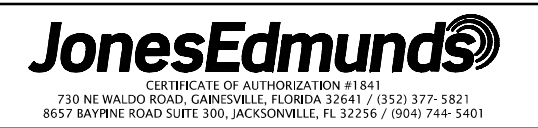
CONTRACTOR REQUIREMENTS

Table with 4 main columns: SITE DESCRIPTION, GENERAL, SPILL PREVENTION, and MAINTENANCE/INSPECTION PROCEDURES. Includes sub-sections like SEQUENCE OF MAJOR ACTIVITIES, CONTROLS, SPILL CONTROL PRACTICES, and EROSION AND SEDIMENT CONTROLS.

SAVED: 4/18/2022 6:20 PM AGOODDEN Y:\19750-SURVMD\PROJECTS\066-01\_CRANE CREEK\_M-1\_FLOW\_RESTORATION\_DESIGN\CAD\VOLUME 2\DWGS\EROSION CONTROL\19750066-VOL2-EC6-1.DWG

BID DOCUMENTS

Approval table with columns: LTR., DATE, REVISIONS, BY, APPRD. Includes rows for DESIGNED (A GOODDEN), DRAWN (J ALLEN), and CHECKED (R KOLLER).

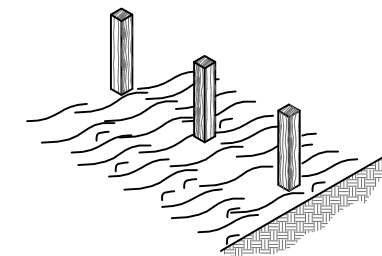


CRANE CREEK M-1 CANAL FLOW RESTORATION VOLUME 2

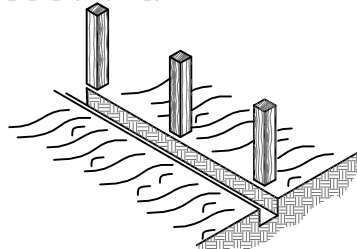
DISCHARGE SITE EROSION CONTROL PLAN

Approved 2022 07/25/2022. AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097. PROJECT NO: 19750-066-01. DATE: JULY 2022.

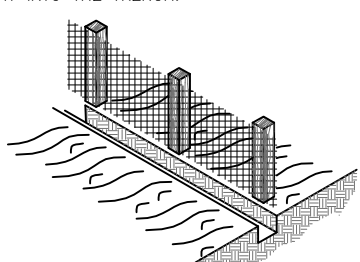
A. SET THE STAKES.



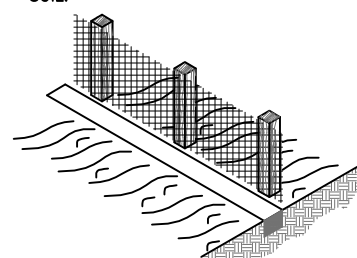
B. EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.



C. STAPLE SILT FENCE TO STAKES AND EXTEND IT INTO THE TRENCH.



D. BACKFILL AND COMPACT THE EXCAVATED SOIL.



**CONSTRUCTION OF A SILT FENCE DETAIL 1**

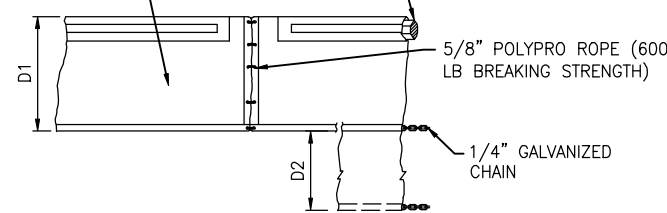
NTS

18oz NYLON REINF PVC FABRIC (300 PSI TEST) WITH LACING GROMMETS

CLOSED CELL SOLID PLASTIC FOAM FLOTATION (6" DIA EQUIV) (12 LBS PER FT BUOYANCY)

5/16" VINYL SHEATHED EAW STEEL CABLE (9800 LBS BREAKING STRENGTH) WITH GALVANIZED CONNECTORS (TOOL FREE DISCONNECT)

CLOSED CELL SOLID PLASTIC FOAM FLOTATION (8" DIA EQUIV) (17 LBS PER FT BUOYANCY)



**TYPE 1**

D1 = 5' STD (SINGLE PANEL FOR DEPTHS 5' OR LESS)  
D2 = 5' STD (ADDITIONAL PANEL FOR DEPTHS 5')

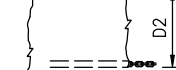
CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALL FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTICE: COMPONENTS OF TYPES 1 AND 2 MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES 1 AND 2 SHALL BE AS APPROVED BY THE ENGINEER.

SLOTTED PVC CONNECTOR PIPE (METAL COLLAR REINFORCED)

18oz NYLON REINF PVC FABRIC (300 PSI TEST)

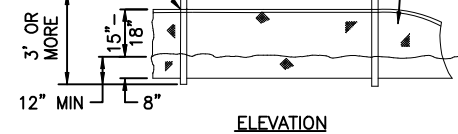
STRESS PLATE



**TYPE 2**

**TYPICAL FLOATING TURBIDITY BARRIER DETAIL**

POST (OPTIONS: 2"x4" OR 2 1/2" WOOD; STEEL MIN DIA 1.33 LBS/FT MIN)



ELEVATION

6' MAX

3' OR MORE

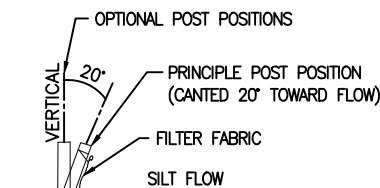
12" MIN

15"

18"

8"

OPTIONAL POST POSITIONS



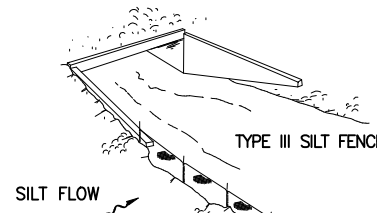
SECTION

OPTIONAL POST POSITIONS

PRINCIPLE POST POSITION (CANTED 20° TOWARD FLOW)

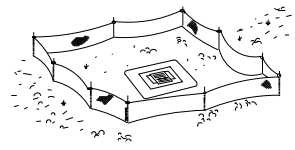
FILTER FABRIC

SILT FLOW



TYPE III SILT FENCE

SILT FLOW



TYPE III SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS

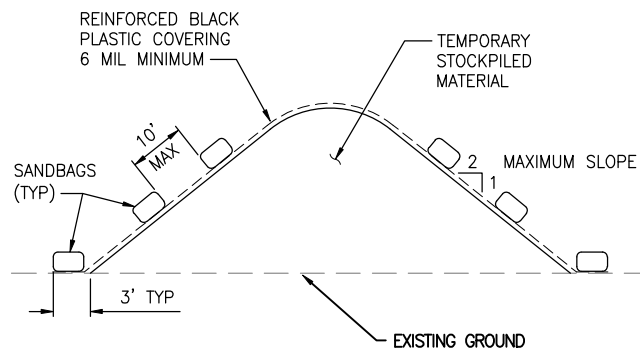
**TYPE III SILT FENCE**

NOTES:

- A. DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
- B. WHEN JOINING BUTT ENDS OF SILT FENCE FABRIC; JOIN FABRIC ENDS, WRAP AROUND A POST 360-DEGREES, AND SET POST.

**FDOT INDEX NUMBER 102 SILT FENCE DETAIL 3**

NTS



NOTES:

1. ALL SEAMS SHALL BE TAPED OR WEIGHTED DOWN FULL LENGTH. ALL SEAMS SHALL HAVE A MINIMUM 12" OVERLAP.
2. SEAMS PARALLEL TO THE SLOPE CONTOUR SHALL HAVE THE UPHILL SHEET OVERLAP THE DOWN HILL SHEET.
3. NO SURFACE RUN-OFF SHALL BE ALLOWED TO RUN UNDER THE PLASTIC COVERING.
4. DRAINAGE FROM AREAS COVER BY REINFORCED PLASTIC SHEETING SHALL BE CONTROLLED SUCH THAT NO DISCHARGE OCCURS DIRECTLY ONTO UNCONTROLLED DISTURBED AREAS OF THE CONSTRUCTION SITE.

**TEMPORARY STOCKPILE COVERING**

NTS

DESIGNED	A GOODDEN
DRAWN	J ALLEN
CHECKED	R KOLLER

**JonesEdmunds**  
 CERTIFICATE OF AUTHORIZATION #1841  
 730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821  
 8657 BAYPINE ROAD SUITE 300, JACKSONVILLE, FL 32256 / (904) 744-5401

**CRANE CREEK  
M-1 CANAL FLOW RESTORATION  
VOLUME 2**

**DISCHARGE SITE EROSION CONTROL  
NOTES**

AMY LIANE GOODDEN, PROFESSIONAL ENGINEER, STATE OF FLORIDA, LICENSE NUMBER 60097	PROJECT NO: 19750-066-01	DATE: JULY 2022
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY AMY LIANE GOODDEN ON THE DATE AT THE RIGHT	INDEX NO: William Richard	DWG NO: EC6-2

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 12/23/2021 2:23 PM JALLEN

BID DOCUMENTS

Approved  
 2022  
 William Richard  
 8/2/2022

**FDOT STANDARD PLANS FOR WORK WITHIN US HIGHWAY 192  
FROM 2022-2023 FDOT STANDARD PLANS**

**INCLUDES THE FOLLOWING INDEX NUMBERS:  
102-602, 102-603, 570-010, 711-001**

**NOTE: THESE STANDARD PLANS ARE REPRODUCED AND INCLUDED IN THIS SET OF DRAWINGS PER FDOT'S REQUIREMENTS. ALL OTHER REQUIREMENTS IN THE CONTRACT DOCUMENTS FOR ADHERENCE TO FDOT STANDARD PLANS, SPECIFICATIONS AND MANUALS SHALL ALSO APPLY WHETHER REPRODUCED HERE OR NOT.**





Approved  
2022-A-590-00026  
William Rickard  
8/2/2022

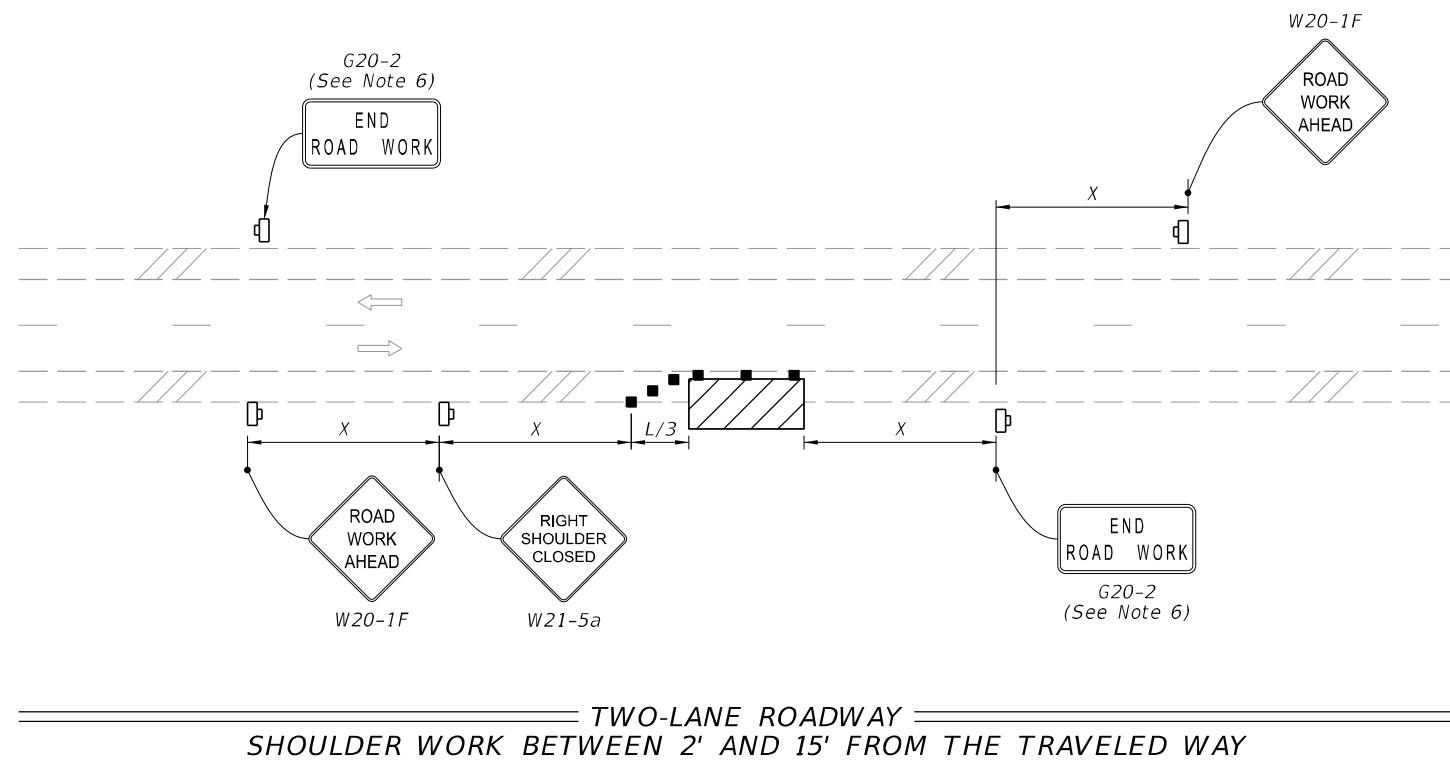
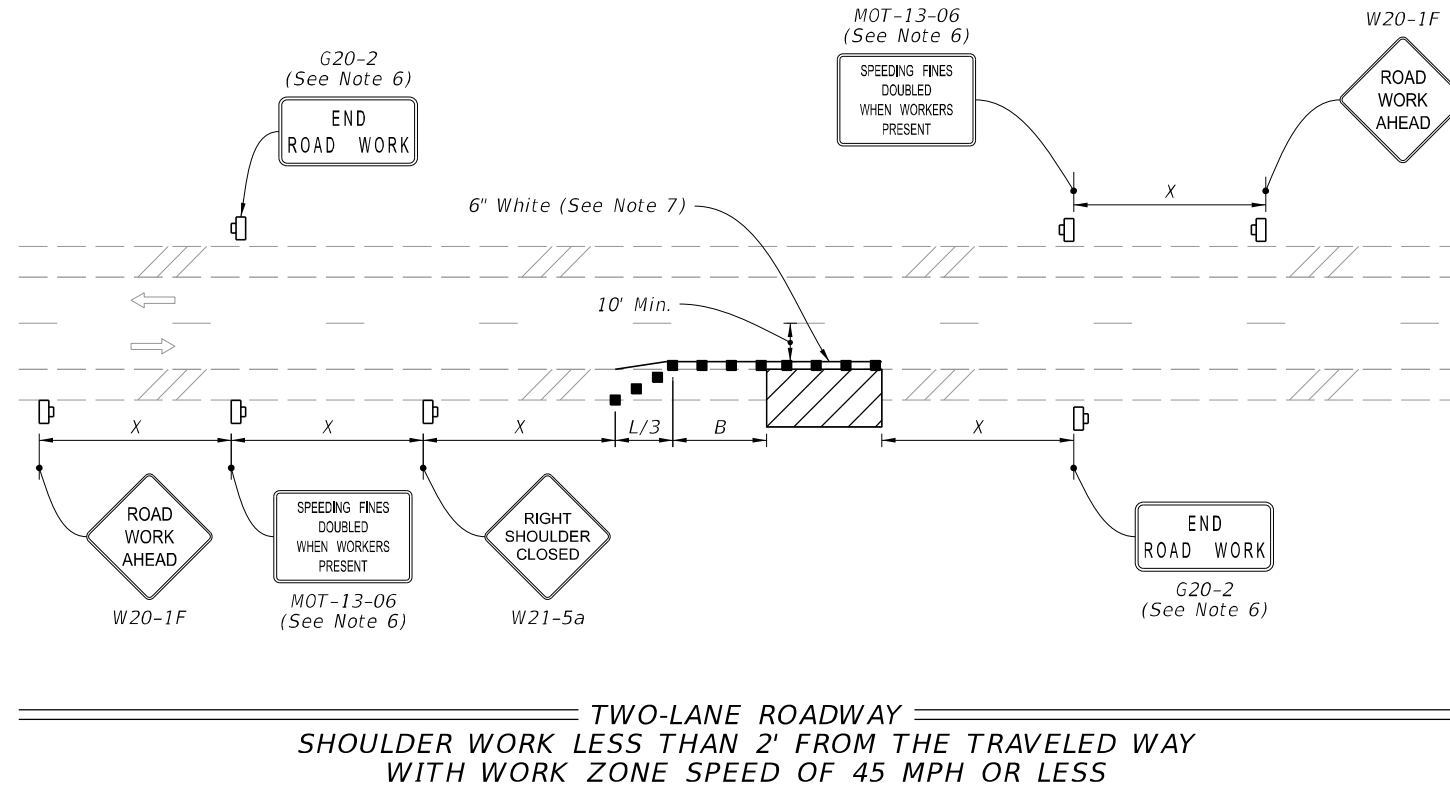


