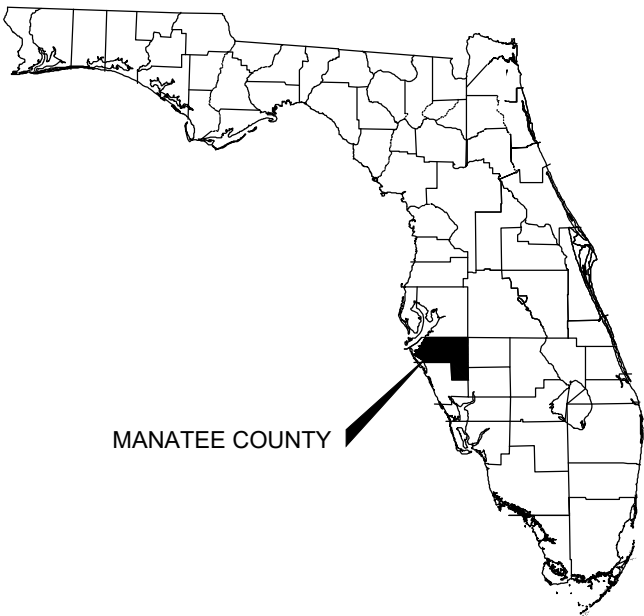


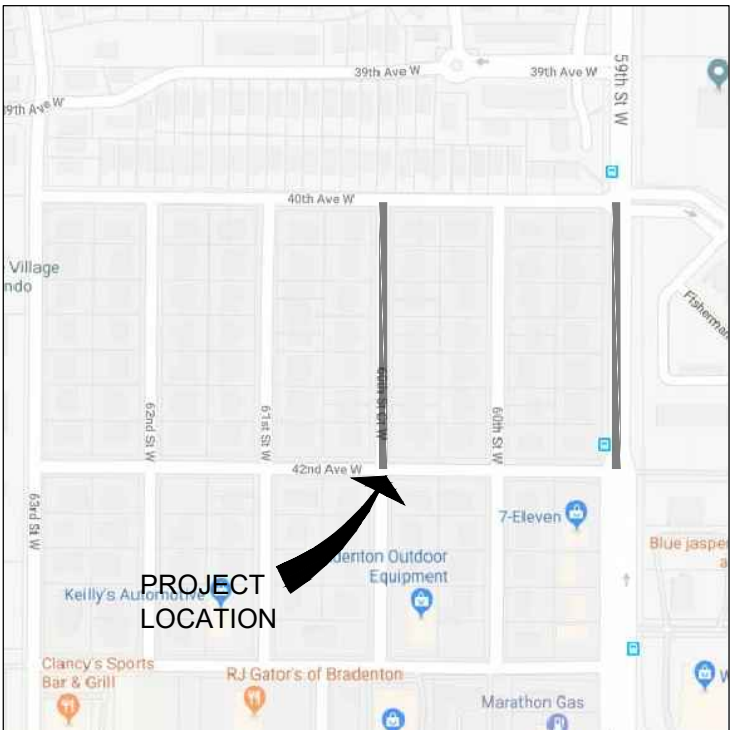
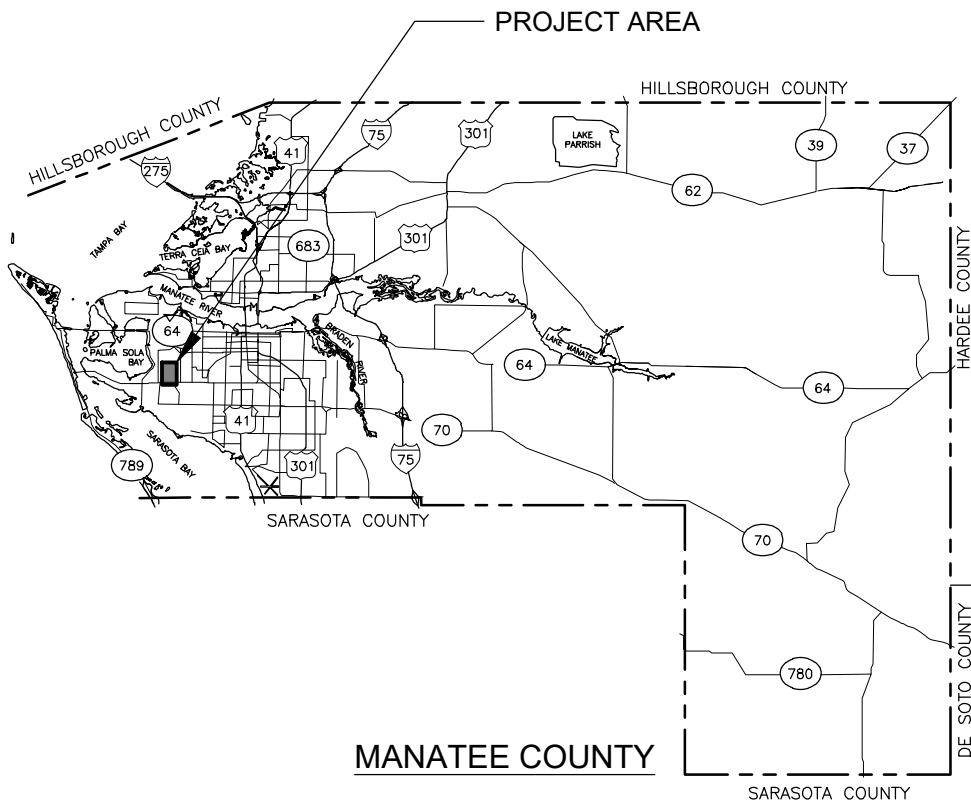
MANATEE COUNTY PUBLIC WORKS (CIP #6097270)

CORTEZ GARDENS SUBDIVISION WATER MAIN REPLACEMENT 100% CONSTRUCTION DOCUMENTS DEC. 2020



MANATEE COUNTY

COUNTY MAP
NTS



PROJECT
LOCATION

VICINITY MAP

Sheet Table	
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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!

GENERAL NOTES:

1. 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 OF RECORD SHALL BE IMMEDIATELY NOTIFIED OF ANY CONFLICT WITH THE PROPOSED CONSTRUCTION.
2. 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. RECORD DRAWINGS SHALL MEET MANATEE COUNTY PUBLIC WORKS LATEST RECORD DRAWING STANDARDS.
3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ALL AFFECTED 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.
4. 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.
5. 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.
6. 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, WETLANDS, ETC.
7. 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.
8. 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 REGULATION AND GOVERNING CONTRACT DOCUMENTS.
9. ALL WATER COLLECTED AND PUMPED DURING TRENCH DEWATERING ACTIVITIES SHALL BE DISPOSED OF IN ACCORDANCE WITH NPDES REQUIREMENTS.
10. ALL FACILITIES AND ACCESSORIES SHALL BE INSTALLED IN CONFORMANCE WITH APPLICABLE LOCAL CODES AND REQUIREMENTS AND THESE CONTRACT DOCUMENTS.
11. 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.

12. ALL TEES, CROSSES, PLUGS, BENDS (HORIZONTAL AND VERTICAL), DEFLECTING 11-1/4 DEG OR MORE, SHALL BE INSTALLED WITH RESTRAINED JOINTS.
13. 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 MINIMUM 36 INCHES.
14. 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 OF RECORD.
15. THE CONTRACTOR SHALL BRACE AND PROTECT ALL EXISTING EXPOSED UTILITIES; AND COORDINATE HIS/HER EFFORTS WITH THE UTILITY OWNER.
16. 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.
17. 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.
18. UTILITY/AGENCY OWNERS:
- | COMPANIES | CONTACT | PHONE NUMBERS |
|-----------------------------------|----------------|---------------------|
| CHARTER COMMUNICATIONS | DONALD ANTHONY | 727-329-2000 x42841 |
| CITY OF BRADENTON | JIM MCLELLAN | 941-462-1989 |
| FLORIDA POWER & LIGHT | JOEL BRAY | 386-586-6403 |
| FRONTIER COMMUNICATIONS | TONI CANNON | 813-875-1014 |
| MANATEE CO. TRANSPORTATION DEPT. | KATHY MCMAHON | 941-792-8811 x5002 |
| MANATEE COUNTY UTILITY OPERATIONS | KATHY MCMAHON | 941-792-8811 x5002 |
| TECO - PEOPLES GAS | JOAN DOMNING | 813-275-3783 |
19. CONTRACTOR SHALL INSTALL REDUCED PRESSURE (RP) TYPE BACKFLOW PREVENTION ASSEMBLIES (BPA'S) EQUIPPED WITH A RELIEF VALVE AT THE POTABLE WATER METER WHENEVER ANY OF THE FOLLOWING CONDITIONS EXIST AT A PROPERTY:
- IN-GROUND IRRIGATION SYSTEM,
 - SECONDARY SOURCE OF WATER (I.E. RECLAIMED WATER OR WELL),
 - SWIMMING POOL,
 - FIRE SPRINKLER SYSTEM,
 - FLOOD ZONE DESIGNATION,
 - PROPERTY THAT ABUTS OR INCLUDES A BODY OF WATER (INCLUDING RIVER, BAY, LAKE OR POND),
 - SOLAR WATER HEATING SYSTEM,
 - MULTISTORY OR MULTIFAMILY RESIDENTIAL FACILITY,
20. A LICENSED PLUMBER SHALL INSTALL THE BPA'S IN ACCORDANCE WITH THE CURRENT FLORIDA PLUMBING CODE AND MANATEE COUNTY CODE OF ORDINANCES, AND SHALL SELECT A PRESSURE RELIEF VALVE WITH AN APPROPRIATE PRESSURE SET POINT TO PROTECT THE CUSTOMERS' PLUMBING AND NOT ALLOW EXCESSIVE LEAKAGE DUE TO SYSTEM SUPPLY PRESSURE. A PRESSURE REDUCING VALVE MAY BE NECESSARY UPSTREAM OF THE PRESSURE RELIEF VALVE, WHERE NORMAL SUPPLY PRESSURE EXCEEDS 80 PSI. CONTRACTOR SHALL COORDINATE WITH COUNTY CROSS CONNECTION CONTROL STAFF AS REQUIRED.
21. IF IN-GROUND IRRIGATION SYSTEM IS CONNECTED TO THE POTABLE WATER LINE, AN ADDITIONAL RP BPA SHALL BE INSTALLED AT THE POINT OF CONNECTION.
22. VACUUM BREAKERS SHALL BE INSTALLED ON ALL HOSE BIBS.
23. CONTRACTOR SHALL COORDINATE WITH COUNTY CROSS CONNECTION STAFF & PRIVATE PROPERTY OWNER AS REQUIRED.
24. ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF SHALL OPERATE VALVES ON COUNTY OWNED AND MAINTAINED UTILITY SYSTEMS.

SEPARATION REQUIREMENTS:

1. 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.
2. 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

- WATER MAIN
- FIRE HYDRANT ASSEMBLY
- WATER GATE VALVE
- Ⓐ AIR RELEASE VALVE
- RELOCATED WATER METER, NEW BACKFLOW PREVENTION DEVICE, AND NEW WATER SERVICE LINE CONNECTION
- · · · · SANITARY FORCEMAIN (BY OTHERS)

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
- ① CLEANOUT
- ⓖ GAS MARKER
- ANTENNA
- CONTROL PANEL
- Ⓒ CABLE SERVICE BOX
- Ⓣ TELEPHONE SERVICE BOX
- STREET LIGHT
- DRIP LINE
- X — FENCE LINE
- — — RIGHT OF WAY
- OE — — — OVERHEAD ELECTRIC
- OHU — — — OVERHEAD UTILITIES
- HEDGE/VEGETATION LINE
- 1.5' ······ CONTOURS
- == == == == == DRAINAGE PIPE
- - - s - - - s - - - SANITARY SEWER
- - - s - - - SANITARY SERVICE LATERAL
- - - 6" WM — - - WATER MAIN
- - - — — — WATER SERVICE LINE
- PALM
- OAK
- TREE
- BUSH
- 52 — SURVEY CONTROL POINT

DES BY	CKM				
DR BY	AD	PROJ NO			
		66-0188.04			
CHK BY	MRI	DATE	DEC. 2020	NO	DATE
					REVISION

PROFESSIONAL OF RECORD:
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CORTEZ GARDENS SUBDIVISION
WATER MAIN REPLACEMENT
MANATEE COUNTY PUBLIC WORKS



GENERAL NOTES

SHEET NO.
02

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12/21/2020
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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 STANDARD PLANS FY2019-20. 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. THE COURSE OF 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 AND MAPPER IN THE STATE OF FLORIDA.
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 APPLICABLE PERMITTING AGENCY.
21. SANITARY SEWER SERVICE AND WATER SERVICE MUST BE MAINTAINED FOR ALL CUSTOMERS AT ALL TIMES, EXCEPT FOR MINOR DISRUPTIONS DURING CONNECTION 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-WAY 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 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 THE 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.

SUMMARY OF VERIFIED UTILITIES							
TEST HOLE #	UTILITY DESCRIPTION (OWNER, TYPE)	SIZE	MATERIAL	DEPTH OF COVER	UTILITY DIRECTION	NORTHING	EASTING
TH01	MANATEE COUNTY, WATER MAIN	6"	PVC	4.14'	E-W	1139166.7	454463.4
TH02	MANATEE COUNTY, FORCE MAIN	12"	PVC	2.24'	E-W	1139140.7	454461.9
TH03	MANATEE COUNTY, WATER MAIN	6"	PVC	4.68'	E-W	1139164.0	454716.2
TH04	MANATEE COUNTY, RECLAIM MAIN	16"	PVC	2.23'	E-W	1139136.9	454717.3
TH05	MANATEE COUNTY, FORCE MAIN	24"	STEEL	3.54'	SW-NE	1139136.1	454925.4
TH06	MANATEE COUNTY, WATER MAIN	6"	PVC	2.53'	E-W	1138528.5	454447.7
TH07	MANATEE COUNTY, WATER MAIN	4"	PVC	2.44'	E-W	1138525.3	454711.9
TH08	MANATEE COUNTY, WATER MAIN	6"	PVC	3.54'	E-W	1138523.0	454907.6

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CHK BY	MRI	DATE	DEC. 2020	NO	DATE
					REVISION

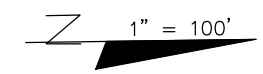
PROFESSIONAL OF RECORD:
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CORTEZ GARDENS SUBDIVISION
WATER MAIN REPLACEMENT
MANATEE COUNTY PUBLIC WORKS



