



1112 Manatee Avenue West
Bradenton, FL 34205
purchasing@mymanatee.org

Solicitation Addendum

Addendum No.:	1
Solicitation No.:	21-TA003584DJ
Project No.:	6097980
Solicitation Title:	Installation of Force Main at 41st Avenue E. and I-75
Addendum Date:	January 6, 2021
Procurement Contact:	Dave Janney Senior Procurement Agent

IFBC 21-TA003584DJ is amended as set forth herein. Responses to questions posed by prospective bidders are provided below. This addendum is hereby incorporated in and made a part of IFBC 21-TA003584DJ.

ADD:

BID ATTACHMENT 3 - DRAWINGS

The Bid Attachment 3 - Drawings, is hereby incorporated as a separate attachment to the IFBC.

NOTE:

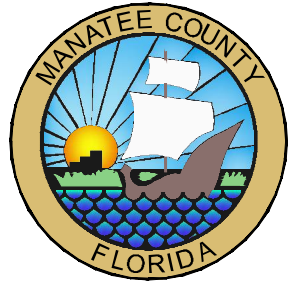
Items that are ~~struck through~~ are deleted. Items that are underlined have been added or changed. All other terms and conditions remain as stated in the IFBC.

INSTRUCTIONS:

Receipt of this addendum must be acknowledged as instructed in the solicitation document. Failure to acknowledge receipt of this Addendum may result in the response being deemed non-responsive.

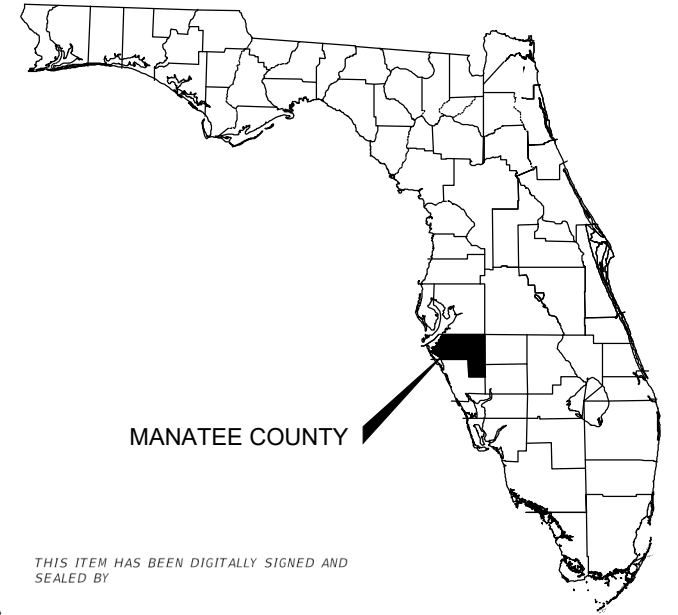
END OF ADDENDUM

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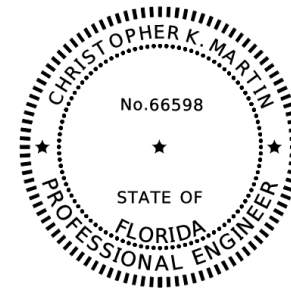
MANATEE COUNTY PUBLIC WORKS (CIP #6097980)

I-75 FORCE MAIN AT 41ST AVE E REPLACEMENT 100% CONSTRUCTION DOCUMENTS NOVEMBER 2020



MANATEE COUNTY

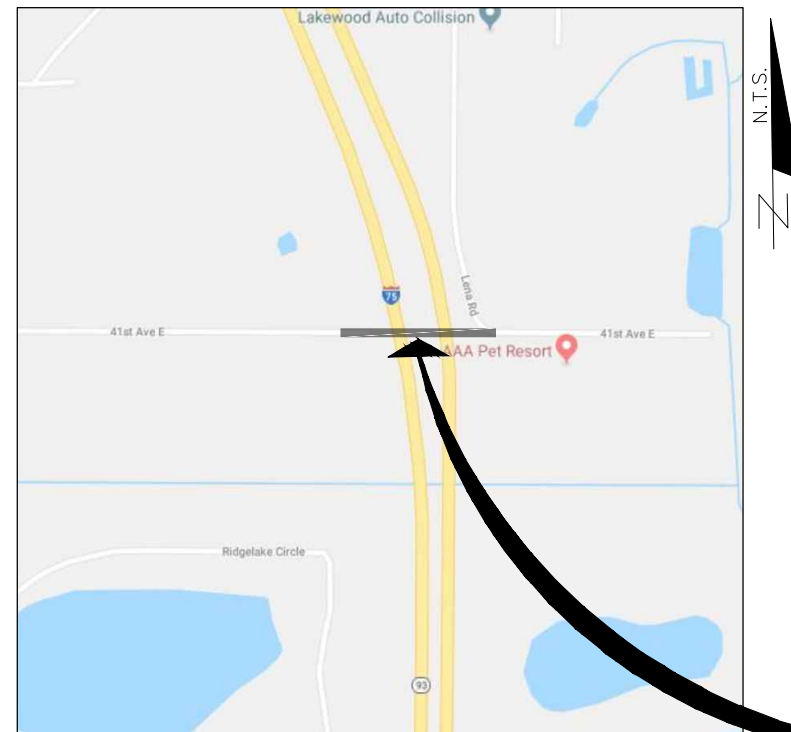
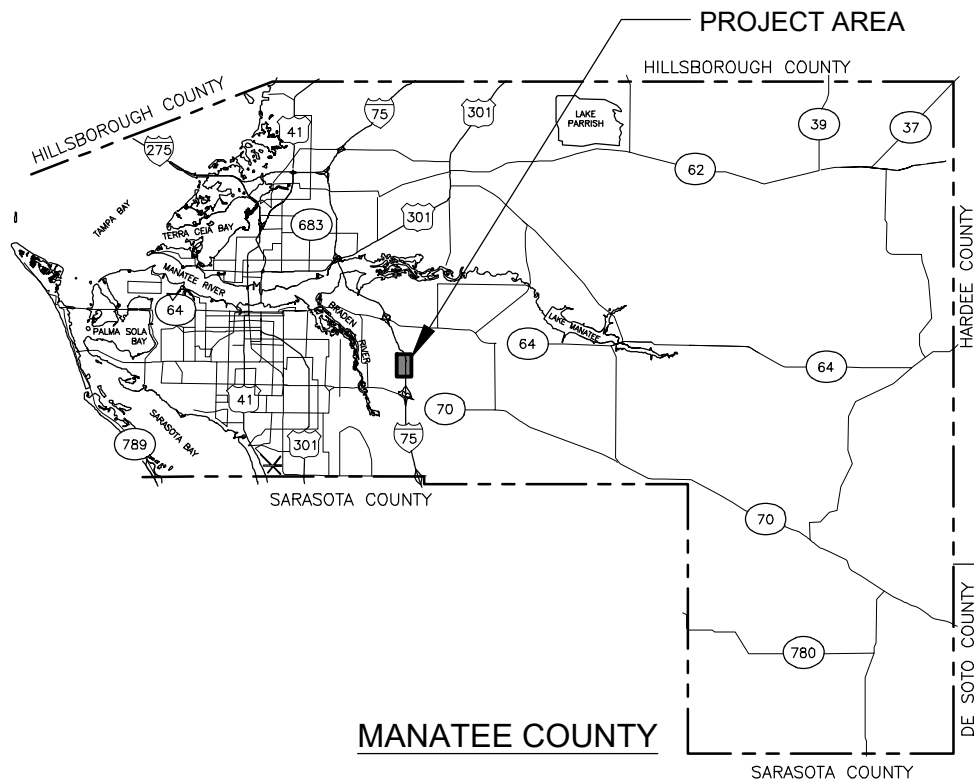
COUNTY MAP
NTS



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VICINITY MAP

PROJECT LOCATION

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SUE01 - SUE02	SUBSURFACE UTILITY ENGINEERING
1 - 2	TOPOGRAPHIC SURVEY



Call 811 or www.sunshine.com two full business days before digging to have utilities located and marked.

Check positive response codes before you dig!

AA-Standard.sbf 11/11/2020 1:06:05 PM - Manatee County - I-75 Parallel Force Main (CIP# 6097980) Drawings/Construction/66-0188-05 - Cover.dwg, Layout: 01

DES BY	CKM				
DR BY	AD	PROJ NO	66-0188.05		
CHK BY	CKM	DATE	NOVEMBER 2020	NO	DATE
				REVISION	

PROFESSIONAL OF RECORD:
CHRISTOPHER K. MARTIN, P.E. #66598
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637 (813) 978-8688 CERT. OF AUTH. #4356

I-75 FORCE MAIN AT 41ST AVE E
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS



COVER

SHEET NO.
01

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

GENERAL NOTES:

- LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE BASED UPON AVAILABLE INFORMATION REVIEWED AT THE TIME OF DOCUMENT PREPARATION AND ARE APPROXIMATE. EXACT LOCATIONS, DEPTHS OF UTILITIES, AND TYPE OF PIPE MUST BE VERIFIED BY THE CONTRACTOR BEFORE ORDERING MATERIALS 72 HOURS PRIOR TO EXCAVATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THE SAME DURING CONSTRUCTION. THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY CONFLICT WITH THE PROPOSED CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING RECORD DRAWING INFORMATION INCLUDING, BUT NOT LIMITED TO, FINISHED GRADE ELEVATIONS, TIES TO WATER MAINS, VALVES, BENDS, ELEVATIONS OF PIPES WHERE DEPTH OF COVER VARIES FROM DESIGN, TIES TO WATER LINES AND SERVICE CONNECTIONS, LOCATIONS, DIMENSIONS, AND ELEVATIONS OF ALL OTHER CONSTRUCTION COMPONENTS WHICH VARY FROM THE DESIGN.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ALL FEDERAL, STATE, LOCAL, AND PRIVATE ENTITIES POTENTIALLY AFFECTED. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS NOTICE OF WHEN CONSTRUCTION WILL COMMENCE IN THE AREA IN ORDER TO PERMIT FIELD LOCATION OF UTILITY LINES PRIOR TO CONSTRUCTION. A TOLL FREE NUMBER, 811, IS AVAILABLE TO ASSIST IN SUCH COORDINATION EFFORTS. THIS NUMBER IS PART OF THE UTILITY NOTIFICATION EFFORTS. THIS IS REFERRED TO AS "SUNSHINE811", BUT DOES NOT TOTALLY REPRESENT ALL UTILITIES POTENTIALLY AFFECTED. ALL UTILITIES SHALL BE KEPT IN OPERATION EXCEPT WITH THE EXPRESS WRITTEN CONSENT OF THE UTILITY OWNER. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE EXISTING UTILITIES. ANY AND ALL DAMAGE TO PROPERLY LOCATED EXISTING UTILITIES AS A RESULT OF THE CONTRACTOR'S ACTIVITIES, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE A REVIEW OF THE SITE TO DETERMINE EXISTING CONDITIONS AND ANYTHING NOT COVERED IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE (ENGINEER OF RECORD) AND BE PART OF THE BID VALUE.
- THE CONTRACTOR SHALL NOTIFY THE COUNTY A MINIMUM OF 2 WEEKS IN ADVANCE OF ANY AND ALL WORK REQUIRING DISRUPTION OF ACCESS, WATER, OR SANITARY SEWER SERVICE. DISRUPTION IN SERVICE TO ANY PROPERTY OWNER SHALL NOT EXCEED 2 HOURS FOR WATER AND 4 HOURS FOR SANITARY SEWER SERVICE. ACCESS TO PROPERTY SHALL BE MAINTAINED AT ALL TIMES.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND PROTECTING THE INTEGRITY OF THE UTILITY POLES AND SIGNAL POLES DURING CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, PAVING, STABILIZED EARTH, CURBS, DRIVEWAYS, SIDEWALKS, FENCES, MAILBOXES, IRRIGATION LINES, SIGNS, LANDSCAPING, SOD, AND WETLANDS.
- ANY AND ALL AREAS DISTURBED DURING CONSTRUCTION ACTIVITIES SHALL BE COMPLETELY RESTORED WITH THE SAME TYPE AND QUALITY OF MATERIALS AND WORKMANSHIP AS PREVIOUSLY EXISTED.
- PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITY, APPROPRIATE EROSION CONTROL DEVICES SHALL BE INSTALLED TO CONTROL AND REDUCE SOIL EROSION AND SEDIMENT TRANSPORT TO OFF-SITE AREAS. THE CONTRACTOR SHALL MAINTAIN THESE DEVICES THROUGHOUT THE DURATION OF CONSTRUCTION. ALL DEVICES SHALL REMAIN IN-PLACE UNTIL THE SURROUNDING AREAS ARE ESTABLISHED. THESE DEVICES SHALL BE INSTALLED ACCORDING TO THE FLORIDA DEVELOPMENT MANUAL PUBLISHED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND GOVERNING CONTRACT DOCUMENTS.
- ALL WATER COLLECTED AND PUMPED DURING TRENCH DEWATERING ACTIVITIES SHALL BE DISPOSED OF IN ACCORDANCE WITH NPDES REQUIREMENTS.
- ALL FACILITIES AND ACCESSORIES SHALL BE INSTALLED IN CONFORMANCE WITH APPLICABLE LOCAL CODES AND REQUIREMENTS AND THESE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP EXCAVATIONS DRY AND SHALL PROVIDE ALL SHORING, SHEETING, AND BRACING NECESSARY TO PROTECT WORKMEN, ADJACENT STRUCTURES, UTILITIES, EXISTING PAVEMENT, OR TO MINIMIZE TRENCH. THE CONTRACTOR SHALL PROVIDE ADEQUATE TRENCH SAFETY FOR TRENCH EXCAVATIONS, AND COMPLY WITH OSHA AND THE STATE OF FLORIDA TRENCH SAFETY REGULATIONS. THE COST OF DEWATERING SHALL BE INCLUDED IN THE PIPING PAY ITEMS.
- ALL TEES, CROSSES, PLUGS, BENDS (HORIZONTAL AND VERTICAL), DEFLECTING 11-1/4 DEG OR MORE, SHALL BE INSTALLED WITH RESTRAINED JOINTS.

