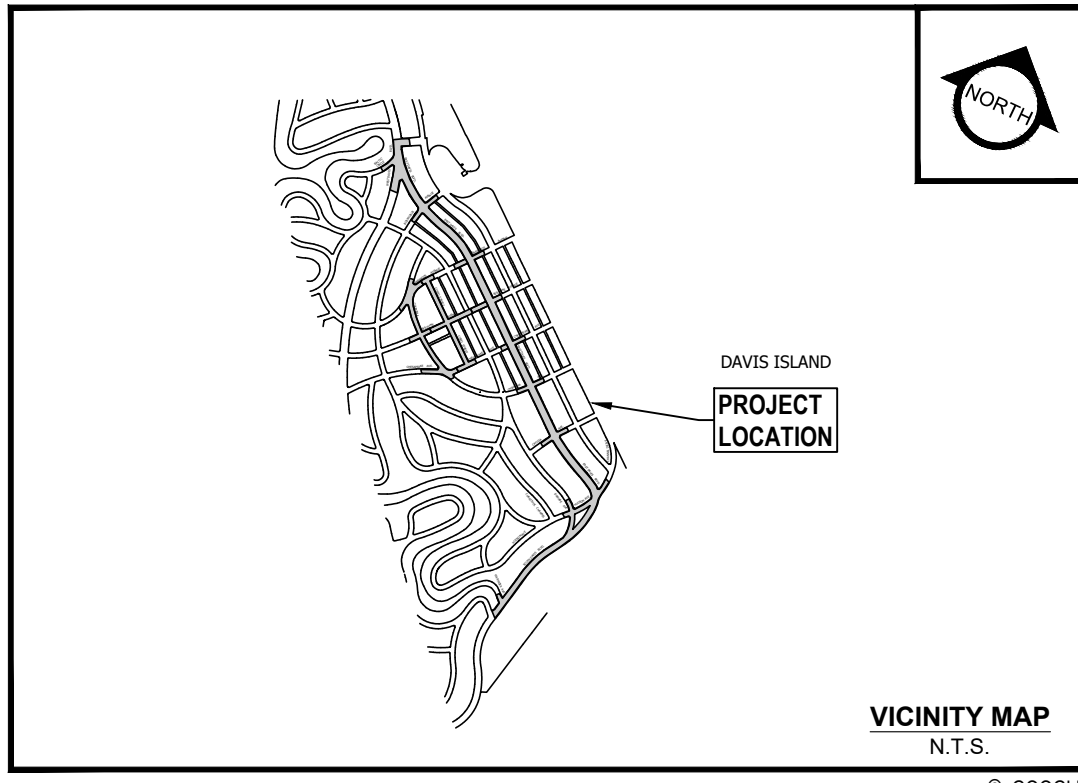
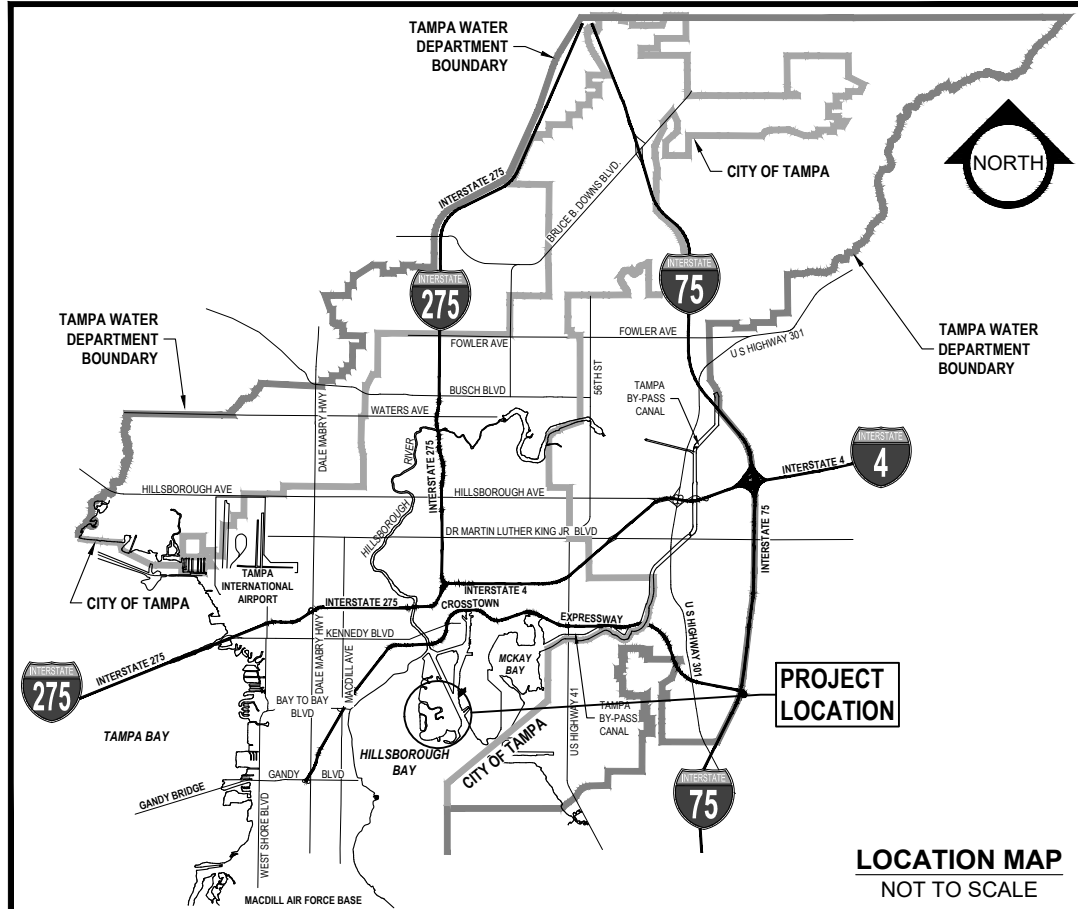


K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001.dwg Jul 19, 2019 - 7:16am



## Water Department

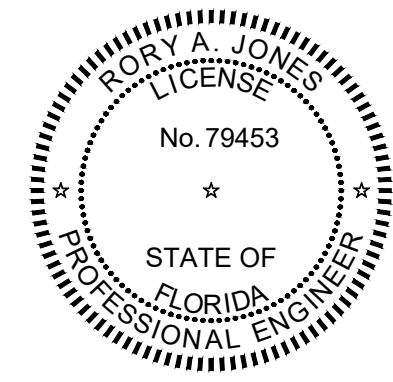
PLANS FOR:  
**DAVIS ISLAND WATER MAIN  
 REPLACEMENT CIP**  
 TAMPA WATER DEPARTMENT  
 WORK ORDER NO. :  
**WTR-18-0001**

INDEX	
	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES, SPECIFIC NOTES & LEGEND
3	KEY SHEET
4-23	PLAN AND PROFILE SHEETS
24-31	DETAILS

KNOW WHAT'S BELOW  
 ALWAYS CALL 811  
 BEFORE YOU DIG

It's fast. It's free. It's the law.

[www.callsunshine.com](http://www.callsunshine.com)



PERMITS			
<input checked="" type="checkbox"/>	CITY	<input type="checkbox"/>	COUNTY
<input type="checkbox"/>	STATE	<input checked="" type="checkbox"/>	DEP
CONTRACTOR: DALLAS 1			

RORY A. JONES, P.E.  
 CITY OF TAMPA WATER DEPT.  
 306 E. JACKSON ST., 5E  
 TAMPA, FLA. 33602  
 P.E. #79453

REV NO.	DATE	DESCRIPTION	BY
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

DESIGNED NPP  
 DRAWN JDM  
 CHECKED RAJ  
 DATE 03/05/2019

DAVIS ISLAND WATER MAIN  
 REPLACEMENT CIP

COVER SHEET



100% PLANS	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE J-12	SHEET 01 OF 31

## CITY OF TAMPA NOTES

### GENERAL

- ALL WATER WORK FOR THE CITY OF TAMPA (CITY) SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT'S TECHNICAL SPECIFICATIONS, CONSTRUCTION DETAILS, AND THE TAMPA WATER DEPARTMENT TECHNICAL MANUAL (LATEST EDITION). IN THE EVENT OF A DISCREPANCY, THE MOST STRINGENT CRITERIA SHALL APPLY.
- THE CONTRACTOR SHALL NOT TAP ANY WATER MAIN WITHOUT A CITY INSPECTOR PRESENT. THE CONTRACTOR SHALL PROVIDE NOTICE TO THE CITY INSPECTOR AT A MINIMUM OF 5 WORKING DAYS PRIOR TO NECESSARY WORK AND COORDINATE PERFORMANCE OF TAP WITH THE CITY INSPECTOR.
- NORMAL WORKING HOURS SHALL BE WEEKDAYS FROM 7:30 AM TO 4:00 PM UNLESS OTHERWISE APPROVED BY THE ENGINEER/INSPECTOR.
- ELEVATION INFORMATION SHOWN ON THESE PLANS IS REFERENCED TO N.A.V.D. 1988 UNLESS OTHERWISE STATED.
- CONSTRUCTION OF WATER FACILITIES SHALL BE COORDINATED WITH THE WATER DEPARTMENT PRIOR TO THE START OF THE CONSTRUCTION. CONTRACTOR TO CONTACT CITY OF TAMPA CONTRACT ADMINISTRATION DEPARTMENT @ 813-635-3432 TO COORDINATE/SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY FOR REVIEW OF INSTALLATION TECHNIQUES AND PROCEDURES A MINIMUM OF 10 WORKING DAYS PRIOR TO THE PLANNED CONSTRUCTION.
- EXISTING UTILITIES, BUILDINGS, GROUND ELEVATIONS, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE. ALL CONDITIONS, DIMENSIONS, AND QUANTITIES AFFECTING REQUIRED WORK SHALL BE VERIFIED BY CONTRACTOR BEFORE BEGINNING WORK OR ORDERING MATERIALS.
- VALVES ON EXISTING PUBLIC WATER MAINS TO BE OPERATED BY CITY PERSONNEL ONLY.
- ALL PROPOSED WATER LINES SHALL BE MANUFACTURED AND INSTALLED PER THE STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION (AWWA) AS PRESCRIBED BY FAC-62-555.320.
- SHOP DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE CITY FOR ALL PROPOSED ITEMS. ALL SUBMITTALS AND SHOP DRAWINGS SHALL BE HIGH QUALITY PDF DOCUMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR RESTRAINING ALL EXISTING PIPE NECESSARY TO MAINTAIN A SAFE CONSTRUCTION AREA AND PERFORM THE WORK SHOWN IN THE PLANS. EXISTING PIPE REQUIRING RESTRAINTS SHALL UTILIZE EXTERIOR BELL RESTRAINTS.
- THE CONTRACTOR SHALL DEWATER ANY EXCAVATION OR TRENCH TO MAINTAIN A SAFE WORK ENVIRONMENT AND TO ABIDE BY AWWA INSTALLATION STANDARDS. DEWATERING IS AT THE EXPENSE OF THE CONTRACTOR.
- REMOVAL AND RELOCATION OF ALL STREET OR TRAFFIC SIGNS SHALL BE APPROVED THROUGH THE TRAFFIC ENGINEERING DIVISION, DEPARTMENT OF PUBLIC WORKS, CITY OF TAMPA, AND HILLSBOROUGH COUNTY TRAFFIC, FLORIDA DEPARTMENT OF TRANSPORTATION, CITY OF TEMPLE TERRACE OR OTHER APPLICABLE PERMITTING AGENCY.

### PERMITS

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY RIGHT-OF-WAY PERMITS AND ROADWAY CLOSURES ASSOCIATED WITH THE WORK SHOWN IN THE PLANS.
- IN ORDER TO OBTAIN ROADWAY CLOSURES OR RIGHT-OF-WAY PERMITS, AT MINIMUM, THE CONTRACTOR MUST SUBMIT DETAILED MAINTENANCE OF TRAFFIC (MOT) PLANS ALONG WITH APPLICATIONS TO THE APPROPRIATE AGENCY. THE MOT(S) SHALL CONFORM TO APPLICABLE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DRAWINGS (MOST CURRENT EDITION). THE GOVERNING AGENCIES MAY REQUIRE ADDITIONAL INFORMATION AND DICTATE SPECIFIC WORK TIME DURING NON-PEAK TRAFFIC HOURS.

### PIPE CLEARANCES

- ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES AND SHALL MAINTAIN A MINIMUM OF THREE (3) FEET HORIZONTAL SEPARATION FROM OTHER UTILITIES, EXCEPT STORM, SANITARY, AND GAS, WHICH SHALL MAINTAIN TEN (10) FEET HORIZONTAL SEPARATION, UNLESS OTHERWISE NOTED.
- WATER MAIN SHALL CROSS ABOVE OTHER PIPES. WHEN WATER MUST BE BELOW, PROVIDE 12" MINIMUM VERTICAL SEPARATION UNLESS OTHERWISE NOTED.
- CENTER ONE FULL JOINT OF PIPE UNDER/OVER ALL SANITARY, STORM, OR RECLAIMED PIPE CROSSINGS.

### MATERIAL

- ALL VALVES SHALL BE RIGHT HAND OPEN.
- POLYWRAP ALL DUCTILE IRON PIPE (D.I.P) FITTINGS AND APPURTENANCES.
- ALL HARDWARE SHALL BE 304 STAINLESS STEEL, UNLESS OTHERWISE NOTED.
- ALL BELOW GROUND BENDS SHALL BE MECHANICAL JOINT (MJ).
- RESTRAIN ALL JOINTS AND FITTINGS.
- CONCRETE THRUST BLOCKS SHALL NOT BE USED TO PROVIDE THRUST RESTRAINT. RESTRAINT OF PUSH-ON DIP (OTHER THAN FOR FITTINGS & VALVES) SHALL BE WITH APPROVED PUSH-ON "GRIPPER-TYPE" RESTRAINTS. FITTINGS AND VALVES SHALL BE CONNECTED TO PIPE WITH MEGALUGS, OR APPROVED EQUAL.
- ALL POTABLE WATER SERVICE LATERAL, AIR RELEASE VALVES, AND TEMPORARY SAMPLE POINTS SHALL BE CONSTRUCTED OF BLUE SDR-9 HIGH DENSITY POLYETHYLENE (HDPE) TUBING. ALL HDPE TUBING SHALL BE INSTALLED WITHIN A CASING AS DEFINED IN THE SPECIFICATIONS AND DETAILS.

### TESTING

- ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, HYDRANTS, CONNECTIONS, AND VALVES SHALL BE PROPERLY PRESSURE TESTED, WITNESSED AND ACCEPTED BY THE CITY. PRESSURE TESTS TO BE PERFORMED IN ACCORDANCE WITH WATER DEPARTMENT SPECIFICATIONS. CONTRACTOR TO NOTIFY THE ASSIGNED CITY INSPECTOR A MINIMUM OF THREE (3) WORKING DAYS IN ADVANCE OF PERFORMING TESTS. CONTRACTOR SHALL PRESSURE TEST WATER MAINS AT A MINIMUM OF 150 PSI FOR A PERIOD OF 2 HOURS IN ACCORDANCE WITH AWWA C600-87 STANDARDS. THE CONTRACTOR SHALL MAKE ALL NECESSARY APPLICATIONS AND ARRANGEMENTS.
- ALL SAMPLE, PRESSURE TEST, AND CHLORINATION POINT PIPING SHALL BE COMPLETELY REMOVED PRIOR TO FINAL ACCEPTANCE. THE CORPORATION STOP SHALL BE CLOSED AND PLUGGED AT THE MAIN.
- CONTRACTOR SHALL PERFORM CHLORINATION AND HIRE INDEPENDENT FIRMS TO CONDUCT BACTERIOLOGICAL TESTING AS DEFINED IN F.A.C. 62-555.340. CONTRACTOR TO SUPPLY THE CITY WITH AS-BUILTS AND SAMPLE RESULTS NECESSARY TO OBTAIN DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) CLEARANCES.

### RESTORATION

- ROADWAY RESTORATION SHALL BE IN CONFORMANCE WITH CORRESPONDING JURISDICTION'S LATEST STANDARDS.
- DISTURBANCE TO ANY PROPERTY, PUBLIC OR PRIVATE, SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
- THE CONTRACTOR SHALL RECONSTRUCT PAVEMENT ADJACENT TO THE GUTTERS AND AT STREET INTERSECTION TO OBTAIN SATISFACTORY DRAINAGE TO THE INLETS FROM THE INTERSECTING STREETS. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL DETERMINE THE FLOW OF WATER ALONG A STREET, DOCUMENT WHERE STANDING WATER IS PRESENT.

## PROJECT SPECIFIC NOTES

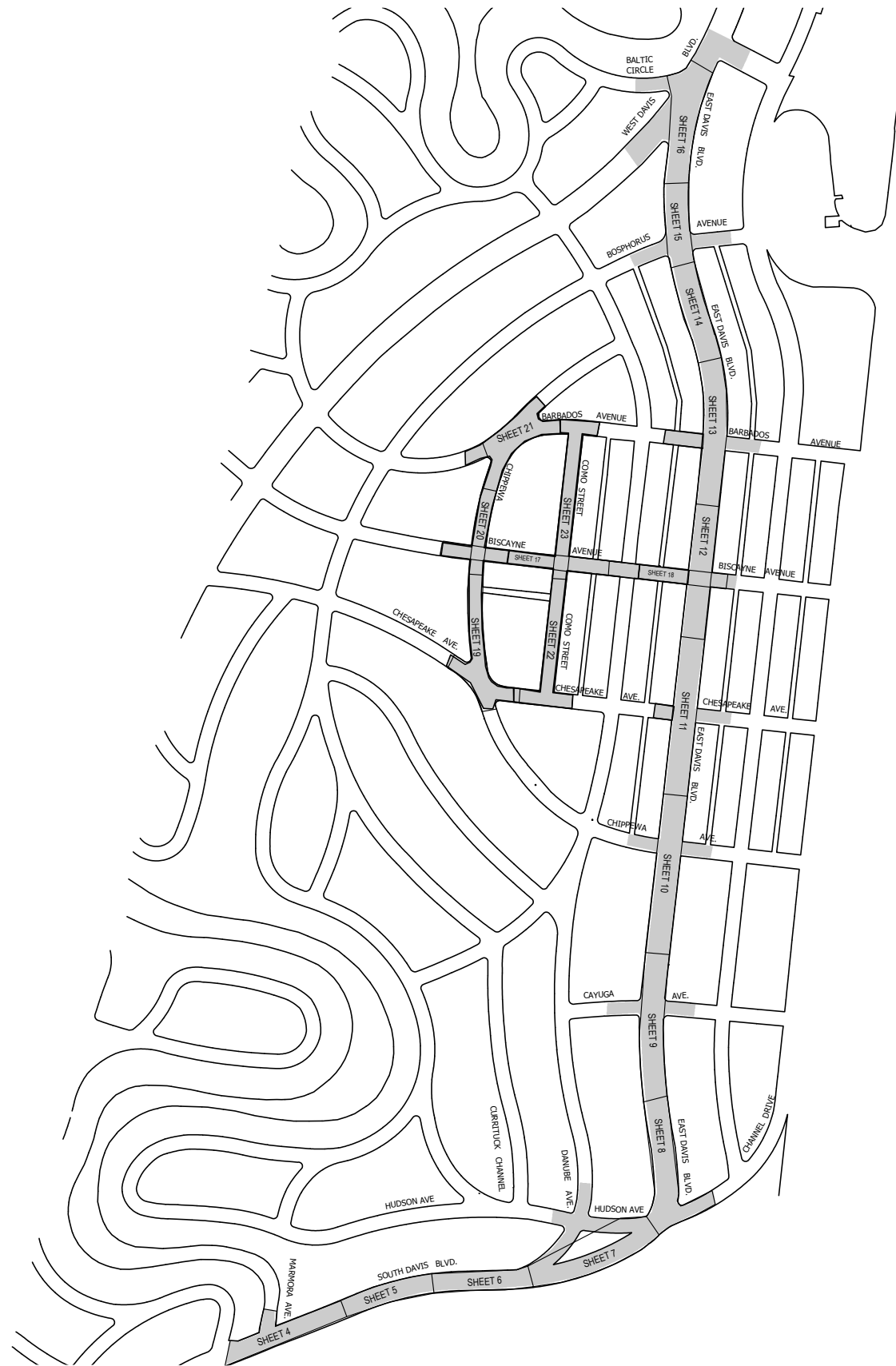
- ALL DIRECTIONAL DRILLING SHALL FOLLOW BEST PRACTICES AS OUTLINE IN THE 4TH EDITION OF NASTT'S HORIZONTAL DIRECTIONAL DRILLING (HDD) GOOD PRACTICES GUIDELINES.
- CONTRACT SHALL COORDINATE WITH LOCAL BUSINESSES TO MINIMIZE OR ELIMINATE CONFLICTS OR DISRUPTIONS, WHICH MAY UNCLUDE BUT IS NOT LIMITED TO , WORKING DURIING NON-STANDARD HOURS OR EXPEDITING CONSTRUCTION/RESTORATION.

## LEGEND

EXISTING		PROPOSED
	ASPHALT PAVEMENT	
	CONCRETE PAVEMENT	
	PAVERS	
10		10
	BASE LINE (SURVEY LINE)	
	CENTER LINE	
	R/W LINE	
	PROPERTY LINE	
	ADJACENT PROPERTY LINE	
	BENCHMARK & NUMBER	
	TEMPORARY BENCHMARK & NUMBER	
	EASEMENT LINE	
	GAS MAIN	
	STORM SEWER	
	SANITARY SEWER	
	SANITARY FORCE MAIN	
	ELECTRIC CABLE	
	TELEPHONE CABLE	
	TELEVISION CABLE	
	WATER MAIN	
	RECLAIMED WATER MAIN	
	FIRE HYDRANT ASSEMBLY (INCL. VALVE & TEE)	
	WATER VALVE	
	DETECTOR CHECK VALVE	
	DOUBLE DETECTOR CHECK VALVE - IN VAULT	
	DOUBLE DETECTOR CHECK VALVE - ABOVE GROUND	
	VAULT	
	CASING PIPE (JACK & BORE)	
	WATER METER	
	RECLAIMED WATER METER	
	METER TO BE TRANSFERRED	
	BACK FLOW PREVENTER	
	WET TAP	
	SLEEVE, BEND, TEE, CROSS, PLUG, REDUCER, BLOW-OFF	
	SAMPLE TAP LOCATION	
	CHLORINE INJECTION POINT	
	ELECTRIC MANHOLE OR PULL BOX, POLE	
	TELEPHONE MANHOLE OR UTILITY BOX, POLE	
	MANHOLE - SANITARY, STORM	
	VALVE	
	SANITARY LATERAL WITH DEPTH AT R/W LINE	
	STORM GRATE, CURB INLET	
	STORM PIPE CULVERT WITH HEADWALL, MITERED END SECTION	
	GUY POLE, GUY POLE AND WIRE	
	COMBINATION POLE, LIGHT POLE	
	MAILBOX	
	SIGN	
	PINE, TREE, PALM, OAK	
	ROOT PRUNE	
	SHRUB, HEDGE	
	WOODS/HEAVY BRUSH	
	SPOT ELEVATIONS	

K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\018\WTR-18-0001.dwg Jul 31, 2019 - 9:26am

RORY A. JONES, P.E. CITY OF TAMPA WATER DEPT. 306 E. JACKSON ST., 5E TAMPA, FLA. 33602 P.E. #79453	REV NO.	DATE	DESCRIPTION	BY	DESIGNED	NPP	DAVIS ISLAND WATER MAIN REPLACEMENT CIP  GEN NOTES-LEGEND-KEY FIELD		100% PLANS		
	.	.	.	.	DRAWN	JDM			WORK ORDER NO.	WTR-18-0001	
	.	.	.	.	CHECKED	RAJ			RECORD DRAWING NO.		
	.	.	.	.	DATE	03/05/2019			ATLAS PAGE	J-12	SHEET



SEC.25-T29S-R18E  
 0 25' 50'  
 SCALE - HORIZONTAL

0 2.5' 5'  
 SCALE - HORIZONTAL

K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001.dwg Jul 19, 2019 - 7:16am

RORY A. JONES, P.E.  
 CITY OF TAMPA WATER DEPT.  
 306 E. JACKSON ST., 5E  
 TAMPA, FLA. 33602  
 P.E. #79453

REV NO.	DATE	DESCRIPTION	BY
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

DESIGNED NPP  
 DRAWN JDM  
 CHECKED RAJ  
 DATE 03/05/2019

DAVIS ISLAND WATER MAIN  
 REPLACEMENT CIP

KEY SHEET

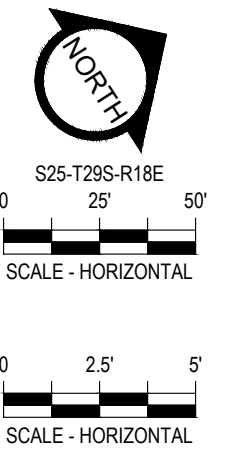
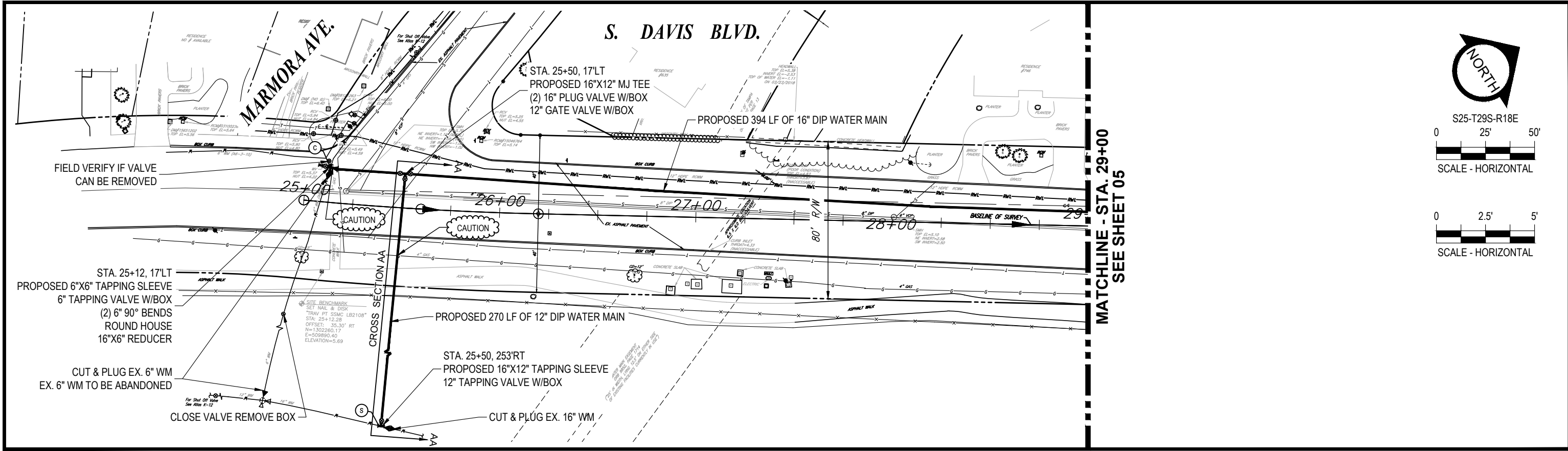