**NOTE:**

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

**SYMBOLS:**

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



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LAST REVISION	DESCRIPTION:
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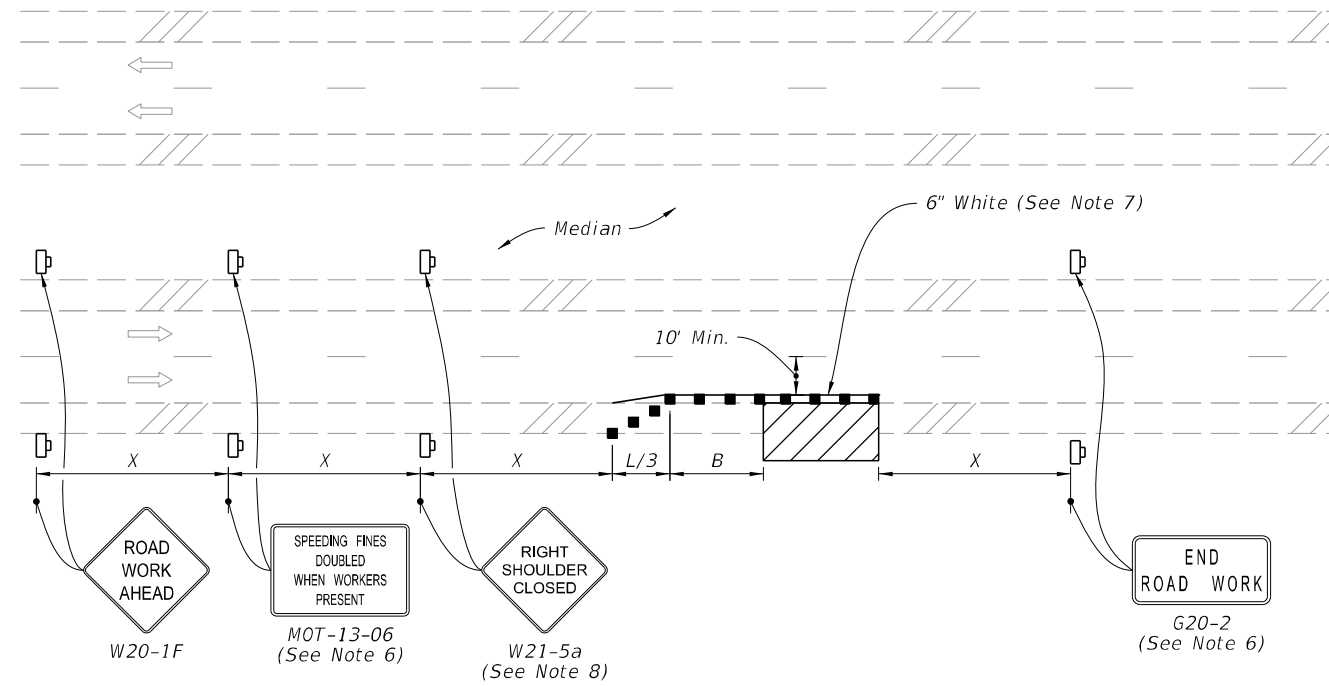

**FY 2022-23**  
**STANDARD PLANS**

**TWO-LANE AND MULTILANE, WORK ON SHOULDER**

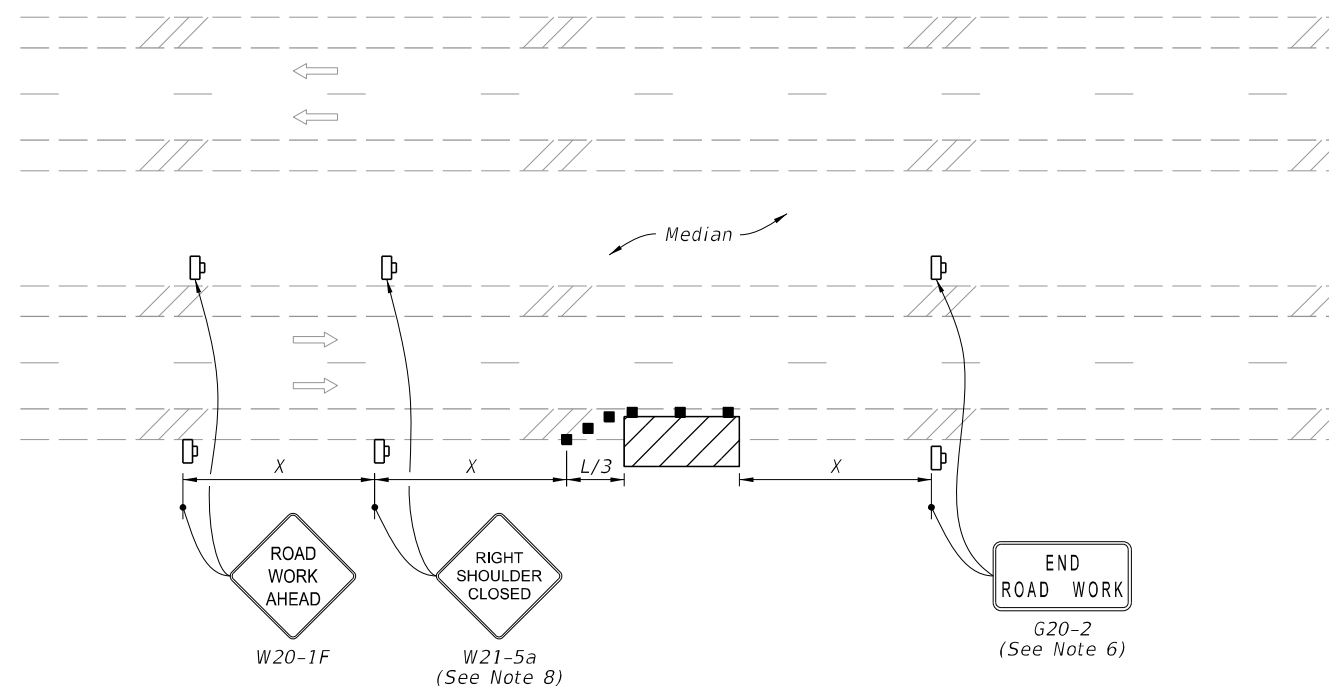
INDEX	SHEET
102-602	1 of 2

Approved  
 2022-A-590-00026  
 William Rickard  
 8/2/2022

9/23/2021 2:40:49 PM







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



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

**SYMBOLS:**

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

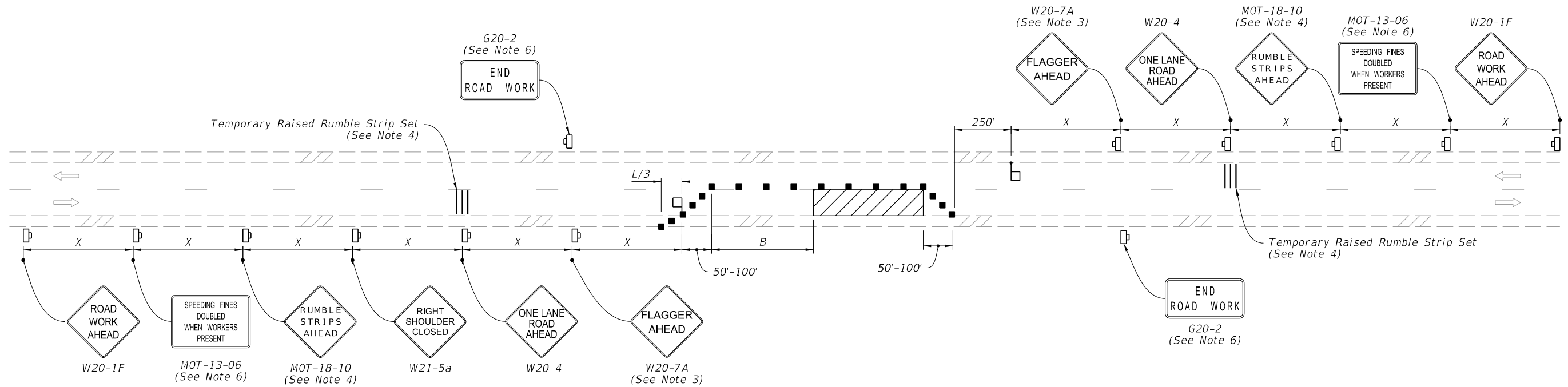
LAST REVISION 11/01/20	REVISION	DESCRIPTION:
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**FDOT** FY 2022-23  
STANDARD PLANS

TWO-LANE AND MULTILANE, WORK ON SHOULDER

INDEX 102-602	SHEET 2 of 2
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Approved  
2022-A-590-00026  
William Rickard  
8/2/2022



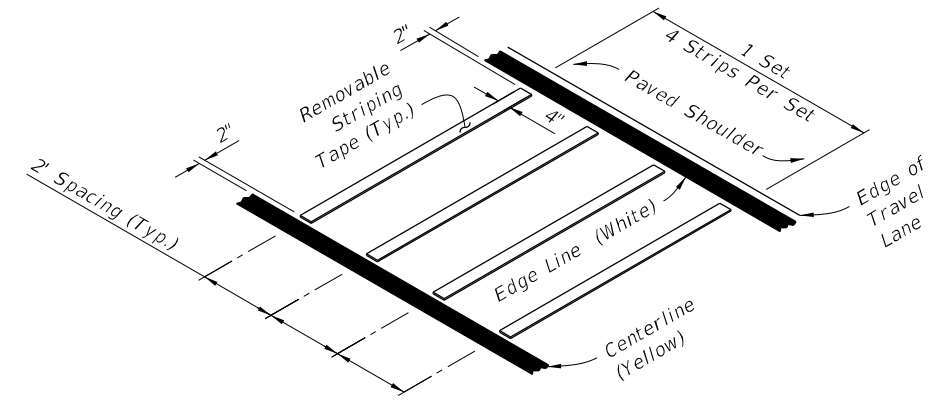
**NOTES:**

- This Index applies to Two-Lane, Two-Way Roadways with work within the traveled way.
- L = Taper Length  
B = Buffer Length  
X = Work Zone Sign Spacing  
See Index 102-600 for "L", "B", "X" and channelizing device spacing values.
- Optionally, use "Flagger Ahead" sign with symbol (W20-7) instead of "Flagger Ahead" sign with text (W20-7A).
- Use temporary raised rumble strips when the existing posted speed is 55 mph or greater and the work duration is greater than 60 minutes. If temporary raised rumble strips are not used, omit "Rumble Strips Ahead" signs (MOT-18-10) and associated work zone sign spacing.
- Additional one-way control may be provided by the following means:
  - Flag-carrying vehicle
  - Official vehicle
  - Pilot vehicles
  - Traffic signals
- The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign spacing, may be omitted when the work operation will be in place for 24 hours or less.
- Automated Flagger Assistance Devices (AFADs) may be used in accordance with Specification Sections 102, 990 and the APL vendor drawings.
- Railroad Crossings:
  - If an active railroad crossing is located closer to the Work Area than the queue length plus 300 feet, extend the Buffer Space as shown on Sheet 2.
  - If the queuing of vehicles across an active railroad crossing cannot be avoided, provide a uniformed traffic control officer or flagger at the highway-rail grade crossing to prevent vehicles from stopping within the highway-rail grade crossing, even if automatic train warning devices are in place.

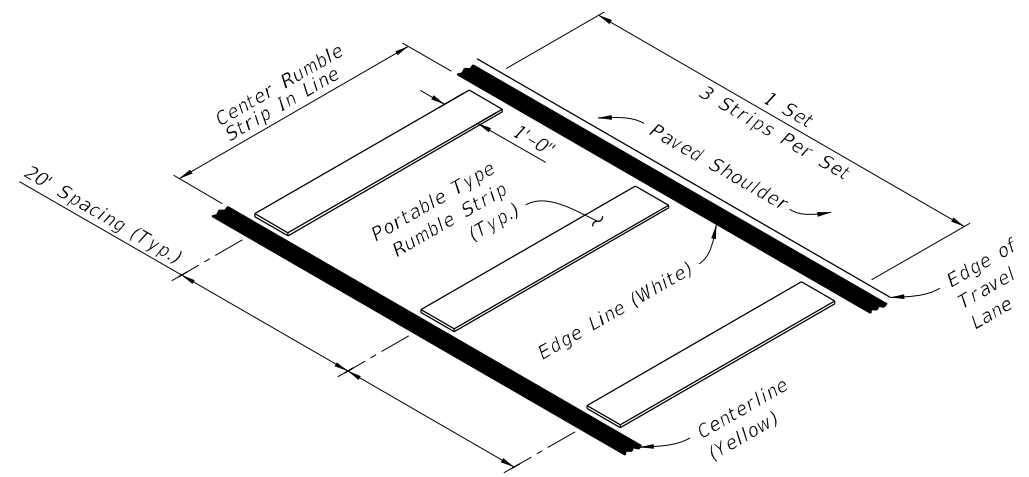
When flaggers are the sole means of one-way control, the flaggers must be in sight of each other or in direct communication at all times.

**SYMBOLS:**

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



**OPTION - 1  
REMOVABLE STRIPING TYPE**

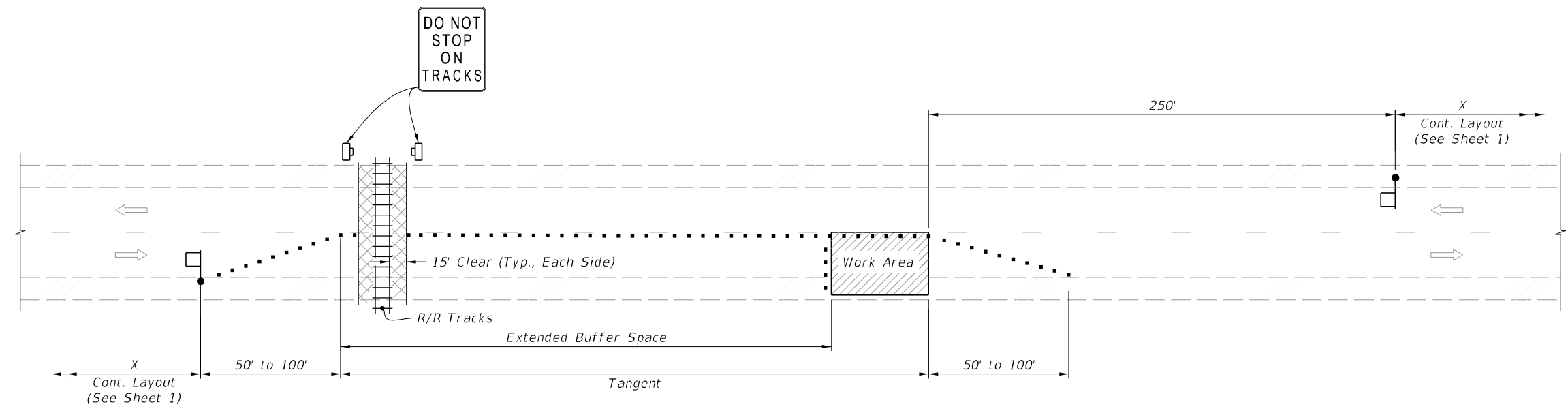


**OPTION - 2  
PORTABLE TYPE**

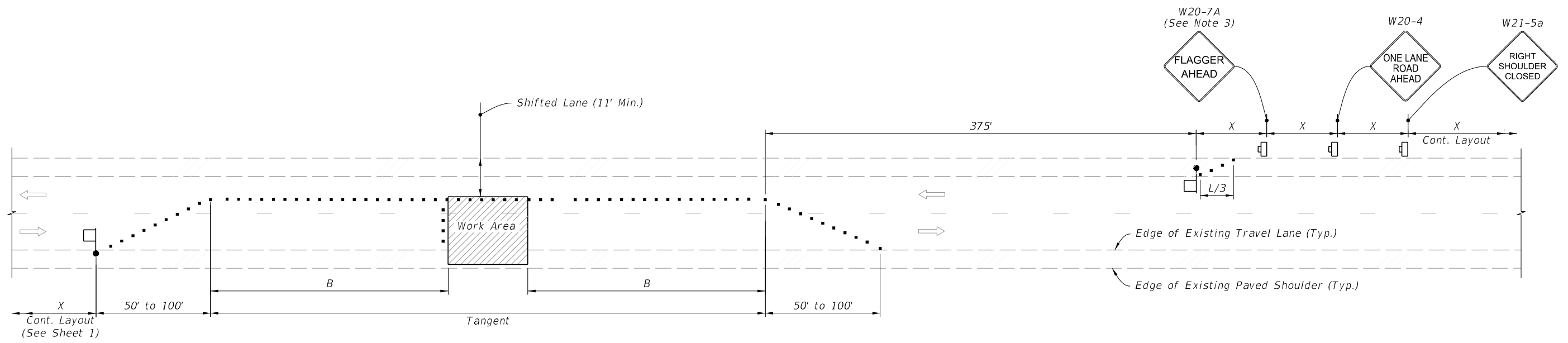
**RUMBLE STRIP SETS**

9/23/2021 2:41:17 PM

LAST REVISION 11/01/21	REVISION	DESCRIPTION:		FY 2022-23 STANDARD PLANS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX SHEET 102-603 1 of 2	Approved 2022-A-590-00026 William Rickard 8/2/2022
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