- DEPTH OF COVER AS MEASURED FROM FINISHED GRADE TO TOP OF THE PIPELINE SHALL BE A MINIMUM OF 36 INCHES UNLESS OTHERWISE INDICATED. PIPELINES 12 INCHES AND LESS DEPTH OF COVER FROM FINISHED GRADE TO TOP OF PIPELINE SHALL BE A MINIMUM OF 36 INCHES.
 - THE CONTRACTOR SHALL ADJUST (AS REQUIRED) PIPELINE ALIGNMENTS HORIZONTALLY AND/OR VERTICALLY TO AVOID CONFLICTS WITH ACTUAL FIELD CONDITIONS AS UNCOVERED DURING CONSTRUCTION. FIELD ADJUSTMENT SHALL BE COORDINATED WITH, AND APPROVED BY, THE ENGINEER.
 - THE CONTRACTOR SHALL BRACE AND PROTECT ALL EXISTING EXPOSED UTILITIES; AND COORDINATE HIS/HER EFFORTS WITH THE UTILITY OWNER.
 - THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER AND SEWER LINES, STORM DRAINS, UTILITIES, DRIVEWAYS, SIDEWALKS, SIGNS, MAIL BOXES, FENCES, TREES, LANDSCAPING, AND ANY OTHER IMPROVEMENT OR FACILITY IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DAMAGED ITEM DUE TO HIS CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
 - CONTRACTOR SHALL CALL THE SUNSHINE STATE ONE CALL AT 811 AND THE UTILITY OWNERS 48 HOURS BEFORE BEGINNING WORK. NOT ALL UTILITIES ARE MEMBERS, WHICH WILL REQUIRE DIRECT CONTACT WITH NON-MEMBERS.
 - UTILITY/AGENCY OWNERS:
- | COMPANIES | CONTACT | PHONE NUMBERS |
|--------------------------------|-----------------------|-------------------|
| CHARTER COMMUNICATIONS | USIC DISPATCH OFFICE | 800-778-9140 |
| FDOT D1 ITS | CARLOS OGANDO | 239-989-2473 |
| CROWN CASTLE FIBER | STAKE CENTER LOCATING | 801-364-1063 |
| FP&L MANATEE | USIC DISPATCH CENTER | 800-788-9140 |
| FRONTIER COMMUNICATIONS | USIC DISPATCH | 800-788-9140 |
| MANATEE CO. UTILITY OPERATIONS | ANTHONY WILLIAMS | 941-792-8811x5081 |
- CONTRACTOR SHALL COORDINATE WITH COUNTY CROSS CONNECTION STAFF & PRIVATE PROPERTY OWNER AS REQUIRED.

SEPARATION REQUIREMENTS:

- VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, AND WASTEWATER OR STORMWATER FORCE MAINS: NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAINS SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. WATER MAIN TO BE ABOVE THE OTHER PIPELINE UNLESS NOTED OTHERWISE. NEW RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN SHALL HAVE ONE FULL LENGTH OF WATER MAIN PIPE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN STORM SEWERS AND STORMWATER FORCE MAINS AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS AND WASTEWATER FORCE MAINS.
- HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, AND WASTEWATER OR STORMWATER FORCE MAINS:

NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN OR RIGHT OF WAY LINES.

NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, OR WASTEWATER FORCE MAIN.

PROPOSED SYMBOL LEGEND

- FORCE MAIN
- FORCE MAIN PLUG VALVE
- AIR RELEASE VALVE
- EXIST. FORCE MAIN TO REMAIN
- F&I: FURNISH AND INSTALL

HATCHING LEGEND:

- DRIVEWAY RESTORATION LIMITS (DRL)
- ROADWAY RESTORATION LIMITS (RRL)

NOTE: LIMITS AS SHOWN ON PLANS SHALL BE SAW-CUT AND SHALL MATCH EXISTING PAVEMENT. LIMITS AS SHOWN ARE FOR REFERENCE ONLY. ROADWAY RESTORATION LIMITS SHALL ADHERE TO THE MANATEE COUNTY DETAIL.

EXISTING SYMBOL LEGEND

- SIGN
- WOOD UTILITY POLE
- CONCRETE UTILITY POLE
- GUY WIRE
- WATER METER
- WATER VALVE
- RECLAIM VALVE
- SANITARY MANHOLE
- STORM MANHOLE
- GRATE INLET
- FIRE HYDRANT
- BACKFLOW PREVENTER
- UTILITY RISER
- UTILITY VAULT
- MAILBOX
- WOOD POST
- CLEANOUT
- GAS MARKER
- ANTENNA
- CONTROL PANEL
- CABLE SERVICE BOX
- TELEPHONE SERVICE BOX
- STREET LIGHT
- DRIP LINE
- FENCE LINE
- RIGHT OF WAY
- OVERHEAD ELECTRIC
- OVERHEAD UTILITIES
- HEDGE/VEGETATION LINE
- 22.5 1-FOOT CONTOURS
- DRAINAGE PIPE
- SANITARY SEWER
- SANITARY SERVICE LINE
- 6" WATER MAIN
- WATER SERVICE LINE
- PALM
- OAK
- TREE
- BUSH
- 52 SURVEY CONTROL POINT

FDOT Job 11/11/2020 1:06:05:0188.05 - Manatee County - I-75 Parallel Force Main (CIP) 6097980 Drawings/Construction/66-0188.05 - General Notes.dwg, Layout: 02

DES BY	CKM			
DR BY	AD	PROJ NO	66-0188.05	
CHK BY	CKM	DATE	NOVEMBER 2020	
		NO	DATE	REVISION

PROFESSIONAL OF RECORD:
 CHRISTOPHER K. MARTIN, P.E. #66598
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637 (813) 978-8688 CERT. OF AUTH. #4356

I-75 FORCE MAIN AT 41ST AVE E
 BRADENTON, FLORIDA
 MANATEE COUNTY PUBLIC WORKS



GENERAL NOTES



SHEET NO. 02

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TRAFFIC NOTES & SPECIAL CONDITIONS:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF TRAFFIC WHICH WILL CONFORM TO THE CURRENT EDITION OF THE FEDERAL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND FDOT DESIGN STANDARDS 600 SERIES. THE CONTRACTOR SHALL SUBMIT ALL TRAFFIC CONTROL PLANS TO MANATEE COUNTY (ATTN: VISHAL S.KAKKAD, TRAFFIC DESIGN MANAGER, 941-749-3500 EXT: 7812) FOR REVIEW/APPROVAL.
2. ALL BACKFILLED MATERIAL SUCH AS SAND, GRAVEL, DIRT, ETC., NOT USED BY THE END OF EACH WORK DAY, MUST BE STORED IN A LOCATION OTHER THAN ON PAVEMENT.
3. ALL DUST SHALL BE CONTROLLED ON SITE. ONLY AREAS SCHEDULED FOR IMMEDIATE CONSTRUCTION SHALL BE CLEARED OR STRIPPED OF PAVEMENT OR VEGETATION. WATERING, APPLICATION OF CALCIUM CHLORIDE OR OTHER PRIOR APPROVED MEASURE OF DUST CONTROL SHALL BE EMPLOYED TO PREVENT THE EMANATION OF DUST FROM THE SITE. PERMANENT PAVEMENT, GRASS, LANDSCAPING, AND OTHER SITE WORK SHALL BE INCORPORATED AS SOON AS POSSIBLE.
4. THE CONTRACTOR SHALL MAINTAIN TEMPORARY APPROACHES OR CROSSINGS IN A SAFE CONDITION AT INTERSECTIONS WITH STREETS, BUSINESSES, PARKING LOTS, AND RESIDENCES.
5. ALL EXISTING TRAFFIC SIGNS WITHIN THE PROPOSED CONSTRUCTION LIMITS ARE TO BE PROTECTED BY THE CONTRACTOR. CAUTION SHOULD BE EXERCISED WHILE RELOCATING EXISTING SIGNS WHERE DIRECTED. IF THE SIGNS ARE DAMAGED BEYOND USE, SIGNS SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE. ALL EXISTING PAVEMENT MARKING DAMAGED OR REMOVED SHALL BE REPLACED TO MATCH EXISTING.
6. THE CONTRACTOR SHALL PROVIDE A COURSE OF ACTION PLAN FOR THE OCCURRENCE OF AN ACCIDENTAL SPILL OF FUEL OR OTHER SUBSTANCE DURING CONSTRUCTION. ACTION PLAN SHALL BE SUBMITTED TO OWNER FOR ACCEPTANCE.
7. ALL FIELD LAYOUT AND SURVEYING FOR CONSTRUCTION OF THIS PROJECT SHALL BE PROVIDED BY THE CONTRACTOR AT HIS EXPENSE; UNDER THE DIRECTION OF A LICENSED PROFESSIONAL LAND SURVEYOR.
8. ELEVATIONS SHOWN ON PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).
9. PROPERTY MARKERS SHALL BE PROTECTED BY THE CONTRACTOR. THE CONTRACTOR'S REGISTERED SURVEYOR SHALL REPLACE ANY MARKERS THAT ARE DISTURBED.
10. THE CONTRACTOR'S SURVEYOR SHALL REPLACE ANY SURVEY MONUMENTS, PERMANENT MARKERS, OR TEMPORARY MARKERS WHICH ARE DAMAGED DURING CONSTRUCTION.
11. IF EITHER A THREATENED OR ENDANGERED PLANT OR ANIMAL SPECIES IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY THE ENGINEER OF RECORD.
12. MAIL SERVICE SHALL NOT BE INTERRUPTED ALONG THE CONSTRUCTION ROUTE. THIS MAY INCLUDE RELOCATION OF MAILBOXES THAT MAY BE AFFECTED BY CONSTRUCTION AND ALLOWING ACCESS TO UNITED STATES POSTAL SERVICE VEHICLES AND EMPLOYEES.
13. NO OPEN TRENCH SHALL BE ALLOWED ACROSS ANY STREET OR WITHIN 10 FEET OF ANY TRAVEL-WAY, EXCEPT WHEN WORK IS IN ACTUAL PROGRESS. NO OPEN TRENCH SHALL BE PERMITTED IN EXCESS OF 500 FEET OR LENGTH NECESSARY TO ACCOMMODATE PIPE INSTALLATION IN A SINGLE DAY, WHICHEVER IS GREATER.
14. THE CONTRACTOR SHALL CONFORM TO ALL SAFETY REQUIREMENTS OF POWER UTILITIES WHEN WORKING IN THE VICINITY OF OVERHEAD AND UNDERGROUND POWER UTILITIES.
15. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT HORIZONTAL AND VERTICAL TRANSITION OF PIPELINE BY DEFLECTION OF PIPE JOINTS USING NOT MORE THAN 75% OF THE MAXIMUM DEFLECTION RECOMMENDED BY THE MANUFACTURER.
16. SHOP DRAWINGS SHALL BE FURNISHED FOR APPROVAL OF ALL PIPE CONNECTIONS, TRANSITIONS, AND SPECIAL FITTINGS PRIOR TO FABRICATION OR DELIVERY TO JOB SITE.
17. CONTRACTOR TO FOLLOW MANATEE COUNTY PUBLIC UTILITIES DEPARTMENT (MCPUD) APPROVED PRODUCTS AND MATERIALS, TECHNICAL SPECIFICATIONS AND STANDARD DETAILS. LATEST EDITION CAN BE FOUND ON MCPUD WEBSITE.
18. CONTRACTOR SHALL PROVIDE TEMPORARY THRUST RESTRAINT,

BRACING, TESTING PLUGS, AND OTHER DEVICES NECESSARY TO SUCCESSFULLY COMPLETE PRESSURE TESTING OF PIPING SYSTEMS.

19. ALL PROPOSED DUCTILE IRON PIPE AND FITTINGS WITHIN PROJECT LIMITS SHALL BE WRAPPED IN POLYETHYLENE WRAP IN ACCORDANCE WITH AWWA STANDARD C-105. SOME SECTIONS OF DUCTILE IRON PIPE SHALL BE WRAPPED WITH TWO (2) LAYERS OF POLYETHYLENE WRAP WHERE INDICATED ON THE DRAWINGS. POLYETHYLENE WRAP SHALL BE INCLUDED IN THE PRICE OF THE PIPE.
20. ALL EXISTING SEWER MAINS IDENTIFIED TO BE REMOVED OR PLACED OUT OF SERVICE CANNOT BE REMOVED OR PLACED OUT OF SERVICE UNTIL PROPOSED FACILITIES HAVE BEEN CONSTRUCTED, TESTED, PERMITTED, CLEARED, AND PLACED IN SERVICE. TIME IDENTIFIED IN THE SCHEDULE FOR EXISTING UTILITIES TO BE REMOVED SHALL COMMENCE WITHIN SEVEN (7) DAYS AFTER CLEARANCE HAS BEEN OBTAINED IN WRITING BY THE COUNTY FROM THE PERMITTING AGENCY.
21. SANITARY SEWER SERVICE AND WATER SERVICE MUST BE MAINTAINED FOR ALL CUSTOMERS AT ALL TIMES, EXCEPT FOR MINOR DISRUPTIONS DURING CONNECTIONS CHANGEOVERS AS NOTED IN GENERAL NOTES. CONTRACTOR SHALL COORDINATE ALL SYSTEM SHUT DOWNS WITH COUNTY OPERATIONS STAFF. MANATEE COUNTY PUBLIC UTILITIES DEPARTMENT (941) 792-8811 EXT. 5374.
22. CONTRACTOR MUST OBTAIN RIGHT OF USE PERMIT FROM MANATEE COUNTY RIGHT-OF-WAY PERMIT MANAGEMENT OFFICE.
23. ALL UTILITY RELOCATION MUST BE IN PLACE, TESTED, PERMITTED, CLEARED AND OPERATIONAL PRIOR TO ROADWAY CONSTRUCTION BY OTHERS THAT IMPACTS EXISTING UTILITIES.
24. IN THE EVENT OF A WATER OR SEWER MAIN BREAK, CALL 24 HOUR EMERGENCY NUMBER (941) 792-8811 EXT. 5268.
25. CONTRACTOR SHALL SUBMIT AND OBTAIN APPROVAL OF SHOP DRAWINGS, CONSTRUCTION SCHEDULE AND THE FOLLOWING PLANS PRIOR TO BEGINNING CONSTRUCTION (NOT LIMITED TO):
 - A. SHUTDOWN SCHEDULE AND PLAN TO INCLUDE BUT NOT LIMITED TO PIPE DEWATERING AND DISPOSAL PLANS; CONNECTION SCHEDULE FOR WATER MAINS (INCLUDING LINESTOPS); SAMPLING PLAN AND LOCATIONS FOR BACTERIOLOGICAL TESTING; PRESSURE TESTING SCHEDULE; LINESTOP LOCATIONS.
 - B. SANITARY SEWER BYPASS PLAN.
26. CONTRACTOR TO COORDINATE WITH FLORIDA POWER & LIGHT (FPL) FOR POWER POLES NEEDING SUPPORT DURING CONSTRUCTION. CONTRACTOR TO TAKE PRECAUTIONS TO PROTECT ALL UTILITIES AND UTILITY POLES.
27. ALL ROAD CROSSINGS SHALL BE OPEN CUT.
28. ALL CONCRETE THRUST BLOCKS INSTALLED FOR TESTING PROCESS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE.
29. PLAN STATIONING FOR ISOLATION VALVES AND AIR RELEASE VALVES IS APPROXIMATE. THE CONTRACTOR SHALL INSTALL ALL REQUIRED AIR RELEASE VALVES AT THE HIGHEST ACTUAL POINT(S) IN THE PIPELINE. LOCATIONS OF ISOLATION VALVES AND AIR RELEASE VALVES MUST BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO INSTALLATION.
30. CONNECTIONS TO WATER MAINS WILL BE PERFORMED DURING NON-PEAK HOURS (9:00 PM TO 6:00 AM). CONNECTIONS SHALL NOT BE SCHEDULED DURING COUNTY HOLIDAYS, WEEKENDS, WITHIN 72 HOURS OF POSSIBLE HURRICANE OR TROPICAL STORM LANDING, OR DURING TIMES WHEN COUNTY HAS INITIATED AN EMERGENCY ALERT.
31. NO PIPES OF ANY KIND ATTACHED TO ACTIVE OR IN SERVICE WATER, WASTEWATER, RECLAIMED WATER SYSTEMS MAY BE LEFT OPEN. PIPE MUST BE CAPPED OR PLUGGED AND RESTRAINED.
32. PIPELINES ARE TO BE RESTRAINED UNLESS OTHERWISE NOTED.