GENERAL NOTES

SHEET NO.
03



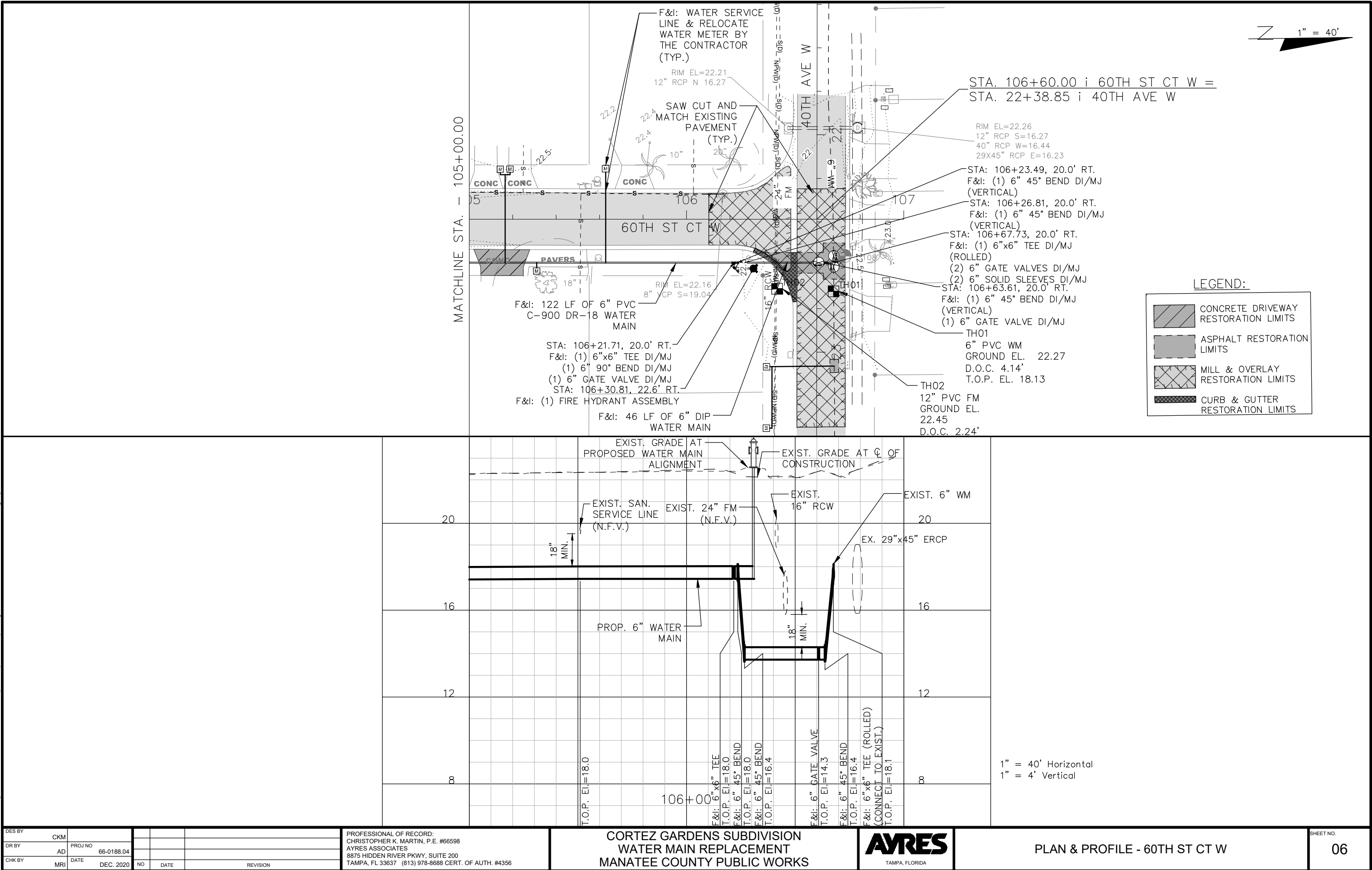
- LEGEND:

-  ASPHALT RESTORATION LIMITS
-  MILL & OVERLAY RESTORATION LIMITS

SHEET NO.

04

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12/23/2020
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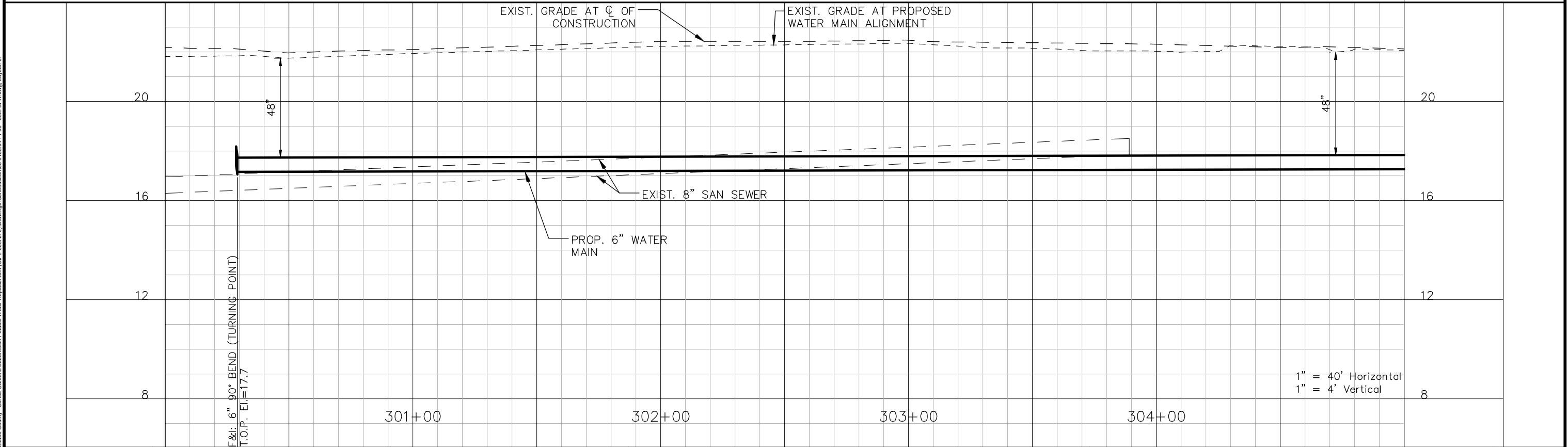
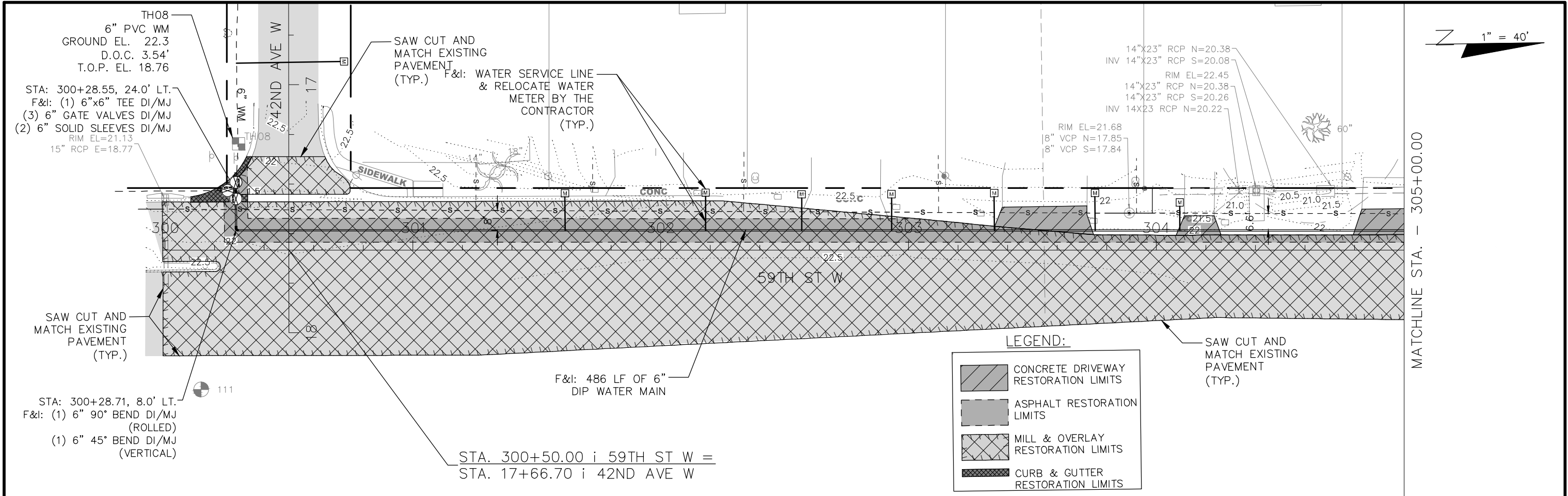
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CORTEZ GARDENS SUBDIVISION
WATER MAIN REPLACEMENT
MANATEE COUNTY PUBLIC WORKS



PLAN & PROFILE - 60TH ST CT W

SHEET NO.
06



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12/23/2020
I:\66565-0188.04 - Manatee County - Cortez Gardens Subdivision Potable Water Replacement (CPR# 609770)\Drawings Construction\66-0188.04 PP03 - 59th St W.dwg, Layout: 07

DES BY	CKM				
DR BY	AD	PROJ NO	66-0188.04		
CHK BY	MR	DATE	DEC. 2020	NO	DATE
		REVISION			

PROFESSIONAL OF RECORD:
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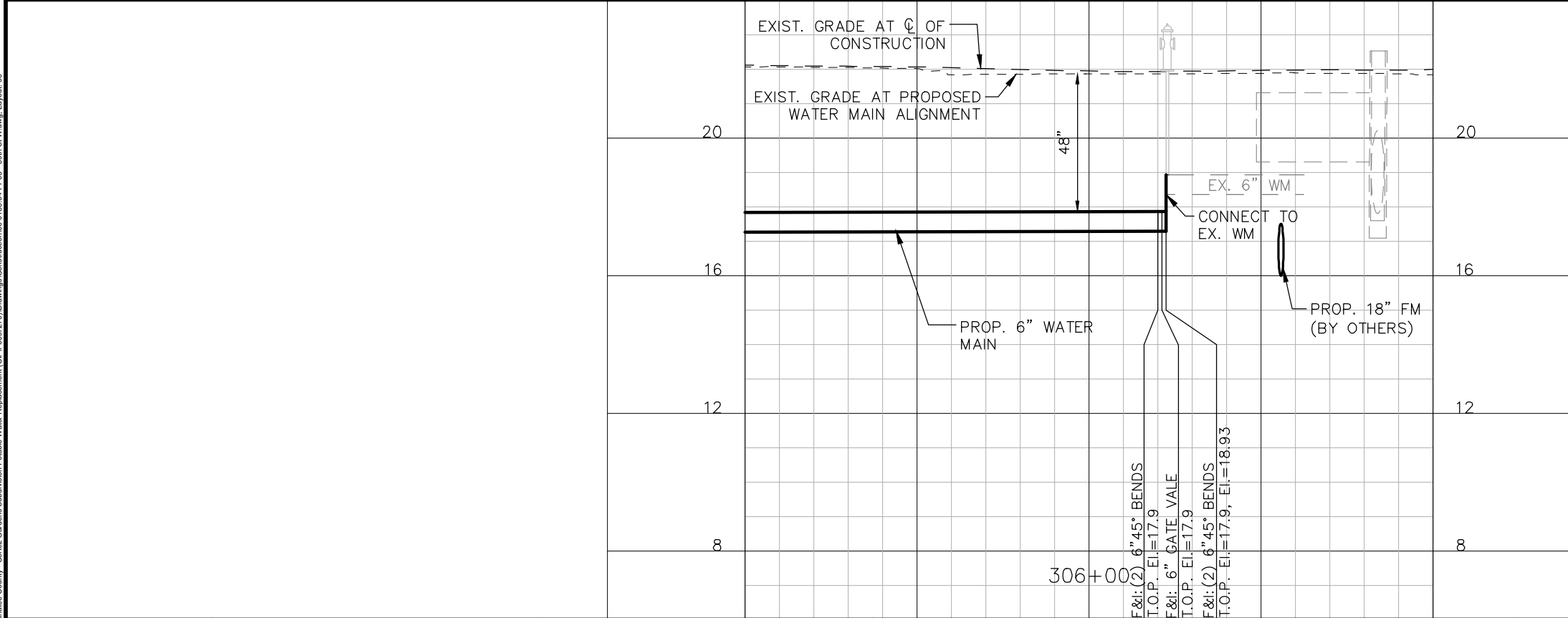
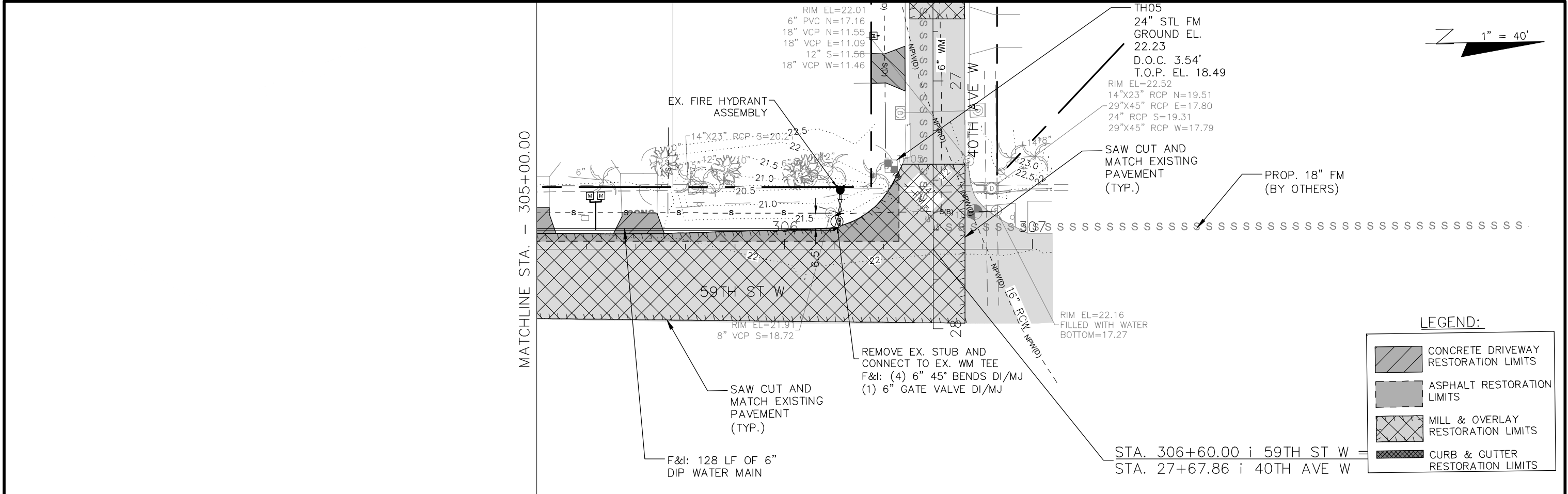
CORTEZ GARDENS SUBDIVISION
WATER MAIN REPLACEMENT
MANATEE COUNTY PUBLIC WORKS