TEMPORARY RAILROAD CROSSING BUFFER SPACE EXTENSION



TEMPORARY LANE SHIFT TO SHOULDER WHEN WORK AREA ENCROACHES ON THE CENTERLINE  
(For Work Operations In place 24 Hours or Less)

**SYMBOLS:**

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

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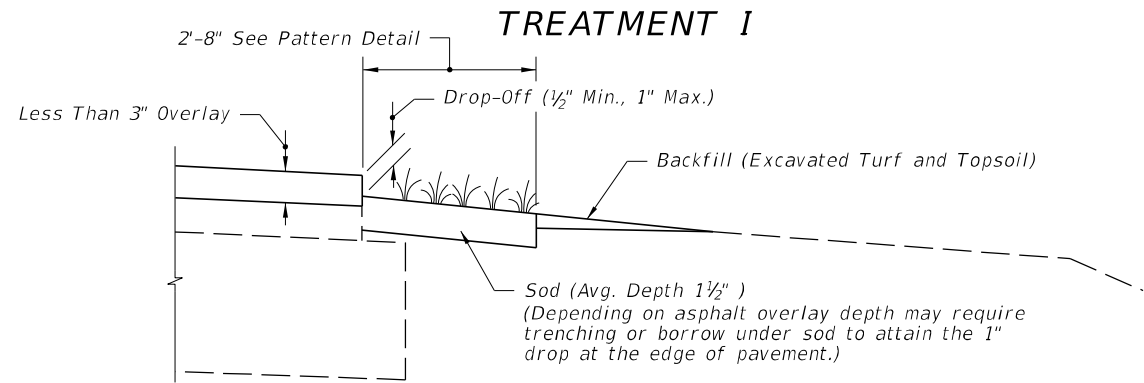
LAST REVISION	DESCRIPTION:
11/01/21	


**FY 2022-23  
STANDARD PLANS**

**TWO-LANE, TWO-WAY  
WORK WITHIN THE TRAVEL WAY**

INDEX	SHEET
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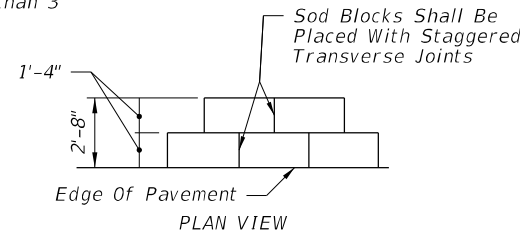
Approved  
**SPECIAL CONDITIONS** 100026  
 William Rickard  
 8/2/2022



**COMPLETED SHOULDER**

**CRITERIA FOR USING TREATMENT I**

- Project \_\_\_
- is resurfacing, widening and resurfacing or construction of shoulder pavement
  - is rural or is urban without curb and gutter
  - resurfacing build-up is less than 3"



**PATTERN DETAIL**

**GENERAL NOTES**

**1. Treatment I:**

If trenching under sod is necessary to achieve the required Drop-Off, excavated topsoil is to be used for filling voids and low areas at the edge of pavement or for flushing along the edge of sod. Excess material to be uniformly distributed over the shoulder.

**2. Treatment II:**

A. Borrow must meet the requirements for a "Select" material in accordance with Index 120-001 and Specification 120.

B. Borrow may be used in lieu of excavated turf and topsoil when economically feasible. There will be no additional payment for substituting borrow for excavated turf and topsoil.

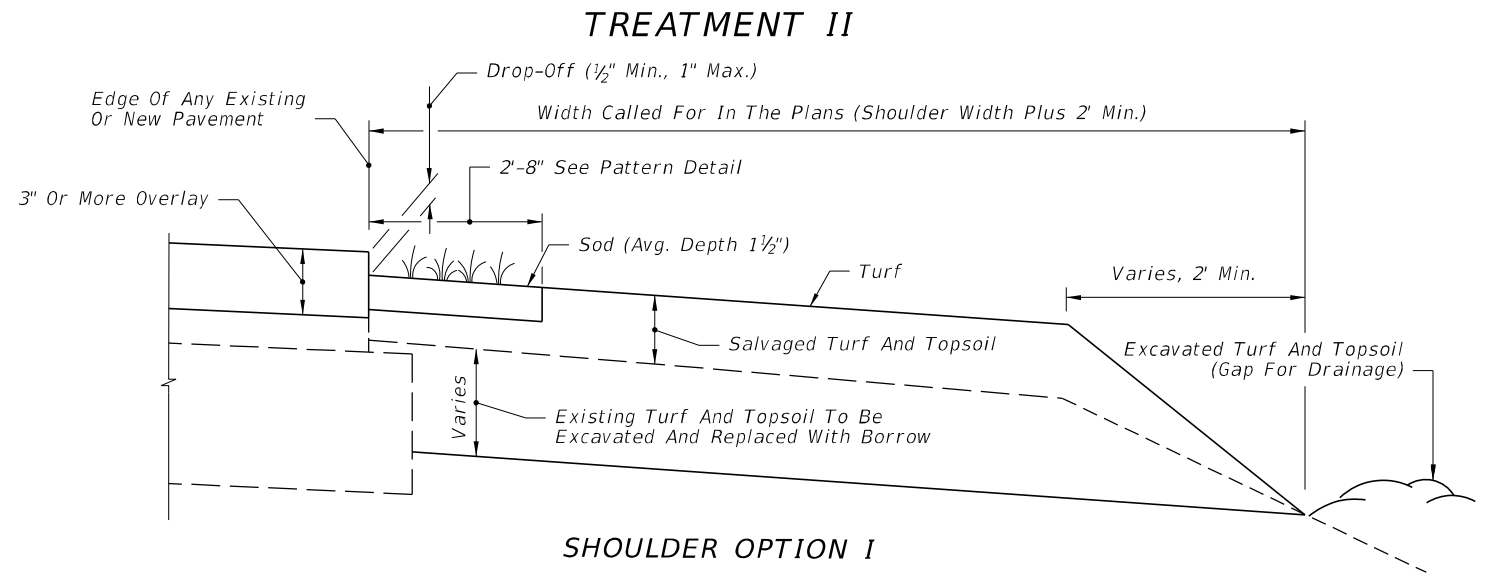
3. Special attention is to be directed at achieving the required Drop-Off at the edge of pavement, within the dimension range shown.

4. Activities such as clearing, grading, and excavating that will disturb one or more acres of land require coverage under the Generic Permit for Stormwater Discharge from Large and Small Construction Activities from the Florida Department of Environmental Protection, and implementation of appropriate pollution prevention measures to minimize erosion and sedimentation and properly manage stormwater.

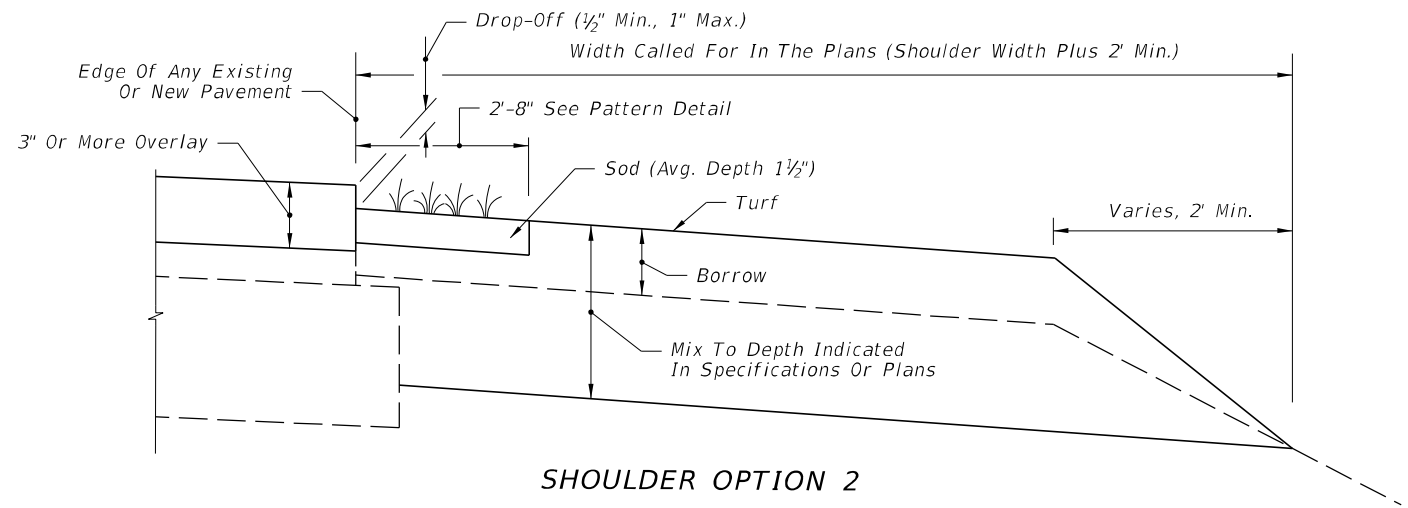
**5. Turf Establishment:**

A. Wildflowers destroyed by shoulder sodding and turf operations are to be reestablished under the seeding rates prescribed for permanent wildflower #2 Group shown by table on Index 570-001.

B. Establish turf in accordance with Specification 570.



**SHOULDER OPTION I**



**SHOULDER OPTION 2**

**CRITERIA FOR USING TREATMENT II**

- Project \_\_\_
- is resurfacing or construction of shoulder pavement
  - is rural or is urban without curb and gutter
  - resurfacing build-up is 3" or more

A SIMILAR TREATMENT MAY BE USED FOR PROJECTS THAT REQUIRE SHOULDER WIDENING. DETAILS ARE TO BE SHOWN IN THE PLANS.

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LAST REVISION 11/01/18	DESCRIPTION:
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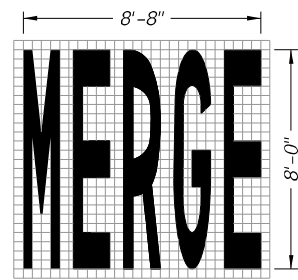


FY 2022-23  
STANDARD PLANS

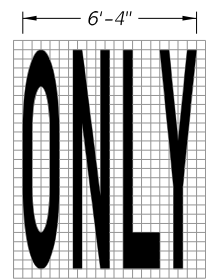
**SHOULDER SODDING AND  
TURF ON EXISTING FACILITIES**

INDEX SHEET  
570-010 1 of 1

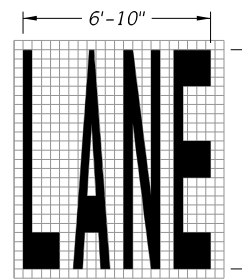
Approved  
2022-A-590-00026  
William Rickard  
8/2/2022



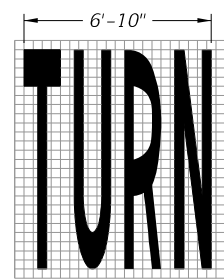
34 S.F.



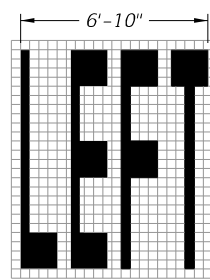
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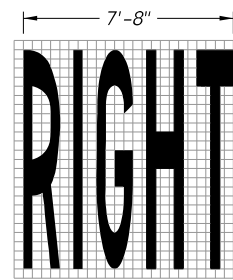
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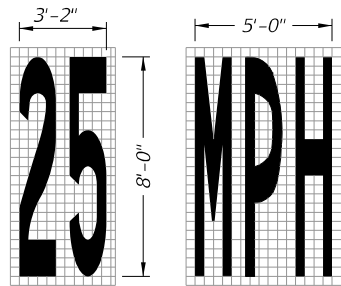
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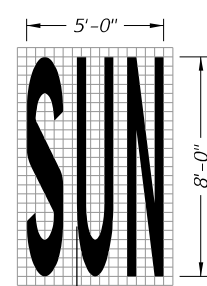
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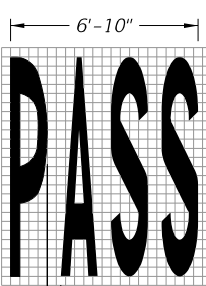
26 S.F.



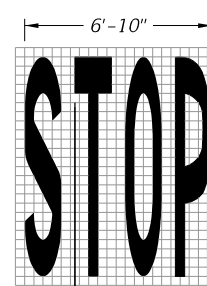
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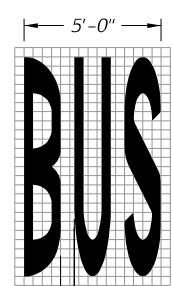
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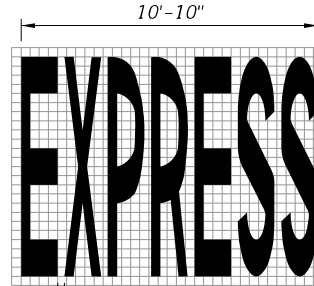
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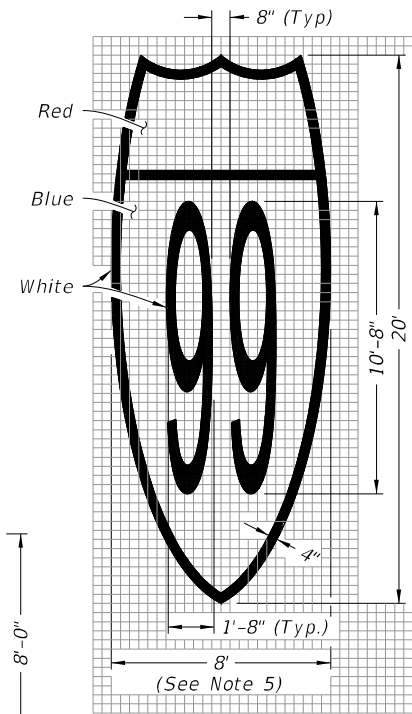
22 S.F.