100% PLANS

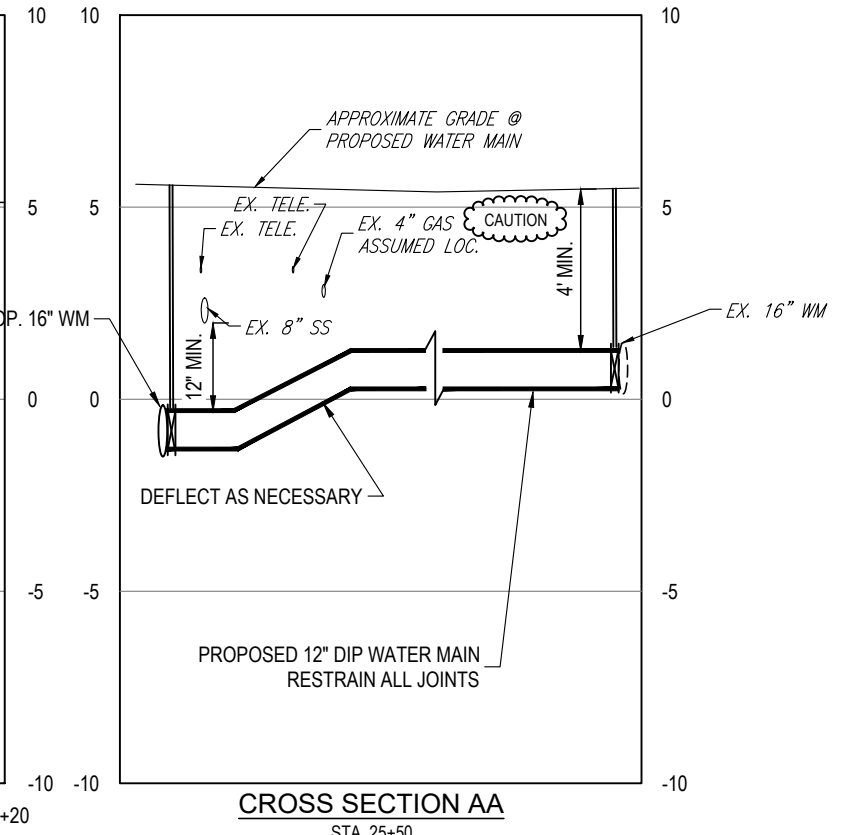
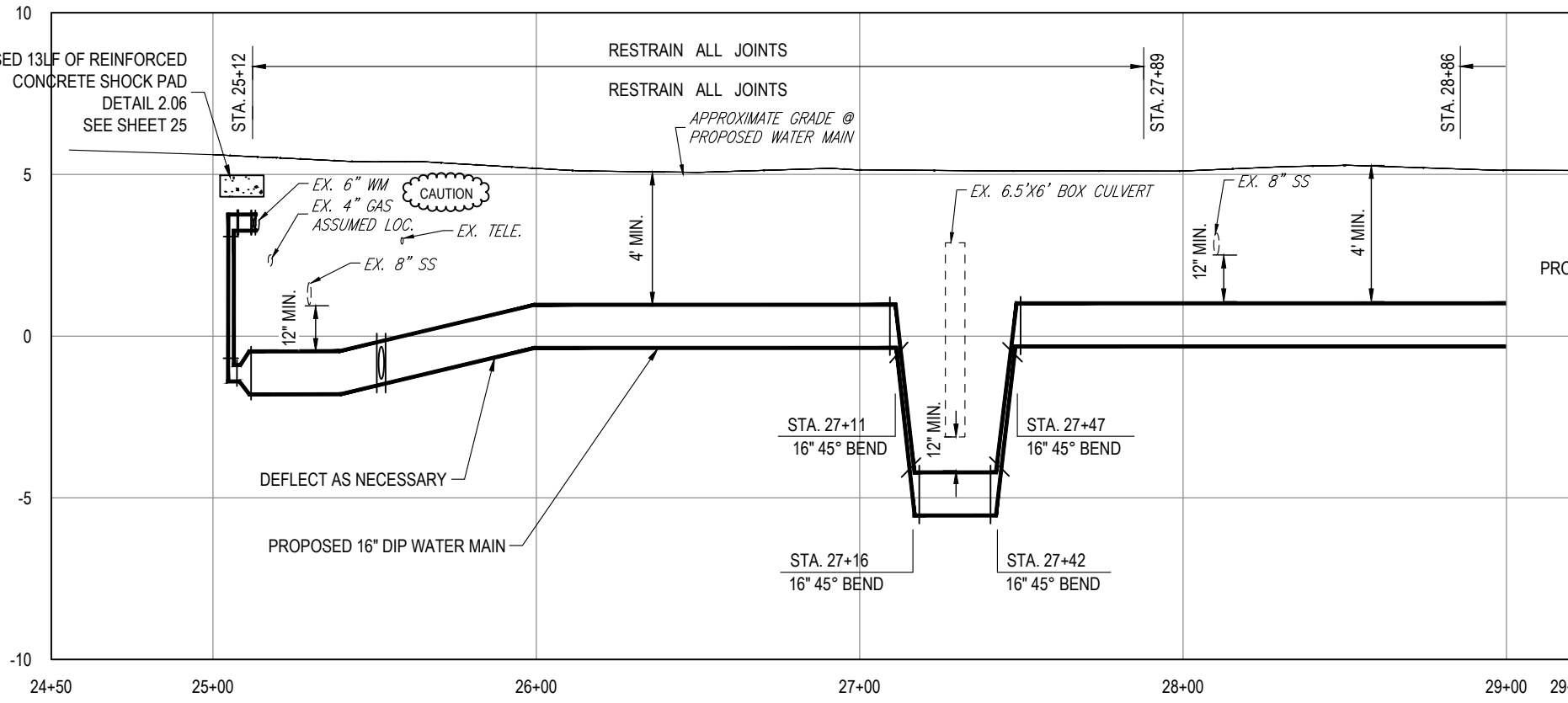
WORK ORDER NO. WTR-18-0001

RECORD DRAWING NO.

ATLAS PAGE J-12 SHEET 03 OF 31



MATCHLINE - STA. 29+00  
SEE SHEET 05



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001.dwg Jul 19, 2019 - 7:17am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

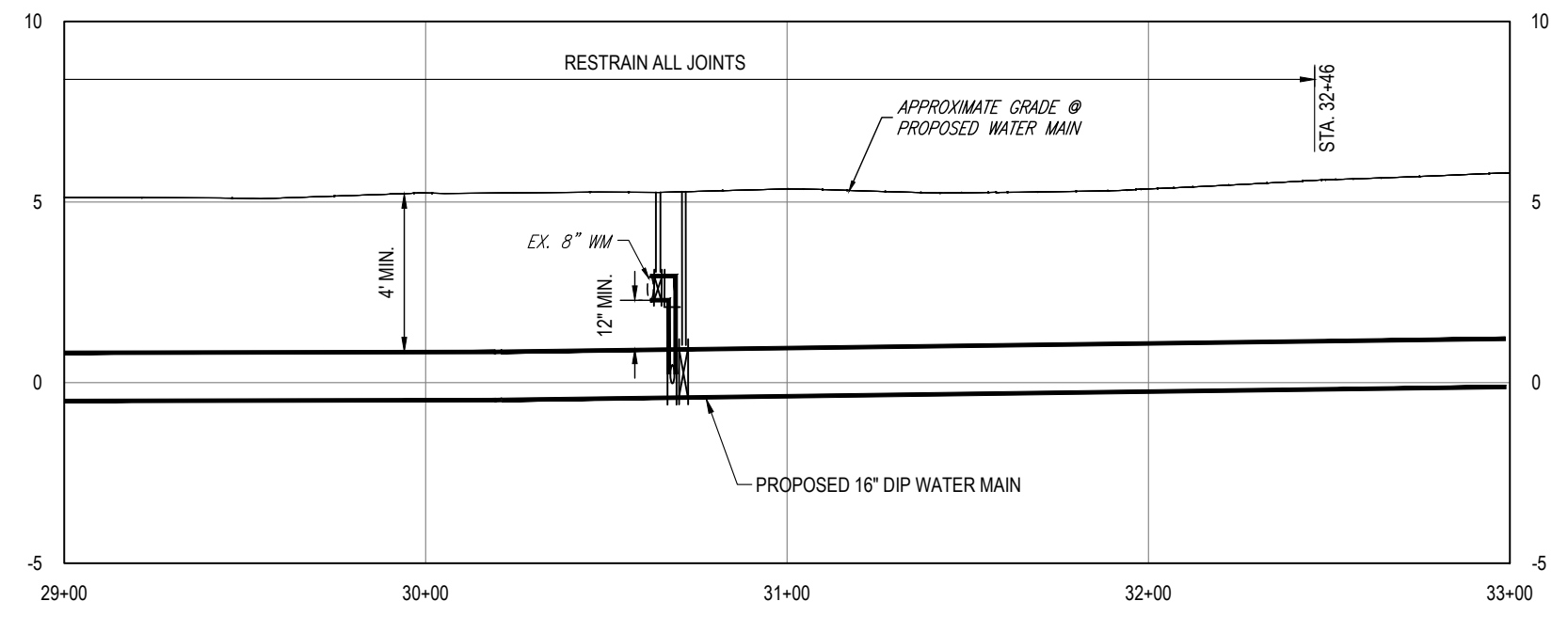
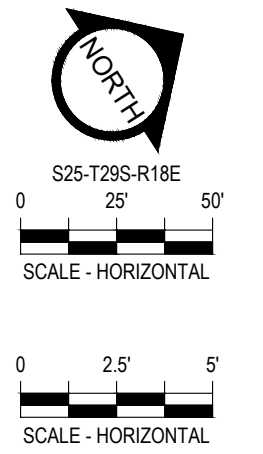
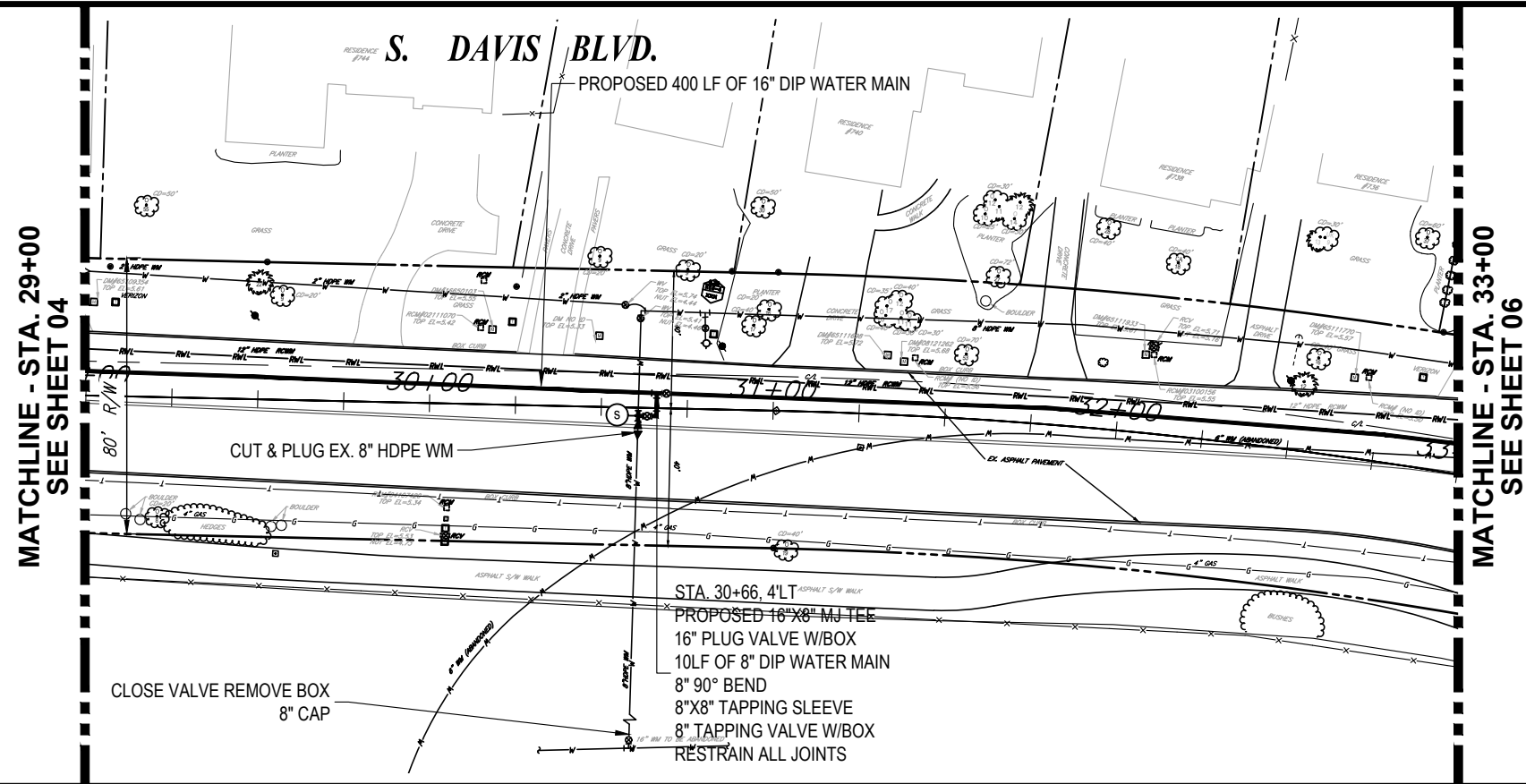
REV. NO.	DATE	DESCRIPTION	BY	DESIGNED	NPP
.	.	.	.	DRAWN	JDM
.	.	.	.	CHECKED	RAJ
.	.	.	.	DATE	03/05/2019

**DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP**

**PLAN & PROFILE**



<b>100% PLANS</b>	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE	J-12
SHEET	04 OF 31



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001.dwg Jul 19, 2019 - 7:17am

RORY A. JONES, P.E.  
 CITY OF TAMPA WATER DEPT.  
 306 E. JACKSON ST., 5E  
 TAMPA, FLA. 33602  
 P.E. #79453

REV NO.	DATE	DESCRIPTION	BY

DESIGNED	NPP
DRAWN	JDM
CHECKED	RAJ
DATE	03/05/2019

**DAVIS ISLAND WATER MAIN  
 REPLACEMENT CIP**

**PLAN & PROFILE**



<b>100% PLANS</b>	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE	J-12
SHEET	05 OF 31

**S. DAVIS BLVD.**

MATCHLINE - STA. 33+00  
SEE SHEET 05

MATCHLINE - STA. 39+00  
SEE SHEET 07

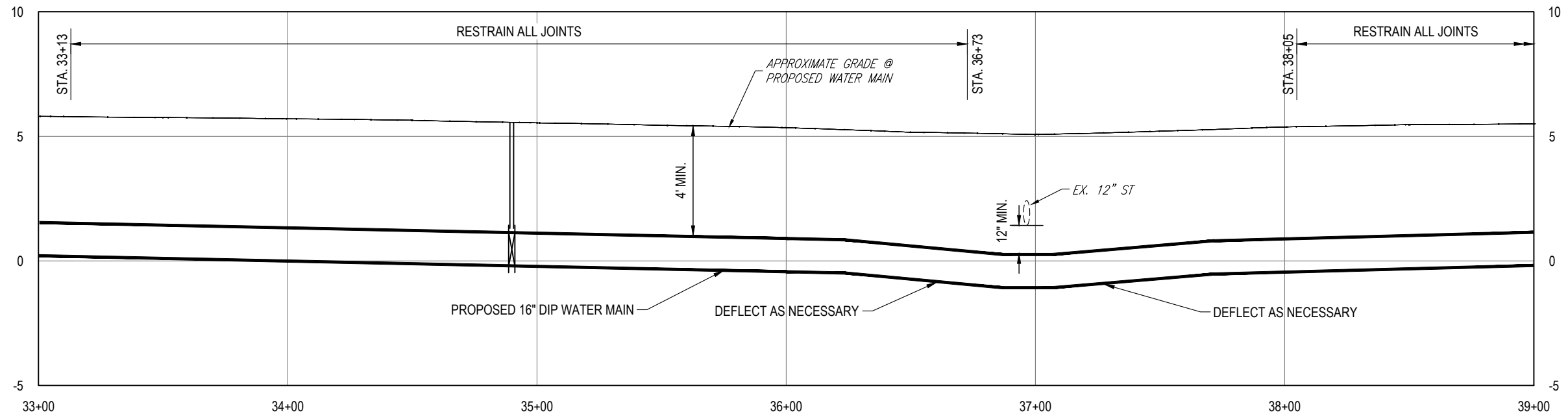


S25-T29S-R18E  
0 25' 50'  
SCALE - HORIZONTAL

0 2.5' 5'  
SCALE - HORIZONTAL



STA. 34+90, 12'LT  
PROPOSED 16" PLUG VALVE W/BOX



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001.dwg Jul 19, 2019 - 7:17am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV NO.	DATE	DESCRIPTION	BY
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

DESIGNED NPP  
DRAWN JDM  
CHECKED RAJ  
DATE 03/05/2019

DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP

PLAN & PROFILE

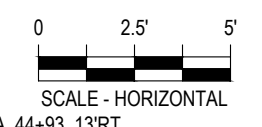
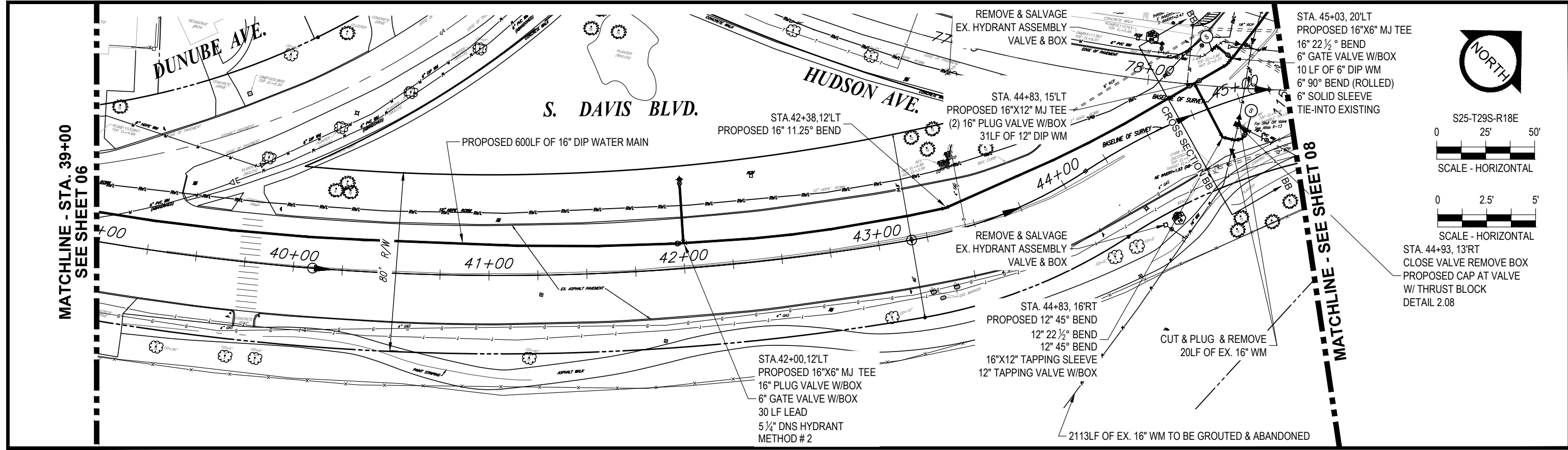


100% PLANS

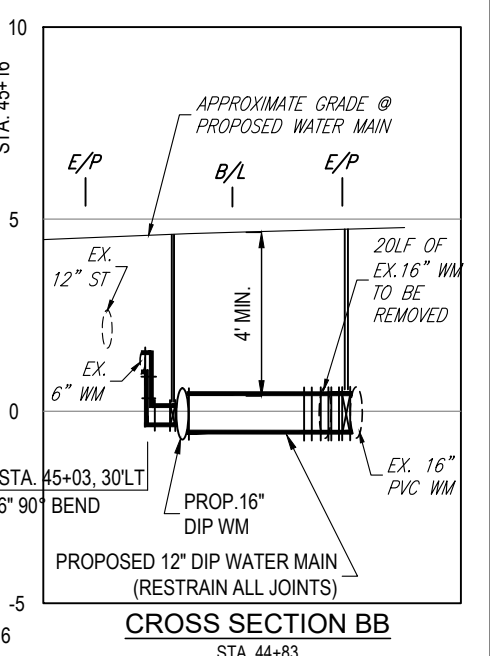
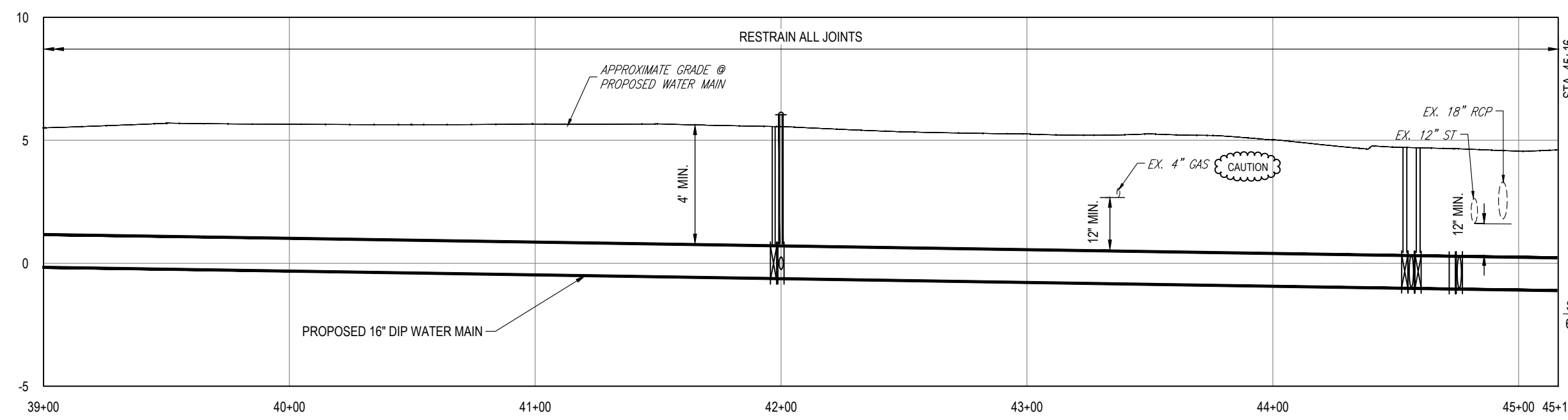
WORK ORDER NO. WTR-18-0001

RECORD DRAWING NO.

ATLAS PAGE J-12 SHEET 06 OF 31

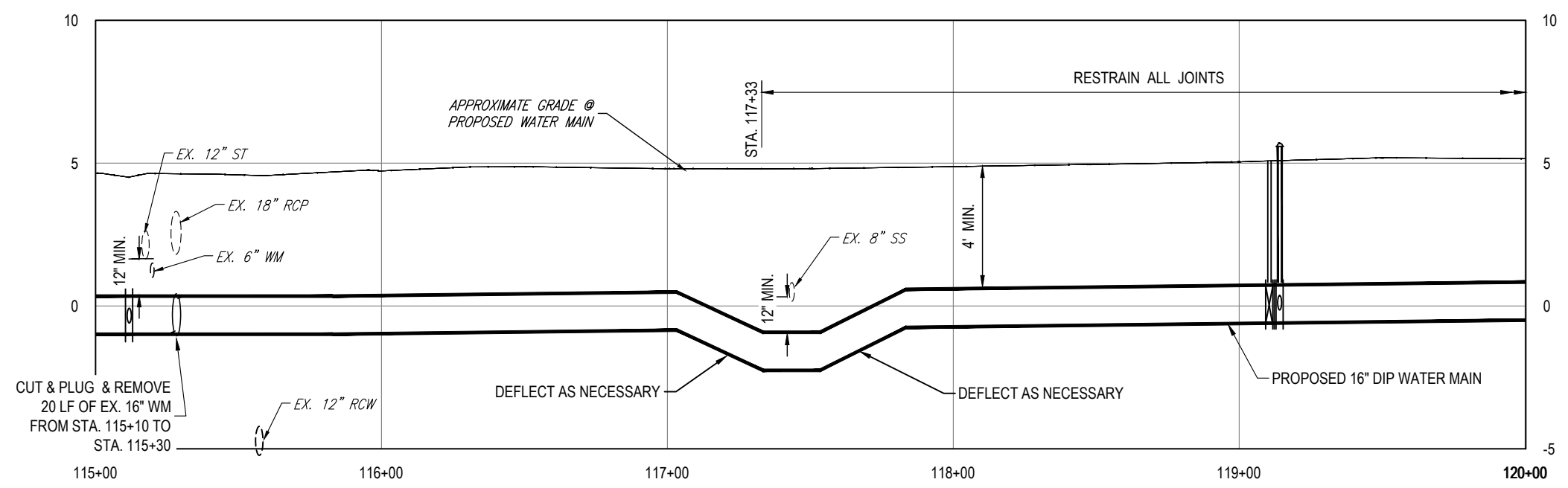
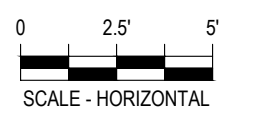
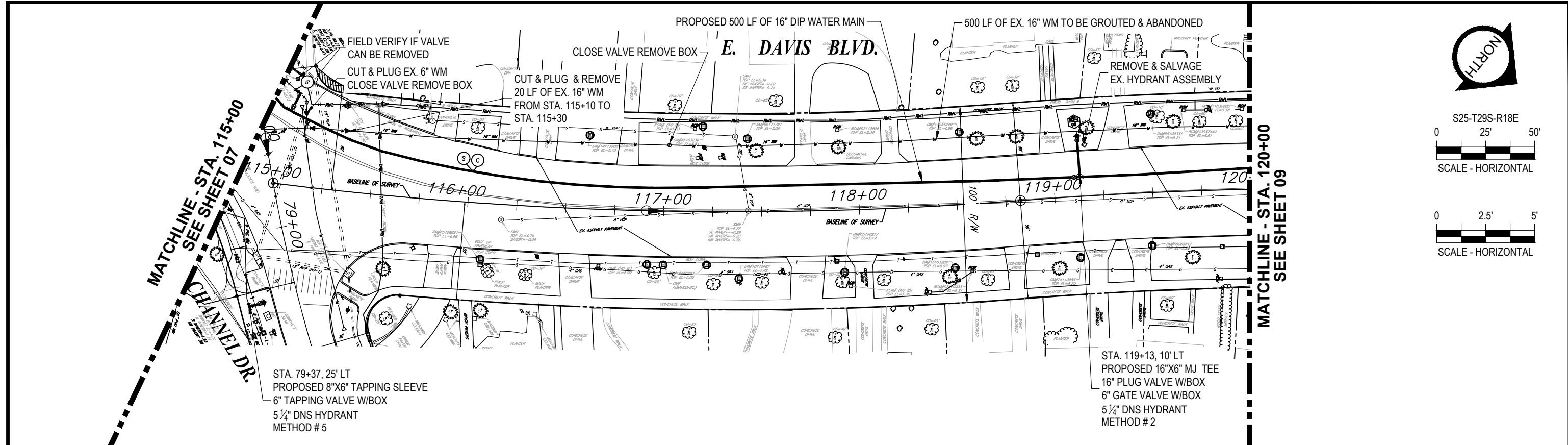


STA. 44+93, 13'RT  
CLOSE VALVE REMOVE BOX  
PROPOSED CAP AT VALVE  
W/ THRUST BLOCK  
DETAIL 2.08



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001.dwg Jul 19, 2019 - 7:17am

RORY A. JONES, P.E. CITY OF TAMPA WATER DEPT. 306 E. JACKSON ST., 5E TAMPA, FLA. 33602 P.E. #79453	REV NO.	DATE	DESCRIPTION	BY	DESIGNED	NPP	<b>DAVIS ISLAND WATER MAIN REPLACEMENT CIP</b>  <b>PLAN &amp; PROFILE</b>		100% PLANS			
	.	.	.	.	DRAWN	JDM			WORK ORDER NO.	WTR-18-0001		
	.	.	.	.	CHECKED	RAJ			RECORD DRAWING NO.			
	.	.	.	.	DATE	03/05/2019			ATLAS PAGE	J-12	SHEET	07 OF 31
	.	.	.	.								