FDOT Job 11/11/2020 1:06:05 PM - Manatee County - I-75 Parallel Force Main (CIP) 6097980 Drawings Construction 66-0188-05 - General Notes.dwg, Layout: 03

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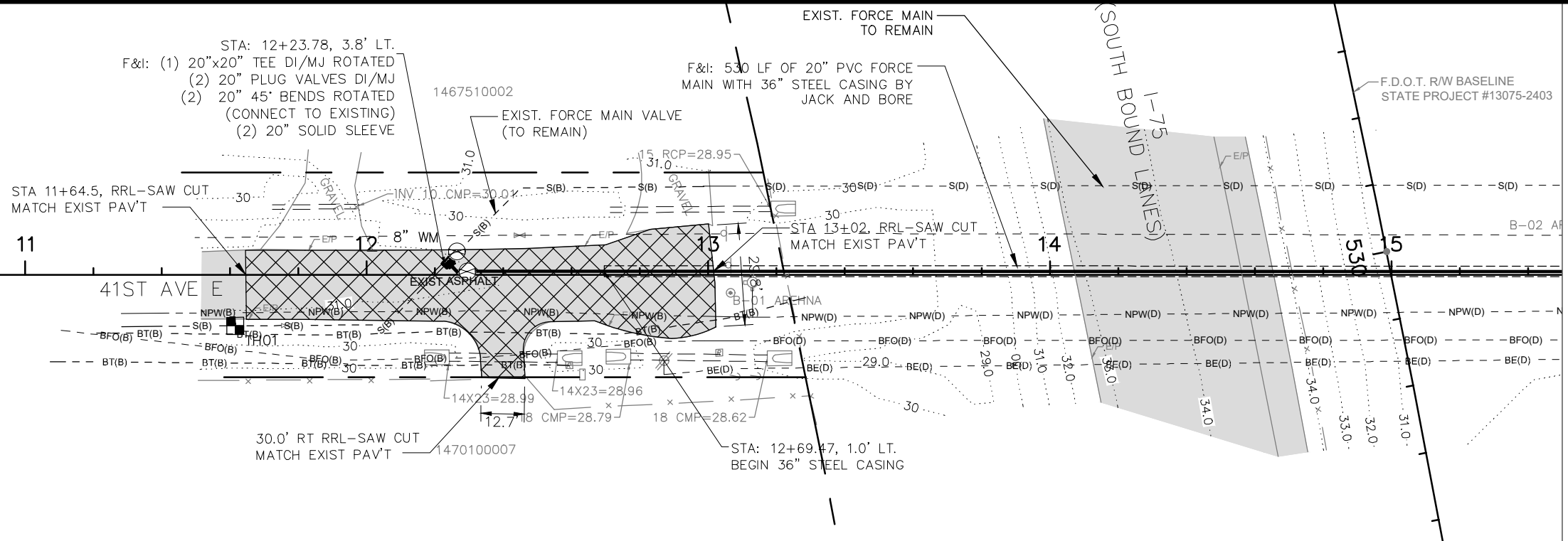


GENERAL NOTES

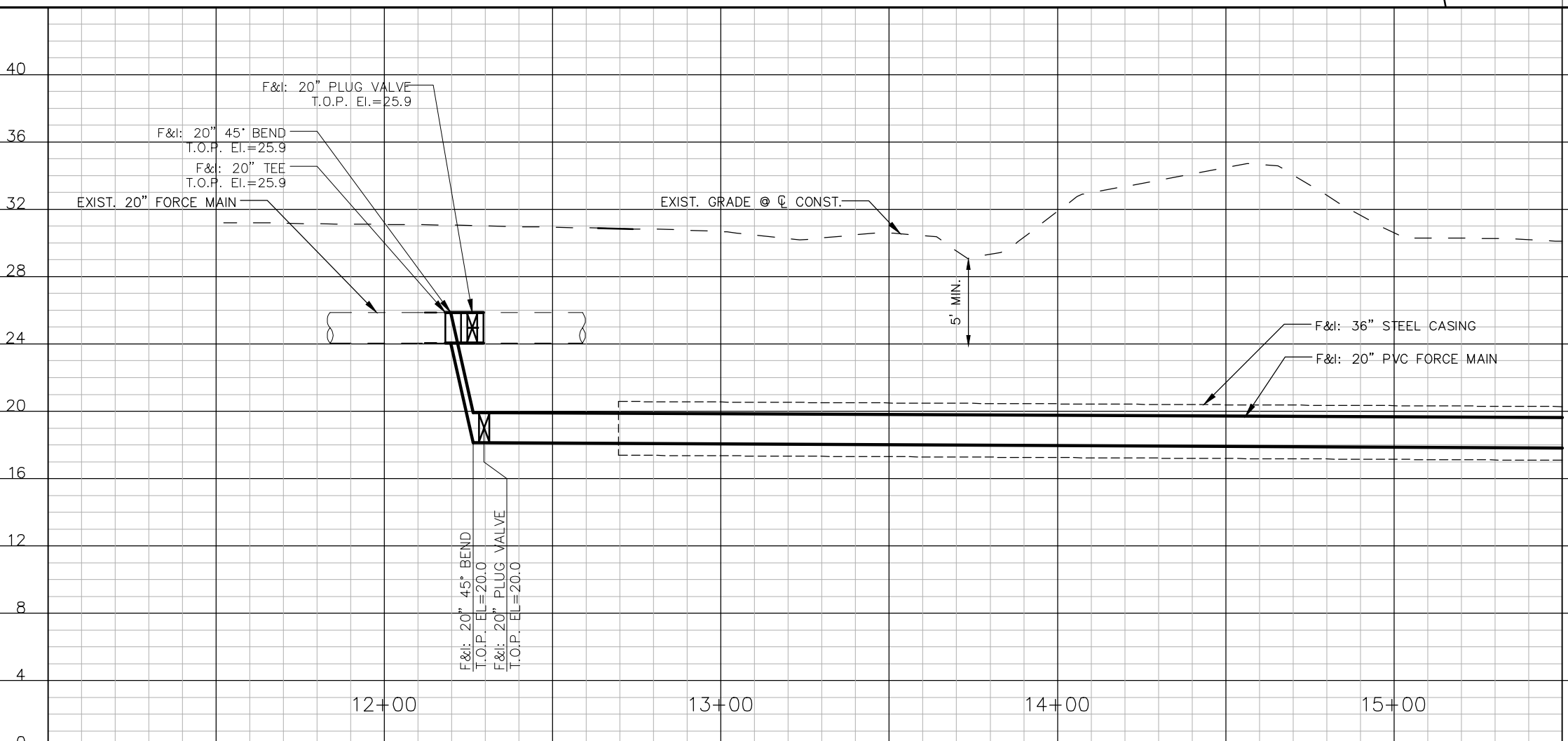


SHEET NO. 03

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MATCHLINE STA. - 15+50.00



1" = 40' Horizontal
1" = 8' Vertical

AA-Standard.sbf 9/1/2020 1:06:05-0188.05 - Manatee County - I-75 Parallel Force Main (CIP# 6097980) Drawings/Construction/66-0188.05 PPO - 41st Ave E.dwg Layout_04

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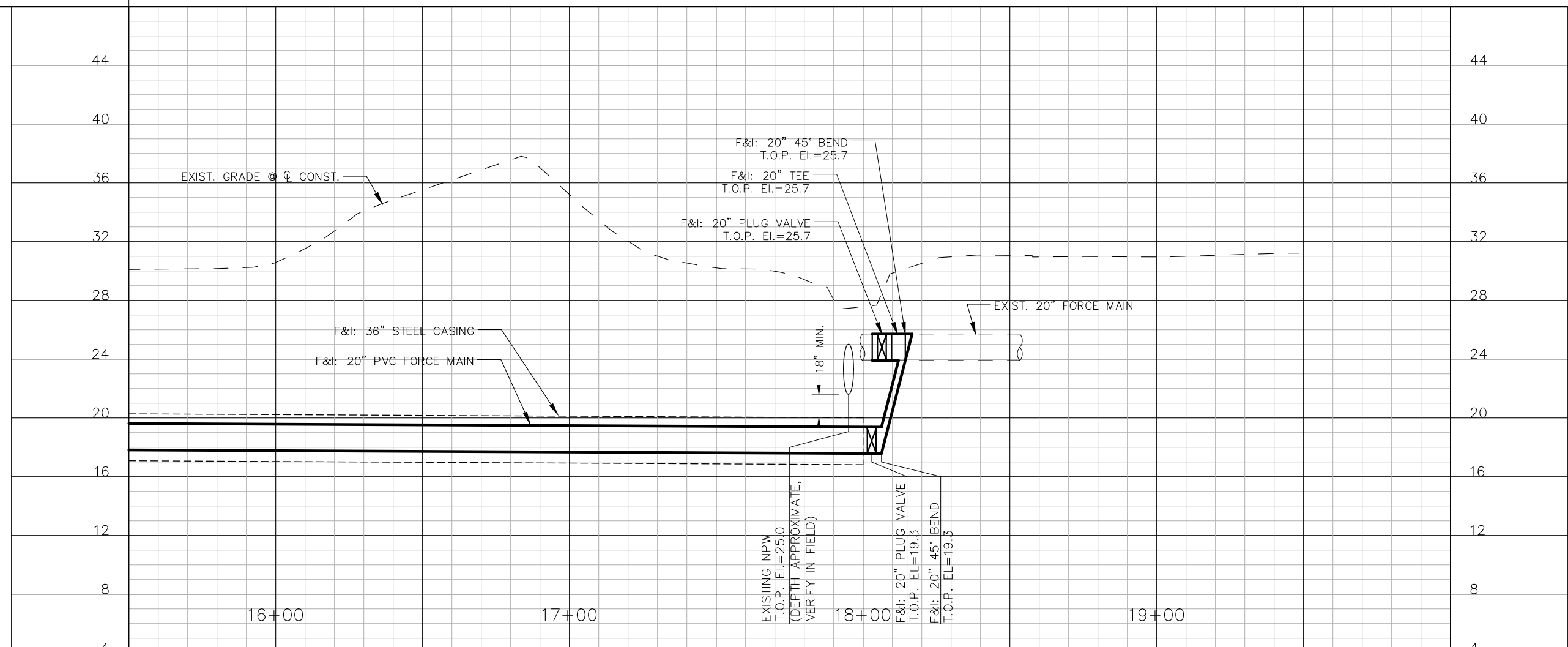
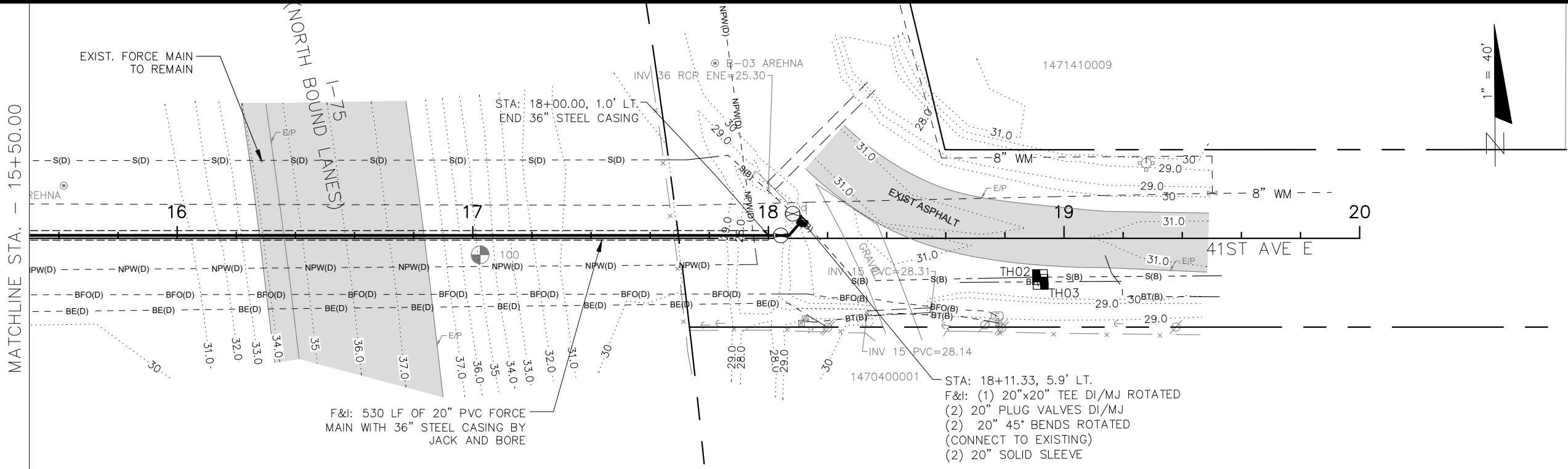
PLAN & PROFILE - 41ST AVE E

9/1/2020 1:06:05-0188.05 - Manatee County - I-75 Parallel Force Main (CIP# 6097980) Drawings/Construction/66-0188.05 PPO - 41st Ave E.dwg Layout_04

SHEET NO.
04

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AA-Standard.dwg
9/1/2020
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1" = 40' Horizontal
1" = 8' Vertical

DES BY	CKM	PROJ NO	66-0188.05
DR BY	AD	DATE	SEPTEMBER 2020
CHK BY	CKM	NO	DATE
		REVISION	

PROFESSIONAL OF RECORD:
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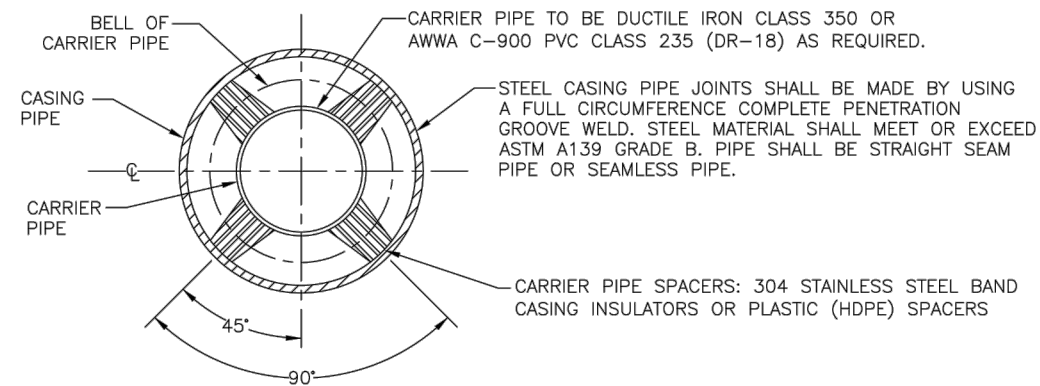
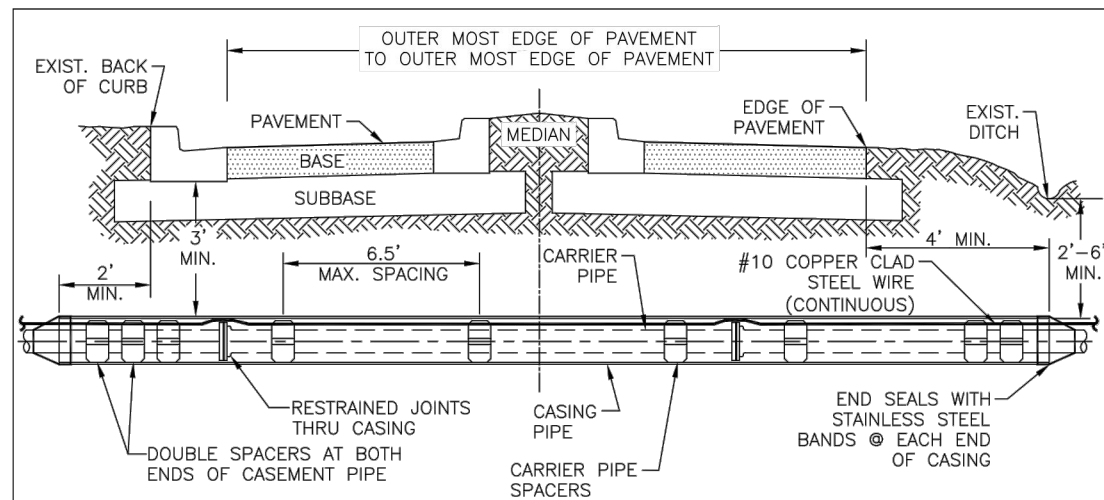
I-75 FORCE MAIN AT 41ST AVE E
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS



PLAN & PROFILE - 41ST AVE E

SHEET NO.
05

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



CARRIER SIZE & MINIMUM CASING SIZE								
CARRIER	4"	6"	8"	10"	12"	16"	18"	20"
CASING	12"	14"	18"	20"	24"	30"	36"	36"
CASING / WALL THICKNESS	0.188	0.188	0.250	0.250	0.344	0.406	0.406	0.406

STEEL CASING SIZES

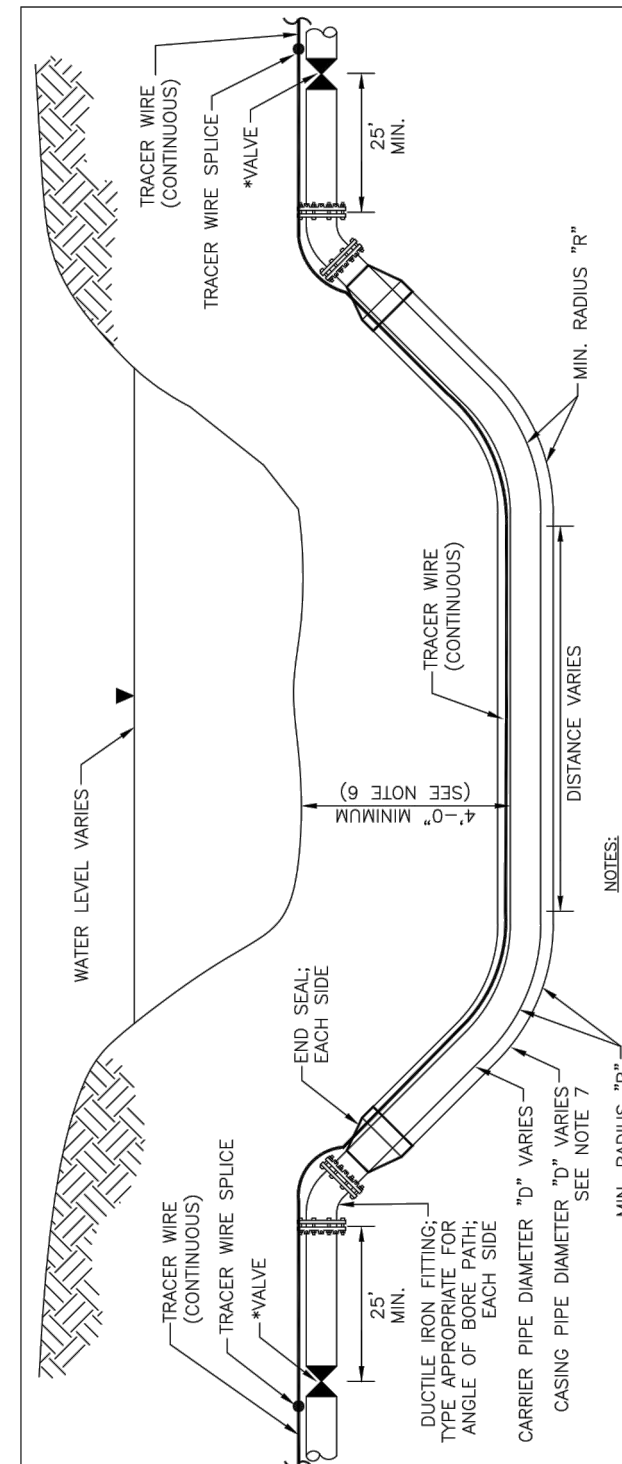
CARRIER SIZE & MINIMUM CASING SIZE								
CARRIER	4"	6"	8"	10"	12"	16"	18"	20"
CASING	8"	12"	16"	20"	24"	30"	36"	36"

PVC/HDPE CASING SIZES

NOTES:

1. THE ENGINEER OF RECORD MAY SELECT A LARGER CASING DIAMETERS, INCREASE WALL THICKNESS, AND/OR INCREASE DEPTH OF BURY DUE TO EXTERNAL LOADS WITH COUNTY APPROVAL PRIOR TO PERFORMING THE WORK.
2. ALL PIPES CROSSINGS OF FEDERAL OR STATE ROADS; OR RAILROADS SHALL BE INSTALLED IN A CASING PIPE.
3. ALL PIPES CROSSINGS OF COUNTY LOCAL ARTERIAL AND THOROUGHFARE ROADWAYS SHALL BE IN A CASING PIPE.
4. SPLIT-STEEL CASINGS MAY BE USED ON EXISTING COUNTY MAINS ONLY.
5. FOR JACK & BORE SPECIFICATIONS UNDER STATE ROADS AND RAILROADS, REFER TO THE F.D.O.T. UTILITY ACCOMMODATION MANUAL, LATEST EDITION.
6. HDPE CASING SHALL HAVE ALL WELD BEADS REMOVED FROM THE INSIDE SURFACE SUCH THAT THE JOINT SURFACES SHALL BE SMOOTH.
7. *14-INCH DIAMETER MAINS ARE NOT TO BE INSTALLED.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		CASING CROSSING	UG-3
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		



- NOTES:
1. ALL POLYETHYLENE PIPING SHALL MEET MANATEE COUNTY STANDARDS AND SPECIFICATIONS DR-11, CLASS 200 OR GREATER PRESSURE CLASS SHALL BE USED FOR POTABLE, RECLAIMED WATER OR SANITARY FORCE MAINS. DR-9 MAY BE REQUIRED BASED ON THE ENGINEERS CALCULATIONS. SEE NOTE #2.
 2. THE ENGINEER SHALL SUBMIT CALCULATIONS FOR THE MAXIMUM PULLING LENGTH, TOTAL PULL FORCE AND THE ALLOWABLE TENSILE LOAD, IN ACCORDANCE WITH AWWA M55 & ASTM F1804. DESIGN SHALL ALSO BE IN ACCORDANCE WITH ASTM F1962.
 3. A MANDREL BASED ON 80% OF THE INSIDE DIAMETER OF THE PULLED PIPE SHALL BE HAND-PULLED THROUGH THE FINAL INSTALLED PIPE WITH A COUNTY INSPECTOR PRESENT, TO CONFIRM NO ELONGATION(S) (NECKING) HAS OCCURRED.
 4. ONE #10 GAUGE EXTRA HIGH STRENGTH COPPER CLAD STEEL TRACER WIRE SHALL BE SECURED TO THE PIPE FOR ALL TYPES OF PIPELINE INSTALLATIONS. TRACER WIRES SHALL HAVE A MINIMUM 45-MILS OF POLYETHYLENE INSULATION.
 5. TRACER WIRE TO BE COLOR CODED: BLUE FOR POTABLE WATER MAINS; PURPLE FOR RECLAIMED WATER MAINS; AND GREEN FOR SANITARY FORCE MAINS.
 6. PIPE DEPTHS MAY NEED TO BE DEEPER TO AVOID FRACKOUTS.
 7. ALL SUBAQUEOUS; WETLAND; PRESERVE; OR CONSERVATION AREA PIPE CROSSINGS SHALL BE INSTALLED IN A CASING PIPE. PVC AND HDPE CASINGS MAY BE ALLOWED PROVIDED THE CASING PIPE IS INSTALLED FIRST AND THEN THE CARRIER PIPE IS PULLED THRU THE CASING PIPE AS A SEPARATE OPERATION. HDPE CASINGS SHALL HAVE THE INTERNAL BEAD REMOVED.
 8. REFER TO 1.8.5, IF THE CASING IS INSTALLED USING HORIZONTAL DIRECTIONAL DRILLING METHOD.

*NOTES:

1. FOR SANITARY FORCE MAIN USE PLUG VALVE.
2. FOR POTABLE AND RECLAIMED WATER USE GATE VALVE.

PIPE DIAMETER "D" IN INCHES	MIN. RADIUS FOR PE PIPE IN FEET	
	MIN. RADIUS "R" FOR DR-11	MIN. RADIUS "R" FOR DR-9
2	4	5.5
3	6	8.3
4	8	11.0
6	12	16.5
8	16	22.0
10	20	27.5
12	24	33.0
16	32	44.0
18	36	49.5
20	40	55.0

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		DIRECTIONAL BORE SUBAQUEOUS CROSSING	UG-5
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		

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DR BY	AD	PROJ NO	66-0188.05		
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					REVISION

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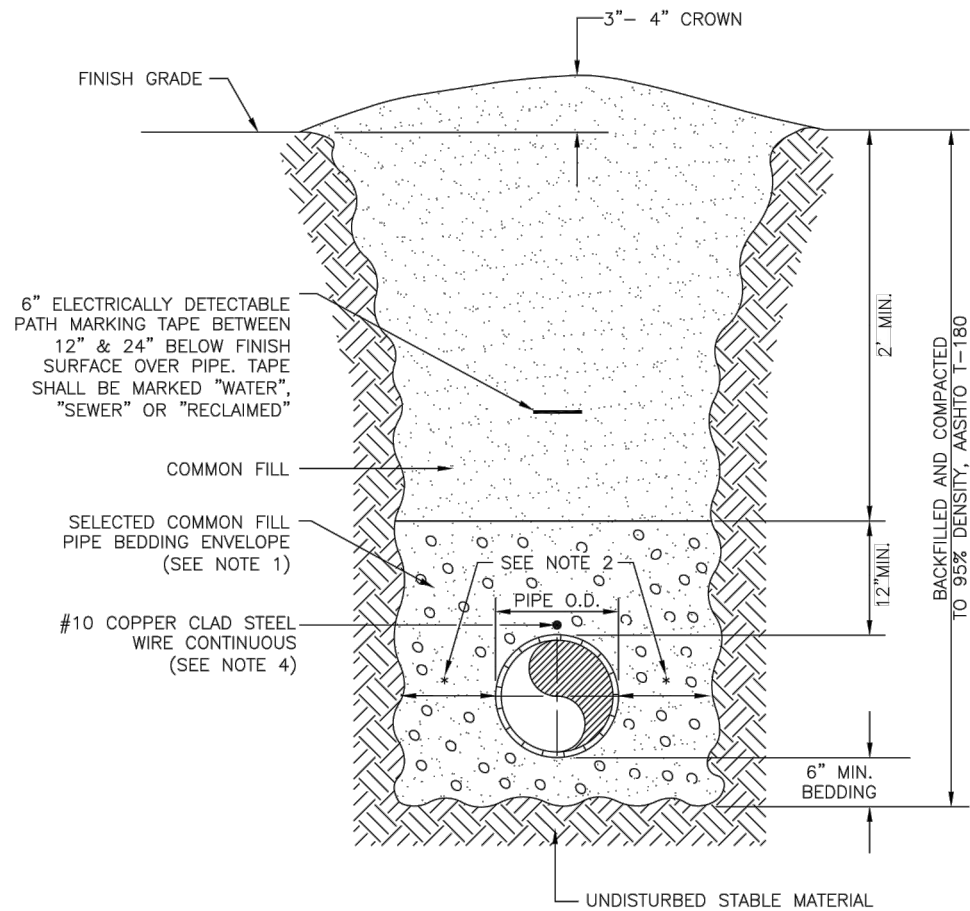
I-75 FORCE MAIN AT 41ST AVE E
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS



TYPICAL DETAILS

NOTES:

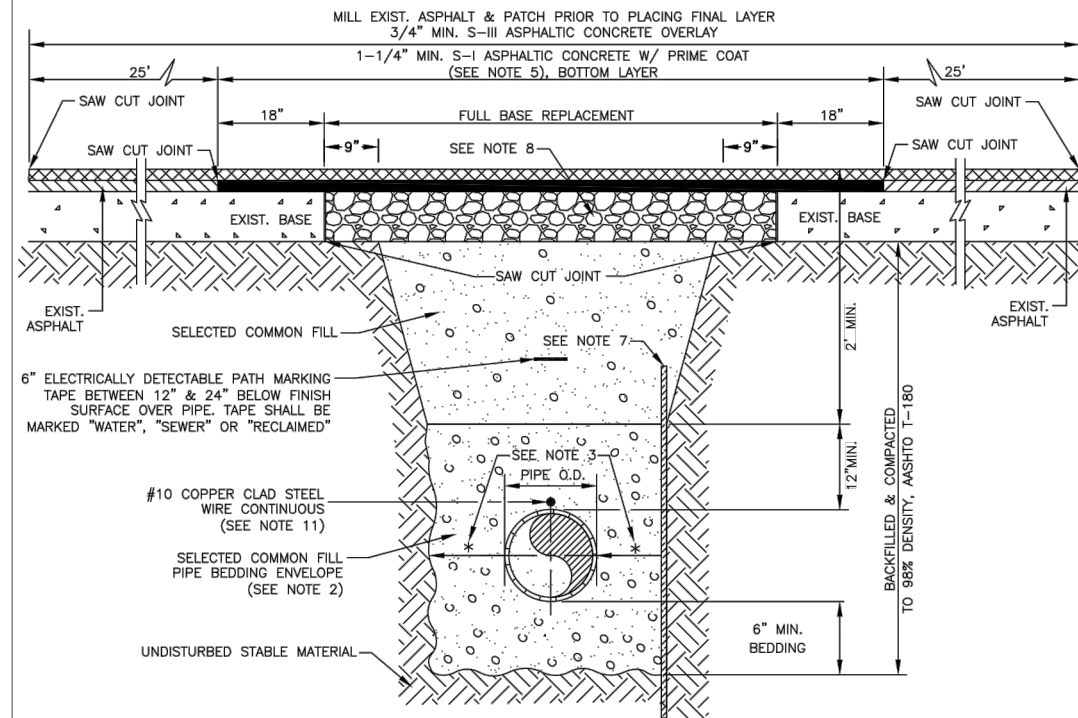
1. USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
3. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
4. TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH UNIMPROVED SURFACE TYPE A-1 PIPE BEDDING	UG-11
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		

NOTES:

1. BITUMINOUS PAVEMENT SHALL BE REMOVED IN CLEAN STRAIGHT LINES BY SAW CUTTING. WHERE BITUMINOUS PAVEMENT ADJOINS A TRENCH, THE EDGES ADJACENT TO THE TRENCH SHALL BE TRIMMED TO A NEAT STRAIGHT LINES BEFORE RESURFACING TO ENSURE THAT ALL AREAS TO BE RESURFACED ARE ACCESSIBLE TO ROLLERS OR TAMPERS USED TO COMPACT THE SUB-GRADE OR PAVING MATERIALS.
2. USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
3. PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
4. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
5. ASPHALTIC CONCRETE STRUCTURE COURSE WITH PRIME COAT SHALL BE THE SAME DEPTH AND TYPE AS EXISTING OR A MINIMUM OF 1-1/4 INCH S-1, WHICHEVER IS GREATER.
6. MILL 25' BACK FROM TRENCH CROSSING SAW CUTS. ADJUST MILLING PER INDIVIDUAL SITE TO NOT IMPACT BASE. BUTT JOINT TO EXIST ASPHALT. FINAL OVERLAY TO MATCH EXISTING WITH NO DISCERNABLE "BUMP" AT JOINT. MILLING LIMITS THAT IMPACT INTERSECTION SHALL BE ADDRESSED ON A CASE BY CASE BASIS AND APPROVED BY MANATEE COUNTY.
7. SHEETING ORDERED LEFT IN PLACE TO BE CUT OFF 24" BELOW FINISHED GRADE OR 12" BELOW SUBGRADE.
8. NEW BASE SHALL MATCH EXISTING; OR BE CRUSHED CONCRETE, 8" MIN. THICKNESS, LBR ≥150, WHICHEVER IS GREATER.
9. TEMPORARY PATCHES WILL BE INSTALLED TO PROVIDE A SMOOTH ALL WEATHER SURFACE AT ALL TIMES. PERMANENT REPLACEMENT TO BE MADE AS SOON AS POSSIBLE.
10. RESTORE SIGNAGE & MARKING WITH THERMOPLASTIC PER FDOT STANDARDS, LATEST EDITION.
11. TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.
12. NOTES 5. THRU 10. ARE MINIMUM REQUIREMENTS FOR A TRENCH IN A LOCAL ROAD. REFER TO LATEST EDITION OF MANATEE COUNTY HIGHWAY AND TRAFFIC STANDARDS FOR ADDITIONAL REQUIREMENTS.



