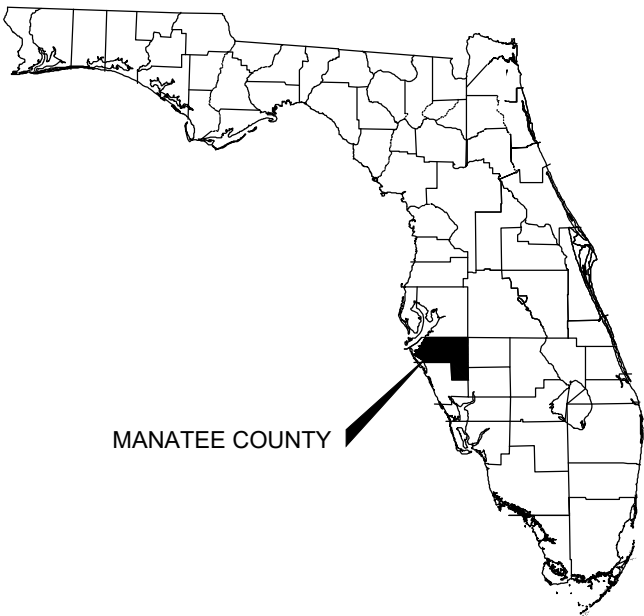


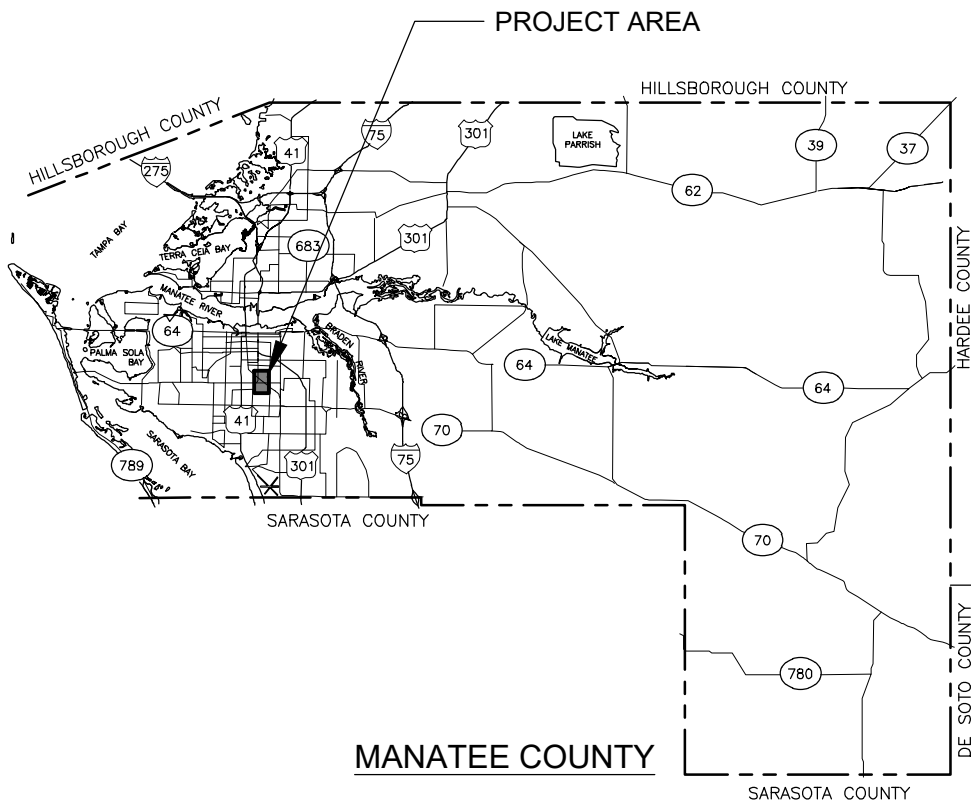
MANATEE COUNTY PUBLIC WORKS (CIP #6097170)

HAZELHURST SUBDIVISION WATER MAIN REPLACEMENT 100% CONSTRUCTION DOCUMENTS NOVEMBER 2020

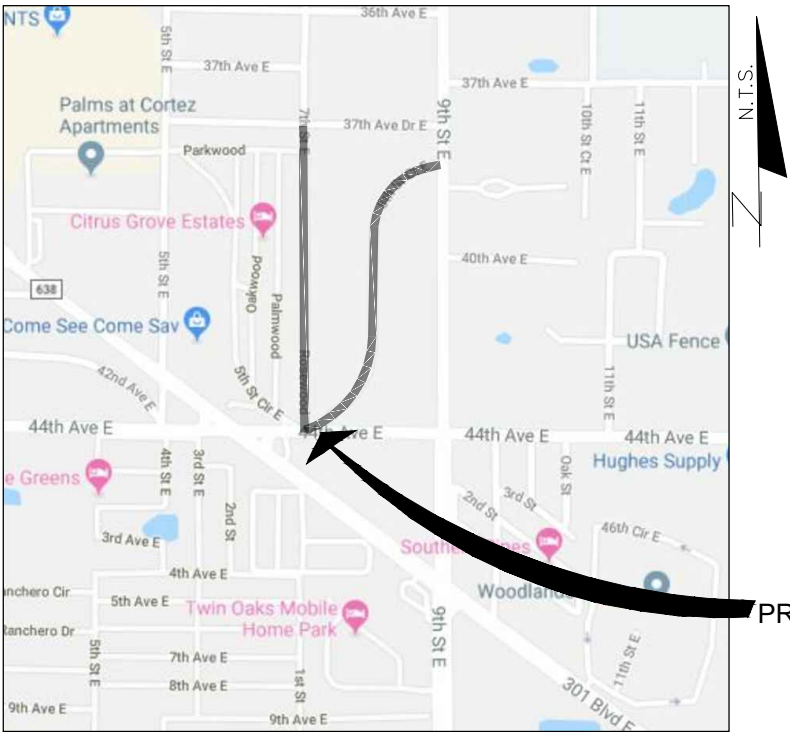


MANATEE COUNTY

COUNTY MAP
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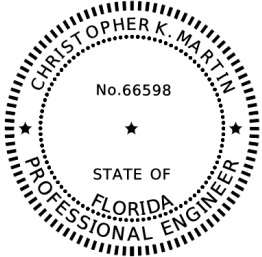
PROJECT AREA



VICINITY MAP

PROJECT LOCATION

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DES BY CKM	PROJ NO 66-0188.03	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	HAZELHURST SUBDIVISION WATER MAIN BRADENTON, FLORIDA MANATEE COUNTY PUBLIC WORKS	AYRES TAMPA, FLORIDA	COVER	SHEET NO. 01
DR BY TJS	DATE NOVEMBER 2020	NO	DATE	REVISION		
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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 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.
3. 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.
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, AND WETLANDS.
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 PROTECTION 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 A MINIMUM OF 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.
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 | USIC DISPATCH OFFICE | 800-778-9140 |
| BLACK & VEATCH TAMPA 1F | BLOOD HOUND | 317-456-0356 |
| CITY OF BRADENTON | JIM MCLELLAN | 941-462-1989 |
| FP&L MANATEE | USIC DISPATCH CENTER | 800-778-9140 |
| FRONTIER COMMUNICATIONS | USIC DISPATCH | 800-778-9140 |
| MCI | FIELD CONTACTS | 800-624-9675 |
| MANATEE CO. TRANSPORTATION DEPT. | ANTHONY WILLIAMS | 941-792-8811X5081 |
| MANATEE CO. UTILITY OPERATIONS | ANTHONY WILLIAMS | 941-792-8811X5081 |
| TECO PEOPLES GAS SARASOTA | PHYLLIS BRIDGES | 813-228-4025 |
19. CONTRACTOR SHALL INSTALL A REDUCED PRESSURE (RP) TYPE BACKFLOW PREVENTION ASSEMBLY (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 ARE AUTHORIZED TO 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
- NEW BACKFLOW PREVENTION DEVICE, WATER METER ASSEMBLY, AND WATER SERVICE LINE CONNECTION
- F&I FURNISH & INSTALL
- - - - - EXIST. WATER MAIN TO BE GROUT FILLED

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
- OE — OVERHEAD ELECTRIC
- OHU — OVERHEAD UTILITIES
- HEDGE/VEGETATION LINE
- 25.5 — 1-FOOT CONTOURS
- DRAINAGE PIPE
- SANITARY SEWER
- SANITARY SERVICE LINE
- 6" WM — WATER MAIN
- WATER SERVICE LINE
- REUSE WATER SERVICE LINE
- 52 — SURVEY CONTROL POINT
- PALM
- OAK
- TREE
- BUSH



SHEET NO.
02

DES BY	CKM				
DR BY	TJS	PROJ NO	66-0188.03		
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

HAZELHURST SUBDIVISION WATER MAIN
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS



GENERAL NOTES

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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 LINES TOPS); SAMPLING PLAN AND LOCATIONS FOR FOR BACTERIOLOGICAL TESTING; PRESSURE TESTING SCHEDULE; LINES TOP 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.

DES BY	CKM				
DR BY	TJS	PROJ NO			
		66-0188.03			
CHK BY	CKM	DATE	NO	DATE	REVISION
		NOVEMBER 2020			

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HAZELHURST SUBDIVISION WATER MAIN
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MANATEE COUNTY PUBLIC WORKS

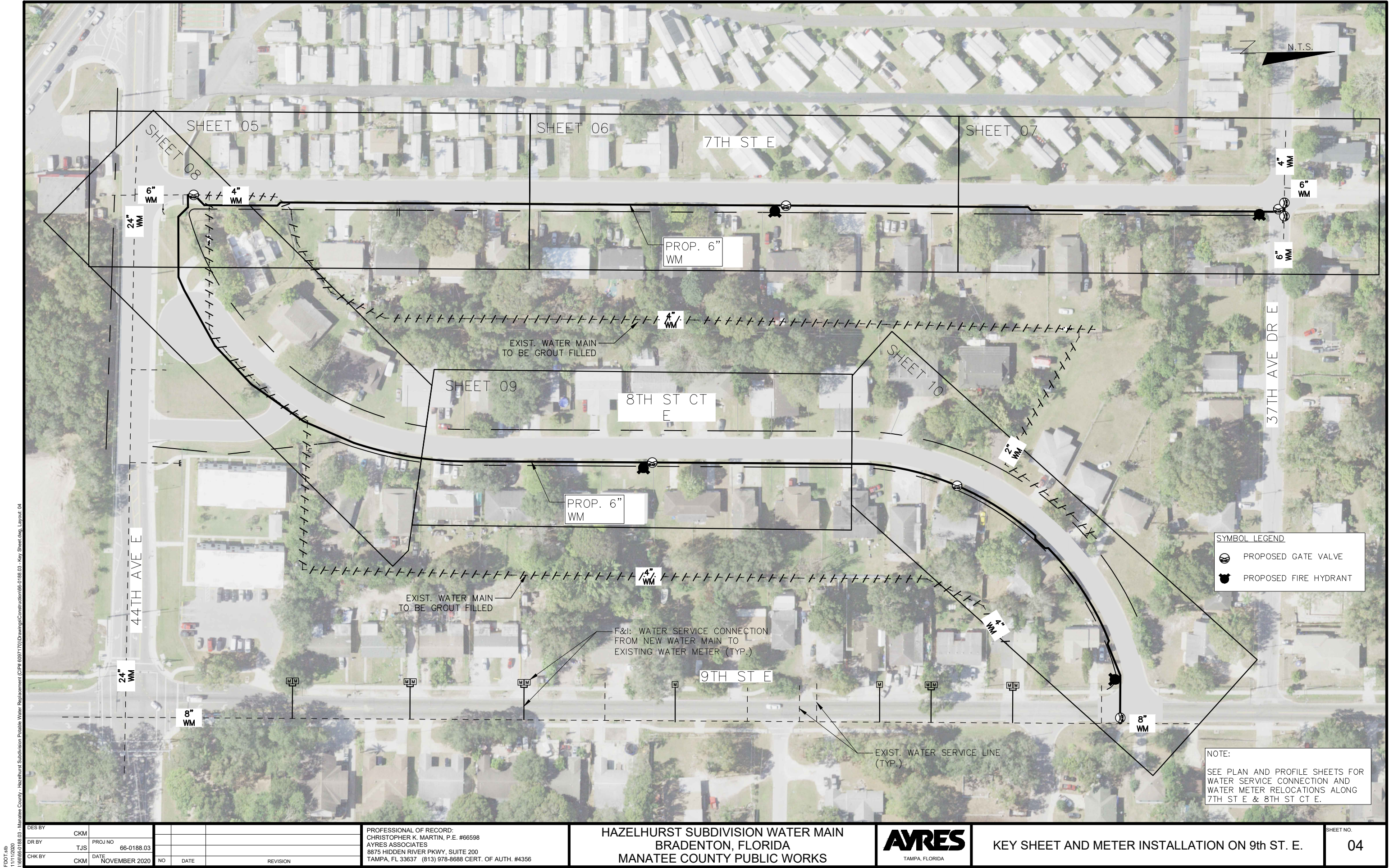


GENERAL NOTES



SHEET NO.

03



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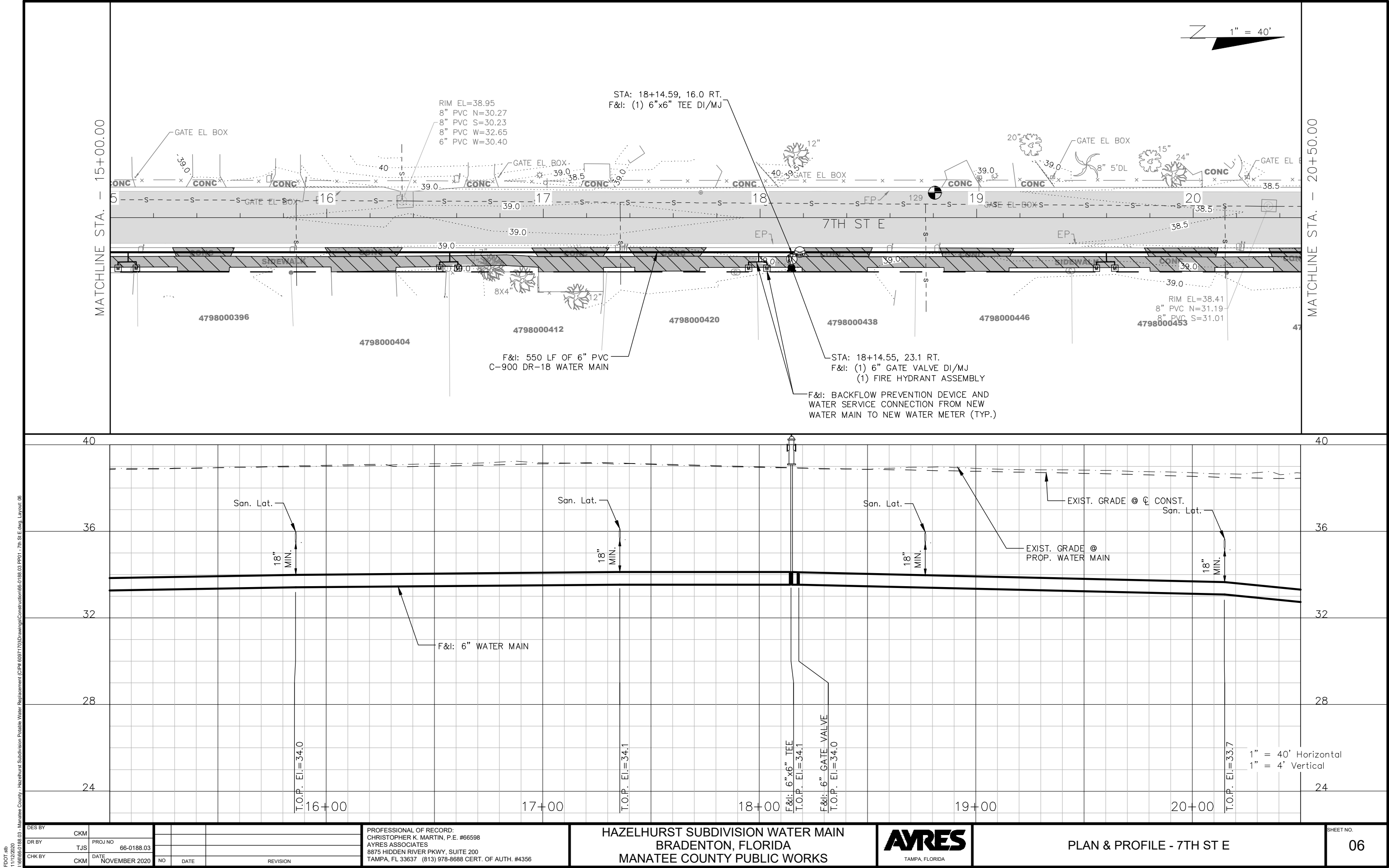
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BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS



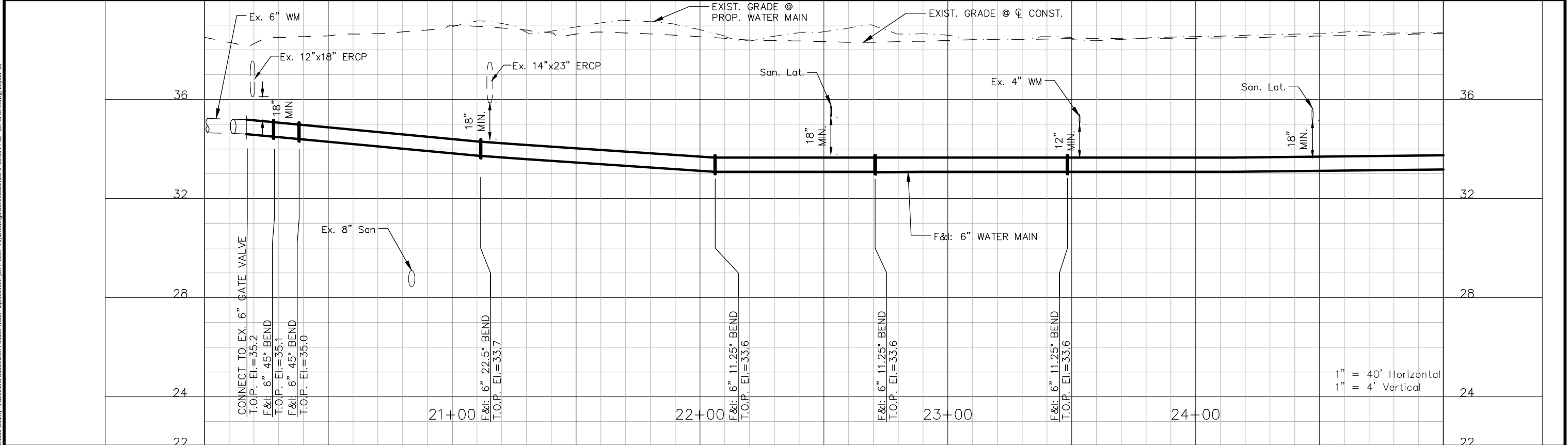
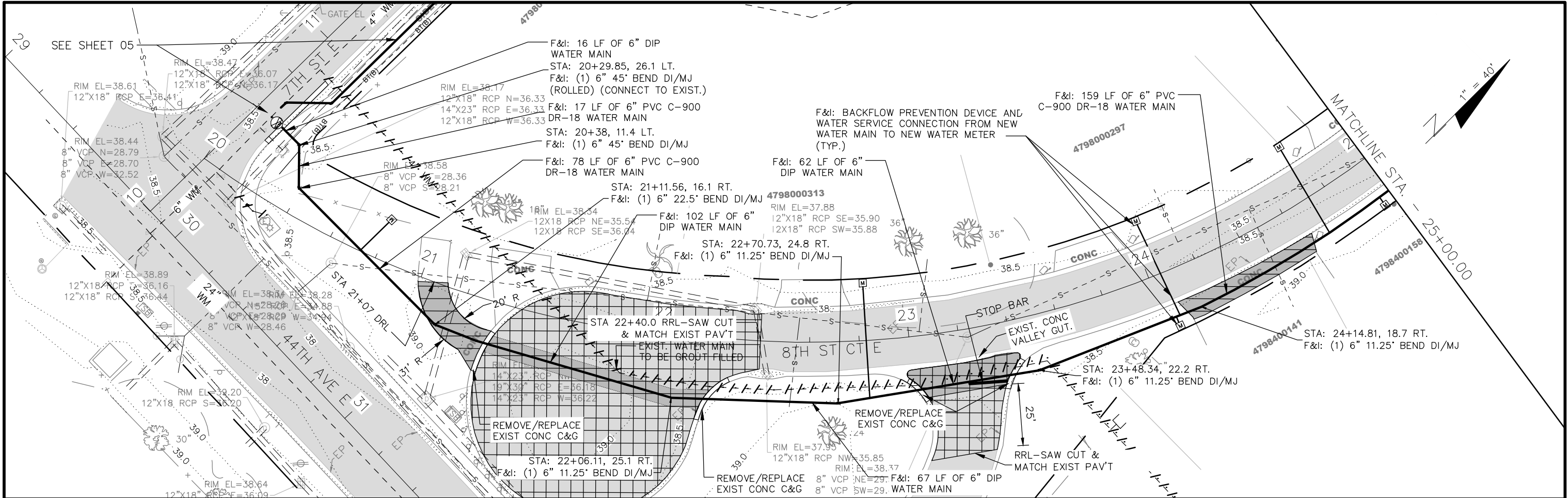
KEY SHEET AND METER INSTALLATION ON 9th ST. E.

SHEET NO.
04

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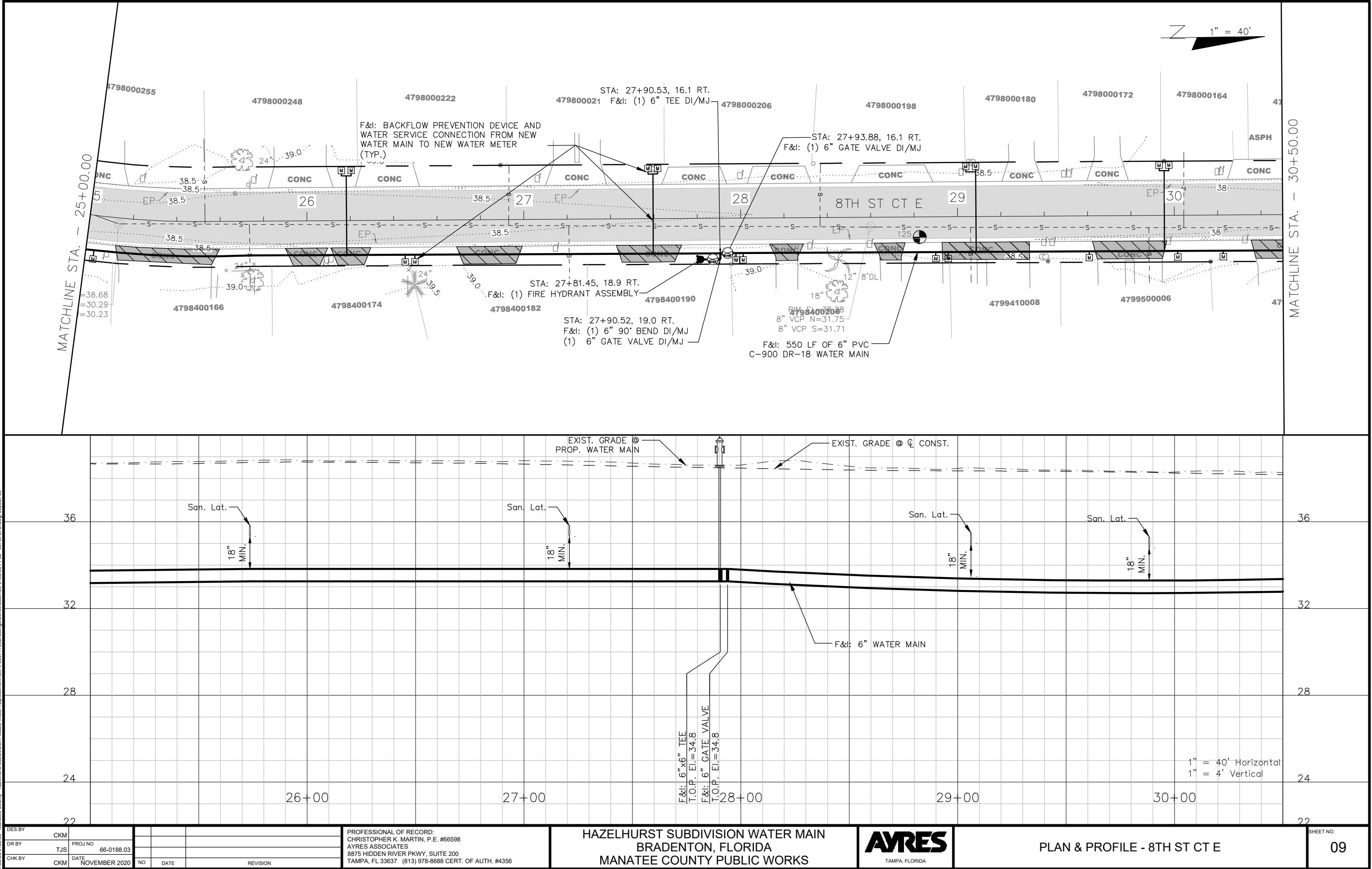


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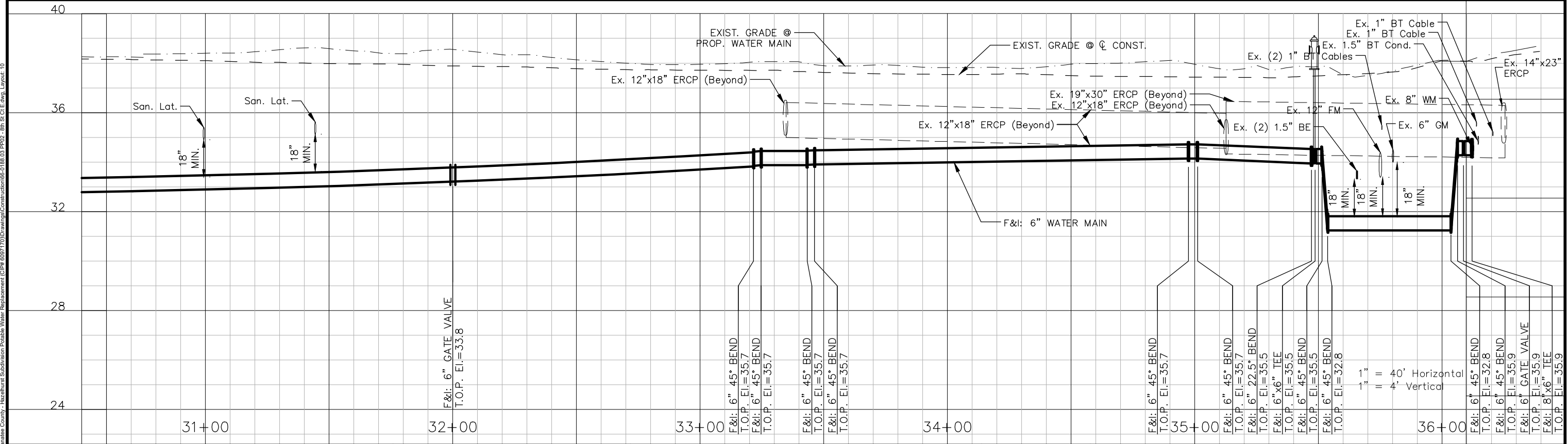
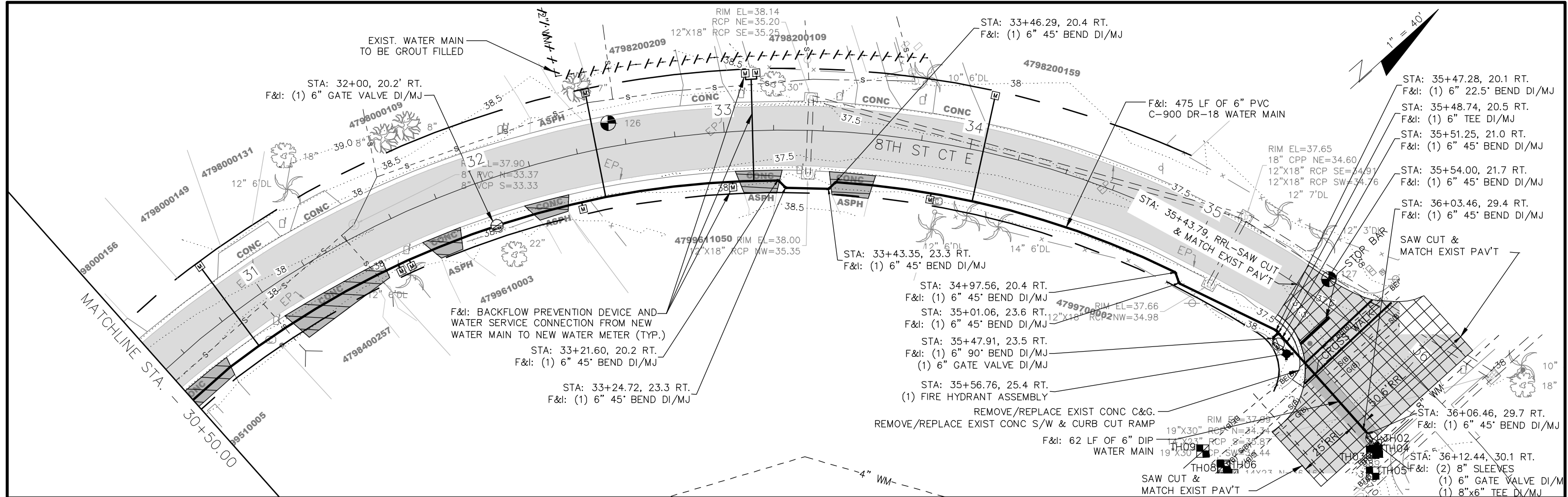
DES BY	CKM	PROJ NO	66-0188.03	PROFESSIONAL OF RECORD:	HAZELHURST SUBDIVISION WATER MAIN	AYRES	PLAN & PROFILE - 8TH ST CT E	SHEET NO. 08
DR BY	TJS	DATE	NOVEMBER 2020	CHRISTOPHER K. MARTIN, P.E. #66598	BRADENTON, FLORIDA			
CHK BY	CKM	NO	DATE	AYRES ASSOCIATES 8875 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 (813) 978-8688 CERT. OF AUTH. #4356	MANATEE COUNTY PUBLIC WORKS			


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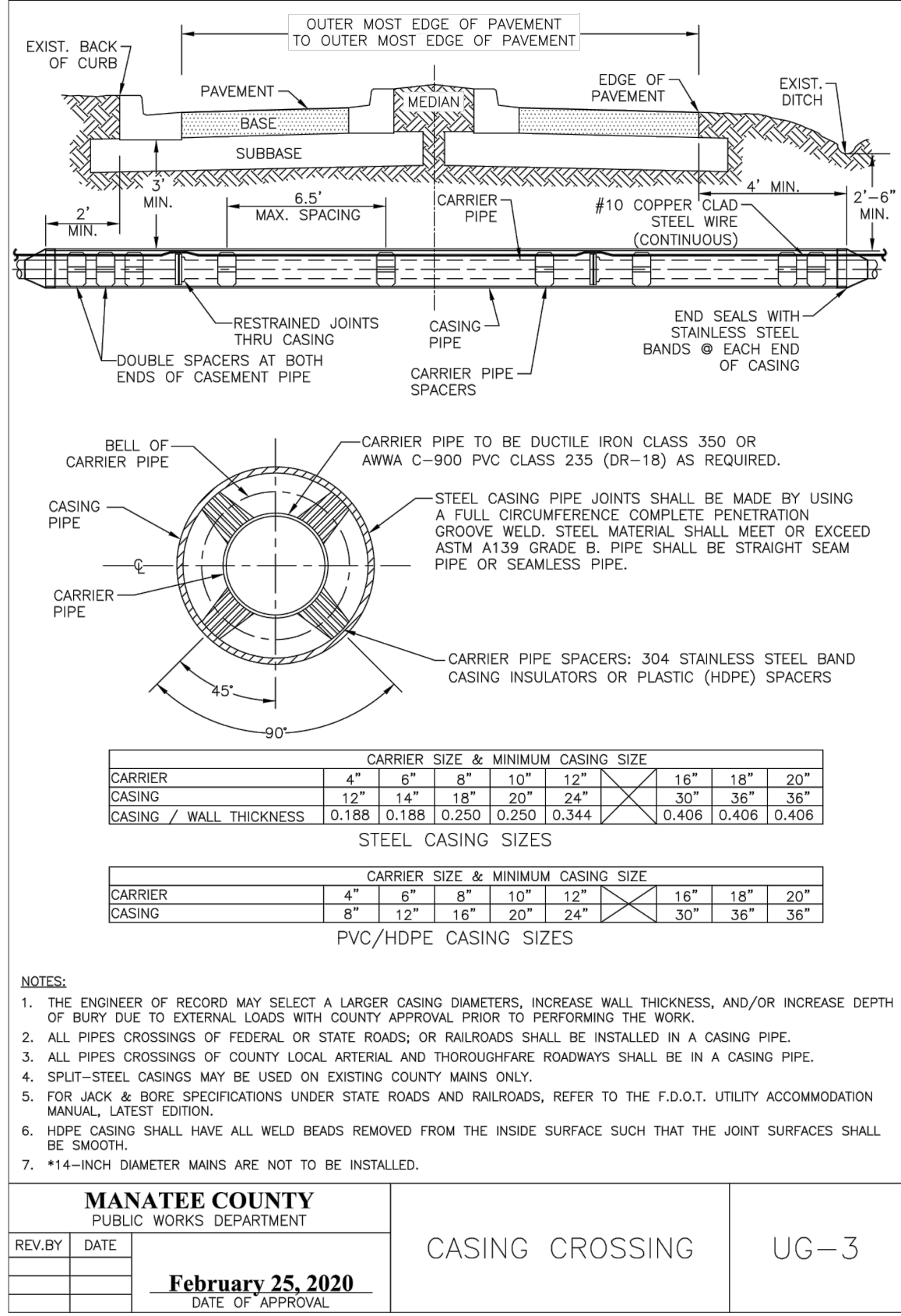
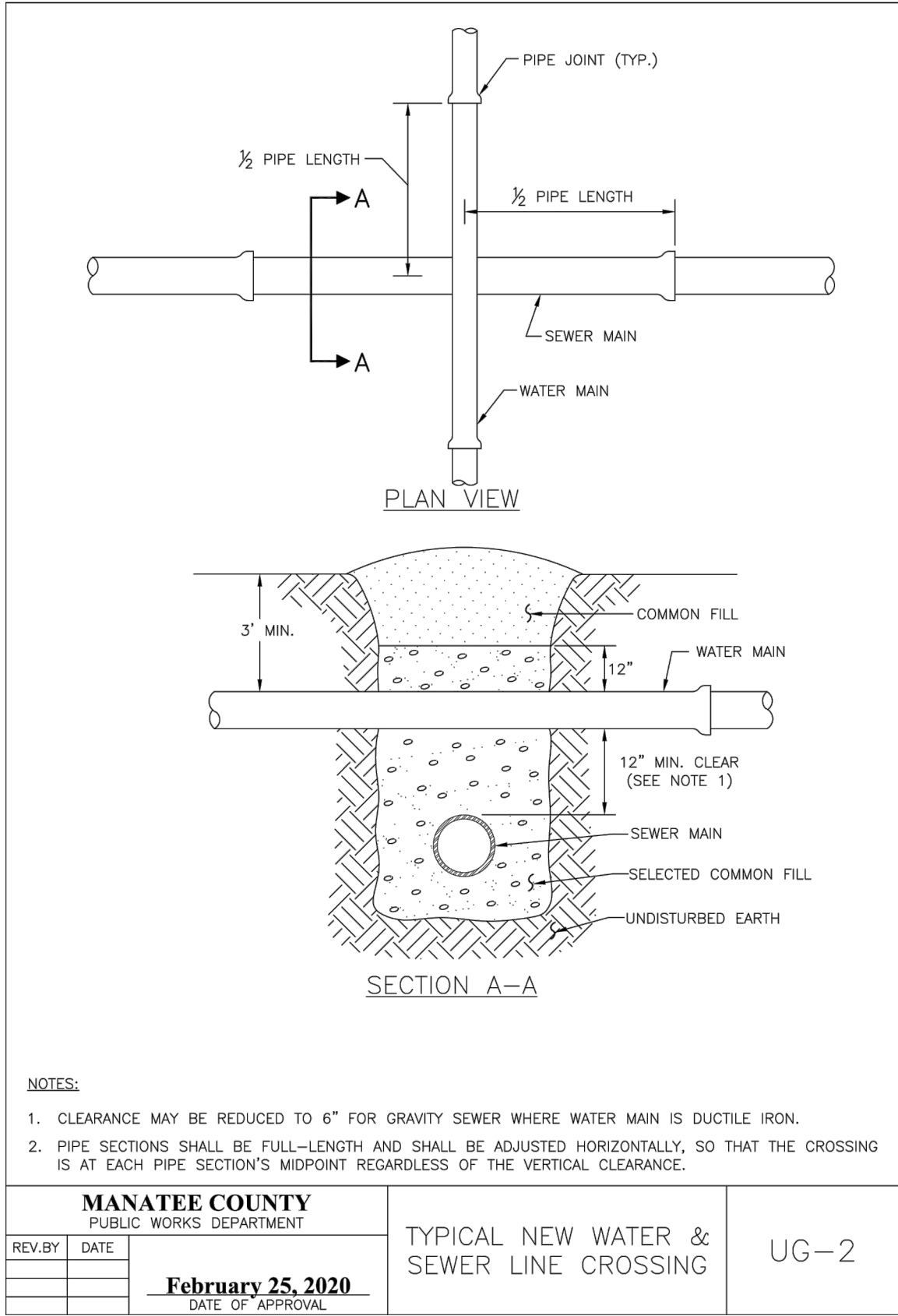