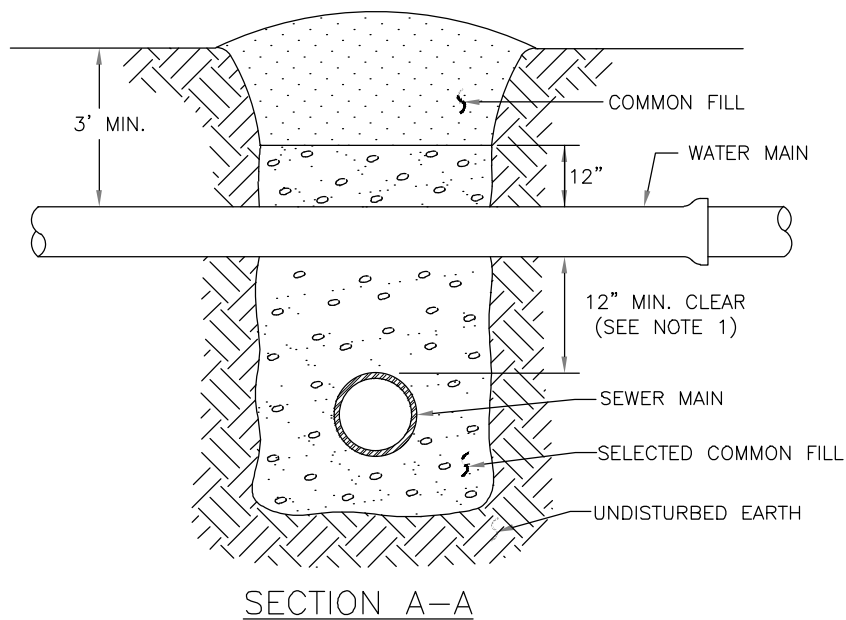
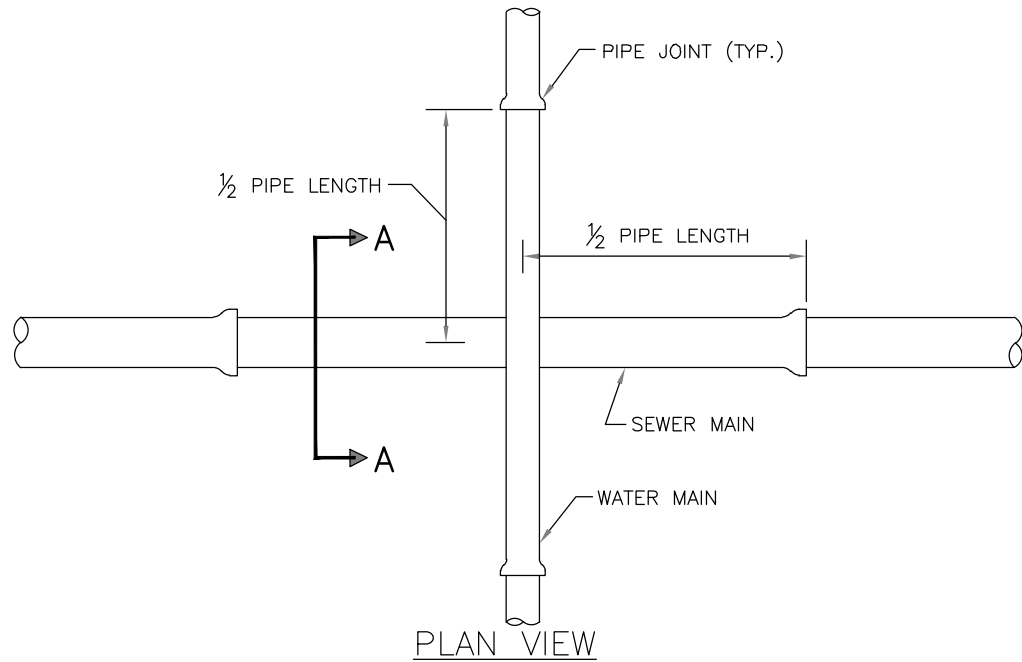


PLAN & PROFILE - 59TH ST W

SHEET NO.
07

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12/23/2020
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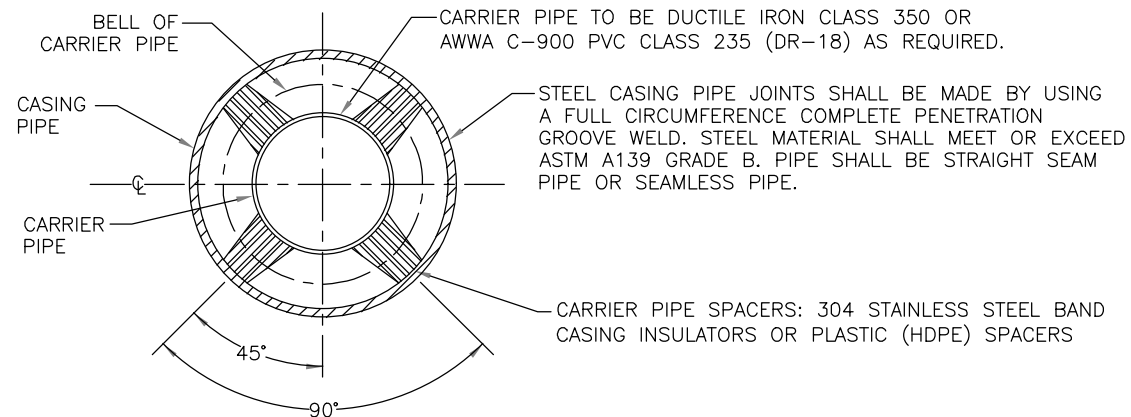
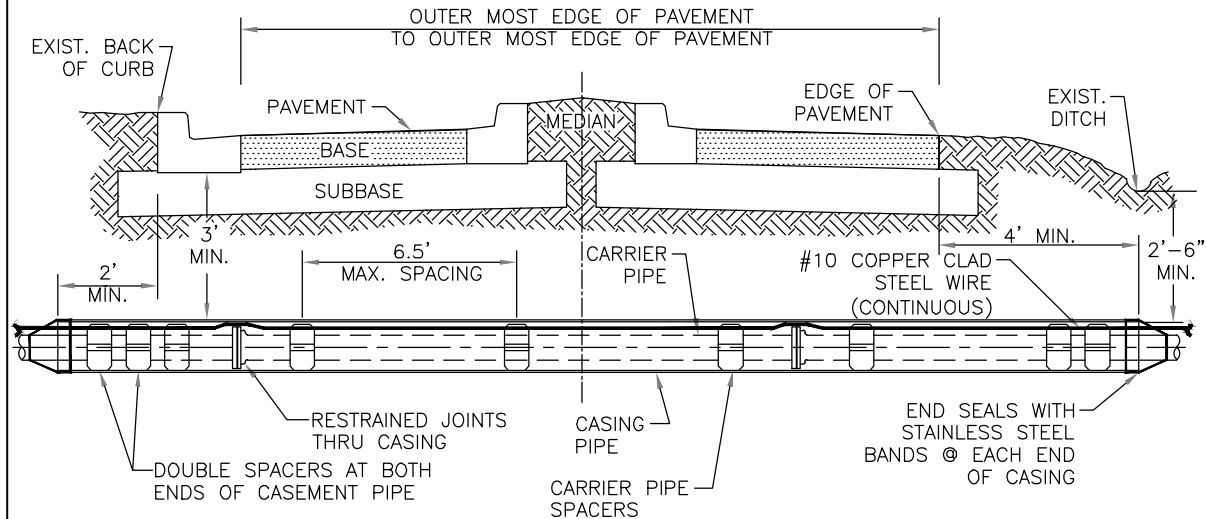




NOTES:

- CLEARANCE MAY BE REDUCED TO 6" FOR GRAVITY SEWER WHERE WATER MAIN IS DUCTILE IRON.
- PIPE SECTIONS SHALL BE FULL-LENGTH AND SHALL BE ADJUSTED HORIZONTALLY, SO THAT THE CROSSING IS AT EACH PIPE SECTION'S MIDPOINT REGARDLESS OF THE VERTICAL CLEARANCE.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT			TYPICAL NEW WATER & SEWER LINE CROSSING	UG-2
REV.BY	DATE			
		February 25, 2020		
		DATE OF APPROVAL		



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:

- 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.
- ALL PIPES CROSSINGS OF FEDERAL OR STATE ROADS; OR RAILROADS SHALL BE INSTALLED IN A CASING PIPE.
- ALL PIPES CROSSINGS OF COUNTY LOCAL ARTERIAL AND THOROUGHFARE ROADWAYS SHALL BE IN A CASING PIPE.
- SPLIT-STEEL CASINGS MAY BE USED ON EXISTING COUNTY MAINS ONLY.
- FOR JACK & BORE SPECIFICATIONS UNDER STATE ROADS AND RAILROADS, REFER TO THE F.D.O.T. UTILITY ACCOMMODATION MANUAL, LATEST EDITION.
- HDPE CASING SHALL HAVE ALL WELD BEADS REMOVED FROM THE INSIDE SURFACE SUCH THAT THE JOINT SURFACES SHALL BE SMOOTH.
- *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		

1/21/2020
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DES BY	CKM	PROJ NO	66-0188.04
DR BY	TJS	DATE	DEC. 2020
CHK BY	MRI	NO	DATE
		REVISION	

PROFESSIONAL OF RECORD:
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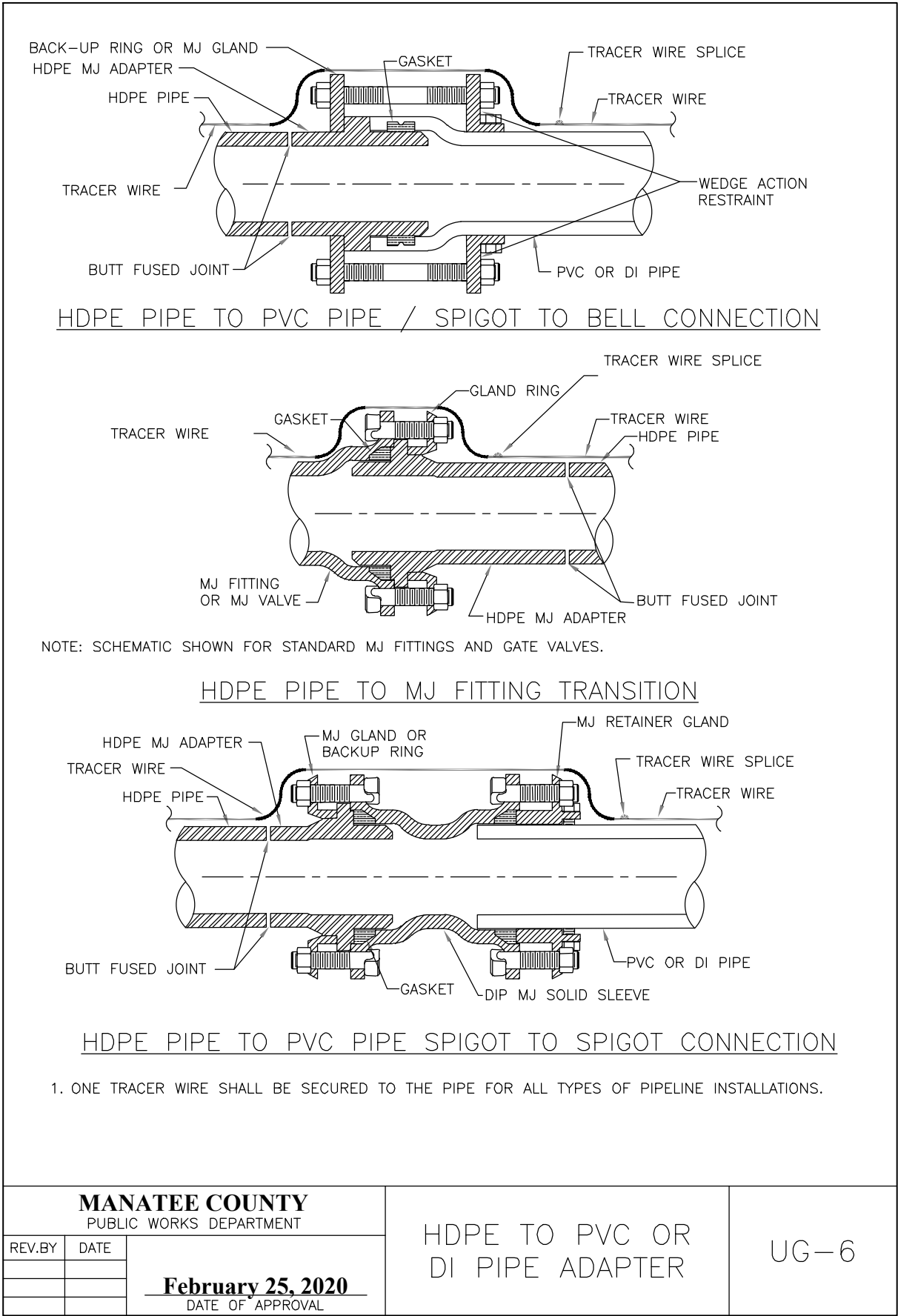
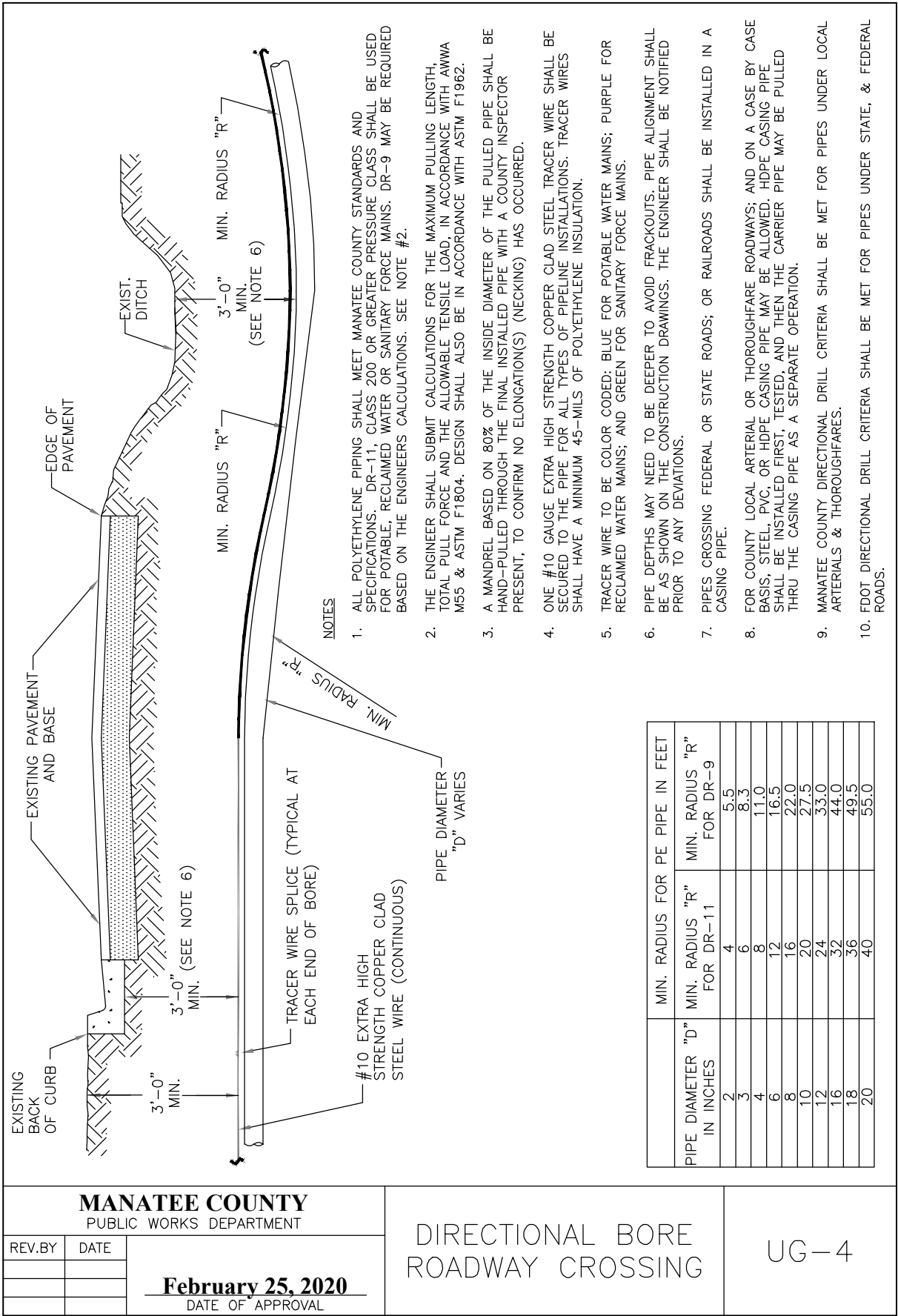
CORTEZ GARDENS SUBDIVISION
WATER MAIN REPLACEMENT
MANATEE COUNTY PUBLIC WORKS