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH ASPHALT PAVEMENT SURFACE TYPE A-1 PIPE BEDDING (CROSSING)	UG-12
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		

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DES BY	CKM				
DR BY	AD	PROJ NO	66-0188.05		
CHK BY	CKM	DATE	NOVEMBER 2020	NO	DATE
					REVISION

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I-75 FORCE MAIN AT 41ST AVE E
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS

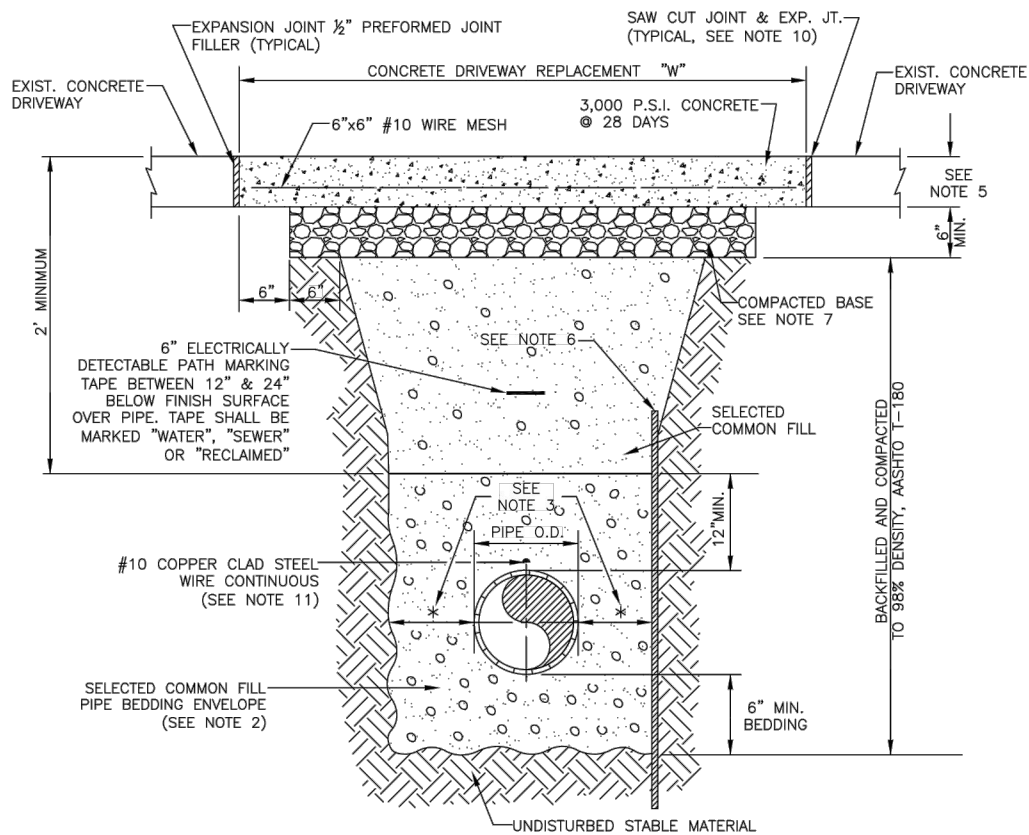


TYPICAL DETAILS

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07

NOTES:

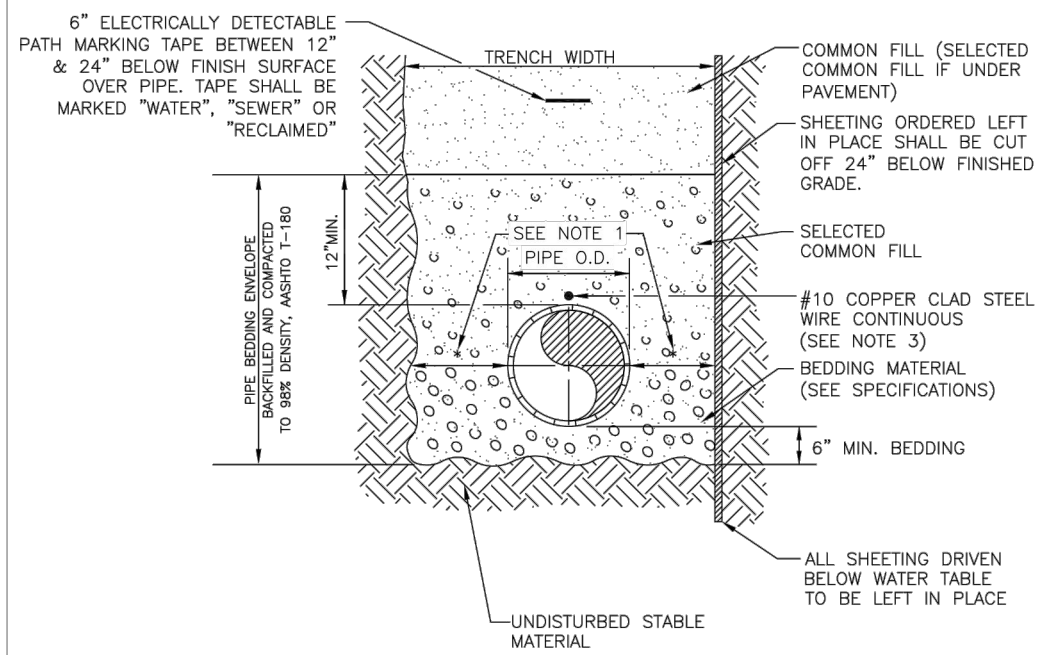
1. CONCRETE PAVEMENT SHALL BE REMOVED WITH SAWED EDGES AND CUT AT A MINIMUM DEPTH OF ONE AND ONE-HALF (1-1/2"). IF A SAW CUT IN CONCRETE PAVEMENT FALLS WITHIN THREE FEET (3') OF A CONTRACTION JOINT, COLD JOINT, EXPANSION JOINT OR EDGE, THE CONCRETE SHALL BE REMOVED TO THE JOINT OR EDGE. THE EDGES OF EXISTING CONCRETE PAVEMENT ADJACENT TO TRENCHES, WHICH HAD BEEN DAMAGED SUBSEQUENT TO SAW CUTTING OF PAVEMENT, SHALL BE SAW CUT TO NEAT STRAIGHT LINES FOR THE PURPOSE OF REMOVING THE DAMAGED PAVEMENT AREAS.
2. USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
3. PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
4. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
5. THICKNESS TO MATCH EXISTING OR BE 6" MINIMUM, WHICHEVER IS GREATER.
6. SHEETING ORDERED LEFT IN PLACE TO BE CUT OFF 24" BELOW FINISH GRADE OR 12" BELOW SUBGRADE.
7. BASE SHALL BE COMPACTED 6" MINIMUM THICKNESS OF APPROVED MATERIAL.
8. DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADOPTED CONSTRUCTION STANDARDS OF THE MANATEE COUNTY TRANSPORTATION DEPARTMENT.
9. IF THE DRIVEWAY IS 12' OR WIDER, SAWCUT AN EXPANSION JOINT ALONG THE CENTER OF THE DRIVEWAY (3/8" WIDE AND 1 1/2" DEEP) AFTER THE CONCRETE HAS SET.
10. IF THERE IS AN EXISTING EXPANSION JOINT WITHIN 3' OF THE PROPOSED JOINT, EXTEND DRIVEWAY REPLACEMENT TO THE EXISTING JOINT.
11. TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH CONCRETE DRIVEWAY SURFACE TYPE A-1 PIPE BEDDING	UG-14
REV. BY	DATE		
		February 25, 2020 DATE OF APPROVAL	

NOTES:

1. PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
2. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH TYPE A-2 PIPE BEDDING	UG-15
REV. BY	DATE		
		February 25, 2020 DATE OF APPROVAL	

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DES BY	CKM				
DR BY	AD	PROJ NO	66-0188.05		
CHK BY	CKM	DATE	NOVEMBER 2020	NO	DATE
					REVISION

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I-75 FORCE MAIN AT 41ST AVE E
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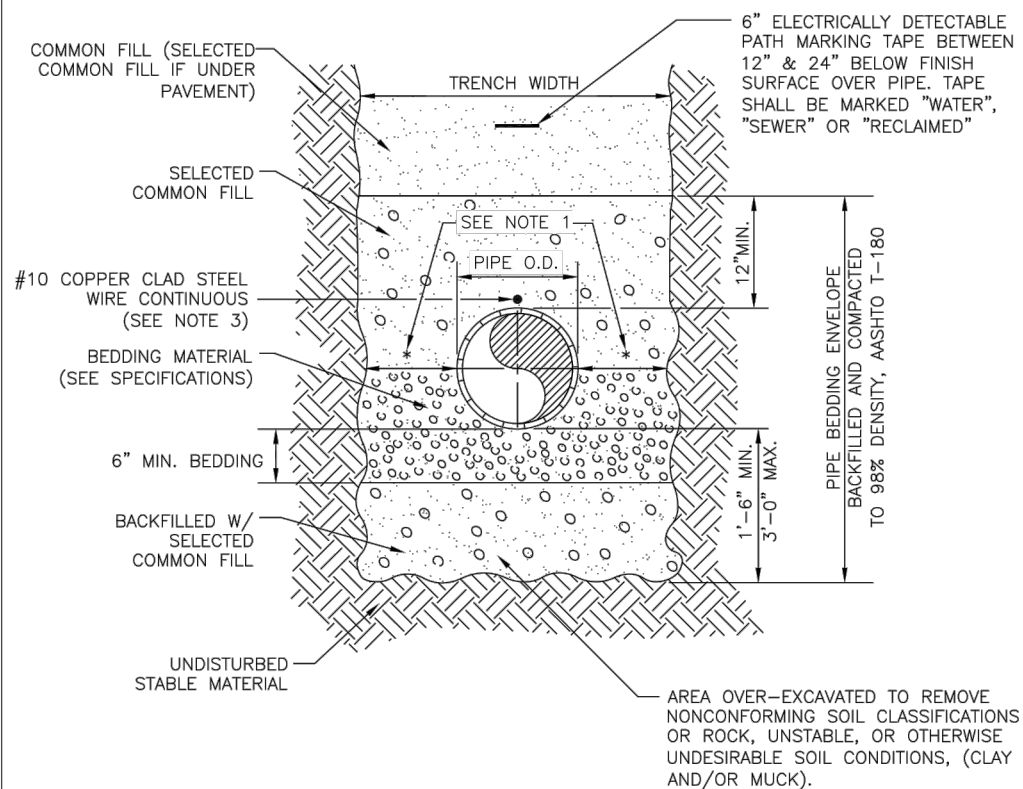


TYPICAL DETAILS

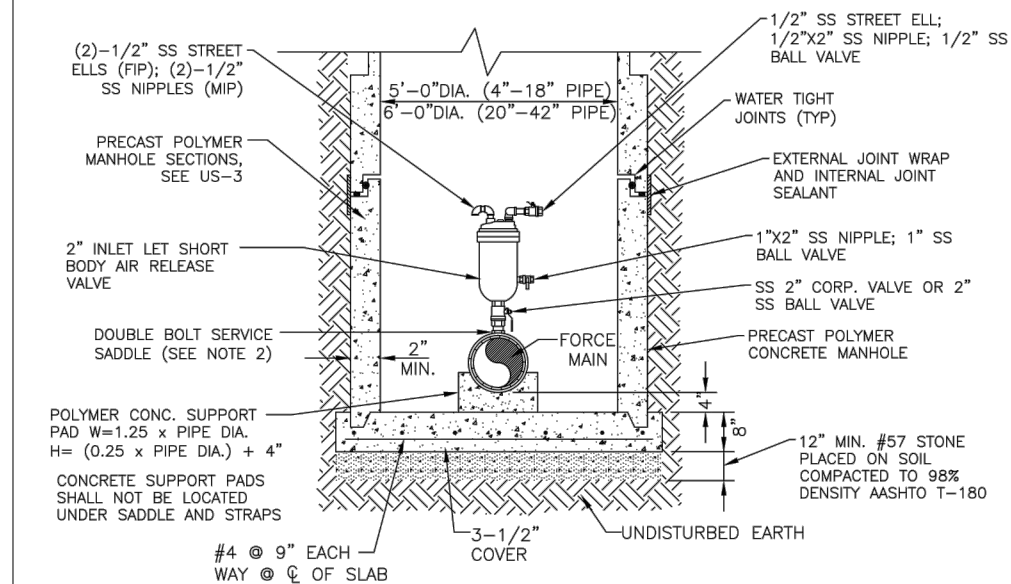
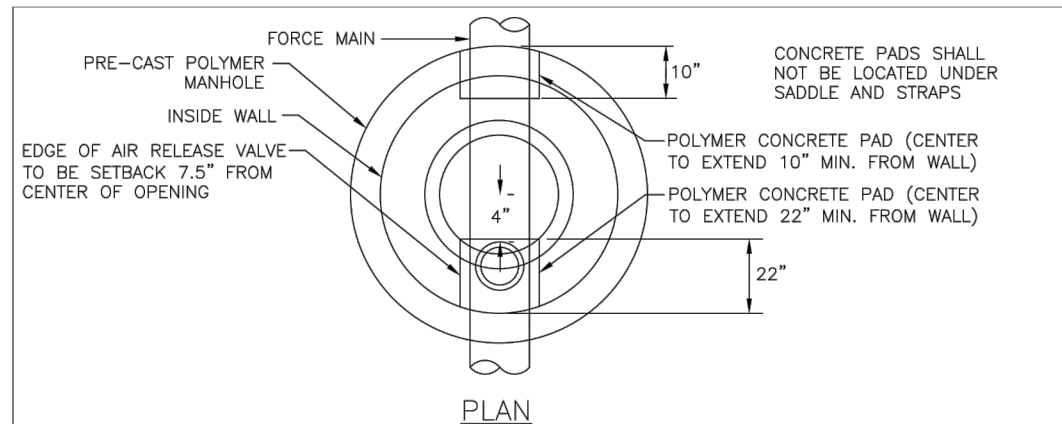
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08