11/12/2020
I:\6656-0188.03 - Manatee County - Hazelhurst Subdivision Potable Water Replacement (CIP# 6097170)\Drawings\Construction\66-0188.03 PP02 - 8th St C.T.E.dwg, Layout, 09

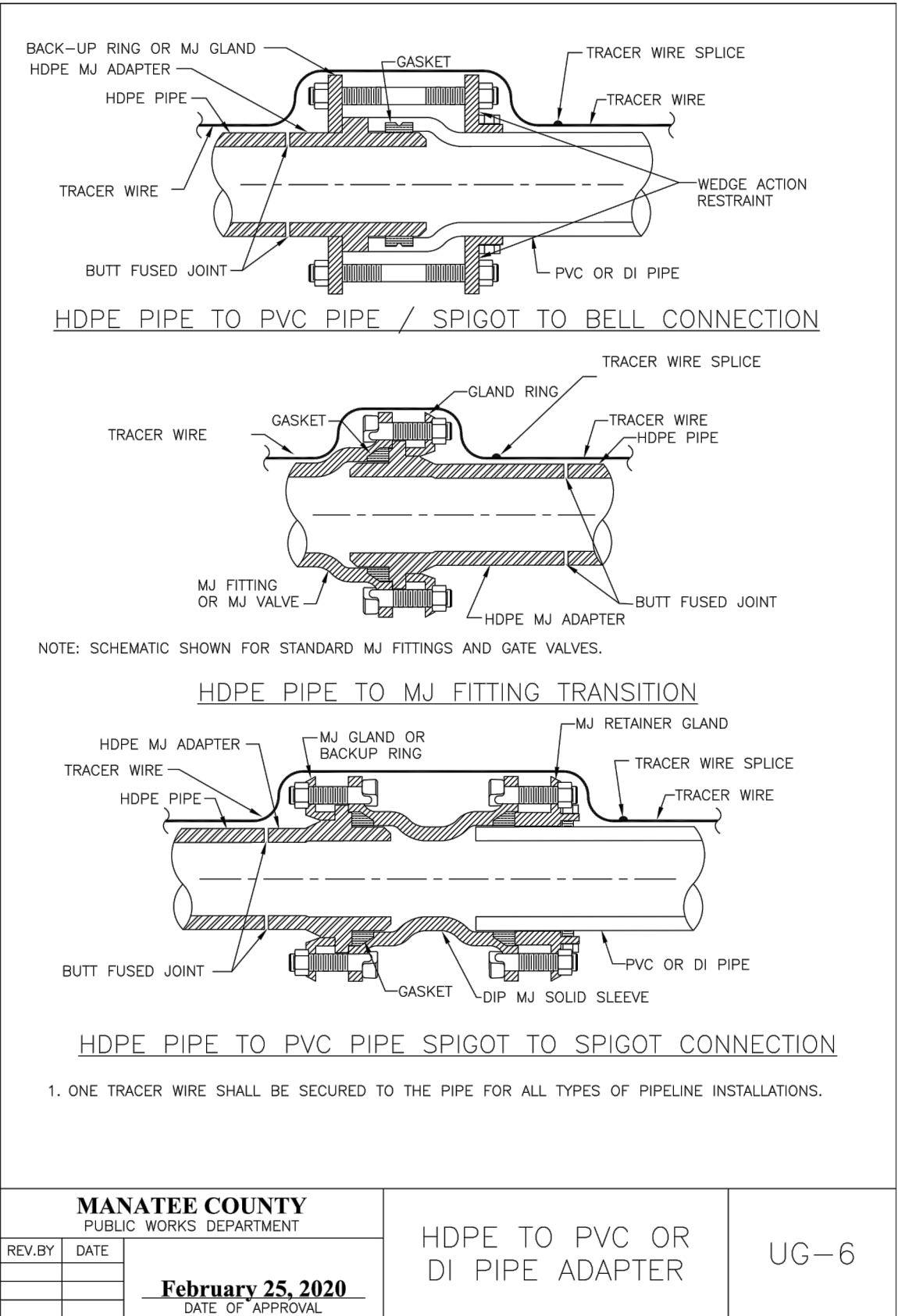
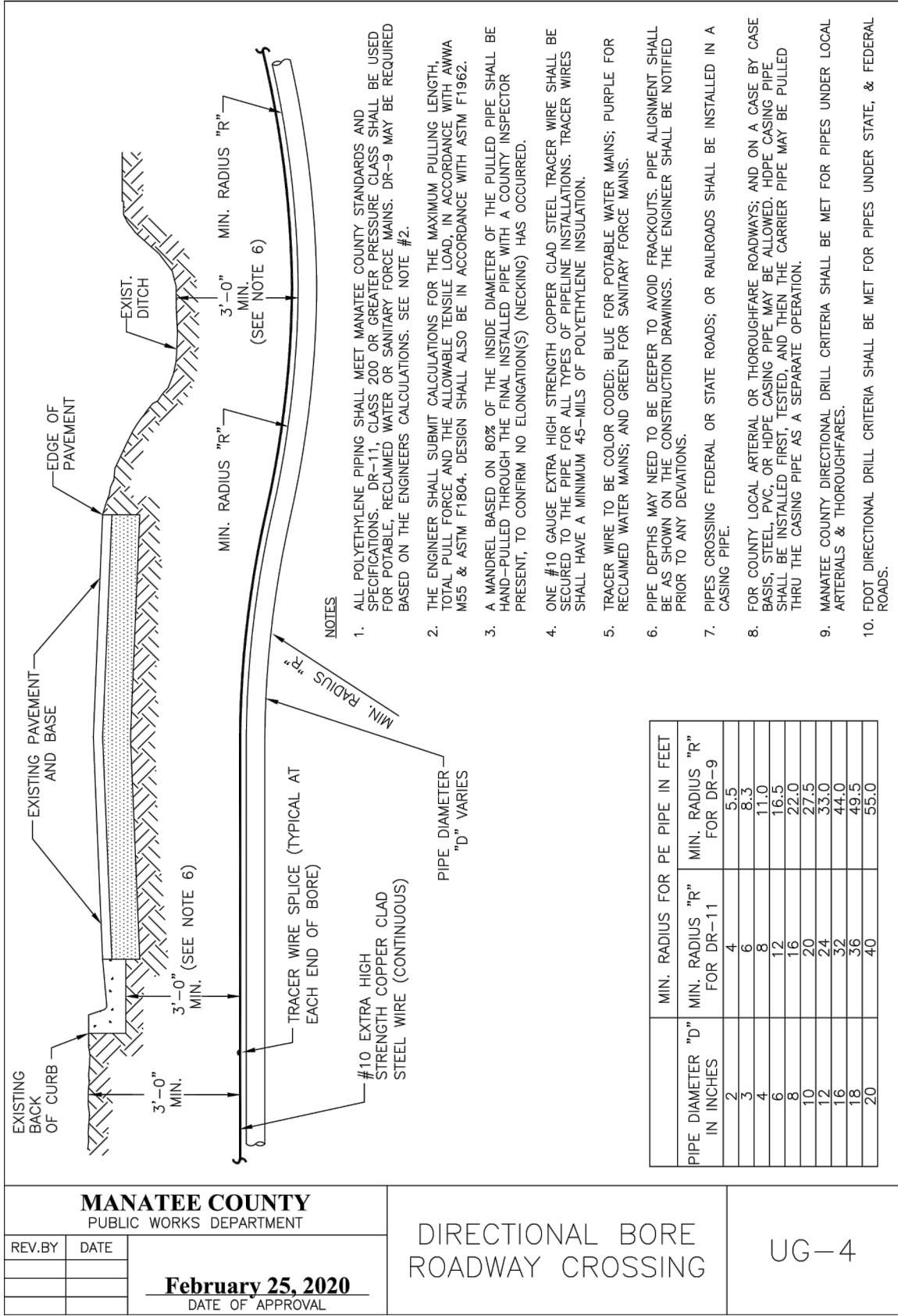
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15- 23.004, F.A.C.



DES BY		CKM				PROFESSIONAL OF RECORD:	HAZELHURST SUBDIVISION WATER MAIN BRADENTON, FLORIDA MANATEE COUNTY PUBLIC WORKS		PLAN & PROFILE - 8TH ST CT E	SHEET NO. 10
DR BY		TJS	PROJ NO 66-0188.03			CHRISTOPHER K. MARTIN, P.E. #66598				
CHK BY		CKM	DATE NOVEMBER 2020	NO	DATE	AYRES ASSOCIATES 8975 HIDDEN RIVER PKWY, SUITE 200 TAMPA, FL 33637 (813) 978-8688 CERT. OF AUTH. #4356				
					REVISION					



1/11/2020
I:\665-0188.03 - Manatee County - Hazelhurst Subdivision Potable Water Replacement (CIP# 6097170)\Drawings\Construction\66-0188.03 - Typical Details.dwg, Layout: 12



DES BY	CKM				
DR BY	TJS	PROJ NO	66-0188.03		
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

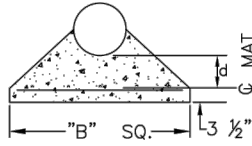
HAZELHURST SUBDIVISION WATER MAIN
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS



TYPICAL DETAILS

SHEET NO.
12

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



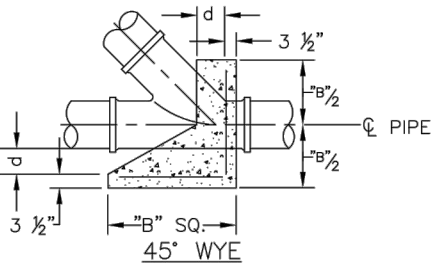
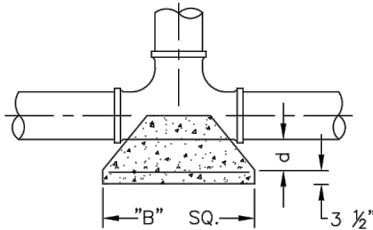
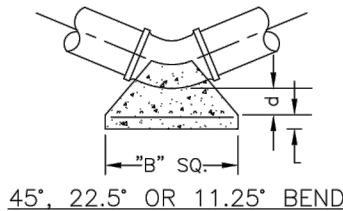
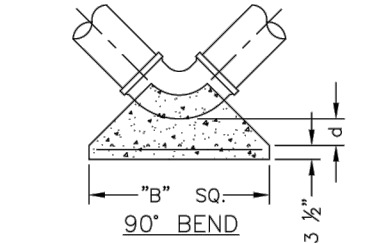
REINFORCEMENT MAT SCHEDULE

FOR DIM. "B" BETWEEN 5.75' & 12.5' USE #4 @ 8" EACH WAY

FOR DIM. "B" LESS THAN 5.75' USE #3 @ 8" EACH WAY

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

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			
24	90	38	18	X24 169	X20 132	X16 90	X12 38	X10 6	X20 64	X16 117	X12 158	214
20	78	32	16	X20 141	X16 101	X12 53	X10 24	X8 1	X16 65	X12 115	X10 149	184
16	66	27	13	X16 111	X12 67	X10 41	X8 12		X12 64	X10 107	X8 111	151
12	52	22	10	X12 80	X10 56	X8 31	X6 1		X10 58	X8 62	X6 86	118
10	44	18	9	X10 63	X8 40	X6 7			X8 33	X6 61	X4 81	100
8	37	15	7	X8 49	X6 18	X4 1			X6 35	X4 60		83
6	29	12	6	X6 29	X4 1				X4 33			63
4	21	8	4	X4 12								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	<div>February 25, 2020</div> <div>DATE OF APPROVAL</div>		

DES BY	CKM				
DR BY	TJS	PROJ NO	66-0188.03		
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

HAZELHURST SUBDIVISION WATER MAIN
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS



TYPICAL DETAILS

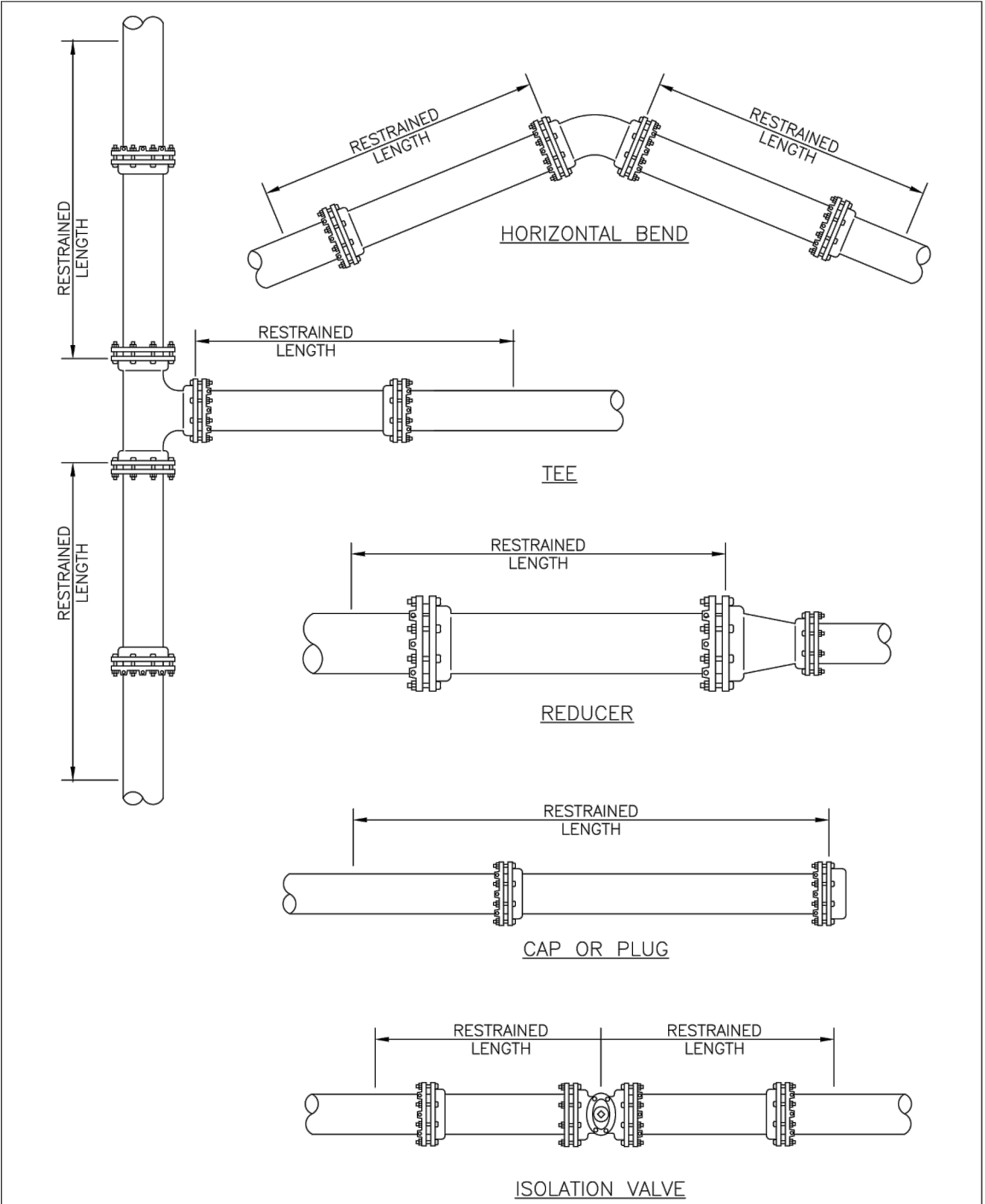
REQUIRED LENGTH OF RESTRAINED JOINT PIPE
FOR DIP (POLY-WRAPPED)