AYRES
TAMPA, FLORIDA

TYPICAL DETAILS

SHEET NO.
09

12/21/2020
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DR BY	TJS	DATE	DEC. 2020
CHK BY	MRI	NO	DATE
REVISION			

PROFESSIONAL OF RECORD:
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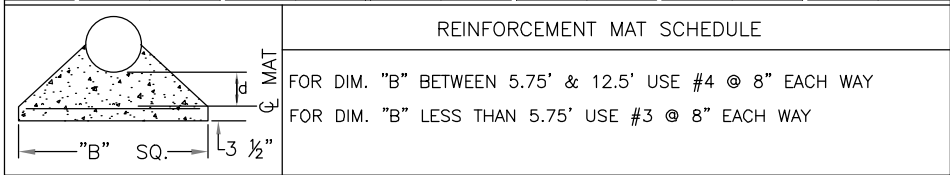
CORTEZ GARDENS SUBDIVISION
WATER MAIN REPLACEMENT
MANATEE COUNTY PUBLIC WORKS



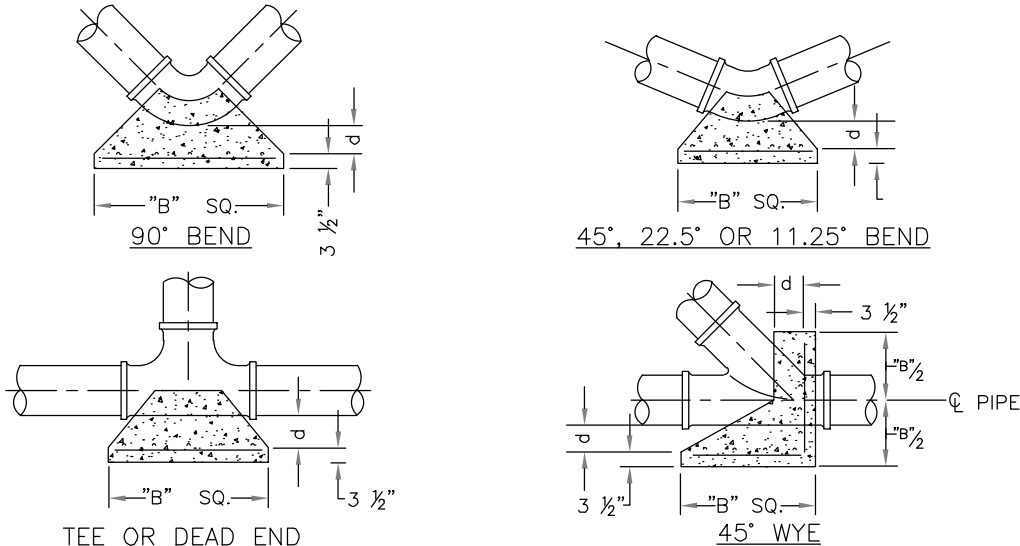
TYPICAL DETAILS

SHEET NO. 10

THRUST BLOCK DIMENSIONS B ft. x d inches												
PIPE SIZE (IN.)	90°BEND		45°BEND		22.5°BEND		11.25°BEND		DEAD END & TEE		45° WYE	
	B	d	B	d	B	d	B	d	B	d	B	d
4	1.5	3 ½	1.1	3 ½	0.8	3 ½	0.6	3 ½	1.3	3 ½	1.1	3 ½
6	2.2	5 ¼	1.6	3 ¾	1.2	3 ½	0.8	3 ½	1.9	4 ½	1.6	3 ¾
8	2.9	7	2.1	5	1.5	3 ½	1.1	3 ½	2.4	5 ¾	2.0	4 ¾
10	3.5	8 ½	2.6	6 ¼	1.9	4 ½	1.3	3 ½	3.0	7 ¼	2.5	6
12	4.2	10	3.1	7 ½	2.2	5 ¼	1.6	3 ¾	3.5	8 ¼	3.0	7 ¼
14	4.9	11 ¾	3.6	8 ¾	2.6	6 ¼	1.8	4 ¼	4.1	9 ¾	3.4	8 ¼
16	5.5	13 ¼	4.1	9 ¾	2.9	7	2.1	5	4.7	11 ¼	3.9	9 ¼
18	6.2	15	4.6	11	3.3	8	2.3	5 ½	5.2	12 ½	4.4	10 ½
20	6.9	16 ½	5.0	12	3.6	8 ¾	2.6	6 ¼	5.8	14	4.9	11 ¾
24	8.2	19 ¾	6.0	14 ½	4.3	10 ¼	3.1	7 ½	6.9	16 ½	5.8	14
30	10.1	24 ¼	7.5	18	5.3	12 ¾	3.8	9	8.5	20 ½	7.2	17 ¼
36	12.1	29	8.9	21 ¼	6.4	15 ¼	4.5	10 ¾	10.2	24 ½	8.6	20 ¾



- NOTES:
- ALL THRUST BLOCKS SHALL BE CAST IN PLACE. FITTINGS ADJACENT TO THRUST BLOCKS SHALL BE WRAPPED IN POLYETHYLENE.
 - THIS TABLE IS BASED ON WATER PRESSURE=180 PSI WITH AN ALLOWABLE SOIL BEARING PRESSURE=2000 PSF, CONCRETE STRENGTH f_c =3000 PSI, REINFORCEMENT f_y =60.0 KSI. THRUST BLOCK SHALL BE CAST AGAINST FIRM UNDISTURBED SOIL.
 - FOR LARGER "B" DIMENSIONS IT IS NECESSARY TO CHECK THAT PIPE IS SUFFICIENTLY DEEP TO ALLOW 15" MIN. SOIL COVER OVER TOP EDGE OF THRUST BLOCK.
 - RESTRAINED JOINTS MAY BE USED IN LIEU OF THRUST BLOCKS TO SAVE SPACE. HOWEVER, WHERE THRUST BLOCKS AND RESTRAINED JOINTS ARE CALLED OUT/ILLUSTRATED IN THE DETAILS, BOTH SHALL BE INSTALLED.



MANATEE COUNTY PUBLIC WORKS DEPARTMENT			CONCRETE THRUST BLOCKS	UG-7
REV.BY	DATE			

REQUIRED LENGTH OF RESTRAINED JOINT PIPE
FOR C900-16 PVC PIPE (DR-18)

MAIN PIPE SIZE	HORIZ. BENDS			TEES					REDUCERS			PLUGS & VALVES
	90°	45°	22.5°	SIZE LENGTH					SIZE LENGTH			
				X24 169	X20 132	X16 90	X12 38	X10 6	X20 64	X16 117	X12 158	
24	90	38	18	X20 141	X16 101	X12 53	X10 24	X8 1	X16 65	X12 115	X10 149	214
20	78	32	16	X16 111	X12 67	X10 41	X8 12		X12 64	X10 107	X8 111	184
16	66	27	13	X12 80	X10 56	X8 31	X6 1		X10 58	X8 62	X6 86	151
12	52	22	10	X10 63	X8 40	X6 7			X8 33	X6 61	X4 81	118
10	44	18	9	X8 49	X6 18	X4 1			X6 35	X4 60		100
8	37	15	7	X6 29	X4 1				X4 33			83
6	29	12	6	X4 12								63
4	21	8	4									45

- NOTES:
- RESTRAIN 11.25° BENDS 50% OF LENGTH FOR 22.5° BENDS.
 - ALL VALVES AND FITTINGS SHALL BE RESTRAINED TO THE CONNECTING SECTIONS OF PIPE.
 - ALL ISOLATION VALVES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI TEST PRESSURE IN EITHER DIRECTION.
 - PIPE SIZES ARE GIVEN IN INCHES.
 - RESTRAINED PIPE LENGTHS ARE GIVEN IN FEET.
 - LENGTHS SHOWN ARE FOR A TEST PRESSURE OF 180 PSI.
 - THE RESTRAINED LENGTHS SHOWN IN THESE TABLES ARE BASED ON SOIL CLASSIFICATION SP WITH AWWA TYPE 3 TRENCH CONDITIONS, 180 PSI TEST PRESSURE, 3 FEET OF COVER AND 1.5 FACTOR OF SAFETY. ACTUAL BURY CONDITIONS MUST BE DETERMINED BY THE ENGINEER OF RECORD AND THE RESTRAINED LENGTHS MODIFIED ACCORDINGLY.
 - RESTRAINED LENGTHS TO BE APPLIED TO PIPELINES PER DETAIL UG-10 RESTRAINED LENGTHS FOR PIPE.
 - ALL RESTRAINED JOINT HARDWARE SHALL CONFORM TO 1.11.17 OF THE PUBLIC WORKS UTILITIES STANDARDS MANUAL.
 - ALL THREE "LEGS" OF TEES SHALL BE RESTRAINED PER THE STATED LENGTH IN THE TABLE.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT			RESTRAINED LENGTHS FOR PVC PIPE	UG-8
REV.BY	DATE			

DES BY	CKM	PROJ NO	66-0188.04
DR BY	TJS	DATE	DEC. 2020
CHK BY	MRI	NO	DATE
		REVISION	

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CORTEZ GARDENS SUBDIVISION
WATER MAIN REPLACEMENT
MANATEE COUNTY PUBLIC WORKS



TYPICAL DETAILS

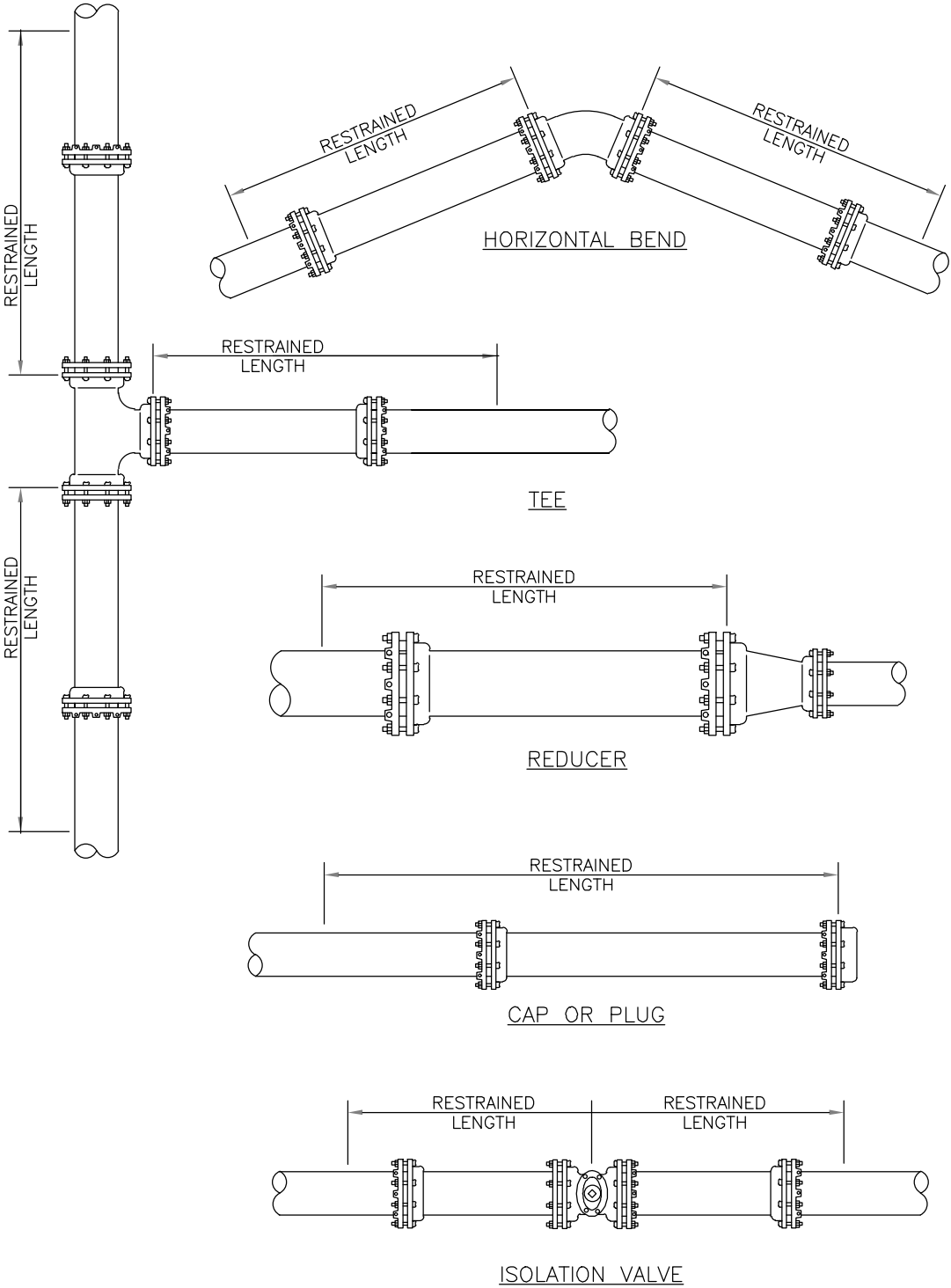
REQUIRED LENGTH OF RESTRAINED JOINT PIPE
FOR DIP (POLY-WRAPPED)

MAIN PIPE SIZE	HORIZ. BENDS			TEES							REDUCERS				PLUGS & VALVES
	90°	45°	22.5°	SIZE / LENGTH							SIZE / LENGTH				
36	142	59	28	x36 393	x30 318	x24 232	x20 165	x16 84	x12 1	x30 137	x24 247	x20 309	x16 359	453	
30	124	51	25	x30 333	x24 252	x20 189	x16 115	x12 23	x10 1	x24 137	x20 213	x16 276		391	
24	106	44	21	x24 270	x20 211	x16 143	x12 61	x10 10	x8 1	x20 98	x16 178	x12 241		327	
20	92	38	18	x20 225	x16 161	x12 85	x10 39	x8 1		x16 98	x12 176	x10 227		280	
16	77	32	15	x16 177	x12 107	x10 65	x8 19	x6 1		x12 98	x10 163	x8 169		231	
12	61	25	12	x12 127	x10 89	x8 50	x6 1			x10 88	x8 96	x6 131		181	
10	52	22	10	x10 101	x8 64	x6 11				x8 51	x6 94	x4 125		153	
8	44	18	9	x8 78	x6 30	x4 1				x6 54	x4 92			128	
6	34	14	7	x6 46	x4 1					x4 50				98	
4	24	10	5	x4 19										69	

NOTE:

