

CONSTRUCTION DRAWINGS  
FOR  
YARD PIPING REPLACEMENT  
MONTEREY WASTEWATER  
TREATMENT FACILITY

JEA PROJ NO.: 8003621



VICINITY MAP  
NOT TO SCALE

PROJECT  
LOCATION



PREPARED BY:



8657 BAYPINE ROAD, SUITE 300, JACKSONVILLE, FLORIDA, 32256-8634 / (904) 744-5401  
CERTIFICATE OF AUTHORIZATION #1841

JONES EDMUNDS PROJECT NO: 09302-046-01



Building Community<sup>sm</sup>

CONFORMED TO CONSTRUCTION RECORDS

Monterey WWTF  
Pipe Replacement  
68413

AS-BUILT	
INFORMATION PROVIDED BY: WILLIAMS INDUSTRIAL SERVICES	
Date:	2/22/18
Name:	NICK PAYNE
Address:	11380 ISLAND DRIVE #1 JACKSONVILLE, FL 32226
Phone#:	904.696.9994
I HEREBY CERTIFY THAT THE	
<input checked="" type="checkbox"/> WWTF System	<input type="checkbox"/> Chilled Water
<input type="checkbox"/> Pavement	<input type="checkbox"/> Water Main
<input type="checkbox"/> Curb & Gutter	<input type="checkbox"/> Reclaimed Water Main
<input type="checkbox"/> Storm & Drainage System	<input type="checkbox"/> Force Main
<input type="checkbox"/> Lake or Pond	<input type="checkbox"/> Sanitary Gravity System
<input type="checkbox"/> Underdrain Connections	<input type="checkbox"/> Lift Station
ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS AND THE ACCOMPANYING ELECTRONIC FILE HAVE BEEN LOCATED AND MAPPED IN ACCORDANCE WITH CHAPTER 471 OF FLORIDA STATUTES, CHAPTER 61G15-23 OF THE FLORIDA BOARD OF PROFESSIONAL ENGINEERS AND THE JEA STANDARDS FOR AS-BUILT DRAWINGS.	
ELECTRONIC DRAWING FILE NAME: G1	FILE DATE: 3/16/18
DATE OF FIELD SURVEY: 2/22/18	
SIGNATURE:	Digitally signed by Jason R. Shepler
NAME: JASON R. SHEPLER, P.E.	by Jason R. Shepler
FLORIDA PROFESSIONAL ENGINEER NO.: 58760	Date: 20180319 21:13:02 -0400

<b>JONES EDMUNDS</b> 8657 BAYPINE ROAD, SUITE 300, JACKSONVILLE, FLORIDA 32256-8634 / (904) 744-5401 CERTIFICATE OF AUTHORIZATION #1841		DESIGN ENGINEER ANTHONY R. HOLMES FLORIDA REGISTRATION NO. 70809		PROJ. NO. 8003621 DATE: MAR. 2017 SCALE: NONE		YARD PIPING REPLACEMENT MONTEREY WWTF, JACKSONVILLE, FLORIDA COVER	
NO.	BY	DATE	REVISIONS	NO.	BY	DATE	REVISIONS
1	JRS	3/16/18	CONFORMED TO CONSTRUCTION RECORDS	1	JRS	3/16/18	CONFORMED TO CONSTRUCTION RECORDS



NOT APPLICABLE  
APPLICABLE

## SURVEY AND LOCATE DATA:

- ☒ ☐ 1. ALL ELEVATIONS ARE BASED ON U.S.C.&G.S. DATUM AND SHOWN IN FEET.
- ☐ ☒ 2. ELEVATIONS ARE BASED ON N.A.V.D. 1988.
- ☐ ☒ 3. LOCATION OF EXISTING UTILITIES OBTAINED BY SOFT DIG LOCATES WHERE SHOWN ON PLANS, OR INCLUDED WITH BID SPECS.
- ☐ ☒ 4. EXISTING WATER AND SEWER LINES ARE SHOWN AS PER FIELD LOCATES AND SUBDIVISION AS-BUILT PLANS.
- ☐ ☒ 5. UNDERGROUND UTILITIES WERE LOCATED UTILIZING A DIGITAL LOCATOR AND SOFT DIG LOCATES WHERE SHOWN.
- ☐ ☒ 6. ALL PIPE LENGTHS SHOWN ON PLAN AND PROFILES ARE FROM CENTER TO CENTER OF MANHOLES, CATCH BASINS, INLETS ETC. OR ALONG THE CENTER LINE OF FORCE MAINS AND WATER MAINS.
- ☐ ☒ 7. INVERT ELEVATIONS SHOWN ON DRAWINGS REFER TO THE CENTERLINE OF MANHOLES, UNLESS OTHERWISE INDICATED.
- ☐ ☒ 8. THE LOCATION OF ALL EXISTING SEWER AND WATER SERVICE LINES MAY NOT BE INDICATED ON THESE PLANS. THE LOCATION OF NEW SERVICES SHALL BE VERIFIED IN THE FIELD.

## PERMIT REQUIREMENTS (NOT ALL INCLUSIVE):

- ☐ ☒ 1. CONTRACTOR TO OBTAIN ALL REQUIRED RIGHT-OF-WAY PERMITS.
- ☒ ☐ 2. CONTRACTOR SHALL NOT OPEN CUT STREETS IN THE PROJECT AREA UNLESS SPECIFICALLY SHOWN ON PLANS
- ☐ ☒ 3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A CONSUMPTIVE USE PERMIT (C.U.P.) THROUGH THE ST. JOHNS WATER MANAGEMENT DISTRICT SHOULD DEWATERING ACTIVITIES BE REQUIRED.
- ☒ ☐ 4. THE DEPARTMENT OF TRANSPORTATION, IS TO BE NOTIFIED IN ADVANCE OF CONSTRUCTION PER THEIR PERMIT CONDITIONS.
- ☐ ☒ 5. ALL WORK SHALL BE IN ACCORDANCE WITH BID DOCUMENTS, JEA WATER AND SEWER STANDARDS, DETAILS AND MATERIALS MANUAL, REV. 4/01. AND NASSAU COUNTY STANDARD SPECIFICATIONS AND DETAILS AND ALL APPLICABLE STATE AND LOCAL REGULATIONS.
- ☐ ☒ 6. IF SOLVENT CONTAMINATION IS FOUND IN THE PIPE TRENCH, WORK SHALL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH APPROVAL OF THE PERMITTING AGENCY, DUCTILE IRON PIPE, FITTINGS AND SOLVENT RESISTANT GASKET MATERIAL SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE IRON PIPE SHALL EXTEND AT LEAST 100 FEET BEYOND ANY SOLVENT NOTED.
- ☐ ☒ 7. THE CONTRACTOR SHALL NOTIFY APPLICABLE UTILITY CONTACT PERSONNEL NOT LESS THAN ONE WEEK PRIOR TO CONSTRUCTION OF FACILITIES IN THEIR RESPECTIVE AREAS.
- ☐ ☒ 8. TREE PROTECTION SHALL BE AS DETAILED ON SPECIFIC PLAN SHEETS. NO TRIMMING OF OVERHANGING TREE LIMBS WILL BE ALLOWED. USE SMALLER EQUIPMENT IF NECESSARY.
- ☐ ☒ 9. THE CONTRACTOR SHALL LOCATE THE DRAINAGE INLET STRUCTURES IN THE PROJECT AREA AND ERECT SEDIMENTATION CONTROL DEVICES AS NECESSARY PER THE STORMWATER POLLUTION PREVENTION DETAILS.
- ☐ ☒ 11. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A PERMIT FOR ABANDONMENT OF THE IRRIGATION WELL.

## EXISTING UTILITY PROTECTION:

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES AS NEEDED TO AVOID CONTACT. EXISTING UTILITIES SHALL BE EXPOSED USING DETECTION EQUIPMENT OR OTHER ACCEPTABLE MEANS. SUCH METHODS MAY INCLUDE BUT SHALL NOT BE LIMITED TO "SOFT DIG" EQUIPMENT AND GROUND PENETRATING RADAR (GPR). THE EXCAVATOR SHALL BE HELD LIABLE FOR DAMAGES CAUSED TO JEA'S INFRASTRUCTURE AND THE EXISTING FACILITIES OF OTHER UTILITY COMPANIES.
2. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND AVOID ALL UTILITIES. OTHER STRUCTURES AND OBSTRUCTIONS BOTH ABOVE AND BELOW GROUND SURFACE. ALL DAMAGE RESULTING FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

## ABBREVIATIONS:

AC	ASBESTOS CEMENT	INT.	INTERSECTION
A.G.	ALLEY GRATE	INV.	INVERT
B	BASE LINE	I.P.	IRON PIPE
B.M.	BENCH MARK	J.W.W.	JACKSONVILLE WATER WORKS
BC	BOTTOM OF CURVE	LT.	LEFT
C.B.	CATCH BASIN	MB	MAIL BOX
C.I.	CAST IRON	M.H.	MANHOLE
C	CENTER LINE	N.T.S.	NOT TO SCALE
C.E.P.	CITY ELECTRIC POLE	O.E.	OVERHEAD ELECTRIC
CONC.	CONCRETE	O.T.	OVERHEAD TELEPHONE
CONST.	CONSTRUCTION	P.R.M.	PERMANENT REFERENCE
C.M.P.A.	CORRUGATED METAL PIPE	P.V.C.	POLYVINYL CHLORIDE
CULV.	CULVERT	r	RADIUS
C&G	CURB & GUTTER	R	RATE
C	CUT	R.C.P.	RECLAIM WATER MAIN
D.B.I.	DITCH BOTTOM INVERT	RT	RIGHT
D.W. OR DR	DRIVEWAY	R.D.	RIGHT OF WAY
D.I.	DUCTILE IRON	R.D.	ROOF DRAIN
E.O.P.	EDGE OF PAVEMENT	SW	SIDE WALK
ELEV.	ELEVATION	S.B.T.	SOUTHERN BELL TELEPHONE
ERCP	ELLIPTICAL REINFORCED CONC. PIPE	STA	STATION
EXP. JT.	EXPANSION JOINT	TC	TOP OF CURVE
F	FILL	U.G.E.	UNDERGROUND ELECTRIC
F.H.	FIRE HYDRANT	U.G.T.	UNDERGROUND TELEPHONE
F	FLOW LINE	U.S.C. & G.S.	UNITED STATES COASTAL & GEODETIC SURVEY
FM	FORCE MAIN	V.C.	VITRIFIED CLAY
GALV./GLV	GALVANIZED	WM	WOOD LIGHT POLE
G	GAS LINE	WLP	WOOD POWER POLE
G.V.	GAS VALVE	WPP	WOOD TELEPHONE POLE
HDPE	HIGH DENSITY POLYETHYLENE PIPE	WTP	WATER TREATMENT PLANT
H.W.	HEAD WALL		
H.C.	HIGH CURB		

## RESTORATION NOTES:

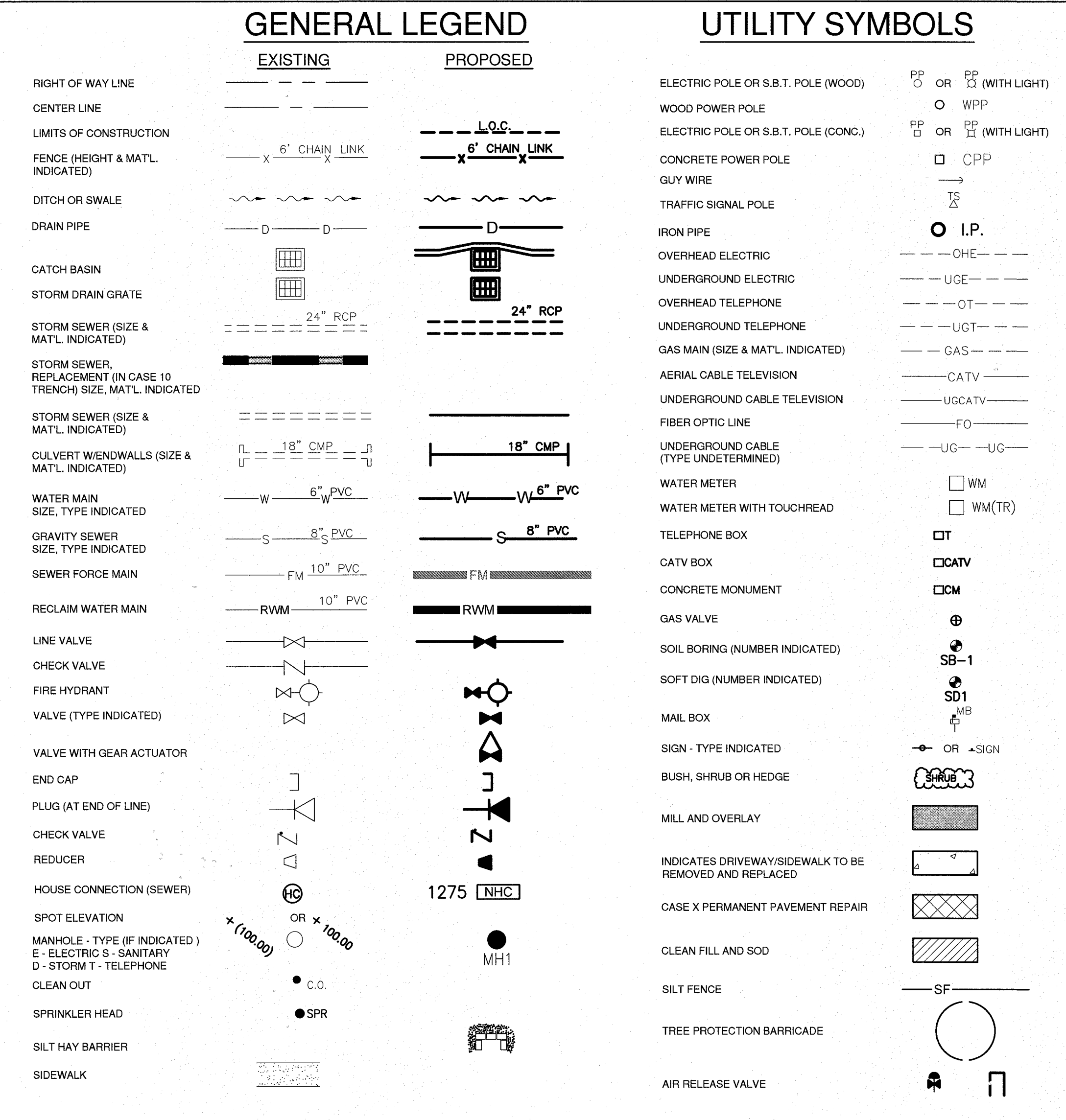
1. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR, REGISTERED IN THE STATE OF FLORIDA, TO REFERENCE AND RESTORE PROPERTY CORNERS AND LANDMARKS WHICH MAY BE DISTURBED BY CONSTRUCTION.
2. THE CONTRACTOR SHALL RESTORE/REPLACE ALL CULVERTS, HEADWALLS AND STORM DRAIN INLETS REMOVED OR DISTURBED BY THE CONSTRUCTION OPERATION.
3. TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION CONDITION IN ACCORDANCE WITH THE FDOT STANDARD SPECIFICATIONS.
4. SIDEWALKS, DRIVEWAYS AND CURBING DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED IN ACCORDANCE WITH CITY OF JACKSONVILLE STANDARD SPECIFICATIONS. SIDEWALKS REMOVED AND REPLACED IN CURB AND GUTTER AREAS AT INTERSECTIONS SHALL HAVE HANDICAP RAMPS INSTALLED. DRIVEWAYS AND SIDEWALKS SHALL BE SAWCUT ALONG THE RIGHT-OF-WAY LINE OR NEAREST JOINT AND REMOVED AND REPLACED TO THE EDGE OF STREET.
5. SOD AREAS DISTURBED OR DAMAGED BY THE CONSTRUCTION OPERATION IN ACCORDANCE WITH JEA STANDARDS.
6. ALL PAVEMENT REPAIR SHALL BE IN ACCORDANCE WITH THE FDOT STANDARD DETAILS AND SPECIFICATIONS LATEST EDITION.
7. CONTRACTOR MUST MAINTAIN AND PRESERVE NEWLY GRADED AREAS AND REPAIR AREAS WHERE SETTLING AND EROSION HAVE OCCURRED.

## MEASUREMENT AND PAYMENT:

1. THE QUANTITIES OF THE CONTRACT UNIT PRICE ITEMS WILL BE MEASURED FOR THE PAYMENT IN ACCORDANCE WITH THE PROVISIONS CONTAINED IN SECTION 801 OF THE JEA WATER AND WASTEWATER STANDARDS AND VERIFIED BY A REPRESENTATIVE OF JEA.
2. FOR LEAKAGE AND PRESSURE TESTING OF HDPE PIPE, SEE JEA STANDARDS "HORIZONTAL DIRECTIONAL DRILLING" (CHAPTER VII.2 - SECTION 780), FOR TECHNICAL SPECIFICATIONS FOR TESTING HDPE PRODUCTS. DUE TO THE EXPANSION OF HDPE PIPE, THE PRESSURE TESTING OF HDPE PIPE SECTIONS MUST BE TESTED SEPARATELY FROM DUCTILE IRON PIPE SECTIONS.

## LEAKAGE AND PRESSURE TESTING:

1. LEAKAGE AND PRESSURE TESTING SHALL BE IN ACCORDANCE WITH JEA WATER AND WASTEWATER STANDARDS.



## INSTALLATION NOTES:

- ☒ ☐ 1. CONTRACTOR TO REHABILITATE ALL MANHOLES ON PIPE BURST SEWERS VIA COATING/LINING PER JEA SPECIFICATION 446-2, UNLESS OTHERWISE NOTED ON THE PLANS.
- ☒ ☐ 2. CONTRACTOR TO RENEW, REHABILITATE, REPLACE OR REINSTALL AS APPLICABLE ALL SERVICE LATERALS TO R.O.W. LINE.
- ☒ ☐ 3. CONTRACTOR TO INSTALL SEWER SERVICE PIPING A MINIMUM OF 60 INCHES BELOW GRADE. WHERE NEW SANITARY SEWER MAIN IS LESS THAN 5 FEET DEEP, THE SEWER SERVICE PIPE SHALL BE INSTALLED AS DEEP AS POSSIBLE.
- ☒ ☐ 4. WHEN THE DISTANCE BETWEEN A POWER POLE AND THE TRENCH IS LESS THAN THE TRENCH DEPTH, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH JEA ELECTRICAL PERSONNEL TO SECURE POWER POLES. THE CONTACTS FOR JEA ARE AS FOLLOWS:  
NORTHSIDE-EAST OF US-1 MIKE CORBITT @ 665-7991 (mobile 662-0635)  
NORTHSIDE-WEST OF US-1 ANDY YEAGER @ 665-7998 (mobile 662-0622)  
NORTHSIDE-BACKUP ALAN AINSLEY @ 665-7303 (mobile 662-6557)  
SOUTHSIDE-SOUTH OF BEACH BLVD. TOM KERNS @ 665-6847 (mobile 860-1687)  
SOUTHSIDE-NORTH OF BEACH BLVD. DERYL BASFORD @ 665-6855 (mobile 662-0616)  
SOUTHSIDE-BACKUP EDDIE GALES @ 665-6855 (mobile 662-0616)  
A MINIMUM OF TWO (2) WORKING DAYS NOTICE IS REQUIRED FOR AN OUTSIDE MEETING WITH JEA ELECTRICAL TO DISCUSS THE REQUIRED WORK. ADDITIONAL TIME WILL BE REQUIRED BY JEA ELECTRICAL FOR ANY REQUIRED WORK TO BE ACCOMPLISHED.
- ☒ ☐ 5. ALL NEW STORM DRAIN PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC.
- ☐ ☒ 6. THE DESIGN FOR THE PROJECT IS BASED UPON THE "OPEN-CUT" METHOD OF CONSTRUCTION. IF USING ALTERNATIVE MEANS OR METHODS, THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE STANDARDS FOR THAT MEANS OR METHOD AND OBTAIN PRIOR APPROVAL FOR ITS USE FROM JEA.
- ☒ ☐ 7. THE CONTRACTOR SHALL MINIMIZE SERVICE INTERRUPTIONS AT SERVICE CONNECTIONS. THE MEANS AND METHODS SHALL BE LEFT TO THE DISCRETION OF THE CONTRACTOR, SUBJECT TO THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS. NO EXISTING ACTIVE SERVICE SHALL BE LEFT INTERRUPTED AT THE END OF THE WORK DAY.
- ☐ ☒ 8. CONTRACTOR SHALL PROVIDE ADDITIONAL CORPORATION STOPS FOR FILLING AND DRAINING PURPOSES DURING CONSTRUCTION AS NEEDED. CORPORATION STOPS ARE TO BE PLUGGED AND LEFT IN PLACE. INDICATE CORPORATION STOP LOCATIONS ON RECORD DRAWINGS (AS-BUILTS).
- ☐ ☒ 9. WATER AND SEWER SERVICES SHALL BE TRANSFERRED TO THE NEW MAIN UPON COMPLETION AND F.D.E.P./J.E.A. CERTIFICATION, AND PRIOR TO THE EXISTING MAINS BEING ABANDONED.
- ☒ ☐ 10. IF EXISTING VALVES ARE IN UNPAVED AREAS AND ARE TO BE TAKEN OUT OF SERVICE, THEY SHALL BE CLOSED AND THE VALVE BOX AND COVER SHALL BE REMOVED. IF THE VALVES ARE UNDER PAVED AREAS, THEY SHALL BE CLOSED, THE VALVE BOX GROUT FILLED AND THE COVER REMOVED.
- ☒ ☐ 11. CONTRACTOR SHALL REPLACE EXISTING WATER METER BOXES WHEN DEEMED NECESSARY BY THE JEA INSPECTOR.
- ☐ ☒ 12. CONTRACTOR TO PROVIDE ADDITIONAL DEPTH OF BURY VIA PIPE JOINT DEFLECTION TO ACCOMMODATE VALVE AND ARV SELECTION PER JEA STANDARDS.
- ☐ ☒ 14. PRIOR TO COMMENCING ANY EXCAVATION OR GRADING, THE CONTRACTOR SHALL OBTAIN ALL GEOTECHNICAL AND TOPOGRAPHIC SURVEY DATA AND LOCATIONS OF ABOVE GROUND AND UNDERGROUND UTILITIES. SHOULD THE CONTRACTOR DISCOVER ANY INACCURACIES, ERRORS OR OMISSIONS IN THE SURVEY DATA, HE SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER IN ORDER THAT PROPER ADJUSTMENTS CAN BE ANTICIPATED AND ORDERED.
- ☐ ☒ 15. SHEET PILING WILL BE REQUIRED ON ALL EXCAVATIONS DEEPER THAN 16 FEET.
- ☐ ☒ 16. ZERO JOINT DEFLECTION WILL BE ALLOWED ON 20" OR LARGER PVC PRESSURE PIPE. THE MAXIMUM JOINT DEFLECTION SHALL BE LIMITED TO 80% OF THE MANUFACTURER'S RECOMMENDATION FOR DUCTILE IRON PRESSURE PIPE. THE CONTRACTOR SHALL PROPERLY INSPECT THE INSTALLATION OF ALL PIPE JOINTS TO ENSURE THESE JOINT DEFLECTION LIMITS ARE NOT EXCEEDED.
- ☐ ☒ 17. CONTRACTOR SHALL FOLLOW JEA STANDARDS AND ALL APPLICABLE REGULATORY AGENCY REQUIREMENTS IF ANY ASBESTOS CEMENT PIPE IS IMPACTED DURING CONSTRUCTION.
- ☒ ☐ 18. 20" AND 24" PLUG VALVES WITH GEAR ACTUATORS WILL BE FURNISHED BY JEA AND INSTALLED BY THE CONTRACTOR. 16" AND 10" PLUG VALVES WITH GEAR ACTUATORS WILL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. INSTALL VALVES WITH SHAFTS LAID HORIZONTAL.

## INDEX OF DRAWINGS:

SHEET NUMBER	DRAWING NUMBER	SHEET TITLE
1	G1	COVER
2	G2	NOTES, LEGEND, ABBREVIATIONS AND DRAWING INDEX
3	G3	SURVEYORS NOTES, LEGEND, TEST HOLE DATA
<b>FORCE MAIN IMPROVEMENTS</b>		
4	C1	INFLUENT SBR YARD PIPING
5	C2	INFLUENT SBR CONNECTION PLANS
6	C3	INFLUENT YARD PIPING SECTIONS
<b>TYPICAL DETAILS</b>		
7	S-STD-1	SANITARY SEWER DETAILS
8	S-STD-2	SANITARY SEWER DETAILS
9	DET-01	TYPICAL DETAILS
10	SWPPP-1	STORM WATER POLLUTION PREVENTION DETAILS
11	SWPPP-2	STORM WATER POLLUTION PREVENTION DETAILS
12	SWPPP-3	STORM WATER POLLUTION PREVENTION DETAILS

AS-BUILT  
INFORMATION PROVIDED BY: WILLIAMS INDUSTRIAL SERVICES  
Date: 2/22/18  
Name: NICK PAYNE  
Address: 11380 ISLAND DRIVE #1  
JACKSONVILLE, FL 32226  
Phone: 904.696.9994

I HEREBY CERTIFY THAT THE  
X WWTF System  
Pavement  
Curb & Gutter  
Storm & Drainage System  
Lake or Pond  
Underdrain Connections  
Chilled Water  
Water Main  
Reclaimed Water Main  
Force Main  
Sanitary Gravity System  
Lift Station

ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS AND THE ACCOMPANYING ELECTRONIC FILE HAVE BEEN LOCATED AND MAPPED IN ACCORDANCE WITH CHAPTER 471 OF FLORIDA STATUTES, CHAPTER 1919-23 OF THE FLORIDA BOARD OF PROFESSIONAL ENGINEERS AND THE JEA STANDARDS FOR AS-BUILT DRAWINGS.