NOTES:

1. PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
2. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH TYPE A-3 PIPE BEDDING	UG-16
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		



NOTES:

1. AIR RELEASE VALVES WHERE REQUIRED ON 4" AND LARGER FORCE MAINS.
2. ARV TO BE SIZED ACCORDING TO MANUFACTURER'S RECOMMENDATION FOR FORCE MAIN SIZE, MINIMUM 2" ARV REQUIRED.
3. SERVICE SADDLE, NIPPLES AND CORPORATION BALL VALVE SHALL BE 316 STAINLESS STEEL.
4. FOR MANHOLES WITH LESS THAN 44 INCHES OF COVER FROM TOP-OF-PIPE TO TOP-OF-FRAME, FRAME & COVER TO HAVE A 32-INCH OPENING. MINIMUM ALLOWABLE COVER IS 36 INCHES.
5. ALL PIPE PENETRATING MANHOLE SHALL HAVE RESILIENT PIPE TO MANHOLE SEALS PER ASTM-923.
6. FINAL GRADE TO BE SLOPED AWAY FROM MANHOLE.
7. MANHOLE SHALL BE AASHTO H-20 RATED, WHEN LOCATED WITHIN THE RIGHT OF WAY.
8. ALL STAINLESS STEEL SHALL BE 316 STAINLESS STEEL.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		BELOW GRADE AIR RELEASE VALVE FOR FORCE MAINS	US-8
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		

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DES BY	CKM				
DR BY	AD	PROJ NO	66-0188.05		
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					REVISION

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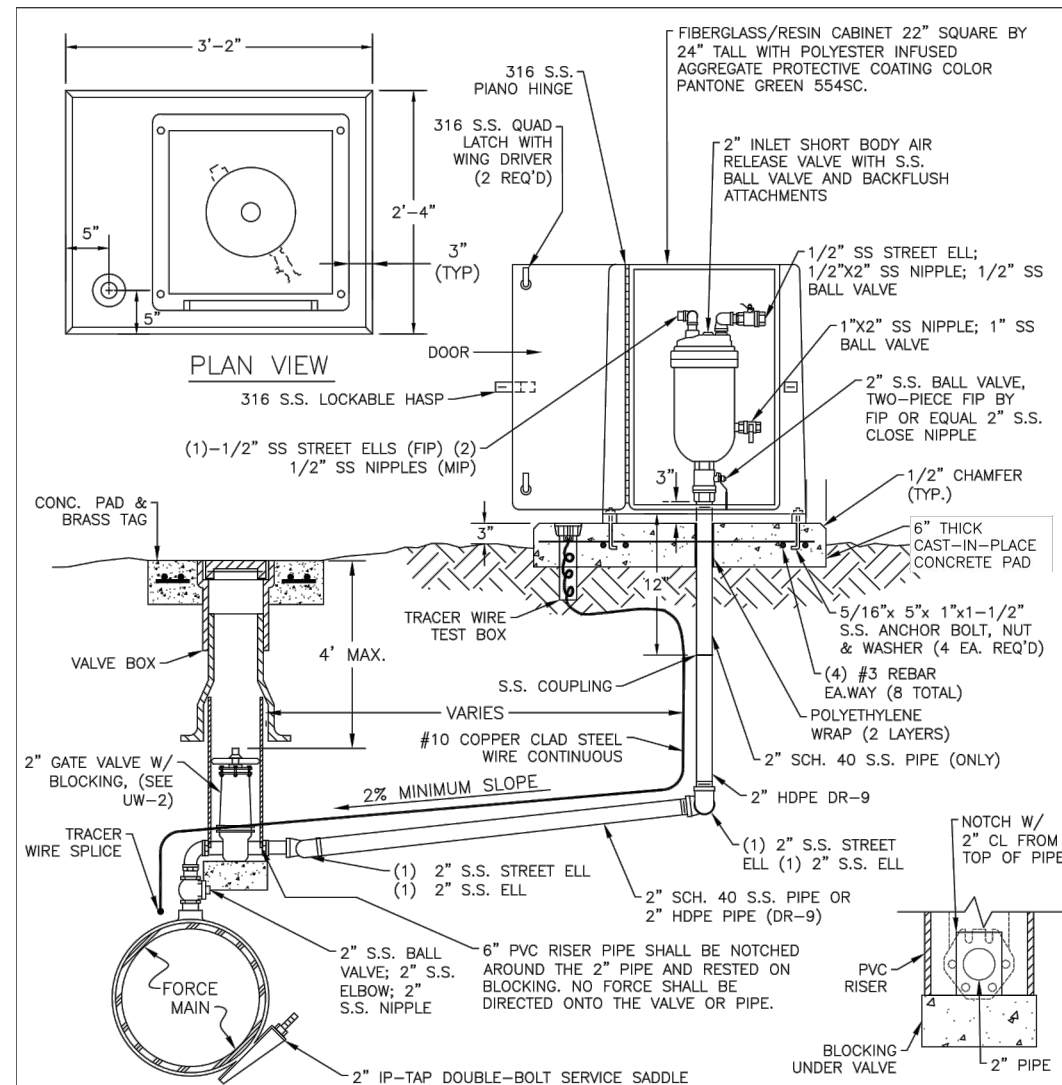
I-75 FORCE MAIN AT 41ST AVE E
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MANATEE COUNTY PUBLIC WORKS



TYPICAL DETAILS

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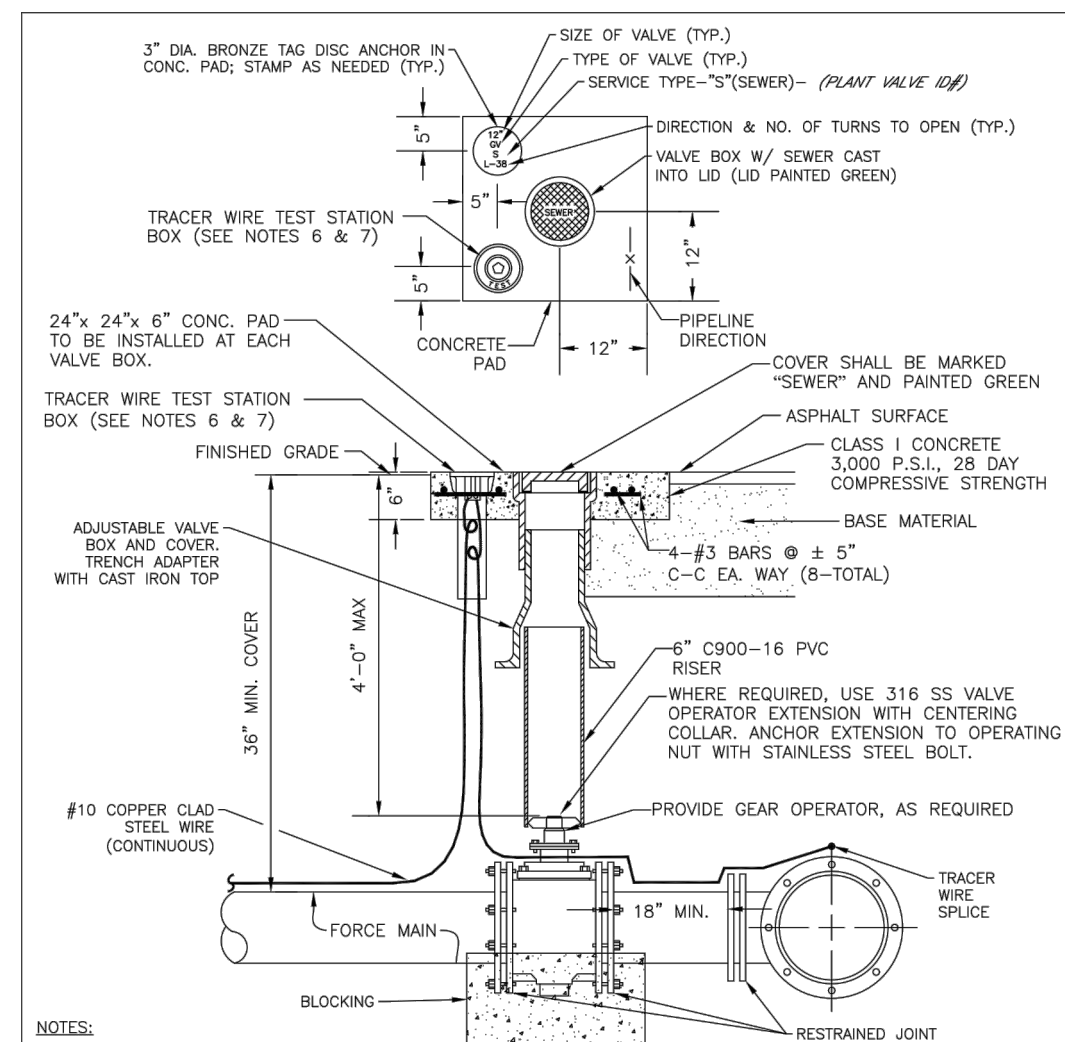
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NOTES:

- AIR RELEASE VALVES TO BE ABOVE-GROUND INSTALLATIONS, UNLESS IMPRACTICAL. INSTALLATIONS MAY BE BELOW-GROUND ONLY WHERE APPROVED AND SPECIFICALLY INDICATED ON THE PLAN.
- AIR RELEASE VALVES TO BE INSTALLED AT HIGH POINTS, OR WHERE AIR WOULD BE ENTRAPPED, ALONG 4" AND LARGER FORCE MAINS.
- FORCE MAIN VERTICAL ALIGNMENT TO BE DESIGNED SUCH THAT THE MINIMUM NUMBER OF REQUIRED AIR RELEASE VALVES ARE INSTALLED.
- ALL INCIDENTAL FITTINGS AND HARDWARE TO BE 316 STAINLESS STEEL.
- ALL PIPE THREADS TO BE SEALED AIR TIGHT.
- VENT PIPE TO BE LAID ACCURATELY ON SLOPE, WITHOUT HIGH OR LOW POINTS.
- CONCRETE PAD SHALL BE TYPE I CONCRETE W/ 3,000 P.S.I., 28 DAY COMPRESSIVE STRENGTH.
- ARV SHALL BE INSTALLED MINIMUM 6 FT FROM EDGE OF PAVEMENT; 10 FT MAXIMUM FROM BACK OF CURB; 4 FT MIN. MAY BE APPROVED BY UTILITIES IN SOME EXISTING AREAS.
- SEE UW-2 GATE VALVE, BOX, LID AND TAG STANDARD DETAIL. CENTERING COLLAR IS NOT REQUIRED ON 2" GATE VALVES.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		ABOVE-GROUND AIR RELEASE VALVE ASSY. FOR FORCE MAINS	US-9
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		



NOTES:

- "SV" TO BE IMPRESSED INTO THE NEWLY-POURED CONCRETE CURB, ALONG WITH DISTANCE IN FEET TO THE VALVE. IF NO CURB, INSTALL A GREEN DISC WITH "SV" AND A 1/8" x 1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE FOOTAGE FROM THE DISC TO THE VALVE.
- ALL EXISTING AND PROPOSED VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADES AS DETERMINED IN THE FIELD.
- VALVES SHALL NOT BE PLACED IN HANDICAPPED RAMPS, CURBS OR GUTTERS.
- PRECAST CONCRETE PADS AND THRUST BLOCKS SHALL NOT BE USED.
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
- USE NON-TRAFFIC RATED BOXES FOR NORMAL YARD SERVICE. WHERE VALVE WILL BE IN STREET OR PARKING UNDER VEHICLE TRAFFIC, USE TRAFFIC RATED BOXES. WHERE POSSIBLE, LOCATE TRACE WIRE TESTING STATION OUTSIDE OF TRAVEL LANE OR IN MEDIAN, CENTERED IN SEPARATE CONCRETE PAD SIMILAR TO STANDARD VALVE BOX PAD.
- TRACER WIRE BOX SHALL BE LOCATED OUTSIDE THE ROADWAY ON THOROUGHFARES, LOCAL ARTERIAL AND STATE ROADWAYS.
- THE BRASS TAG SHALL HAVE A "PLANT VALVE ID#" WHEN VALVES ARE INSTALLED WITHIN THE COUNTY TREATMENT PLANT LIMITS. THE PLANT VALVE ID# SHALL BE SHOWN ON THE CONSTRUCTION PLANS AND RECORD DRAWINGS.
- REFER TO SECTION 1.11 IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR FURTHER DETAILS.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		VALVE, BOX, COVER AND TAG	US-11
REV. BY	DATE		
	February 25, 2020		
	DATE OF APPROVAL		