1. SEE UG-8, RESTRAINED LENGTHS FOR PVC PIPE DETAIL FOR NOTES 1 THROUGH 9 THAT ARE ALSO APPLICABLE TO RESTRAINED LENGTHS FOR DIP.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT			RESTRAINED LENGTHS FOR DIP	UG-9
REV. BY	DATE			
		February 25, 2020		
		DATE OF APPROVAL		



NOTE:

1. SEE DETAIL UG-8 RESTRAINED LENGTHS FOR PVC PIPE FOR NOTES 1 THROUGH 9 THAT ARE ALSO APPLICABLE TO RESTRAINED LENGTHS FOR PIPE.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT			RESTRAINED LENGTHS FOR PIPE	UG-10
REV. BY	DATE			
		February 25, 2020		
		DATE OF APPROVAL		

DES BY	CKM				
DR BY	TJS	PROJ NO	66-0188.04		
CHK BY	MRI	DATE	DEC. 2020	NO	DATE
				REVISION	

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CORTEZ GARDENS SUBDIVISION
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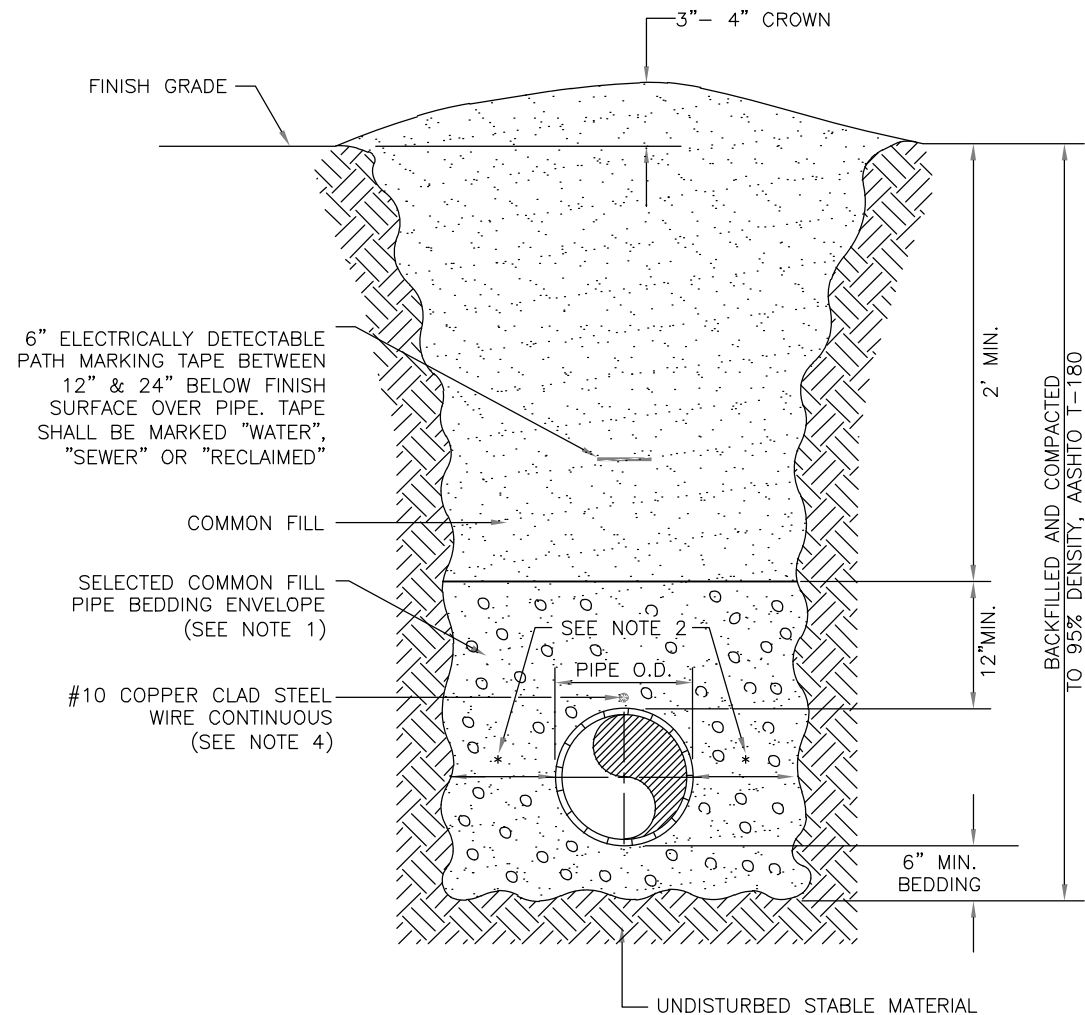
AYRES
TAMPA, FLORIDA

TYPICAL DETAILS

SHEET NO.
12

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

REV. BY	DATE	

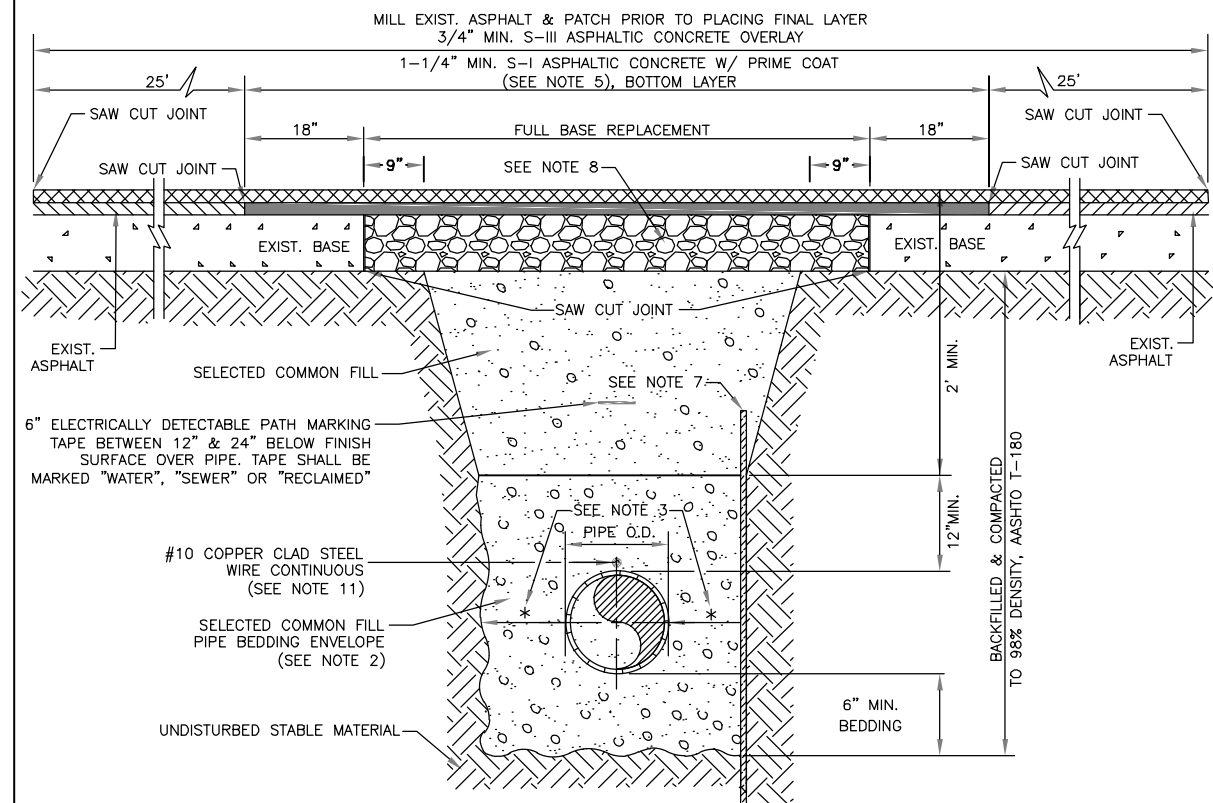
February 25, 2020
DATE OF APPROVAL

TRENCH WITH
UNIMPROVED SURFACE
TYPE A-1 PIPE BEDDING

UG-11

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-I, 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

REV. BY	DATE	

February 25, 2020
DATE OF APPROVAL

TRENCH WITH ASPHALT
PAVEMENT SURFACE
TYPE A-1 PIPE
BEDDING (CROSSING)

UG-12

12/21/2020
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DR BY	TJS	DATE	DEC. 2020			
CHK BY	MRI					

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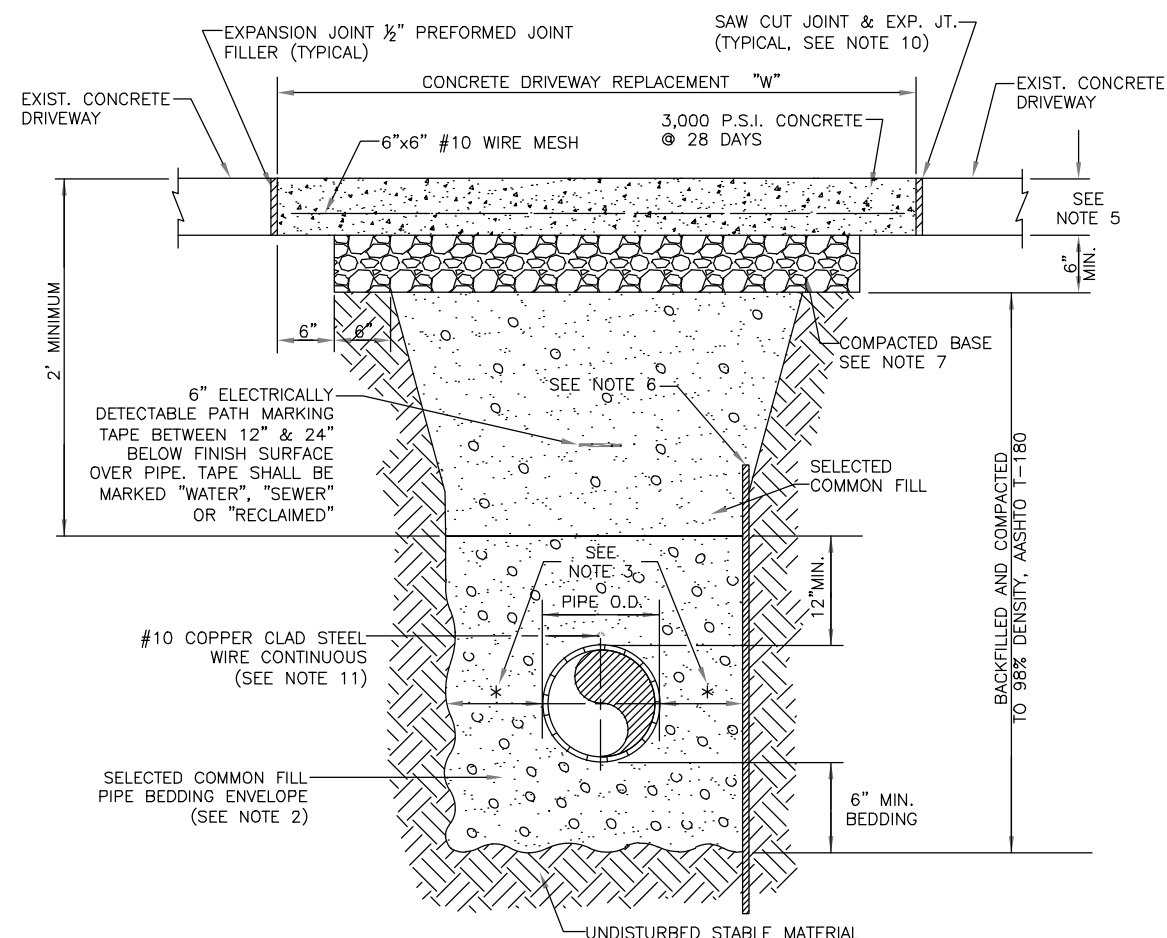
CORTEZ GARDENS SUBDIVISION
WATER MAIN REPLACEMENT
MANATEE COUNTY PUBLIC WORKS

AYRES
TAMPA, FLORIDA

TYPICAL DETAILS

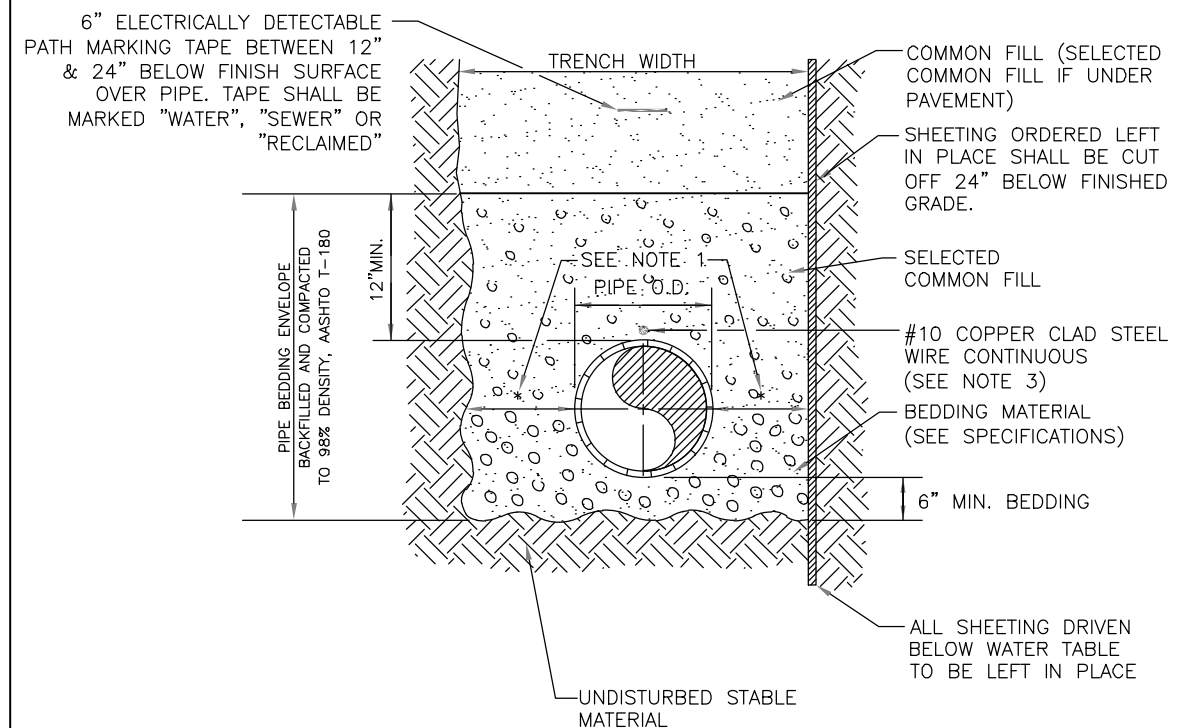
SHEET NO.
13

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		
<u>February 25, 2020</u> DATE OF APPROVAL			