ELECTRONIC DRAWING FILE NAME: G2 FILE DATE: 3/16/18  
DATE OF FIELD SURVEY: 2/22/18

SIGNATURE: JASON R. SHEPLER, P.E.  
NAME: JASON R. SHEPLER, P.E.  
FLORIDA PROFESSIONAL ENGINEER No.: 58760

Digitally signed by Jason R. Shepler  
Date: 2018.03.19 21:14:23 -0400

### NOTE:

STANDARD DRAWINGS ARE APPLICABLE FOR ALL PROJECTS, INCORPORATED BY REFERENCE AND ARE AVAILABLE AT JEA.COM

Monterey WWTF  
Pipe Replacement  
68414

JONES EDMUNDS  
8657 BAYVIEW ROAD, SUITE 300, JACKSONVILLE, FLORIDA 32256-8634 / (904) 744-5401  
CERTIFICATE OF AUTHORIZATION # 6841

NO.	BY	DATE	REVISIONS
1			
2			
3			
4			
5			
6			

DESIGN ENGINEER  
ANTHONY R. HOLMES  
FLORIDA REGISTRATION NO. 70809

DESIGNER: KRAMER  
DATE: MAR 2017  
DRAWN BY: KRAMER  
DATE: MAR 2017

PROJ. NO. 8003821  
DATE: MAR 2017  
SCALE: NONE

NO. SHEETS 12  
SHEET NO. 12  
DRAWING NO. G2

YARD PIPING REPLACEMENT  
MONTEREY WWTF, JACKSONVILLE, FLORIDA  
NOTES, LEGEND, ABBREVIATIONS AND DRAWING INDEX

CONFORMED TO CONSTRUCTION RECORDS



M:\CAD Files\JEA\0801341 Monterey WRF Influent PS Record Drawings\WTF Record Drawings\0930204601-003.dwg Mon Mar 19, 2018 15:15 Current Layout Tab = Layout1

SURVEYOR'S NOTES:

1. THIS IS A TOPOGRAPHIC SURVEY OF A PORTION OF THE JEA – MONTEREY WASTE WATER TREATMENT PLANT.
2. ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND ARE BASED ON NGS BENCHMARKS "G694" (PID# DL5767) ELEVATION = 53.19' NAVD 88 AND ON "H694" (PID# DL5768) ELEVATION = 55.05' NAVD 88.
3. UNDERGROUND UTILITIES, FOUNDATIONS, OR OTHER IMPROVEMENTS, IF ANY, WERE NOT LOCATED EXCEPT AS SHOWN.
4. JURISDICTIONAL WETLANDS, IF ANY, WERE NOT LOCATED OR IDENTIFIED AS PART OF THIS SURVEY.
5. THE COORDINATES SHOWN HEREON ARE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM (EAST ZONE), NORTH AMERICAN DATUM OF 1983 (NAD83(2011)), U.S. SURVEY FEET. THE PLANE COORDINATES WERE DERIVED USING REAL TIME KINEMATIC (RTK) GPS WITH DIRECT OBSERVATIONS TO FLORIDA PERMANENT REFERENCE NETWORK STATION "CRAIG" (KREG).
6. THE SCOPE AND LIMITS OF THE SURVEY WERE DEFINED BY THE CLIENT.
7. THE UNDERGROUND UTILITIES SHOWN HEREON WERE DESIGNATED BY F.R. ALEMAN AND ASSOCIATES, INC.

SURVEYOR'S LEGEND:

- ⊙

DENOTES SANITARY SEWER MANHOLE
- ⓔ

DENOTES ELECTRIC MANHOLE
- ⊙

DENOTES PROJECT BENCHMARK (NAIL & BLUE DISK L.B. 4603)
- x(21.9)

DENOTES ELEVATION AT "x"
- DENOTES BOLLARD
- Σ

DENOTES WATER VALVE
- DENOTES TEST HOLE (TH)
- ↙

DENOTES GUY ANCHOR
- ☆

DENOTES LIGHT POLE
- WM

DENOTES WATER METER
- ⊕

DENOTES CONCRETE UTILITY POLE
- ⊕

DENOTES WOOD UTILITY POLE
- Σ

DENOTES SANITARY VALVE
- DENOTES TREE (MEASURED AT DBH)
- ⊕

DENOTES SHRUB
- UGE —

DENOTES UNDERGROUND ELECTRIC LINE
- — — — —

DENOTES APPROXIMATE LIMITS OF TREE LINE
- 80 —

DENOTES CONTOUR
- X —

DENOTES FENCE
- — — OHE — — —

DENOTES OVERHEAD UTILITY LINES
- FM —

DENOTES UNDERGROUND FORCE MAIN
- W —

DENOTES UNDERGROUND WATER
- — — UGT — — —

DENOTES UNDERGROUND TELEPHONE
- FO —

DENOTES UNDERGROUND FIBER OPTIC
- CATV —

DENOTES CABLE TV

TEST HOLE DATA				
TEST HOLE	TYPE OF UTILITY	DESCRIPTION	GROUND ELEVATION	TOP OF UTILITY ELEVATION
1	UNK	1¼" PVC PIPES	23.66	23.11
2	UNK	(2) 4" PVC PIPES	24.01	19.43
3	SEWER FM	24" D.I. PIPE	24.34	20.33
4	UNK	2" PVC PIPE	21.61	21.61
5	UNK	10" C.I. PIPE	24.59	19.89
6	UNK	6" PVC PIPE	24.65	21.38
7	SEWER FM	30" D.I. PIPE	24.67	20.21
8	ELECTRIC	(2) 4" PVC PIPES	24.69	20.56
9	ELECTRIC	CONC. DUCT EAST EDGE	24.83	23.06
9	UNK	6" C.I. PIPE	24.59	22.24

SUGGESTED SEQUENCE OF CONSTRUCTION

1. DURING 4 HOUR PLANT SHUTDOWN INSTALL PIPING AND VALVES AT THE NORTH CONNECTION TO ALLOW ISOLATION OF NEW PIPING DURING CONSTRUCTION. SHUTDOWN SHALL START AT 10:00PM ON ANY DAY OF THE WEEK COORDINATED WITH JEA.
2. DURING 4 HOUR PLANT SHUTDOWN INSTALL PIPING AND VALVES AT THE SOUTH CONNECTION TO ALLOW ISOLATION OF NEW PIPING DURING CONSTRUCTION. SHUTDOWN SHALL START AT 10:00PM ON ANY DAY OF THE WEEK COORDINATED WITH JEA.
3. INSTALL NEW 20" HDPE PIPING.
4. TEST NEW 20" HDPE PIPING.
5. INSTALL NEW DIP PIPING.
6. TEST NEW DIP PIPING.
7. DURING 4 HOUR PLANT SHUTDOWN INSTALL NEW RISER PIPING AND VALVES, REMOVE TEMPORARY 18" PIPING AND OPEN THE NEW 20" VALVE OF THE NEW INFLUENT PIPING AT THE SOUTH CONNECTION TO PUT THE NEW INFLUENT PIPING INTO SERVICE. SHUTDOWN SHALL START AT 10:00PM ON ANY DAY OF THE WEEK COORDINATED WITH JEA.
8. OPERATE EXISTING PUMP STATION AND PLANT THROUGH NEW HDPE PIPING.
9. REMOVE AND CAP PIPE AS NEEDED TO ISOLATE EXISTING 30" PIPING AND GROUT REMAINING FULL.
10. INSTALL 18" VALVES IN VERTICAL RISER PIPES AT EACH SBR BASIN. EACH VALVE SHALL BE INSTALLED DURING A 4 HOUR PLANT SHUTDOWN THAT SHALL START AT 10:00PM ON ANY DAY OF THE WEEK COORDINATED WITH JEA.
11. CONTRACTOR TO COORDINATE ALL ABOVE GRADE 18" HDPE TEMPORARY PIPING, VALVES, ETC., WITH JEA.
12. CONTRACTOR TO SUBMIT SEQUENCE OF CONSTRUCTION FOR REVIEW AND APPROVAL BY JEA AT THE PRE-CONSTRUCTION MEETING.
13. CONTRACTOR TO COORDINATE ALL SHUTDOWN WORK WITH JEA.

VALVE TABLE							
SHEET No.	VALVE No.	VALVE SIZE	VALVE TYPE	No. OF TURNS	DEPTH OF NUT	OPEN DIRECTION	NORMAL OPERATION
C1/C3	V-100	18"	PLUG	30	HAND WHEEL	LEFT	OPEN
C1/C3	V-101	18"	PLUG	30	HAND WHEEL	LEFT	OPEN
C1/C3	V-102	18"	PLUG	30	HAND WHEEL	LEFT	OPEN
C1/C3	V-103	18"	PLUG	30	HAND WHEEL	LEFT	OPEN
C1/C2/C3	V-104	20"	PLUG	30	24"	LEFT	OPEN
C1/C2/C3	V-105	20"	PLUG	30	HAND WHEEL	LEFT	CLOSED
C1/C2/C3	V-106	20"	PLUG	30	12"	LEFT	OPEN

CONFORMED TO CONSTRUCTION RECORDS

Monterey WWTF  
Pipe Replacement  
68415

AS-BUILT

INFORMATION PROVIDED BY: WILLIAMS INDUSTRIAL SERVICES

Date: 2/22/18

Name: NICK PAYNE

Address: 11380 ISLAND DRIVE #1  
JACKSONVILLE, FL 32226

Phone#: 904.696.9994

I HEREBY CERTIFY THAT THE

☒ WWTF System

☐ Chilled Water

☐ Pavement

☐ Water Main

☐ Curb & Gutter

☐ Reclaimed Water Main

☐ Storm & Drainage System

☐ Force Main

☐ Lake or Pond

☐ Sanitary Gravity System

☐ Underdrain Connections

☐ Lift Station

ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS AND THE ACCOMPANYING ELECTRONIC FILE HAVE BEEN LOCATED AND MAPPED IN ACCORDANCE WITH CHAPTER 471 OF FLORIDA STATUTES, CHAPTER 61G15-23 OF THE FLORIDA BOARD OF PROFESSIONAL ENGINEERS AND THE JEA STANDARDS FOR AS-BUILT DRAWINGS.

ELECTRONIC DRAWING FILE NAME: G3 FILE DATE: 3/16/18

DATE OF FIELD SURVEY: 2/22/18

SIGNATURE: JASON R. SHEPLER, P.E. 58750 2018.03.19 21:15:30 -04'00'

JONES EDMUNDS  
8657 BAYVIEW ROAD, SUITE 300, JACKSONVILLE, FLORIDA 32256-8634 / (904) 744-5401  
CERTIFICATE OF AUTHORIZATION #1841

DESIGN ENGINEER  
ANTHONY R. HOLMES  
FLORIDA REGISTRATION NO.  
70809

DESIGNER:  
KRAMER  
DRAWN BY:  
DATE: MAR. 2017  
CHECKED BY:  
GFERNE  
DATE: MAR. 2017

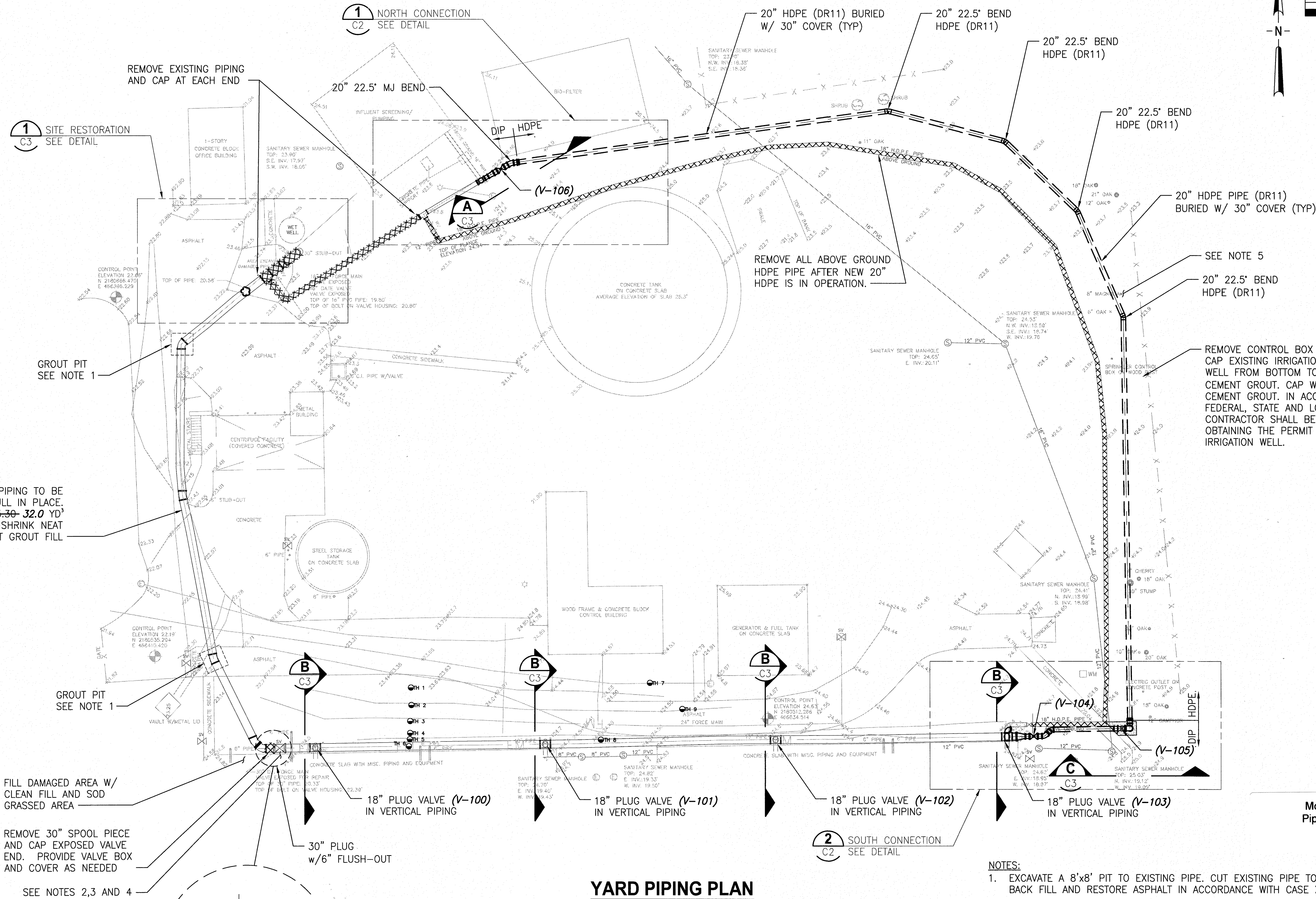
YARD PIPING REPLACEMENT  
MONTEREY WWTF, JACKSONVILLE, FLORIDA  
SURVEYORS NOTES, LEGEND, TEST HOLE DATA

PROJ. NO. 8003621  
SHEET NO. 3  
DRAWING NO. 03

DATE: MAR. 2017  
SCALE: NONE

AS-BUILT	
INFORMATION PROVIDED BY WILLIAMS INDUSTRIAL SERVICES	
Date:	2/22/18
Name:	NICK PAYNE
Address:	11380 ISLAND DRIVE #1 JACKSONVILLE, FL 32226
Phone#:	904.696.9994
I HEREBY CERTIFY THAT THE	
<input checked="" type="checkbox"/> WWTF System	<input type="checkbox"/> Chilled Water
<input type="checkbox"/> Pavement	<input type="checkbox"/> Water Main
<input type="checkbox"/> Curb & Gutter	<input type="checkbox"/> Reclaimed Water Main
<input type="checkbox"/> Storm & Drainage System	<input type="checkbox"/> Force Main
<input type="checkbox"/> Lake or Pond	<input type="checkbox"/> Sanitary Gravity System
<input type="checkbox"/> Underdrain Connections	<input type="checkbox"/> Lift Station
ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS AND THE ACCOMPANYING ELECTRONIC FILE HAVE BEEN LOCATED AND MAPPED IN ACCORDANCE WITH CHAPTER 471 OF FLORIDA STATUTES, CHAPTER 6105-23 OF THE FLORIDA BOARD OF PROFESSIONAL ENGINEERS AND THE JEA STANDARDS FOR AS-BUILT DRAWINGS.	
ELECTRONIC DRAWING FILE NAME: C1	FILE DATE: 3/18/18
DATE OF FIELD SURVEY: 2/22/18	
SIGNATURE:	Digitally signed by Jason R. Shepler
NAME: JASON R. SHEPLER, P.E.	
FLORIDA PROFESSIONAL ENGINEER NO.: 58763	Date: 2018.03.19

EXISTING 30" PIPING TO BE GROUTED FULL IN PLACE. PROVIDE ~~35.30~~ 32.0 YD<sup>3</sup> OF NON-SHRINK NEAT CEMENT GROUT FILL



Monterey WWTF  
Pipe Replacement  
68416

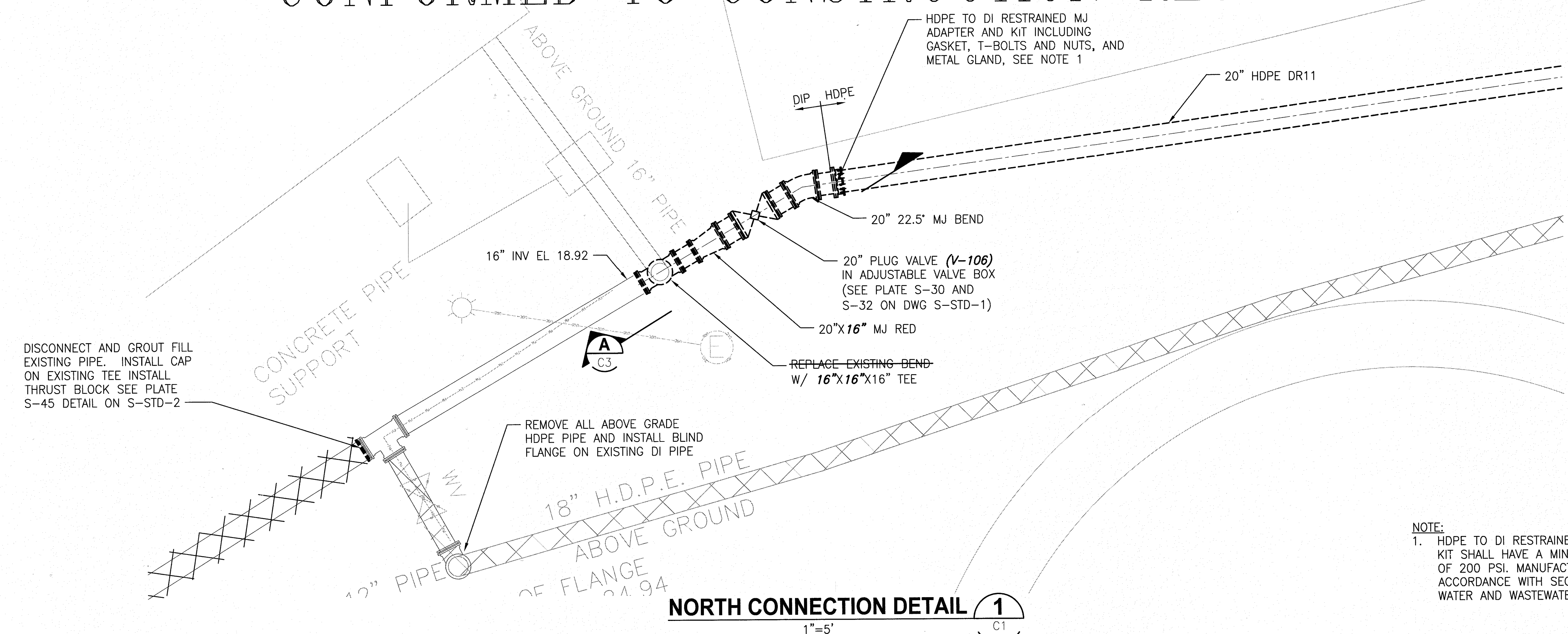
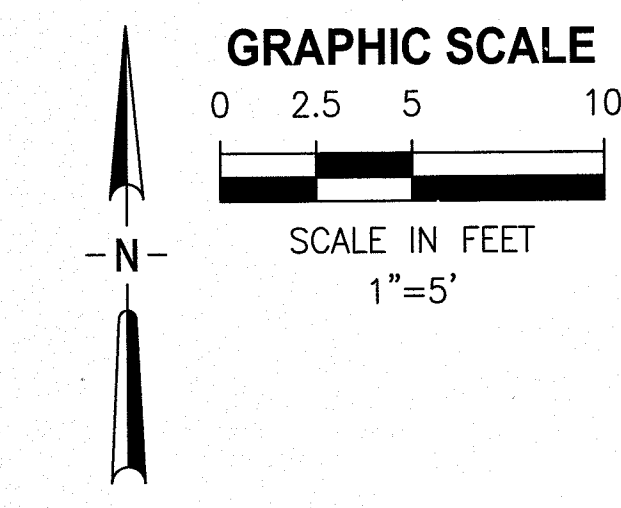
- NOTES:
- EXCAVATE A 8'x8' PIT TO EXISTING PIPE. CUT EXISTING PIPE TO FILL WITH NON-SHRINK GROUT. BACK FILL AND RESTORE ASPHALT IN ACCORDANCE WITH CASE X DETAIL.
  - SAW CUT EXISTING DAMAGED CONCRETE IN A MANNER SUITABLE FOR PLACEMENT OF NEW CONCRETE THAT IS FLUSH WITH EXISTING CONCRETE.
  - FILL AREA BELOW SLAB WITH AASHTO CLASS A-3 SOIL AND COMPACT TO 98% OF ITS MAXIMUM DENSITY DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D1557. PROVIDE A MINIMUM OF 2 FEET DEPTH OF FLOWABLE FILL IN ACCORDANCE WITH JEA STANDARDS "EXCAVATION AND EARTHWORK" (CHAPTER IX.4.-SECTION 408) UNDER THE EXISTING AND NEW CONCRETE SLAB AREA. FLOWABLE FILL SHALL BE COMPACTED TO 95% OF ITS MAXIMUM DENSITY DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D1557.
  - DOWEL INTO EXISTING SAW CUT CONCRETE WITH #3 BAR, 6" ON CENTER WITH EPOXY. PLACE 4 INCHES THICK OF 3000 PSI CONCRETE REINFORCED WITH 6x6 - W1.4x1.4 WWF, MATCH FINISH AND CHAMFER TO EXISTING CONCRETE.
  - CONTRACTOR MAY REMOVE TREES IF IN DIRECT CONFLICT WITH THE INSTALLATION OF PIPE. ALL REMOVED MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS.
  - RESTRAIN ALL DIP JOINTS IN ACCORDANCE WITH PLATE S-38B DETAIL ON S-STD-2.