20 S.F.

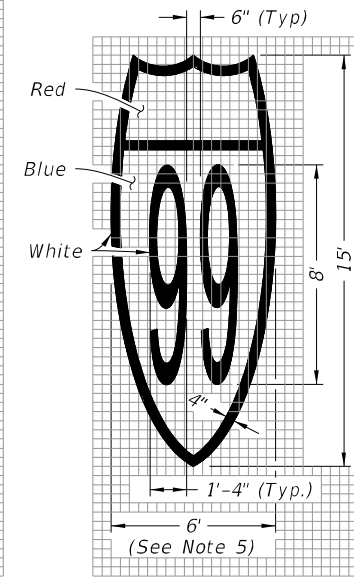


43 S.F.



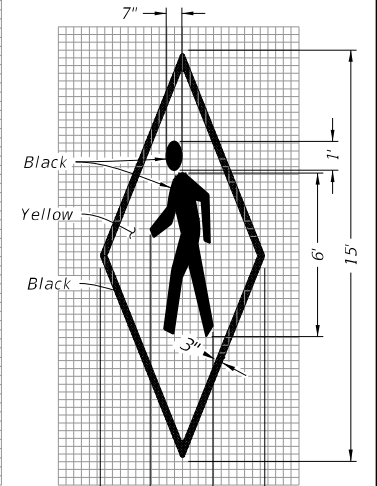
Route Shield for Limited Access Roadways (Interstate Route Shield Shown; U.S. and State Route Shield Similar)

128 S.F.



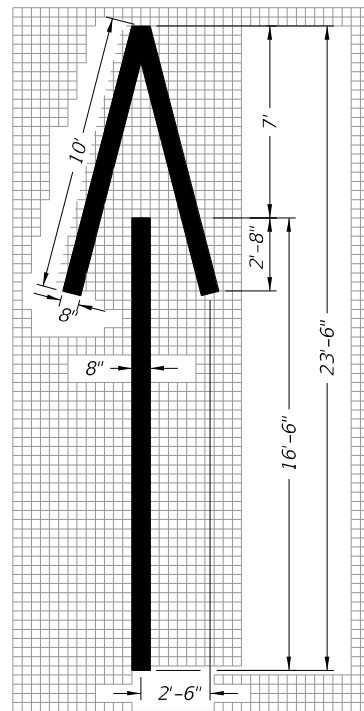
Route Shield for Arterials and Collectors (Interstate Route Shield Shown; U.S. and State Route Shield Similar)

72 S.F.

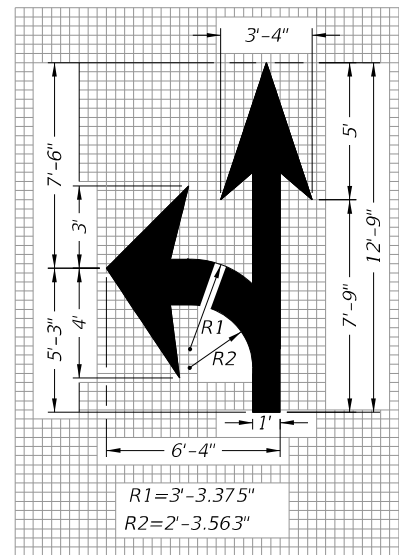


In Pavement Warning Marking

45 S.F.

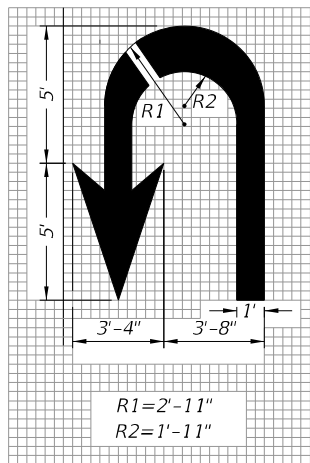


Wrong-Way Arrow  
24 S.F.



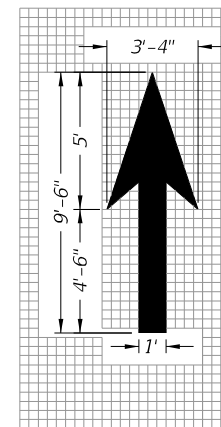
R1=3'-3.375"  
R2=2'-3.563"

Turn and Through Lane-Use Arrow  
29 S.F.

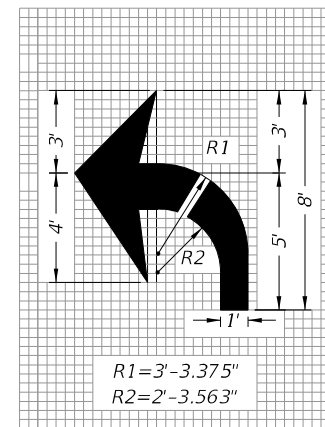


R1=2'-11"  
R2=1'-11"

U Turn Lane-Use Arrow  
27 S.F.

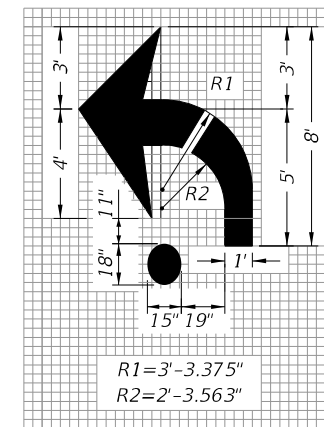


Through Lane-Use Arrow  
12 S.F.



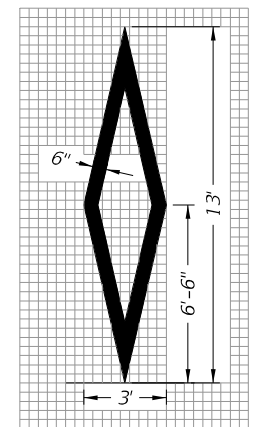
R1=3'-3.375"  
R2=2'-3.563"

Turn Lane-Use Arrow (Left Turn Shown - Right Turn Similar)  
17 S.F.



R1=3'-3.375"  
R2=2'-3.563"

Roundabout Approach Arrow  
19 S.F.



Preferential Lane Symbol  
11 S.F.

PAVEMENT MESSAGES NOTES:

1. Place all pavement messages 25' back from the stop line.
2. Dimensions are within 1" ±.
3. All grids are 4" x 4".
4. All pavement messages must be white except Route Shields and In Pavement Warning Markings.
5. Increase width of route shield for routes with three digits.

PAVEMENT MESSAGE AND ARROW DETAILS

9/22/2021 3:12:21 PM

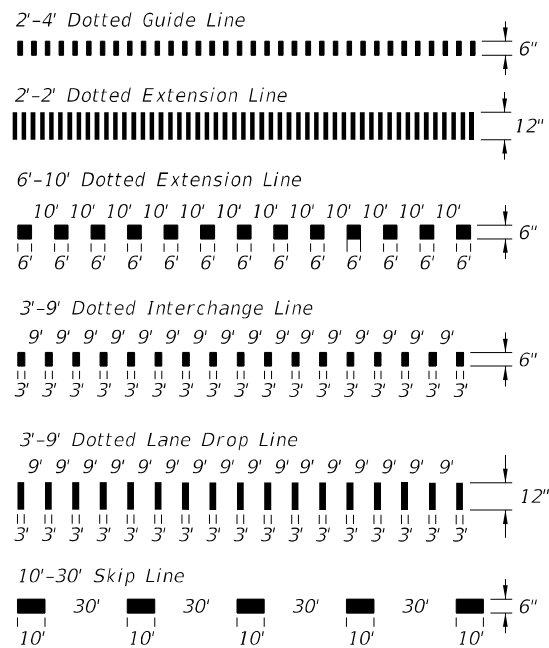
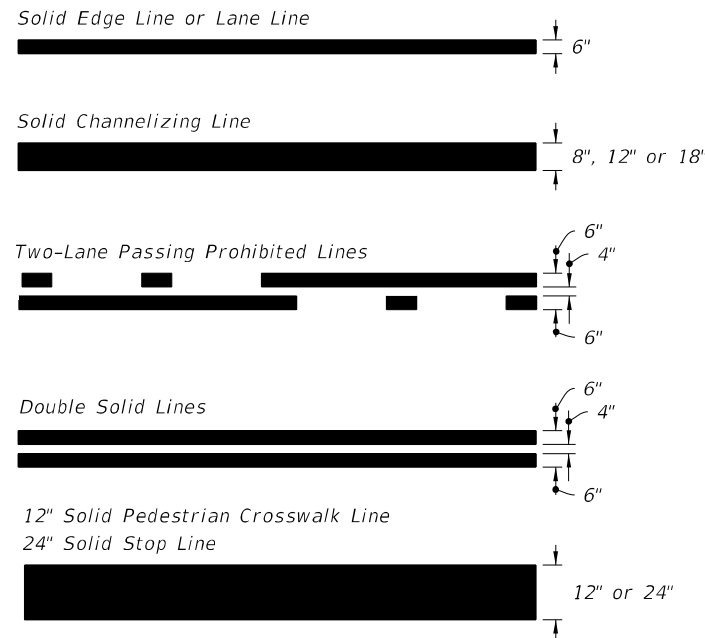
LAST REVISION	DESCRIPTION:
11/01/21	

**FDOT** FY 2022-23 STANDARD PLANS

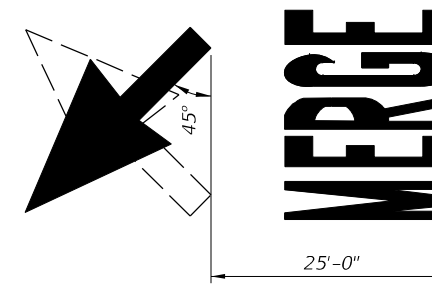
PAVEMENT MARKINGS

INDEX SHEET
711-001 1 of 13

Approved 2022-A-590-00026 William Rickard 8/2/2022



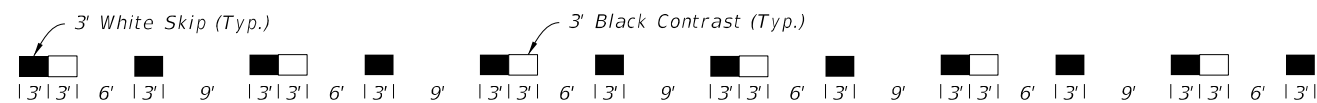
PAVEMENT MARKING LINES



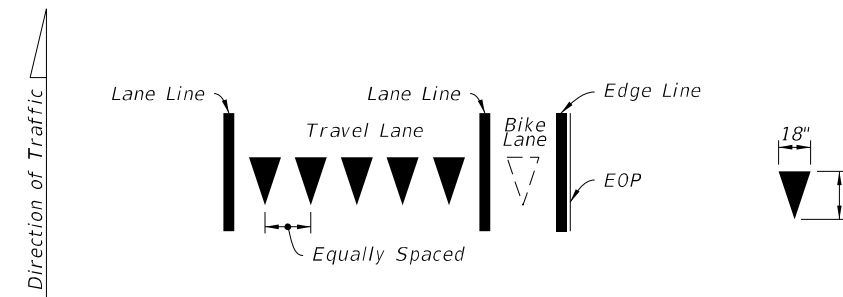
MARKINGS FOR MERGE



10'-30' SKIP LINE WITH SHADOW MARKINGS



DOTTED LINE WITH ALTERNATING SHADOW MARKINGS  
(3'-9' Dotted Line Shown, Other Dotted Lines Similar)



Yield Lines consist of five - 18" X 27" white triangles which face traffic. Equally space triangles within traffic lane. When a bike lane is present, add one additional triangle in the center of the bike lane.

YIELD LINES

9/22/2021 3:12:28 PM

LAST REVISION	DESCRIPTION:
11/01/21	

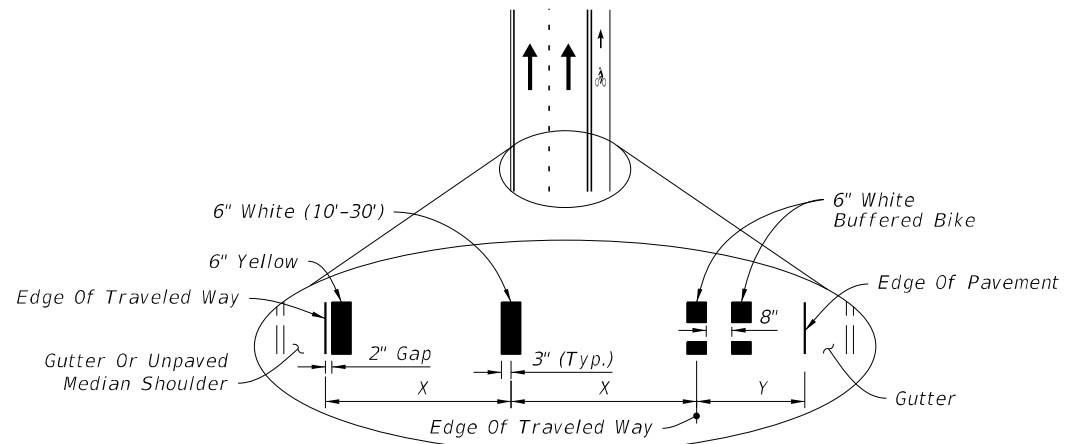


FY 2022-23  
STANDARD PLANS

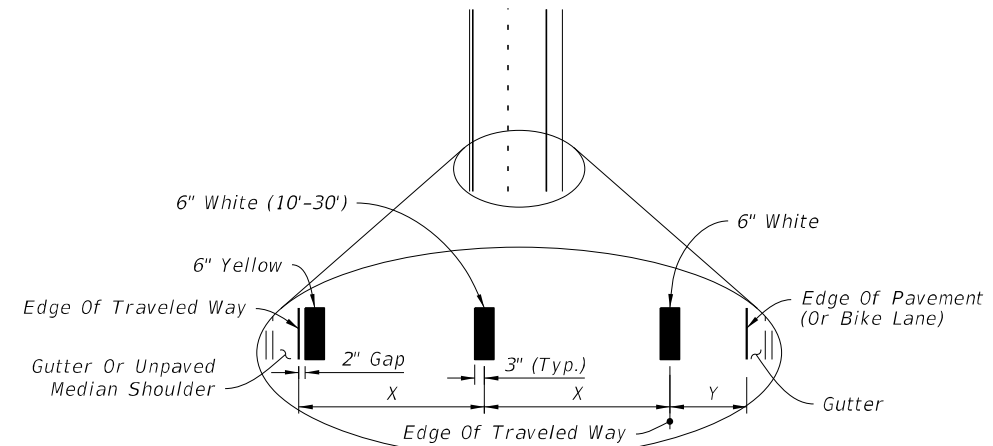
PAVEMENT MARKINGS

INDEX SHEET  
711-001

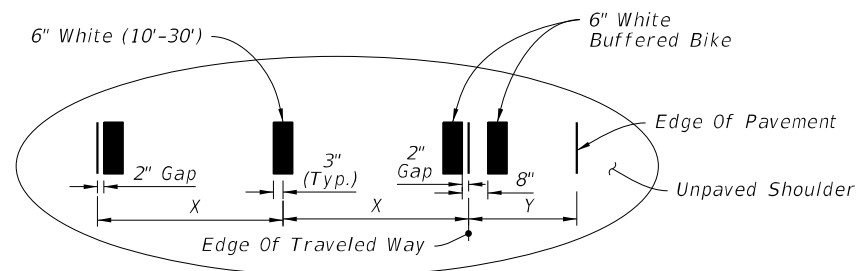
Approved  
2022-A-590-00026  
William Rickard  
8/2/2022  
2 of 13



**CURB AND GUTTER**

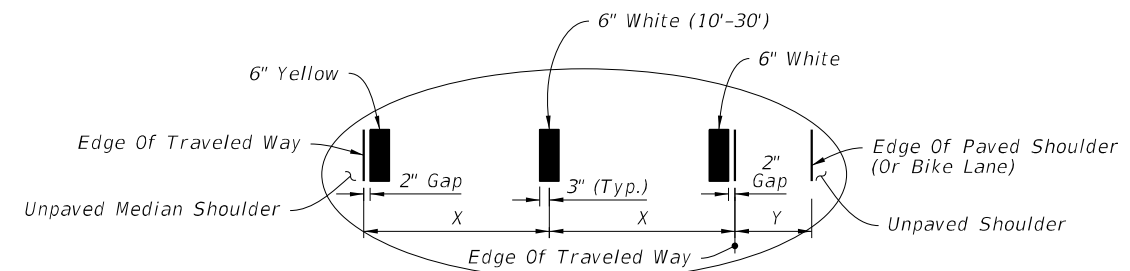


**CURB AND GUTTER**



**FLUSH SHOULDER**

X = LANE WIDTH (FT.)  
Y = BUFFERED BIKE LANE WIDTH (FT.)