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				



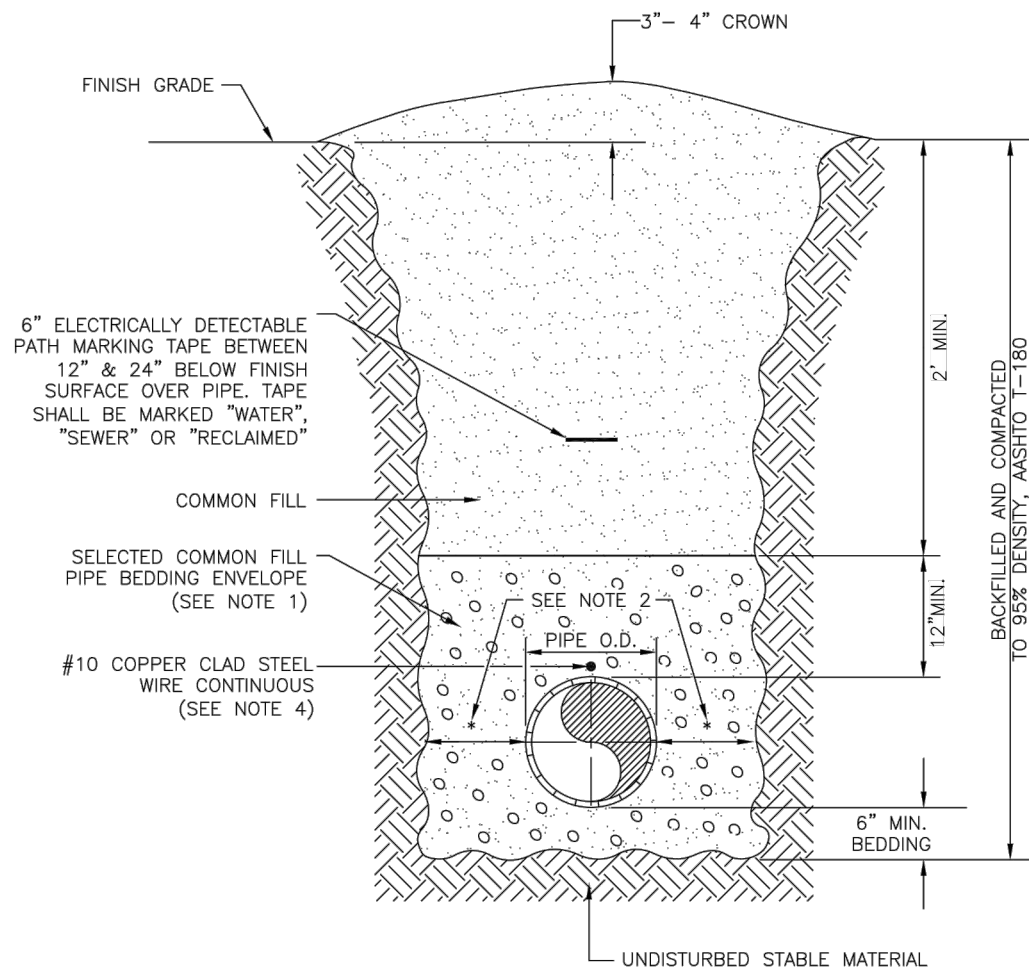
NOTE:

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				

NOTES:

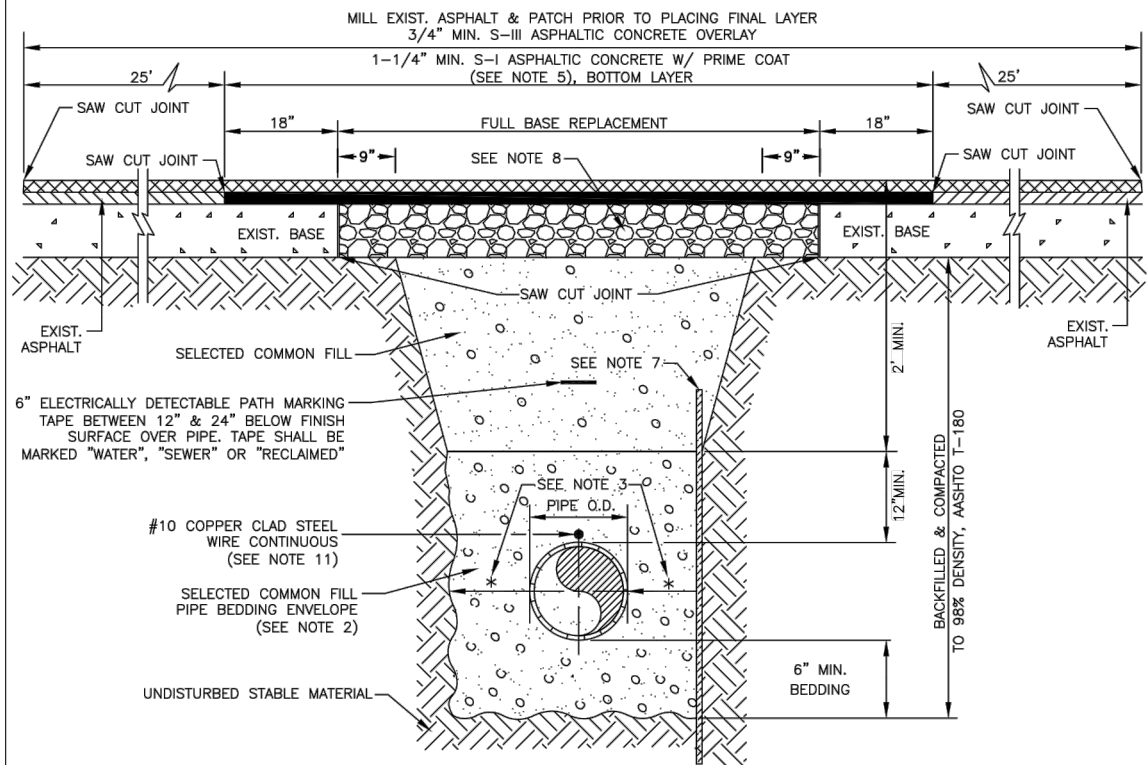
- USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
- PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 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			

NOTES:

- 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.
- USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 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.
- PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 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.
- 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.
- SHEETING ORDERED LEFT IN PLACE TO BE CUT OFF 24" BELOW FINISHED GRADE OR 12" BELOW SUBGRADE.
- NEW BASE SHALL MATCH EXISTING; OR BE CRUSHED CONCRETE, 8" MIN. THICKNESS, LBR ≥150, WHICHEVER IS GREATER.
- TEMPORARY PATCHES WILL BE INSTALLED TO PROVIDE A SMOOTH ALL WEATHER SURFACE AT ALL TIMES. PERMANENT REPLACEMENT TO BE MADE AS SOON AS POSSIBLE.
- RESTORE SIGNAGE & MARKING WITH THERMOPLASTIC PER FDOT STANDARDS, LATEST EDITION.
- TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.
- 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			

1/11/2020
I:\665-0188.03 - Manatee County - Hazelhurst Subdivision Potable Water Replacement (CIP# 6097170)\Drawings\Construction\66-0188.03 - Typical Details.dwg, Layout: 15

DES BY	CKM				
DR BY	TJS	PROJ NO	66-0188.03		
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

HAZELHURST SUBDIVISION WATER MAIN
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS

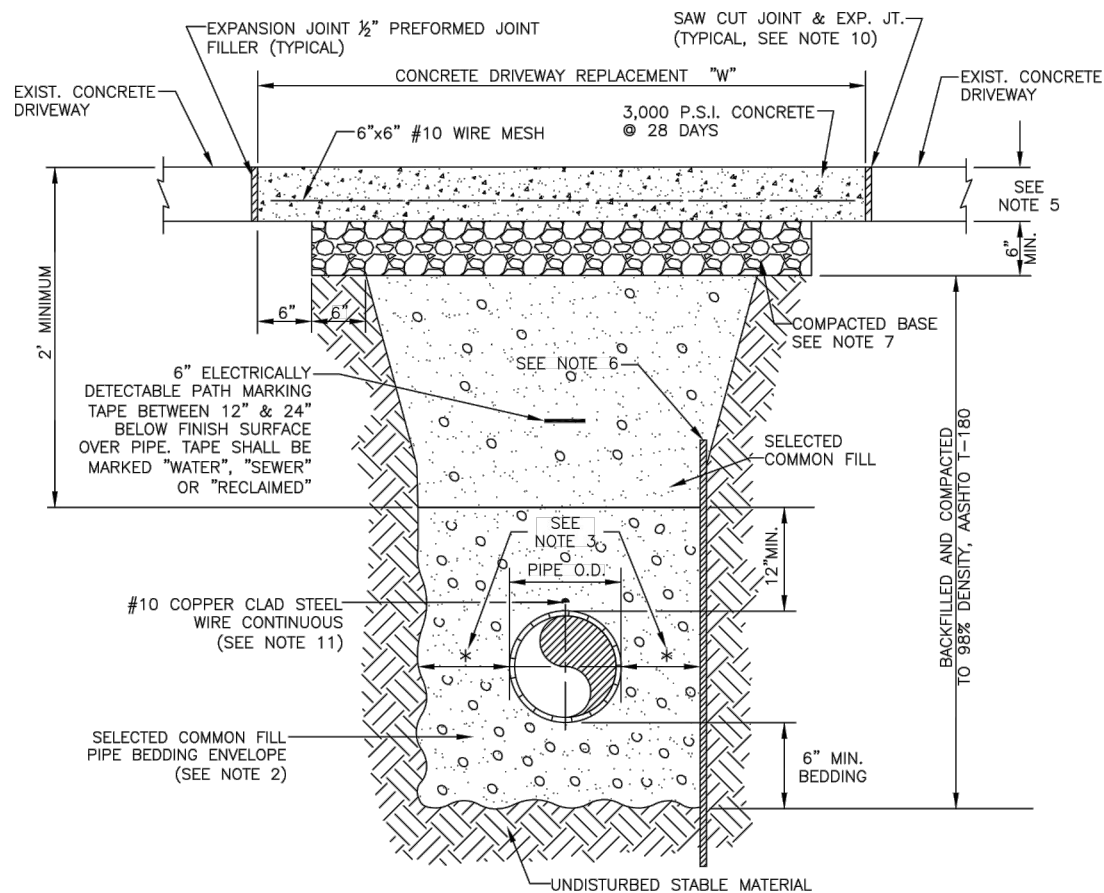


TYPICAL DETAILS

SHEET NO.
15

NOTES:

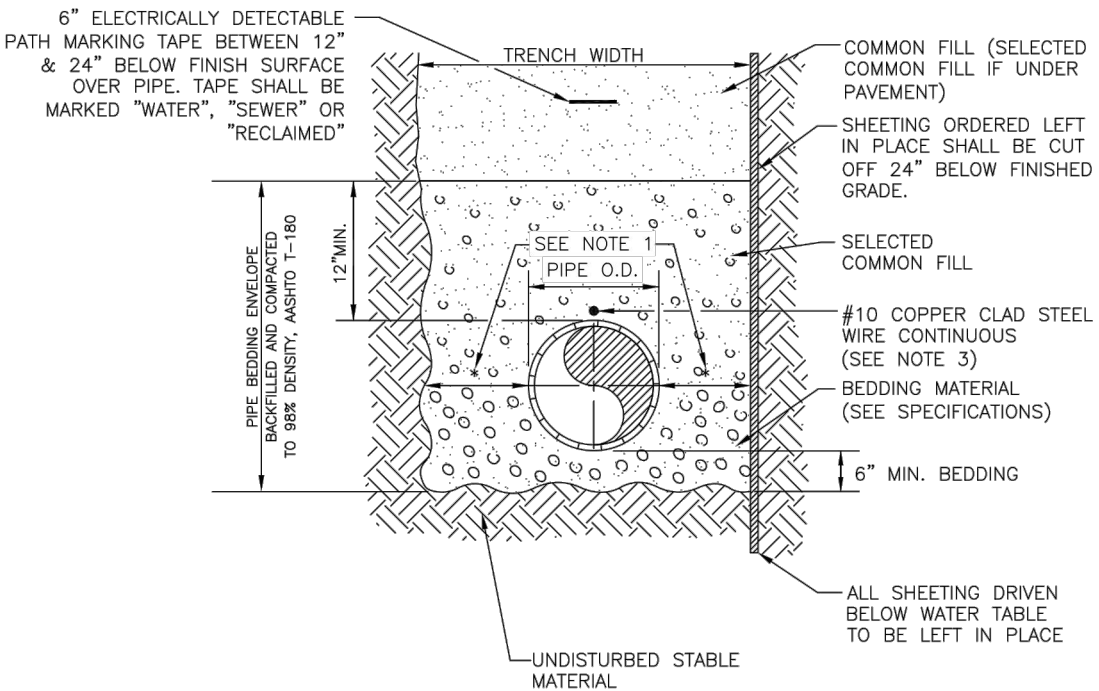
1. CONCRETE PAVEMENT SHALL BE REMOVED WITH SAWED EDGES AND CUT AT A MINIMUM DEPTH OF ONE AND ONE-HALF (1-1/2"). IF A SAW CUT IN CONCRETE PAVEMENT FALLS WITHIN THREE FEET (3') OF A CONTRACTION JOINT, COLD JOINT, EXPANSION JOINT OR EDGE, THE CONCRETE SHALL BE REMOVED TO THE JOINT OR EDGE. THE EDGES OF 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 (3/16" 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	<div>February 25, 2020</div> <div>DATE OF APPROVAL</div>		

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

1/11/2020
I:\665-0188.03 - Manatee County - Hazelhurst Subdivision Potable Water Replacement (CIP# 6097170)\Drawings\Construction\66-0188.03 - Typical Details.dwg, Layout: 16

DES BY	CKM				
DR BY	TJS	PROJ NO	66-0188.03		
CHK BY	CKM	DATE	NOVEMBER 2020	NO	DATE
				REVISION	

PROFESSIONAL OF RECORD:
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AYRES ASSOCIATES
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HAZELHURST SUBDIVISION WATER MAIN
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS

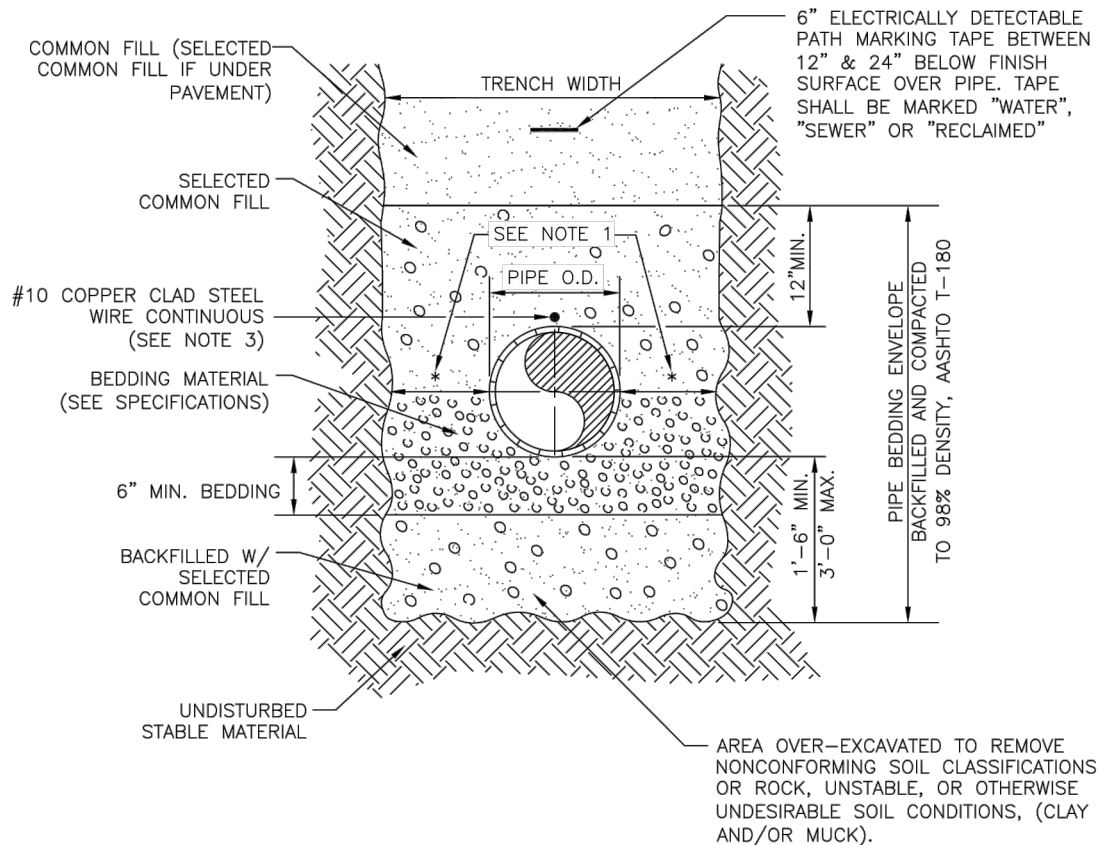


TYPICAL DETAILS

SHEET NO.
16

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.