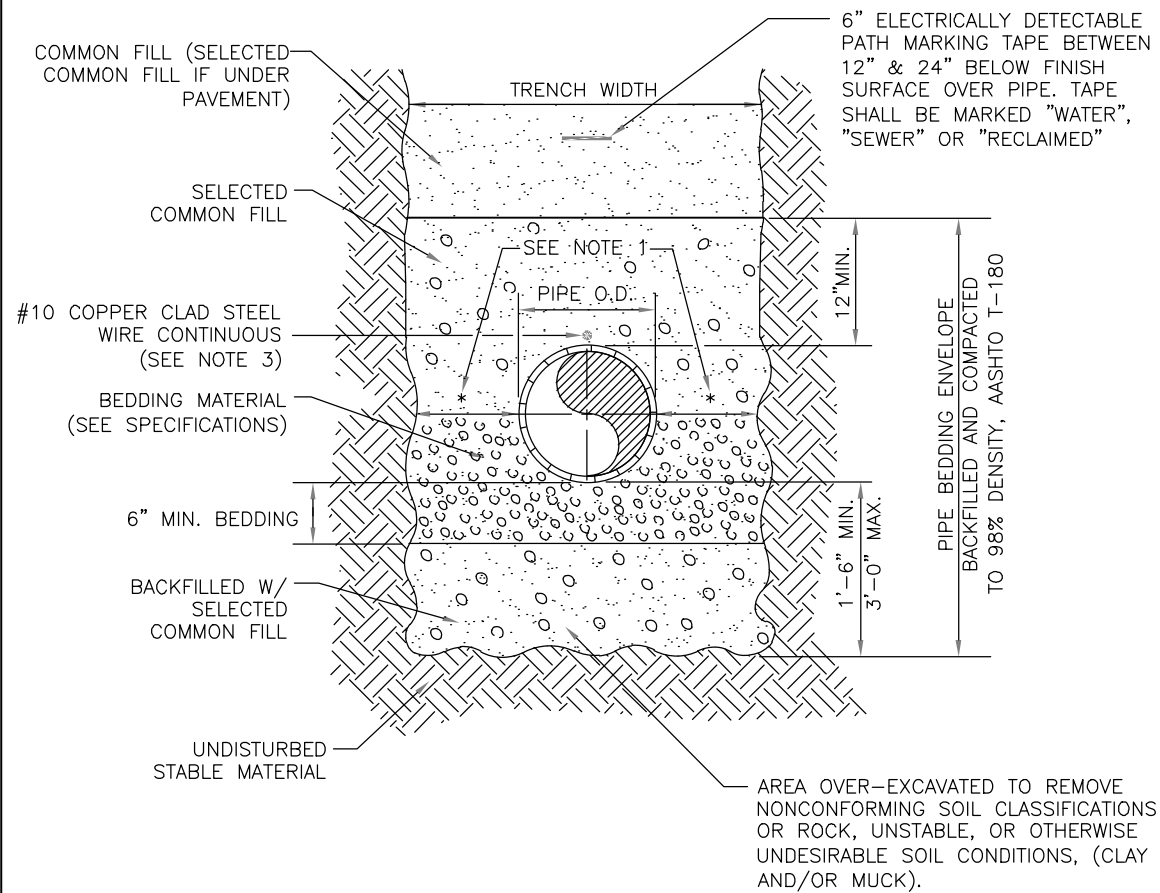
1. PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
2. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
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		

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			TRENCH WITH TYPE A-3 PIPE BEDDING	UG-16
PUBLIC WORKS DEPARTMENT				
REV. BY	DATE	<u>February 25, 2020</u> DATE OF APPROVAL		

1/21/2020
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DES BY	CKM	PROJ NO	66-0188.04	NO	DATE	REVISION
DR BY	TJS	DATE	DEC. 2020			
CHK BY	MRJ					

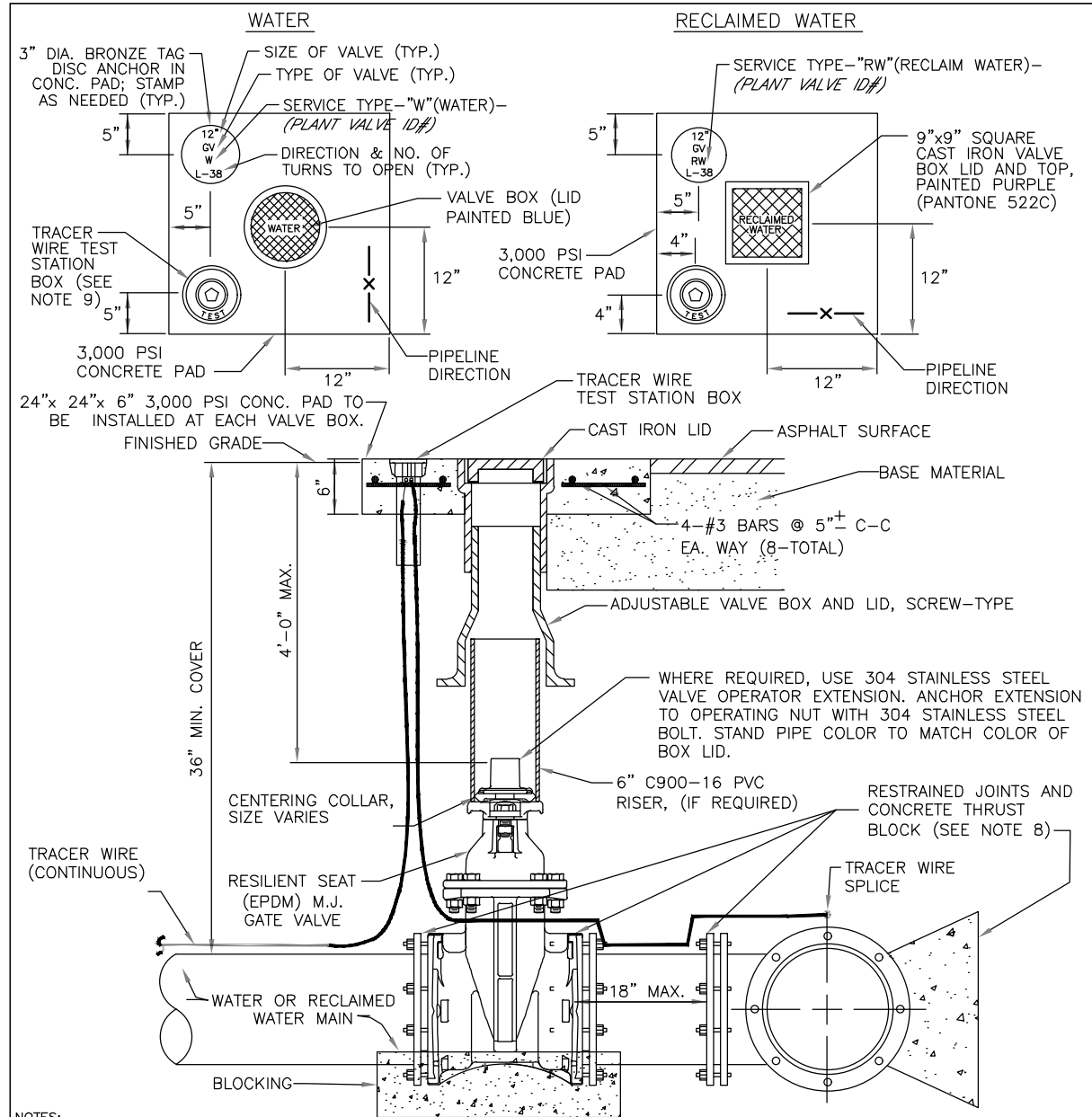
PROFESSIONAL OF RECORD:
CHRISTOPHER K. MARTIN, P.E. #66598
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637 (813) 978-8688 CERT. OF AUTH. #4356

CORTEZ GARDENS SUBDIVISION
WATER MAIN REPLACEMENT
MANATEE COUNTY PUBLIC WORKS



TYPICAL DETAILS

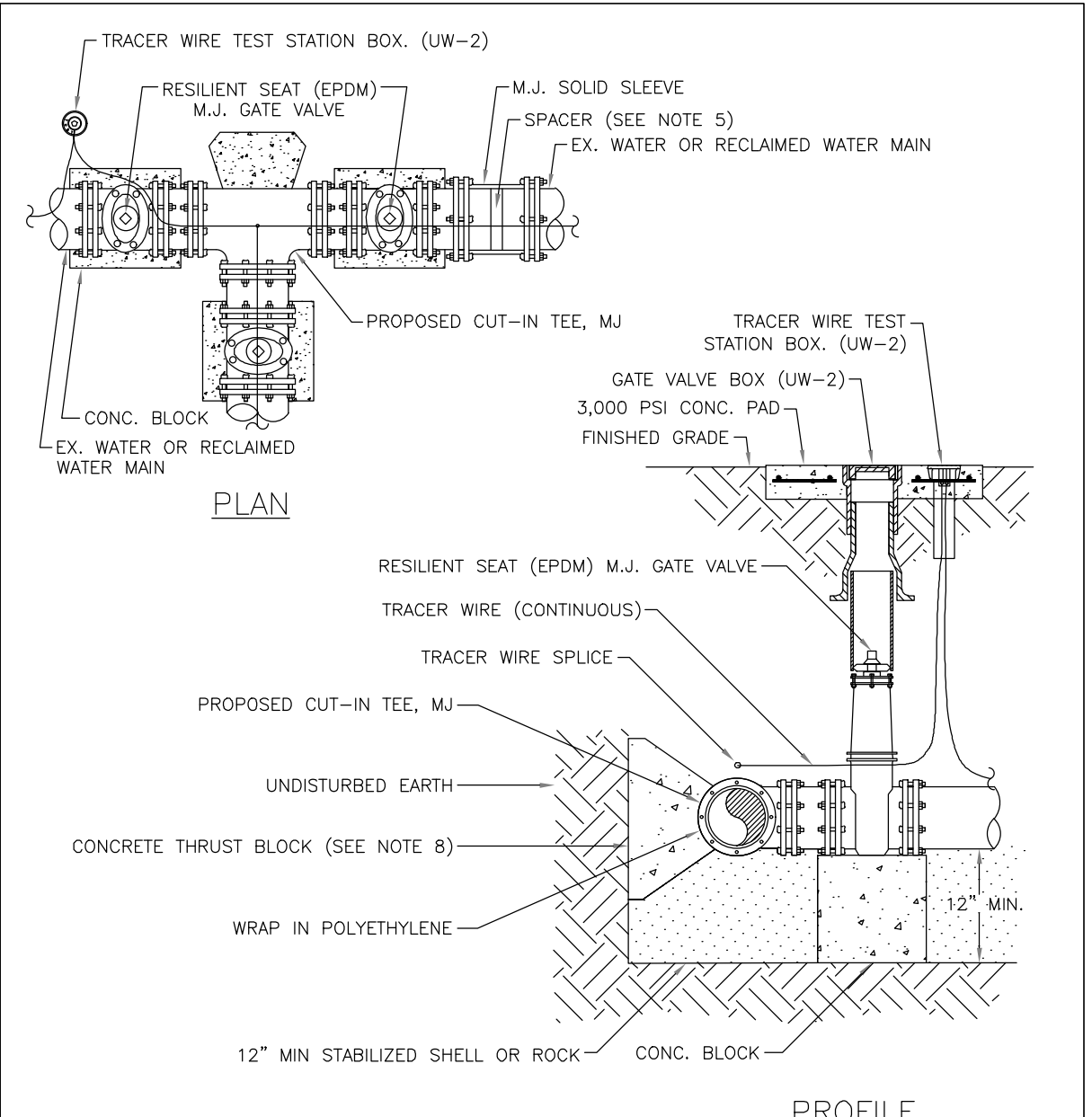
SHEET NO.
15



NOTES:

- "WV" OR "RWV" TO BE IMPRESSED INTO THE NEWLY-POURED CONCRETE CURB, ALONG WITH DISTANCE IN FEET TO THE VALVE. IF NO CURB, INSTALL A BLUE DISC WITH "WV" OR PURPLE DISC WITH "RWV" USING 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 SHALL NOT BE USED.
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
- PIPELINE DIRECTION TO BE IMPRESSED INTO NEWLY POURED CONCRETE PAD.
- TRACER WIRE TEST STATION BOX IS NOT REQUIRED IN VALVE BOX PAD IF THE GATE VALVE IS LOCATED WITHIN 200 FEET OF A WATER SERVICE, BLOW-OFF, BACKFLOW PREVENTER OR FIRE HYDRANT THAT HAS A TRACER WIRE BOX.
- WHERE THRUST BLOCK NOT USED, RESTRAINED JOINTS MUST THEN EXTEND FROM TEE FULL LENGTH SPECIFIED FOR "TEES."
- 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.
- 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 GATE VALVES IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR FURTHER DETAILS.

MANATEE COUNTY		GATE VALVE, BOX, LID AND TAG	
PUBLIC WORKS DEPARTMENT		UW-2	
REV.BY	DATE		
February 25, 2020			
DATE OF APPROVAL			



NOTES:

- ALL FITTINGS TO BE WRAPPED WITH 20 MIL POLYETHYLENE WRAP AT THRUST BLOCK.
- TRACER WIRE TEST STATION BOX IS REQUIRED AT CONNECTIONS TO EXISTING MAINS.
- WATER VALVES SHALL BE INSTALLED ON ALL SIDES OF TEES AND CROSSES, UNLESS INLINE VALVES ON THAT LEG WITHIN 200 FEET.
- RESTRAINED JOINTS MUST EXTEND FROM TEE FULL LENGTH SPECIFIED FOR VALVES.
- SPACER IS REQUIRED IF A GAP EXISTS. SPACER NOT TO EXCEED OVER 30% OF SLEEVE WIDTH.
- IN ASBESTOS CONCRETE PIPE (AC) APPLICATIONS: TWO COUPLINGS ARE REQUIRED. ALL FITTINGS INCLUDING COUPLINGS SHALL BE SUPPORTED WITH CONCRETE BLOCKING TO PREVENT SETTLEMENT.
- ALL EXISTING RESTRAINING SHALL BE MODIFIED AND OR RE-INSTATED AS NECESSARY, TO MEET THE RESTRAINT REQUIREMENT FOR VALVES.
- WHERE THRUST BLOCK NOT USED, RESTRAINED JOINTS MUST THEN EXTEND FROM TEE FULL LENGTH SPECIFIED FOR "TEES".