CONFORMED TO CONSTRUCTION RECORDS

JONES EDMUNDS		8857 BAYVIEW ROAD, SUITE 300, JACKSONVILLE, FLORIDA 32216-4834 / (904) 744-5400	
DESIGNER:	ARCHIVES	DESIGN ENGINEER:	ANTHONY R. HOLMES
DRAWN BY:	KRAMER	FLORIDA REGISTRATION NO.:	70809
DATE:	MAR 2017	CHECKED BY:	GERBERNE
DATE:	MAR 2017	DATE:	MAR 2017
NO. BY DATE		NO. BY DATE	
1. JES 3/8/18		1. JES 3/8/18	
2. JES 3/8/18		2. JES 3/8/18	
3. JES 3/8/18		3. JES 3/8/18	
4. JES 3/8/18		4. JES 3/8/18	
5. JES 3/8/18		5. JES 3/8/18	
6. JES 3/8/18		6. JES 3/8/18	
7. JES 3/8/18		7. JES 3/8/18	
8. JES 3/8/18		8. JES 3/8/18	
9. JES 3/8/18		9. JES 3/8/18	
10. JES 3/8/18		10. JES 3/8/18	
11. JES 3/8/18		11. JES 3/8/18	
12. JES 3/8/18		12. JES 3/8/18	
13. JES 3/8/18		13. JES 3/8/18	
14. JES 3/8/18		14. JES 3/8/18	
15. JES 3/8/18		15. JES 3/8/18	
16. JES 3/8/18		16. JES 3/8/18	
17. JES 3/8/18		17. JES 3/8/18	
18. JES 3/8/18		18. JES 3/8/18	
19. JES 3/8/18		19. JES 3/8/18	
20. JES 3/8/18		20. JES 3/8/18	
21. JES 3/8/18		21. JES 3/8/18	
22. JES 3/8/18		22. JES 3/8/18	
23. JES 3/8/18		23. JES 3/8/18	
24. JES 3/8/18		24. JES 3/8/18	
25. JES 3/8/18		25. JES 3/8/18	
26. JES 3/8/18		26. JES 3/8/18	
27. JES 3/8/18		27. JES 3/8/18	
28. JES 3/8/18		28. JES 3/8/18	
29. JES 3/8/18		29. JES 3/8/18	
30. JES 3/8/18		30. JES 3/8/18	
31. JES 3/8/18		31. JES 3/8/18	
32. JES 3/8/18		32. JES 3/8/18	
33. JES 3/8/18		33. JES 3/8/18	
34. JES 3/8/18		34. JES 3/8/18	
35. JES 3/8/18		35. JES 3/8/18	
36. JES 3/8/18		36. JES 3/8/18	
37. JES 3/8/18		37. JES 3/8/18	
38. JES 3/8/18		38. JES 3/8/18	
39. JES 3/8/18		39. JES 3/8/18	
40. JES 3/8/18		40. JES 3/8/18	
41. JES 3/8/18		41. JES 3/8/18	
42. JES 3/8/18		42. JES 3/8/18	
43. JES 3/8/18		43. JES 3/8/18	
44. JES 3/8/18		44. JES 3/8/18	
45. JES 3/8/18		45. JES 3/8/18	
46. JES 3/8/18		46. JES 3/8/18	
47. JES 3/8/18		47. JES 3/8/18	
48. JES 3/8/18		48. JES 3/8/18	
49. JES 3/8/18		49. JES 3/8/18	
50. JES 3/8/18		50. JES 3/8/18	
51. JES 3/8/18		51. JES 3/8/18	
52. JES 3/8/18		52. JES 3/8/18	
53. JES 3/8/18		53. JES 3/8/18	
54. JES 3/8/18		54. JES 3/8/18	
55. JES 3/8/18		55. JES 3/8/18	
56. JES 3/8/18		56. JES 3/8/18	
57. JES 3/8/18		57. JES 3/8/18	
58. JES 3/8/18		58. JES 3/8/18	
59. JES 3/8/18		59. JES 3/8/18	
60. JES 3/8/18		60. JES 3/8/18	
61. JES 3/8/18		61. JES 3/8/18	
62. JES 3/8/18		62. JES 3/8/18	
63. JES 3/8/18		63. JES 3/8/18	
64. JES 3/8/18		64. JES 3/8/18	
65. JES 3/8/18		65. JES 3/8/18	
66. JES 3/8/18		66. JES 3/8/18	
67. JES 3/8/18		67. JES 3/8/18	
68. JES 3/8/18		68. JES 3/8/18	
69. JES 3/8/18		69. JES 3/8/18	
70. JES 3/8/18		70. JES 3/8/18	
71. JES 3/8/18		71. JES 3/8/18	
72. JES 3/8/18		72. JES 3/8/18	
73. JES 3/8/18		73. JES 3/8/18	
74. JES 3/8/18		74. JES 3/8/18	
75. JES 3/8/18		75. JES 3/8/18	
76. JES 3/8/18		76. JES 3/8/18	
77. JES 3/8/18		77. JES 3/8/18	
78. JES 3/8/18		78. JES 3/8/18	
79. JES 3/8/18		79. JES 3/8/18	
80. JES 3/8/18		80. JES 3/8/18	
81. JES 3/8/18		81. JES 3/8/18	
82. JES 3/8/18		82. JES 3/8/18	
83. JES 3/8/18		83. JES 3/8/18	
84. JES 3/8/18		84. JES 3/8/18	
85. JES 3/8/18		85. JES 3/8/18	
86. JES 3/8/18		86. JES 3/8/18	
87. JES 3/8/18		87. JES 3/8/18	
88. JES 3/8/18		88. JES 3/8/18	
89. JES 3/8/18		89. JES 3/8/18	
90. JES 3/8/18		90. JES 3/8/18	
91. JES 3/8/18		91. JES 3/8/18	
92. JES 3/8/18		92. JES 3/8/18	
93. JES 3/8/18		93. JES 3/8/18	
94. JES 3/8/18		94. JES 3/8/18	
95. JES 3/8/18		95. JES 3/8/18	
96. JES 3/8/18		96. JES 3/8/18	
97. JES 3/8/18		97. JES 3/8/18	
98. JES 3/8/18		98. JES 3/8/18	
99. JES 3/8/18		99. JES 3/8/18	
100. JES 3/8/18		100. JES 3/8/18	
101. JES 3/8/18		101. JES 3/8/18	
102. JES 3/8/18		102. JES 3/8/18	
103. JES 3/8/18		103. JES 3/8/18	
104. JES 3/8/18		104. JES 3/8/18	
105. JES 3/8/18		105. JES 3/8/18	
106. JES 3/8/18		106. JES 3/8/18	
107. JES 3/8/18		107. JES 3/8/18	
108. JES 3/8/18		108. JES 3/8/18	
109. JES 3/8/18		109. JES 3/8/18	
110. JES 3/8/18		110. JES 3/8/18	
111. JES 3/8/18		111. JES 3/8/18	
112. JES 3/8/18		112. JES 3/8/18	
113. JES 3/8/18		113. JES 3/8/18	
114. JES 3/8/18		114. JES 3/8/18	
115. JES 3/8/18		115. JES 3/8/18	
116. JES 3/8/18		116. JES 3/8/18	
117. JES 3/8/18		117. JES 3/8/18	
118. JES 3/8/18		118. JES 3/8/18	
119. JES 3/8/18		119. JES 3/8/18	
120. JES 3/8/18		120. JES 3/8/18	
121. JES 3/8/18		121. JES 3/8/18	
122. JES 3/8/18		122. JES 3/8/18	
123. JES 3/8/18		123. JES 3/8/18	
124. JES 3/8/18		124. JES 3/8/18	
125. JES 3/8/18		125. JES 3/8/18	
126. JES 3/8/18		126. JES 3/8/18	
127. JES 3/8/18		127. JES 3/8/18	
128. JES 3/8/18		128. JES 3/8/18	
129. JES 3/8/18		129. JES 3/8/18	
130. JES 3/8/18		130. JES 3/8/18	
131. JES 3/8/18		131. JES 3/8/18	
132. JES 3/8/18		132. JES 3/8/18	
133. JES 3/8/18		133. JES 3/8/18	
134. JES 3/8/18		134. JES 3/8/18	
135. JES 3/8/18		135. JES 3/8/18	
136. JES 3/8/18		136. JES 3/8/18	
137. JES 3/8/18		137. JES 3/8/18	
138. JES 3/8/18		138. JES 3/8/18	
139. JES 3/8/18		139. JES 3/8/18	
140. JES 3/8/18		140. JES 3/8/18	
141. JES 3/8/18		141. JES 3/8/18	
142. JES 3/8/18		142. JES 3/8/18	
143. JES 3/8/18		143. JES 3/8/18	
144. JES 3/8/18		144. JES 3/8/18	
145. JES 3/8/18		145. JES 3/8/18	
146. JES 3/8/18		146. JES 3/8/18	
147. JES 3/8/18		147. JES 3/8/18	
148. JES 3/8/18		148. JES 3/8/18	
149. JES 3/8/18		149. JES 3/8/18	
150. JES 3/8/18		150. JES 3/8/18	
151. JES 3/8/18		151. JES 3/8/18	
152. JES 3/8/18		152. JES 3/8/18	
153. JES 3/8/18		153. JES 3/8/18	
154. JES 3/8/18		154. JES 3/8/18	
155. JES 3/8/18		155. JES 3/8/18	
156. JES 3/8/18		156. JES 3/8/18	
157. JES 3/8/18		157. JES 3/8/18	
158. JES 3/8/18		158. JES 3/8/18	
159. JES 3/8/18		159. JES 3/8/18	
160. JES 3/8/18		160. JES 3/8/18	
161. JES 3/8/18		161. JES 3/8/18	
162. JES 3/8/18		162. JES 3/8/18	
163. JES 3/8/18		163. JES 3/8/18	
164. JES 3/8/18		164. JES 3/8/18	
165. JES 3/8/18		165. JES 3/8/18	
166. JES 3/8/18		166. JES 3/8/18	
167. JES 3/8/18		167. JES 3/8/18	
168. JES 3/8/18		168. JES 3/8/18	
169. JES 3/8/18		169. JES 3/8/18	
170. JES 3/8/18		170. JES 3/8/18	
171. JES 3/8/18		171. JES 3/8/18	
172. JES 3/8/18		172. JES 3/8/18	
173. JES 3/8/18		173. JES 3/8/18	
174. JES 3/8/18		174. JES 3/8/18	
175. JES 3/8/18		175. JES 3/8/18	
176. JES 3/8/18		176. JES 3/8/18	
177. JES 3/8/18		177. JES 3/8/18	
178. JES 3/8/18		178. JES 3/8/18	
179. JES 3/8/18		179. JES 3/8/18	
180. JES 3/8/18		180. JES 3/8/18	
181. JES 3/8/18		181. JES 3/8/18	
182. JES 3/8/18		182. JES 3/8/18	
183. JES 3/8/18		183. JES 3/8/18	
184. JES 3/8/18		184. JES 3/8/18	
185. JES 3/8/18		185. JES 3/8/18	
186. JES 3/8/18		186. JES 3/8/18	
187. JES 3/8/18		187. JES 3/8/18	
188. JES 3/8/18		188. JES 3/8/18	
189. JES 3/8/18		189. JES 3/8/18	
190. JES 3/8/18		190. JES 3/8/18	
191. JES 3/8/18		191. JES 3/8/18	
192. JES 3/8/18		192. JES 3/8/18	
193. JES 3/8/18		193. JES 3/8/18	
194. JES 3/8/18		194. JES 3/8/18	
195. JES 3/8/18		195. JES 3/8/18	
196. JES 3/8/18		196. JES 3/8/18	
197. JES 3/8/18		197. JES 3/8/18	
198. JES 3/8/18		198. JES 3/8/18	
199. JES 3/8/18		199. JES 3/8/18	
200. JES 3/8/18		200. JES 3/8/18	
201. JES 3/8/18		201. JES 3/8/18	
202. JES 3/8/18		202. JES 3/8/18	
203. JES 3/8/18		203. JES 3/8/18	
204. JES 3/8/18		204. JES 3/8/18	
205. JES 3/8/18		205. JES 3/8/18	
206. JES 3/8/18		206. JES 3/8/18	
207. JES 3/8/18		207. JES 3/8/18	
208. JES 3/8/18		208. JES 3/8/18	
209. JES 3/8/18		209. JES 3/8/18	
210. JES 3/8/18		210. JES 3/8/18	
211. JES 3/8/18		211. JES 3/8/18	
212. JES 3/8/18		212. JES 3/8/18	
213. JES 3/8/18		213. JES 3/8/18	
214. JES 3/8/18		214. JES 3/8/18	
215. JES 3/8/18		215. JES 3/8/18	
216. JES 3/8/18		216. JES 3/8/18	
217. JES 3/8/18		217. JES 3/8/18	
218. JES 3/8/18		218. JES 3/8/18	
219. JES 3/8/18		219. JES 3/8/18	
220. JES 3/8/18		220. JES 3/8/18	
221. JES 3/8/18		221. JES 3/8/18	
222. JES 3/8/18		222. JES 3/8/18	
223. JES 3/8/18		223. JES 3/8/18	
224. J			

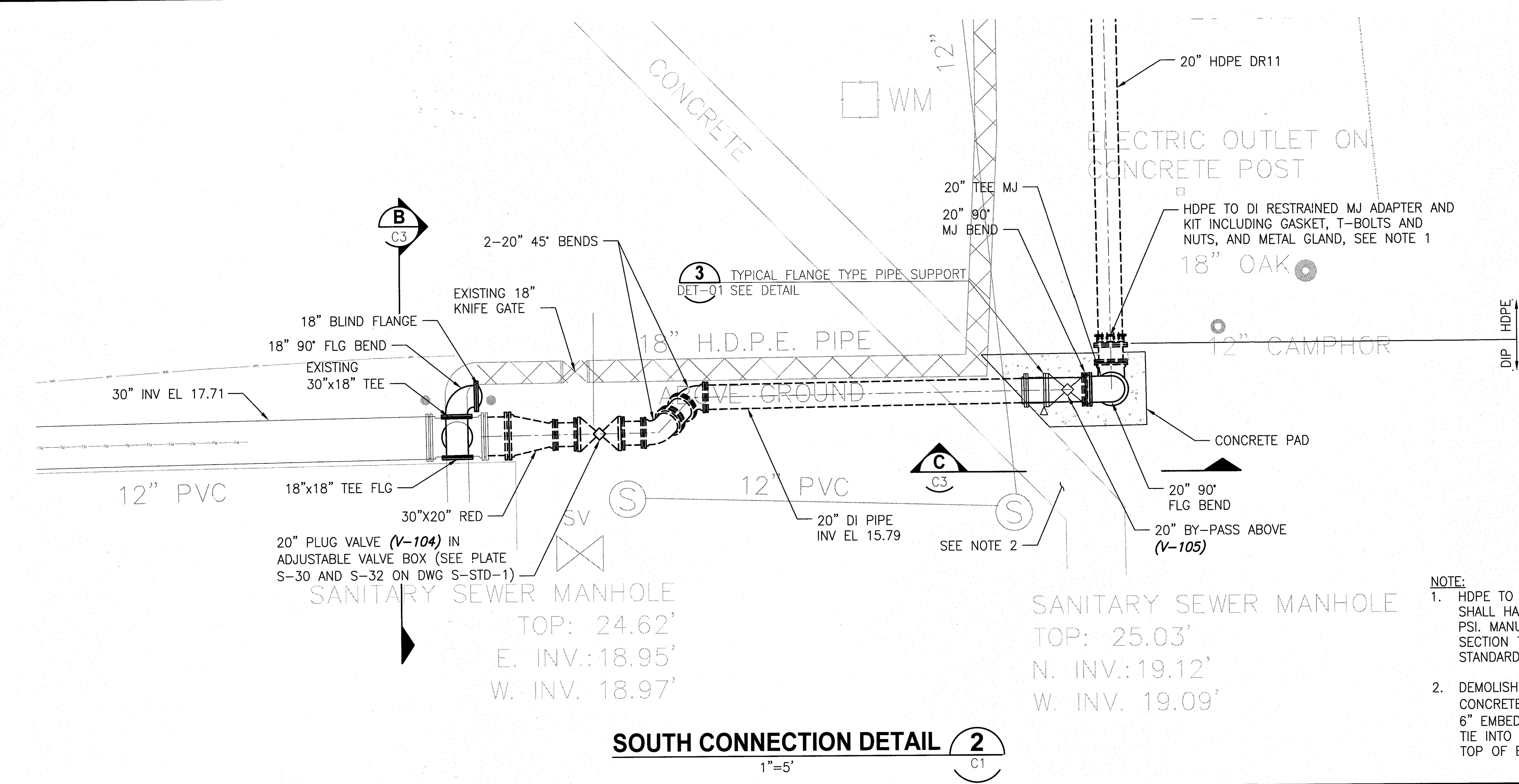
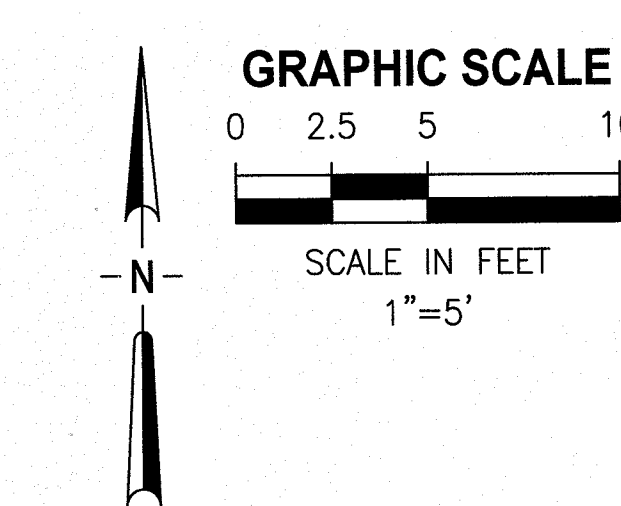


# CONFORMED TO CONSTRUCTION RECORDS



NOTE:  
1. HDPE TO DI RESTRAINED MJ ADAPTER AND KIT SHALL HAVE A MINIMUM PRESSURE RATING OF 200 PSI. MANUFACTURED BY ISCO. IN ACCORDANCE WITH SECTION 755 OF THE JEA WATER AND WASTEWATER STANDARDS.

**NORTH CONNECTION DETAIL 1**  
1"=5'



NOTE:  
1. HDPE TO DI RESTRAINED MJ ADAPTER AND KIT SHALL HAVE A MINIMUM PRESSURE RATING OF 200 PSI. MANUFACTURED BY ISCO. IN ACCORDANCE WITH SECTION 755 OF THE JEA WATER AND WASTEWATER STANDARDS.  
2. DEMOLISH EXISTING SIDEWALK AND REPLACE WITH CONCRETE PAD AS SHOWN. INSTALL #3 BAR. DOWEL 6" EMBEDMENT WITH EPOXY, 6" ON CENTER AND TIE INTO REBAR EACH WAY. MATCH TOP OF SLAB TO TOP OF EXISTING SIDEWALK.

**SOUTH CONNECTION DETAIL 2**  
1"=5'

AS-BUILT  
INFORMATION PROVIDED BY: WILLIAMS INDUSTRIAL SERVICES  
Date: 2/22/18  
Name: NICK PAYNE  
Address: 11380 ISLAND DRIVE #1  
JACKSONVILLE, FL 32226  
Phone#: 904.696.9994

I HEREBY CERTIFY THAT THE  
X WWTF System  
Pavement  
Curb & Gutter  
Storm & Drainage System  
Lake or Pond  
Underdrain Connections  
Chilled Water  
Water Main  
Reclaimed Water Main  
Force Main  
Sanitary Gravity System  
Lift Station

ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS AND THE ACCOMPANYING ELECTRONIC FILE HAVE BEEN LOCATED AND MAPPED IN ACCORDANCE WITH CHAPTER 471 OF FLORIDA STATUTES, CHAPTER 471.03(2) OF THE FLORIDA BOARD OF PROFESSIONAL ENGINEERS AND THE JEA STANDARDS FOR AS-BUILT DRAWINGS.

ELECTRONIC DRAWING FILE NAME: C2 FILE DATE: 3/16/18  
DATE OF FIELD SURVEY: 2/22/18

SIGNATURE: JASON R. SHEPLER, P.E.  
FLORIDA PROFESSIONAL ENGINEER NO.: 58760

Digitally signed by Jason R. Shepler  
Date: 2018.03.19 21:16:37 -0400

**JONES EDMUNDS**  
8657 BAYVIEW ROAD, SUITE 300, JACKSONVILLE, FLORIDA 32256-8634 / (904) 744-5400  
CERTIFICATE OF AUTHORIZATION #1941

NO.	BY	DATE	REVISIONS
1	JRS	3/16/18	CONFORMED TO CONSTRUCTION RECORDS

DESIGNER: HOLMES  
DRAWN BY: KRAMER  
DATE: MAR 2017  
CHECKED BY: GERRINE  
DATE: MAR 2017

DESIGN ENGINEER  
ANTHONY R. HOLMES  
FLORIDA REGISTRATION NO.  
70909

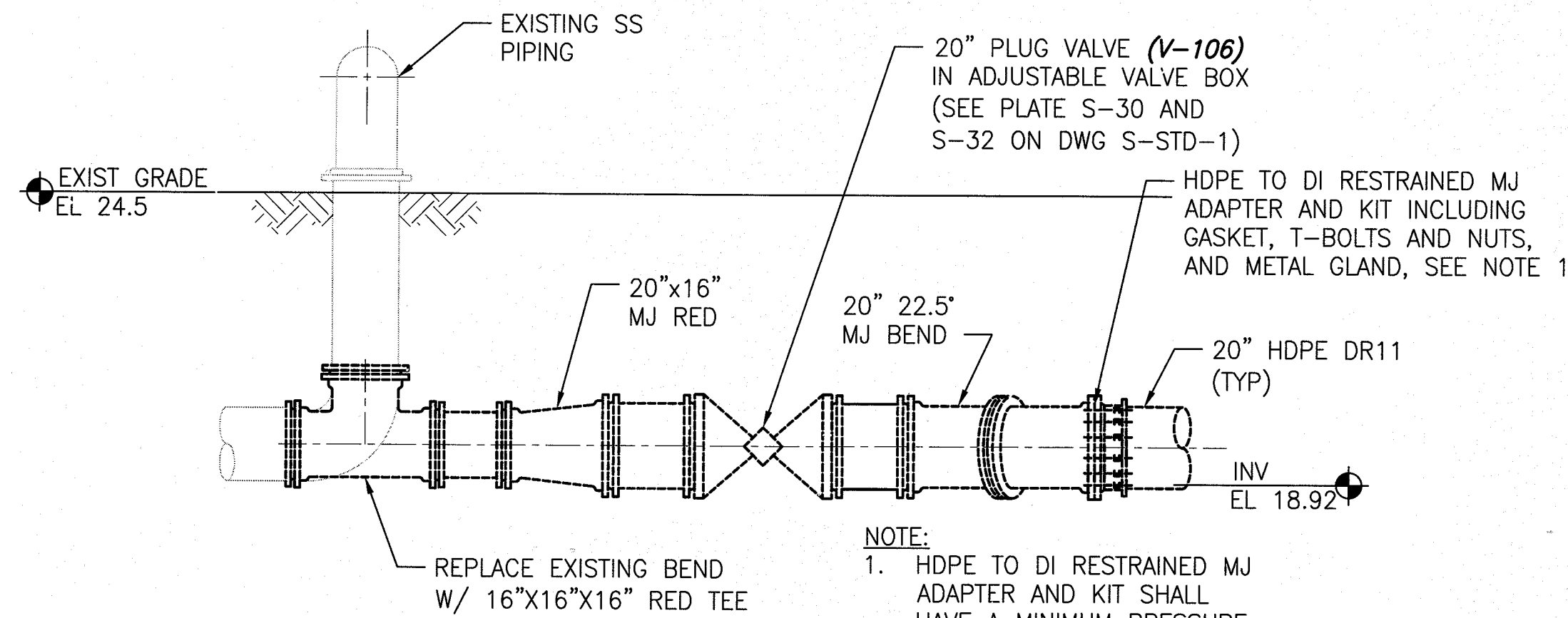
**JEA**  
Building Community

**YARD PIPING REPLACEMENT  
MONTEREY WWTF, JACKSONVILLE, FLORIDA  
INFLUENT SBR CONNECTION PLANS**

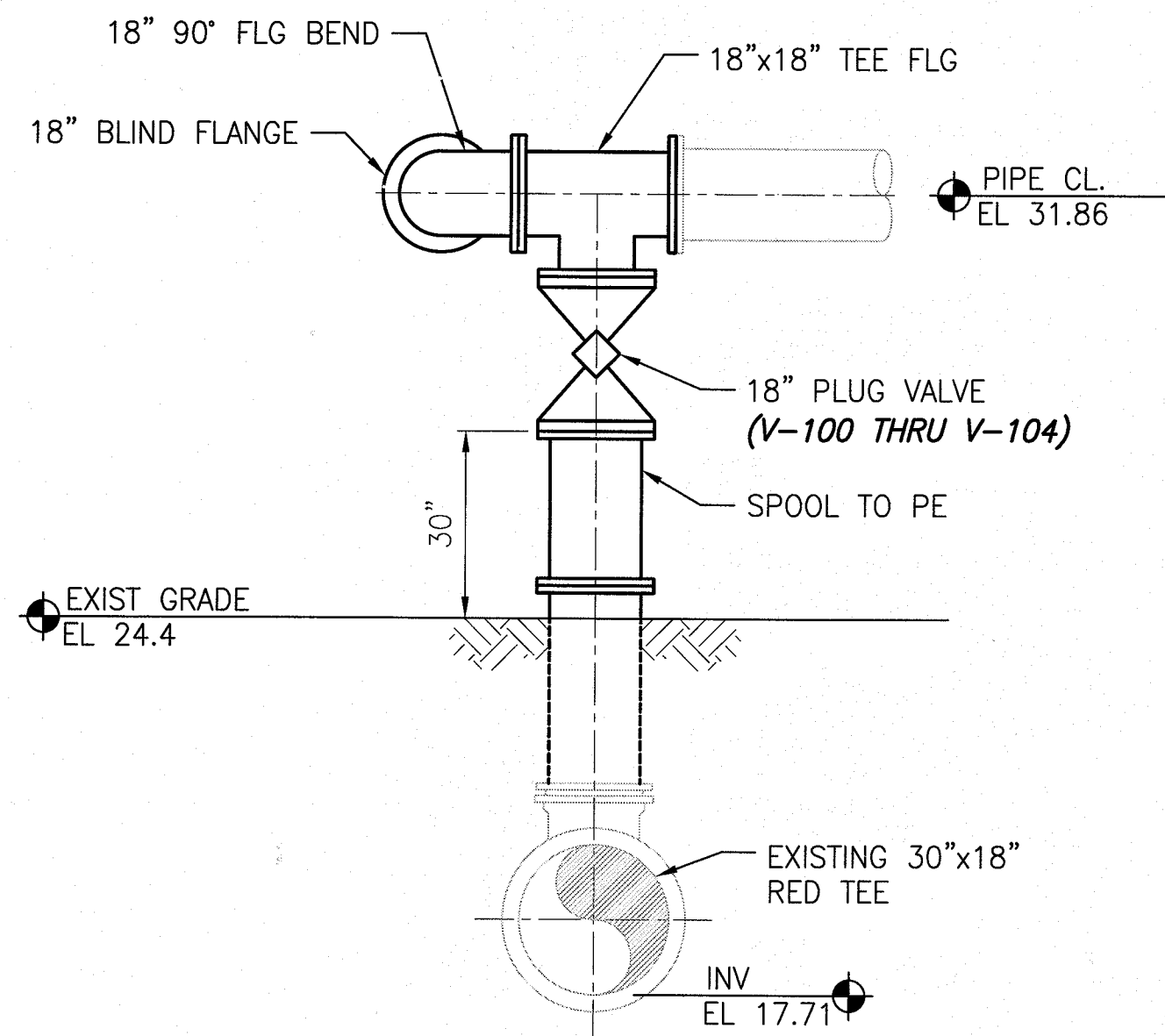
NO. SHEETS	PROJ. NO.	8003621
SHEET NO.	DATE:	MAR. 2017
DRAWING NO.	SCALE:	AS NOTED



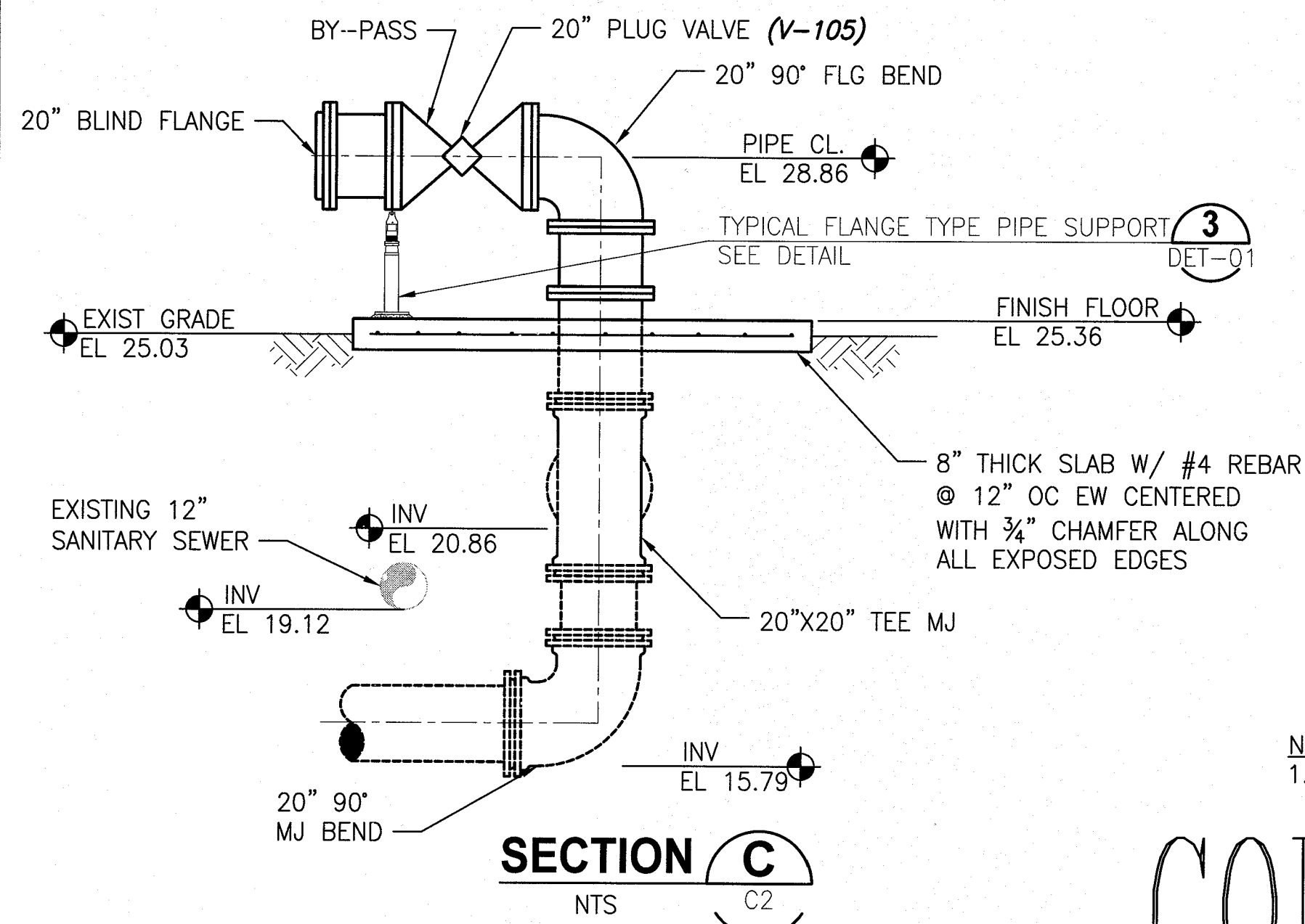
M:\CAD Files\JEA\0801341 Monterey WRF Influent PS Record Drawings\WMTF Record Drawings\0930204601-C03.dwg  
Current Layout Tab = C03  
Mon Mar 19, 2018 - 15:15