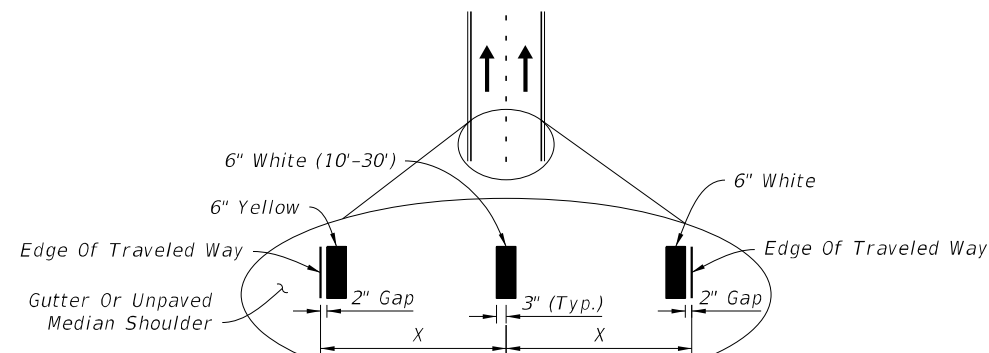


**FLUSH SHOULDER**

X = LANE WIDTH (FT.)  
Y = PAVED SHOULDER / BIKE LANE

==== STRIPING FOR BUFFERED BIKE LANE =====

==== STRIPING WITH SHOULDER OR NON-BUFFERED BIKE LANE =====



X = LANE WIDTH (FT.)

==== STRIPING WITH NO SHOULDER OR BIKE LANE =====

**NOTES:**

1. Lane widths (X) may not be same for each lane in the section.
2. For placement of RPMs, see Index 706-001.

3:12:31 PM 9/22/2021

Approved  
2022-11-03-00026  
William Rickard  
8/2/2022

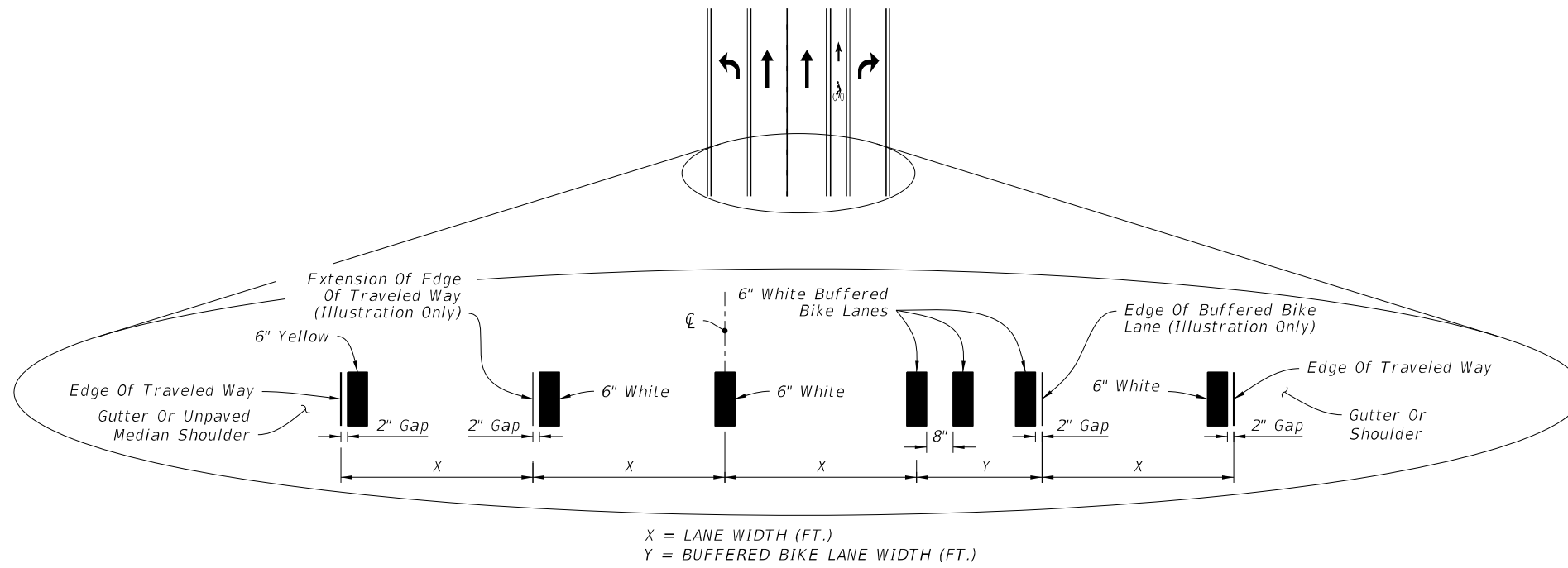
LAST REVISION 11/01/21	REVISION	DESCRIPTION:
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**FDOT** FY 2022-23  
STANDARD PLANS

PAVEMENT MARKINGS

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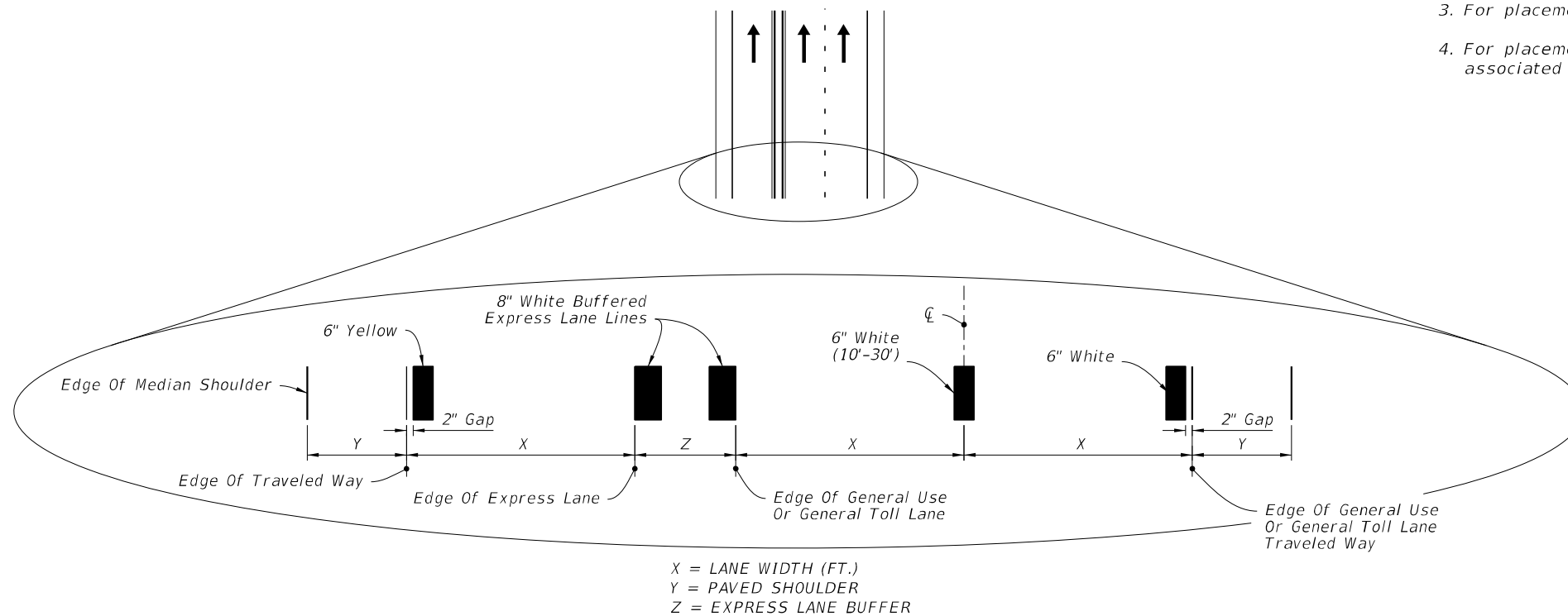




**INTERSECTION APPROACH STRIPING WITH TURN LANES AND BUFFERED BIKE LANE KEY HOLE**

**NOTES:**


1. Lane widths (X) may not be same for each lane in the section.
3. For placement of RPMs, see Index 706-001.
4. For placement of Express Lane markers and associated RPMs, see the Plans.



**BUFFERED EXPRESS LANE STRIPING**

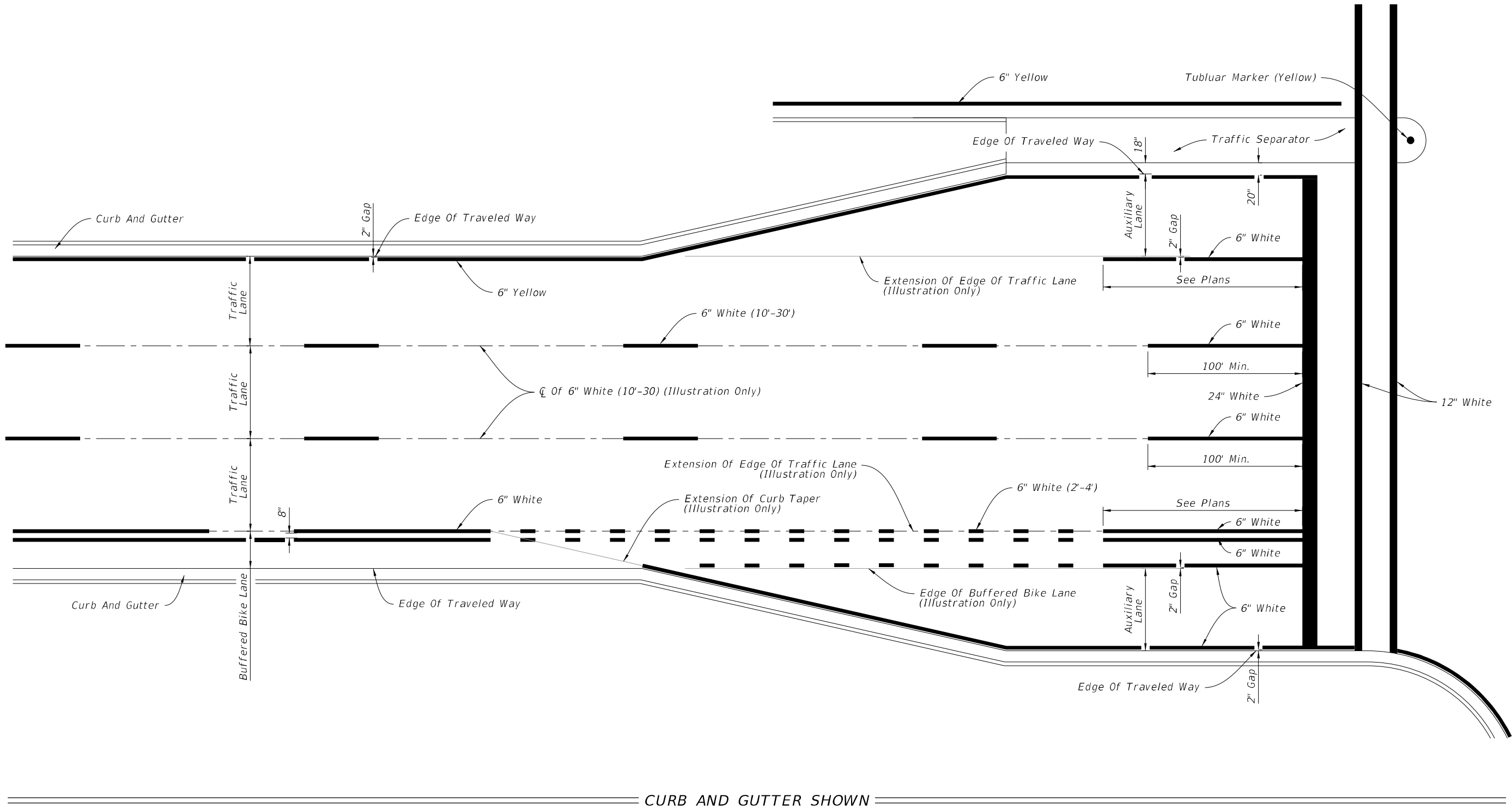
**PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS**

3:12:35 PM  
9/22/2021

LAST REVISION 11/01/21	REVISION DESCRIPTION:	 FY 2022-23 STANDARD PLANS	PAVEMENT MARKINGS	INDEX SHEET 711-001 4 of 13
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Approved  
2022-11-03-00026  
William Rickard  
8/2/2022

11/4/2021 11:36:10 AM



CURB AND GUTTER SHOWN

Approved  
 2022-11-30-00026  
 William Rickard  
 8/2/2022

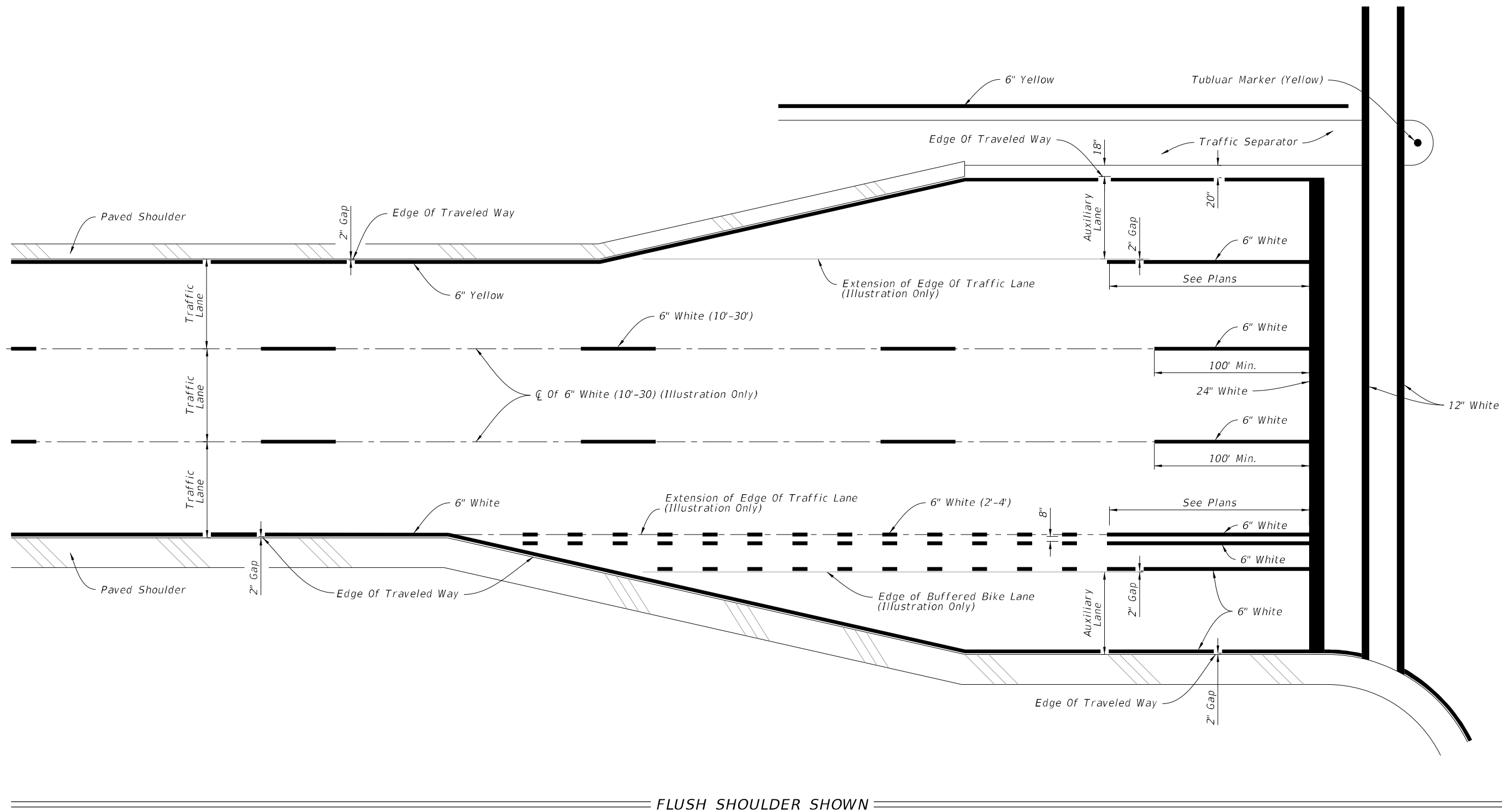
PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

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**FDOT**  
 FY 2022-23  
 STANDARD PLANS