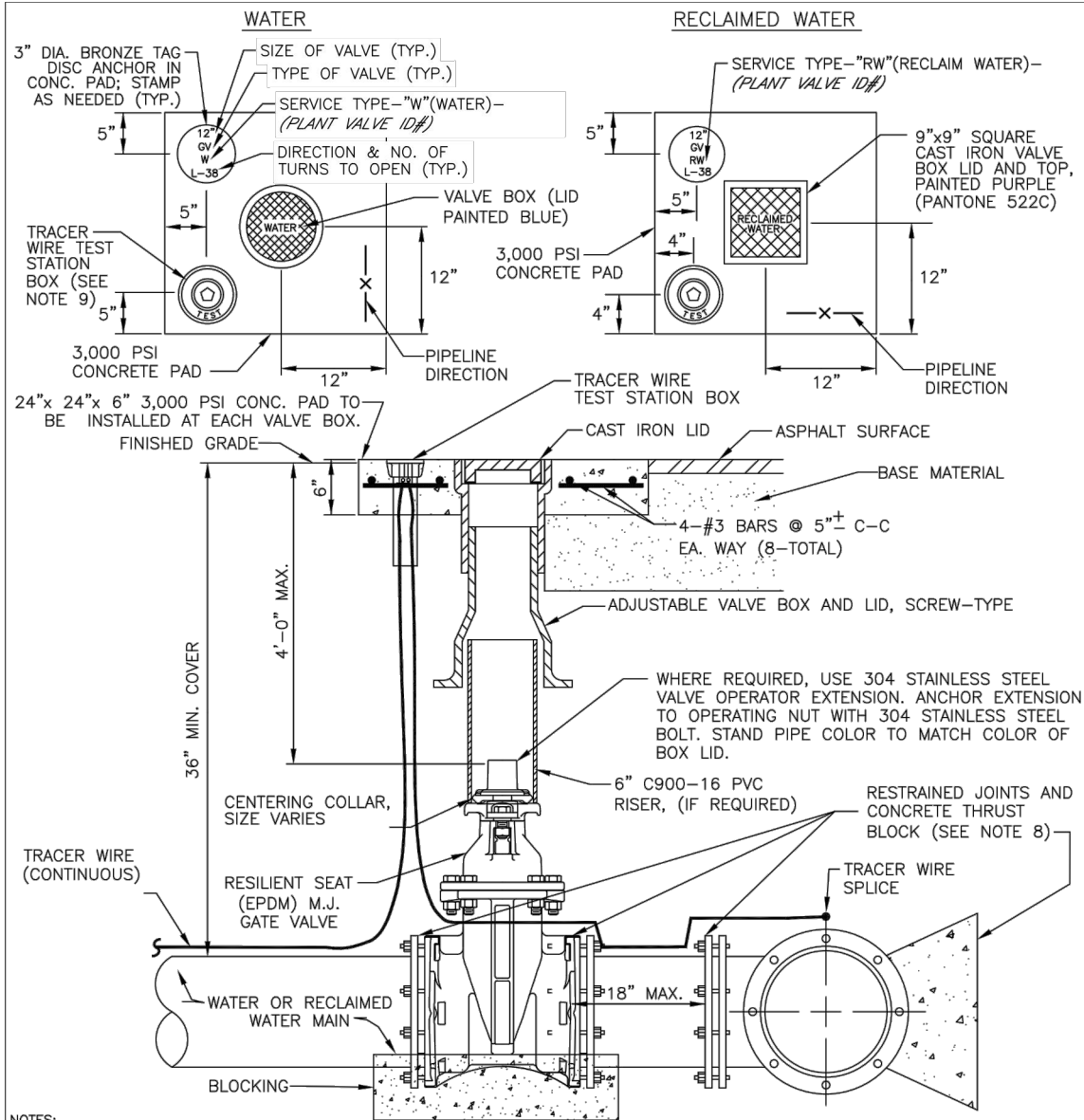
MANATEE COUNTY
PUBLIC WORKS DEPARTMENT

REV.	BY	DATE

February 25, 2020
DATE OF APPROVAL

TRENCH WITH TYPE
A-3 PIPE BEDDING

UG-16



NOTES:

1. "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.
2. ALL EXISTING AND PROPOSED VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADES AS DETERMINED IN THE FIELD.
3. VALVES SHALL NOT BE PLACED IN HANDICAPPED RAMPS, CURBS, OR GUTTERS.
4. PRECAST CONCRETE PADS SHALL NOT BE USED.
5. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
6. PIPELINE DIRECTION TO BE IMPRESSED INTO NEWLY POURED CONCRETE PAD.
7. 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.
8. WHERE THRUST BLOCK NOT USED, RESTRAINED JOINTS MUST THEN EXTEND FROM TEE FULL LENGTH SPECIFIED FOR "TEES."
9. 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.
10. 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.
11. REFER TO SECTION 1.11 GATE VALVES IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR FURTHER DETAILS.

MANATEE COUNTY
PUBLIC WORKS DEPARTMENT

REV.	BY	DATE

February 25, 2020
DATE OF APPROVAL

GATE VALVE, BOX,
LID AND TAG

UW-2

11/11/2020
I:\665-0188.03 - Manatee County - Hazelhurst Subdivision Potable Water Replacement (CIP# 6097170)\Drawings\Construction\66-0188.03 - Typical Details.dwg, Layout: 17

DES BY	CKM				
DR BY	TJS	PROJ NO	66-0188.03		
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

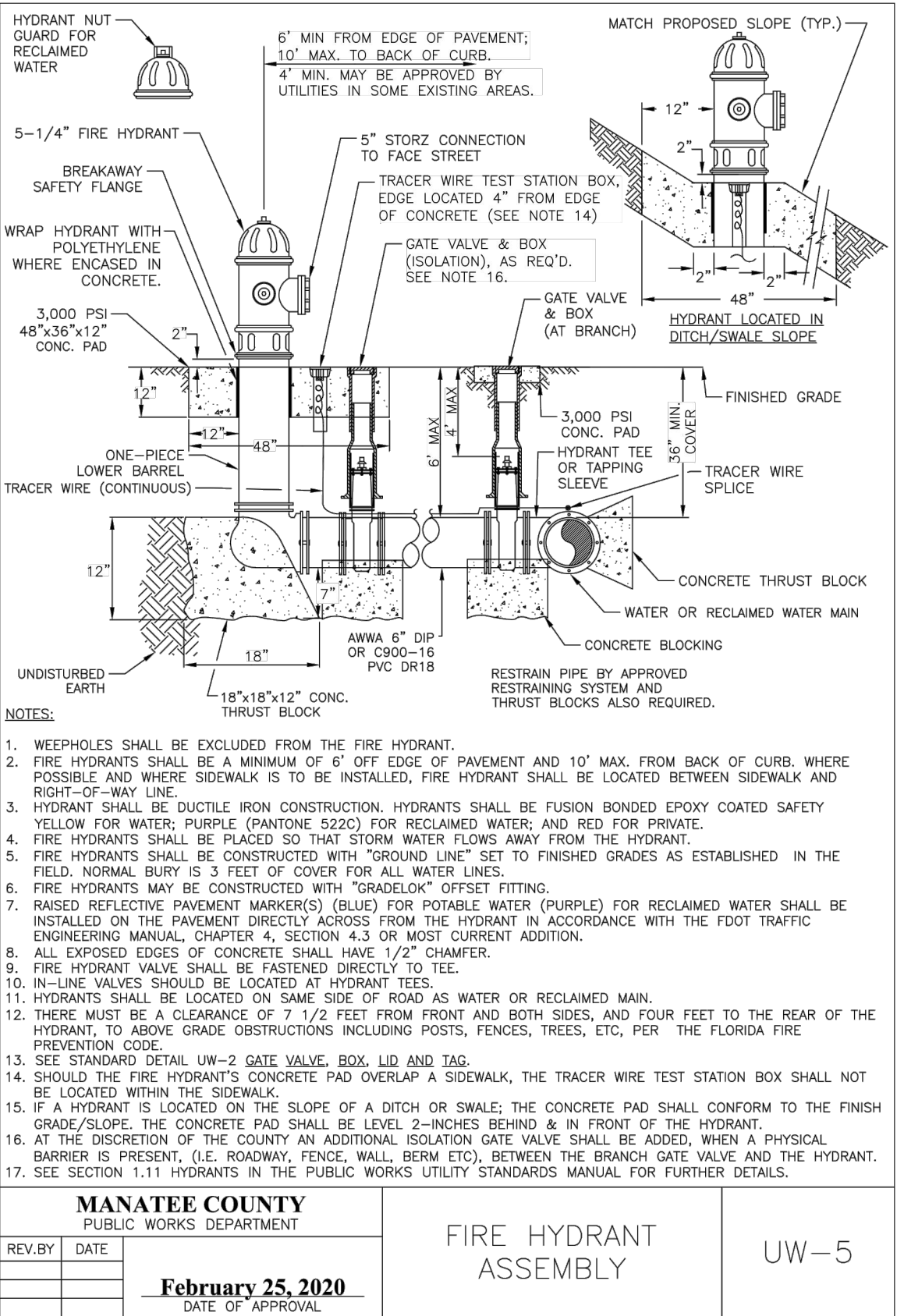
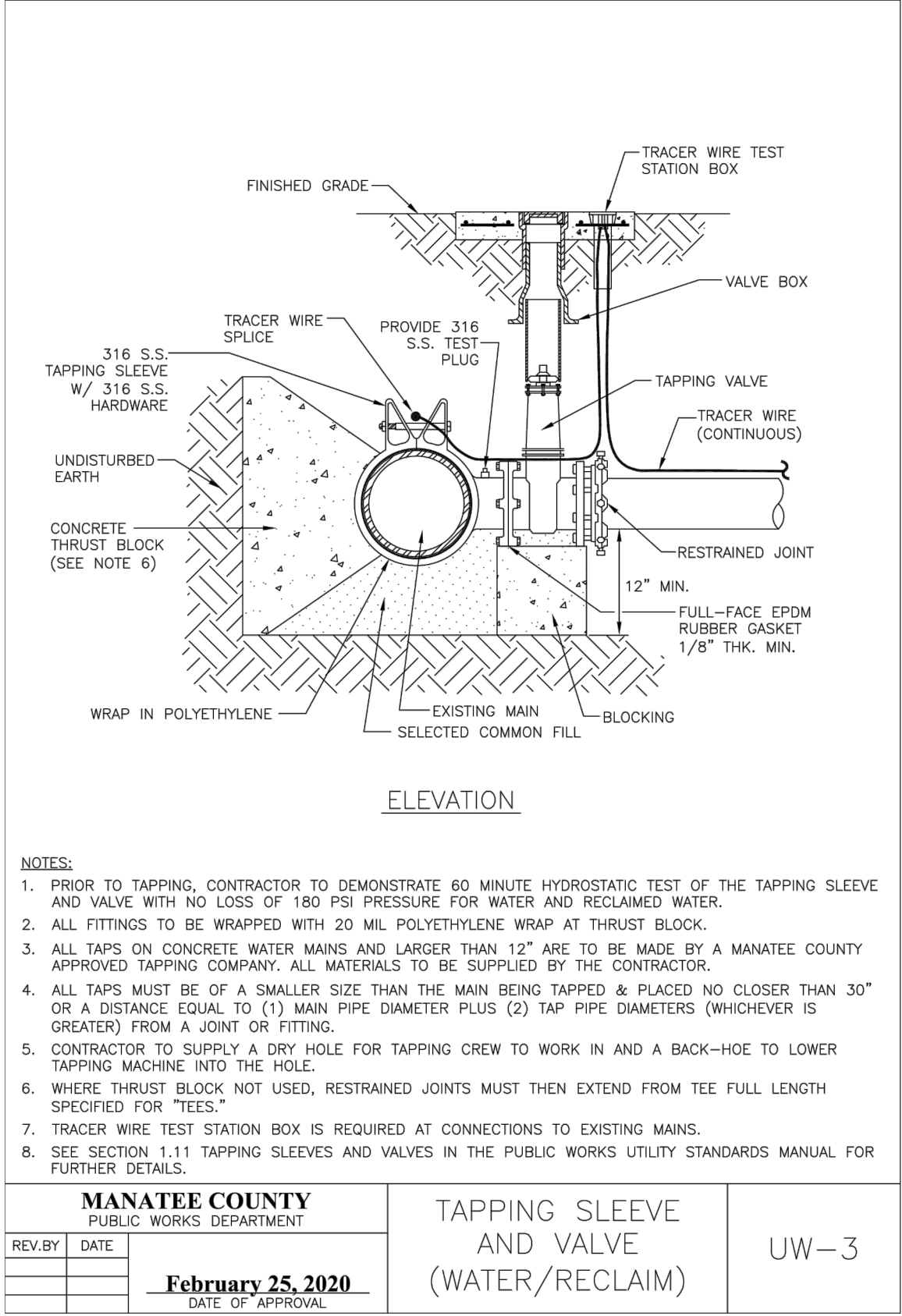
HAZELHURST SUBDIVISION WATER MAIN
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS

AYRES
TAMPA, FLORIDA

TYPICAL DETAILS

SHEET NO.

17



1/11/2020
I:\665-0188.03 - Manatee County - Hazelhurst Subdivision Potable Water Replacement (CIP# 6097170)\Drawings\Construction\66-0188.03 - Typical Details.dwg, Layout: 18