SECTION A  
NTS  
C2



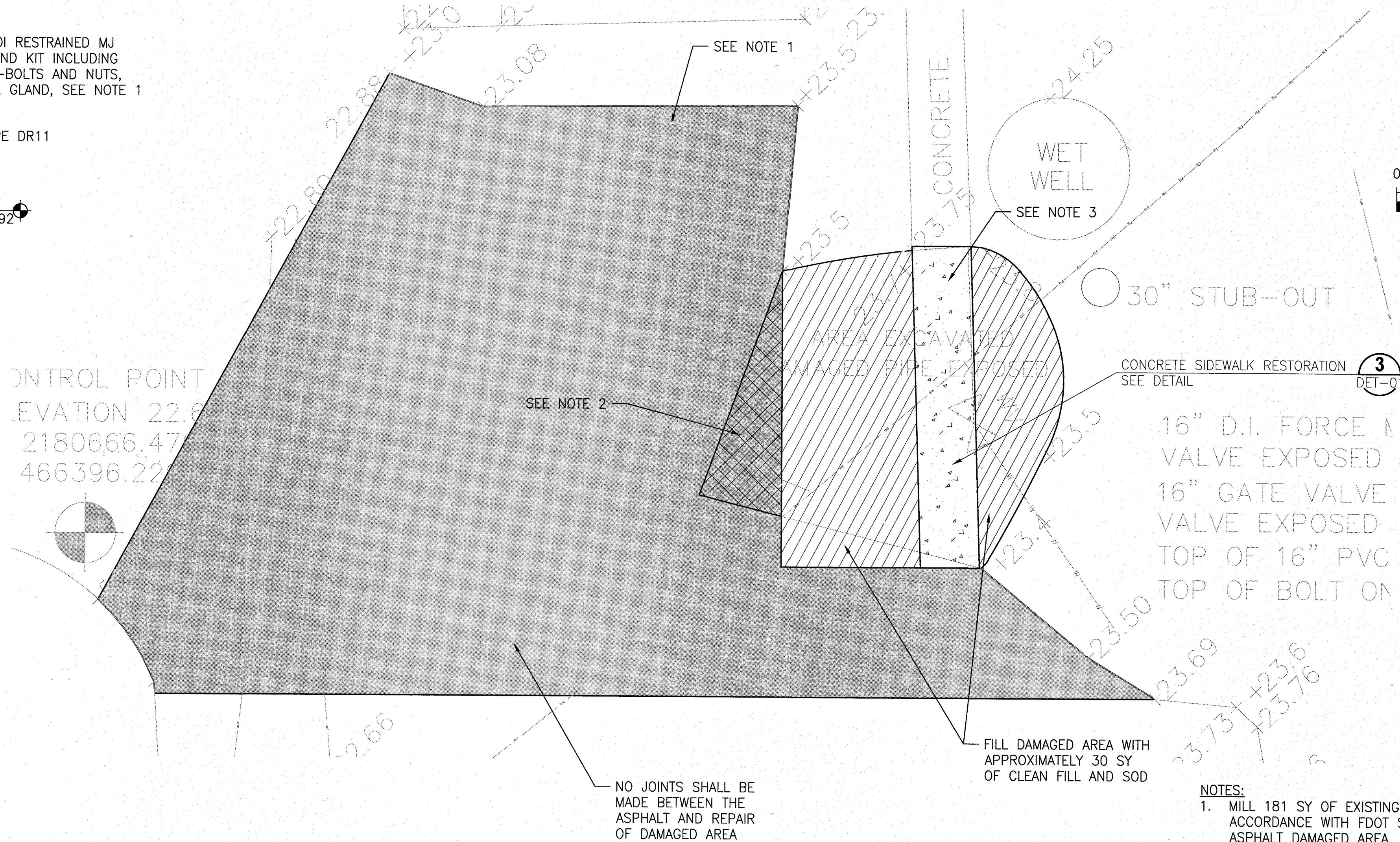
SECTION B  
NTS  
C2



SECTION C  
NTS  
C2

- NOTES:
- CONTRACTOR TO FIELD VERIFY ALL MEASUREMENTS AND ELEVATIONS.

CONFORMED TO CONSTRUCTION RECORDS



SITE RESTORATION DETAIL 1  
1"=5'  
C2

- NOTES:
- MILL 181 SY OF EXISTING ASPHALT AND APPLY OVERLAY IN ACCORDANCE WITH FDOT STANDARDS. AS SHOWN AND IN ASPHALT DAMAGED AREA.
  - REPAIR AND PROVIDE PAVEMENT AND SUBGRADE OF 5 SY IN ACCORDANCE WITH CASE X PERMANENT REPAIR DETAIL.
  - SAW CUT EXISTING SIDEWALK SQUARE AND INSTALL #3 BAR DOWEL 6" EMBEDMENT WITH EPOXY, 6" ON CENTER AND TIE INTO WWF OF NEW SIDEWALK.

Monterey WWTF  
Pipe Replacement  
68418

AS-BUILT	
INFORMATION PROVIDED BY: WILLIAMS INDUSTRIAL SERVICES	
Date:	2/22/18
Name:	NICK PAYNE
Address:	11380 ISLAND DRIVE #1 JACKSONVILLE, FL 32226
Phone#:	904.696.9994
I HEREBY CERTIFY THAT THE	
<input checked="" type="checkbox"/> WWTF System	<input type="checkbox"/> Chilled Water
<input type="checkbox"/> Pavement	<input type="checkbox"/> Water Main
<input type="checkbox"/> Curb & Gutter	<input type="checkbox"/> Reclaimed Water Main
<input type="checkbox"/> Storm & Drainage System	<input type="checkbox"/> Force Main
<input type="checkbox"/> Lake or Pond	<input type="checkbox"/> Sanitary Gravity System
<input type="checkbox"/> Underdrain Connections	<input type="checkbox"/> Lift Station
ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS AND THE ACCOMPANYING ELECTRONIC FILE HAVE BEEN LOCATED AND MAPPED IN ACCORDANCE WITH CHAPTER 411 OF FLORIDA STATUTES, CHAPTER 61015-23 OF THE FLORIDA BOARD OF PROFESSIONAL ENGINEERS AND THE JEA STANDARDS FOR AS-BUILT DRAWINGS.	
ELECTRONIC DRAWING FILE NAME: C3 FILE DATE: 3/18/18	
DATE OF FIELD SURVEY: 2/22/18	
SIGNATURE: JASON R. SHEPLER, P.E.	
FLORIDA PROFESSIONAL ENGINEER NO.: 58760	
Digitally signed by Jason R. Shepler Date: 2018.03.19 11:17:39 -0400	

JONES EDMUNDS

8657 BAYVIEW ROAD, SUITE 300, JACKSONVILLE, FLORIDA 32244-3634 / (904) 744-5401  
CERTIFICATE OF AUTHORIZATION #1941

NO.	BY	DATE	REVISIONS
1	JRS	3/8/18	CONFORMED TO CONSTRUCTION RECORDS

DESIGNER: ANJOLMES

DRAWN BY: KRAMER

DATE: MAR. 2017

CHECKED BY: OPERINE

DATE: MAR. 2017

DESIGN ENGINEER: ANTHONY R. HOLMES

FLORIDA REGISTRATION NO.: 70809

JEA

Building Community

YARD PIPING REPLACEMENT

MONTEREY WWTF, JACKSONVILLE, FLORIDA

INFLUENT YARD PIPING SECTIONS

PROJ. NO. 8005821

DATE: MAR. 2017

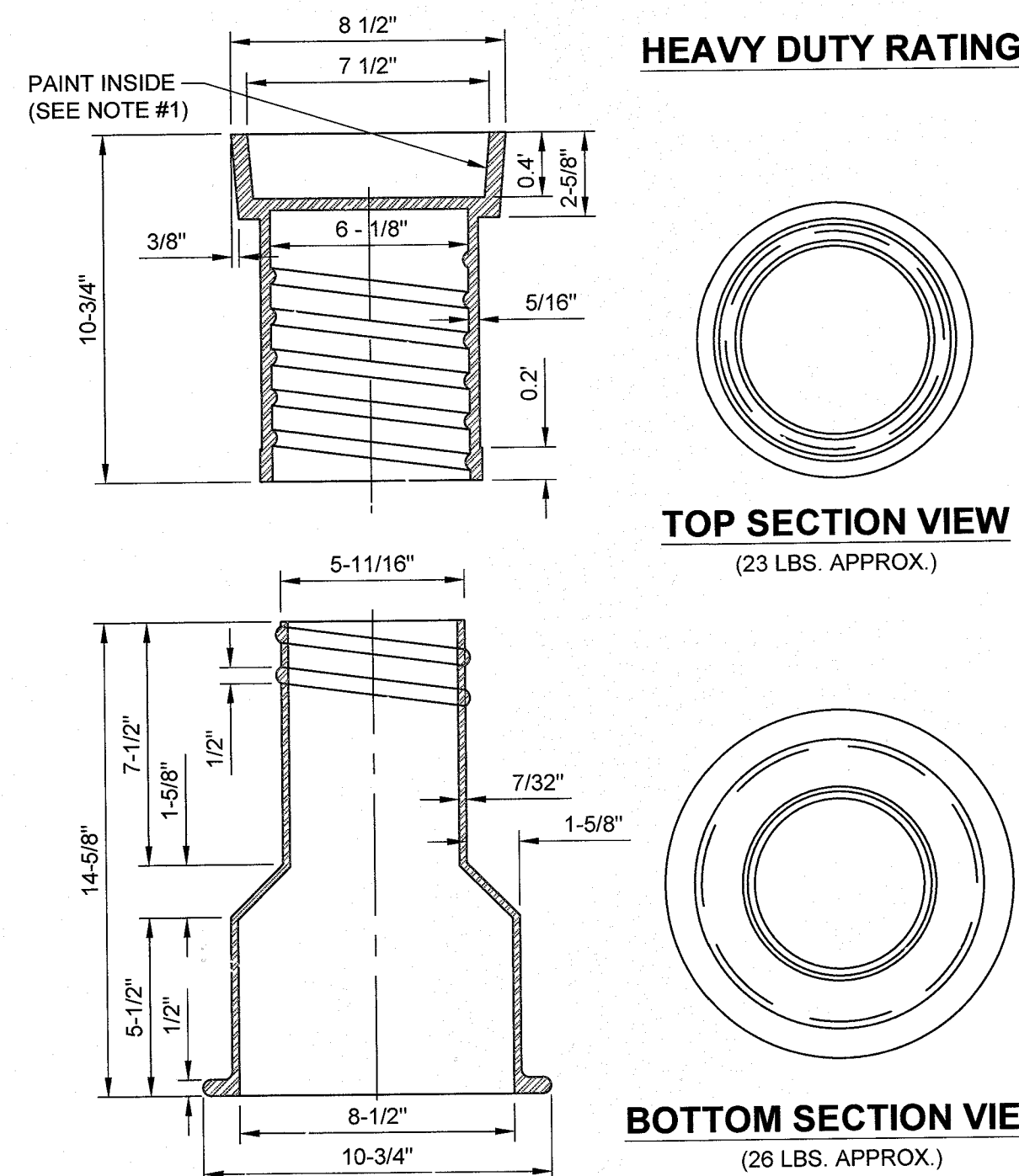
SCALE: AS NOTED

NO. SHEETS 2

SHEET NO. 6

DRAWING NO. C3



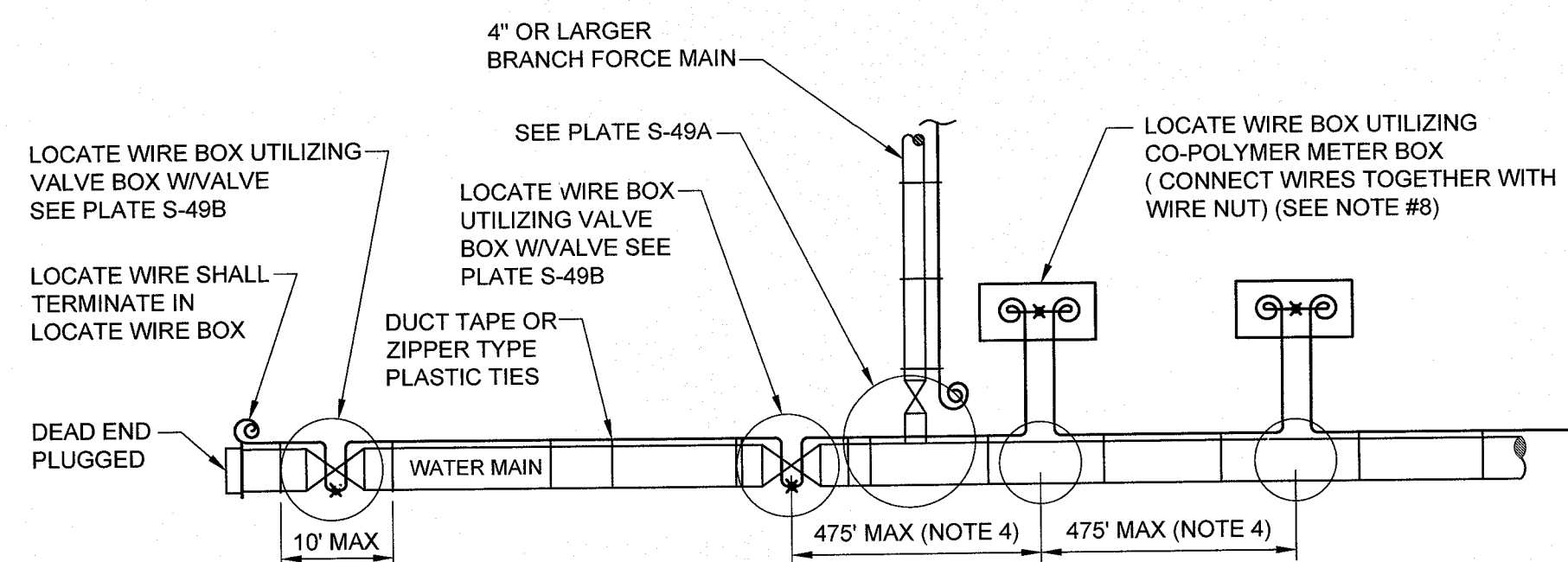


- NOTES:**
1. PAINT THE INSIDE OF THE TOP SECTION OF THE BOX WITH GREEN COLOR FOR FORCE MAIN OR PURPLE FOR RECLAIMED WATER MAIN.
  2. HEAVY DUTY RATING (TOTAL WEIGHT APPROX. 50 LBS.).



## SEWER SYSTEM VALVE BOX

JANUARY 2013

PLATE S-32



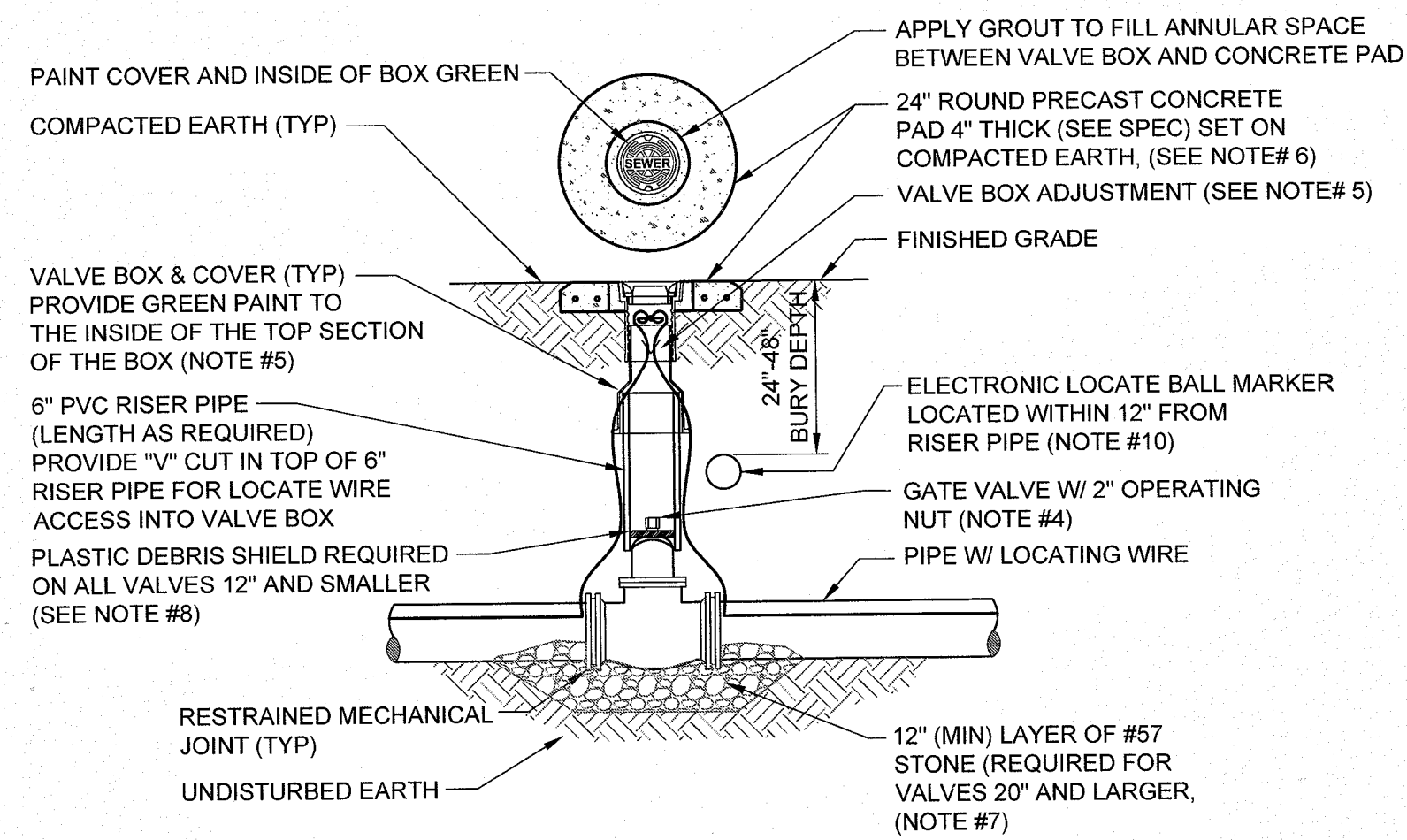
## LOCATE WIRE SYSTEM

- NOTES:
1. LOCATING WIRE TO BE INSTALLED IN EITHER THE ONE OR ELEVEN O'CLOCK POSITION ON ALL DUCTILE IRON OR PVC (PRESSURE MAINS), LOCATE WIRE SHALL ALSO BE INSTALLED ON ALL (HDPE) POLY MAIN PIPING (1:00 OR 11:00 POSITION, IF POSSIBLE).
  2. SECURE LOCATING WIRE TO PVC FORCE MAIN BY USE OF DUCT TAPE OR ZIPPER TYPE PLASTIC TIE STRAPS SPACED AT A MAXIMUM DISTANCE OF TEN (10') AND AT EACH SIDE OF BELL JOINT OR FITTING.
  3. THE ENTIRE LOCATING SYSTEM SHALL BE SUBJECTED TO TESTING TO DETERMINE ITS RELIABILITY. WHERE INSTALLED UNDER PAVEMENT AREAS, TESTING SHALL BE DONE PRIOR TO THE PLACEMENT OF PAVEMENT, UNLESS APPROVED OTHERWISE BY JEA.
  4. LOCATING WIRE SHALL TERMINATE WITHIN AN ACTIVE VALVE BOX ( WITH A VALVE ) OR A METER BOX ( IF NO VALVE ) AT 475' INTERVALS. SEE DETAIL PLATE S-459B. WIRE CONNECTIONS BELOW GROUND (OUTSIDE OF A BOX) SHALL BE AVOIDED.
  5. LOCATING WIRE SHALL BE 12 GAUGE COPPER WIRE WITH .03 INCHES (MINIMUM) HDPE INSULATION THICKNESS, 0.141 INCHES (MINIMUM) O.D. RATED BREAK LOAD 250LB. UF RATED (DIRECT BURIAL), GREEN COLOR. FOR HDD INSTALLATIONS, THE LOCATE WIRE SHALL BE COPPER CODED STEEL AS SPECIFIED IN SPEC. SECTION 750.
  6.  INDICATES THAT THE WIRES ARE CONNECTED TOGETHER.
  7.  INDICATES A WIRE PIG-TAIL (12" LONG)
  8. AN "LW" CUT SHALL BE CARVED IN THE CONCRETE CURB AND PAINTED AT ALL LOCATE WIRE BOXES.

## LOCATE WIRE CONSTRUCTION FOR FORCE MAINS

JANUARY 2013

PLATE S-49



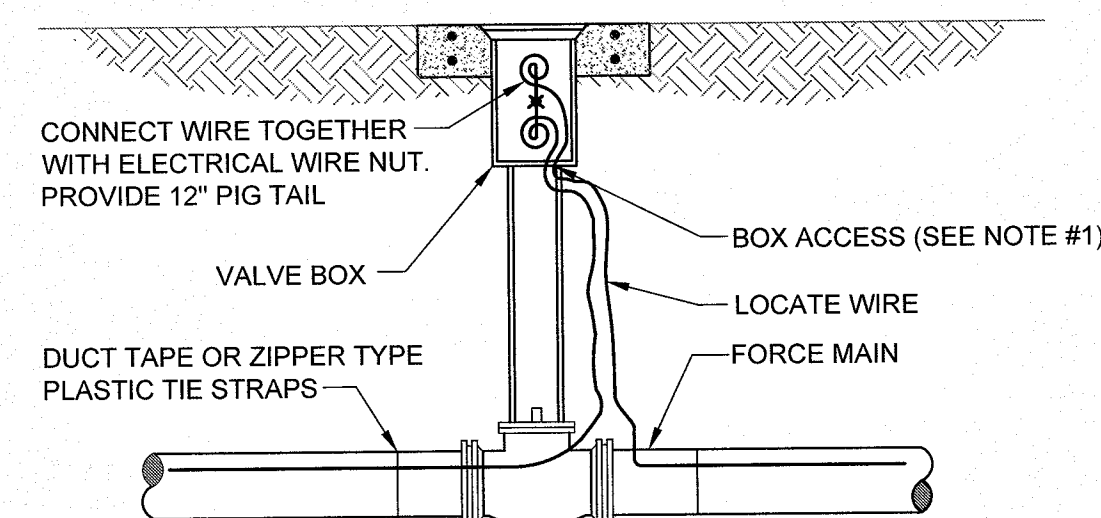
NOTES:

1. FOR UNPAVED LOCATIONS, PRECAST CONCRETE VALVE PAD SHALL BE PROVIDED AND INSTALLED FLUSH WITH GRADE. CONCRETE PAD IS NOT REQUIRED FOR VALVE LOCATED IN THE ROADWAY, UNLESS SHOWN OR NOTED OTHERWISE.
2. LOCATING WIRE IS REQUIRED ON ALL PRESSURE PIPING (SEE DETAIL S-49).
3. A "V" CUT SHALL BE CARVED IN THE CURB CLOSEST/ADJACENT TO ALL BELOW GRADE VALVES. THE "V" CUT IS TO BE PAINTED GREEN.
4. IN PAVED AREAS, INSTALL VALVE AT A DEPTH TO ALLOW A 12" MIN. DISTANCE BETWEEN THE VALVE COVER PLATE AND THE TOP OF THE VALVE OPERATING NUT. OUTSIDE OF PAVED AREAS (GRASS), INSTALL VALVE AT A DEPTH TO ALLOW A 6" MINIMUM DISTANCE BETWEEN THE VALVE COVER AND THE TOP OF THE VALVE OPERATING NUT. OPERATING NUT/STEM EXTENSION SHALL BE PROVIDED (WHERE APPLICABLE) SO THAT THE OPERATING NUT WILL BE NO MORE THAN 30 INCHES BELOW FINISHED GRADE.
5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS. LOCATE LOCATE WIRES THRU A "V" CUT IN THE TOP OF THE 6" PVC RISER PIPE FOR LOCATE WIRE ACCESS INTO VALVE BOX. THE LOCATE WIRES WITH A 12" LONG PIG-TAIL AT THE TOP SHALL BE CONNECTED TOGETHER WITH A WIRE NUT.
6. BRASS IDENTIFICATION TAG INDICATING "SEWER", VALVE SIZE, DIRECTION AND TURNS TO OPEN & VALVE TYPE. PROVIDE A 1/2" HOLE IN BRASS TAG AND ATTACH TAG (TWIST WIRE AROUND TAG) TO THE END OF THE LOCATE WIRE. TAGS ARE NOT REQUIRED ON VALVES INSTALLED ON FIRE HYDRANT BRANCH LINES.
7. IN LIEU OF PRECAST CONCRETE PAD, A 6" THICK X 24" (ROUND OR SQUARE) POURED CONCRETE PAD W/2 - #4 REBAR AROUND PERIMETER, MAY BE USED.
8. GRAVEL SHALL BE PROVIDED UNDER ALL VALVES 20" AND LARGER. THE MINIMUM VERTICAL LIMIT OF GRAVEL IS 12" UNDER THE VALVE UP TO 1/3 THE OVERALL HEIGHT OF THE VALVE.
9. FOR VALVES 12 INCH AND SMALLER, PROVIDE A WHITE OR BLACK PLASTIC DEBRIS SHIELD WHICH INSTALLS BELOW THE OPERATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE OPERATING NUT AND MINIMIZE INFILTRATION. SHIELD SHALL BE BY AFC, BOXLOK OR APPROVED EQUAL.
10. ALL VALVES SHALL BE INSTALLED WITH AN ELECTRIC LOCATE MARKER. MARKER SHALL BE 4" DIA. COLOR CODED BALL MARKER (3M-1404XR FOR SEWER).