LAST REVISION	DESCRIPTION:
11/01/21	

11/4/2021 11:38:11 AM



FLUSH SHOULDER SHOWN

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

LAST REVISION	DESCRIPTION:
11/01/21	



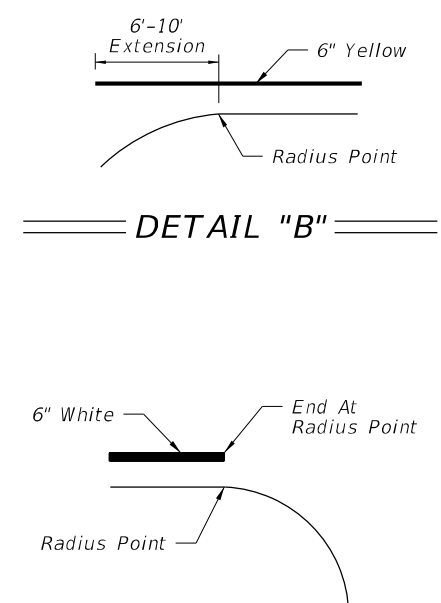
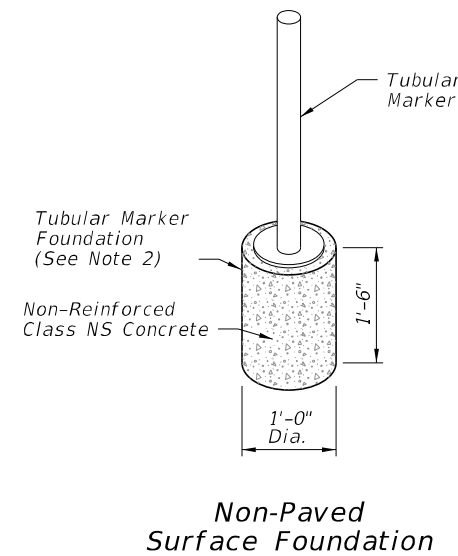
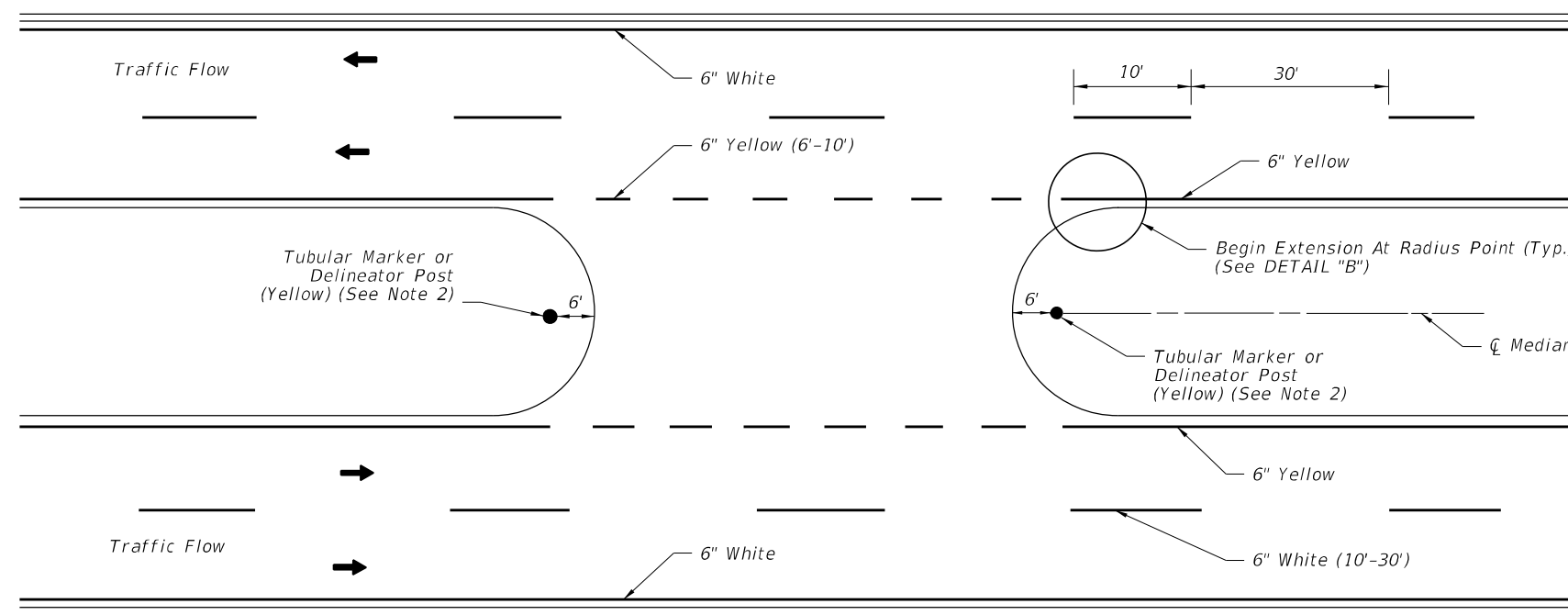
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PAVEMENT MARKINGS

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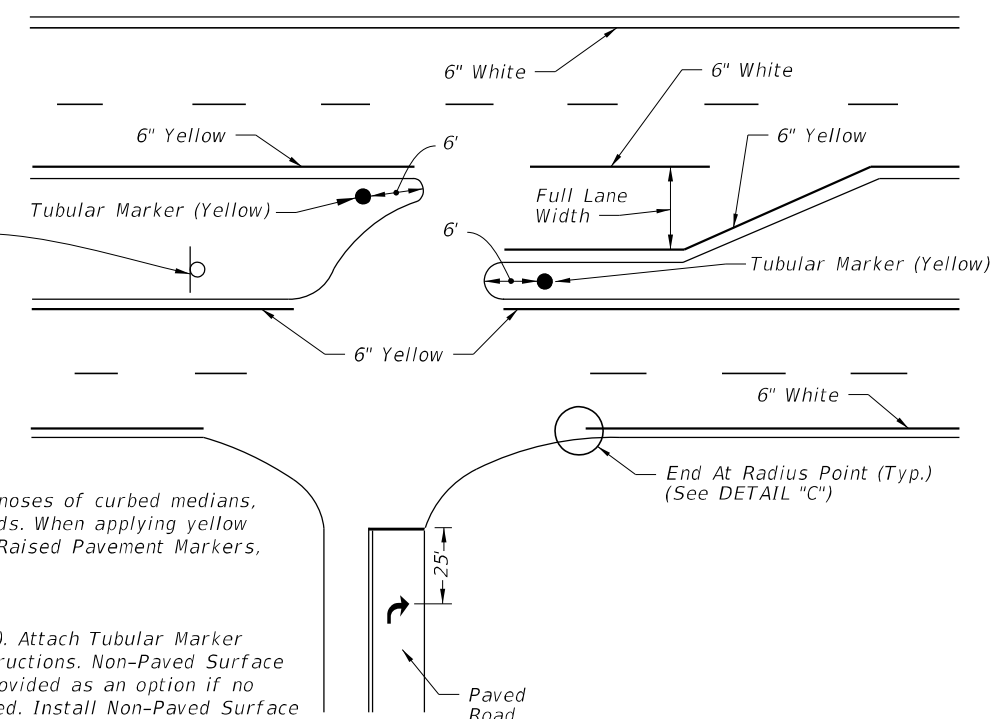
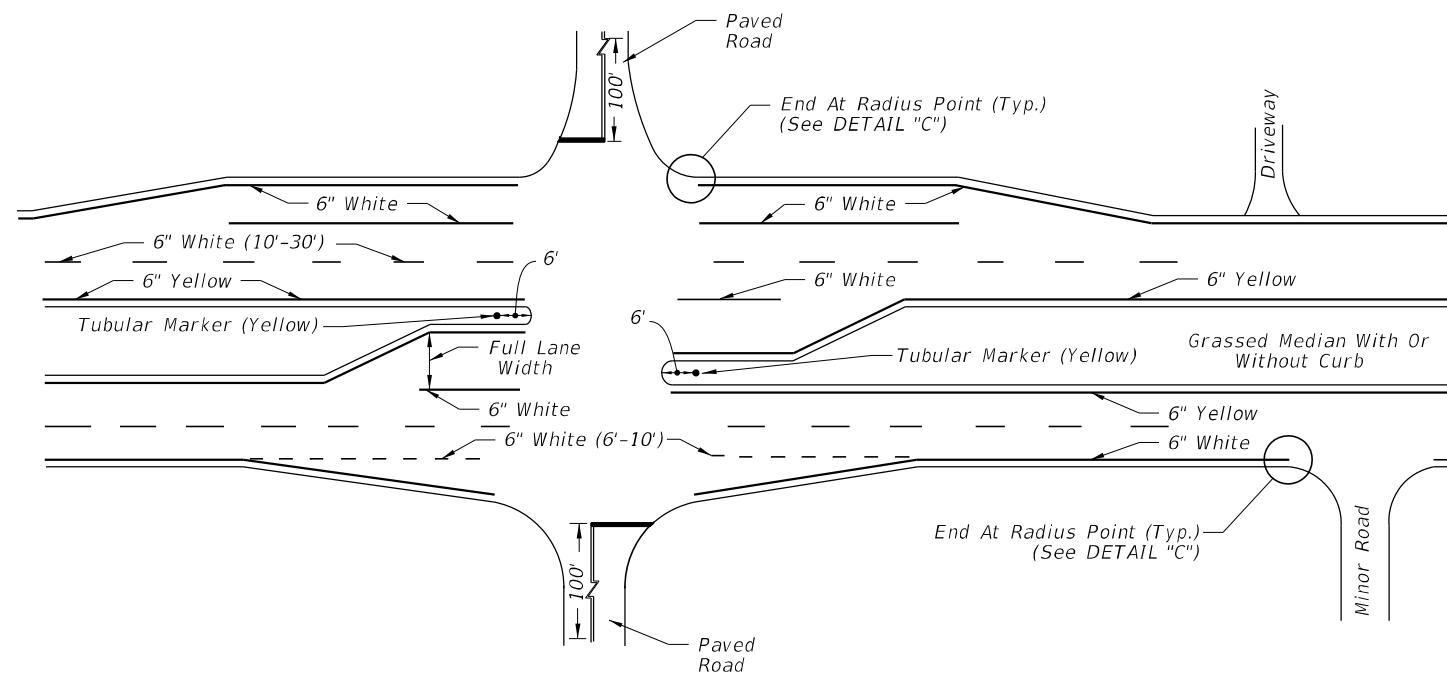
Approved  
2022-11-30-00026  
William Rickard  
8/2/2022



PAVEMENT MARKINGS AND DELINEATORS FOR MEDIAN CROSSOVER

DETAIL "A"

DETAIL "C"



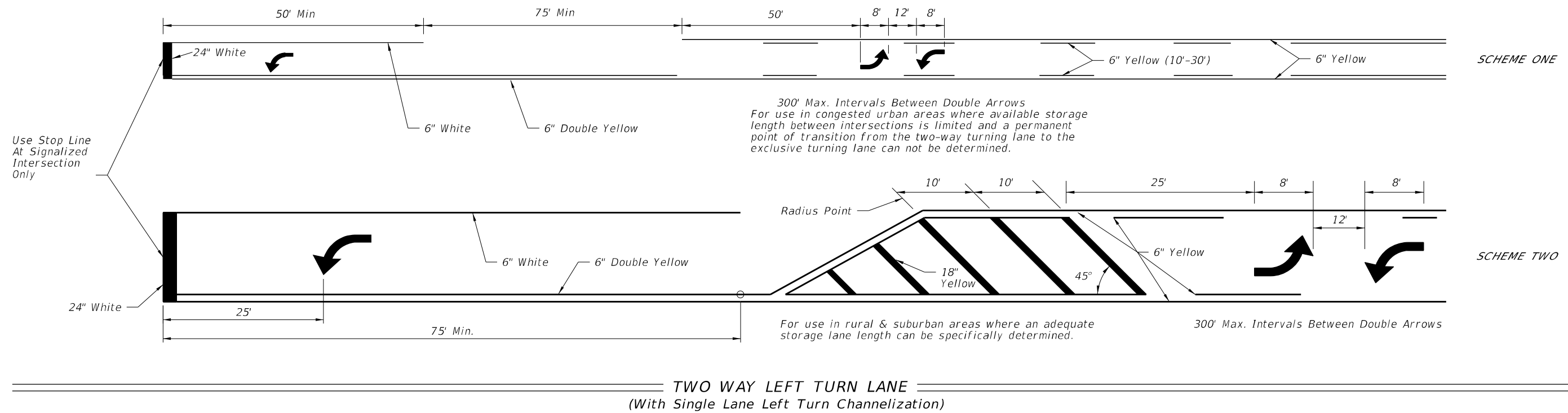
- NOTE:**
- Apply yellow reflective paint to the noses of curbed medians, traffic separators, and raised islands. When applying yellow reflective paint in conjunction with Raised Pavement Markers, see Index 706-001.
  - Options for grassed medians:
    - A. Option 1: Tubular Marker (Yellow). Attach Tubular Marker according to manufacturer's instructions. Non-Paved Surface Foundation (See Detail "A") is provided as an option if no other suitable surface is provided. Install Non-Paved Surface Foundation flush with the surrounding ground surface.
    - B. Option 2: Delineator Post. Use yellow retro-reflective sheeting on both sides of the delineator. Install the post so that the top is 4'-0" above the grade at the edge of the pavement.
  - Extend double yellow centerlines 100' back from intersection on all approaches or 50' for unmarked cross roads.

PAVEMENT MARKINGS FOR INTERSECTIONS WITH MAJOR AND MINOR ROADS

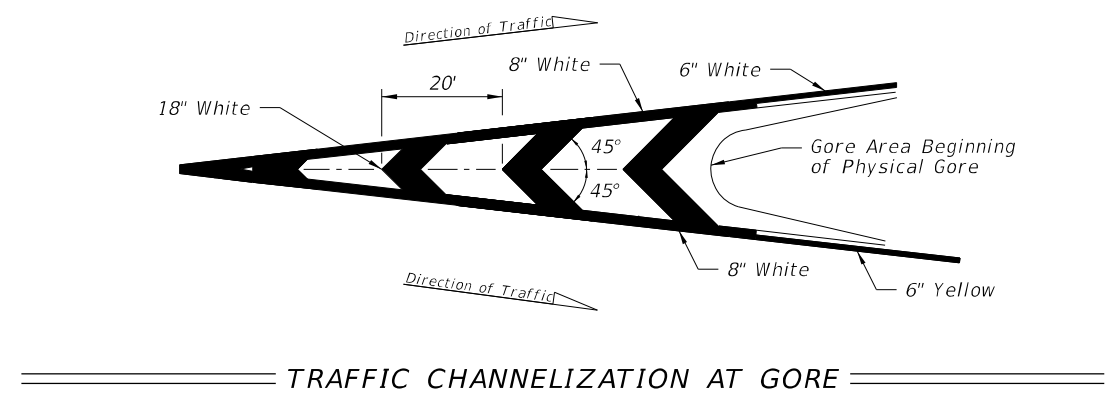
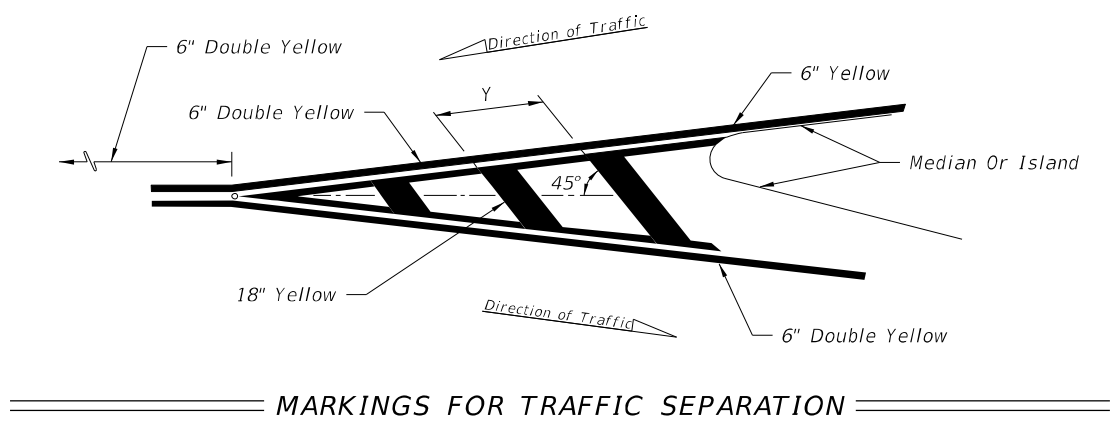
3:12:45 PM 9/22/2021

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POSTED SPEED LIMIT MPH	"y" (FT.)
30 OR LESS	10
35	20
40	20
45	30
50 OR MORE	40