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001.dwg Jul 19, 2019 - 7:18am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV. NO.	DATE	DESCRIPTION	BY

DESIGNED NPP  
DRAWN JDM  
CHECKED RAJ  
DATE 03/05/2019

DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP

PLAN & PROFILE



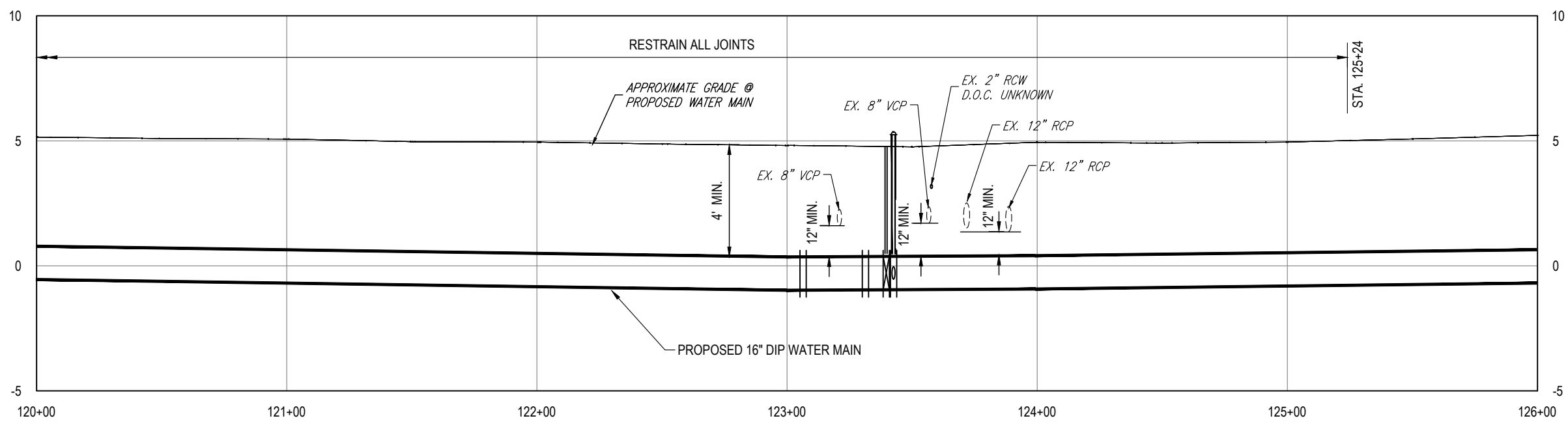
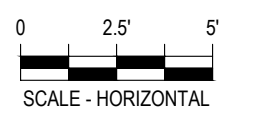
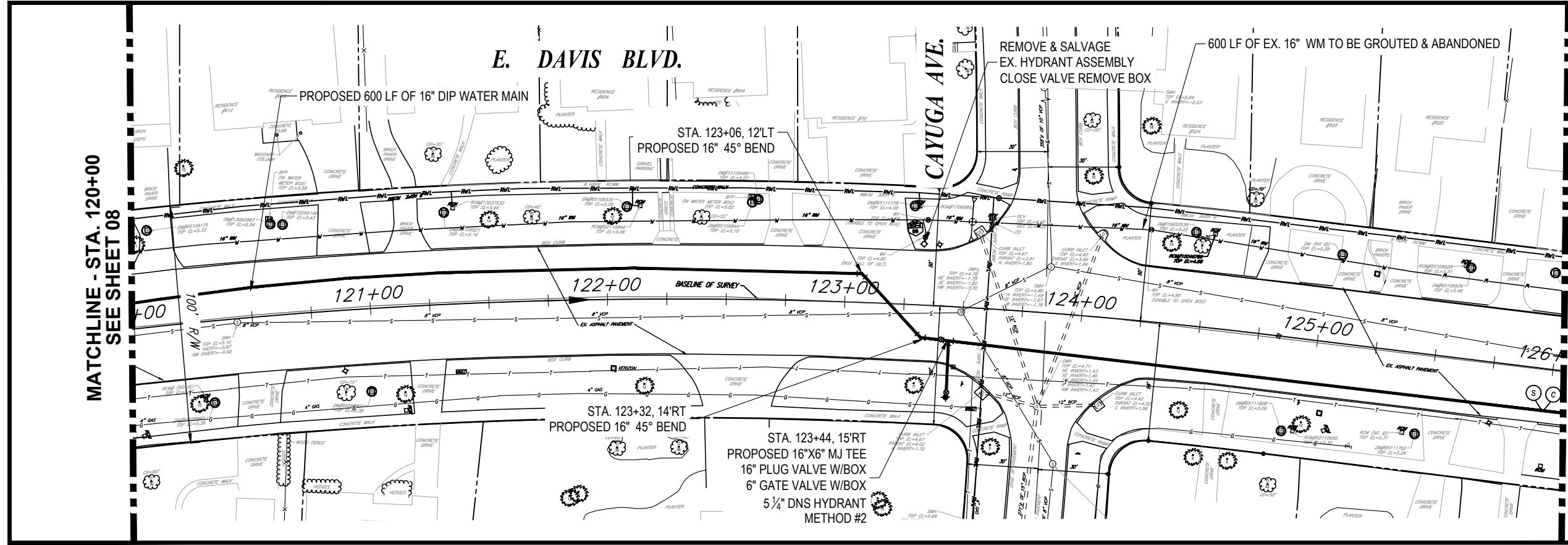
100% PLANS

WORK ORDER NO. WTR-18-0001

RECORD DRAWING NO.

ATLAS PAGE J-12 SHEET 08 OF 31





K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001.dwg Jul 19, 2019 - 7:18am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV NO.	DATE	DESCRIPTION	BY

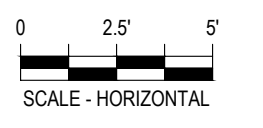
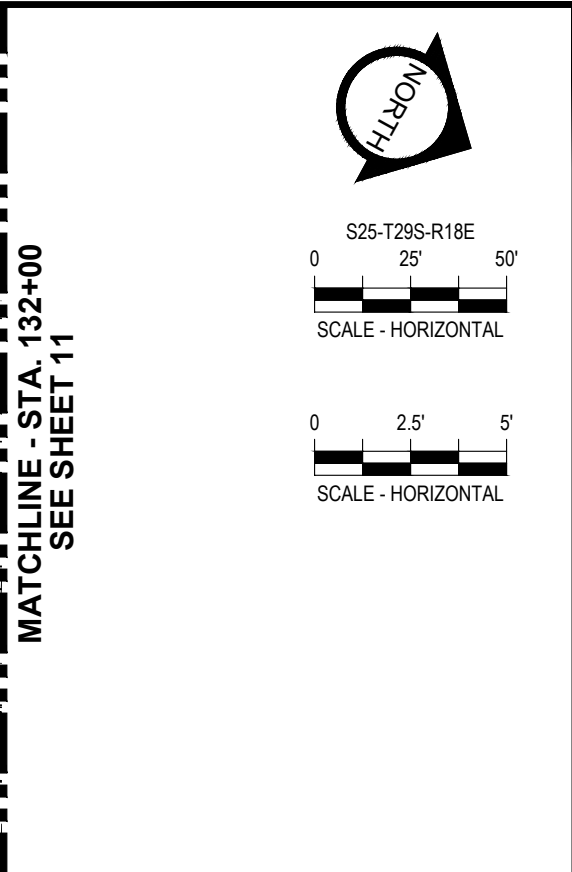
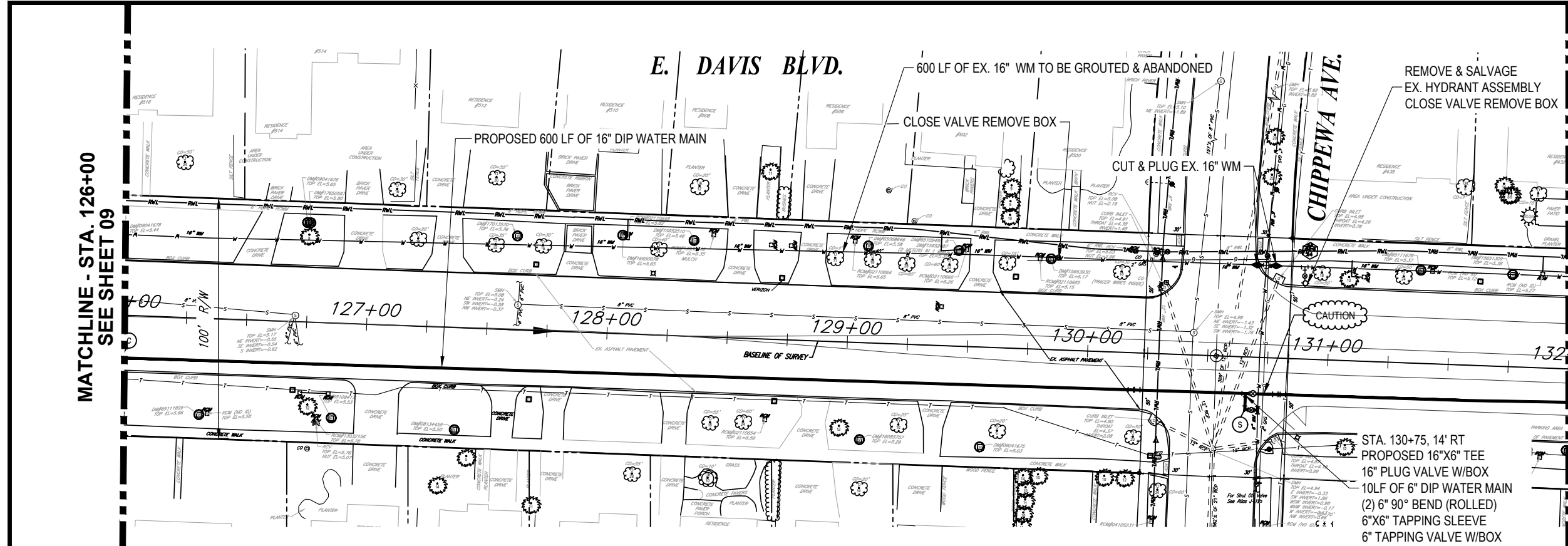
DESIGNED NPP  
DRAWN JDM  
CHECKED RAJ  
DATE 03/05/2019

DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP

PLAN & PROFILE



100% PLANS	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE	J-12
SHEET	09 OF 31



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001.dwg Jul 19, 2019 - 7:18am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV NO.	DATE	DESCRIPTION	BY

DESIGNED	NPP
DRAWN	JDM
CHECKED	RAJ
DATE	03/05/2019

DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP

PLAN & PROFILE



100% PLANS

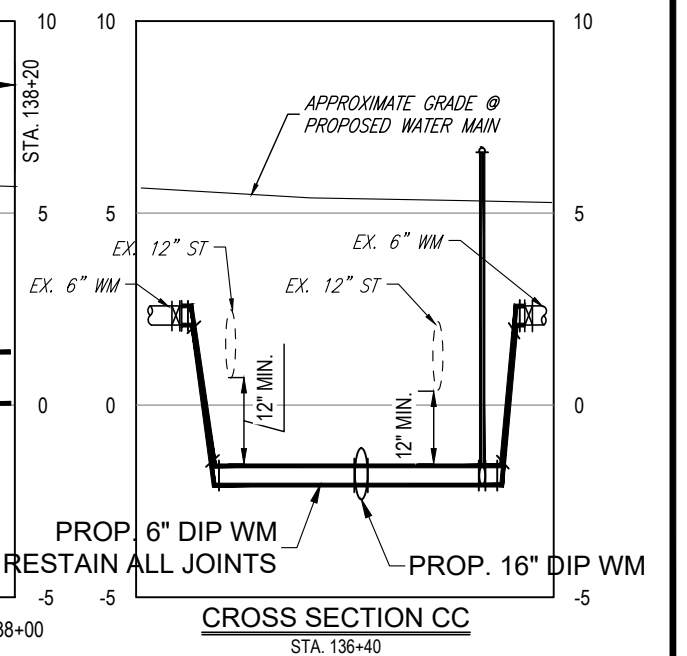
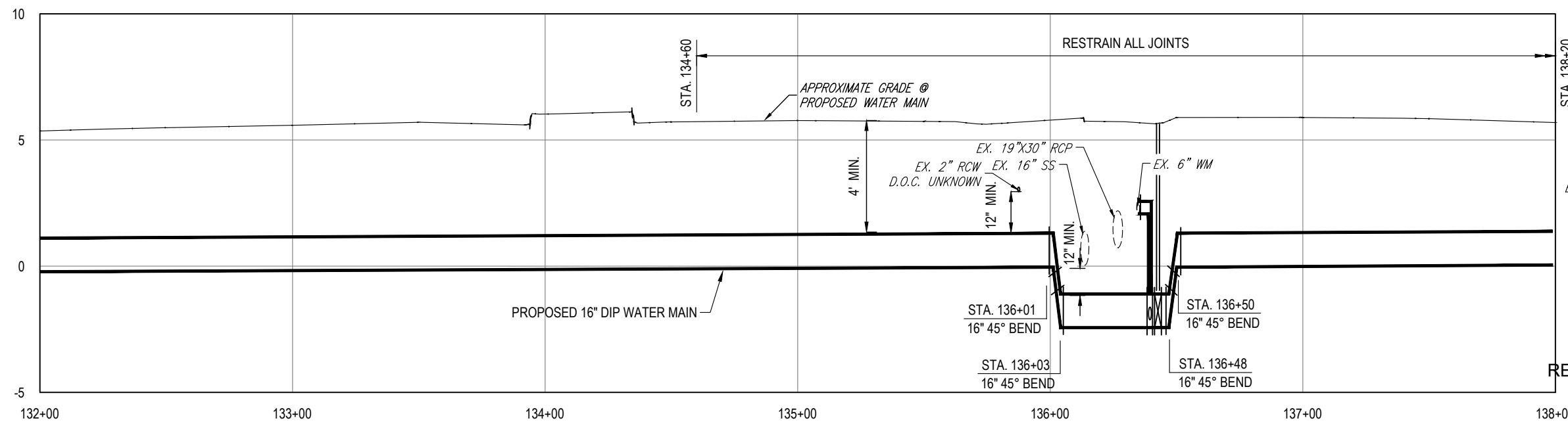
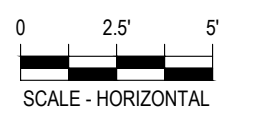
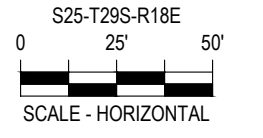
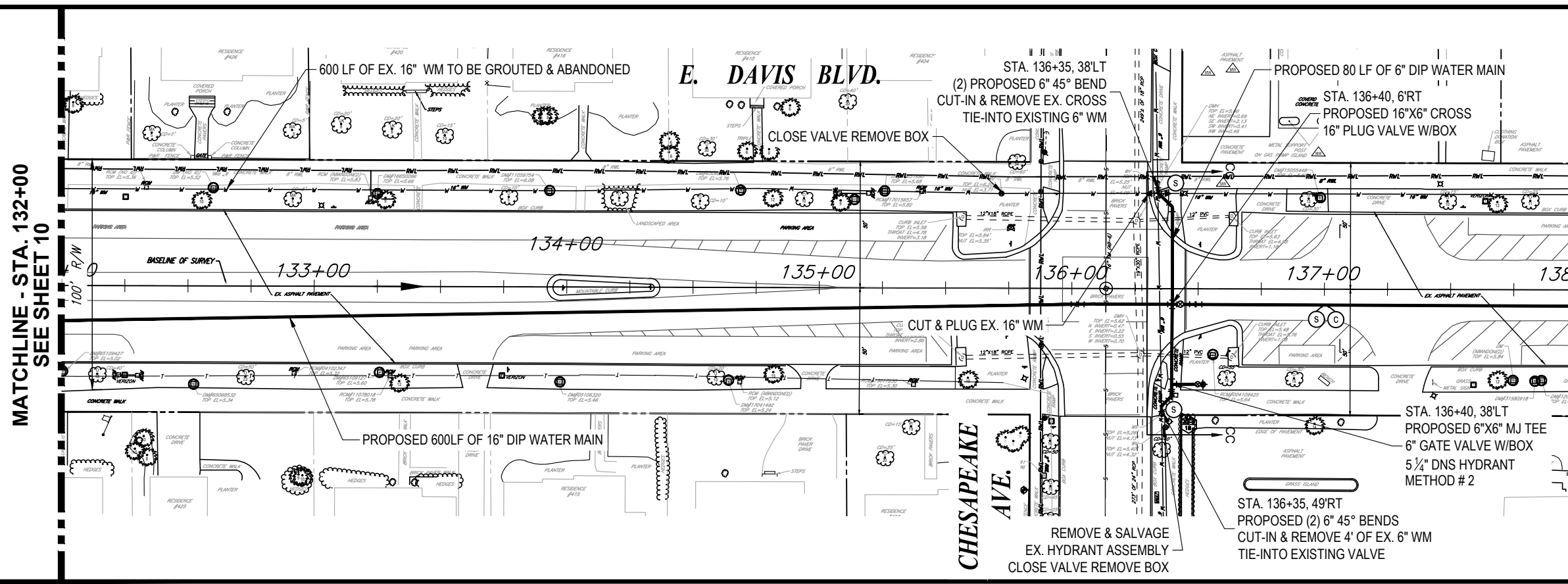
WORK ORDER NO. WTR-18-0001

RECORD DRAWING NO.

ATLAS PAGE J-12 SHEET 10 OF 31

MATCHLINE - STA. 132+00  
SEE SHEET 10

MATCHLINE - STA. 138+00  
SEE SHEET 12



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001.dwg Jul 19, 2019 - 7:18am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV. NO.	DATE	DESCRIPTION	BY

DESIGNED NPP  
DRAWN JDM  
CHECKED RAJ  
DATE 03/05/2019

DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP

PLAN & PROFILE

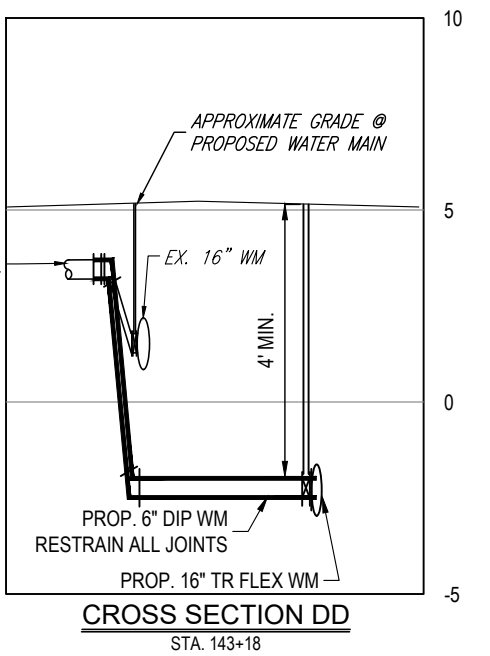
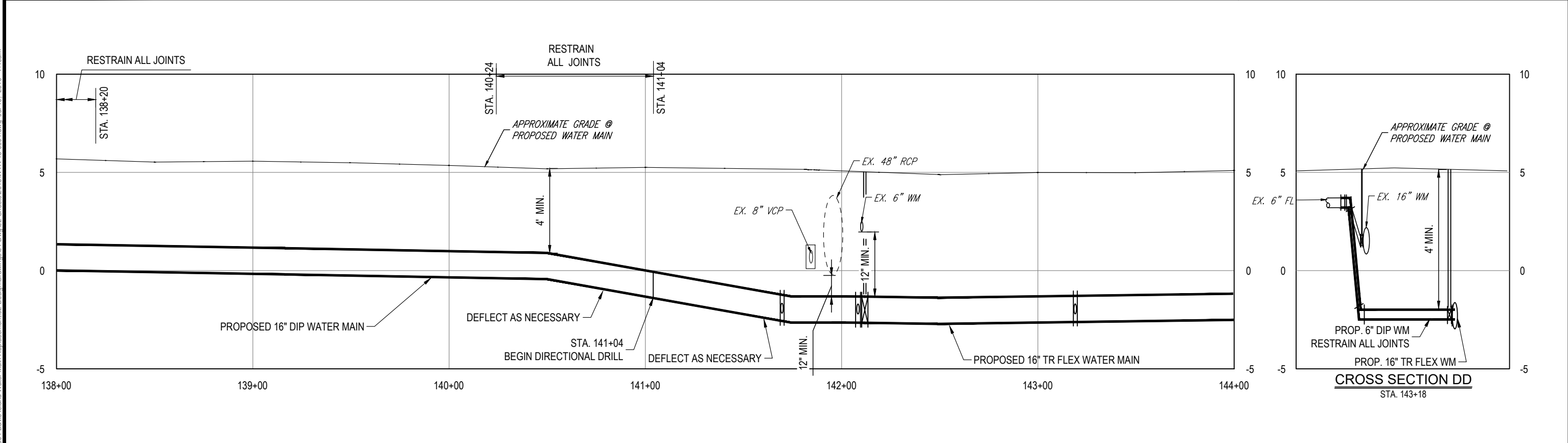
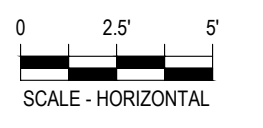
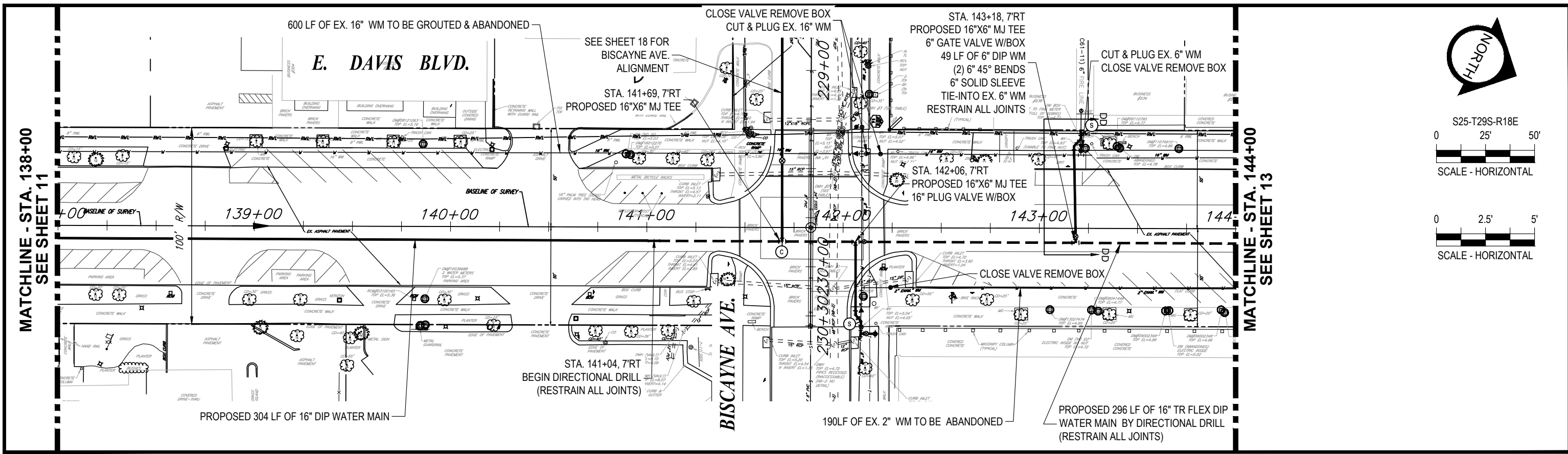


100% PLANS

WORK ORDER NO. WTR-18-0001

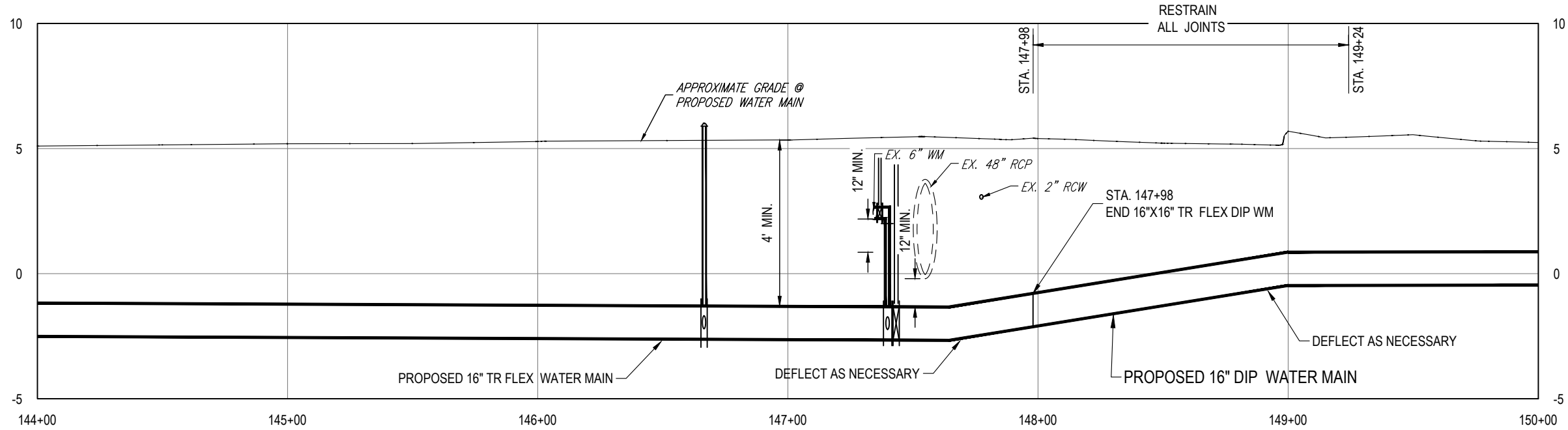
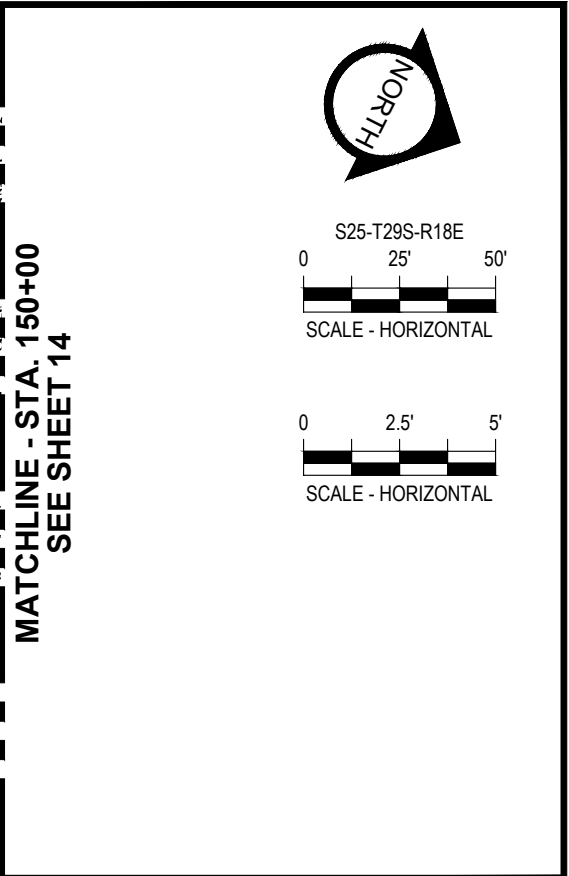
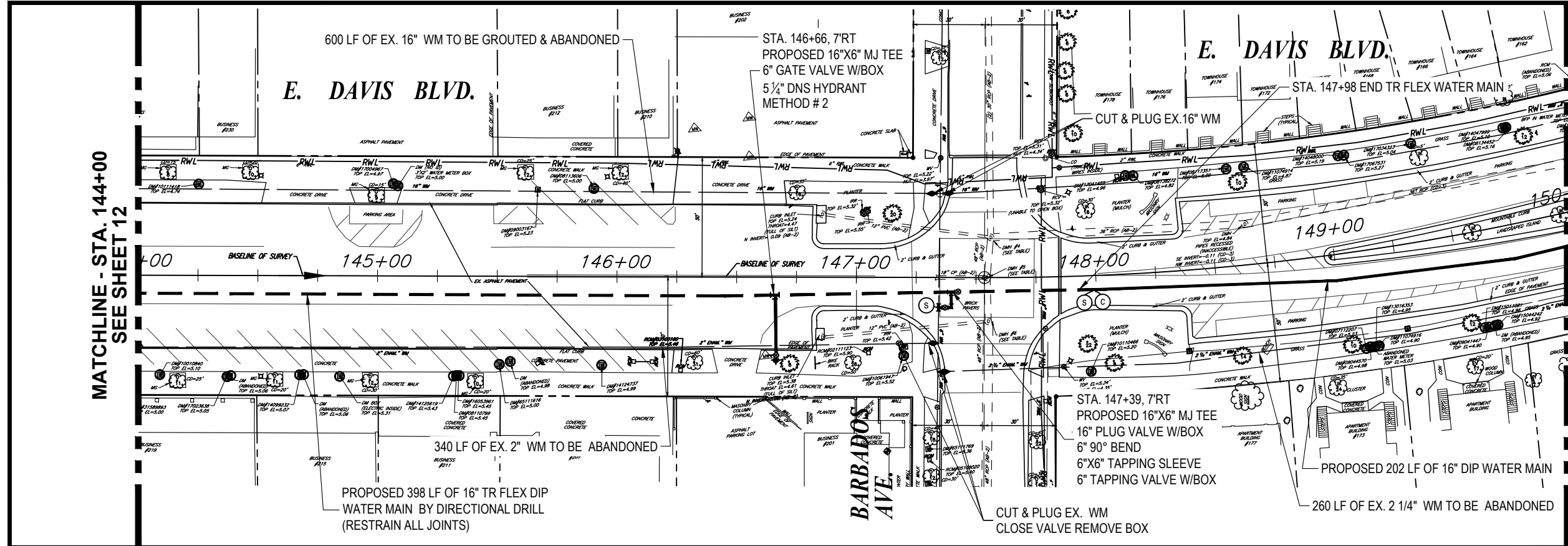
RECORD DRAWING NO.