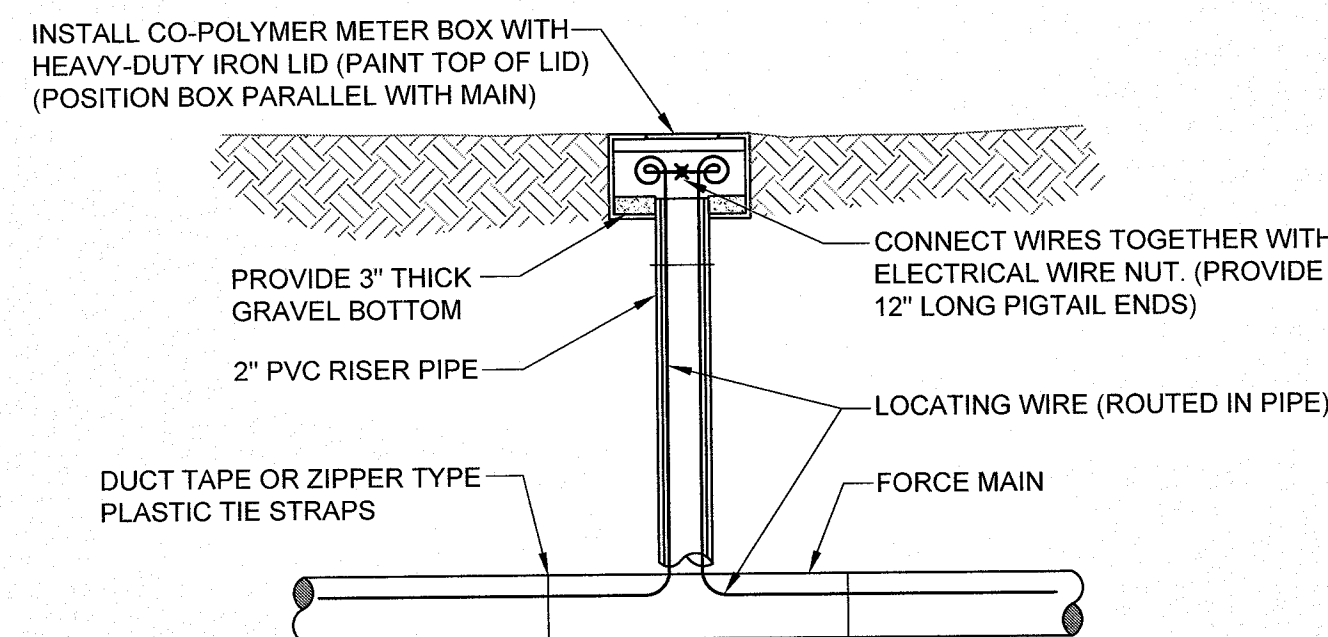
## SEWER VALVE DETAIL

JANUARY 2013

PLATE S-30



## LOCATE WIRE BOX UTILIZING VALVE BOX



### LOCATE WIRE BOX UTILIZING METER BOX

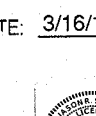
- NOTES:
1. LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A "V" CUT IN THE 6" PVC RISER PIPE (SEE S-30).

## LOCATE WIRE BOX

JANUARY 2013

PLATE S-49B

Monterey WWTF  
Pipe Replacement  
**68419**

AS-BUILT		
INFORMATION PROVIDED BY: <b>WILLIAMS INDUSTRIAL SERVICES</b>		
Date:	2/22/18	
Name:	NICK PAYNE	
Address:	11380 ISLAND DRIVE #1 JACKSONVILLE, FL 32226	
Phone#:	904.696.9994	
I HEREBY CERTIFY THAT THE		
X	WWVF System	Chilled Water
	Pavement	Water Main
	Curb & Gutter	Reclaimed Water Main:
	Storm & Drainage System	Force Main
	Lake or Pond	Sanitary Gravity System
	Underdrain Connections	Lift Station
ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS AND THE ACCOMPANYING ELECTRIC PLAN HAVE BEEN LOCATED AND MARKED IN ACCORDANCE WITH CHAPTER #17 OF FLORIDA STATUTES, CHAPTER E1G15-23 OF THE FLORIDA BOARD OF PROFESSIONAL ENGINEERS AND THE IEA STANDARDS FOR AS-BUILT DRAWINGS.		
ELECTRONIC DRAWING FILE NAME: S-STDT-1		FILE DATE: 3/18/18
DATE OF FIELD SURVEY: 2/22/18		
SIGNATURE: _____		 Digitally signed by Jason R. Shepler DN: cn=Jason R. Shepler, o=Professional Engineer, ou=State of Florida, email=jr.shepler@floridapower.com, c=US
NAME: JASON R. SHEPLER, P.E.		
FLORIDA PROFESSIONAL ENGINEER No: 58760		

CONFORMED TO  
CONSTRUCTION RECORDS

 <b>JEA</b> Building Communities <sup>sm</sup>		<b>YARD PIPING REPLACEMENT</b>  <b>MONTEREY WWTF, JACKSONVILLE, FLORIDA</b>  <b>SANITARY SEWER DETAIL S</b>		PROJ. NO. 8003621 SHEET NO. 7 DATE: MAR. 2017 SCALE: NONE	
DESIGNER: AHOUMES DRAWN BY: KRAMER DATE: MAR. 2017 CHECKED BY: GFERHNE DATE: MAR. 2017		DESIGN ENGINEER ANTHONY R. HOLMES FLORIDA REGISTRATION NO. 70809		NO. BY DATE REVISIONS 6. 4. 3. 2. RS 3/6/18 CONFORMED TO CONSTRUCTION RECORDS	



### DUCTILE IRON PIPE RESTRAINT NOTES:

- THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THE ABOVE SCHEDULE, AT A MINIMUM.
- ASSUMPTIONS: DUCTILE IRON PIPE (WITHOUT POLY WRAP), SAFETY FACTOR=1.5, TEST PRESSURE=150PSI, SOIL=GM OR SM, TRENCH TYPE 3, DEPTH OF COVER=30 INCHES FOR 20" AND SMALLER PIPE SIZE OR 36 INCHES FOR 24" AND LARGER PIPE SIZE. FOR D.I.P. W/POLY WRAP, USE RESTRAINT JOINT SCHEDULE FOR PVC PIPE.
- BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
- VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM. PER THE DETAILS, L<sub>u</sub> IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL. L<sub>i</sub> IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL. ASSUME 45 DEGREE BENDS.
- TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN). SEE SCHEDULE ABOVE FOR RESTRAINT LENGTH ON TEE "BRANCH" LINE.
- HDPE TO D.I.P. TRANSITIONS: THE D.I.P. PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).

### LENGTH (L) TO BE RESTRAINED

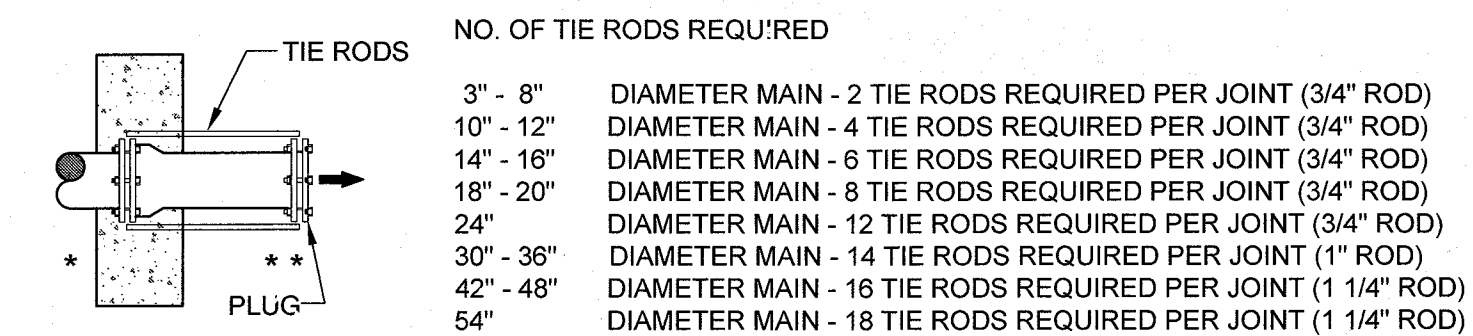
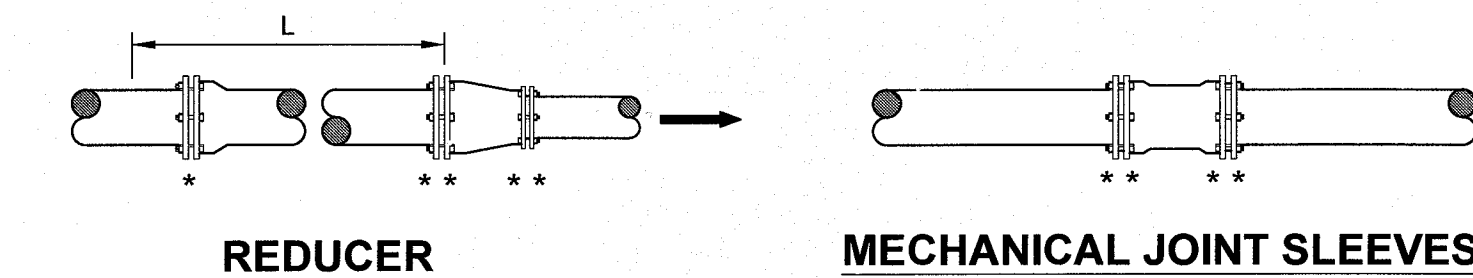
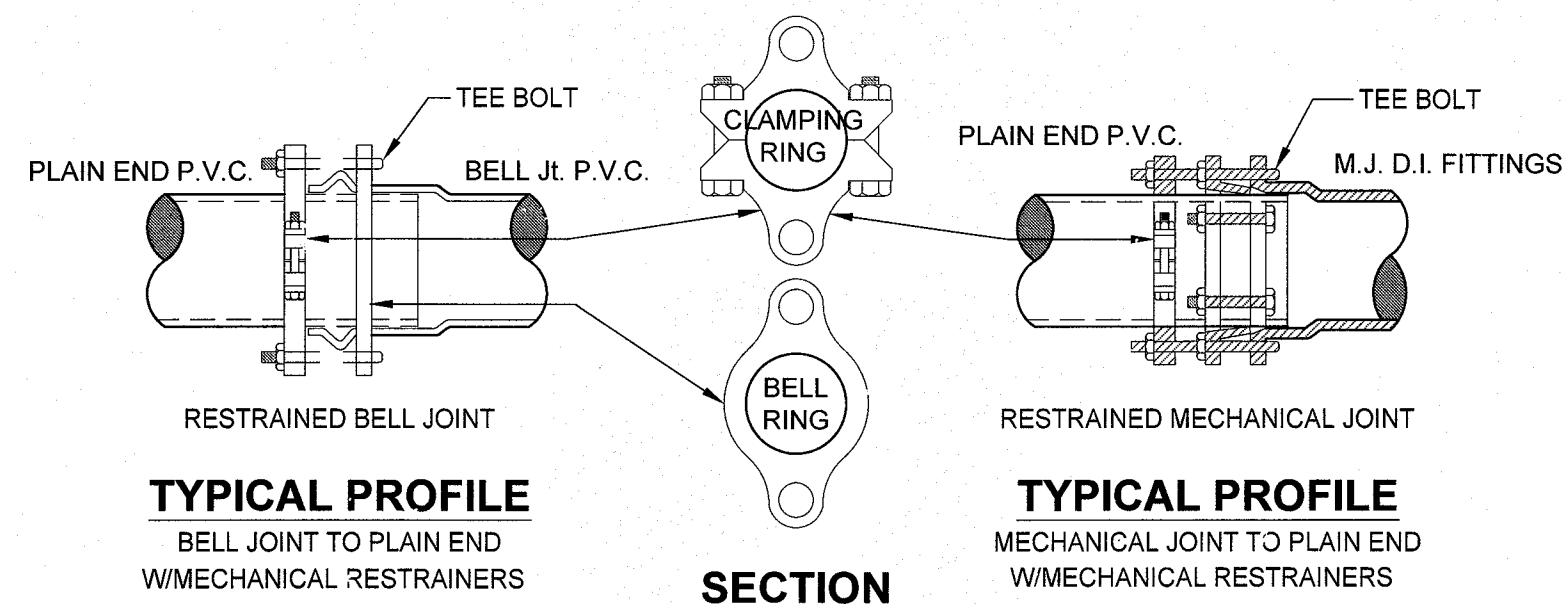
NOMINAL PIPE SIZE (IN.)	HORIZONTAL BENDS / VERTICAL OFFSETS				REDUCERS		VALVES OR DEAD ENDS
	90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	45° BENDS (SEE NOTE 4) L (FT.)	L (FT.)	L (FT.)
4	18	6	4	2	12	2	30
6	22	10	5	2	17	3	40
8	30	13	6	3	22	4	50
10	35	14	7	4	26	5	64
12	42	16	8	4	31	6	75
14	46	20	9	5	35	7	85
16	53	22	11	5	40	8	95
18	57	24	12	6	44	9	105
20	62	26	13	6	48	10	110
24	64	27	14	6	50	11	111
30	73	30	15	7	57	13	137
36	85	34	18	8	66	17	159
42	93	38	20	9	75	20	176
48	102	43	22	10	82	22	198

### (SEE PLATE Nos. 38C & 38D FOR ADDITIONAL DETAILS)

TEES		SEE NOTE 5	
SIZE (IN.)	L (FT.)	RUN SIZE (IN.)	BRANCH SIZE (IN.)
6x4	20	4	4
8x6	20	4	6
8x4	40	4	4 < LESS
10x8	20	8	8
10x6	40	8	6 < LESS
12x10	20	10	10
12x8	40	10	8 < LESS
16x12	40	12	12
16x10	57	12	10 < LESS
20x18	20	16	16
20x16	40	16	12 < LESS
20x12	73	20	20
24x20	40	20	16 < LESS
24x18	50	24	24
24x16	60	24	20 < LESS
30x24	50	30	30
30x20	76	30	24 < LESS
36x30	50	36	36
36x24	88	36	30 < LESS
42x36	40	42	42
42x30	88	42	36 < LESS
48x42	40	48	48
48x36	88	48	42 < LESS

F.O. = FITTING ONLY

## DUCTILE IRON PIPE RESTRAINT JOINT SCHEDULE SEPTEMBER 2012 PLATE S-38B



### DEAD - END THRUST COLLAR ANCHOR

TO BE USED INSTEAD OF TOTAL RESTRAINED LENGTH (OPTIONAL) SIZE AS PER THRUST BLOCK DETAIL (W-38). SEE DETAILS W-36 & W-37.

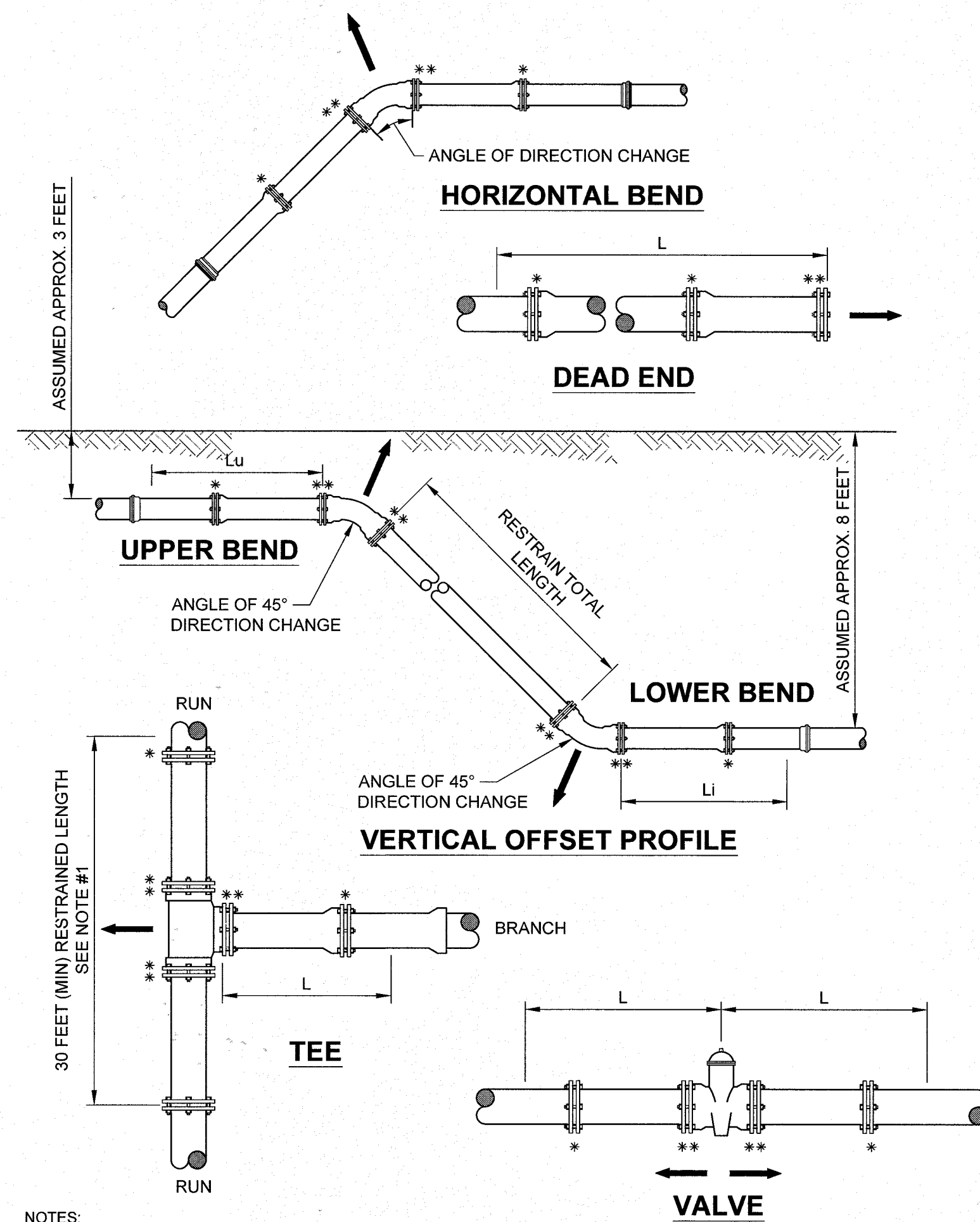
### GENERAL NOTE:

- PAY ITEM " " " " DENOTES A RESTRAINT WHICH IS PAID FOR ON A PER EACH BASIS.
- PAY ITEM " " " " DENOTES A RESTRAINT WHICH IS INCLUDED IN THE UNIT PRICE BID FOR FITTING OR VALVE.
- INDICATES DIRECTION OF THRUST FORCE.

## MECHANICAL RESTRAINT DETAILS - I

JANUARY 2013

PLATE S-38C



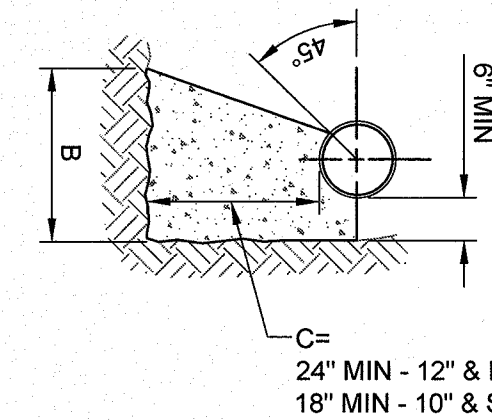
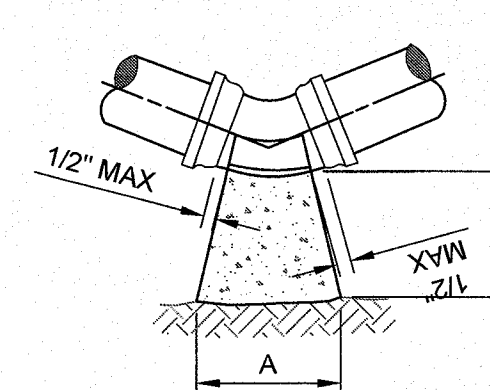
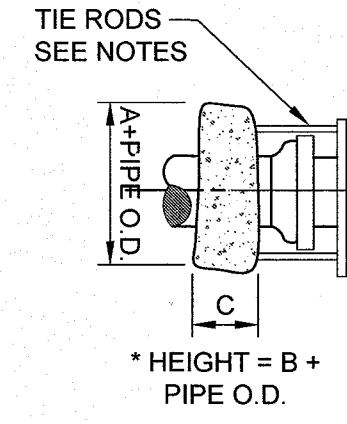
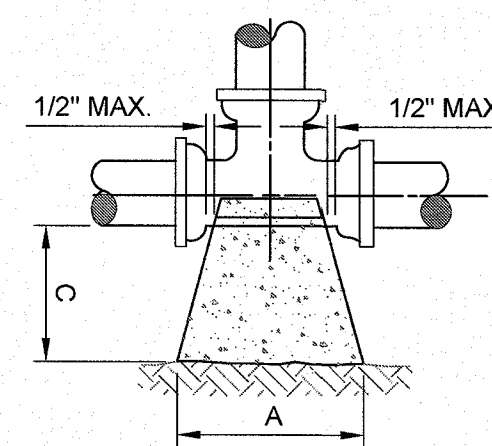
### NOTES:

- TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN.).
- PAY ITEM " " " " DENOTES A RESTRAINT WHICH IS PAID FOR ON A PER EACH BASIS.
- PAY ITEM " " " " DENOTES A RESTRAINT WHICH IS INCLUDED IN THE UNIT PRICE BID FOR FITTING OR VALVE.

## MECHANICAL RESTRAINT DETAILS - II

JANUARY 2013

PLATE S-38D



### NOTES:

- ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED SOIL.
- THESE TABLES SHOW MINIMUM SIZES FOR THRUST BLOCKS IN GOOD SOIL (A-1 THRU A-3, CLEAN SANDS AND GRAVELS) WITH MINIMUM BEARING CAPACITY OF 2000 psi.
- POOR SOILS A-4 THRU A-8, SILTY SOILS, CLAYS, MUCK AND PEAT WILL REQUIRE LARGER THRUST BLOCKING.
- BOTH CONCRETE THRUST BLOCKS AND TIE RODS MUST BE USED WHEN, IN THE JUDGEMENT OF THE ENGINEER, THE NATURE AND CRITICALITY OF AN INSTALLATION IS SUCH AS TO REQUIRE POSITIVE ASSURANCE OF STABILITY.
- THE USE OF THRUST BLOCKS SHALL BE LIMITED TO SITUATIONS SUCH AS POINT REPAIR WHERE EXPOSING SEVERAL JOINTS OF PIPE IS NOT FEASIBLE DUE TO EXISTING GROUND CONDITIONS.
- CONCRETE COLLARS WITH TIE RODS MAY BE USED ON DEAD END LINES AT THE CONTRACTOR'S DISCRETION. NUMBER OF TIE RODS REQUIRED IS AS FOLLOWS:  
3" - 8" DIAMETER MAIN - 2 TIE RODS REQUIRED PER JOINT (3/4" ROD)  
10" - 12" DIAMETER MAIN - 4 TIE RODS REQUIRED PER JOINT (3/4" ROD)  
14" - 16" DIAMETER MAIN - 6 TIE RODS REQUIRED PER JOINT (3/4" ROD)  
18" - 20" DIAMETER MAIN - 8 TIE RODS REQUIRED PER JOINT (3/4" ROD)  
24" DIAMETER MAIN - 12 TIE RODS REQUIRED PER JOINT (3/4" ROD)  
30" - 36" DIAMETER MAIN - 14 TIE RODS REQUIRED PER JOINT (1" ROD)  
42" - 48" DIAMETER MAIN - 16 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)  
54" DIAMETER MAIN - 18 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)
- MAXIMUM TEST PRESSURE TO BE 150 PSI.

### THRUST BLOCK FOR TEES & PLUGS

SIZE	90° BEND			S.F. BEARING SURFACE
	A	B	C	
4"	16"	16"	18"	1.78
6"	20"	24"	18"	3.33
8"	26"	32"	18"	5.78
10"	32"	40"	18"	8.89
12"	36"	48"	24"	12.00
14"	40"	56"	24"	15.56
16"	48"	60"	24"	20.00
18"	56"	64"	24"	24.89
20"	60"	76"	24"	31.67
24"	72"	90"	24"	45.00
30"	86"	102"	24"	60.67
36"	116"	108"	24"	86.11

### THRUST BLOCK FOR BENDS

SIZE	90° BEND			S.F. BEARING SURFACE	45° BEND			S.F. BEARING SURFACE	22-1/2° BEND			S.F. BEARING SURFACE	11-1/4° BEND			S.F. BEARING SURFACE
	A	B	C		A	B	C		A	B	C		A	B	C	
4"	16"	16"	18"	1.78	14"	16"	18"	1.56	14"	16"	18"	1.56	14"	16"	18"	1.56
6"	22"	32"	18"	4.89	16"	18"	18"	2.00	14"	16"	18"	1.56	14"	16"	18"	1.56
8"	32"	36"	18"	8.00	24"	28"	18"	4.67	16"	18"	18"	2.00	14"	16"	18"	1.56
10"	36"	46"	18"	11.50	26"	36"	18"	6.50	20"	24"	18"	3.33	14"	18"	18"	1.75
12"	44"	56"	24"	17.11	32"	40"	24"	8.89	24"	30"	24"	5.00	16"	20"	24"	2.22
14"	52"	62"	24"	22.39	36"	48"	24"	12.00	26"	36"	24"	6.50	20"	24"	24"	3.33
16"	58"	72"	24"	29.00	40"	54"	24"	15.00	32"	38"	24"	8.44	22"	26"	24"	3.97
18"	64"	80"	24"	35.56	46"	60"	24"	19.17	36"	42"	24"	10.50	24"	32"	24"	5.33
20"	72"	88"	24"	44.00	52"	66"	24"	23.83	38"	48"	24"	12.67	26"	36"	24"	6.50
24"	96"	96"	24"	36.89	64"	78"	24"	34.67	46"	56"	24"	17.89	32"	40"	24"	8.89
30"	122"	102"	24"	86.11	72"	94"	24"	47.00	56"	62"	24"	24.11	36"	48"	24"	12.00
36"	166"	104"	24"	123.33	88"	108"	24"	66.00	64"	78"	24"	34.67	44"	54"	24"	16.50

## THRUST BLOCK SIZE CHART

JANUARY 2013

PLATE S-45

AS-BUILT  
INFORMATION PROVIDED BY: WILLIAMS INDUSTRIAL SERVICES

Date: 2/22/18  
Name: NICK PAYNE  
Address: 11380 ISLAND DRIVE #1  
JACKSONVILLE, FL 32226  
Phone#: 904.696.9904

I HEREBY CERTIFY THAT THE

☒ WWTF System ☐ Chilled Water  
☐ Pavement ☐ Water Main  
☐ Curb & Gutter ☐ Reclaimed Water Main  
☐ Storm & Drainage System ☐ Force Main  
☐ Lake or Pond ☐ Sanitary Gravity System  
☐ Underdrain Connections ☐ Lift Station

ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS AND THE ACCOMPANYING ELECTRONIC FILE HAVE BEEN LOCATED AND MARKED IN ACCORDANCE WITH CHAPTER 471 OF FLORIDA STATUTES, CHAPTER 61G15-23 OF THE FLORIDA BOARD OF PROFESSIONAL ENGINEERS AND THE JEA STANDARDS FOR AS-BUILT DRAWINGS.