DES BY	CKM				
DR BY	TJS	PROJ NO	66-0188.03		
CHK BY	CKM	DATE	NOVEMBER 2020	NO	DATE
				REVISION	

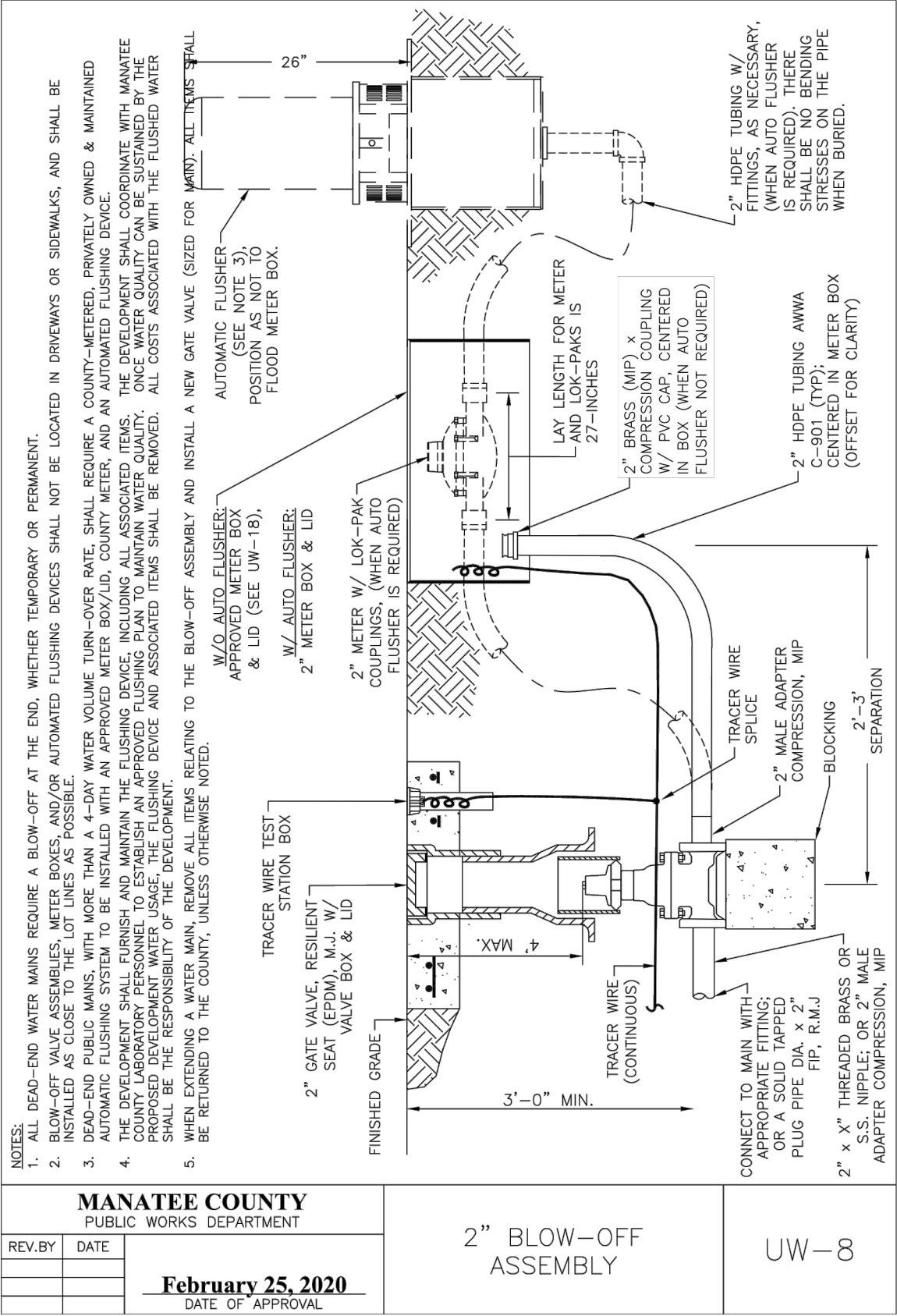
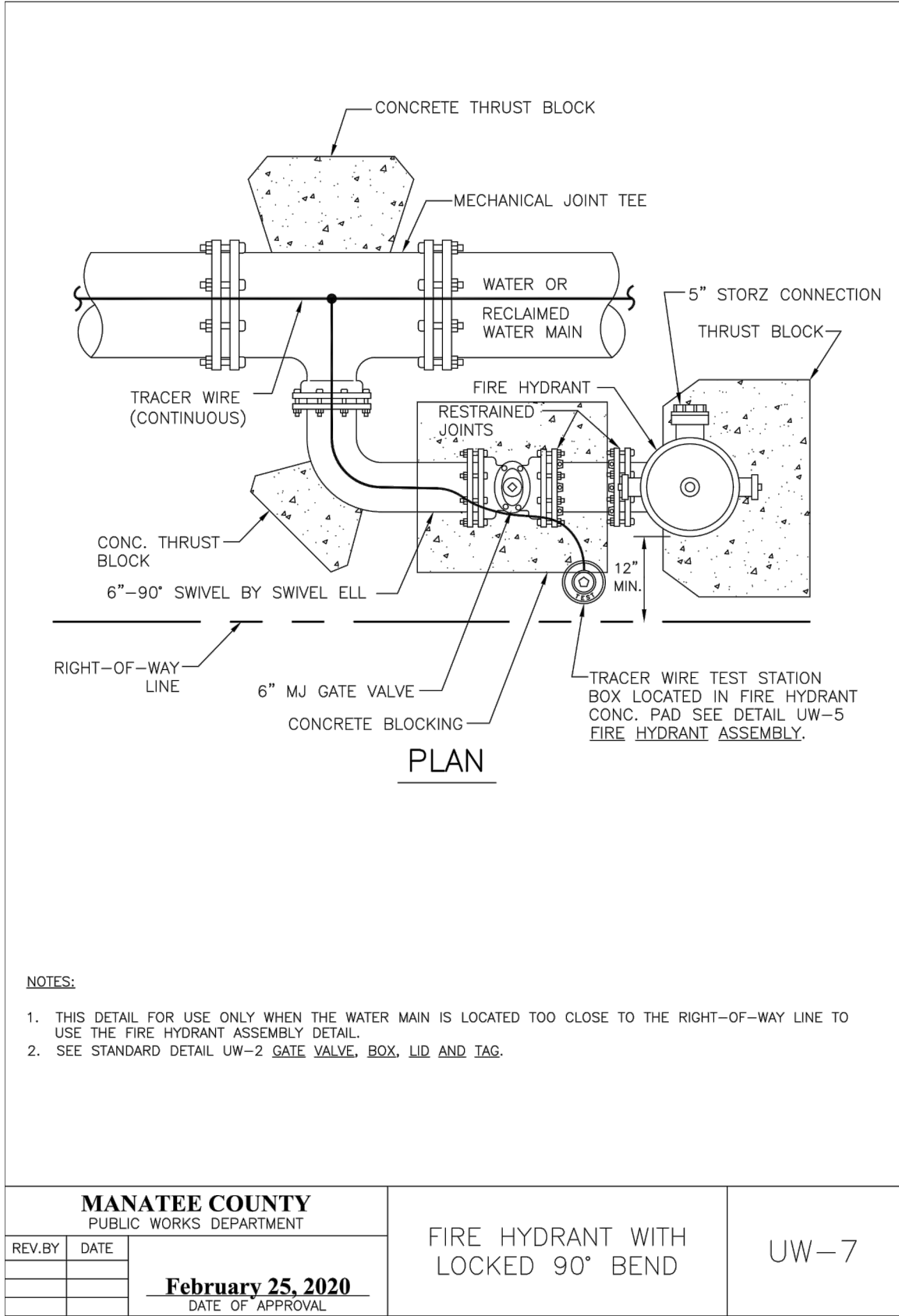
PROFESSIONAL OF RECORD:
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AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
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HAZELHURST SUBDIVISION WATER MAIN
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS



TYPICAL DETAILS

SHEET NO.
18



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DR BY	TJS	PROJ NO	66-0188.03		
CHK BY	CKM	DATE	NOVEMBER 2020	NO	DATE
				REVISION	

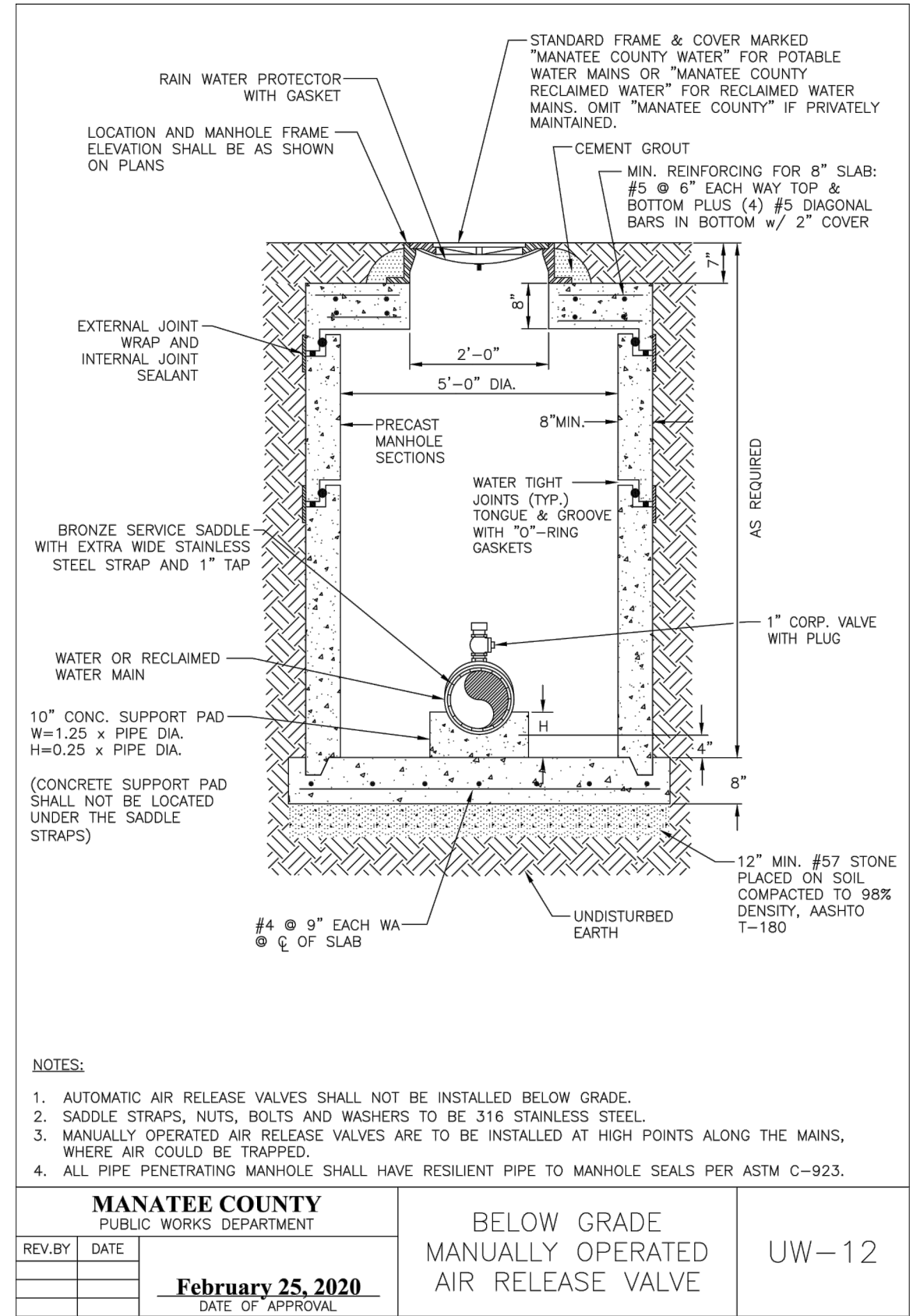
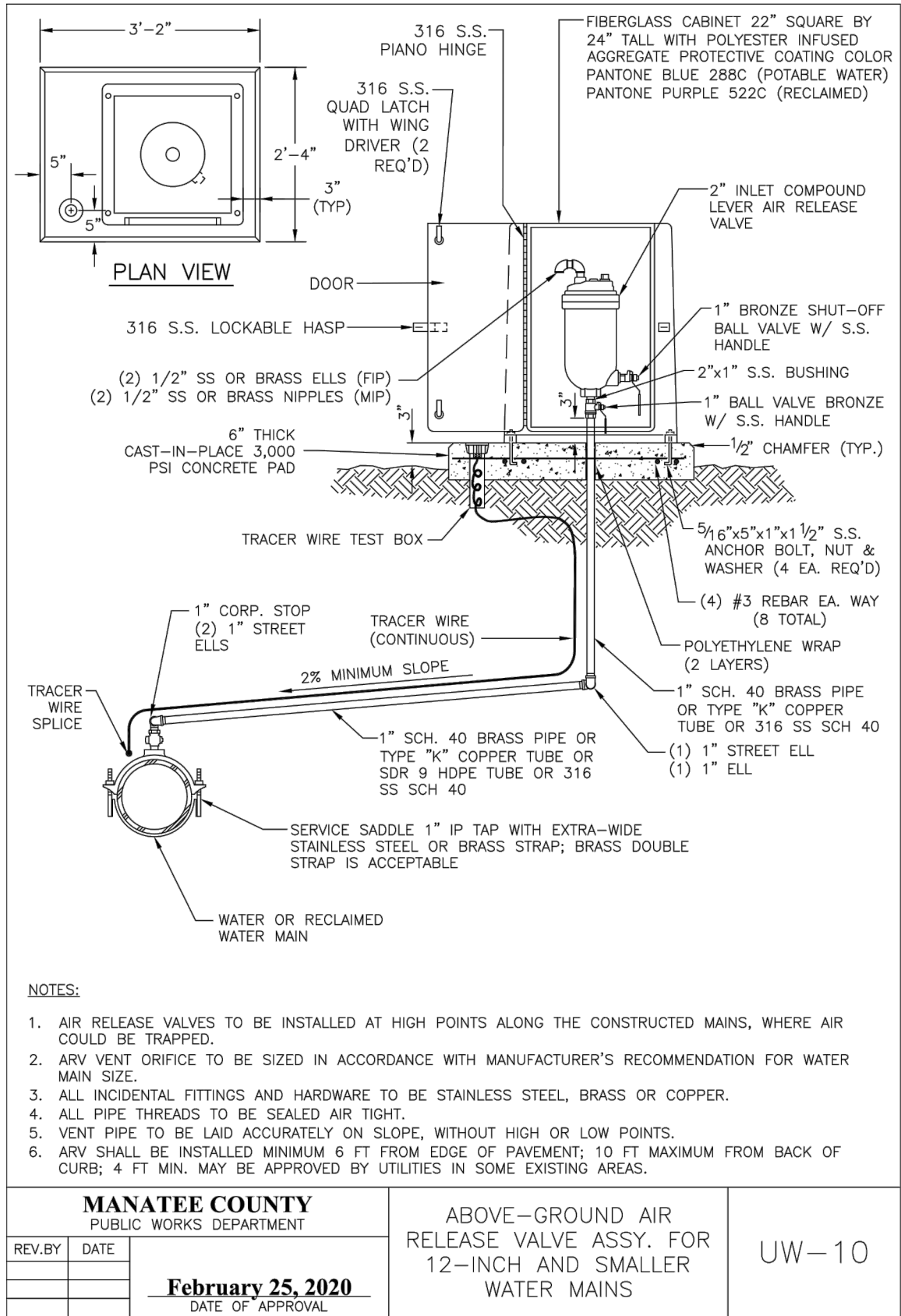
PROFESSIONAL OF RECORD:
CHRISTOPHER K. MARTIN, P.E. #66596
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637 (813) 978-8688 CERT. OF AUTH. #4356

HAZELHURST SUBDIVISION WATER MAIN
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS



TYPICAL DETAILS

SHEET NO.
19



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DES BY	CKM				
DR BY	TJS	PROJ NO	66-0188.03		
CHK BY	CKM	DATE	NOVEMBER 2020	NO	DATE
				REVISION	

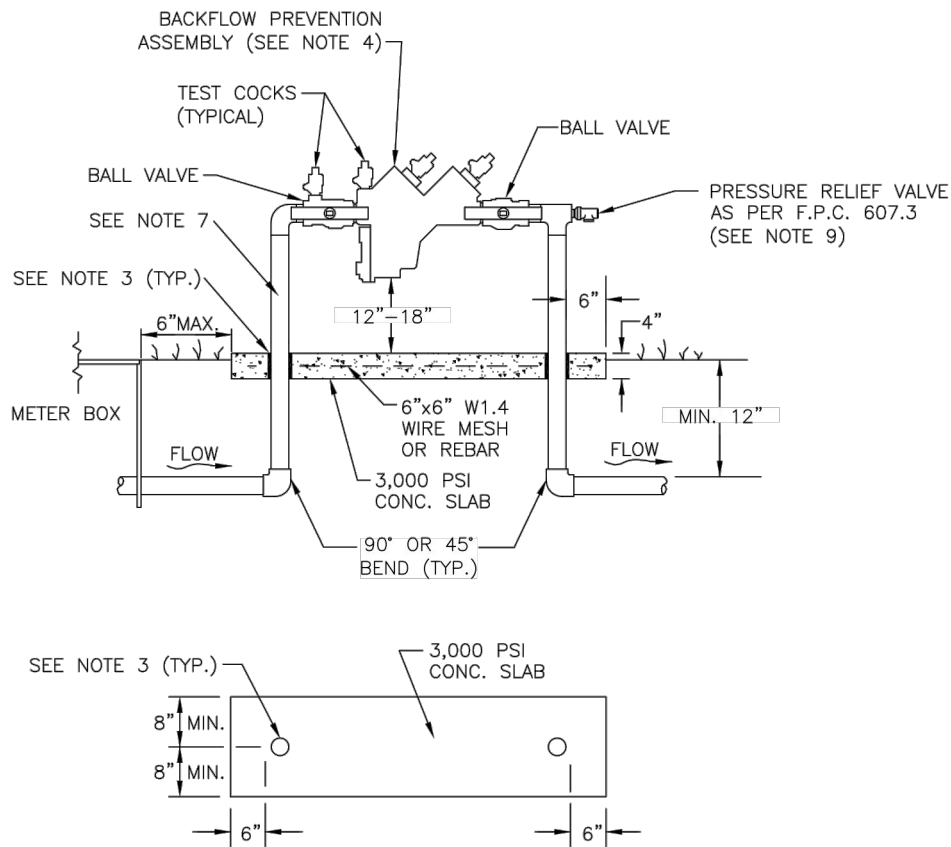
PROFESSIONAL OF RECORD:
CHRISTOPHER K. MARTIN, P.E. #66598
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637 (813) 978-8688 CERT. OF AUTH. #4356

HAZELHURST SUBDIVISION WATER MAIN
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS



TYPICAL DETAILS

SHEET NO.
20

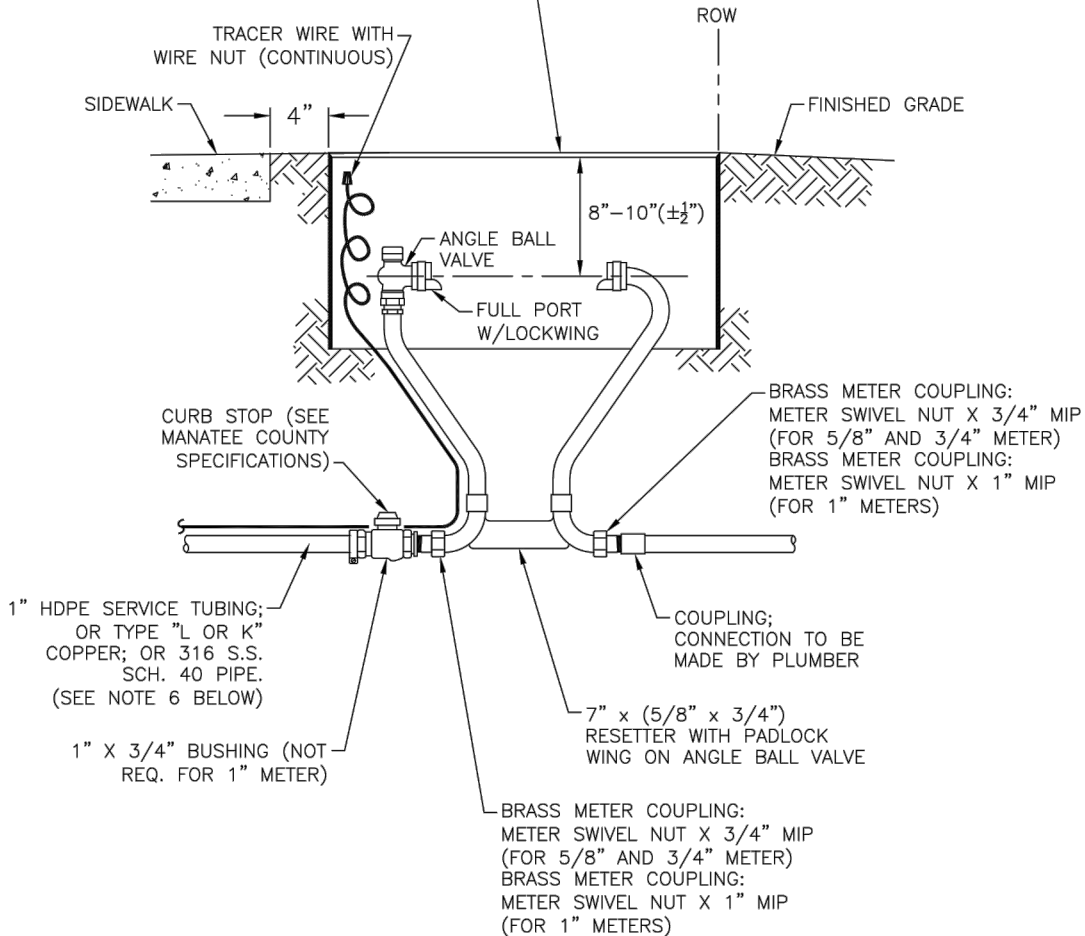


NOTES:

- BACKFLOW PREVENTION ASSEMBLY MUST BE INSTALLED IMMEDIATELY DOWNSTREAM OF METER, AS SHOWN ABOVE
- COPPER PIPE TYPE "L" (OR "K") OR BRASS PIPE MINIMUM SCHEDULE 40 SHALL BE USED TO A MINIMUM DEPTH OF 12" BELOW GRADE.
- PIPES PASSING THROUGH CONCRETE SLAB SHALL BE PROPERLY PROTECTED; POLYETHYLENE WRAPPED OR PVC SLEEVED. COPPER SHALL NOT COME IN CONTACT WITH THE CONCRETE.
- THE SYSTEM MUST MEET ALL REQUIREMENTS OF THE FLORIDA PLUMBING CODE (LATEST EDITION) AND CHAPTER 2-31, ARTICLE X OF THE MANATEE COUNTY CODE OF ORDINANCES.
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
- BACKFLOW PREVENTER SHALL BE TESTED AT THE TIME OF INSTALLATION.
- PRESSURE REDUCING VALVE IS REQUIRED UPSTREAM OF BACKFLOW PREVENTION ASSEMBLY, IF SYSTEM PRESSURE EXCEEDS 80 PSI.
- 3' MINIMUM CLEARANCE FROM LANDSCAPING PLANTS AND 10' MIN. CLEARANCE FROM TREES TO EDGE OF CONCRETE SLAB AND CLEAR OPENING FOR ACCESS FROM STREET.
- IN ADDITION TO THE PRV, THE BUILDING DEPT. MAY REQUIRE AN APPROVED DEVICE FOR THERMAL EXPANSION CONTROL DOWNSTREAM OF THE ASSEMBLY.
- FITTINGS AND CONNECTIONS FOR ABOVE-GROUND INSTALLATIONS SHALL NOT ALLOW ANY MOVEMENT OR ROTATION OF BACKFLOW PREVENTION ASSEMBLY.
- REFER TO DETAIL US-15 WATER METER & BACKFLOW PREVENTER FOR LIFT STATIONS FOR WATER SERVICE AT SEWAGE PUMPING STATION.
- BACKFLOW PREVENTION ASSEMBLIES USED FOR POTABLE APPLICATIONS SHALL BE LEAD FREE AS DEFINED IN THE REDUCTION OF LEAD IN DRINKING WATER ACT, SECTION 1417 OF THE SAFE DRINKING WATER ACT, 42 U.S.C. 300g-6, AS MAY BE AMENDED, AND IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS

MANATEE COUNTY PUBLIC WORKS DEPARTMENT			3/4" & 1" BACKFLOW PREVENTION ASSEMBLY	UW-13
REV. BY	DATE			
February 25, 2020 DATE OF APPROVAL				

CAST IRON OVAL METER BOX, PAINTED BLUE AND MARKED "WATER METER" FOR POTABLE WATER OR PURPLE (PANTONE 522C) FOR RECLAIMED WATER AND MARKED "RECLAIMED METER"



NOTES:

- METER BOX AND RESETTER ARE TO BE INSTALLED BY THE INFRASTRUCTURE CONTRACTOR AND SHALL NOT BE SET IN DRAINAGE SWALES, SIDEWALKS OR DRIVEWAYS. WITH PRIOR APPROVAL BY COUNTY, METER BOXES WITH LOCKABLE LIDS MAY BE LOCATED IN SIDEWALKS.
- THE METER RESETTER SHALL BE INSTALLED IN SUCH A MANNER AS TO ALLOW REMOVAL AND REPLACEMENT WITHOUT DISTURBING THE STRUCTURAL INTEGRITY OF THE PIPING SYSTEM, THE SHUTOFF VALVES, OR THE RESETTER.
- FOR COMPLETE SERVICE CONNECTION ASSEMBLY, SEE DETAIL UW-21 TYPICAL SERVICE CONNECTION.
- WHEN THE DISTANCE BETWEEN THE EDGE OF THE SIDEWALK AND THE R/W IS ONE FOOT (CUL-DE-SAC W/ MEDIAN) A 10-FOOT-WIDE PUBLIC UTILITY EASEMENT SHALL BE LOCATED IN THE FRONT OF THE LOTS, ADJACENT TO THE ROW.
- 3' MINIMUM CLEARANCE FROM LANDSCAPING PLANTS AND 10' MIN. CLEARANCE FROM TREES TO EDGE OF METER, CLEAR ACCESS OPENING TO STREET.
- SERVICE TUBING SHALL NOT BE CRIMPED OR KINKED TO RE-ADJUST CURB STOP LOCATION.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT			METER BOX ASSEMBLY FOR 5/8" X 3/4"; 3/4"; AND 1" METERS	UW-18
REV. BY	DATE			
February 25, 2020 DATE OF APPROVAL				

11/11/2020
I:\66565-0188.03 - Manatee County - Hazelnut Subdivision Potable Water Replacement (CIP# 6097170)\Drawings\Construction\66-0188.03 - Typical Details.dwg, Layout: 21

DES BY	CKM				
DR BY	TJS	PROJ NO	66-0188.03		
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

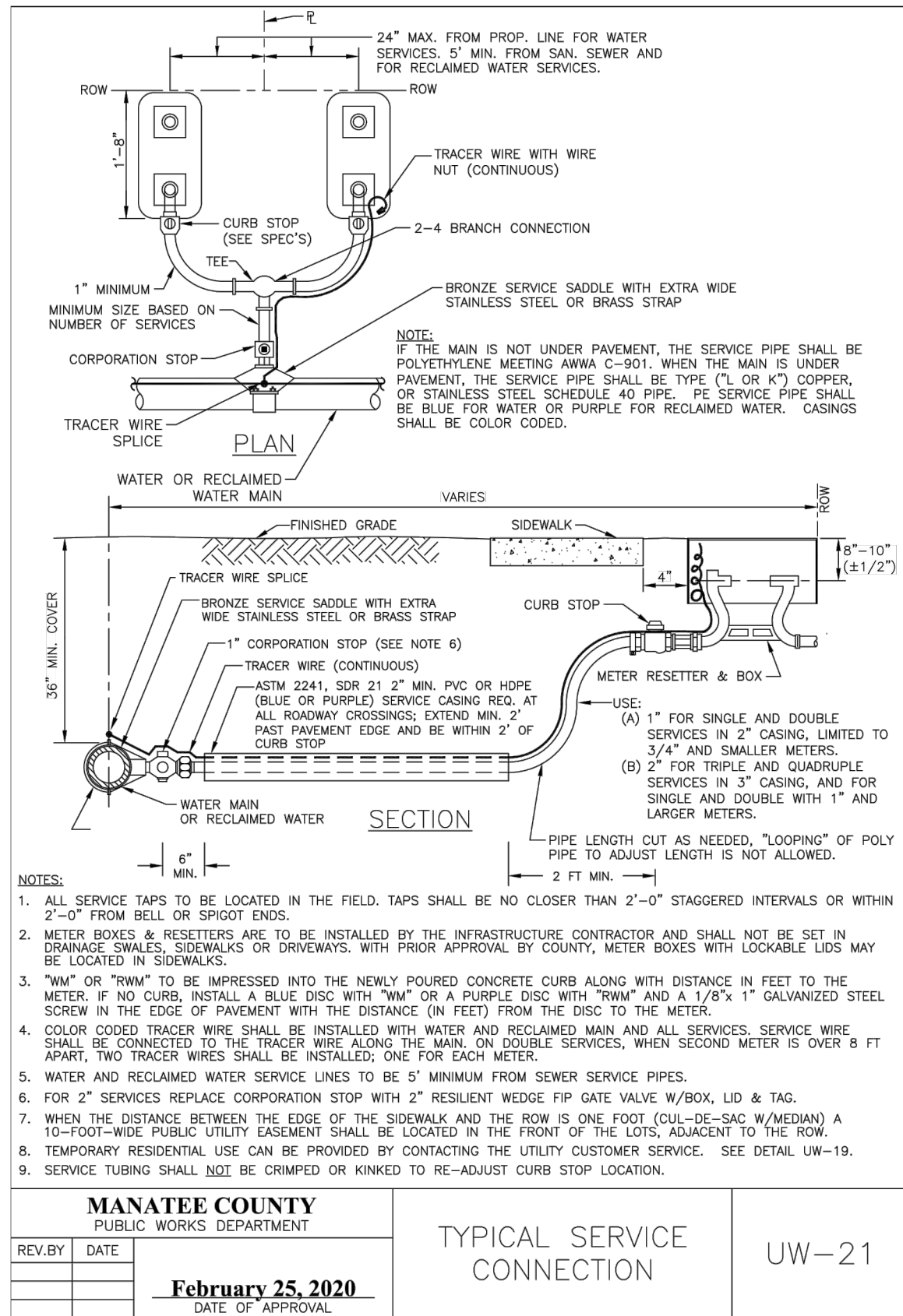
HAZELHURST SUBDIVISION WATER MAIN
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS

AYRES
TAMPA, FLORIDA

TYPICAL DETAILS

SHEET NO.

21



TYPE "A"
MIAMI CURB & GUTTER
STD. 201.1

TYPE "F"
CURB & GUTTER
STD. 201.2

TYPE "AB"
MODIFIED CURB & GUTTER
STD. 201.3

TYPE "D"
CURB
STD. 201.4

INVERTED CROWN
CURB & GUTTER
STD. 201.5

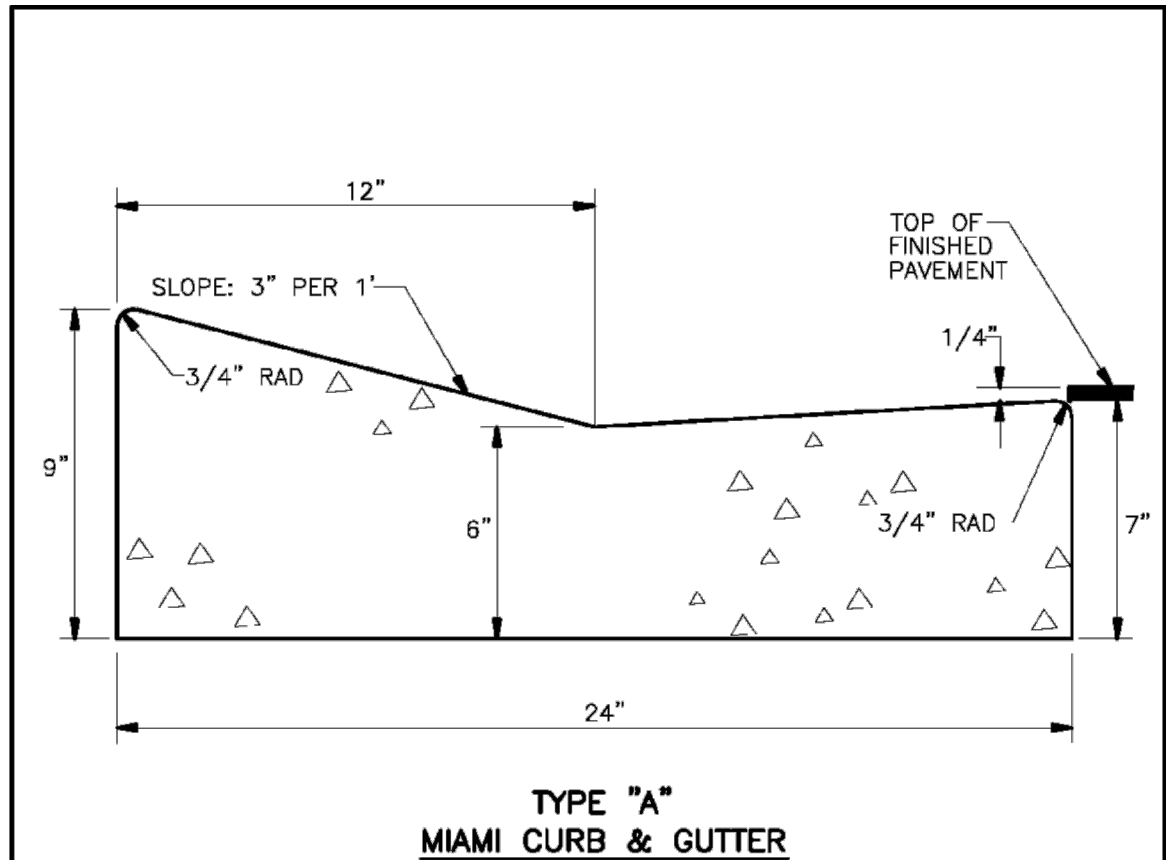
1. ALL CURB & GUTTER SHALL PROVIDE A 0.125" TO 0.25" CONTRACTION JOINT AT 10' CENTERS.

2. ALL CURB & GUTTER SHALL BE CONSTRUCTED IN COMPLIANCE WITH FLORIDA D.O.T. STANDARD SPECIFICATIONS PER F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS INDEX NO. 300, LATEST REVISION.

3. TOP OF FINISHED PAVEMENT SHALL BE 0.25" ABOVE LIP OF GUTTER, LOW SIDE.

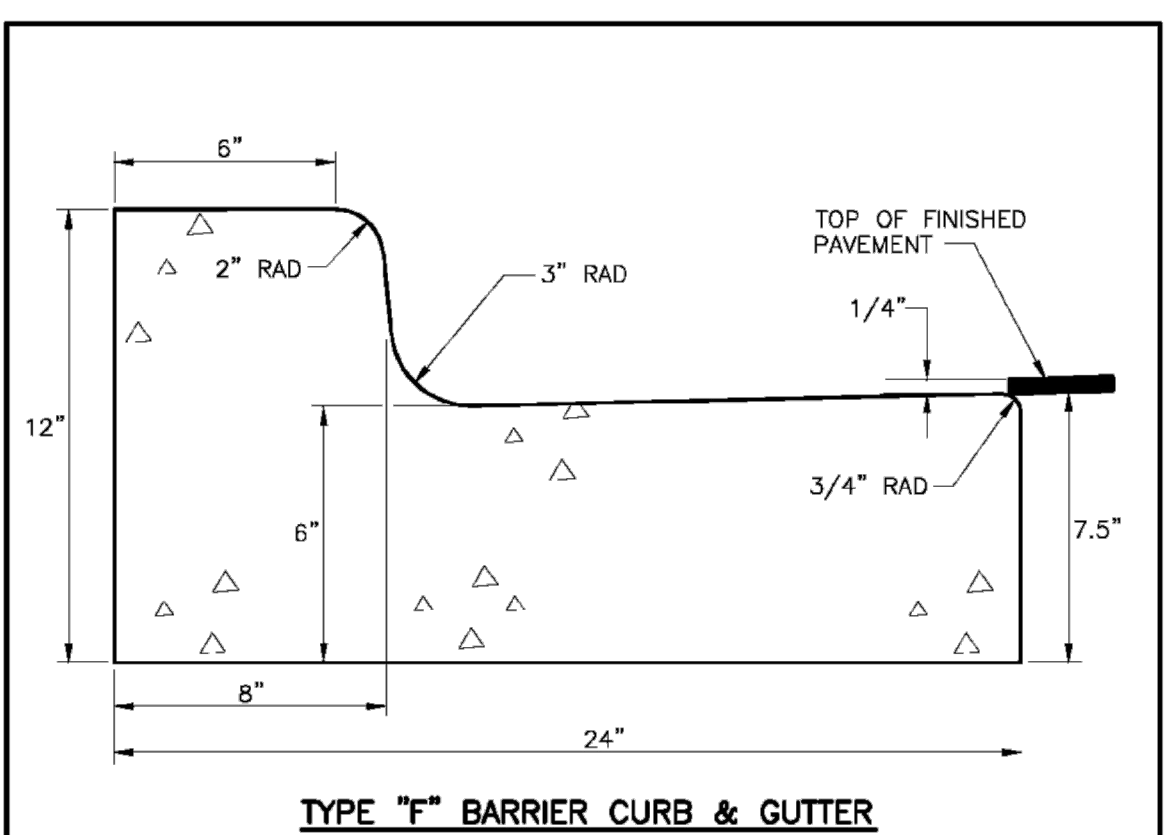
MANATEE COUNTY TRANSPORTATION DEPARTMENT		CURB & GUTTER CONTROL SHEET	201.0
REV. BY	DATE		
	6/12/07		
	DATE OF B.O.C.C. APPROVAL		

11/11/2020
I:\66565-0188.03 - Manatee County - Hazelhurst Subdivision Potable Water Replacement (CIP# 6097170)\Drawings\Construction\66-0188.03 - Typical Details.dwg, Layout: 22



- A) CLASS 1 CONCRETE 3,000 P.S.I. AT 28 DAYS.
- B) CURB AND GUTTER SHALL MEET THE SPECIFICATIONS ESTABLISHED BY FLORIDA D.O.T. STANDARD SPECIFICATIONS PER F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS INDEX NO. 300, LATEST REVISION.