9/22/2021 3:12:51 PM

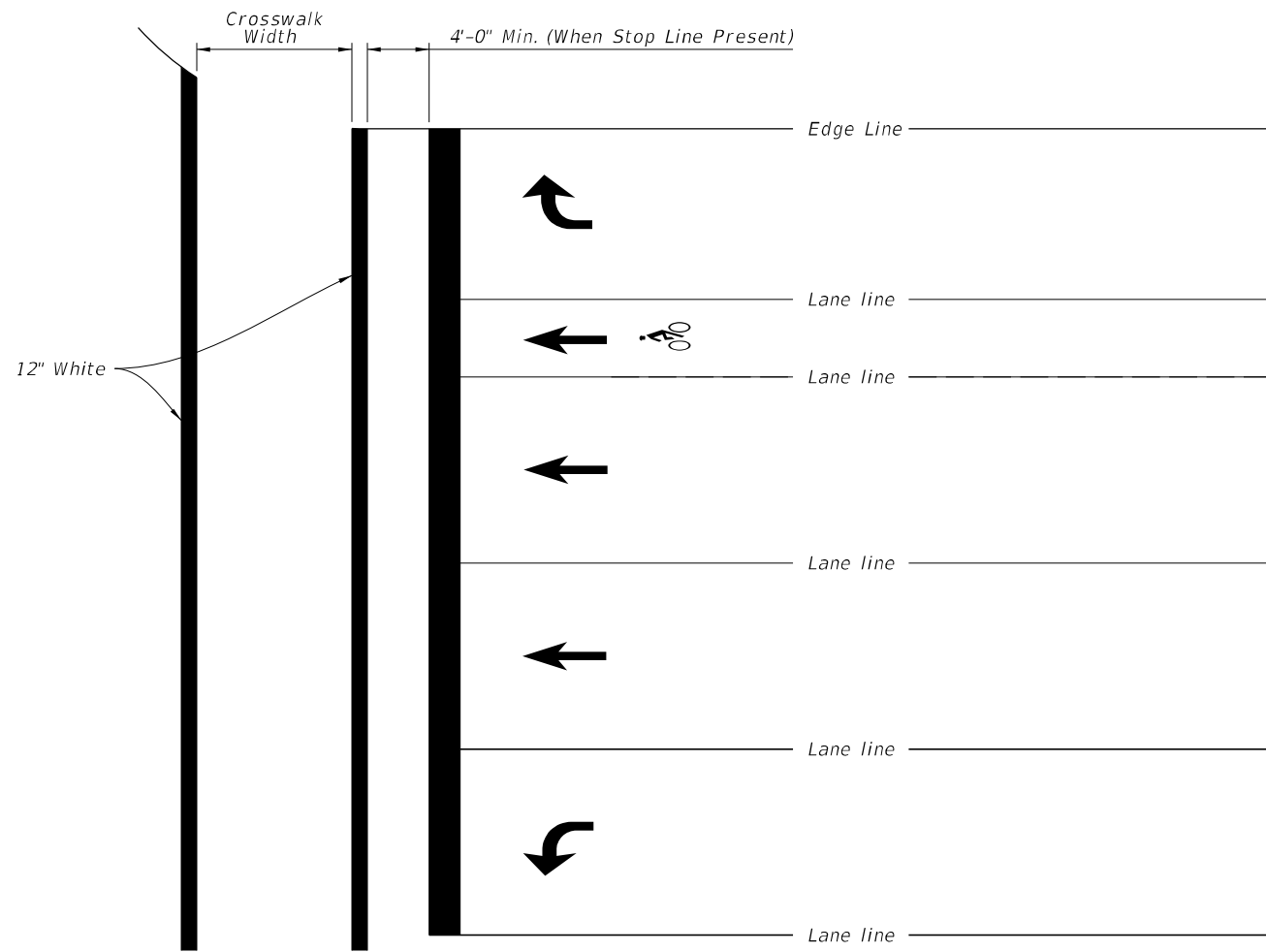
LAST REVISION	DESCRIPTION:
11/01/21	

**FDOT** FY 2022-23 STANDARD PLANS

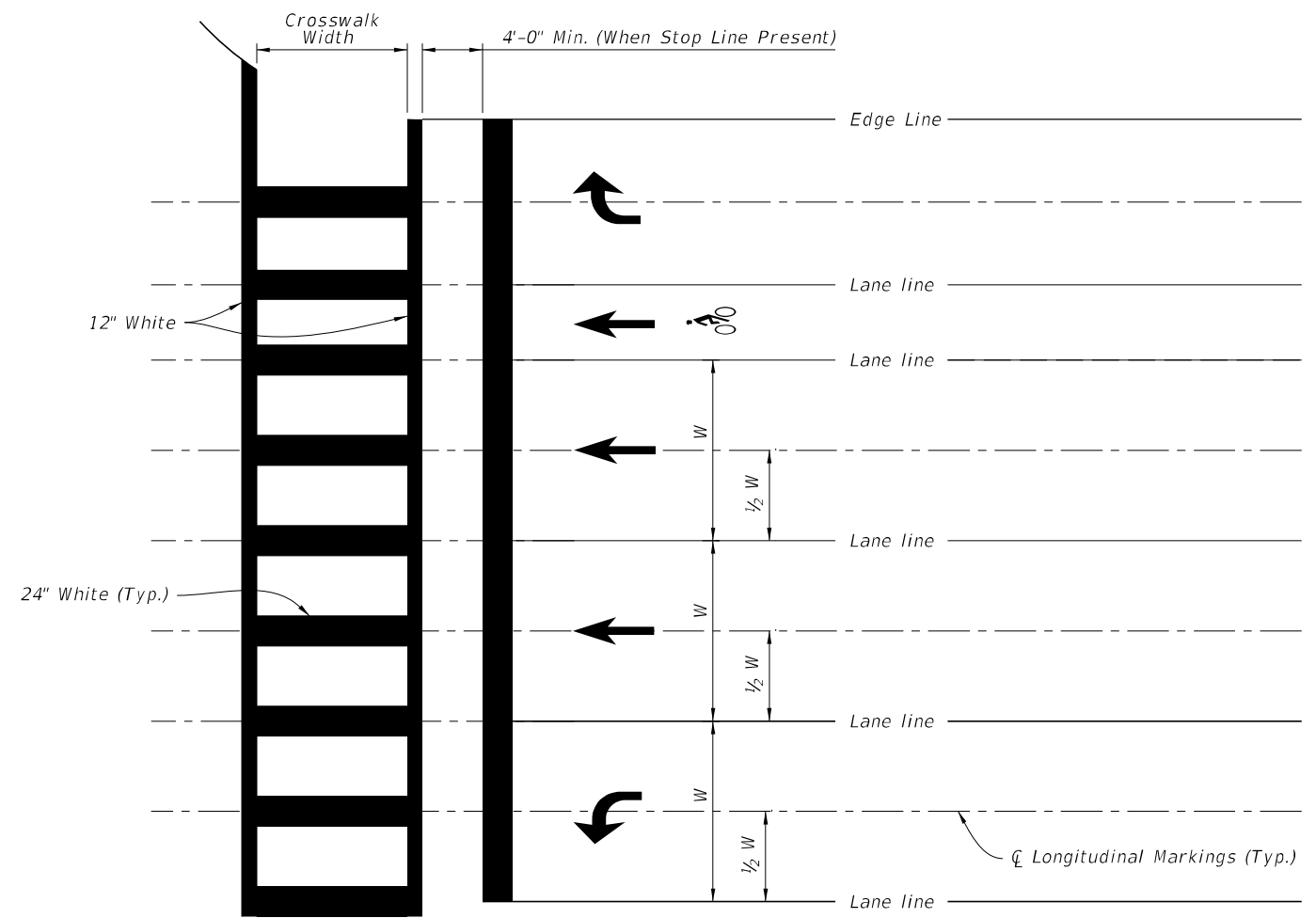
PAVEMENT MARKINGS

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 William Rickard  
 8/2/2022



STANDARD CROSSWALK DETAILS



SPECIAL EMPHASIS CROSSWALK DETAILS

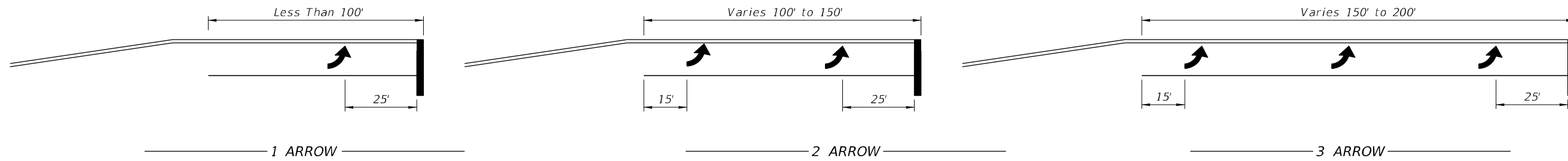
**NOTES:**

1. For crosswalk width, exceed width of the adjacent sidewalk, but do not make width less than 6' for intersection crosswalks and 10' for midblock crosswalks. Measure width from the inside of the transverse crosswalk markings.
2. When the Special Emphasis Crosswalk is not perpendicular to the lane lines, make the longitudinal markings parallel to the lane lines.
3. Refer to Index 522-002 when Curb Ramps are present.

9/22/2021 3:12:56 PM

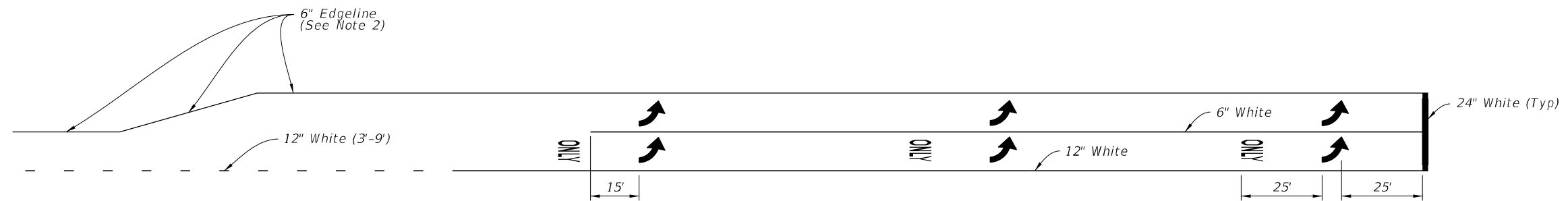
LAST REVISION 11/01/21	REVISION DESCRIPTION:	 FY 2022-23 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 9 of 13
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William Rickard  
8/2/2022

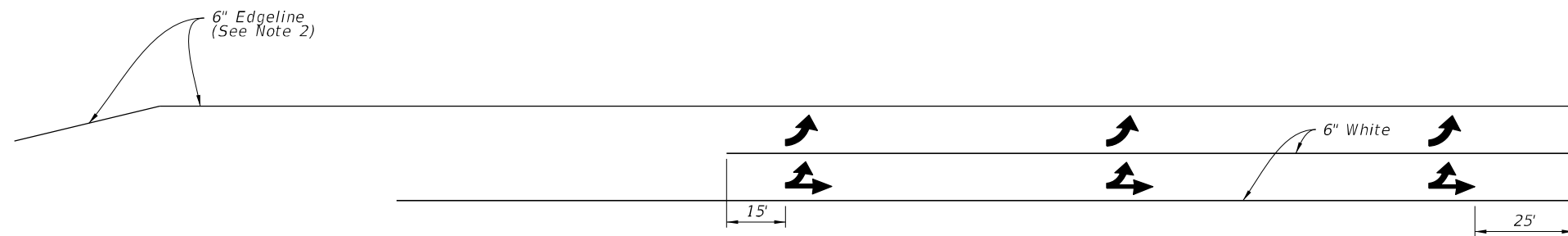


Arrow should be evenly spaced between first and last arrow. Turn lanes longer than 200' add one arrow for each 100' additional length.

ARROW SPACING



Through Lane Becomes Exclusive Left Turn



Through Lane Becomes Optional Left Turn (Drop Lane)

TURNS LANE MARKINGS

NOTES:

1. This Index also applies to right turn lanes.
2. Make Edgeline pavement markings yellow for left-turn lanes and white for right-turn lanes.

ARROW SPACING AND TURN LANE MARKINGS

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9/22/2021

LAST REVISION 11/01/21	REVISION	DESCRIPTION:
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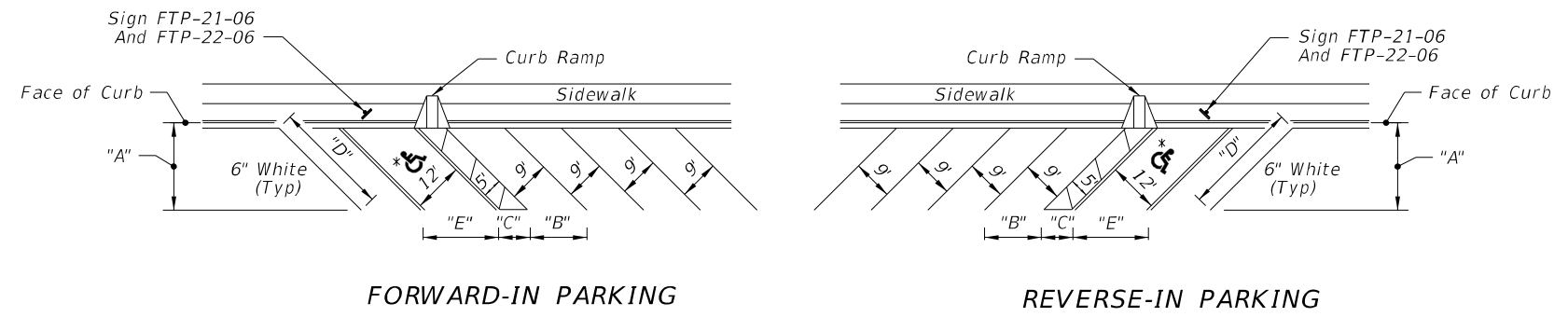
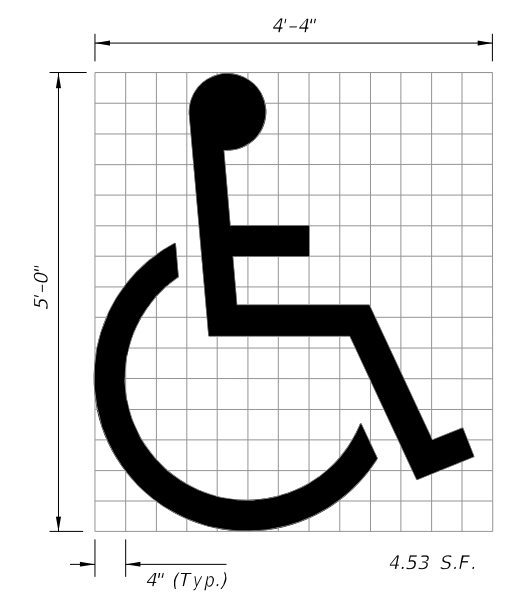
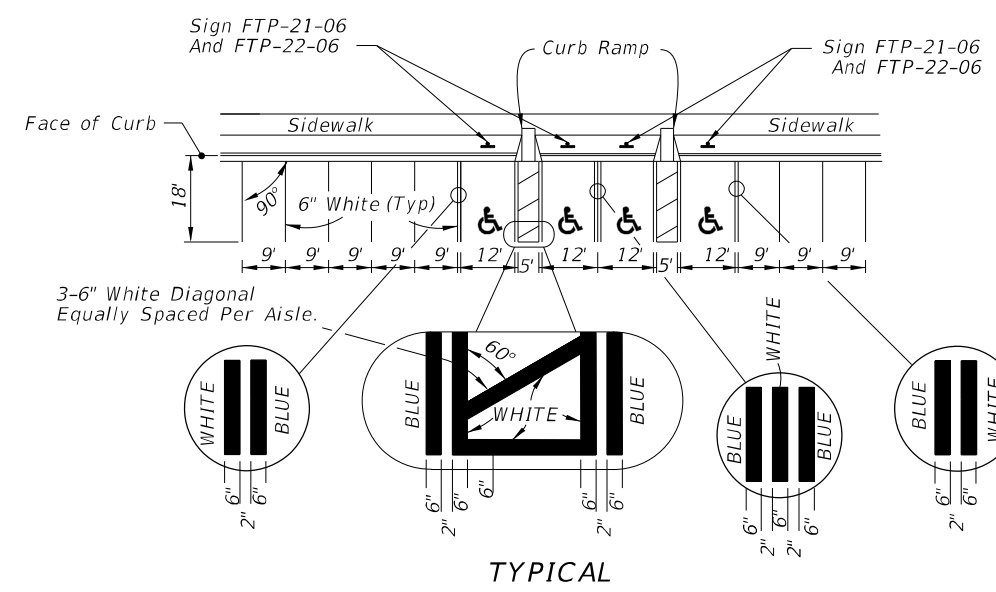
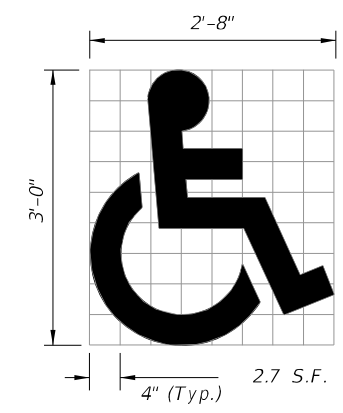
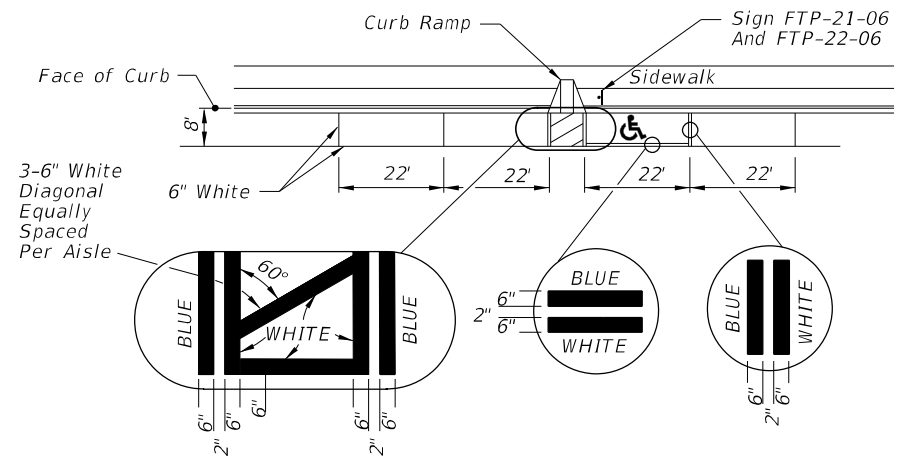