ELECTRONIC DRAWING FILE NAME: S-STD-2 FILE DATE: 3/16/18  
DATE OF FIELD SURVEY: 2/22/18

SIGNATURE: JASON R. SHEPLER, P.E.  
FLORIDA PROFESSIONAL ENGINEER NO.: 58760

Digitally signed by Jason R. Shepler  
Date: 2018.03.19 21:29:41-0400

Monterey WWTF  
Pipe Replacement  
68420

CONFORMED TO  
CONSTRUCTION RECORDS

8657 BAYVIEW ROAD, SUITE 300, JACKSONVILLE, FLORIDA 32256-8634 / (904) 744-5401  
CERTIFICATE OF AUTHORIZATION #1841

NO.	BY	DATE	REVISIONS
1	JES		
2	JES		
3	JES		
4	JES		
5	JES		

DESIGN ENGINEER  
ANTHONY R. HOLMES  
FLORIDA REGISTRATION NO. 70809

DESIGNER  
JEA  
DRAWN BY: JEA  
CHECKED BY: JEA  
DATE: MAR. 2017

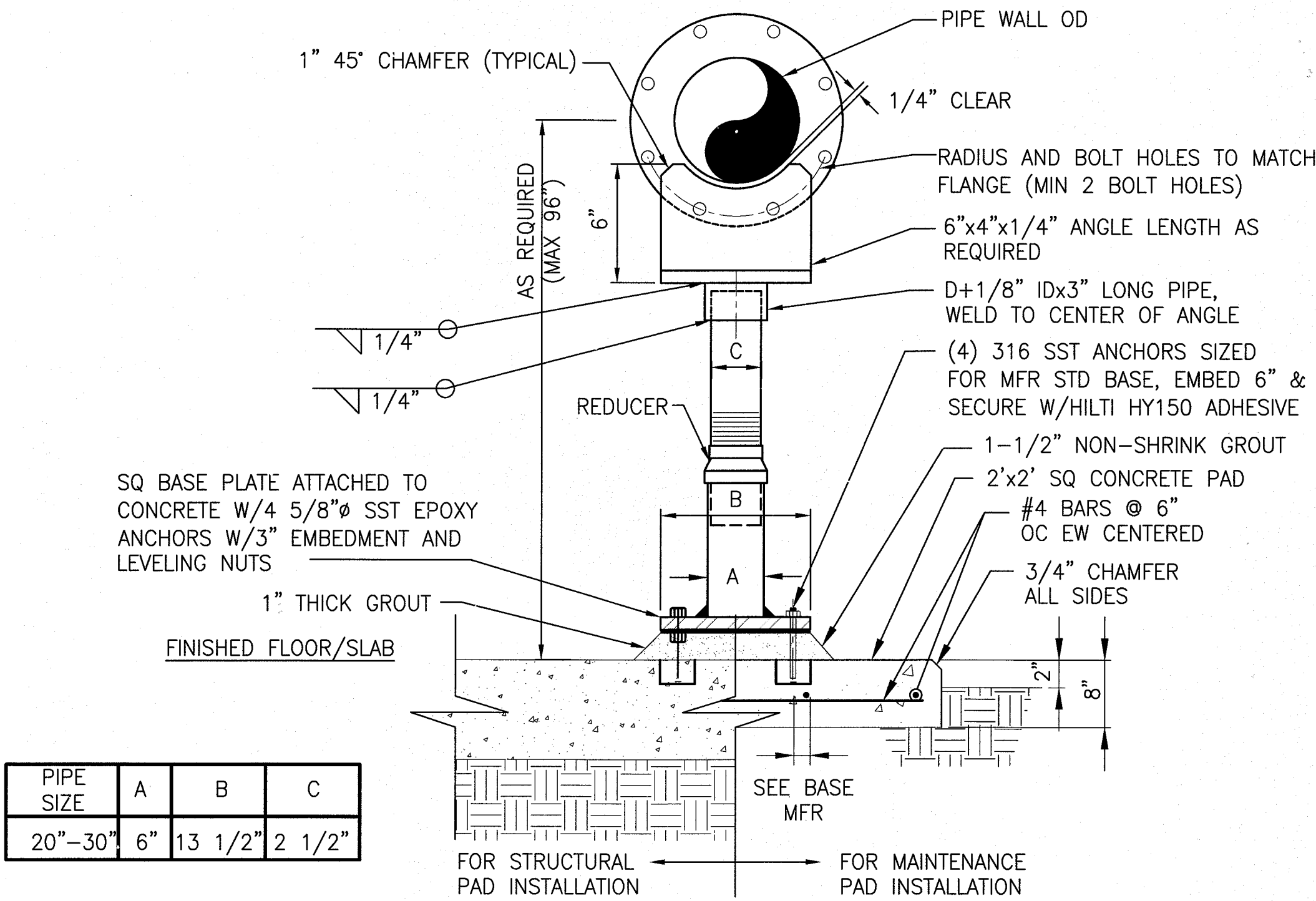
PROJ. NO. 8003621  
SHEET NO. 8  
DRAWING NO. S-STD-2

DATE: MAR. 2017  
SCALE: NONE

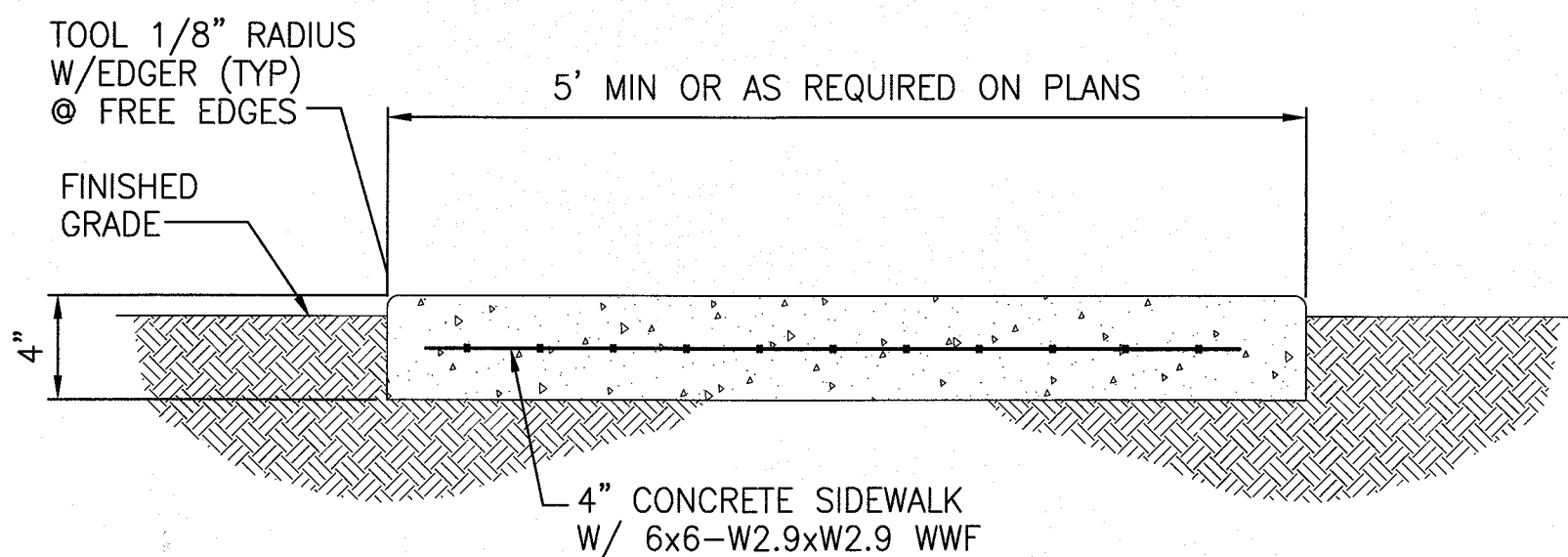
YARD PIPING REPLACEMENT  
MONTEREY WWTF, JACKSONVILLE, FLORIDA  
SANITARY SEWER DETAILS



M:\CAD Files\JEA\0801341 Monterey WRF Influent PS Record Drawings\0930204601-DET-01.dwg      Current Layout Tab = DET-01      Mon Mar 19, 2018      15:16

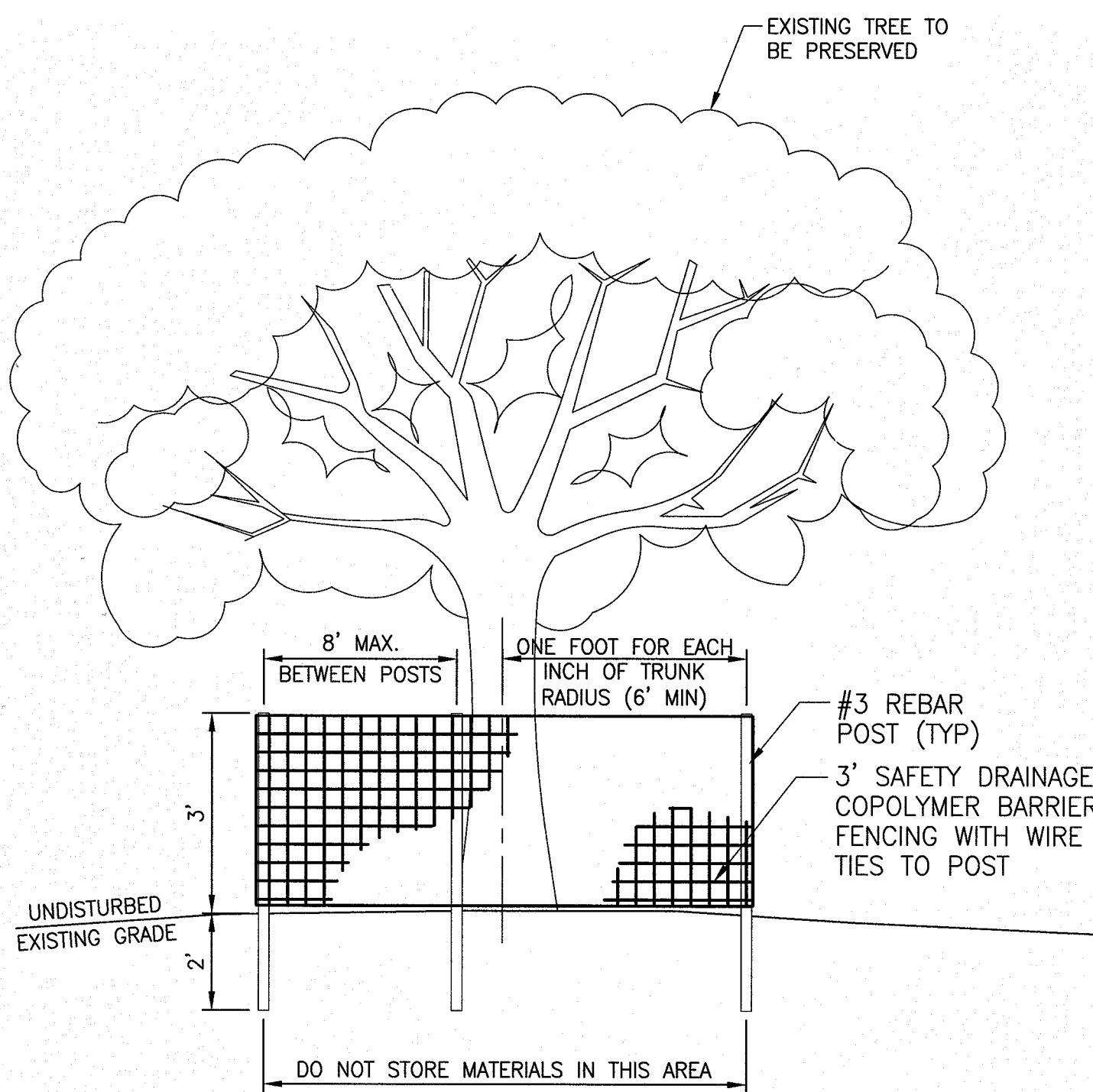


TYPICAL FLANGED TYPE  
PIPE SUPPORT DETAIL (1)  
NTS

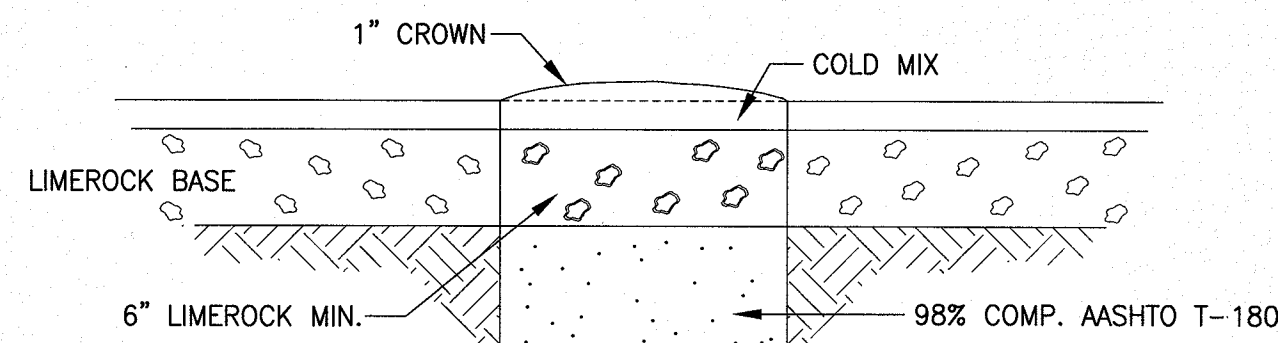


- NOTES:
- TOOL JOINTS SHALL BE LOCATED 5' APART ALONG THE LENGTH OF THE SIDEWALK.
  - CONTROL JOINTS SHALL BE LOCATED AT 10' SPACING ALONG THE LENGTH OF THE SIDEWALK. CONTROL JOINTS SHALL INCLUDE THE CONSTRUCTION OF 1/2" WIDE EXPANSION JOINT MATERIAL FOR THE DEPTH AND WIDTH OF THE SIDEWALK.
  - MATCH EXISTING SIDEWALK DEPTH, WIDTH, JOINT AND CONTROL JOINT LOCATIONS AS REQUIRED.

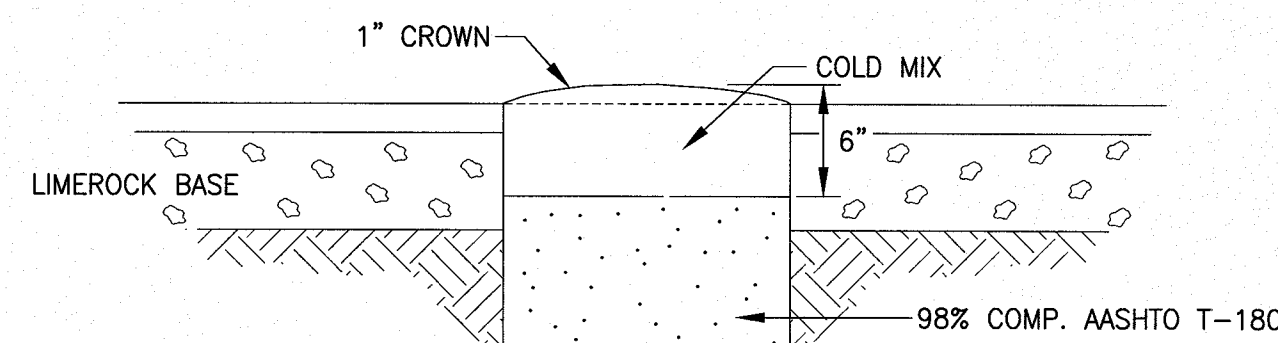
CONCRETE SIDEWALK RESTORATION DETAIL (3)  
NTS



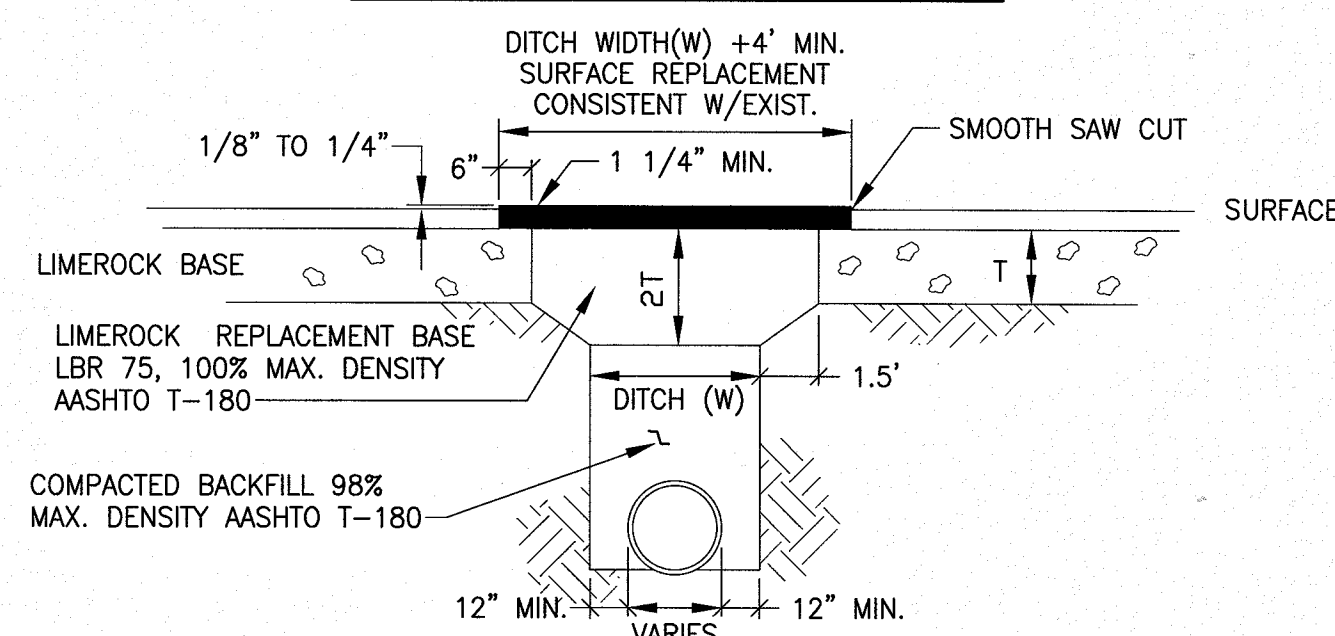
TREE PROTECTION BARRICADE DETAIL (2)  
NTS



TEMPORARY TYPE I REPAIR



TEMPORARY TYPE II REPAIR



PERMANENT REPAIR

NOTE: IN SOME CASES PORTLAND CEMENT CONCRETE MAY BE CONSIDERED OR REQUIRED BY CITY ENGINEER FOR SURFACE REPLACEMENT.

CASE X  
STANDARD PAVING REPAIR DETAILS

STANDARD PAVING REPAIR DETAILS (4)  
NTS

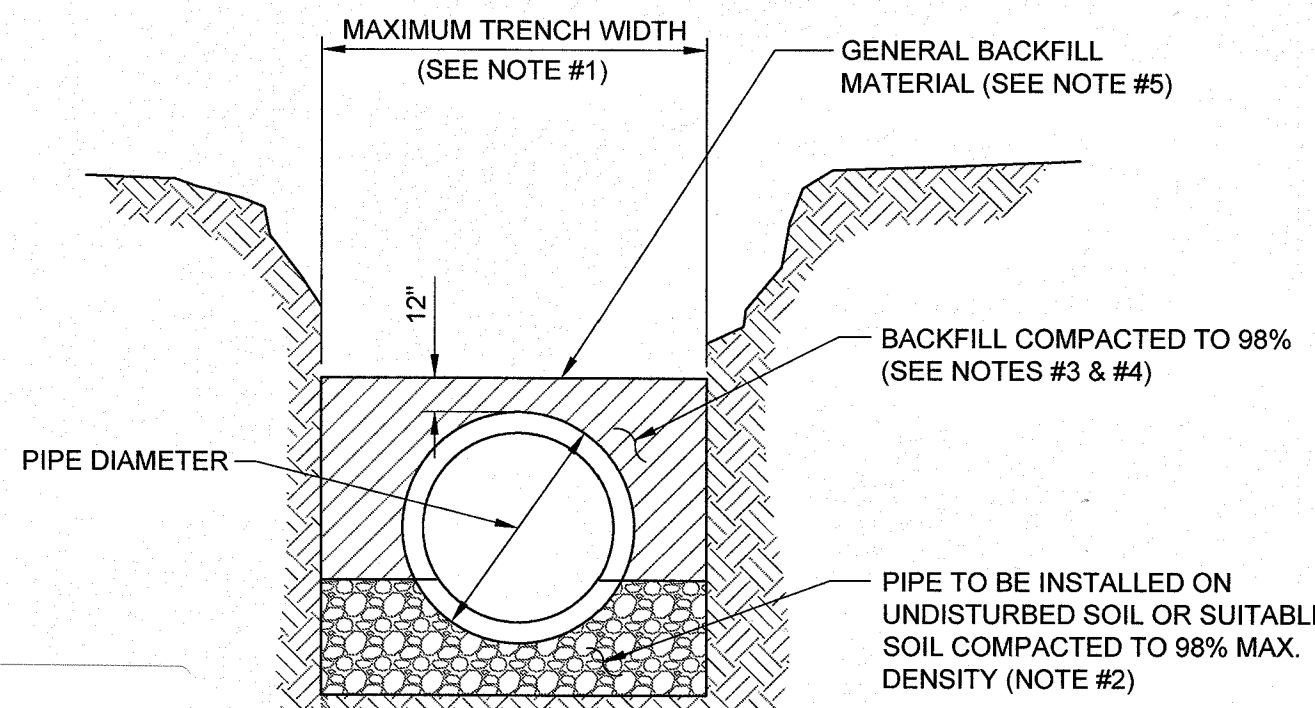
TREE PROTECTION NOTES:

UNLESS OTHERWISE NOTED ALL PROTECTED TREES, AND PRESERVED UNDERSTORY VEGETATION SHALL BE PROTECTED FROM INJURY DURING ANY LAND CLEARING OR CONSTRUCTION IN THE FOLLOWING MANNER:

- PRIOR TO ANY CONSTRUCTION OPERATIONS, TREE LIMBS WHICH INTERFERE WITH CONSTRUCTION SHALL BE REMOVED AND TEMPORARY BARRIERS SHALL BE INSTALLED AROUND ALL TREES AND OTHER UNDERSTORY VEGETATION TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION AND SHALL REMAIN UNTIL THE COMPLETION OF THE WORK. THE TEMPORARY BARRICADE SHALL BE AT LEAST THREE FEET HIGH, SHALL BE PLACED AT LEAST SIX FEET AWAY FROM THE BASE OF ANY TREE, SHALL INCLUDE AT LEAST 50 PERCENT OF THE AREA UNDER THE DRIPLINE OF ANY PROTECTED TREES, AND THE BARRICADE SHALL CONSIST OF EITHER A WOOD FENCE WITH TWO BY FOUR POSTS PLACED A MAXIMUM OF EIGHT (8) FEET APART, WITH A TWO BY FOUR MINIMUM TOP RAIL, OR A TEMPORARY WIRE MESH FENCE, OR OTHER SIMILAR BARRIER WHICH WILL LIMIT ACCESS TO THE PROTECTED AREA. TREE PROTECTION SHALL COMPLY WITH THE GUIDELINES IN THE TREE PROTECTION GUIDE FOR BUILDERS AND DEVELOPERS BY THE FLORIDA DIVISION OF FORESTRY.
- NO MATERIALS, TRAILERS, EQUIPMENT OR CHEMICALS SHALL BE STORED, OPERATED, DUMPED, BURIED, OR BURNED WITHIN THE PROTECTED AREAS. NO ATTACHMENTS, WIRES (OTHER THAN PROTECTED GUY WIRES), SIGNS OR PERMITS SHALL BE ATTACHED TO A PROTECTED TREE.
- WHEN REMOVING BRANCHES FROM PROTECTED TREES TO CLEAR FOR CONSTRUCTION OR PRUNING TO RESTORE THE NATURAL SHAPE OF THE ENTIRE TREE, THE GUIDELINES IN THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES AND THE AMERICAN NATIONAL STANDARDS FOR TREE CARE OPERATIONS (ANSI #Z133.1) SHALL BE FOLLOWED. PROTECTED TREES SHALL BE PRUNED TO REMOVE DEAD OR DAMAGED LIMBS AND TO RESTORE THIS NATURAL SHAPE AND FERTILIZED AS NECESSARY TO COMPENSATE FOR ANY LOSS OF ROOTS AND TO STIMULATE ROOT GROWTH. ANY DAMAGE TO TREE CROWNS OR ROOT SYSTEMS SHALL BE REPAIRED IMMEDIATELY AFTER DAMAGE OCCURS.
- TREE BARRICADE APPROVAL: OBTAIN APPROVAL OF TREE BARRICADES BEFORE BEGINNING CLEARING OPERATIONS OR ANY CONSTRUCTION.