ATLAS PAGE J-12 SHEET 11 OF 31



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001.dwg Jul 19, 2019 - 7:19am

RORY A. JONES, P.E. CITY OF TAMPA WATER DEPT. 306 E. JACKSON ST., 5E TAMPA, FLA. 33602 P.E. #79453	REV NO.	DATE	DESCRIPTION	BY	DESIGNED	NPP	<b>DAVIS ISLAND WATER MAIN REPLACEMENT CIP</b>  <b>PLAN &amp; PROFILE</b>		100% PLANS			
	.	.	.	.	DRAWN	JDM			WORK ORDER NO.	WTR-18-0001		
	.	.	.	.	CHECKED	RAJ			RECORD DRAWING NO.			
	.	.	.	.	DATE	03/05/2019			ATLAS PAGE	J-12	SHEET	12 OF 31
	.	.	.	.								



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001-2.dwg, Jul 19, 2019 - 7:19am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

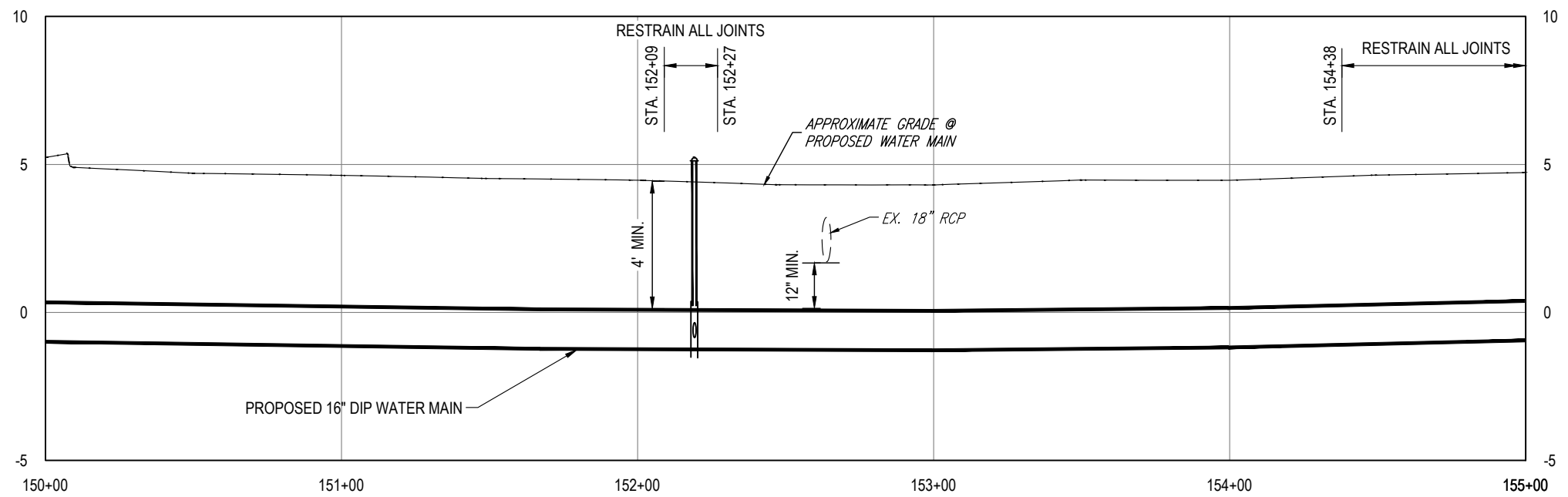
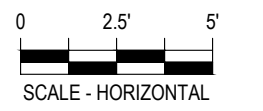
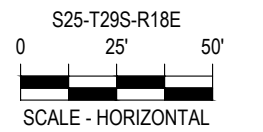
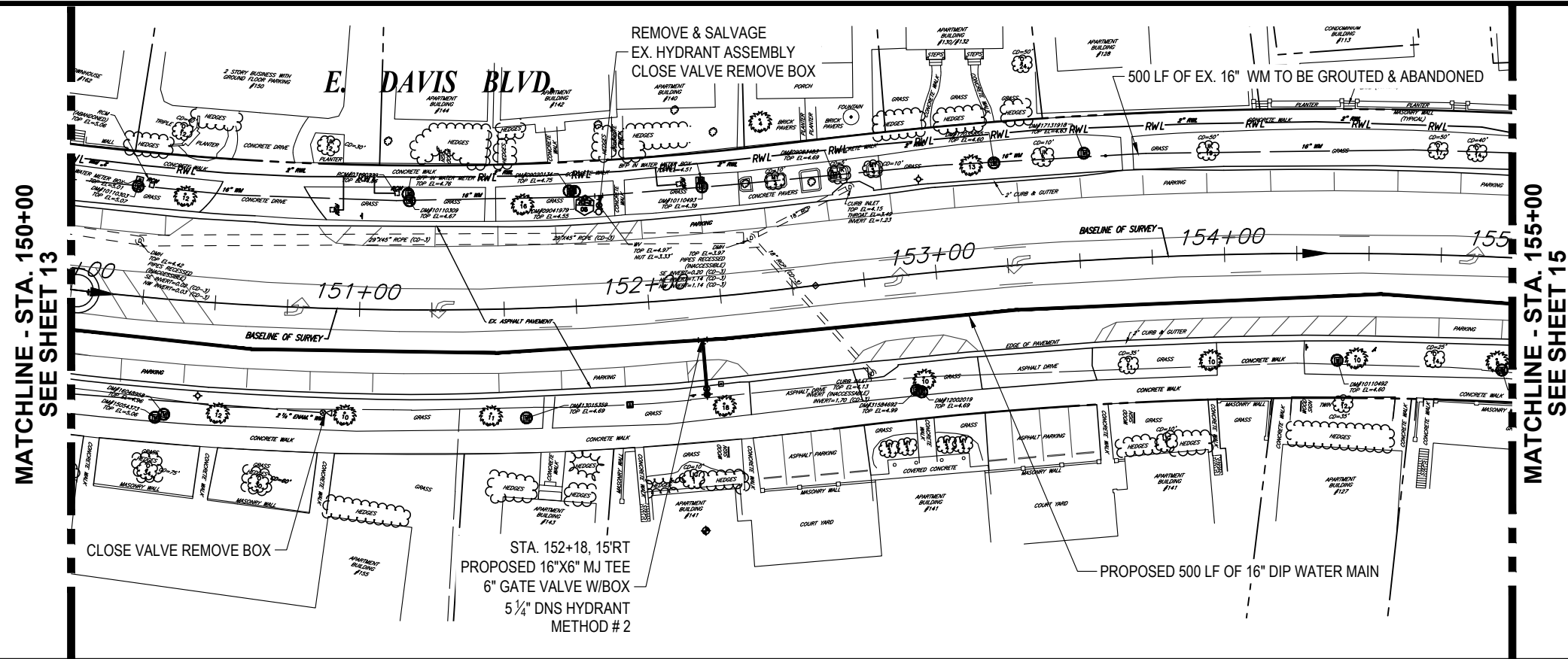
REV. NO.	DATE	DESCRIPTION	BY

DESIGNED NPP  
DRAWN JDM  
CHECKED RAJ  
DATE 03/05/2019

DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP  
  
PLAN & PROFILE



100% PLANS	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE J-12	SHEET 13 OF 31



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001-2.dwg Jul 19, 2019 - 7:20am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

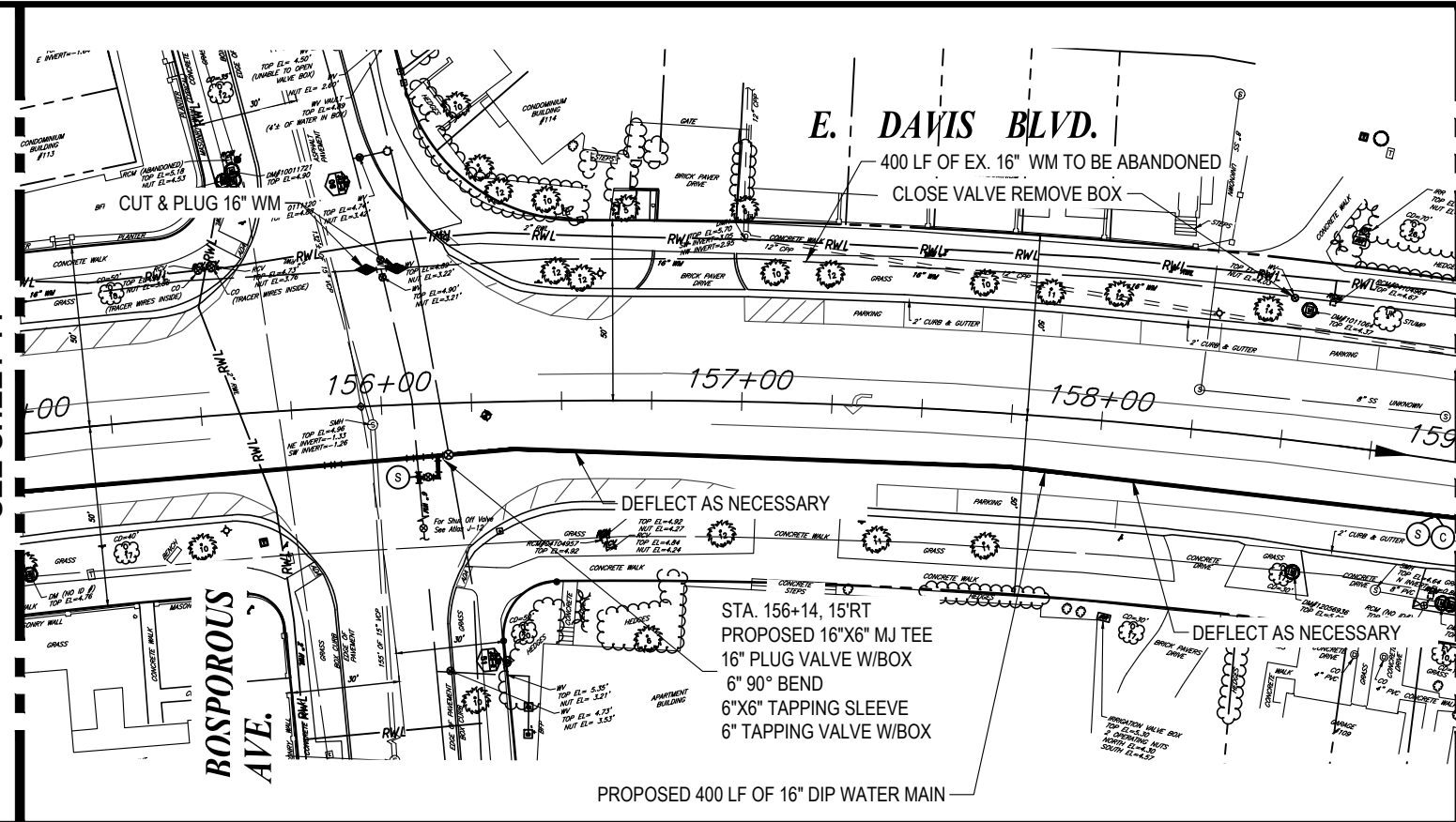
REV. NO.	DATE	DESCRIPTION	BY

DESIGNED NPP  
DRAWN JDM  
CHECKED RAJ  
DATE 03/05/2019

DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP  
  
PLAN & PROFILE

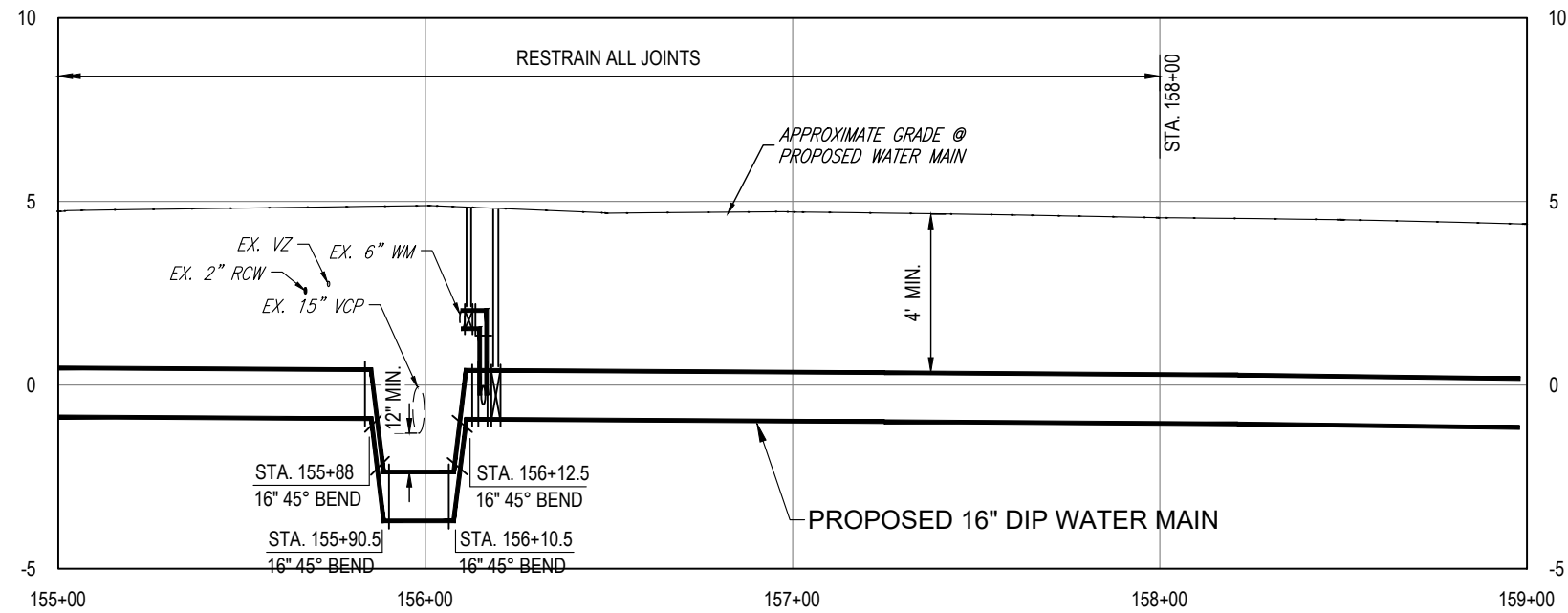
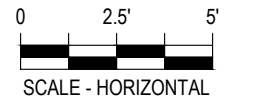


100% PLANS	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE	J-12
SHEET	14 OF 31



MATCHLINE - STA. 155+00  
SEE SHEET 14

MATCHLINE - STA. 159+00  
SEE SHEET 16



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001-2.dwg Jul 19, 2019 - 7:20am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV NO.	DATE	DESCRIPTION	BY

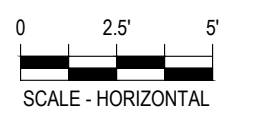
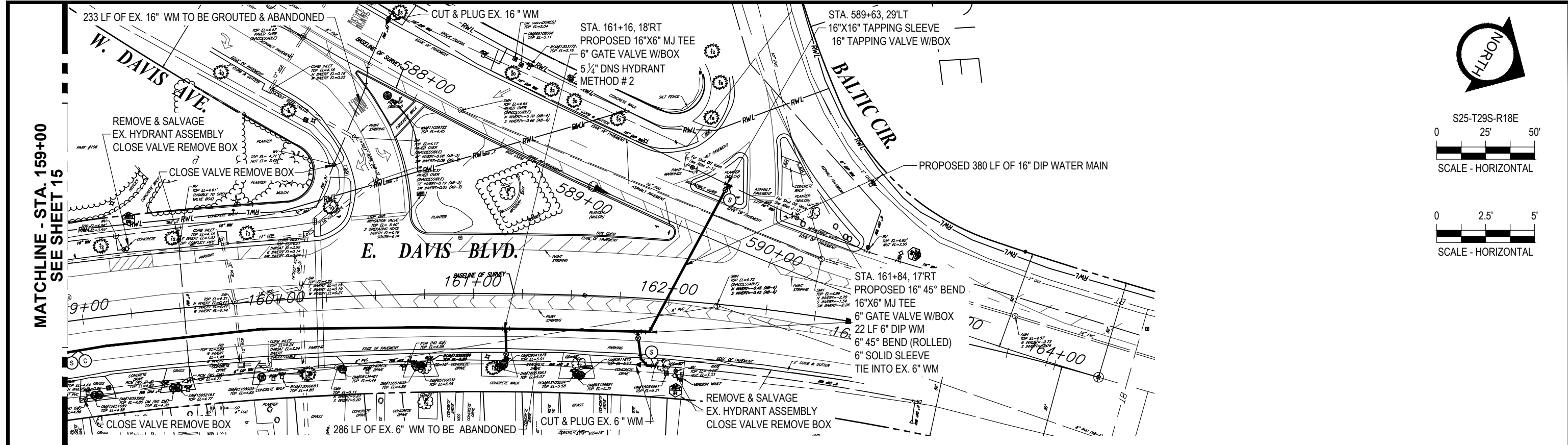
DESIGNED	NPP
DRAWN	JDM
CHECKED	RAJ
DATE	03/05/2019

DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP

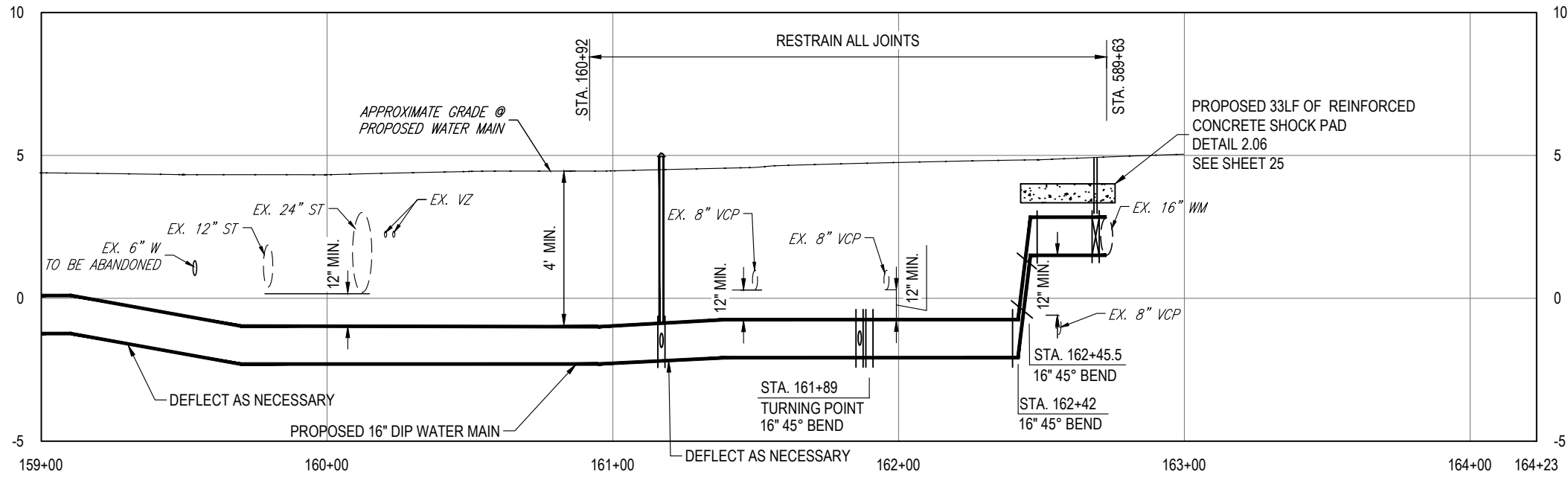
PLAN & PROFILE



100% PLANS	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE	J-12
SHEET	15 OF 31



MATCHLINE - STA. 159+00  
SEE SHEET 15



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001-2.dwg, Jul 19, 2019 - 7:21am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV NO.	DATE	DESCRIPTION	BY

DESIGNED NPP  
DRAWN JDM  
CHECKED RAJ  
DATE 03/05/2019

DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP

PLAN & PROFILE



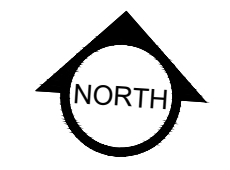
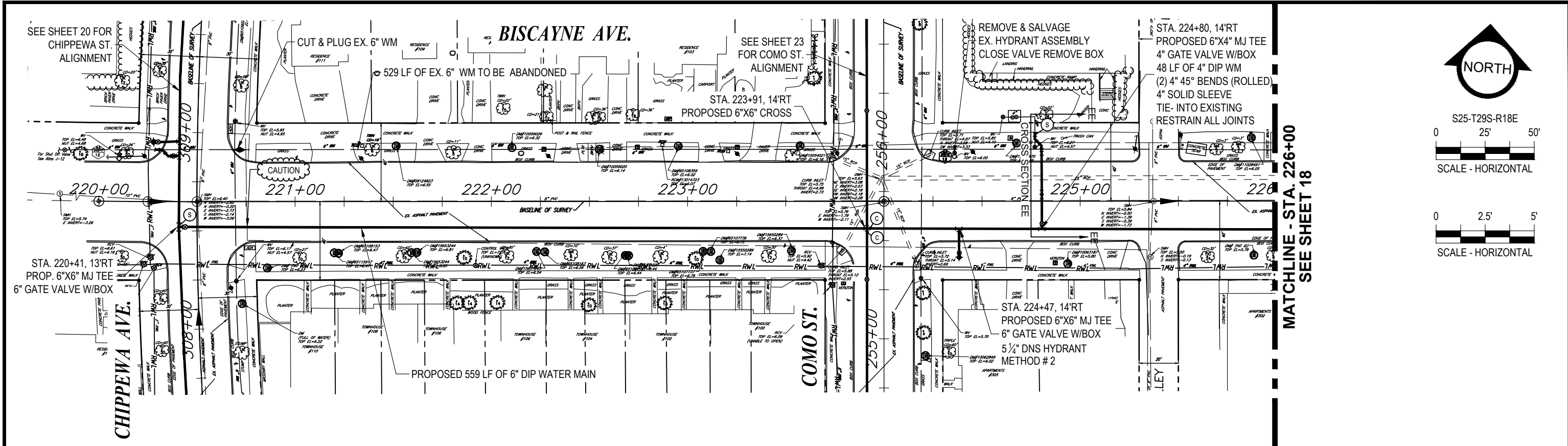
100% PLANS

WORK ORDER NO. WTR-18-0001

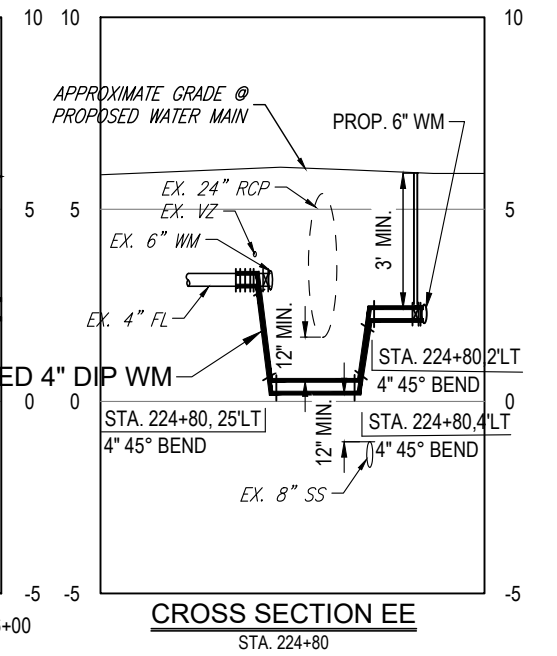
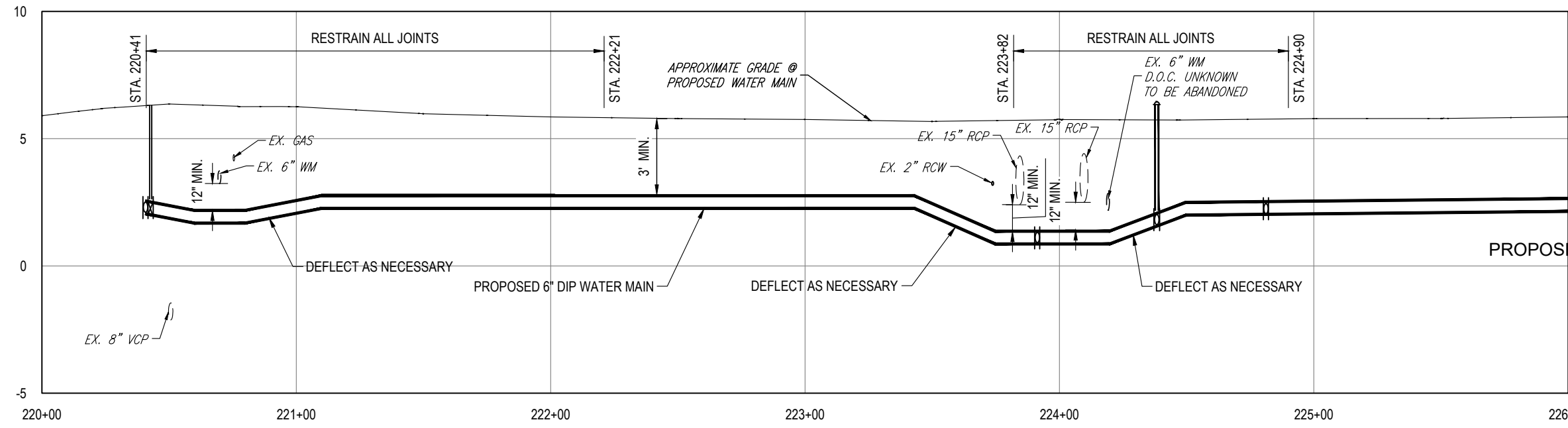
RECORD DRAWING NO.