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DES BY	CKM				
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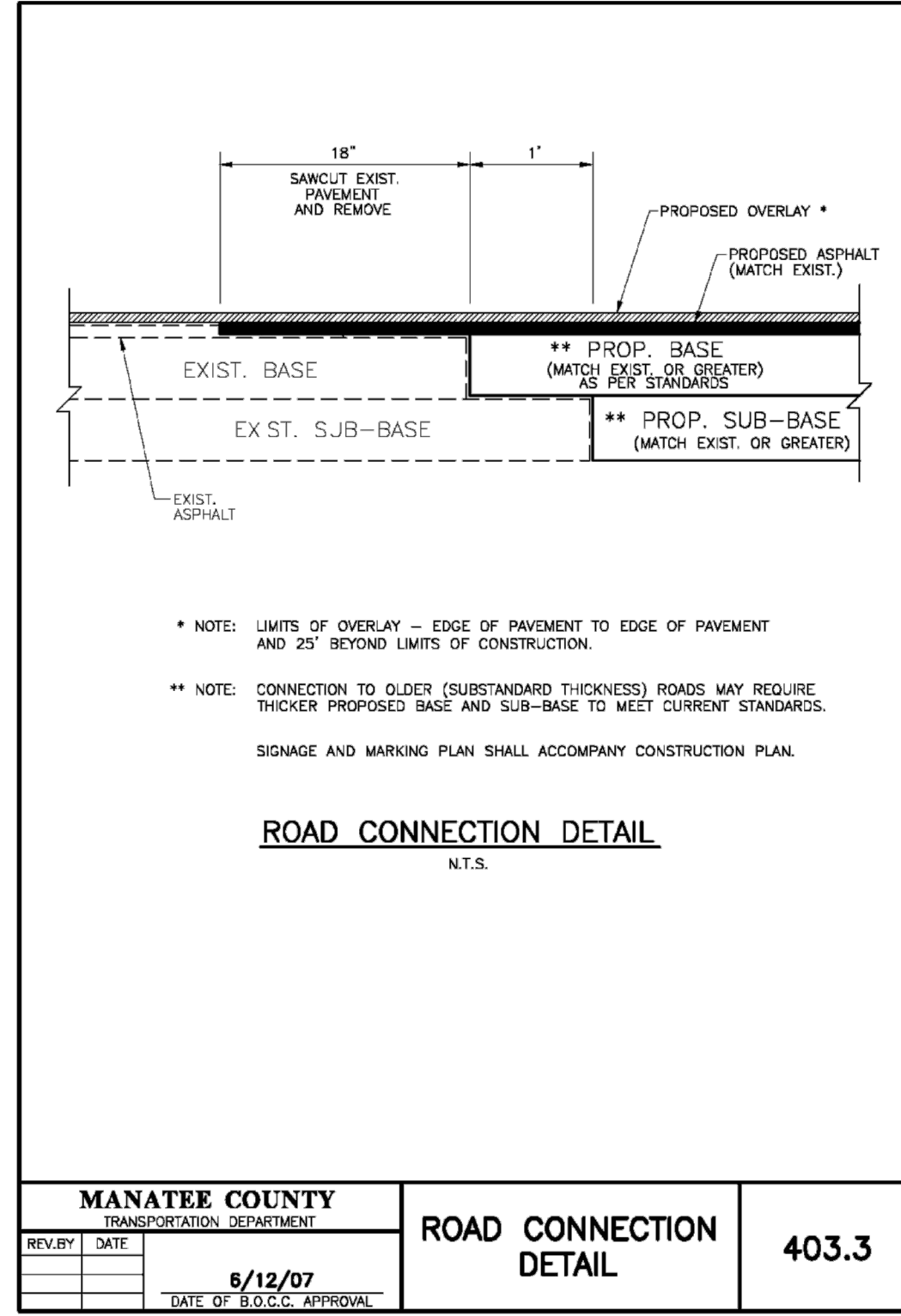
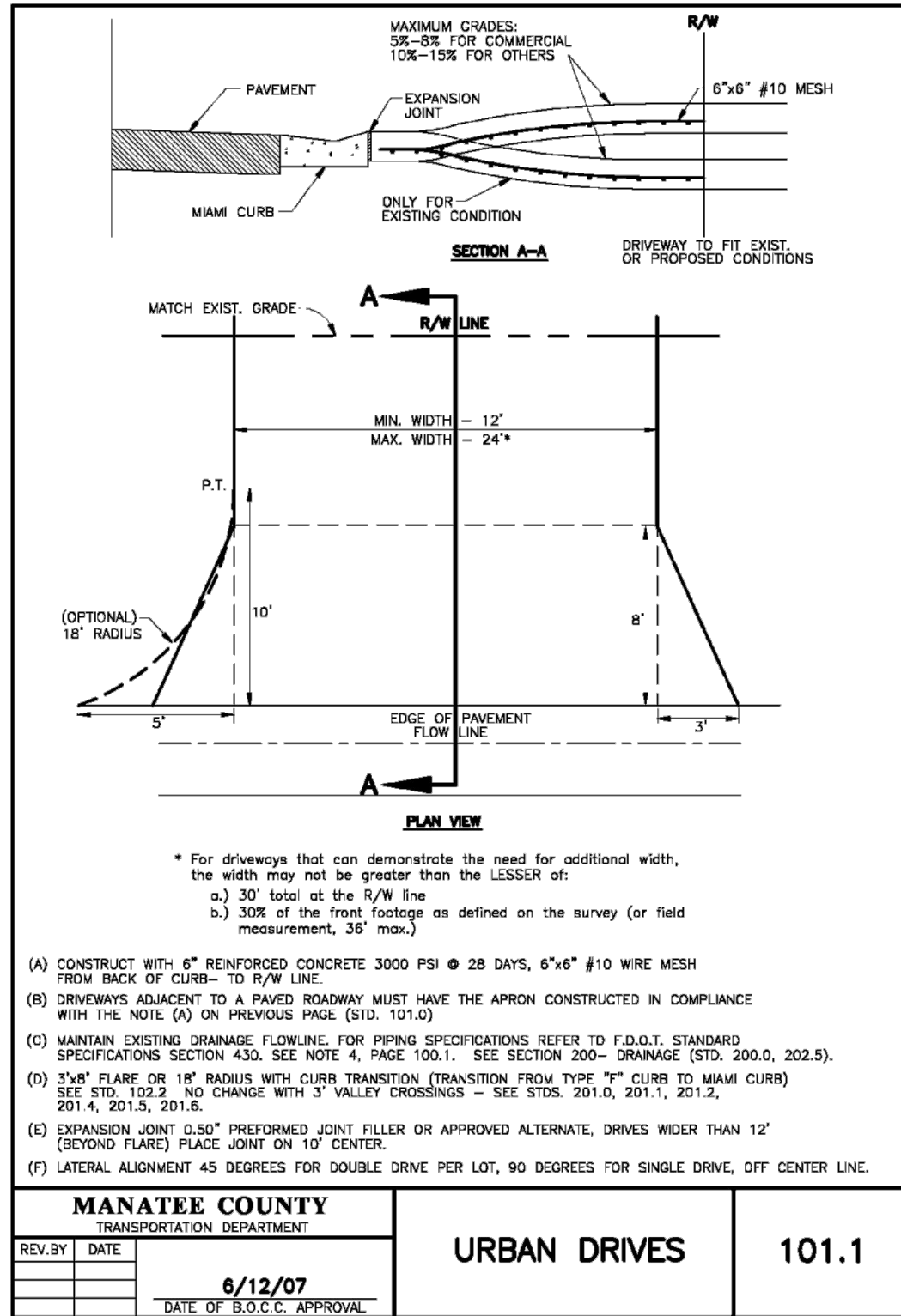
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BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS



TYPICAL DETAILS

SHEET NO.
10



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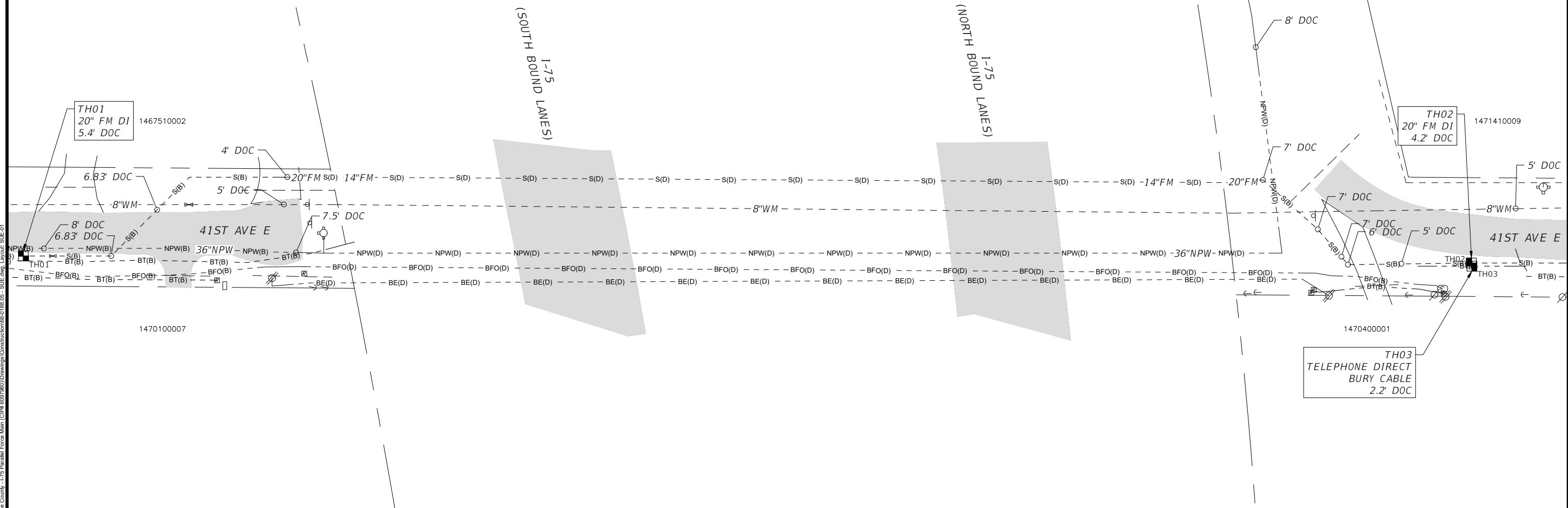
SHEET NO.
11

LEGEND:

- TEST HOLE QUALITY LEVEL A
- - 8"WM - - EXISTING WATER MAIN QUALITY LEVEL D
- - -BT(B) - - - EXISTING BURIED TELEPHONE QUALITY LEVEL B
- - -BFO(B) - - - EXISTING BURIED TELEPHONE FIBER OPTIC CABLE QUALITY LEVEL B
- - -BFO(D) - - - EXISTING BURIED TELEPHONE FIBER OPTIC CABLE QUALITY LEVEL D
- - -S(B) - - - EXISTING SANITARY FORCE MAIN QUALITY LEVEL B
- - -S(D) - - - EXISTING SANITARY FORCE MAIN QUALITY LEVEL D
- - -BE(D) - - - EXISTING BURIED ELECTRIC QUALITY LEVEL D
- - -NPW(B) - - - EXISTING RECLAIMED (NON-POTABLE) WATER MAIN LEVEL B
- - -NPW(D) - - - EXISTING RECLAIMED (NON-POTABLE) WATER MAIN LEVEL D
- 36" DOC ○ ELECTRONIC DEPTH OF COVER

ABBREVIATIONS:

- AC = ASBESTOS CEMENT PIPE
- BT = BURIED TELEPHONE
- DOC = DEPTH OF COVER
- PVC = POLYVINYL CHLORIDE PIPE
- TH = TEST HOLE
- WM = WATER MAIN



AA-Standard.dwg
 J:\60188.05 - Manatee County - I-75 Parallel Force Main (CIP) (607860)\Drawings\Construction\60188.05 - SUE.dwg, Layout: SUE-01

DES BY	CKM	PROJ NO	66-0188.05	NO	DATE	REVISION
DR BY	AD	DATE	OCT 2019	NO	DATE	REVISION
CHK BY	CKM	DATE	OCT 2019	NO	DATE	REVISION

PROFESSIONAL OF RECORD:
 CHRISTOPHER K. MARTIN, P.E. #66598
 AYRES ASSOCIATES
 8875 HIDDEN RIVER PKWY, SUITE 200
 TAMPA, FL 33637 (813) 978-8688 CERT. OF AUTH. #4356

I-75 FORCE MAIN AT 41ST AVE E
 BRADENTON, FLORIDA
 MANATEE COUNTY PUBLIC WORKS



SUBSURFACE UTILITY ENGINEERING PLAN VIEW

SHEET NO.
SUE-01

SUMMARY OF VERIFIED UTILITIES

TEST HOLE #	UTILITY DESCRIPTION (OWNER, TYPE)	SIZE	MATERIAL	DEPTH OF COVER	UTILITY DIRECTION	NORTHING	EASTING	COMMENTS
TH01	MANATEE COUNTY, FORCE MAIN	20"	DUCTILE IRON	5.4'	E-W	1137970.9	506835.1	NO VISUAL OF UTILITY DUE TO SATURATED SOIL
TH02	MANATEE COUNTY, FORCE MAIN	20"	DUCTILE IRON	4.2'	E-W	1137967.3	507565.5	
TH03	DIRECT BURIED TELEPHONE	1/2"	DIRECT BURY	2.2'	E-W	1137965.7	507565.7	

SUBSURFACE UTILITY ENGINEERING NOTES:

1. THE PURPOSE OF THESE PLANS WERE TO LOCATE AND IDENTIFY EXISTING UNDERGROUND UTILITIES THAT MAYBE IN CONFLICT AND AT TIE-IN CONNECTION POINTS WITH PROPOSED SANITARY FORCE MAIN DESIGN. THIS IS NOT A SURVEY.
2. FIELD SURVEY DATA COLLECTION WAS COLLECTED ON AUGUST 23, 2019.
3. HORIZONTAL DATUM IS "NORTH AMERICAN DATUM OF 1983, FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE (0902)". THE HORIZONTAL POSITIONS ARE ACCURATE TO SUB-METER.
4. ALL MEASUREMENTS ARE IN U.S. SURVEY FEET OR DECIMALS THEREOF UNLESS OTHERWISE STATED.
5. SUBSURFACE LOCATIONS AND DEPTH OF COVER WERE DETERMINED BY DIRECT READINGS ON VACUUM EXPOSED UTILITY LINES AND PASSIVE OR INDUCTIVE ELECTROMAGNETIC SCANNING EQUIPMENT. THESE ELECTRONICALLY DESIGNATED LINES MAY DEVIATE FROM THE ACTUAL UTILITY LOCATION AND SHOULD BE CONSIDERED APPROXIMATE.
6. UTILIZATION OF THE ABOVE EQUIPMENT AND METHODS IS THE INDUSTRY RECOGNIZED STANDARD FOR FINDING AND LOCATING UNDERGROUND UTILITIES. ALTHOUGH EFFECTIVE AND RELIABLE, THERE IS A POSSIBILITY THAT ALL UTILITIES MAY NOT BE DETECTED DUE TO ENVIRONMENTAL CONDITIONS, SOIL CONDITIONS, WATER TABLE, EXCESSIVE DEPTH, AND/OR FEATURE MAKEUP.
7. SURFACE ELEVATIONS AND MEASURE DOWNS (DEPTH OF COVER) ARE VALID AT THE DATE OF THE SURVEY ONLY AS SURFACE GRADE CONDITIONS MAY CHANGE OVER TIME.
8. UTILITY SIZE REFLECTS THE APPROXIMATE OUTSIDE DIAMETER UNLESS OTHERWISE SPECIFIED. UTILITY SIZE AND MATERIAL COMPOSITION WERE COLLECTED BY FIELD OBSERVATION UNDER ADVERSE CONDITIONS AND SHOULD BE CONSIDERED APPROXIMATE.
9. UTILITY OWNER'S NAMES REFLECT INFORMATION OBTAINED FROM FIELD OBSERVATIONS, FIELD MEETINGS, AND UTILITY RESEARCH AND MAY NOT REFLECT ACTUAL OWNERSHIP.
10. MEASUREMENTS DESCRIBED AS "ELECTRONIC DEPTH OF COVER", IF ANY HAVE BEEN OBTAINED BY ELECTRONIC DESIGNATING EQUIPMENT.
11. THE 3-DIMENSIONAL POSITION OF ELECTRONICALLY DESIGNATED UTILITIES HAS NOT BEEN PHYSICALLY MEASURED AND SHOULD BE CONSIDERED APPROXIMATE.
12. THE SURROUNDING UTILITIES SHOWN AS ELECTRONIC DESIGNATION AND OTHER SUE TEST HOLES MUST BE CAREFULLY CONSIDERED PRIOR TO THE DESIGN AND/OR PLACEMENT OF PROPOSED STRUCTURES.