CONFORMED TO  
CONSTRUCTION RECORDS

Monterey WWTF  
Pipe Replacement  
68421



TYPICAL TRENCH

NOTES:

- TRENCH SIDES SHALL BE APPROXIMATELY VERTICAL BETWEEN AN ELEVATION OF 1 FOOT ABOVE THE TOP OF THE PIPE AND THE CENTER LINE OF THE PIPE. OTHERWISE, TRENCH SIDES SHALL BE AS VERTICAL AS POSSIBLE OR AS REQUIRED BY OSHA STANDARDS. REFER TO THE MEASUREMENT AND PAYMENT SECTION (SECTION #801, PARAGRAPH #4) TO DETERMINE MAXIMUM PAYLINE WIDTHS.
- BELL HOLE SHALL BE DUG TO PERMIT THE ENTIRE STRAIGHT BARREL OF THE PIPE TO REST ON THE UNDISTURBED TRENCH BOTTOM. BOULDERS OR LOOSE ROCKS LARGER THAN 3/4 INCH IN SIZE WILL NOT BE PERMITTED IN BACKFILL UP TO 1 FOOT ABOVE THE TOP OF THE PIPE.
- BACK FILL MATERIAL UP TO A LEVEL OF 1 FOOT OVER THE PIPE SHALL CONSIST OF AASHTO CLASS A-3 SOIL (SUITABLE SOIL) AND SHALL EXCLUDE CLAY MATERIALS AND LOOSE ROCKS LARGER THAN 3/4 INCH SIZE.
- BACKFILL MATERIAL UP TO A LEVEL 1 FOOT OVER THE TOP OF PIPE OR BOTTOM OF STRUCTURES SHALL BE PLACED IN 6 INCH COMPACTED THICKNESS LAYERS AND SHALL BE COMPACTED TO 98% OF ITS MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D1557.
- SEE "EXCAVATION AND EARTHWORK", SECTION 408 FOR ADDITIONAL REQUIREMENTS INCLUDING REMOVAL AND REPLACEMENT OF UNSUITABLE SOILS, DEWATERING, COMPACTION REQUIREMENTS AND DENSITY TESTING OF COMPACTION SOILS.

OPEN CUT TRENCH FOR PRESSURE PIPE

JANUARY 2013

PLATE W-42

**JONES EDMUNDS**  
CERTIFICATE OF AUTHORIZATION #1841  
8657 BAYVIEW ROAD, SUITE 300, JACKSONVILLE, FLORIDA 32256-8834 (904) 744-5401

NO.	BY	DATE	REVISIONS
1	JFS	3/16/18	CONFORMED TO CONSTRUCTION RECORDS

**JEA**  
Building Community<sup>sm</sup>

DESIGNER:	ANALYSIS
DRAWN BY:	KRAMER
DATE:	MAR. 2017
CHECKED BY:	GHERNE
DATE:	MAR. 2017

PROJ. NO. 8003621

DATE: MAR. 2017

SCALE: NONE

NO. SHEETS 12

SHEET NO. DET-01

DRAWING NO. DET-01

DESIGN ENGINEER

ANTHONY R. HOLMES

FLORIDA REGISTRATION NO. 70809

YARD PIPING REPLACEMENT

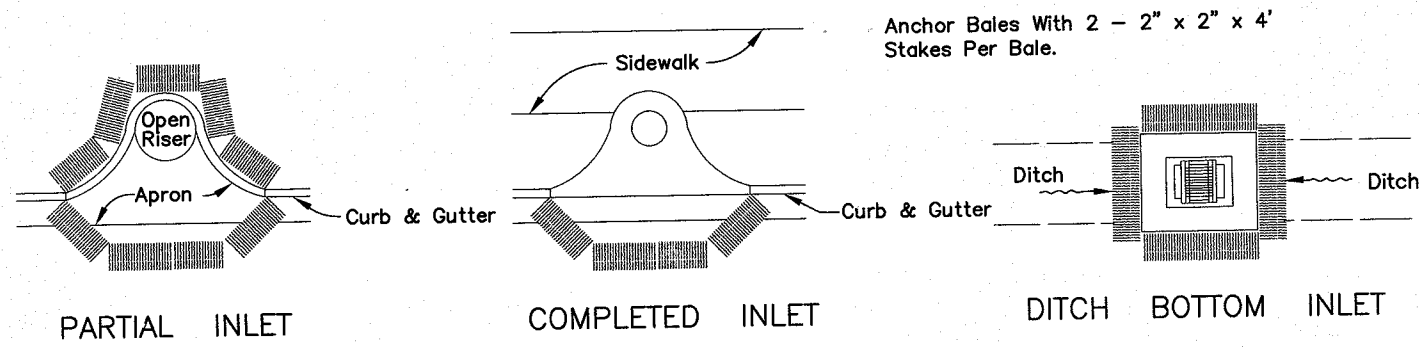
MONTEREY WWTF, JACKSONVILLE, FLORIDA

TYPICAL DETAILS

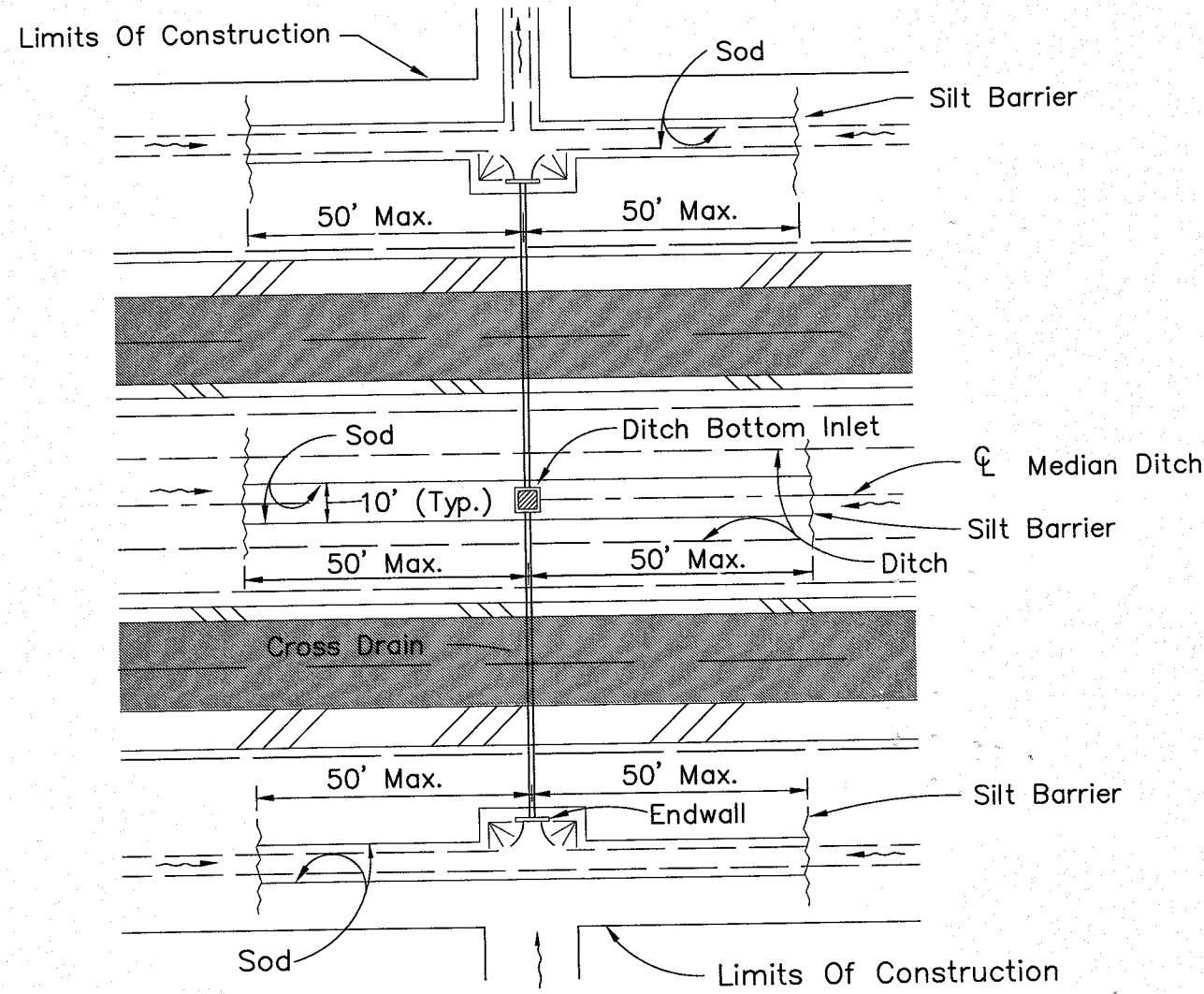


EROSION AND SEDIMENT CONTROL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
- 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.
- ADDITIONAL PROTECTION - ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
- CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
- WIRE MESH SHALL BE LAID OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
- FDOT NO. 1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED IN D-903. THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
- 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.
- BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
- BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.
- THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8 INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
- EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.
- LOOSE STRAW SHOULD BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.
- STRAW BALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
- CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
- NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
- SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.
- THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
- SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT SPECIFICATIONS AND CRITERIA.
- FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION (F.D.E.R.) CHAPTER 6.
- EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAIL SHEET FOR TYPICAL CONSTRUCTION.
- ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.
- SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
- ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
- DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.
- ALL DISTURBED AREAS TO BE STABILIZED THROUGH COMPACTION, SILT SCREENS, HAY BALES, AND GRASSING. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID SOD.
- ALL DEWATERING, EROSION, AND SEDIMENT CONTROL TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED.
- 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.
- THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL WATER MANAGEMENT DISTRICT INQUIRIES, RELATIVE TO COMPLIANCE OF SURVMD FOR EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.



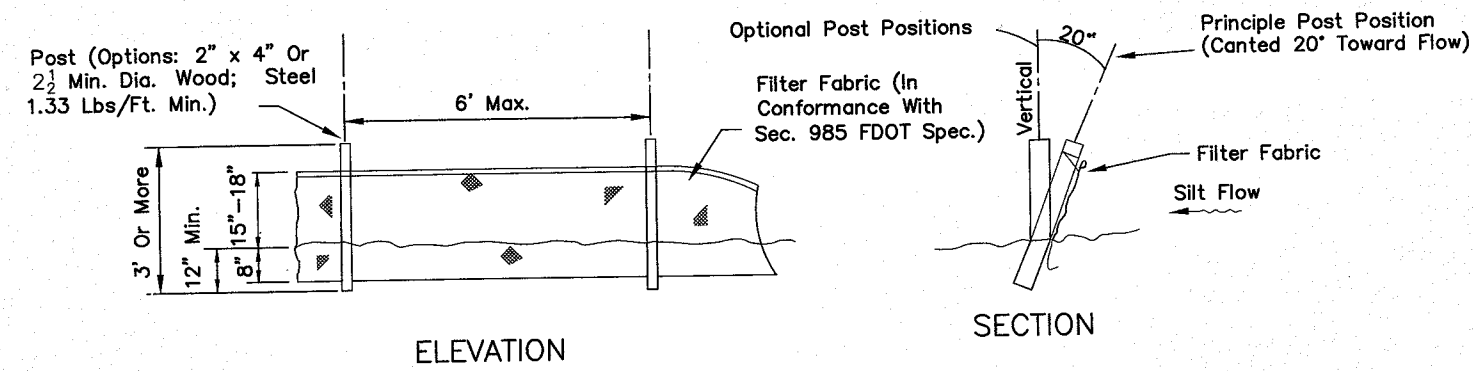
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



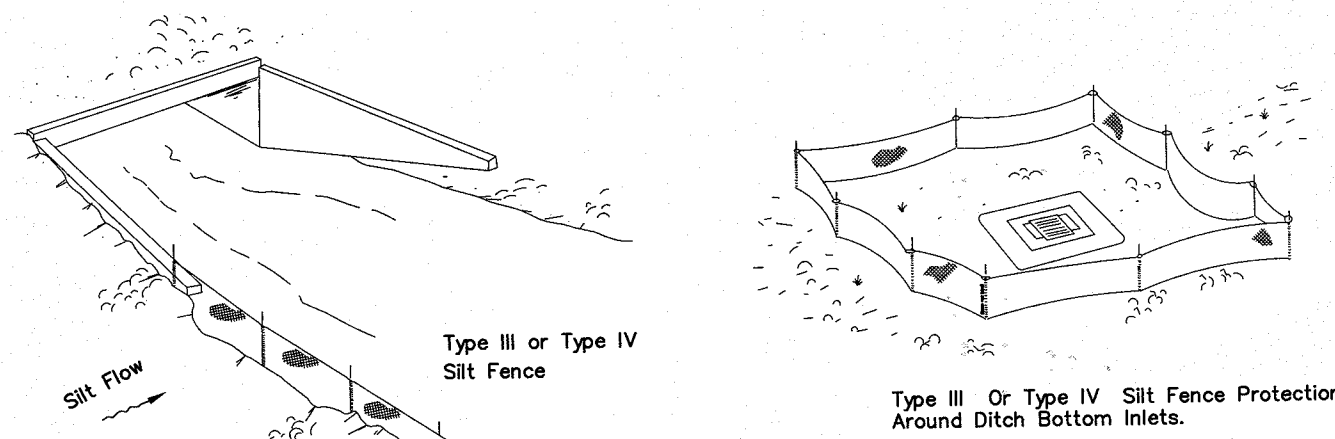
DITCH INSTALLATIONS AT DRAINAGE STRUCTURES

HAY BALE LOCATION

(D-901)  
N.T.S.



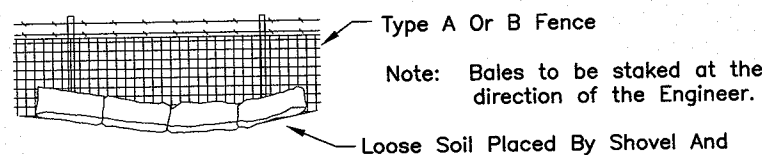
TYPE III SILT FENCE



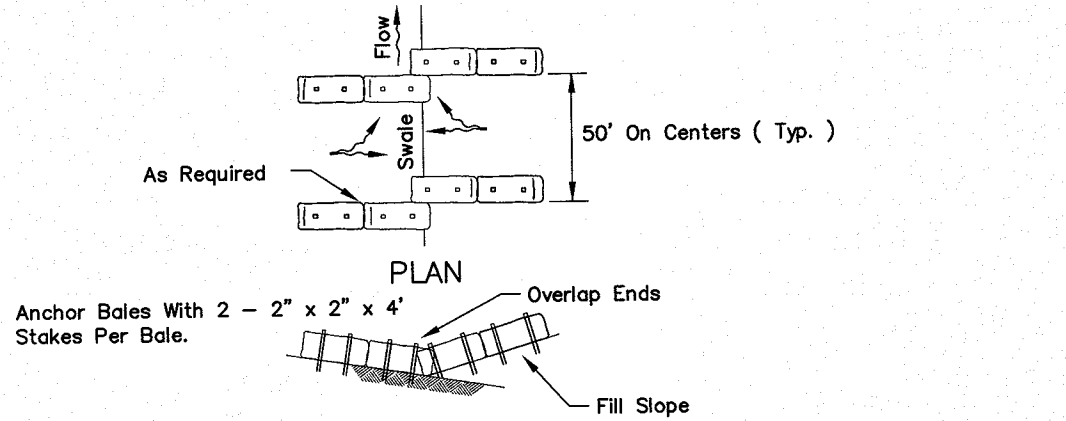
Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

SILT FENCE TYPE III & IV

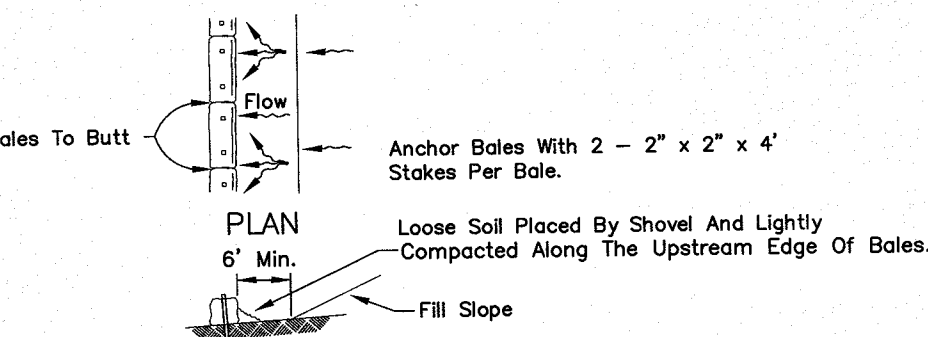
(D-908)  
N.T.S.



BALES BACKED BY FENCE

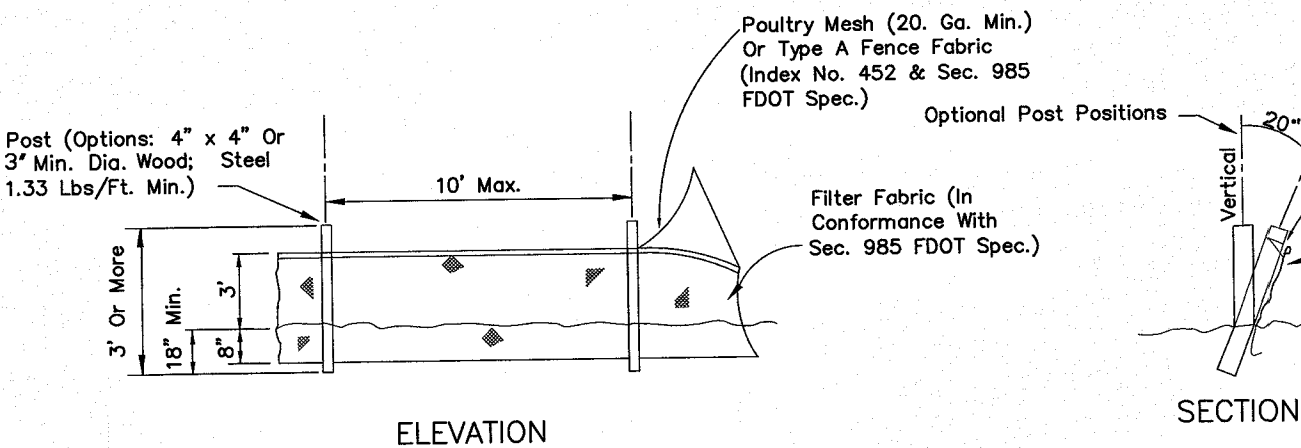


TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES TOWARD THE TOE OF SLOPE



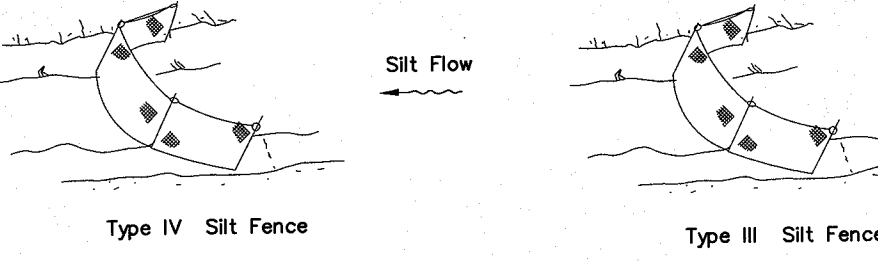
TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES AWAY FROM THE TOE OF SLOPE

BARRIERS FOR FILL SLOPES



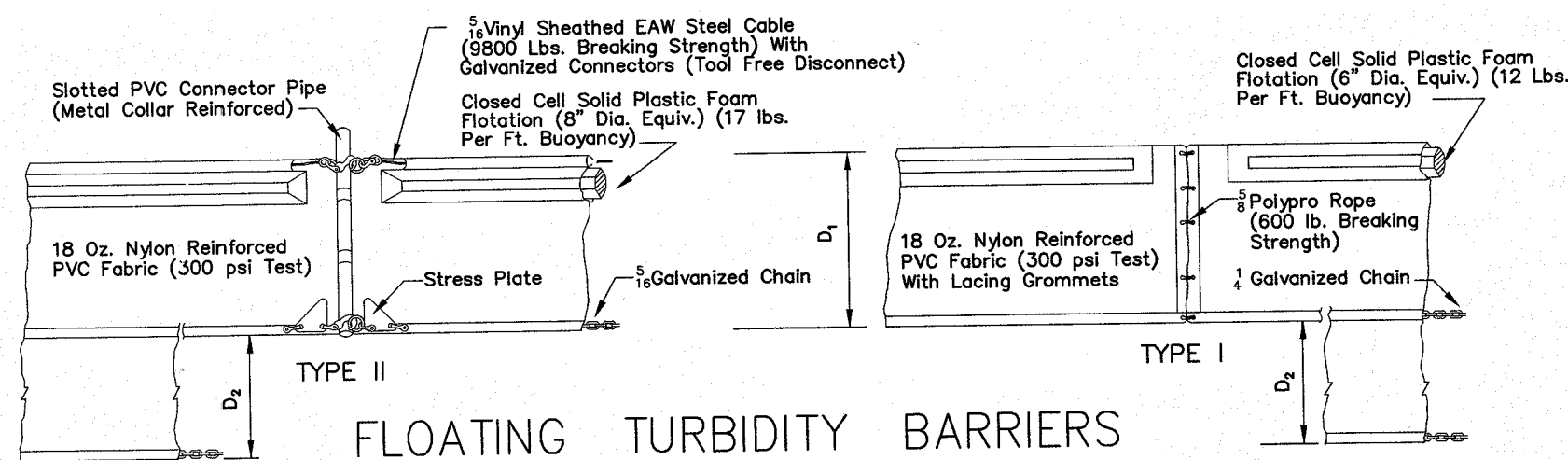
TYPE IV SILT FENCE

Note: Silt Fence to be paid for under the contract lump sum price for Erosion and Sediment Control.

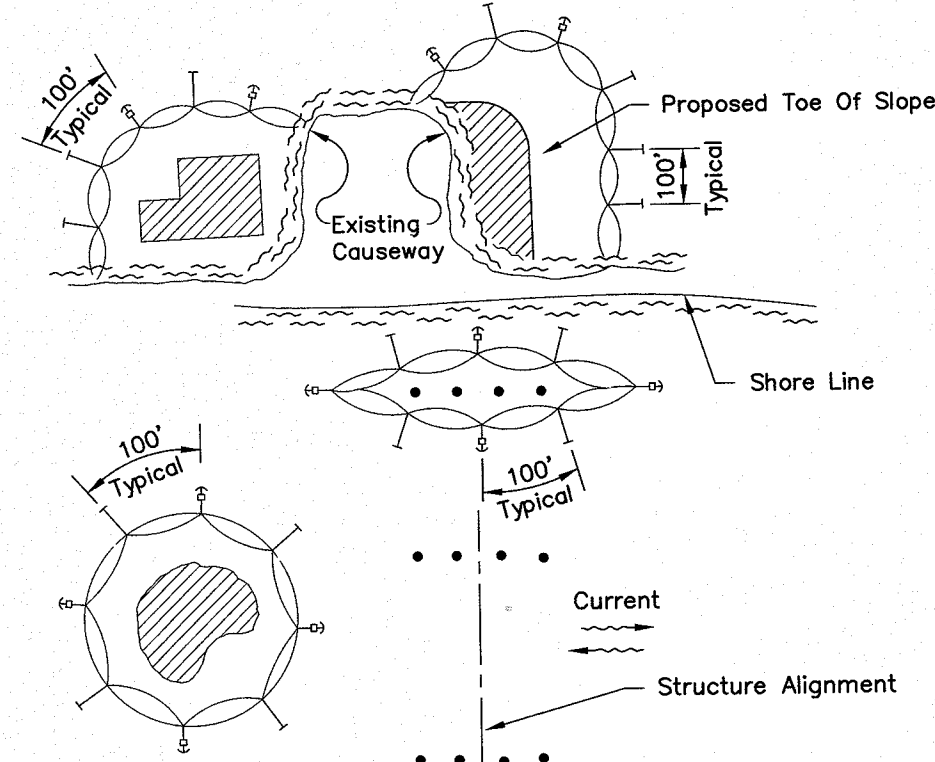


Note: Spacing for Type III & Type IV Fence to be in accordance with Chart 1, Sheet 1 of 3, FDOT Index No. 102 and ditch installations at drainage structures Sheet 2 of 3, FDOT Index No. 102.

SILT FENCE APPLICATIONS



FLOATING TURBIDITY BARRIERS



NOTES:

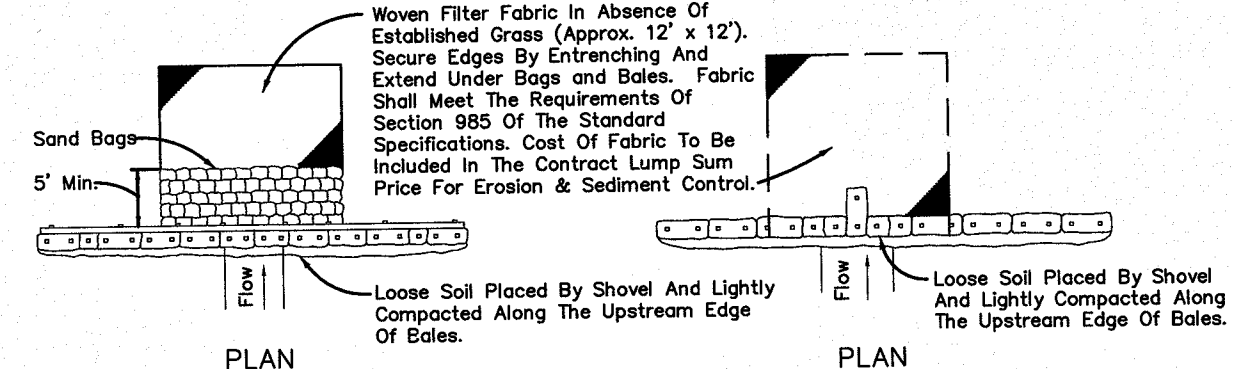
- Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
- Number and spacing of anchors dependent on current velocities.
- Deployment of barrier around pile locations may vary to accommodate construction operations.
- Navigation may require segmenting barrier during construction operations.
- For additional information see Section 104 of the FDOT Standard Specifications.

TURBIDITY BARRIER APPLICATIONS

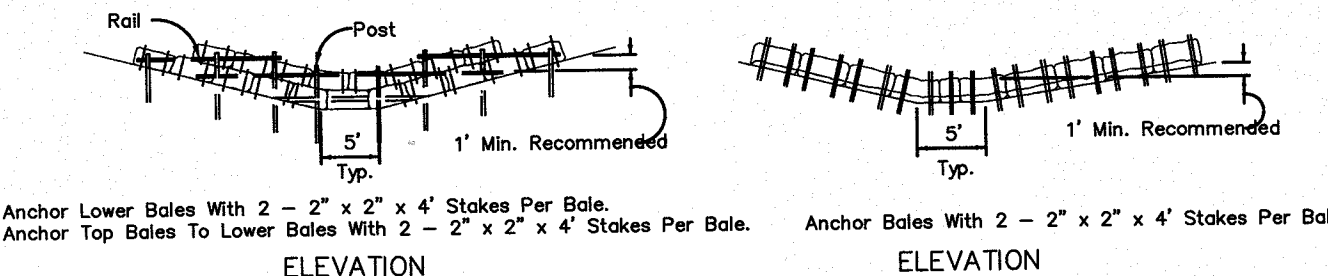
TURBIDITY BARRIERS

(D-907)  
N.T.S.