ATLAS PAGE J-12 SHEET 16 OF 31





MATCHLINE - STA. 226+00  
SEE SHEET 18



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001-2.dwg, Jul 19, 2019 - 7:21 am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

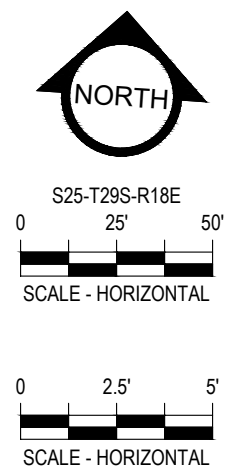
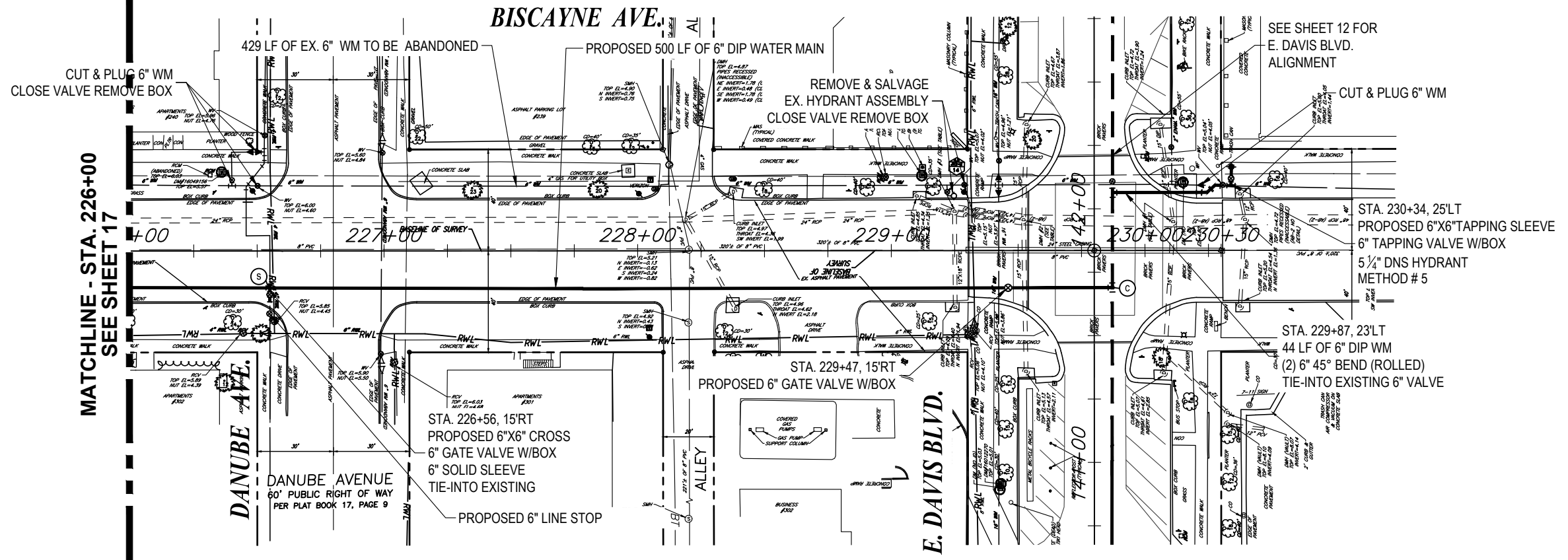
REV. NO.	DATE	DESCRIPTION	BY

DESIGNED NPP  
DRAWN JDM  
CHECKED RAJ  
DATE 03/05/2019

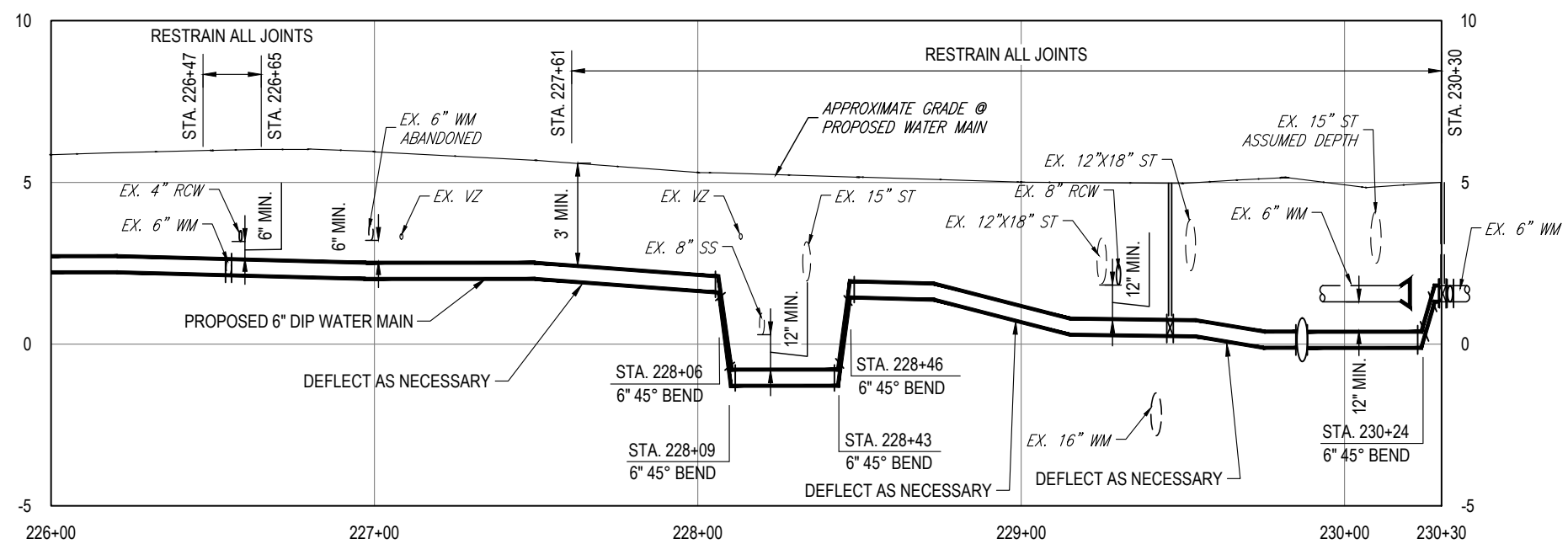
DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP  
  
PLAN & PROFILE



100% PLANS  
WORK ORDER NO. WTR-18-0001  
RECORD DRAWING NO.  
ATLAS PAGE J-12 SHEET 17 OF 31



MATCHLINE - STA. 226+00  
SEE SHEET 17



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\018\WTR-18-0001-2.dwg Jul 19, 2019 - 7:21 am

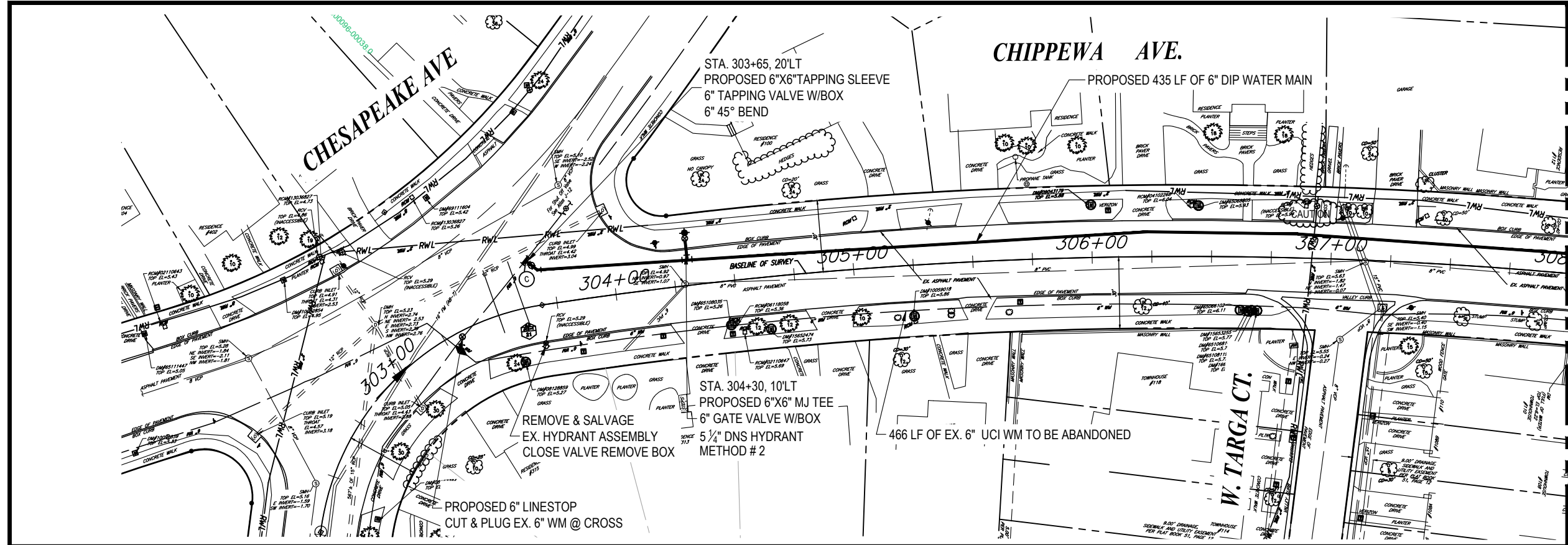
RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV NO.	DATE	DESCRIPTION	BY	DESIGNED	NPP
.	.	.	.	DRAWN	JDM
.	.	.	.	CHECKED	RAJ
.	.	.	.	DATE	03/05/2019

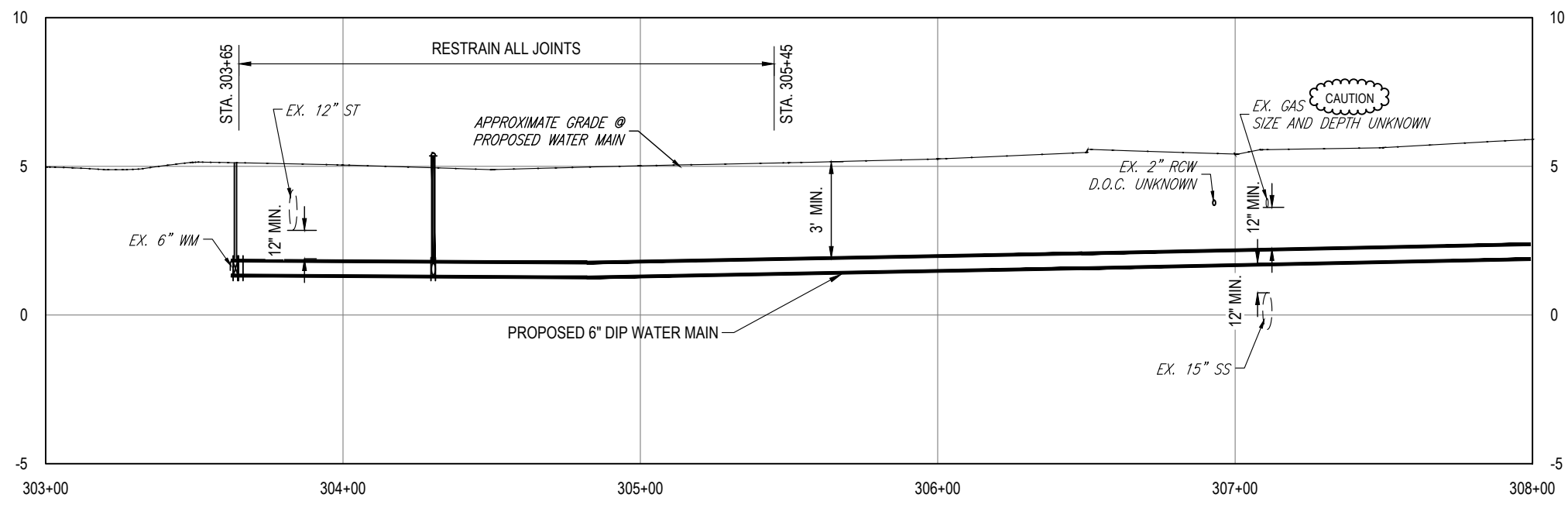
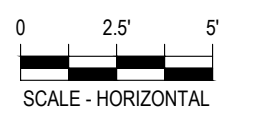
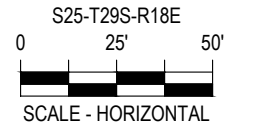
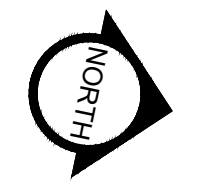
DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP  
  
PLAN & PROFILE



100% PLANS	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE	J-12
SHEET	18 OF 31



MATCHLINE - STA. 308+00  
SEE SHEET 20



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001-2.dwg Jul 19, 2019 - 7:22am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV NO.	DATE	DESCRIPTION	BY

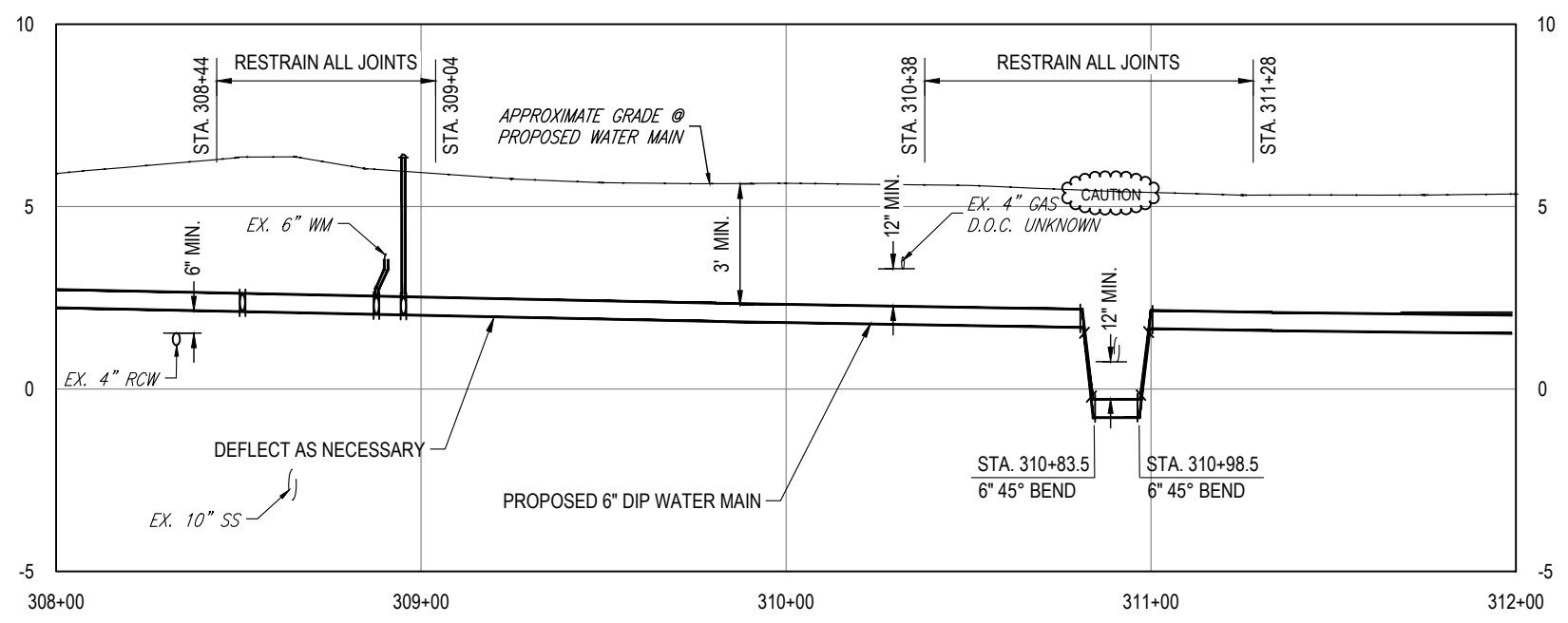
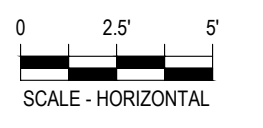
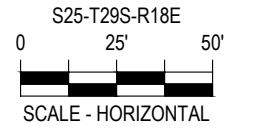
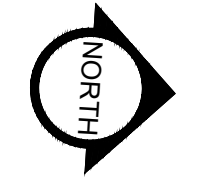
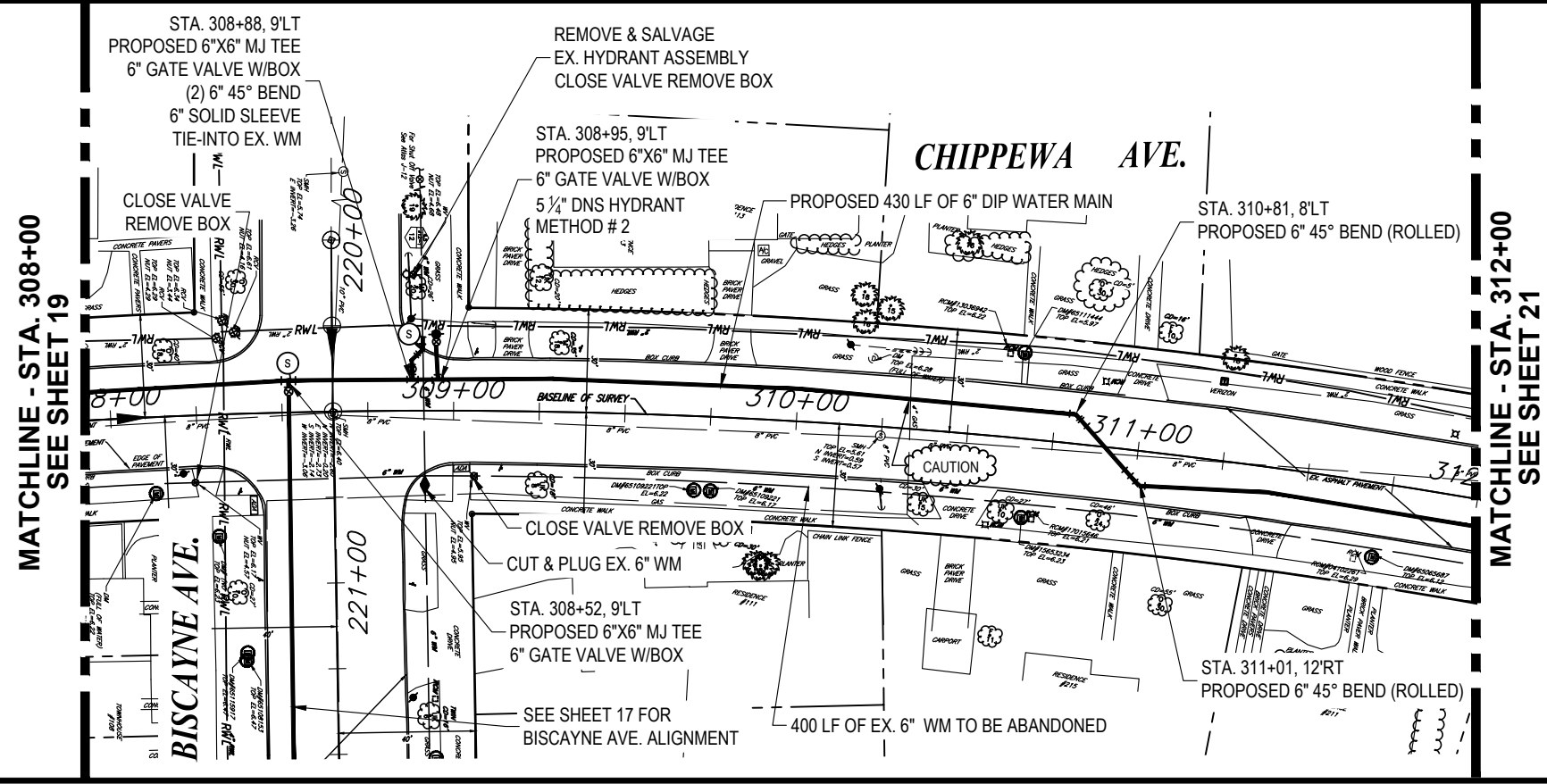
DESIGNED NPP  
DRAWN JDM  
CHECKED RAJ  
DATE 03/05/2019

DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP

PLAN & PROFILE



100% PLANS	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE	J-12
SHEET	19 OF 31



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001-2.dwg Jul 19, 2019 - 7:22am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV. NO.	DATE	DESCRIPTION	BY

DESIGNED	NPP
DRAWN	JDM
CHECKED	RAJ
DATE	03/05/2019

DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP

PLAN & PROFILE

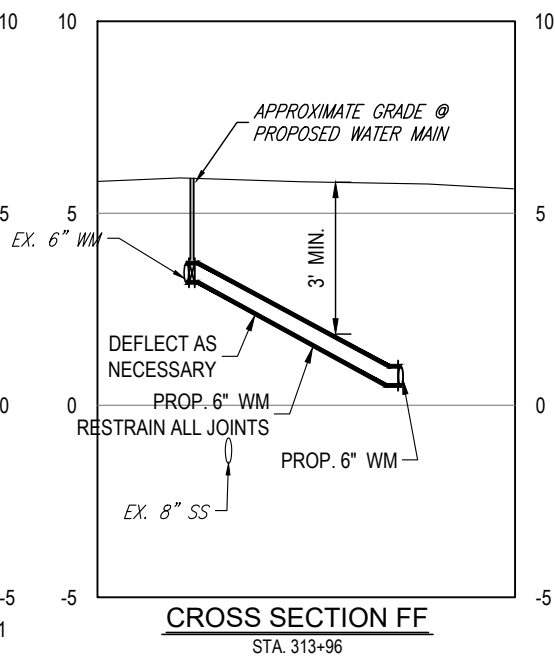
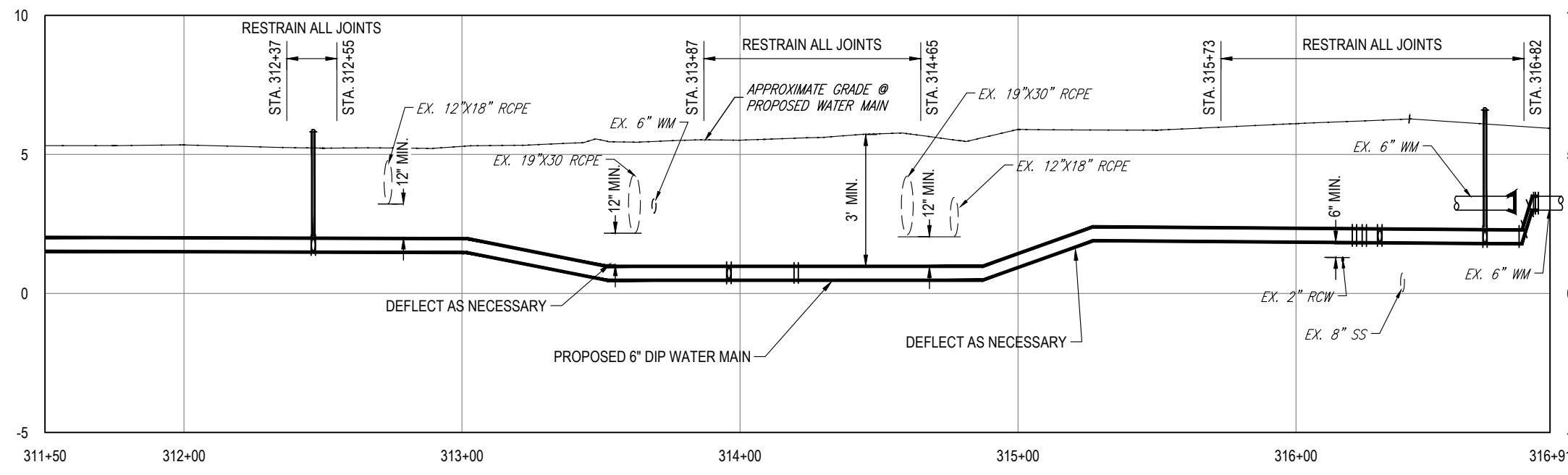
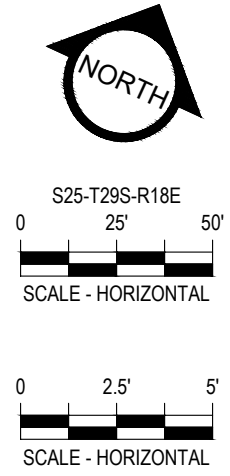
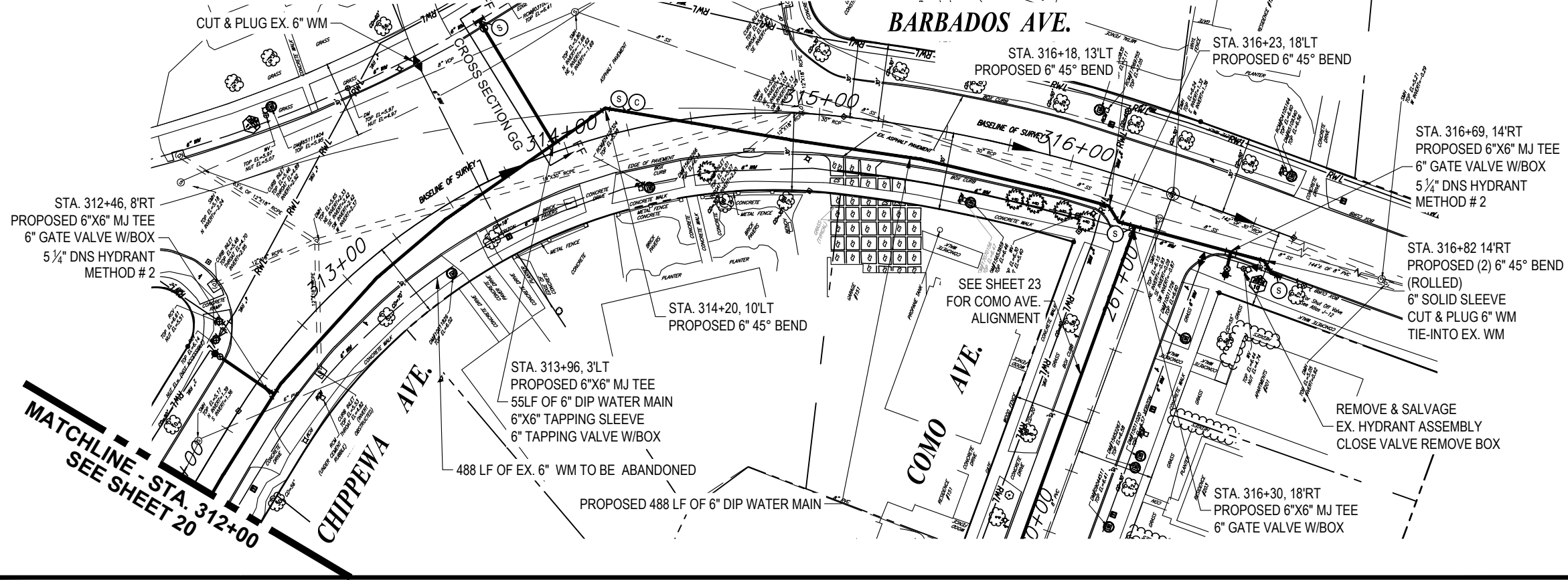


100% PLANS

WORK ORDER NO. WTR-18-0001

RECORD DRAWING NO.