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STANDARD PLANS

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002-K-05-00026  
William Rickard  
8/2/2022



(See Note 5)

UNIVERSAL SYMBOL OF ACCESSIBILITY

NOTES:

1. Dimensions are to the centerline of markings.
2. An Access Aisle is required for each accessible space when angle parking is used.
3. Criteria for pavement markings only, not public sidewalk curb ramp locations. For ramp locations refer to plans.
4. Mount FTP-22-06 sign below the FTP-21-06 sign.
5. Use of the pavement symbol in accessible parking spaces is optional. When pavement symbol is used, the symbol is either 3'-0" or 5'-0" high and white in color.

\* FOR ACCESSIBLE MARKINGS - SEE ABOVE

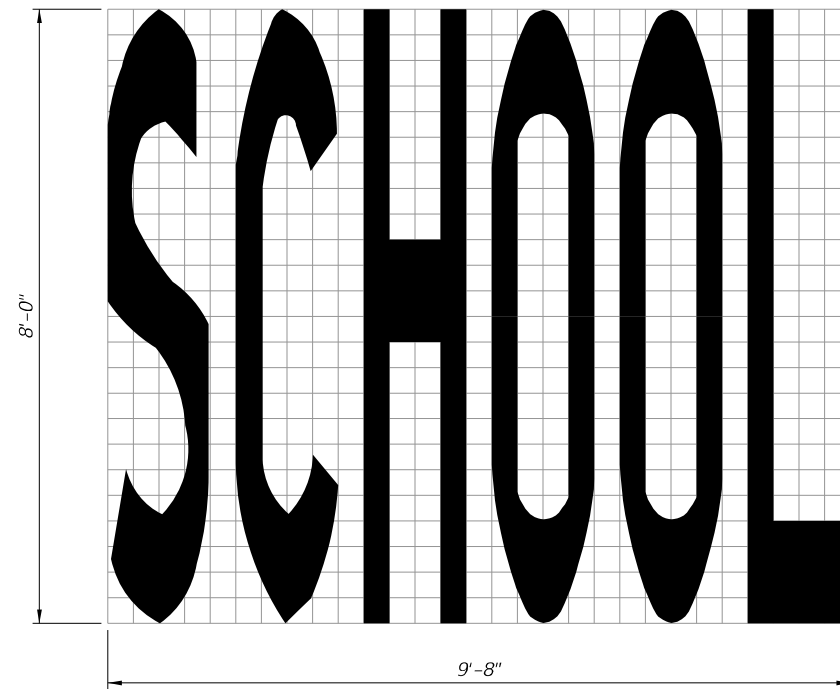
DIMENSIONS					
∠ θ	"A"	"B"	"C"	"D"	"E"
45°	17'-0"	12'-9"	7'-0"	24'-0"	17'-0"

PAVEMENT MARKING FOR PARKING

9/22/2021 3:13:05 PM



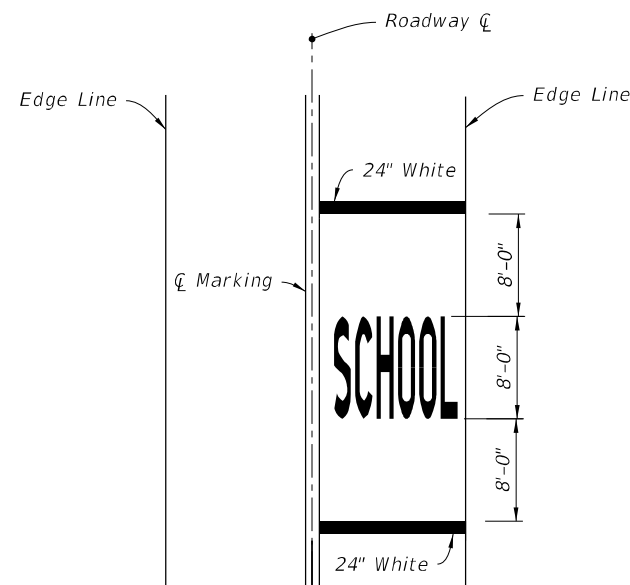
33 S.F.



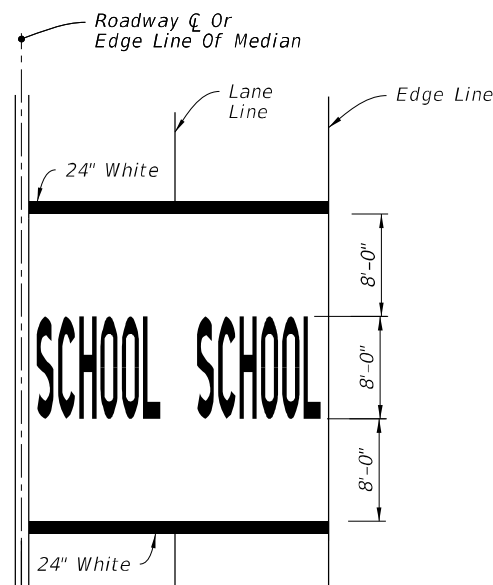
SCHOOL PAVEMENT MARKING

NOTES:

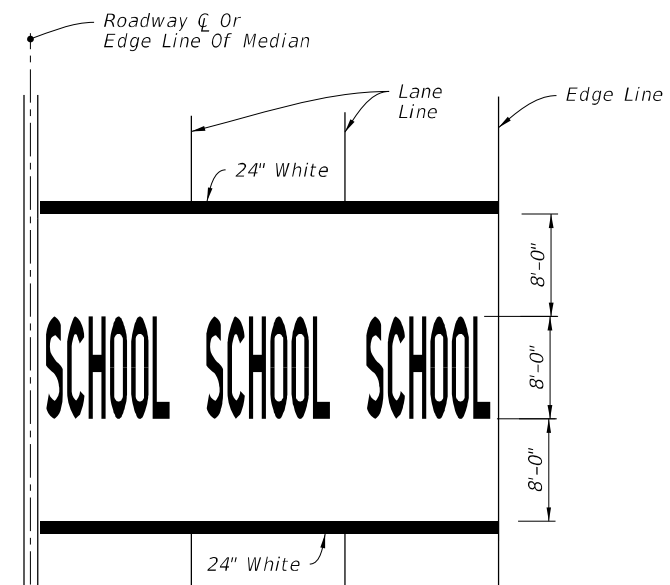
- 1. All grids are 4" x 4".
- 2. Pavement Marking Should Not Extend Into Opposing Lane.
- 3. Center School Pavement Marking in lane.



SINGLE-LANE APPROACH



TWO-LANE APPROACH



MULTI-LANE APPROACH  
(Three or More)

MARKINGS FOR SCHOOL ZONES

9/22/2021 3:13:12 PM

LAST REVISION 11/01/21	DESCRIPTION:
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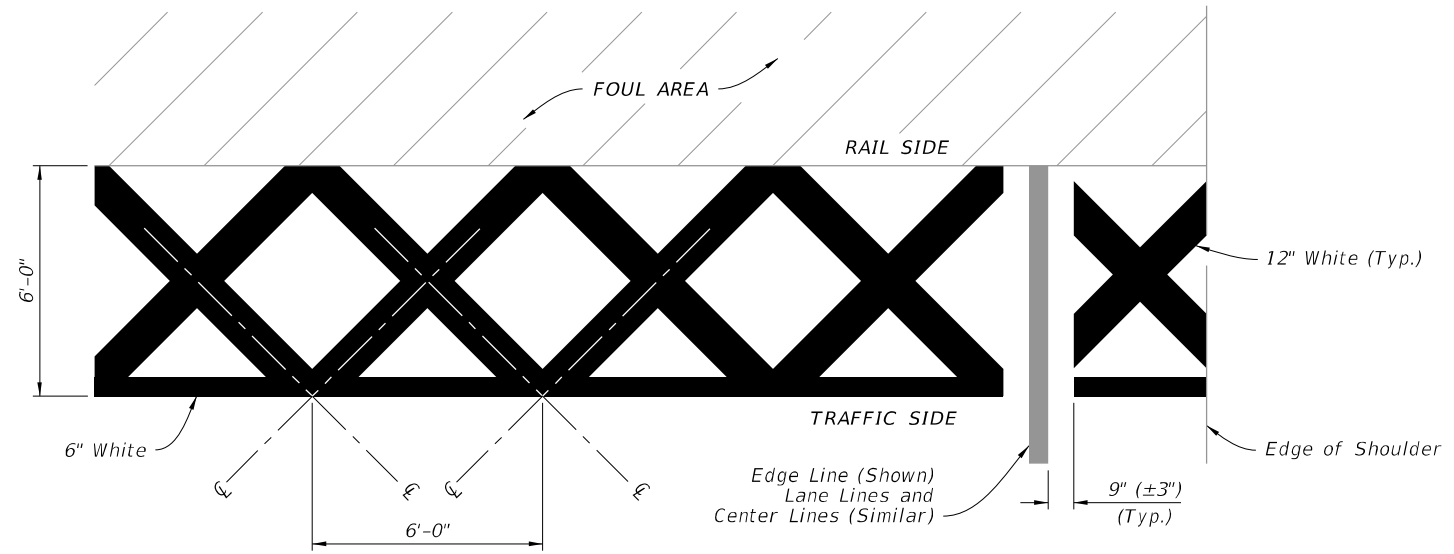

 FY 2022-23  
 STANDARD PLANS

PAVEMENT MARKINGS

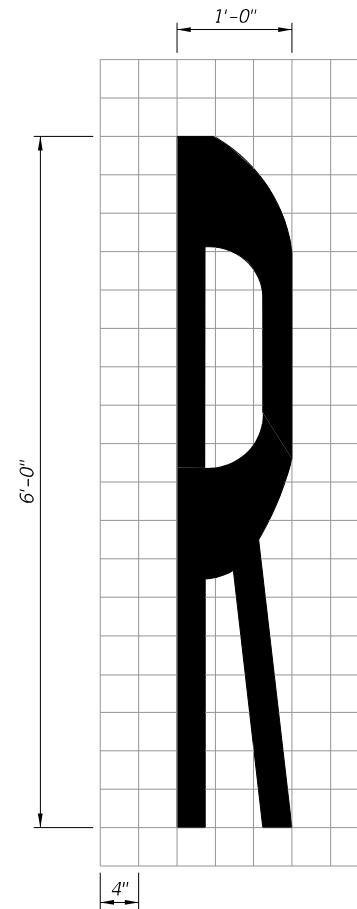
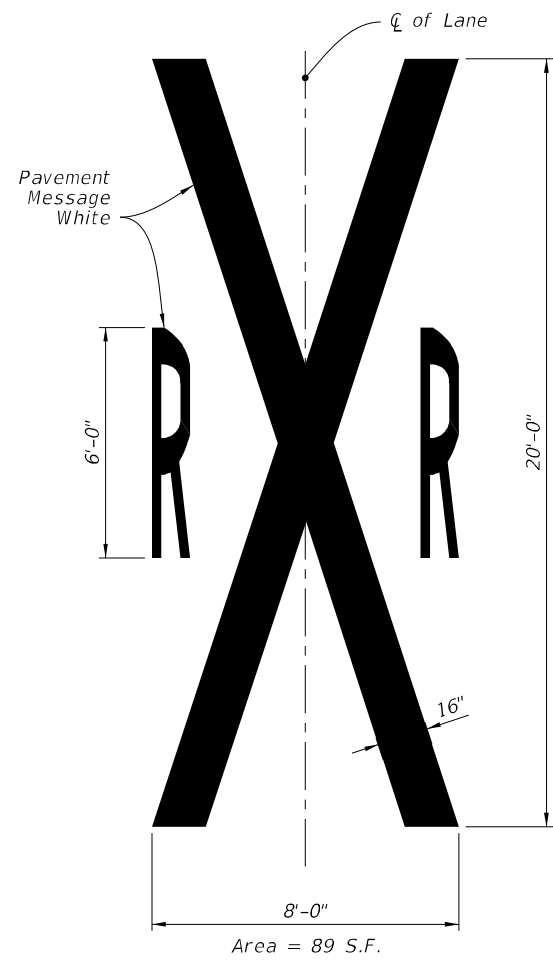
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 2022-A-590-00026  
 William Rickard  
 8/23/2022

**NOTE:**  
Orient Railroad Dynamic Envelope Marking as shown in the Plans.



RAILROAD DYNAMIC ENVELOPE (RDE) PAVEMENT MARKING DETAIL



RAILROAD CROSSING PAVEMENT MESSAGE

3:13:20 PM  
9/22/2021

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2022-A-590-00026  
William Rickard  
8/22/2022

Owner/Applicant Signature Authorization

Project Name: Crane Creek / M-1 Canal Flow Restoration

Application and/or Permit # (if available): FDOT Utility, Access and Drainage Permits

I hereby designate and authorize the agent listed below to act on my behalf, or on behalf of the St John's River Water Management District, as the agent in the processing of this application for the permits indicated above; and to furnish on request supplemental information in support of this application.

Printed Name of Authorized Agent: Richard Koller, PE

Signature of Authorized Agent: \_\_\_\_\_

Date: \_\_\_\_\_

Typed/Printed Name of Owner/Applicant: Michael Register, PE

Title: Executive Director, SJRWMD

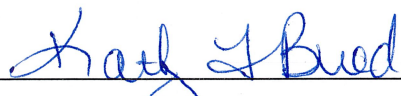
Signature of Owner/Applicant: 

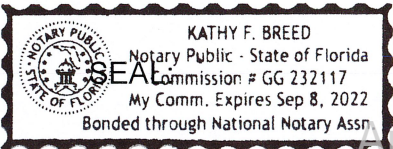
Date: 04/04/2022

State of Florida

County of ~~Brevard~~ Putnam

The foregoing instrument was acknowledged before me this 4<sup>th</sup> day of April, 20 22 by Mike Register, who is personally known to me or has produced \_\_\_\_\_ as identification, and who did or did not take an oath.

  
Signature of Notary



Approved  
2022-A-590-00026  
William Rickard  
8/2/2022