Monterey WWTF  
Pipe Replacement  
68422



BARRIER FOR PAVED DITCH

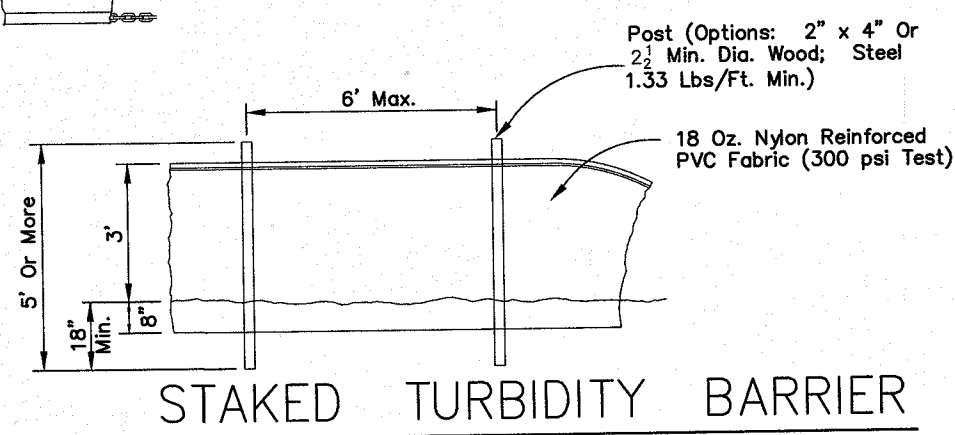


BARRIER FOR UNPAVED DITCHES

HAY BALE BARRIERS TYPE I & II

(D-912)  
N.T.S.

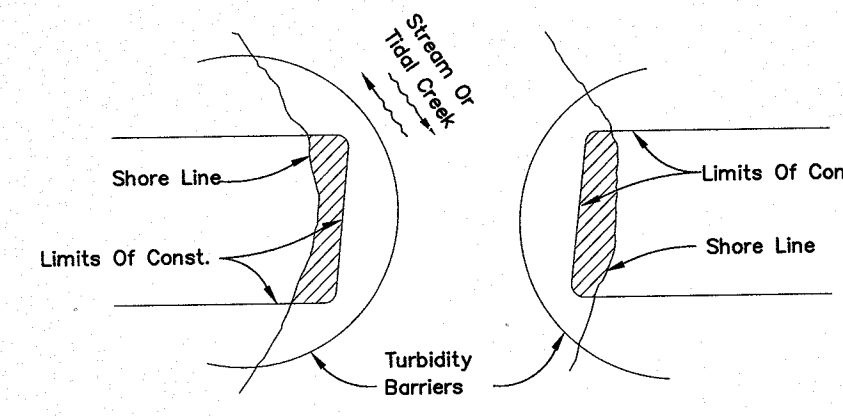
NOTICE: COMPONENTS OF TYPES I & TYPE II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.



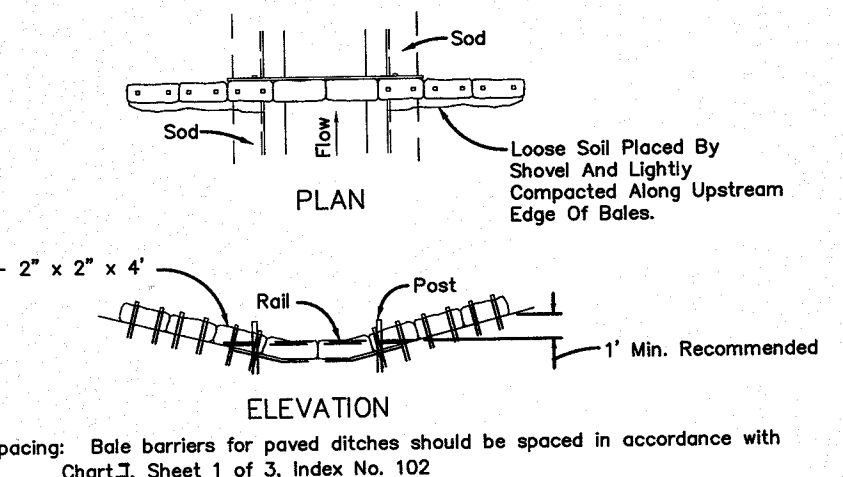
STAKED TURBIDITY BARRIER

LEGEND

- Pile Locations
- Dredge Or Fill Area
- Mooring Buoy w/Anchor
- Anchor
- Barrier Movement Due To Current Action



Note: Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the contract lump sum price established in the bid proposal for Erosion & Sediment Control. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.



BARRIER FOR PAVED DITCH

AS-BUILT  
INFORMATION PROVIDED BY: WILLIAMS INDUSTRIAL SERVICES  
Date: 2/22/18  
Name: NICK PAYNE  
Address: 11380 ISLAND DRIVE #1  
JACKSONVILLE, FL 32228  
Phone: 904.696.9994

I HEREBY CERTIFY THAT THE  
☒ WWTF System  
☐ Chilled Water  
☐ Pavement  
☐ Water Main  
☐ Curb & Gutter  
☐ Reclaimed Water Main  
☐ Storm & Drainage System  
☐ Force Main  
☐ Lake or Pond  
☐ Sanitary Gravity System  
☐ Underdrain Connections  
☐ Lift Station

ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS AND THE ACCOMPANYING ELECTRONIC FILE HAVE BEEN LOCATED AND MAPPED IN ACCORDANCE WITH CHAPTER 47 OF FLORIDA STATUTES, CHAPTER 61G-12.01 OF THE FLORIDA BOARD OF PROFESSIONAL ENGINEERS AND THE ISEA STANDARDS FOR AS-BUILT DRAWINGS.

ELECTRONIC DRAWING FILE NAME: SWPPP-01 FILE DATE: 3/18/18  
DATE OF FIELD SURVEY: 2/22/18

SIGNATURE: JASON R. SHEPLER, P.E.  
NAME: JASON R. SHEPLER, P.E.  
FLORIDA PROFESSIONAL ENGINEER NO.: 58760  
Date: 2/21/2018

NOTE: WHERE FDOT SPECS AND INDEX ARE REFERENCED, PLEASE REFER TO FDOT ROADWAY & TRAFFIC DESIGN STANDARDS, AND FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.

JONES EDMUNDS  
CERTIFICATE OF AUTHORIZATION #1841  
8657 BAYVIEW ROAD, SUITE 300, JACKSONVILLE, FLORIDA 32256-8634 / (904) 744-5401

NO.	BY	DATE	REVISIONS
1.	AS	3/8/18	CONFORMED TO CONSTRUCTION RECORDS
2.			
3.			
4.			
5.			

DESIGN ENGINEER  
ANTHONY R. HOLMES  
FLORIDA REGISTRATION NO. 70809

DESIGNER: KRAMER  
DRAWN BY: MAR. 2017  
CHECKED BY: GERRINE  
DATE: MAR. 2017

JEA sm  
Building Community™

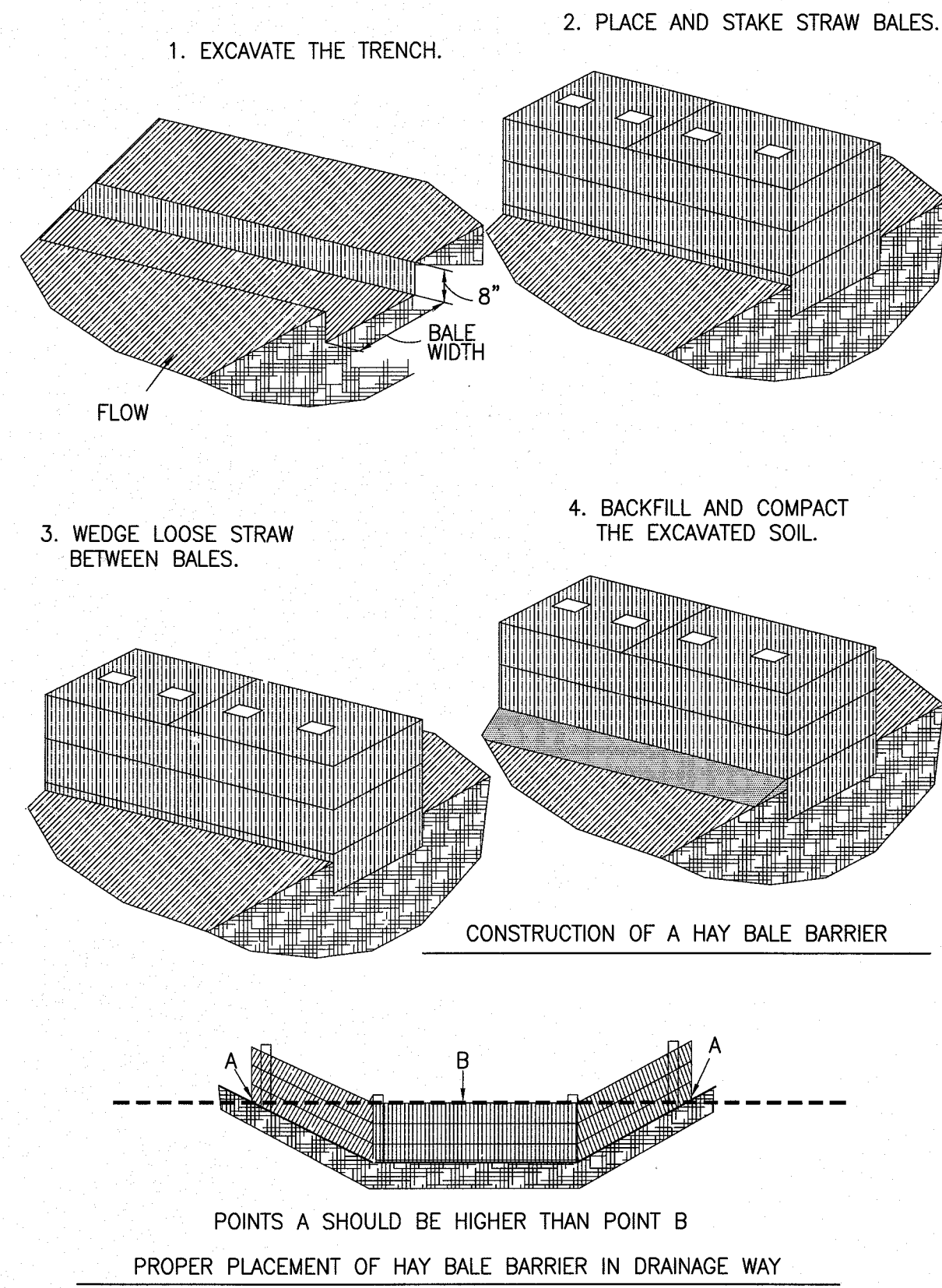
YARD PIPING REPLACEMENT  
MONTEREY WWTF, JACKSONVILLE, FLORIDA  
STORM WATER POLLUTION PREVENTION DETAILS

PROJ. NO.	8003921
DATE:	MAR. 2017
SCALE:	NONE
NO. SHEETS	12
SHEET NO.	10
DRAWING NO.	SWPPP-01



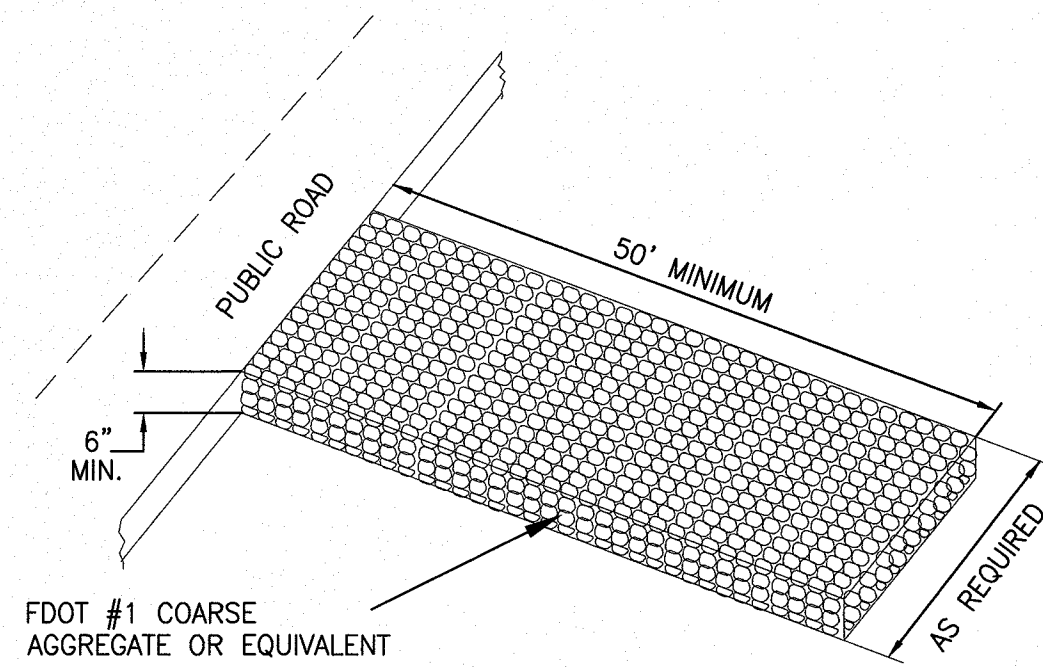
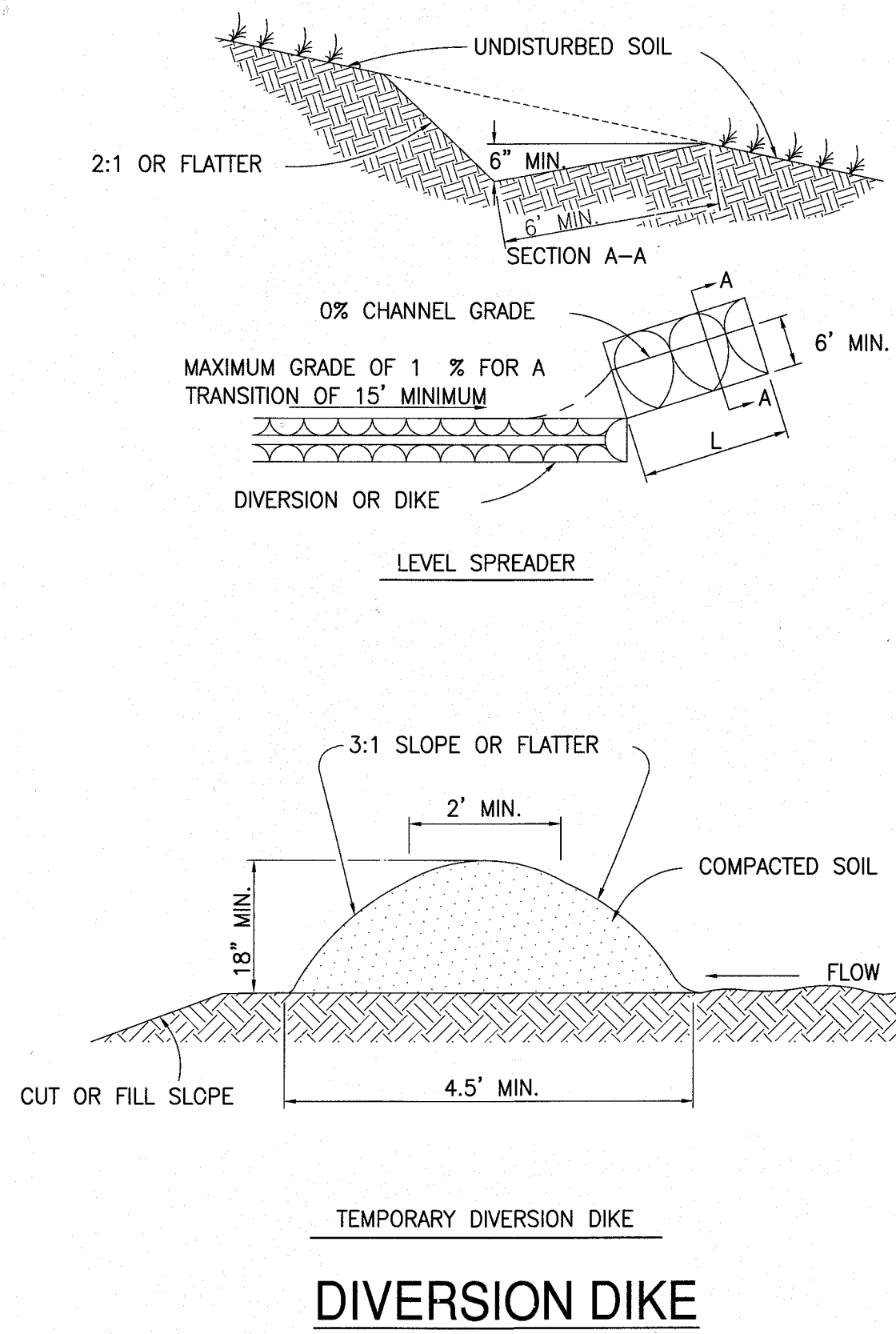






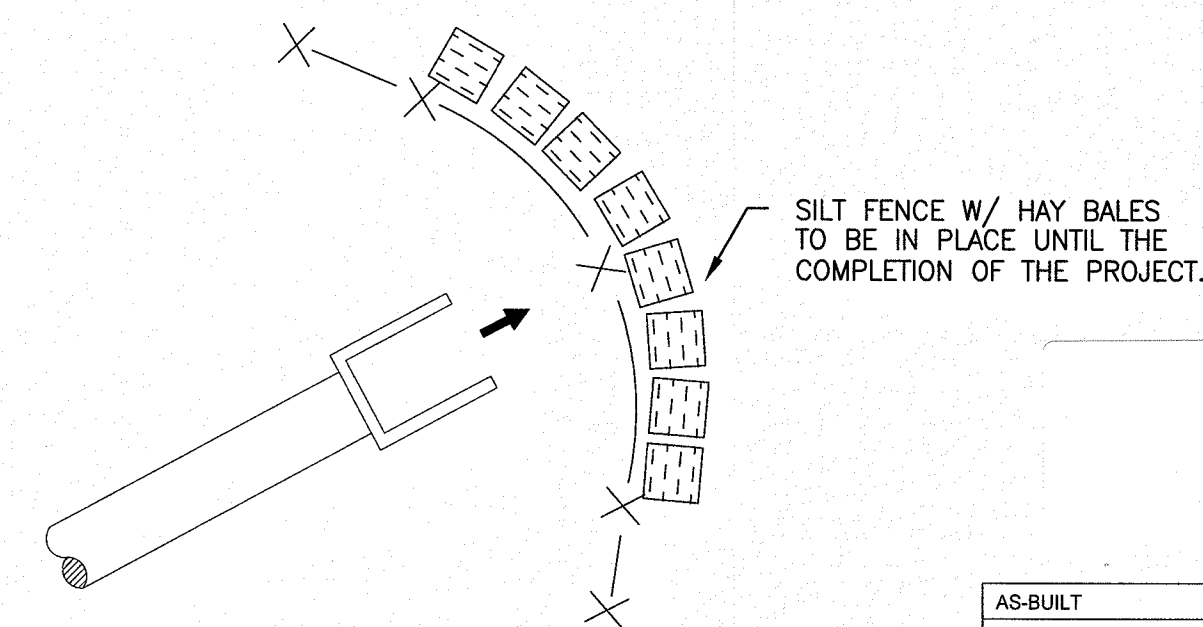
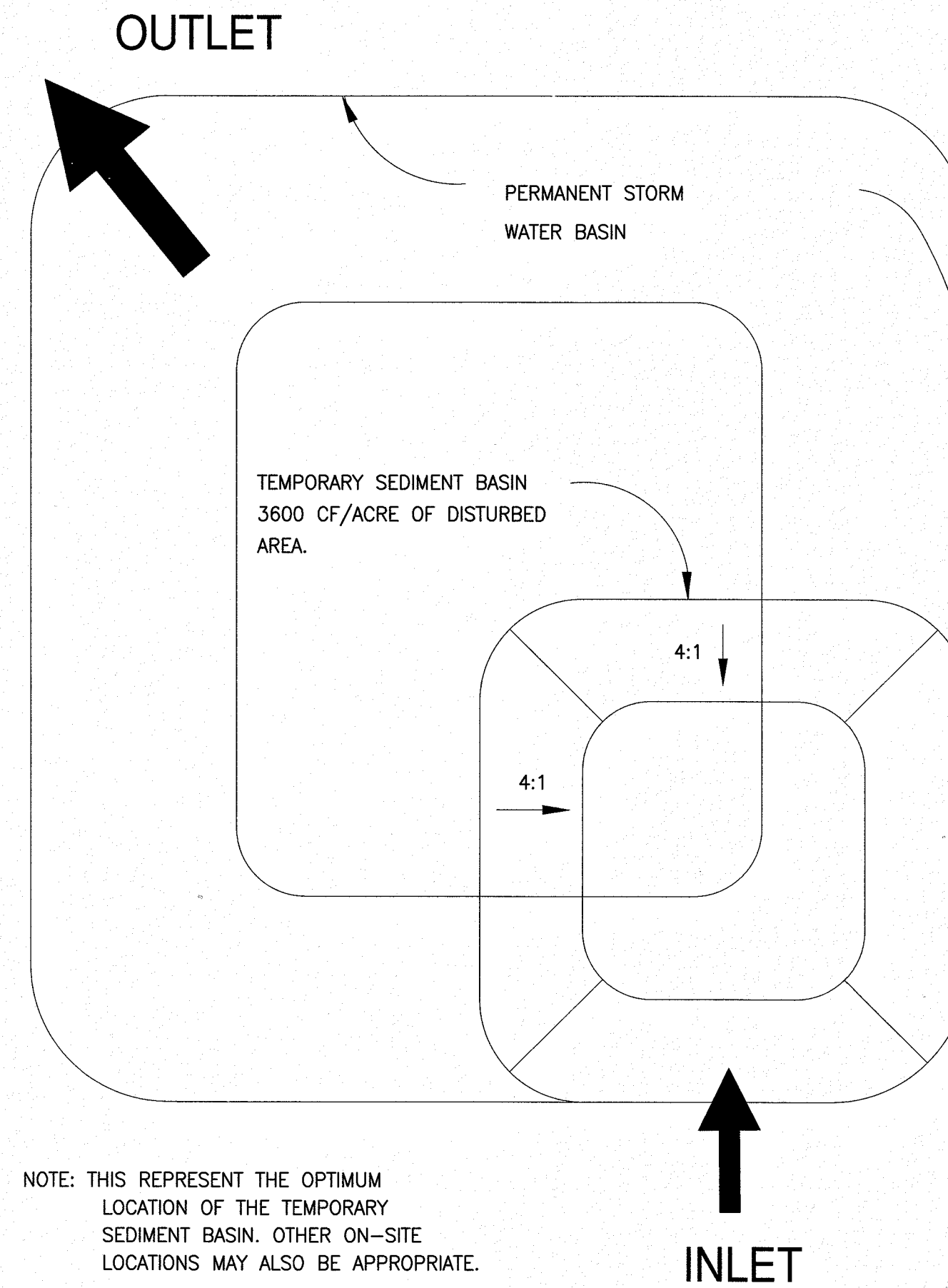
### HAY BALE BARRIER CONSTRUCTION DETAILS

(D-913)  
N.T.S.



### STABILIZED CONSTRUCTION ENTRANCE

N.T.S.



### OUTLET PROTECTION

N.T.S.

Monterey WWTF  
Pipe Replacement  
68424

AS-BUILT	
INFORMATION PROVIDED BY: WILLIAMS INDUSTRIAL SERVICES	
Date:	2/22/18
Name:	NICK PAYNE
Address:	11380 ISLAND DRIVE #1 JACKSONVILLE, FL 32226
Phone#:	904.696.9994
I HEREBY CERTIFY THAT THE	
<input checked="" type="checkbox"/> WWTF System	<input type="checkbox"/> Chilled Water
<input type="checkbox"/> Pavement	<input type="checkbox"/> Water Main
<input type="checkbox"/> Curb & Gutter	<input type="checkbox"/> Reclaimed Water Main
<input type="checkbox"/> Storm & Drainage System	<input type="checkbox"/> Force Main
<input type="checkbox"/> Lake or Pond	<input type="checkbox"/> Sanitary Gravity System
<input type="checkbox"/> Underdrain Connections	<input type="checkbox"/> Lift Station
ARE AT THE HORIZONTAL AND VERTICAL LOCATIONS AS SHOWN ON THESE "AS-BUILT" DRAWINGS AND THE ACCOMPANYING ELECTRONIC FILE HAVE BEEN LOCATED AND MAPPED IN ACCORDANCE WITH CHAPTER 471 OF FLORIDA STATUTES, CHAPTER 61015-23 OF THE FLORIDA BOARD OF PROFESSIONAL ENGINEERS AND THE JEA STANDARDS FOR AS-BUILT DRAWINGS.	
ELECTRONIC DRAWING FILE NAME: SWPPP-03 FILE DATE: 3/16/18	
DATE OF FIELD SURVEY: 2/22/18	
SIGNATURE: JASON R. SHEPLER, P.E.	
NAME: JASON R. SHEPLER, P.E.	
FLORIDA PROFESSIONAL ENGINEER NO.: 58765	
Date: 2018.03.19	
21:31:09	

CONFORMED TO CONSTRUCTION RECORDS

**JONES EDMUNDS**  
8657 BAYVIEW ROAD, SUITE 300, JACKSONVILLE, FLORIDA 32256-8634 / (904) 744-5401  
CERTIFICATE OF AUTHORIZATION #184

NO.	BY	DATE	REVISIONS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
51			
52			
53			
54			
55			
56			
57			
58			
59			
60			
61			
62			
63			
64			
65			
66			
67			
68			
69			
70			
71			
72			
73			
74			
75			
76			
77			
78			
79			
80			
81			
82			
83			
84			
85			
86			
87			
88			
89			
90			
91			
92			
93			
94			
95			
96			
97			
98			
99			
100			

**JEA**  
Building Community<sup>sm</sup>

**YARD PIPING REPLACEMENT**  
MONTEREY WWTF, JACKSONVILLE, FLORIDA  
STORM WATER POLLUTION PREVENTION DETAILS

PROJ. NO. 8003821  
DATE: MAR. 2017  
SCALE: NONE

NO. SHEETS 12  
SHEET NO. 12  
DRAWING NO. SWPPP-03