ATLAS PAGE J-12 SHEET 20 OF 31



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001-2.dwg, Jul 19, 2019 - 7:23am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV NO.	DATE	DESCRIPTION	BY

DESIGNED	NPP
DRAWN	JDM
CHECKED	RAJ
DATE	03/05/2019

DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP

PLAN & PROFILE

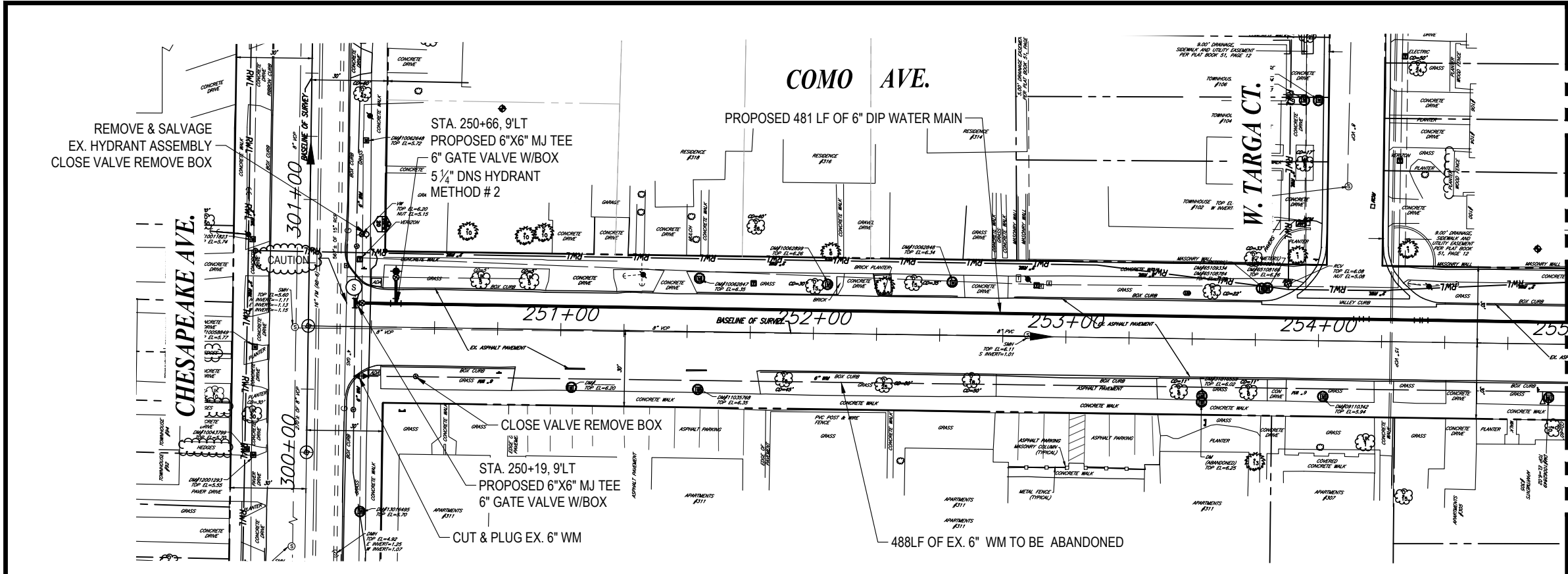


100% PLANS

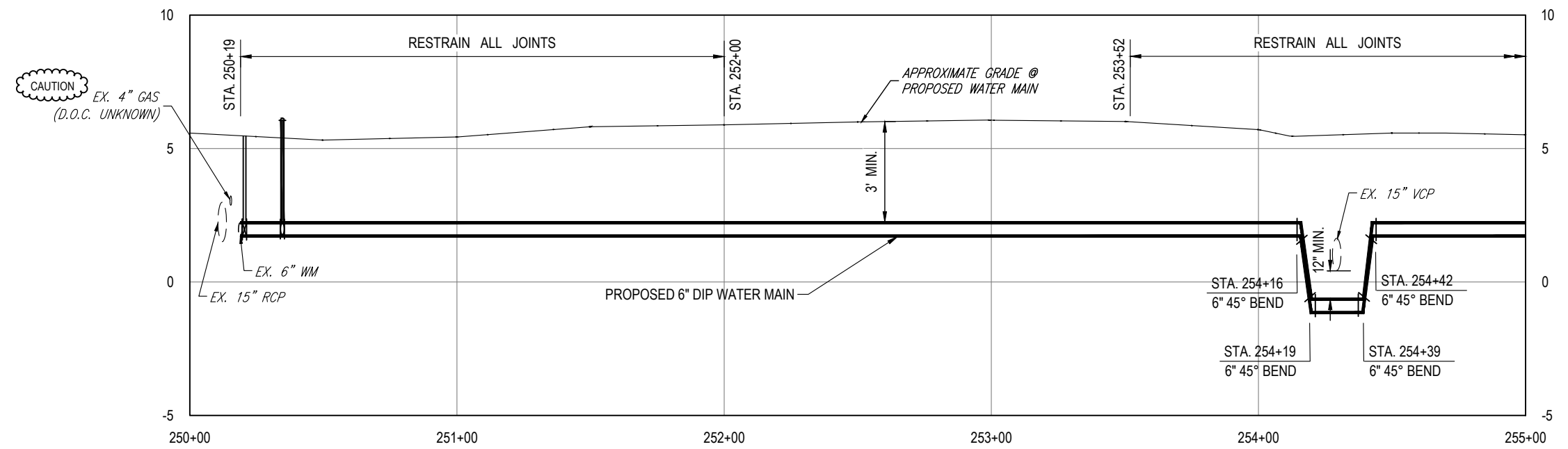
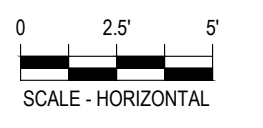
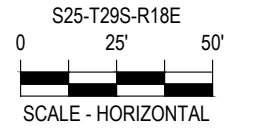
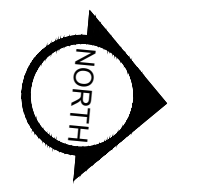
WORK ORDER NO. WTR-18-0001

RECORD DRAWING NO.

ATLAS PAGE J-12 SHEET 21 OF 31



MATCHLINE - STA. 255+00  
SEE SHEET 23



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001-2.dwg Jul 19, 2019 - 7:23am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV NO.	DATE	DESCRIPTION	BY

DESIGNED	NPP
DRAWN	JDM
CHECKED	RAJ
DATE	03/05/2019

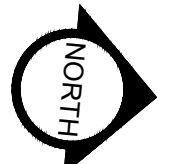
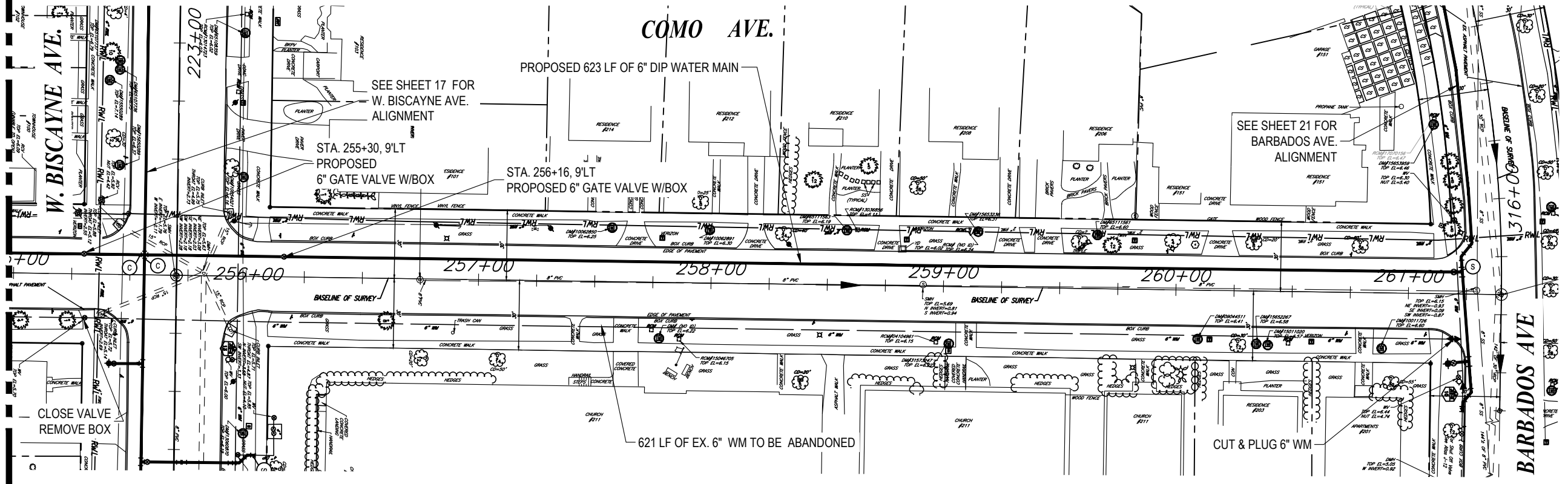
DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP

PLAN & PROFILE



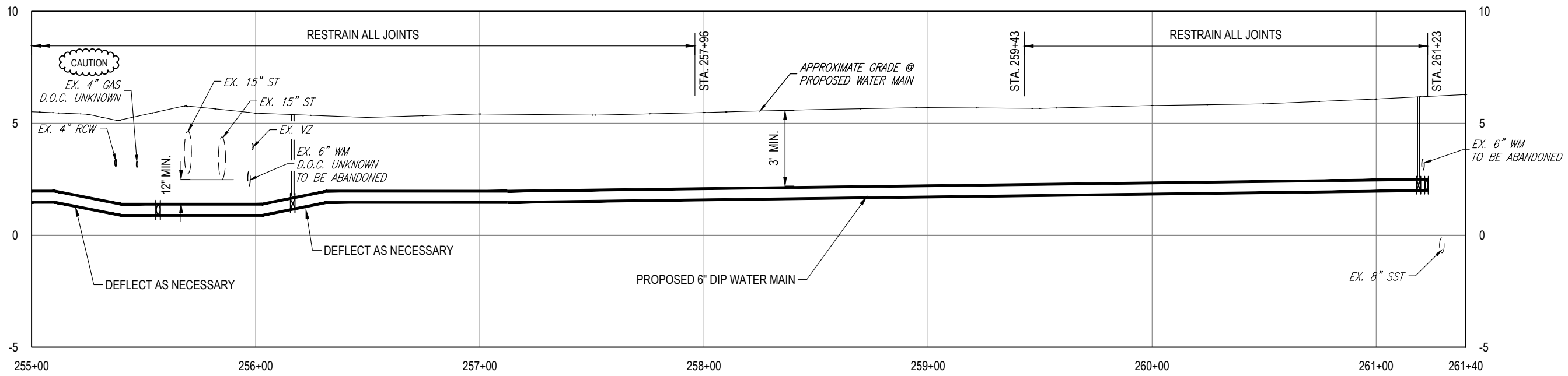
100% PLANS	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE	J-12
SHEET	22 OF 31

MATCHLINE - STA. 255+00  
SEE SHEET 22



S25-T29S-R18E  
0 25' 50'  
SCALE - HORIZONTAL

0 2.5' 5'  
SCALE - HORIZONTAL



K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001-2.dwg Jul 19, 2019 - 7:23am

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV NO.	DATE	DESCRIPTION	BY

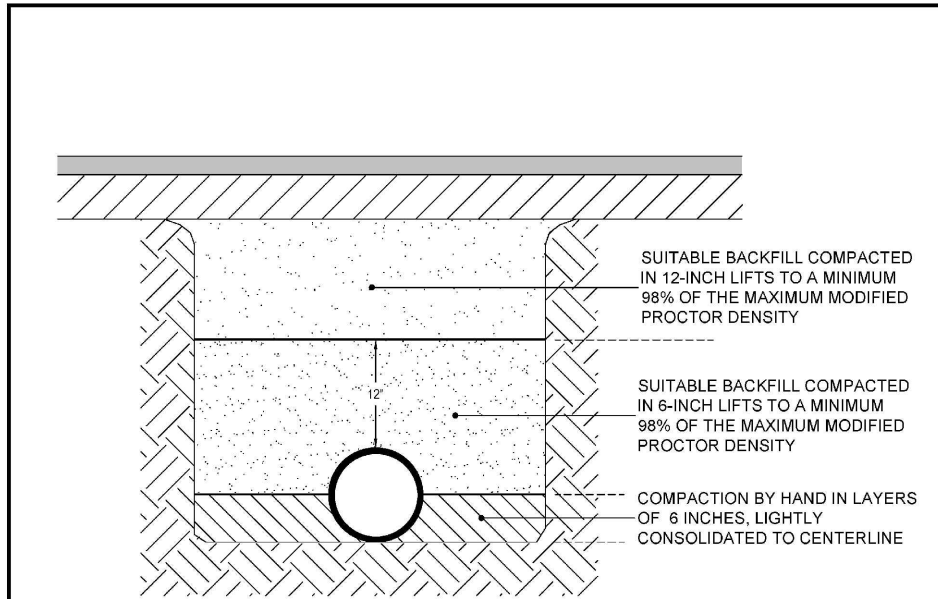
DESIGNED NPP  
DRAWN JDM  
CHECKED RAJ  
DATE 03/05/2019

DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP  
  
PLAN & PROFILE



100% PLANS	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE J-12	SHEET 23 OF 31

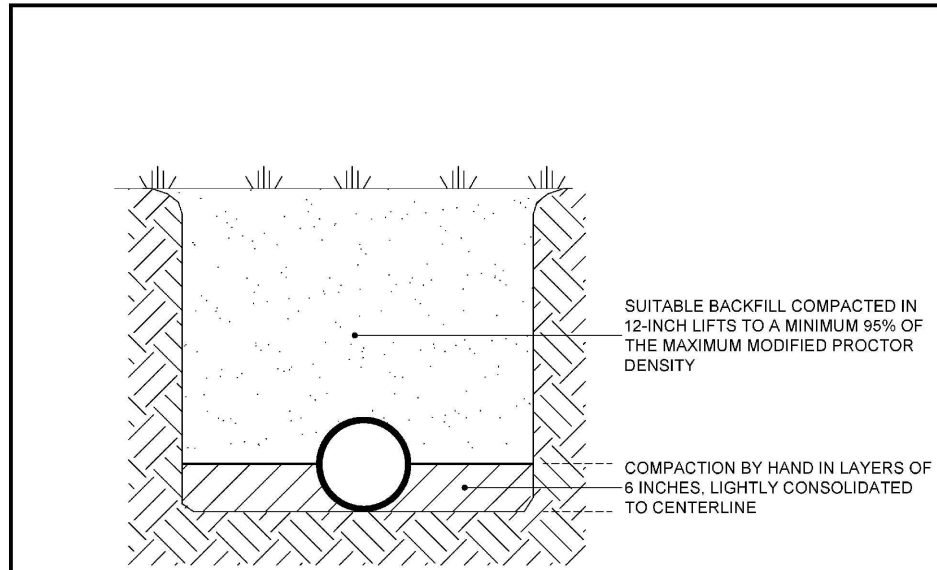
K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\018\WTR-18-0001-Details.dwg Jul 19, 2019 - 7:24am



**NOTES:**

1. TYPE 2 TRENCH IS DEFINED AS A FLAT-BOTTOM TRENCH. LIGHTLY CONSOLIDATE BACKFILL TO CENTERLINE OF PIPE.
2. THIS STANDARD SHALL BE UTILIZED IN THE ABSENCE OF SPECIFIC STANDARDS. THE STANDARD OF THE AGENCY CONTROLLING THE RIGHT-OF-WAY SHALL GOVERN UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.
3. SUITABLE BACKFILL SHALL BE DEFINED AS MATERIAL FREE FROM CINDERS, ASHES, REFUSE, CLAY, ORGANIC MATTER, BOULDERS, ROCKS OR STONES, OR OTHER MATERIAL THAT IN THE OPINION OF THE CITY ENGINEER IS UNSUITABLE.
4. NON-PERVIOUS AREAS SHALL MEAN ANY CONCRETE OR ASPHALT CURB, SIDEWALK, TRAIL, DRIVEWAY, OR ROADWAY.

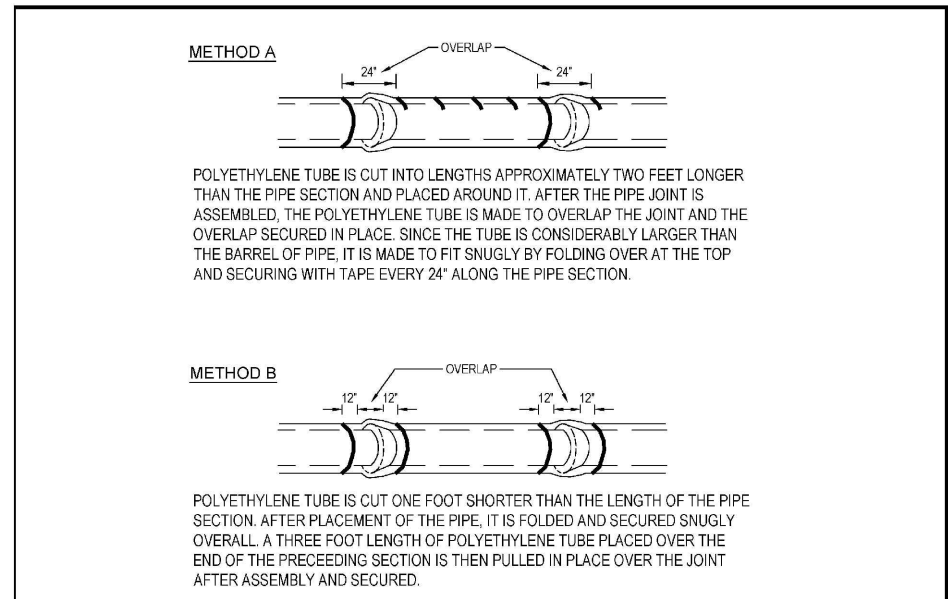
	LAST REVISION	TRENCHING, BEDDING AND BACKFILL DETAIL FOR NON-PERVIOUS (PAVED) AREAS	2.01A
	JAN 2018		



**NOTES:**

1. TYPE 2 TRENCH IS DEFINED AS A FLAT-BOTTOM TRENCH. LIGHTLY CONSOLIDATE BACKFILL TO CENTERLINE OF PIPE.
2. THIS STANDARD SHALL BE UTILIZED IN THE ABSENCE OF SPECIFIC STANDARDS. THE STANDARD OF THE AGENCY CONTROLLING THE RIGHT-OF-WAY SHALL GOVERN UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.
3. SUITABLE BACKFILL SHALL BE DEFINED AS MATERIAL FREE FROM CINDERS, ASHES, REFUSE, CLAY, ORGANIC MATTER, BOULDERS, ROCKS OR STONES, OR OTHER MATERIAL THAT IN THE OPINION OF THE CITY ENGINEER IS UNSUITABLE.
4. NON-PAVED AREA IS A PERVIOUS AREA. IF ANY PART OF THE TRENCH IS WITHIN A CONCRETE OR ASPHALT CURB, SIDEWALK, DRIVEWAY, OR ROADWAY, THEN STANDARD DETAIL 2.01 APPLIES.

	LAST REVISION	TRENCHING, BEDDING, AND BACKFILL DETAIL FOR PERVIOUS (NON-PAVED) AREAS	2.02
	JUL 2018		



**METHOD A**

POLYETHYLENE TUBE IS CUT INTO LENGTHS APPROXIMATELY TWO FEET LONGER THAN THE PIPE SECTION AND PLACED AROUND IT. AFTER THE PIPE JOINT IS ASSEMBLED, THE POLYETHYLENE TUBE IS MADE TO OVERLAP THE JOINT AND THE OVERLAP SECURED IN PLACE. SINCE THE TUBE IS CONSIDERABLY LARGER THAN THE BARREL OF PIPE, IT IS MADE TO FIT SNUGLY BY FOLDING OVER AT THE TOP AND SECURING WITH TAPE EVERY 24" ALONG THE PIPE SECTION.

**METHOD B**

POLYETHYLENE TUBE IS CUT ONE FOOT SHORTER THAN THE LENGTH OF THE PIPE SECTION. AFTER PLACEMENT OF THE PIPE, IT IS FOLDED AND SECURED SNUGLY OVERALL. A THREE FOOT LENGTH OF POLYETHYLENE TUBE PLACED OVER THE END OF THE PRECEDING SECTION IS THEN PULLED IN PLACE OVER THE JOINT AFTER ASSEMBLY AND SECURED.

**METHOD C**

POLYETHYLENE SHEET IS CUT TO A LENGTH TWO FEET LONGER THAN THE PIPE SECTION. THE SHEET IS WRAPPED AROUND THE PIPE SO THAT IT OVERLAPS CIRCUMFERENTIALLY OVER THE TOP QUADRANT OF THE PIPE, THEN SECURED. AFTER JOINT ASSEMBLY, THE SURPLUS LENGTH OF POLYETHYLENE FILM IS SECURED AROUND THE JOINT, PROVIDING AN OVERLAP OF EACH JOINT. TAPE AT EACH JOINT AND AT 3' INTERVALS IN BETWEEN.

**NOTES:**

1. USE BLUE POLYETHYLENE FILM AND TAPE ONLY.
2. POLYETHYLENE FILM SHALL BE A MINIMUM OF 8 MIL. THICKNESS.
3. SPIRAL WRAP NOT REQUIRED WITH POLYWRAP.

	LAST REVISION	POLYETHYLENE ENCASEMENT INSTALLATION DETAIL	2.05
	JUL 2018		

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV. NO.	DATE	DESCRIPTION	BY
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

DESIGNED	NPP
DRAWN	JDM
CHECKED	RAJ
DATE	03/05/2019

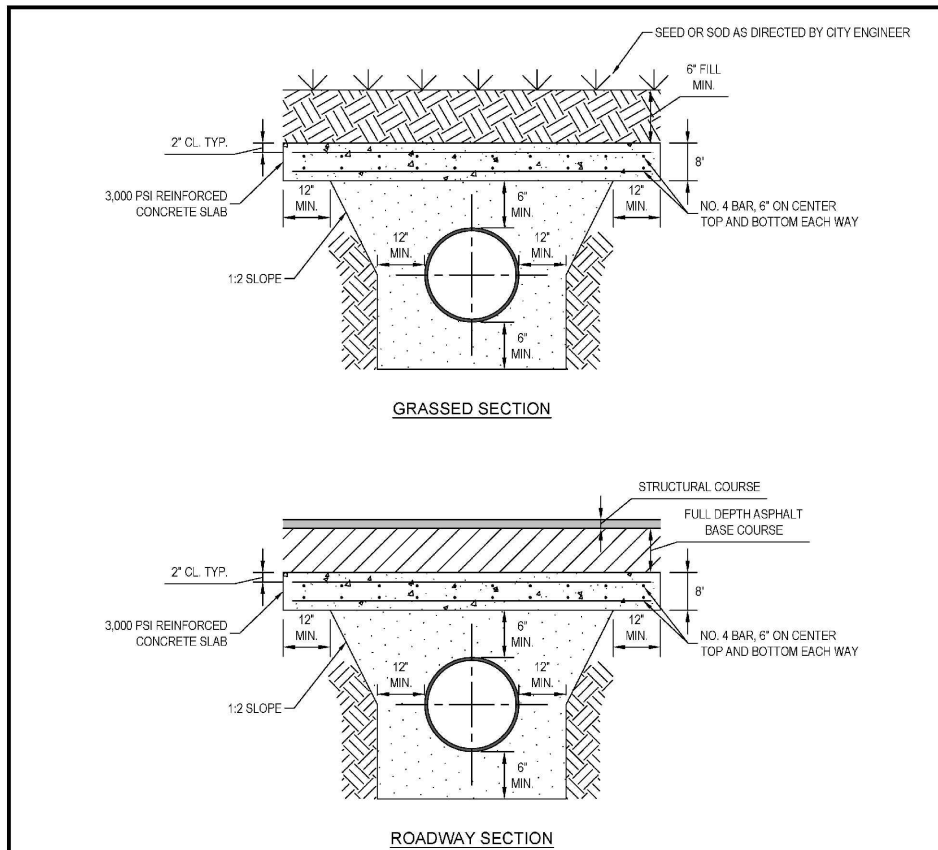
DAVIS ISLAND WATER MAIN REPLACEMENT CIP  
WTR-18-0001 DETAILS - SHEET 24



100% PLANS	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE	J-12
SHEET	24 OF 31

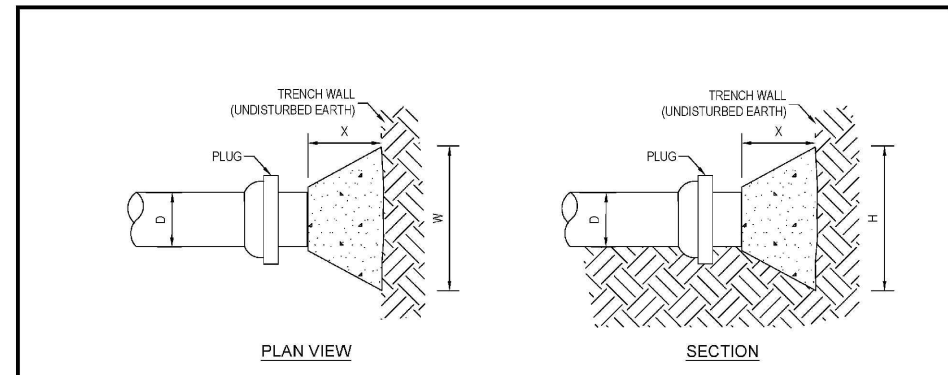


K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\018\WTR-18-0001 Details.dwg Jul 19, 2019 - 7:24am



- NOTES:**
- STRUCTURAL COURSE AND BASE COURSE REQUIREMENT SHALL BE ESTABLISHED BY THE AGENCY HAVING JURISDICTION.
  - SHOCK PADS FOR MAINS TOO SHALLOW FOR THE ABOVE CONFIGURATION SHALL BE DESIGNED ON A CASE-BY-CASE BASIS.