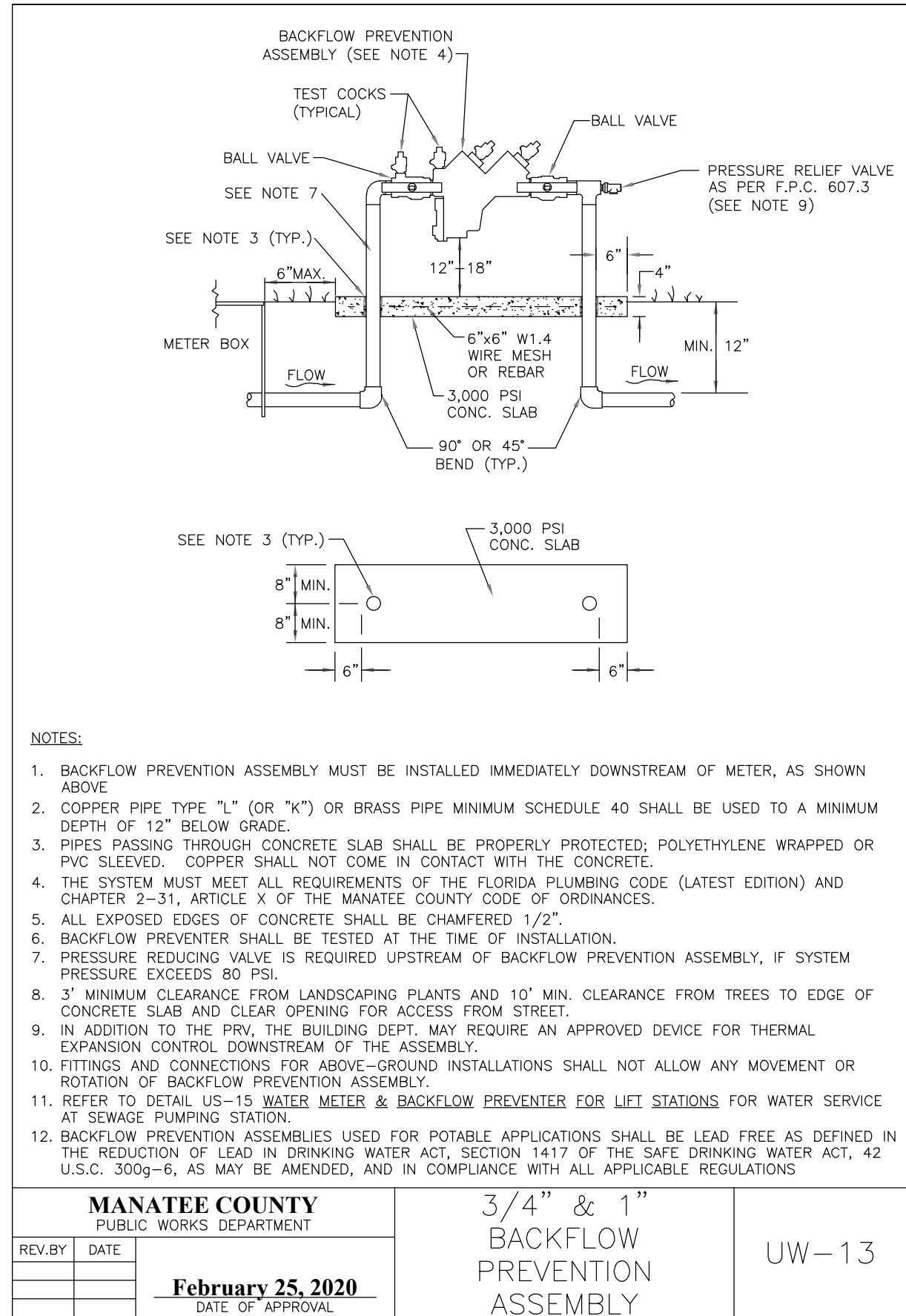
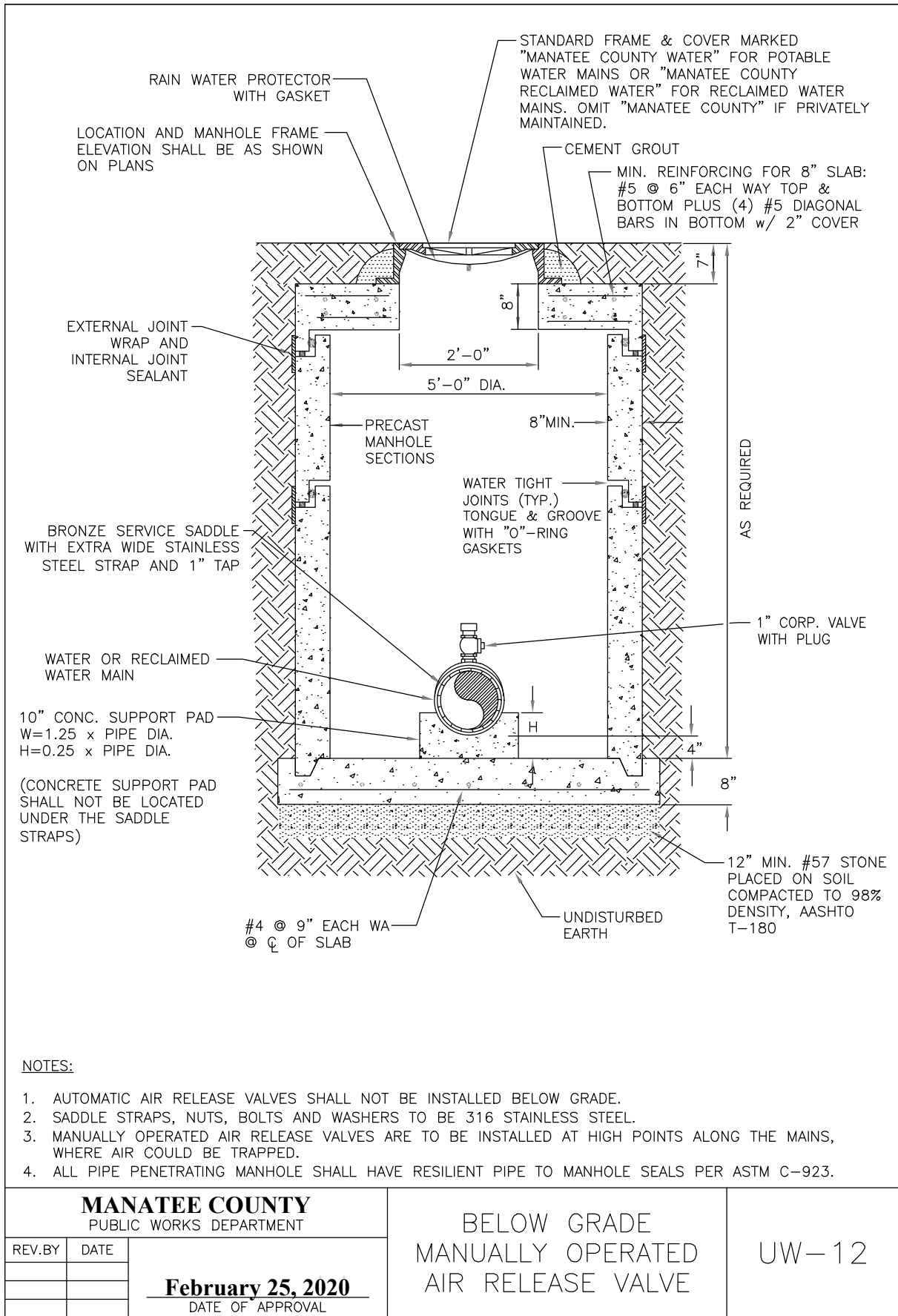
MANATEE COUNTY		CUT-IN TEE	
PUBLIC WORKS DEPARTMENT		UW-4	
REV.BY	DATE		
February 25, 2020			
DATE OF APPROVAL			

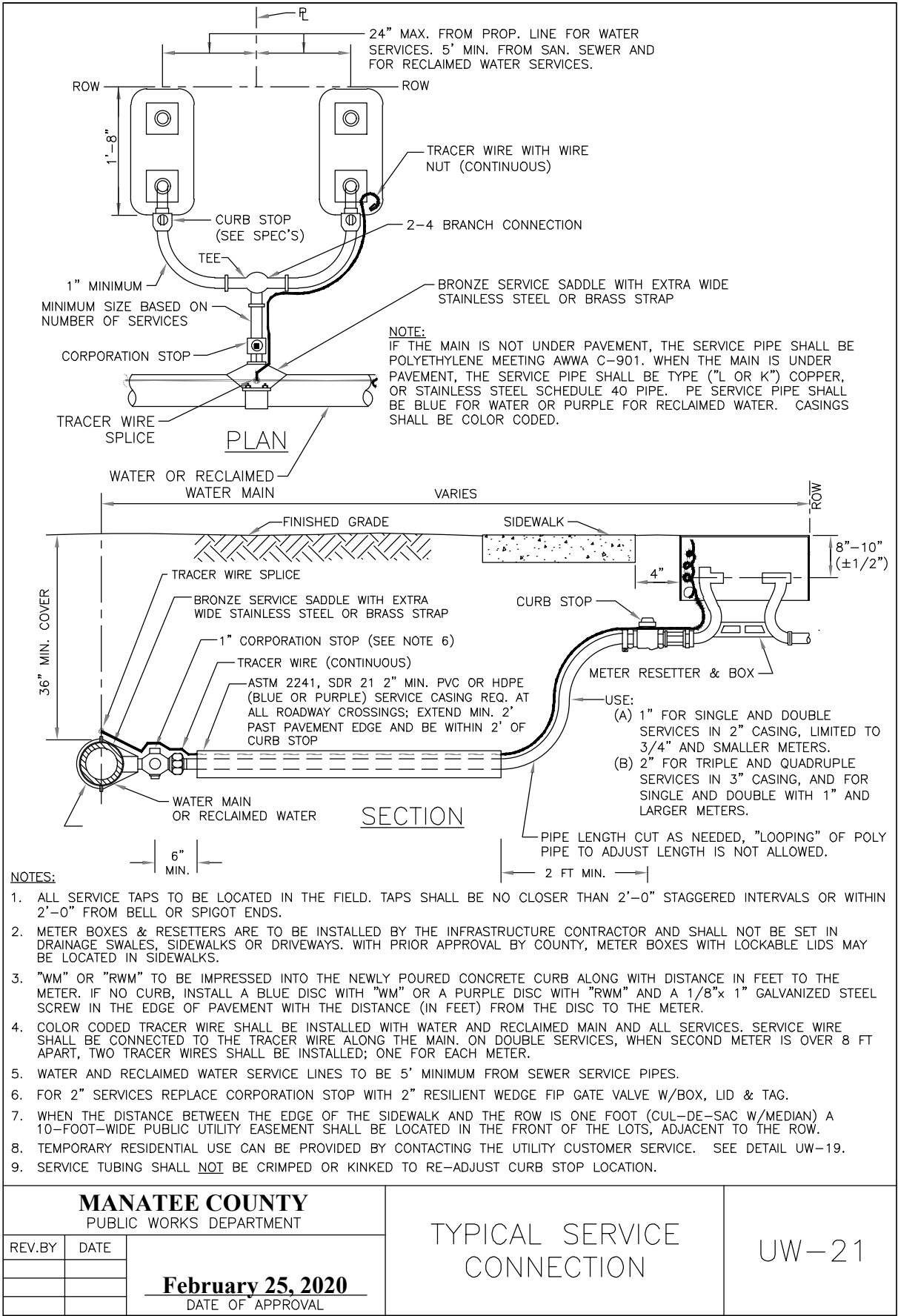
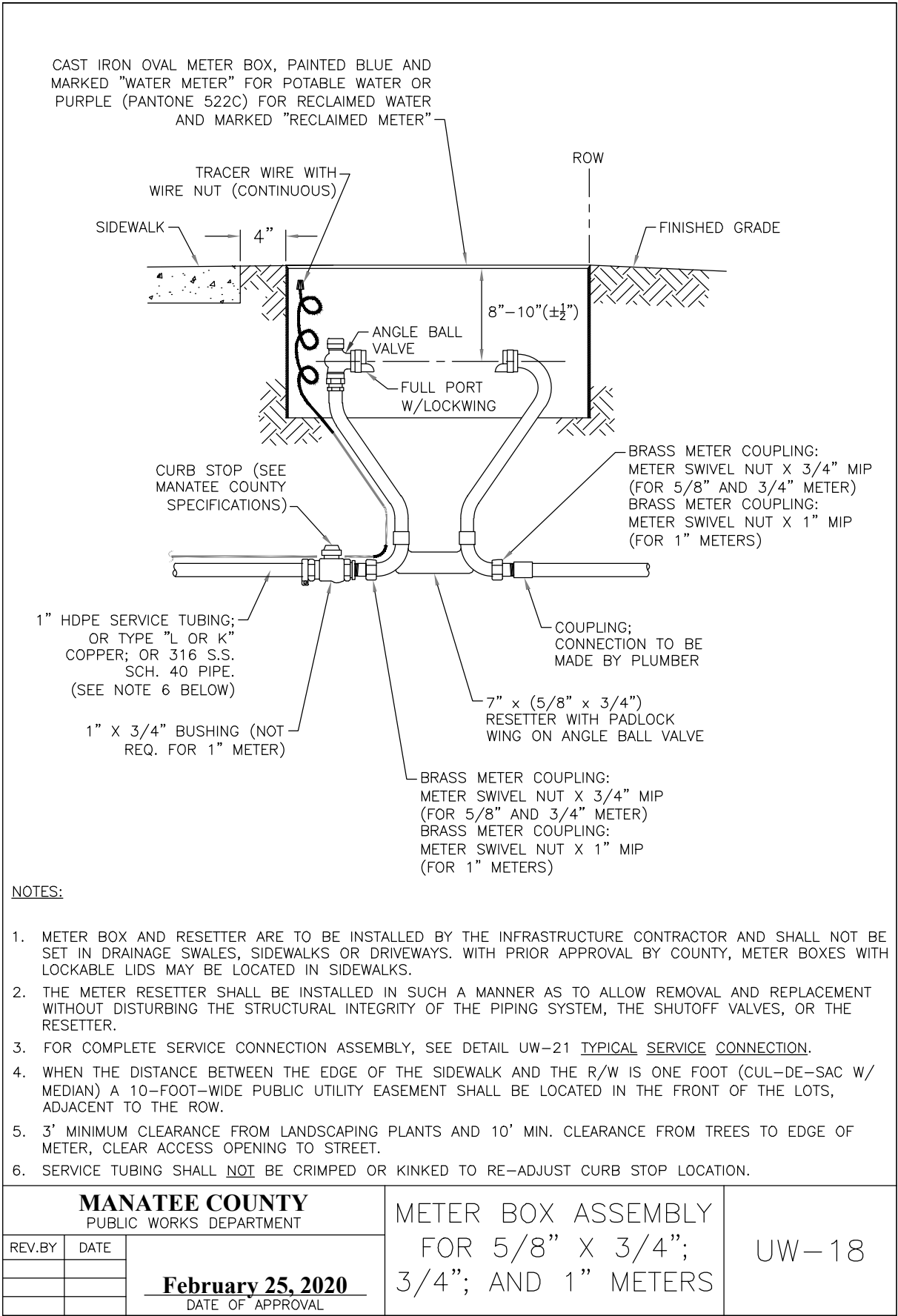
12/21/2020
I:\665-0188.04 - Manatee County - Cortez Gardens Subdivision Potable Water Replacement (CPR) 609770\Drawings\Construction\66-0188.04 - Typical Details.dwg, Layout: 16