AA-Standard.dwg
 I:\66-0188-05-Manatee County-175 Parallel Force Main (CIP) 6/27/2019\Drawings\Construction\66-0188-05-SUE.dwg, Layout: SUE-02

DES BY	CKM				
DR BY	AD	PROJ NO	66-0188.05		
CHK BY	CKM	DATE	OCT 2019	NO	DATE
				REVISION	

PROFESSIONAL OF RECORD:
 CHRISTOPHER K. MARTIN, P.E. #66598
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 TAMPA, FL 33637 (813) 978-8688 CERT. OF AUTH. #4356

I-75 FORCE MAIN AT 41ST AVE E
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS



SUMMARY OF VERIFIED UTILITIES, NOTES,
 & SUE PHOTOS

SHEET NO.
SUE-02



**TOPOGRAPHIC SURVEY
 I-75 PARALLEL FORCE MAIN
 MANATEE COUNTY, FLORIDA**

LEGEND

- | | | | |
|---|--------------------------|----------|--------------------------------|
| ⊕ | SITE CONTROL POINT | BOS | BOTTOM OF STRUCTURE |
| ○ | IRON PIPE FOUND | CO | COUNTY |
| ● | IRON ROD FOUND | CP | CONTROL POINT |
| ■ | CONCRETE MONUMENT FOUND | CPP | CORRUGATED PLASTIC PIPE |
| ⊙ | SUBSURFACE INVESTIGATION | DIP | DUCTILE IRON PIPE |
| ⊖ | SIGN | DL | DRIP LINE (RADIUS) |
| ∅ | WOOD UTILITY POLE | EL | ELEVATION |
| ∅ | CONCRETE UTILITY POLE | ELEV | ELEVATION |
| ⌋ | GUY WIRE | EM | ELECTRIC METER |
| □ | WATER METER | GIS | GEOGRAPHIC INFORMATION SYSTEM |
| ⊗ | WATER VALVE | INC | INCORPORATED |
| ⊗ | RECLAIM VALVE | INV | INVERT |
| ⊙ | SANITARY MANHOLE | IRS | IRON ROD SET |
| ⊙ | STORM MANHOLE | LB | LICENSED BUSINESS |
| ⊞ | GRATE INLET | NAVD | NORTH AMERICAN VERTICAL DATUM |
| ⊞ | FIRE HYDRANT | NDS | NAIL & DISK SET |
| ⊞ | BACKFLOW PREVENTER | NGS | NATIONAL GEODETIC SURVEY |
| ⊞ | UTILITY RISER | NO | NUMBER |
| ⊞ | UTILITY VAULT | PID | PARCEL IDENTIFICATION NUMBER |
| ⊞ | MAILBOX | PSM | PROFESSIONAL SURVEYOR & MAPPER |
| ⊞ | WOOD POST | PVC | POLYVINYL CHLORIDE |
| ⊞ | CLEANOUT | R/W | RIGHT-OF-WAY |
| ⊞ | GAS MARKER | RCP | REINFORCED CONCRETE PIPE |
| ⊞ | ANTENNA | RNG | RANGE |
| ⊞ | CONTROL PANEL | SIRC | SET IRON ROD & CAP |
| ⊞ | CABLE SERVICE BOX | TWN | TOWNSHIP |
| ⊞ | TELEPHONE SERVICE BOX | # | NUMBER |
| ☀ | STREET LIGHT | — · — | DRIP LINE |
| ✂ | PALM | — x — | FENCE LINE |
| 🌳 | OAK | — - - — | RIGHT OF WAY |
| 🌳 | TREE | — OE — | OVERHEAD ELECTRIC |
| 🌳 | BUSH | — OHU — | OVERHEAD UTILITIES |
| | | — - - - | HEDGE/VEGETATION LINE |
| | | — 1' — | 1-FOOT CONTOURS |
| | | — SAN — | SANITARY LINE |
| | | — T — | TELEPHONE/CABLE LINE |
| | | — W — | WATER LINE |
| | | — E — | ELECTRIC LINE |
| | | — WRCL — | RECLAIMED WATER LINE |

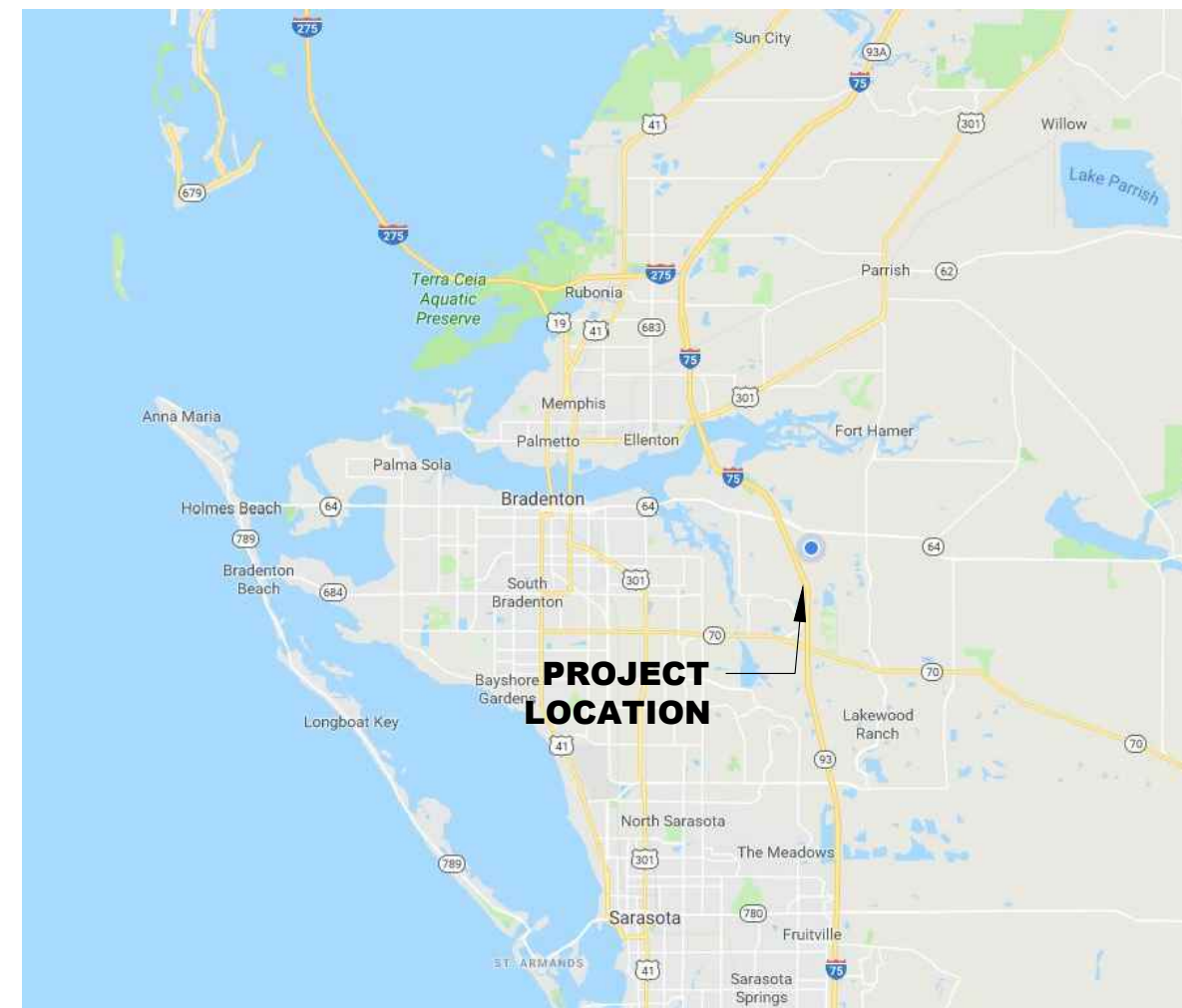
NO.	INDEX OF SHEETS
1	COVER SHEET
2	PLAN SHEET

Control Table				
Point #	Northing	Easting	Elevation	Description
100	1137976.26	507376.16	34.91	TP IRS
101	1138437.32	507372.15	32.62	TP NDS

SURVEY NOTES

- THE FOLLOWING NGS VERTICAL CONTROL MONUMENTS WERE RECOVERED AND UTILIZED FOR THE ELEVATIONS INDICATED HEREIN:
 "BELLEVIEW" NAVD 1988 ELEVATION 29.95'
- THIS SURVEY IS REFERENCED TO A GRID PROJECTION OF THE FLORIDA STATE PLANE COORDINATE SYSTEM (WEST ZONE NAD 1983/2011 ADJUSTMENT).
- THIS IS NOT A BOUNDARY SURVEY. TITLE WORK WAS NOT PROVIDED.
- FIELD WORK COMPLETED MARCH 22, 2019.
- ORIGINAL SHEET SIZE IS 11" X 17".
- THIS SURVEY IS SUBJECT TO PERTINENT EASEMENTS, RIGHTS-OF-WAY AND RESTRICTIONS OF RECORD, IF ANY.
- THIS SURVEY DRAWING WAS PREPARED FOR THE EXCLUSIVE USE OF THE PARTY OR PARTIES CERTIFIED TO BELOW FOR THE EXPRESS PURPOSE STATED HEREON AND/OR CONTAINED IN THE CONTRACT BETWEEN HYATT SURVEY SERVICES, INC. AND THE CLIENT FOR THIS PROJECT. COPYING, DISTRIBUTING AND/OR USING THIS DRAWING, IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN ORIGINALLY INTENDED WITHOUT WRITTEN CONSENT FROM HYATT SURVEY SERVICES, INC. IS STRICTLY PROHIBITED AND RENDERS THE SURVEYOR'S CERTIFICATION, SIGNATURE AND SEAL NULL AND VOID. ANY QUESTIONS CONCERNING THE CONTENT OR PURPOSE OF THIS DRAWING SHOULD BE DIRECTED TO HYATT SURVEY SERVICES, INC.
- THIS SURVEY IS CERTIFIED TO AYRES ASSOCIATES.

VICINITY MAP (NOT TO SCALE)



Hyatt Survey Services, Inc.
 LB No.: 7203 Geographic Data Specialists
 2012 Lena Road Bradenton, Florida 34211
 Phone: (941) 748-4693 Fax: (941) 744-1643

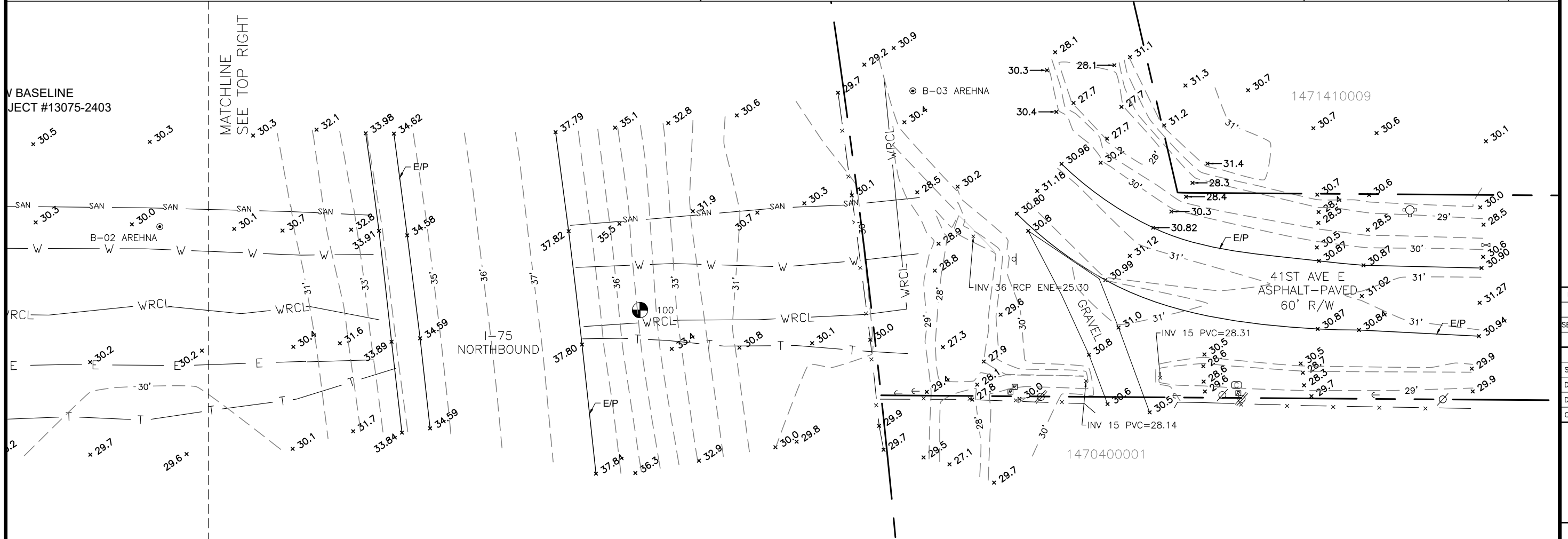
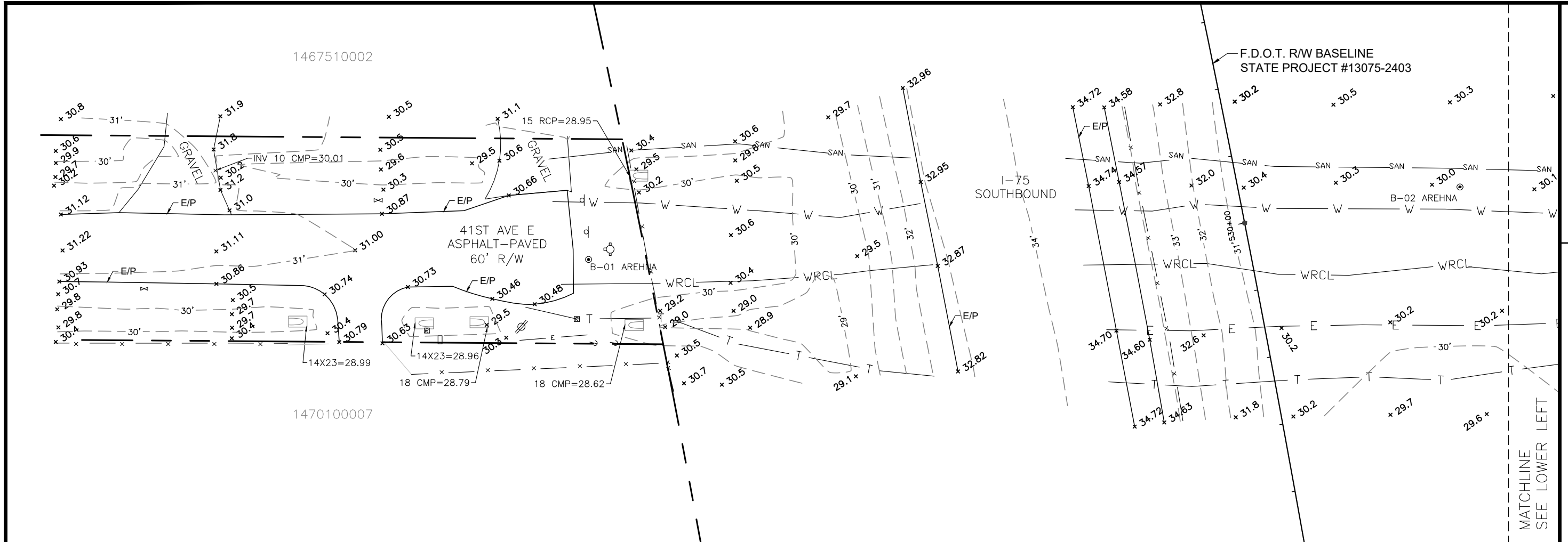
THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

SHANE A. CHRISTY, PSM
 FLORIDA SURVEYORS REGISTRATION NO. 7100

PROJECT #	19-2330	
SURVEY #	19-2330	
SECTION TWN RNG	1-35-17	
SCALE	1" = N/A	
SURVEYED	HYATT	3/2019
DESIGNED		
DRAWN	SC	3/2019
CHECKED	RH	3/2019



TOPOGRAPHIC SURVEY
I-75 PARALLEL FORCE MAIN
MANATEE COUNTY, FLORIDA



PROJECT #	19-2330
SURVEY #	19-2330
SECTION TWN RNG	1-35-17
SCALE	1" = 30'
SURVEYED	HYATT 3/2019
DESIGNED	
DRAWN	SC 3/2019
CHECKED	RH 3/2019