	LAST REVISION	<b>REINFORCED CONCRETE SHOCK PAD (FOR COVER LESS THAN 2.5')</b>	<b>2.06</b>
	JUL 2018		

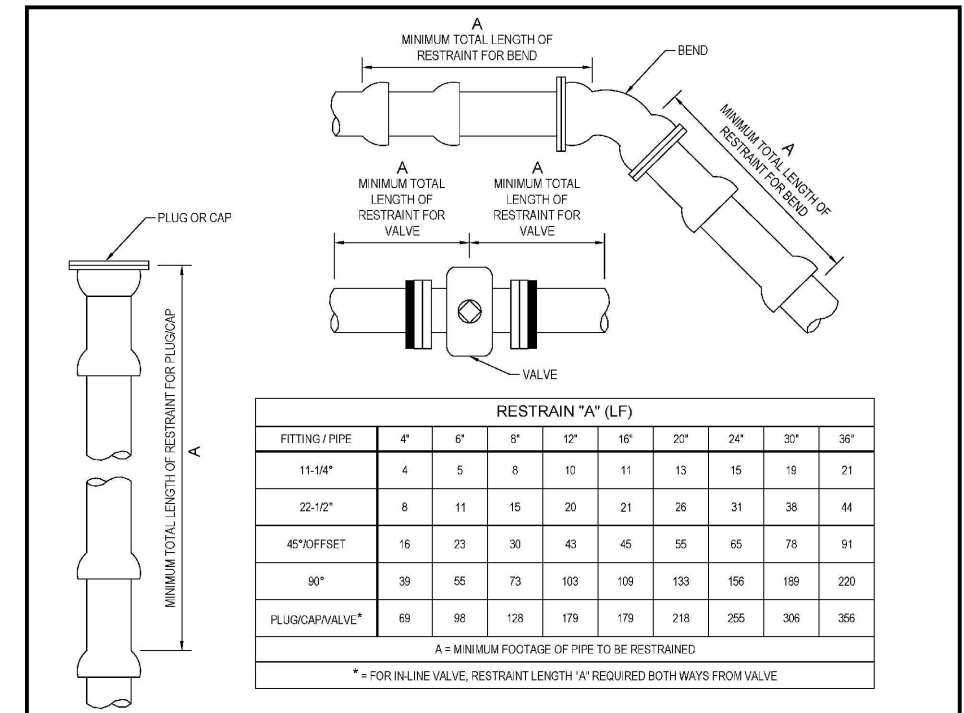


**DIMENSIONS OF THRUST BLOCKS FOR GOOD SOIL**

SIZE (D)	4"	6"	8"	12"	16"	20"	24"
THRUST (LBS.)	3,439	7,104	12,223	26,002	45,180	69,624	99,330
BEARING AREA (FT. <sup>2</sup> )	2.58	5.33	9.17	19.50	33.89	52.22	74.50
CONCRETE (YDS. <sup>3</sup> )	0.042	0.126	0.285	0.891	1.811	3.006	4.594
H (FT.)	1.3	1.9	2.5	3.6	4.8	5.9	7.0
W (FT.)	2.0	2.8	3.7	5.4	7.1	8.9	10.6
X (FT.)	1.0 MIN.	1.4 MIN.	1.9 MIN.	2.7 MIN.	3.0 MIN.	3.0 MIN.	3.0 MIN.

- NOTES:**
- CONCRETE SHALL BE KEPT AT SUFFICIENT DISTANCE FROM JOINT FOR REMOVAL OF ALL JOINT ACCESSORIES INCLUDING BOLTS.
  - ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED SOIL.
  - THIS TABLE SHOWS THE MINIMUM SIZE THRUST BLOCKS FOR SOIL BEARING PRESSURE OF 2000 PSF AND AN INTERNAL PRESSURE OF 190 PSI. COVER TO T.O.P. IS 3 FEET FOR 12" AND SMALLER MAINS; 4 FEET FOR 16" AND LARGER MAINS.
  - PLUGS SHALL BE COMPLETELY POLYWRAPPED PRIOR TO POURING THRUST BLOCKS.
- WARNING - POOR AND WET SOIL (SILTY SOILS, CLAY, MUCK AND PEAT) WILL REQUIRE LARGER THRUST BLOCKS.**

	LAST REVISION	<b>THRUST BLOCKS FOR PLUGS</b>	<b>2.08</b>
	JUL 2018		



- NOTES:**
- THIS TABLE IS BASED ON:
    - MAXIMUM TEST PRESSURE OF 190 PSI
    - LAYING CONDITION TYPE 2 (SEE DETAILS 2.01 AND 2.02)
    - POOR SOIL CONDITIONS
    - USING D.I.P.
    - 3 FEET OF COVER FOR 12" AND SMALLER MAINS; 4 FEET OF COVER FOR 16" AND LARGER MAINS
    - HORIZONTAL BENDS ONLY - ENGINEER TO SUBMIT CALCULATIONS FOR VERTICAL RESTRAINTS
  - "RESTRAINED" PIPE SHALL BE MANUFACTURED RESTRAINED JOINT PIPE, PUSH-ON JOINT PIPE RESTRAINED W/GASKET-TYPE "GRIPPER RESTRAINTS", OR MECHANICAL JOINT PIPE RESTRAINED BY MEGALUG (OR APPROVED EQUIVALENT).
  - ANY ADDITIONAL FITTINGS WITHIN THE RESTRAINED SECTION SHALL BE RESTRAINED ACCORDINGLY.

	LAST REVISION	<b>RESTRAINED JOINT STANDARD FOR BENDS, PLUGS, CAPS, AND VALVES</b>	<b>2.11</b>
	JUL 2018		

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

REV NO.	DATE	DESCRIPTION	BY

DESIGNED NPP  
DRAWN JDM  
CHECKED RAJ  
DATE 03/05/2019

**DAVIS ISLAND WATER MAIN  
REPLACEMENT CIP**  
  
**WTR-18-0001 DETAILS - SHEET 25**

**100% PLANS**  
 WORK ORDER NO. **WTR-18-0001**  
 RECORD DRAWING NO.  
 ATLAS PAGE **J-12** SHEET **25** OF **31**

K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001-Details.dwg Jul 19, 2019 - 7:24am

FITTING SIZE	RESTRAIN (LF)		UNRESTRAINED STRAIGHT RUN (LF)
	TEE "A"	REDUCER "B"	REDUCER "C"
4x4	31	*	*
6x4	14	50	74
6x6	60	*	*
8x4	A.T.	91	178
8x6	48	54	70
8x8	90	*	*
12x4	A.T.	155	455
12x6	24	130	260
12x8	71	95	144
12x12	143	*	*
16x6	A.T.	151	401
16x8	34	130	265
16x12	96	76	103
16x16	148	*	*
20x6	A.T.	195	659
20x8	16	180	461
20x12	85	136	233
20x16	139	76	96
20x20	186	*	*
24x6	A.T.	236	971
24x8	A.T.	224	700
24x12	74	188	391
24x16	130	139	215
24x20	180	76	93
24x24	224	*	*
30x6	A.T.	293	1534
30x8	A.T.	283	1130
30x12	56	255	678
30x16	118	216	426
30x20	169	158	260
30x24	215	108	138
30x30	275	*	*
36x6	A.T.	345	2230
36x8	A.T.	336	1660
36x12	38	314	1030
36x16	104	283	689
36x20	159	244	466
36x24	206	195	306
36x30	269	108	133
36x36	326	*	*

A.T. = RESTRAINT REQUIRED AT TEE ONLY. \* = NOT APPLICABLE

NOTES:

- THIS TABLE IS BASED ON:
  - MAXIMUM TEST PRESSURE OF 190 PSI
  - LAYING CONDITION TYPE 2 (SEE DETAILS 2.01 AND 2.02)
  - POOR SOIL CONDITIONS
  - USING D.I.P.
  - 3 FEET OF COVER FOR 12" AND SMALLER MAINS; 4 FEET OF COVER FOR 16" AND LARGER MAINS
  - HORIZONTAL BENDS ONLY - ENGINEER TO SUBMIT CALCULATIONS FOR VERTICAL RESTRAINTS
- RESTRAINT FOR REDUCERS: IF "C" STRAIGHT RUN OF PIPE DOWNSTREAM OF REDUCER NOT AVAILABLE, THE RESTRAIN "B" UPSTREAM OF REDUCER.
- "RESTRAINED" PIPE SHALL BE MANUFACTURED RESTRAINED JOINT PIPE, PUSH-ON JOINT PIPE RESTRAINED W/GASKET-TYPE "GRIPPER RESTRAINTS", OR MECHANICAL JOINT PIPE RESTRAINED BY MEGALUG (OR APPROVED EQUIVALENT).
- ANY ADDITIONAL FITTINGS WITHIN THE RESTRAINED SECTION SHALL BE RESTRAINED ACCORDINGLY.

	LAST REVISION JUL 2018	RESTRAINED JOINT STANDARD FOR TEES AND REDUCERS	2.12A
--	---------------------------	---	-------

NOTES:

- WATER OUTLET SHALL BE HELD UP OFF THE GROUND SO AS NOT TO INTERFERE WITH THE SAMPLING PROCESS.
- CORPORATION STOP TO BE REMOVED AND BRASS PLUG INSTALLED IN TAPPED MAIN AFTER OPERATION.

	LAST REVISION JUL 2018	TEMPORARY SAMPLE TAP INSTALLATION W/DI, CI, OR PVC PIPE	2.18A
--	---------------------------	---	-------

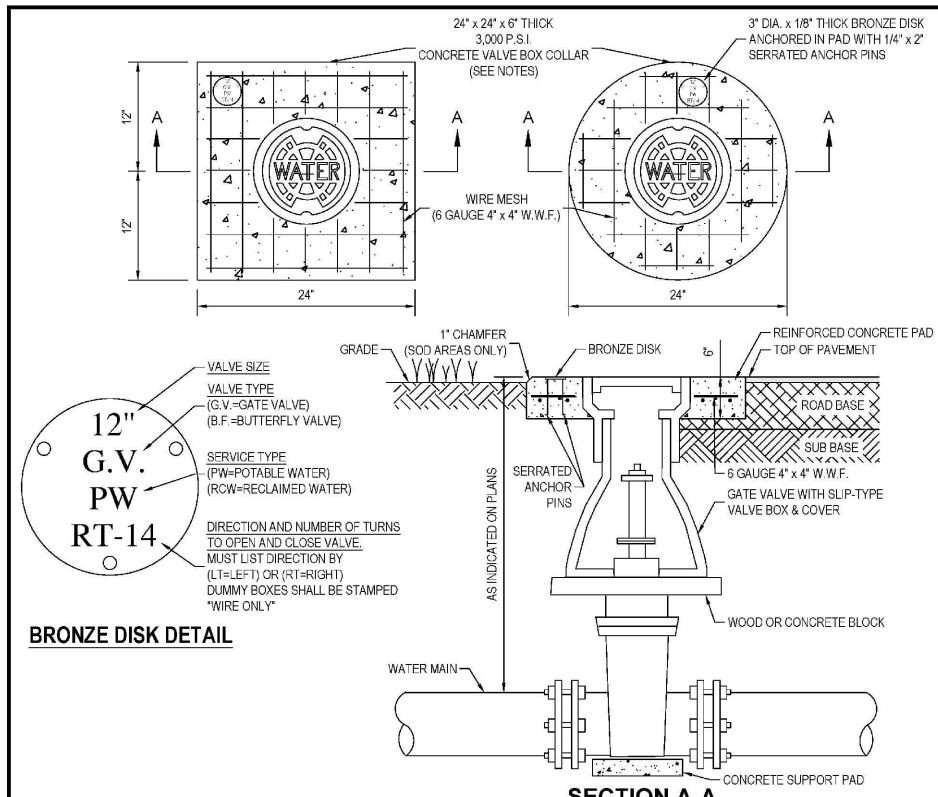
NOTES:

- FOR DEAD-END MAINS, SAMPLE TAP TO BE INSTALLED ON A 2" TAPPED CAP/PLUG.
- FLUSHING/SAMPLING ARRANGEMENT TO BE REMOVED AFTER DISINFECTION OF MAIN LINE.
- AFTER OPERATION COMPLETE, INSTALL BRASS PLUG AT CORPORATION STOP.

	LAST REVISION JUL 2018	TEMPORARY SAMPLE TAP INSTALLATION FOR END OF LINE W/DI, CI, OR PVC PIPE	2.19A
--	---------------------------	---	-------

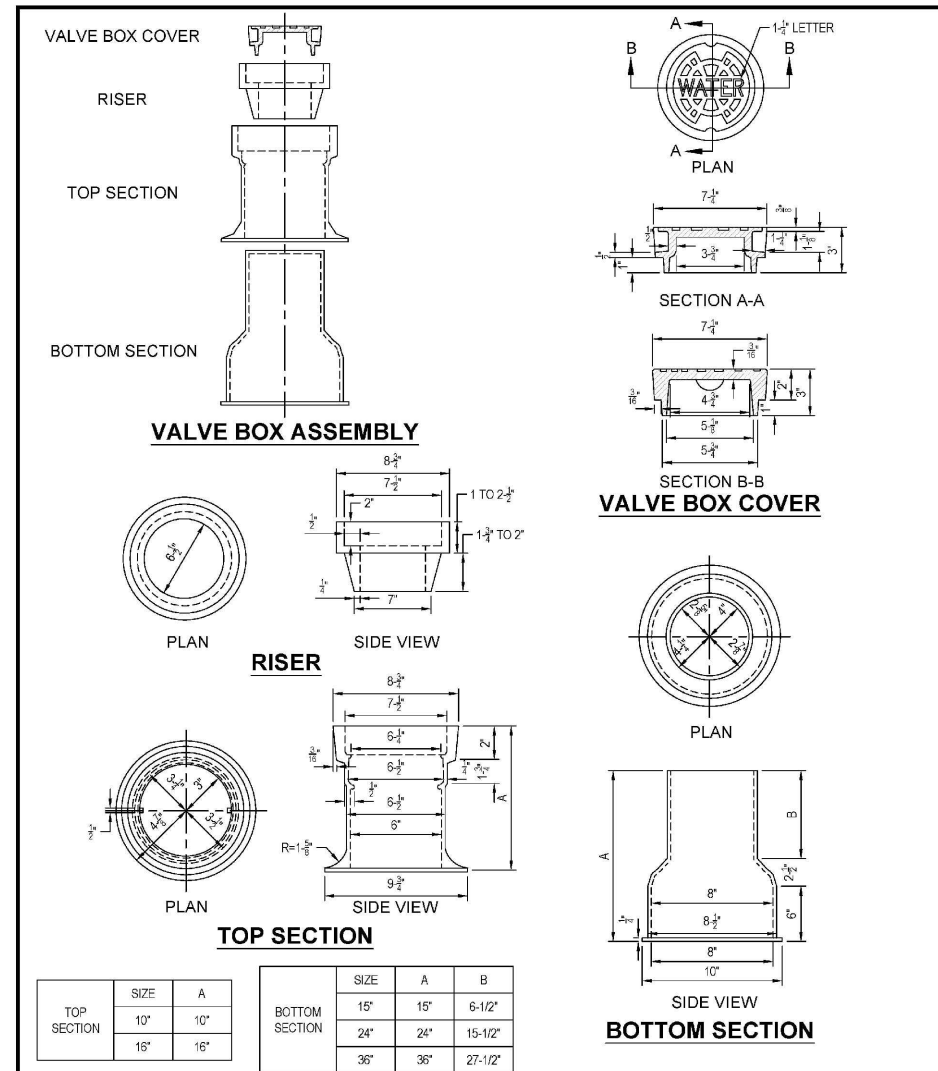
RORY A. JONES, P.E. CITY OF TAMPA WATER DEPT. 306 E. JACKSON ST., 5E TAMPA, FLA. 33602 P.E. #79453	REV NO.	DATE	DESCRIPTION	BY	DESIGNED <u>NPP</u>	DAVIS ISLAND WATER MAIN REPLACEMENT CIP  WTR-18-0001 DETAILS - SHEET 26		100% PLANS	
	.	.	.	.	DRAWN <u>JDM</u>			WORK ORDER NO. WTR-18-0001	
	.	.	.	.	CHECKED <u>RAJ</u>			RECORD DRAWING NO.	
	.	.	.	.	DATE <u>03/05/2019</u>			ATLAS PAGE J-12	SHEET 26 OF 31
	.	.	.	.					

K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\018\WTR-18-0001-Details.dwg Jul 19, 2019 - 7:24am

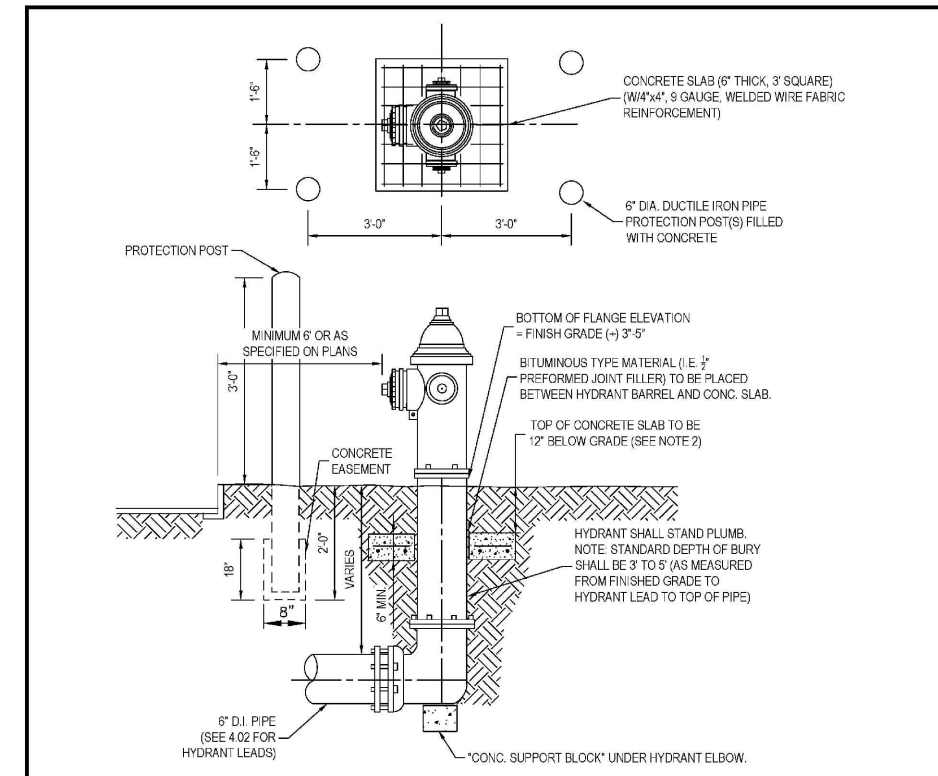


- NOTES:**
- CIRCULAR OR SQUARE CONCRETE PAD REQUIRED FOR ALL VALVE BOX INSTALLATIONS.
  - CAST IRON VALVE BOXES SHALL BE FIRMLY SUPPORTED AND CENTERED AND PLUMB OVER THE OPERATING NUT OF THE VALVE. VALVE BOX COVER SHALL BE FLUSH WITH THE SURFACE OF THE FINISHED PAVEMENT, OR GRADE OR AT SUCH OTHER LEVEL AS MAY BE DIRECTED BY THE DEPARTMENT.
  - "BLUE" WATER VALVE LOCATE MARKERS REQUIRED FOR ALL VALVE INSTALLATIONS.
  - EMBED BRONZE VALVE INFO DISK INTO CONCRETE VALVE BOX COLLAR.
  - ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST T.W.D. APPROVED MATERIAL SPECIFICATIONS.
  - IF VALVE IS LOCATED WITHIN A SIDEWALK CONCRETE COLLAR MAY BE ELIMINATED AND DISK SET FLUSH DIRECTLY IN SIDEWALK.
  - BRONZE DISK REQUIRED FOR ALL VALVES AND DUMMY BOXES.

	LAST REVISION	VALVE INSTALLATION W/VALVE BOX & PAD FOR DI OR CI PIPE	3.01
	JUL 2018		



	LAST REVISION	VALVE BOX, SLIP TYPE	3.04
	JUL 2018		



- NOTES:**
- FIRE HYDRANT BARREL ABOVE THE GROUND LINE SHALL BE PAINTED WITH A HIGH-GRADE ENAMEL PAINT, FEDERAL SAFETY YELLOW (OSHA APPROVED), AND THE HYDRANT BONNET SHALL BE PAINTED OSHA GREEN.
  - CONCRETE SLAB MAY BE ELIMINATED IN AREAS WHERE HYDRANT IS SET IN SIDEWALK AND SIDEWALK HAS BEEN INSTALLED PRIOR TO FINAL ACCEPTANCE OF THE HYDRANT.
  - THRUST RESTRAINT FOR HYDRANT:
    - HYDRANT SHALL BE FIRMLY SUPPORTED UNDER ELBOW IN ALL METHODS BY SUPPORT BLOCK
    - ALL BACKFILL SHALL BE THOROUGHLY COMPACTED UNDER SUPPORT BLOCK AND UNDER THRUST COLLAR
    - ALL HYDRANT LEADS SHALL BE RESTRAINED BY MEGALUGS OR EQUIVALENT MECHANICAL RESTRAINTS
  - PROTECTION POSTS ARE REQUIRED WHEN HYDRANT IS LESS THAN 6 FEET FROM EDGE OF PAVEMENT, OR AS DIRECTED BY THE ENGINEER.
  - FOR PVC MAINS, INSTALL CONCRETE SUPPORT BLOCK UNDER ALL HYDRANT TEES.

	LAST REVISION	FIRE HYDRANT INSTALLATION	4.01
	JUL 2018		

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

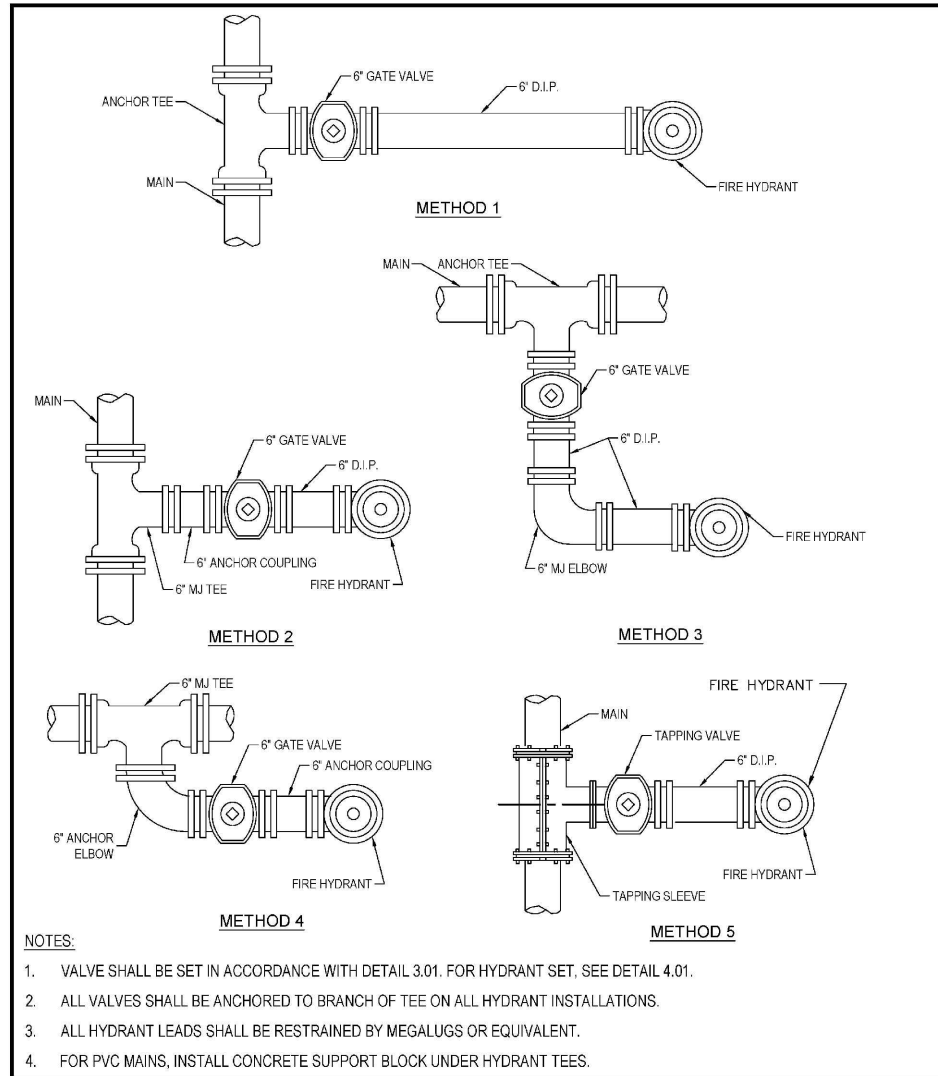
REV. NO.	DATE	DESCRIPTION	BY
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

DESIGNED NPP  
DRAWN JDM  
CHECKED RAJ  
DATE 03/05/2019

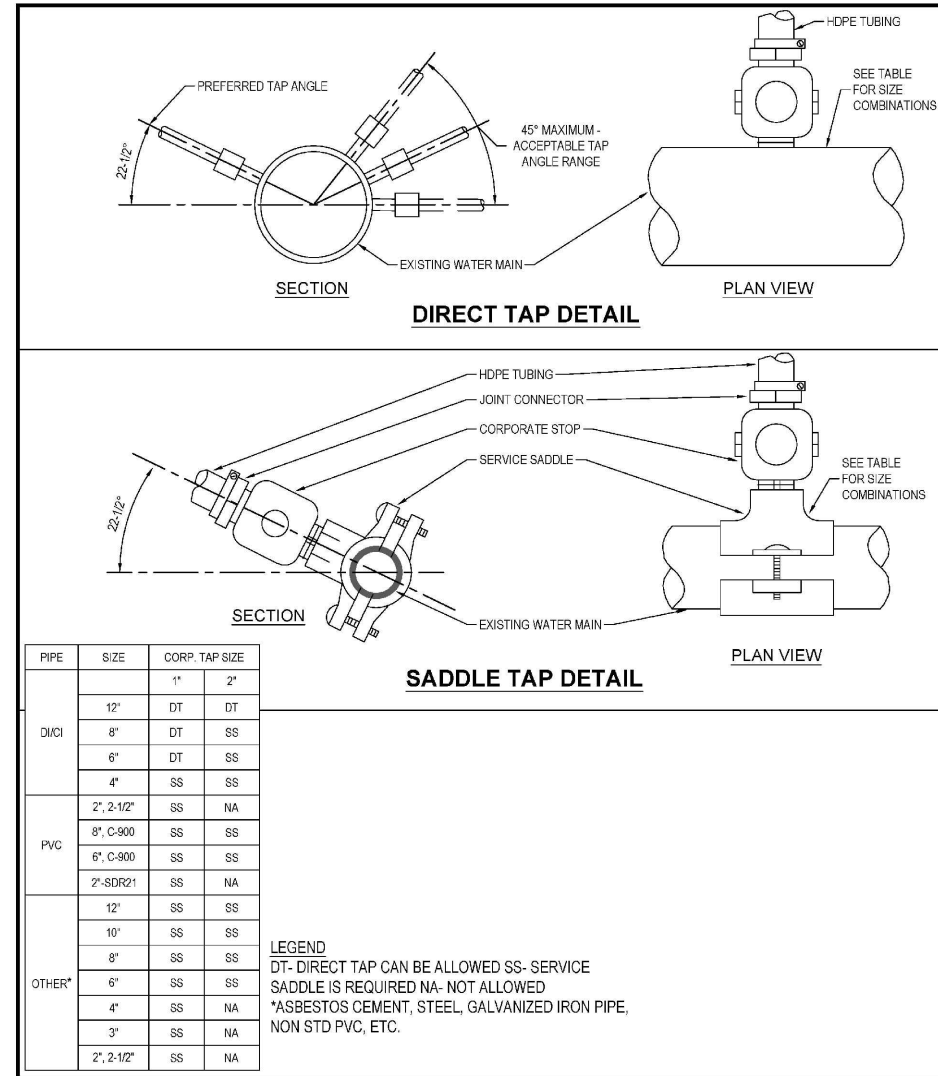
DAVIS ISLAND WATER MAIN REPLACEMENT CIP  
WTR-18-0001 DETAILS - SHEET 27

100% PLANS	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE	J-12
SHEET	27 OF 31