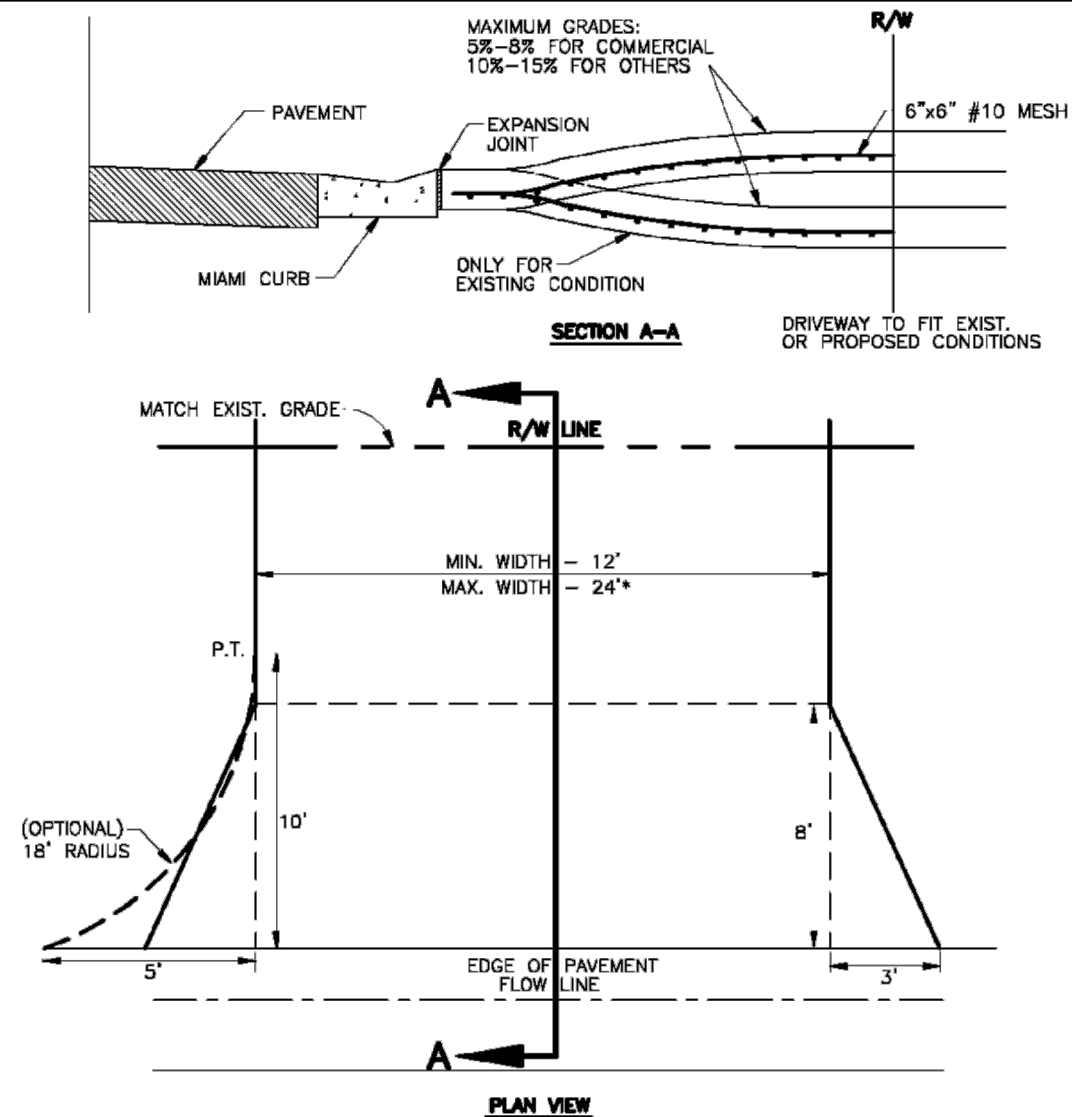
DES BY	CKM	PROJ NO	66-0188.04
DR BY	TJS	DATE	DEC. 2020
CHK BY	MRI	NO	DATE
		REVISION	

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

CORTEZ GARDENS SUBDIVISION
WATER MAIN REPLACEMENT
MANATEE COUNTY PUBLIC WORKS



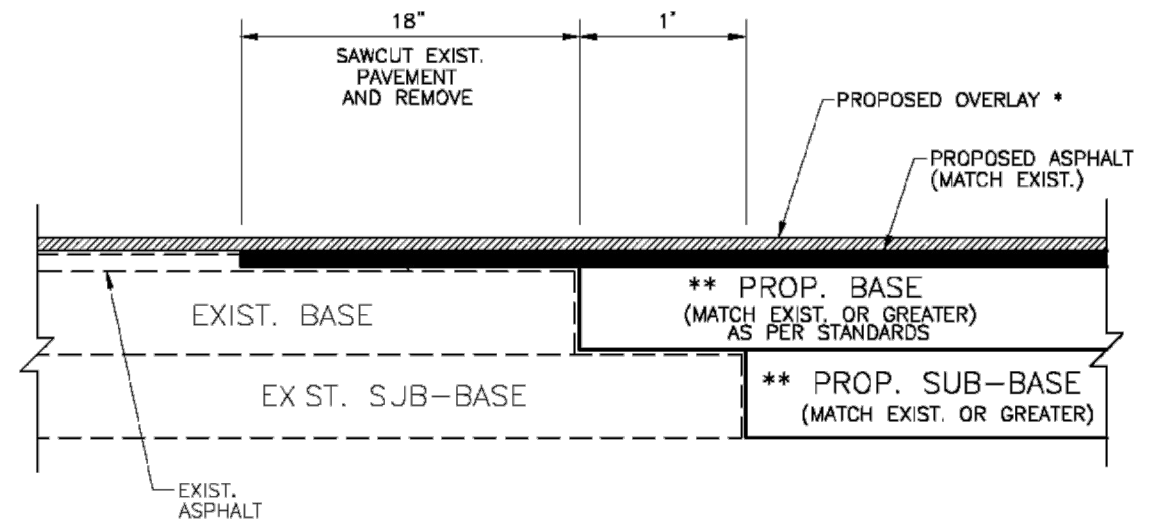




- * For driveways that can demonstrate the need for additional width, the width may not be greater than the LESSER of:
- a.) 30' total at the R/W line
 - b.) 30% of the front footage as defined on the survey (or field measurement, 36' max.)

- (A) CONSTRUCT WITH 6" REINFORCED CONCRETE 3000 PSI @ 28 DAYS, 6"x6" #10 WIRE MESH FROM BACK OF CURB- TO R/W LINE.
- (B) DRIVEWAYS ADJACENT TO A PAVED ROADWAY MUST HAVE THE APRON CONSTRUCTED IN COMPLIANCE WITH THE NOTE (A) ON PREVIOUS PAGE (STD. 101.0)
- (C) MAINTAIN EXISTING DRAINAGE FLOWLINE. FOR PIPING SPECIFICATIONS REFER TO F.D.O.T. STANDARD SPECIFICATIONS SECTION 430. SEE NOTE 4, PAGE 100.1. SEE SECTION 200- DRAINAGE (STD. 200.0, 202.5).
- (D) 3'x8" FLARE OR 18' RADIUS WITH CURB TRANSITION (TRANSITION FROM TYPE "F" CURB TO MIAMI CURB) SEE STD. 102.2. NO CHANGE WITH 3' VALLEY CROSSINGS - SEE STDS. 201.0, 201.1, 201.2, 201.4, 201.5, 201.6.
- (E) EXPANSION JOINT 0.50" PREFORMED JOINT FILLER OR APPROVED ALTERNATE, DRIVES WIDER THAN 12' (BEYOND FLARE) PLACE JOINT ON 10' CENTER.
- (F) LATERAL ALIGNMENT 45 DEGREES FOR DOUBLE DRIVE PER LOT, 90 DEGREES FOR SINGLE DRIVE, OFF CENTER LINE.

MANATEE COUNTY			URBAN DRIVES	101.1
TRANSPORTATION DEPARTMENT				
REV. BY	DATE	<div>6/12/07</div> <div>DATE OF B.O.C.C. APPROVAL</div>		



- * NOTE: LIMITS OF OVERLAY - EDGE OF PAVEMENT TO EDGE OF PAVEMENT AND 25' BEYOND LIMITS OF CONSTRUCTION.
- ** NOTE: CONNECTION TO OLDER (SUBSTANDARD THICKNESS) ROADS MAY REQUIRE THICKER PROPOSED BASE AND SUB-BASE TO MEET CURRENT STANDARDS.
- SIGNAGE AND MARKING PLAN SHALL ACCOMPANY CONSTRUCTION PLAN.

ROAD CONNECTION DETAIL

N.T.S.

MANATEE COUNTY		ROAD CONNECTION DETAIL	403.3
TRANSPORTATION DEPARTMENT			
REV. BY	DATE		
	6/12/07		
DATE OF B.O.C.C. APPROVAL			

DES BY	CKM	PROJ NO	66-0188.04	PROFESSIONAL OF RECORD:	CHRISTOPHER K. MARTIN, P.E. #66598
DR BY	TJS	DATE	DEC. 2020	AYRES ASSOCIATES	8875 HIDDEN RIVER PKWY, SUITE 200
CHK BY	MRI	NO	DATE	TAMPA, FL 33637	(813) 978-8688 CERT. OF AUTH. #4356
REVISION					

CORTEZ GARDENS SUBDIVISION
WATER MAIN REPLACEMENT
MANATEE COUNTY PUBLIC WORKS



TYPICAL DETAILS

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		
	PALM		DRIP LINE
	OAK		FENCE LINE
	TREE		RIGHT OF WAY
	BUSH		OVERHEAD ELECTRIC
			OVERHEAD UTILITIES
			HEDGE/VEGETATION LINE
			1-FOOT CONTOURS
			SANITARY LINE
			TELEPHONE/CABLE LINE
			WATER LINE
			ELECTRIC LINE
			RECLAIMED WATER LINE

NO.	INDEX OF SHEETS
1	COVER SHEET
2-4	PLAN SHEET

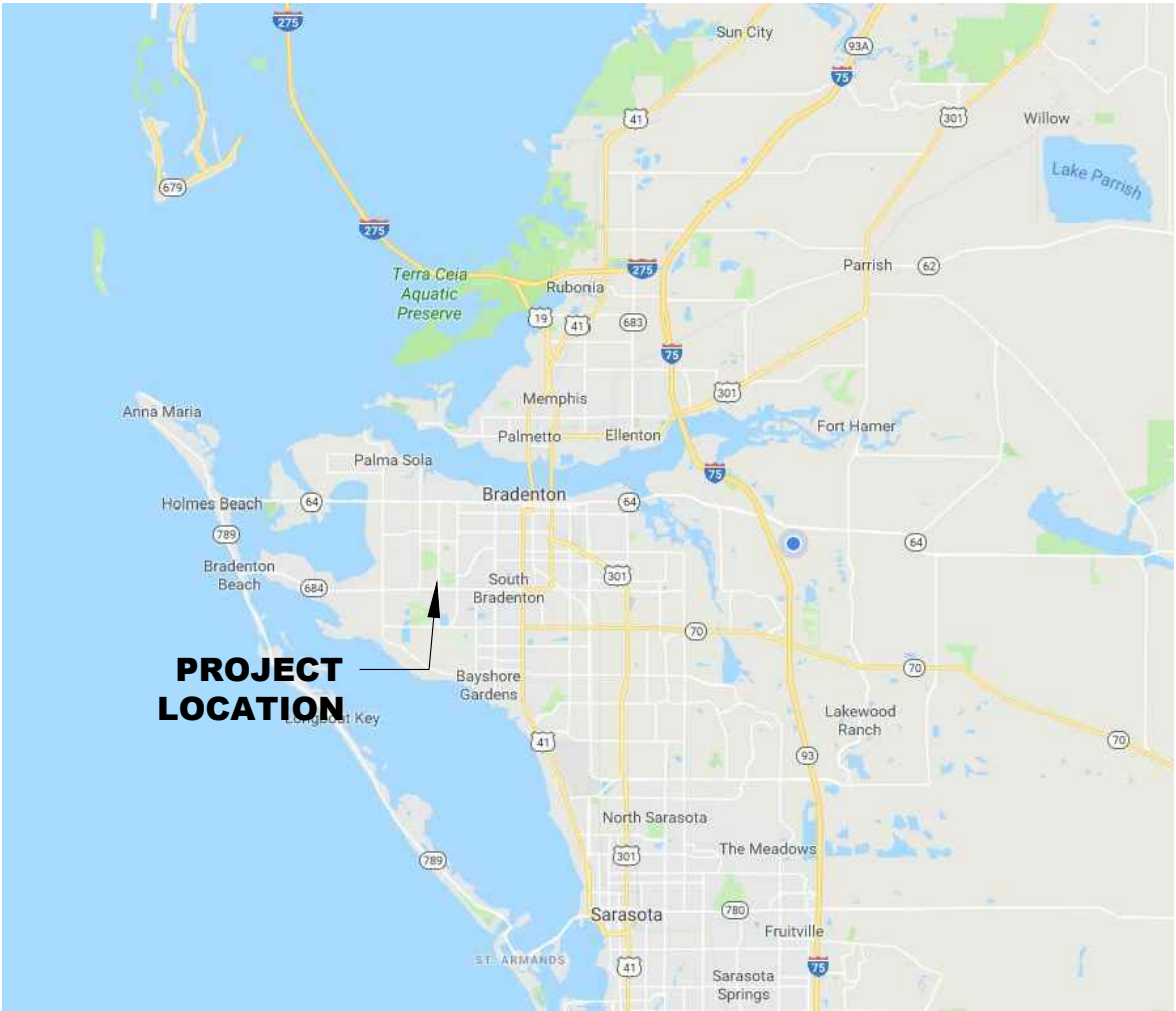
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Point #	Northing	Easting	Elevation	Description
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107	1139127.62	454720.51	22.19	TP IRS
108	1139172.01	454447.25	22.15	TP NDS
109	1138531.16	454408.01	21.42	TP NDS
110	1138518.76	454674.05	22.08	TP NDS
111	1138506.51	455006.54	22.47	TP IRS

SURVEY NOTES

1. THE FOLLOWING CITY OF BRADENTON VERTICAL CONTROL MONUMENTS WERE RECOVERED AND UTILIZED FOR THE ELEVATIONS INDICATED HEREIN:

"COB 1041" NAVD 1988 ELEVATION 22.26'
"COB 1037" NAVD 1988 ELEVATION 22.57'
2. THIS SURVEY IS REFERENCED TO A GRID PROJECTION OF THE FLORIDA STATE PLANE COORDINATE SYSTEM (WEST ZONE NAD 1983/2011 ADJUSTMENT).
3. 0.00' NAVD 88 DATUM = 0.98' NGVD 1929 DATUM. CONVERSION CALCULATED USING VDATUM TRANSFORMATION SOFTWARE.
4. THIS IS NOT A BOUNDARY SURVEY. TITLE WORK WAS NOT PROVIDED.
5. FIELD WORK COMPLETED APRIL 18, 2019.
6. ORIGINAL SHEET SIZE IS 11" X 17".
7. THIS SURVEY IS SUBJECT TO PERTINENT EASEMENTS, RIGHTS-OF-WAY AND RESTRICTIONS OF RECORD, IF ANY.
8. 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.
9. THIS SURVEY IS CERTIFIED TO AYRES ASSOCIATES.

VICINITY MAP (NOT TO SCALE)



PROJECT LOCATION

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



TOPOGRAPHIC SURVEY
CORTEZ GARDENS SUBDIVISION
MANATEE COUNTY, FLORIDA

PROJECT #	19-2334	
SURVEY #	19-2334	
SECTION TWN RNG	5-35-17	
SCALE	1" = N/A	
SURVEYED	HYATT	3/2019
DESIGNED		
DRAWN	SC	4/2019
CHECKED	RH	4/2019



TOPOGRAPHIC SURVEY
CORTEZ GARDENS SUBDIVISION
MANATEE COUNTY, FLORIDA

PROJECT #	19-2334
SURVEY #	19-2334
SECTION TWN RNG	5-35-17
SCALE	1" = 40'
SURVEYED	HYATT 3/2019
DESIGNED	
DRAWN	SC 4/2019
CHECKED	RH 4/2019