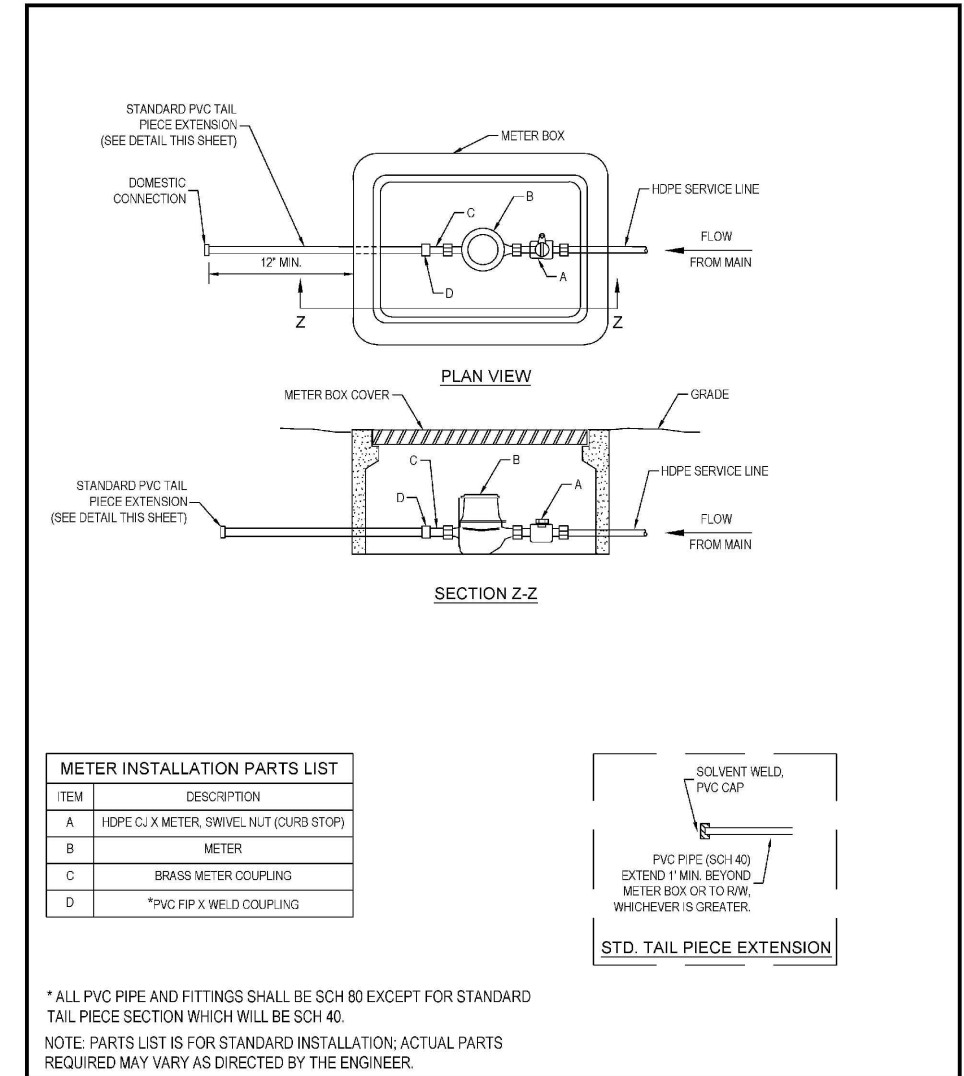
K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\018\WTR-18-0001-Details.dwg Jul 19, 2019 - 7:24am



	LAST REVISION		
	JUL 2018	FIRE HYDRANT METHODS OF INSTALLATION	4.02



	LAST REVISION		
	JUL 2018	TAPPING DETAIL FOR 3/4", 1", 1-1/2" & 2" W/DI, CI, OR PVC PIPE	5.01A



	LAST REVISION		
	JUL 2018	SINGLE METER SET DETAIL 3/4", 1", 1-1/2", 2"	5.02

RORY A. JONES, P.E. CITY OF TAMPA WATER DEPT. 306 E. JACKSON ST., 5E TAMPA, FLA. 33602 P.E. #79453	REV. NO.	DATE	DESCRIPTION	BY	DESIGNED	NPP	DAVIS ISLAND WATER MAIN REPLACEMENT CIP  WTR-18-0001 DETAILS - SHEET 28		100% PLANS		
	.	.	.	.	DRAWN	JDM			WORK ORDER NO.	WTR-18-0001	
	.	.	.	.	CHECKED	RAJ			RECORD DRAWING NO.		
	.	.	.	.	DATE	03/05/2019			ATLAS PAGE	J-12	SHEET 28 OF 31
	.	.	.	.							

K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001-Details.dwg Jul 19, 2019 - 7:24am

METER INSTALLATION PARTS LIST	
ITEM	DESCRIPTION
A	FIP CURB X METER, SWIVEL NUT (CURB STOP)
B	METER
C	METER COUPLING
D	*PVC FIP X WELD COUPLING
E	MP X HDPE CJ BRANCH COUPLING

\* ALL PVC PIPE AND FITTINGS SHALL BE SCH 80 EXCEPT FOR STANDARD TAIL PIECE SECTION WHICH WILL BE SCH 40.  
NOTE: PARTS LIST IS FOR STANDARD INSTALLATION; ACTUAL PARTS REQUIRED MAY VARY AS DIRECTED BY THE CITY ENGINEER.

STD. TAIL PIECE EXTENSION	
ITEM	DESCRIPTION
A	SOLVENT WELD, PVC CAP
B	PVC PIPE (SCH 40) EXTEND 1' MIN. BEYOND METER BOX OR TO R/W, WHICHEVER IS GREATER.

	LAST REVISION JUL 2018	DUAL METER SET DETAIL 3/4" & 1"	5.03
--	---------------------------	------------------------------------	------

DO NOT INSTALL METER WITHIN SIDEWALK. WHEN SIDEWALK EXISTS, INSTALL METER ON STREET SIDE OF SIDEWALK OR WHERE DIRECTED BY CITY ENGINEER.

* LINE SIZE APPLICABLE FOR DDCVA			
SINGLE METER SIZE (INCHES)	SERVICE LINE SIZE (INCHES) (0-15')	DUAL METER SIZE (INCHES)	SERVICE LINE SIZE (INCHES) (0-15')
3/4	1	3/4	2
1	1	1	2
1 1/2	2	1 1/2	N/A
2*	2	2*	N/A

(FEET REFER TO DISTANCE FROM WATER MAIN TO METER)

	LAST REVISION JUL 2018	SINGLE & DUAL METERED SERVICE - SHORT SIDE 3/4", 1", 1-1/2" & 2"	5.04A
--	---------------------------	---	-------

DO NOT INSTALL METER WITHIN SIDEWALK. WHEN SIDEWALK EXISTS, INSTALL METER ON STREET SIDE OF SIDEWALK OR WHERE DIRECTED BY CITY ENGINEER.

CASING SPECIFICATION:  
1. IF PUSHED-SCH 40 STEEL PIPE (MIN.)  
2. IF LAYED IN OPEN TRENCH-SCH 40 STEEL PIPE OR SCH 80 PVC SOLVENT WELD PIPE.

SINGLE METER SIZE (INCHES)	SERVICE LINE SIZE (INCHES)		CASING SIZE (INCHES)
	(15'-80')	(80'-150')	
3/4	1	2	2 1/4
1	1	2	4
1 1/2	2	2	4
2**	4" D.I.P.	4" D.I.P.	12

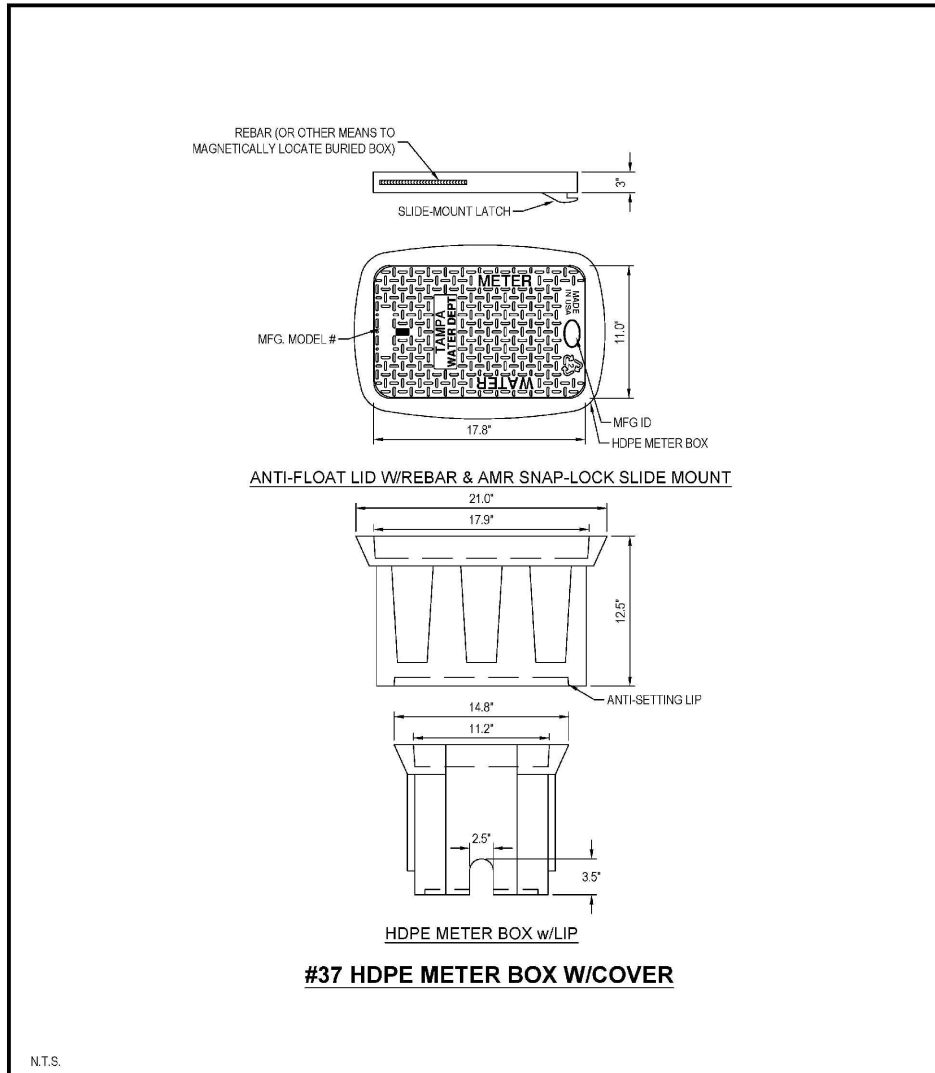
DUAL METER SIZE (INCHES)	SERVICE LINE SIZE (INCHES)		CASING SIZE (INCHES)
	(15'-80')	(80'-150')	
3/4	2	2	4
1	2	4" D.I.P.	4 1/2
1 1/2	N/A	N/A	N/A
2*	N/A	N/A	N/A

\* OR GREATER, IF REQUIRED BY ROW CONTROLLING AGENCY  
\*\* LINE SIZES APPLICABLE FOR 2" DDCV

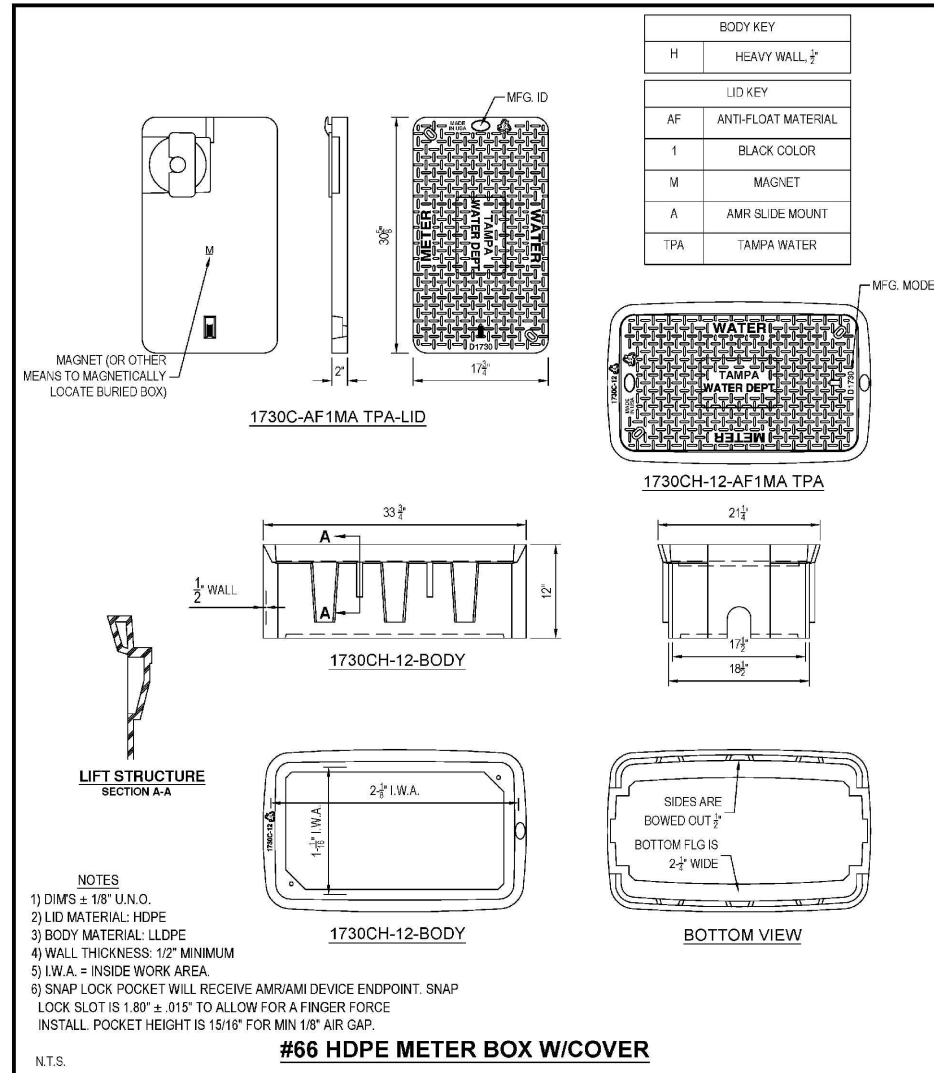
	LAST REVISION JUL 2018	SINGLE & DUAL METERED SERVICE - LONG SIDE 3/4", 1", 1-1/2" & 2"	5.05A
--	---------------------------	--	-------

RORY A. JONES, P.E. CITY OF TAMPA WATER DEPT. 306 E. JACKSON ST., 5E TAMPA, FLA. 33602 P.E. #79453	REV. NO.	DATE	DESCRIPTION	BY	DESIGNED	NPP	DAVIS ISLAND WATER MAIN REPLACEMENT CIP  WTR-18-0001 DETAILS - SHEET 29	100% PLANS
	.	.	.	.	DRAWN	JDM		
	.	.	.	.	CHECKED	RAJ		
	.	.	.	.	DATE	03/05/2019		
	.	.	.	.				
							WORK ORDER NO. WTR-18-0001 RECORD DRAWING NO. ATLAS PAGE J-12 SHEET 29 OF 31	

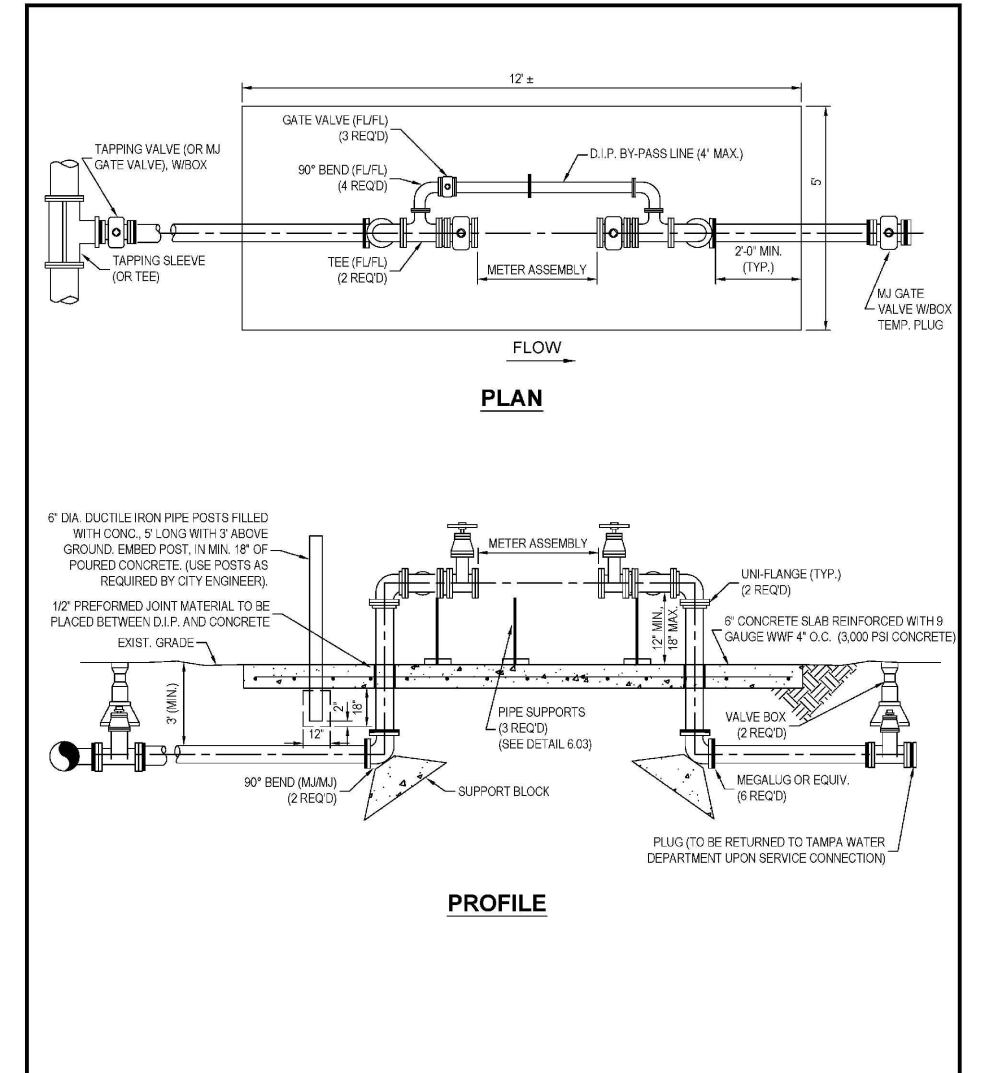
K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001-Details.dwg Jul 19, 2019 - 7:24am



N.T.S.			
	LAST REVISION		
	JUL 2018	3/4" OR 1" SINGLE SERVICE HDPE METER BOX	5.10



N.T.S.			
	LAST REVISION		
	JUL 2018	1-1/2" & 2" SINGLE SERVICE HDPE METER BOX	5.12



N.T.S.			
	LAST REVISION		
	JUL 2018	ABOVE GROUND LARGE METER ASSEMBLY (3" OR LARGER)	6.01

RORY A. JONES, P.E.  
CITY OF TAMPA WATER DEPT.  
306 E. JACKSON ST., 5E  
TAMPA, FLA. 33602  
P.E. #79453

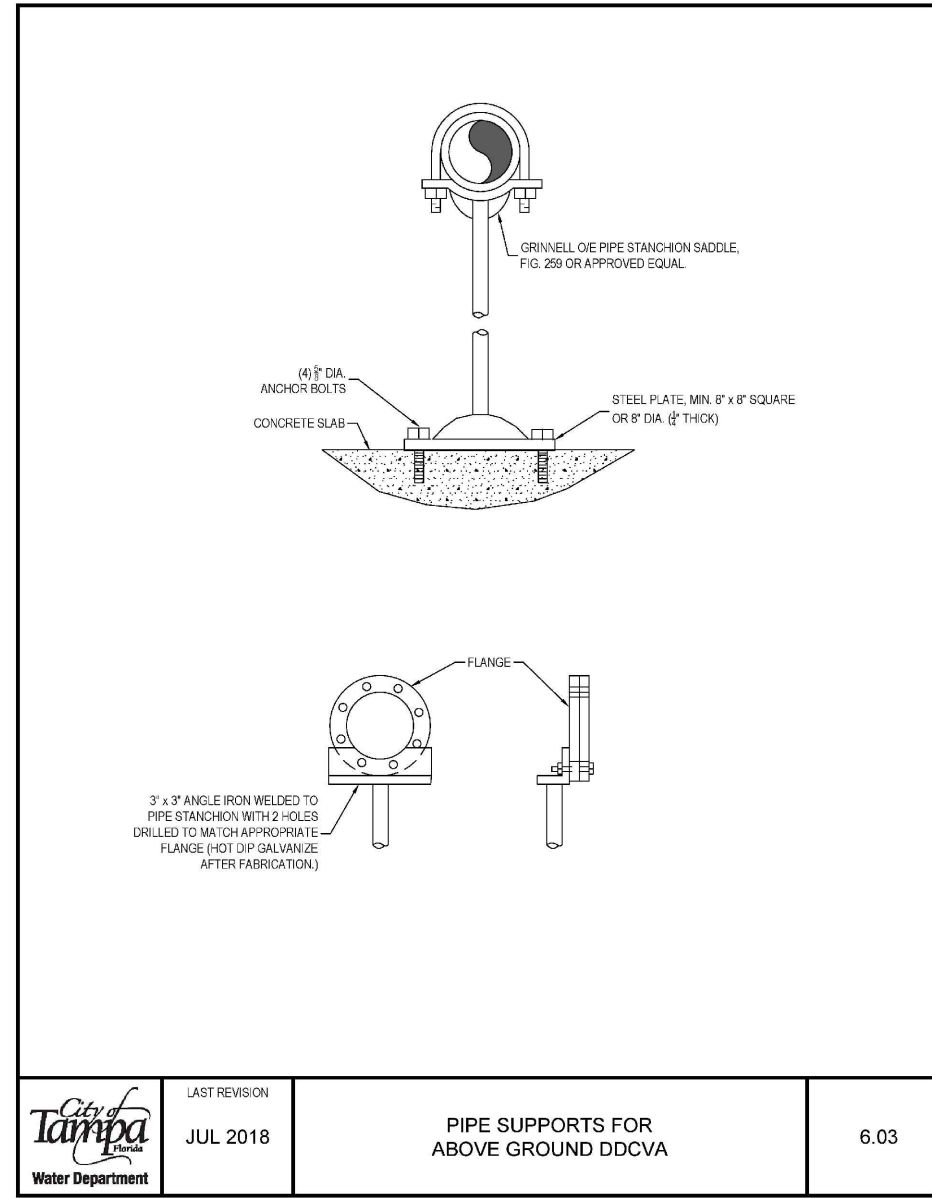
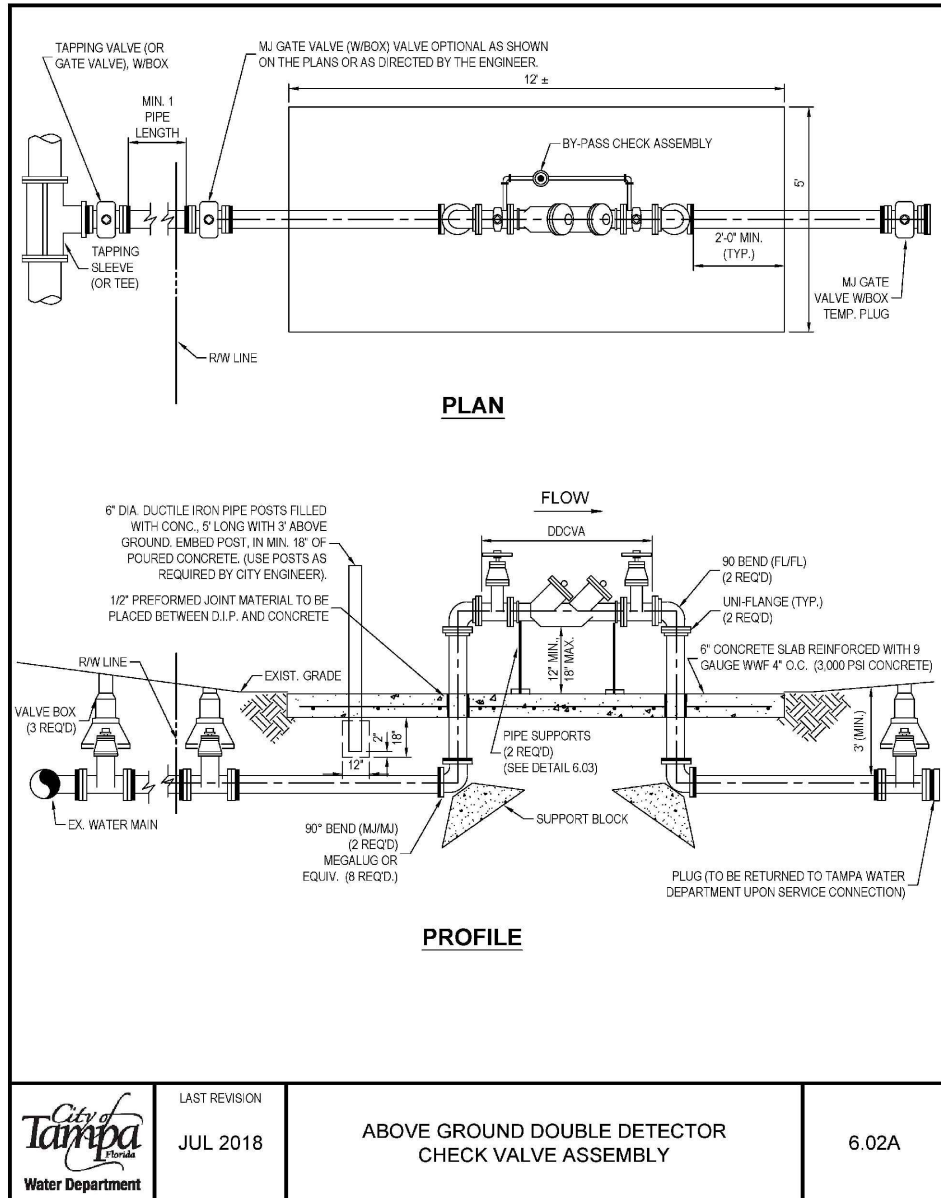
REV NO.	DATE	DESCRIPTION	BY
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

DESIGNED	NPP
DRAWN	JDM
CHECKED	RAJ
DATE	03/05/2019

DAVIS ISLAND WATER MAIN REPLACEMENT CIP  
WTR-18-0001 DETAILS - SHEET 30

100% PLANS	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE	J-12
SHEET	30 OF 31

K:\Projects\WTR\18-0001 Davis Island Water Main Replacement\02-Design\Drawings\01-Dwg\02-Sheets\2018\WTR-18-0001 Details.dwg Jul 19, 2019 - 7:24am



RORY A. JONES, P.E.  
 CITY OF TAMPA WATER DEPT.  
 306 E. JACKSON ST., 5E  
 TAMPA, FLA. 33602  
 P.E. #79453

REV. NO.	DATE	DESCRIPTION	BY
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

DESIGNED	NPP
DRAWN	JDM
CHECKED	RAJ
DATE	03/05/2019

**DAVIS ISLAND WATER MAIN REPLACEMENT CIP**  
  
**WTR-18-0001 DETAILS - SHEET 31**

<b>100% PLANS</b>	
WORK ORDER NO.	WTR-18-0001
RECORD DRAWING NO.	
ATLAS PAGE	J-12
SHEET	31 OF 31