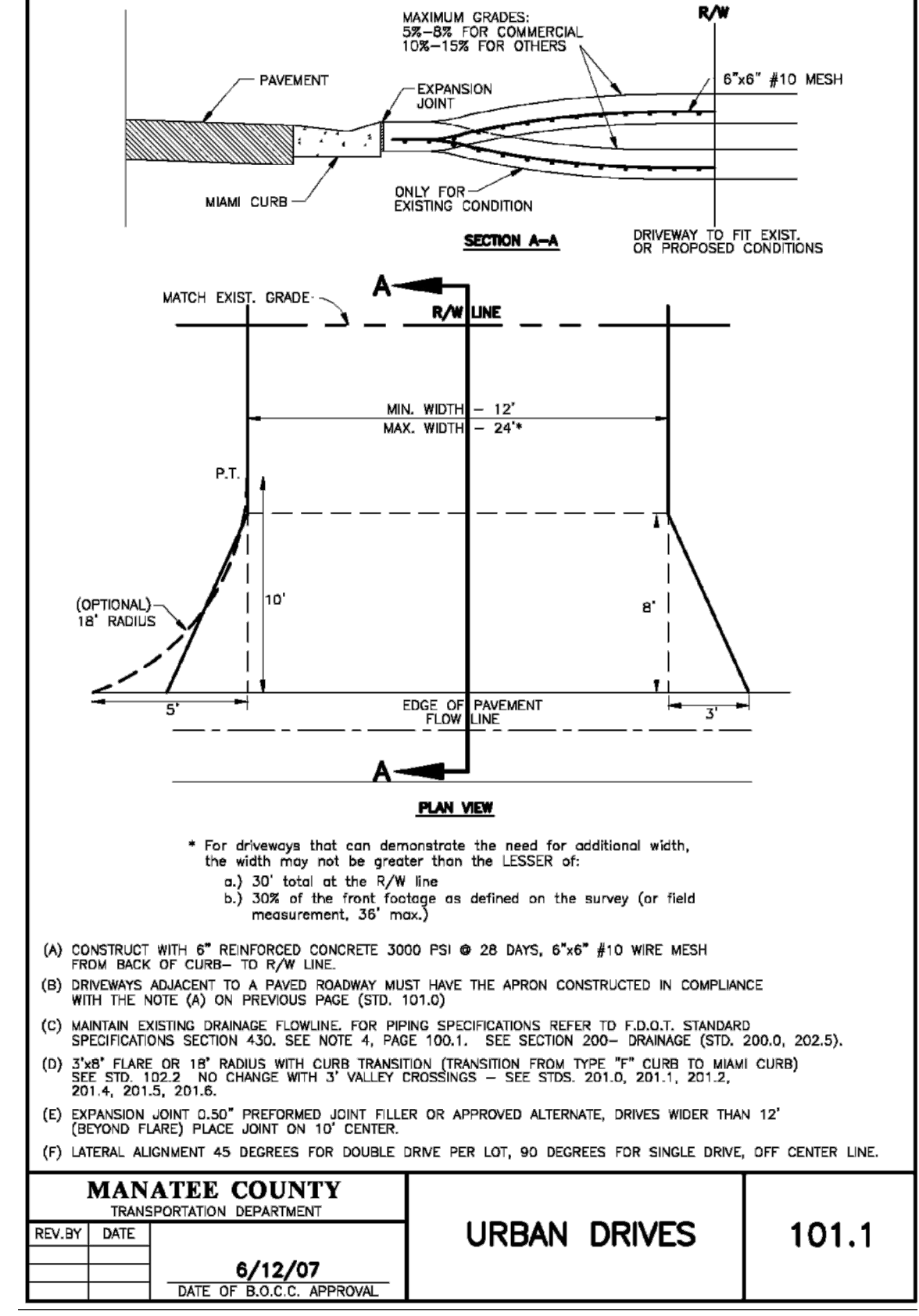
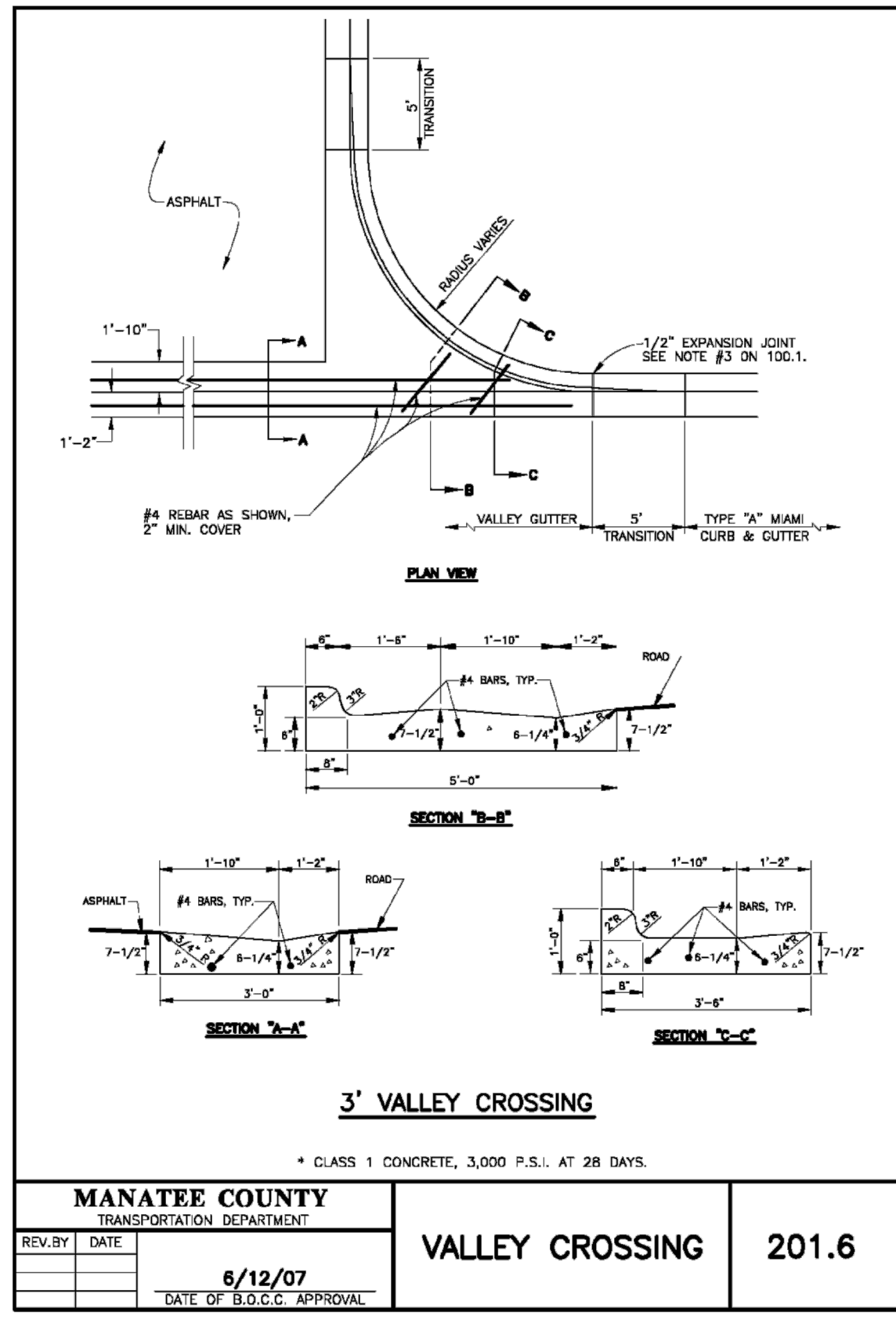
MANATEE COUNTY TRANSPORTATION DEPARTMENT			TYPE A MIAMI CURB & GUTTER	201.1
REV. BY	DATE			
		6/12/07		
		DATE OF B.O.C.C. APPROVAL		



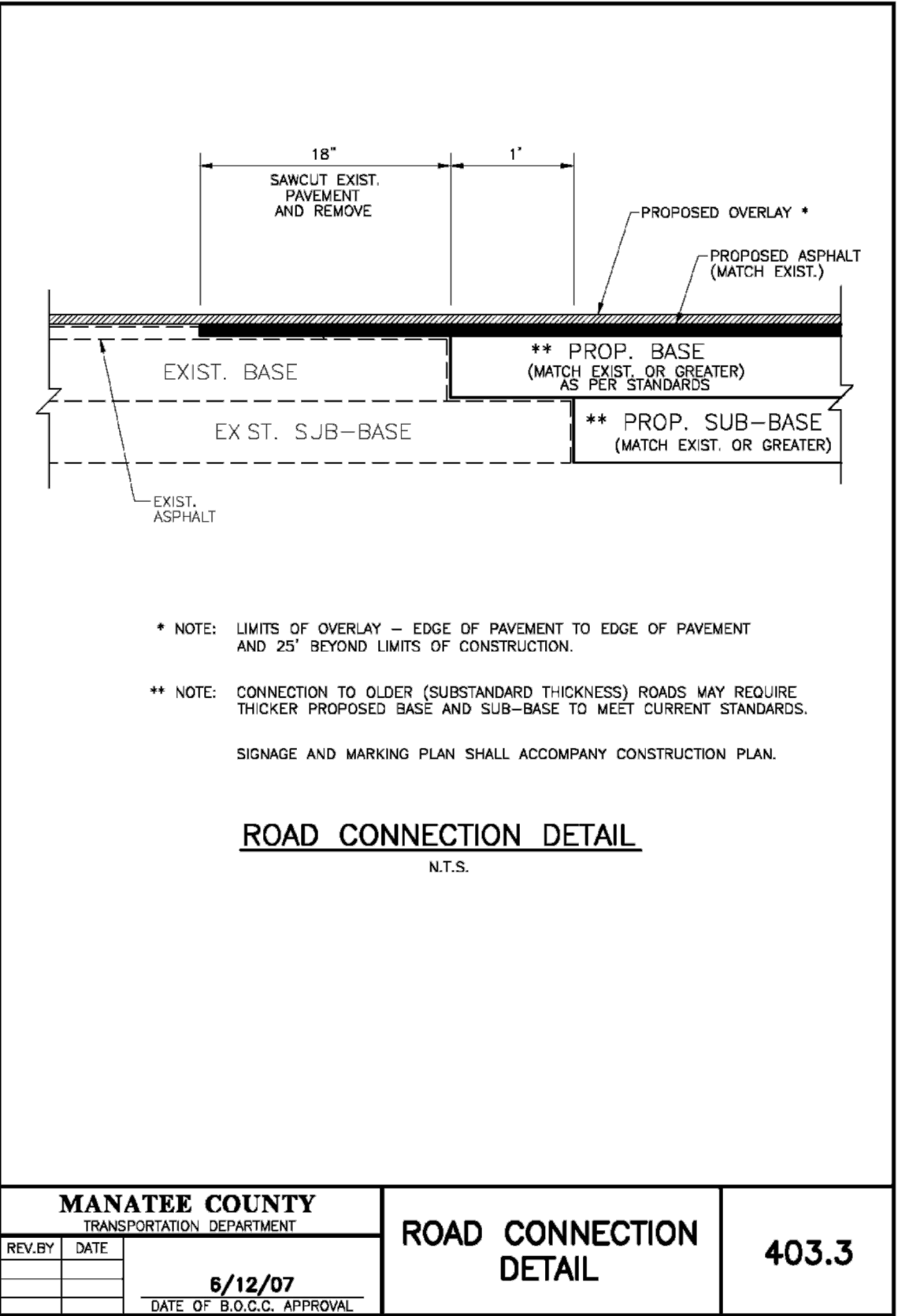
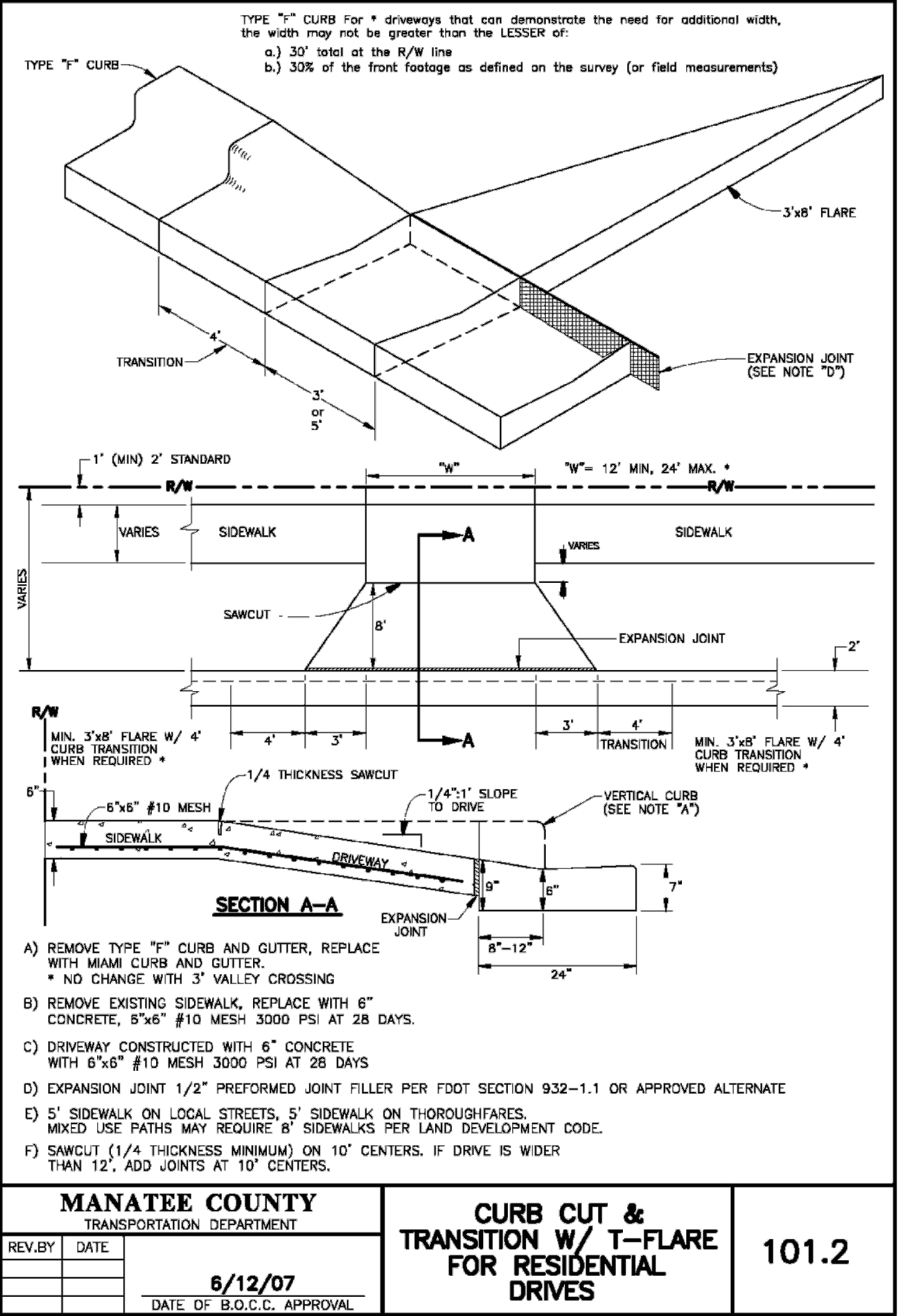
- A) CLASS 1 CONCRETE 3,000 P.S.I. AT 28 DAYS.
- B) CURB AND GUTTER SHALL MEET THE SPECIFICATIONS ESTABLISHED BY FLORIDA D.O.T. STANDARD SPECIFICATIONS PER F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS INDEX NO. 300, LATEST REVISION.

MANATEE COUNTY TRANSPORTATION DEPARTMENT			TYPE F CURB & GUTTER	201.2
REV. BY	DATE			
		6/12/07		
		DATE OF B.O.C.C. APPROVAL		

1/11/2020
I:\665-0188.03 - Manatee County - Hazelhurst Subdivision Potable Water Replacement (CIP# 6097170)\Drawings\Construction\66-0188.03 - Typical Details.dwg, Layout: 23



1/11/2020
I:\6656-0188.03 - Manatee County - Hazelhurst Subdivision Potable Water Replacement (CIP# 6097170)\Drawings\Construction\66-0188.03 - Typical Details.dwg, Layout: 24



11/11/2020
I:\6656-0188.03 - Manatee County - Hazelhurst Subdivision Potable Water Replacement (CIP# 6097170)\Drawings\Construction\66-0188.03 - Typical Details.dwg, Layout: 25

DES BY	CKM				
DR BY	TJS	PROJ NO	66-0188.03		
CHK BY	CKM	DATE	NOVEMBER 2020	NO	DATE
				REVISION	

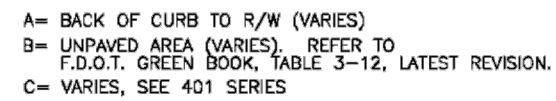
PROFESSIONAL OF RECORD:
CHRISTOPHER K. MARTIN, P.E. #66598
AYRES ASSOCIATES
8875 HIDDEN RIVER PKWY, SUITE 200
TAMPA, FL 33637 (813) 978-8688 CERT. OF AUTH. #4356

HAZELHURST SUBDIVISION WATER MAIN
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS



TYPICAL DETAILS

SHEET NO.
25



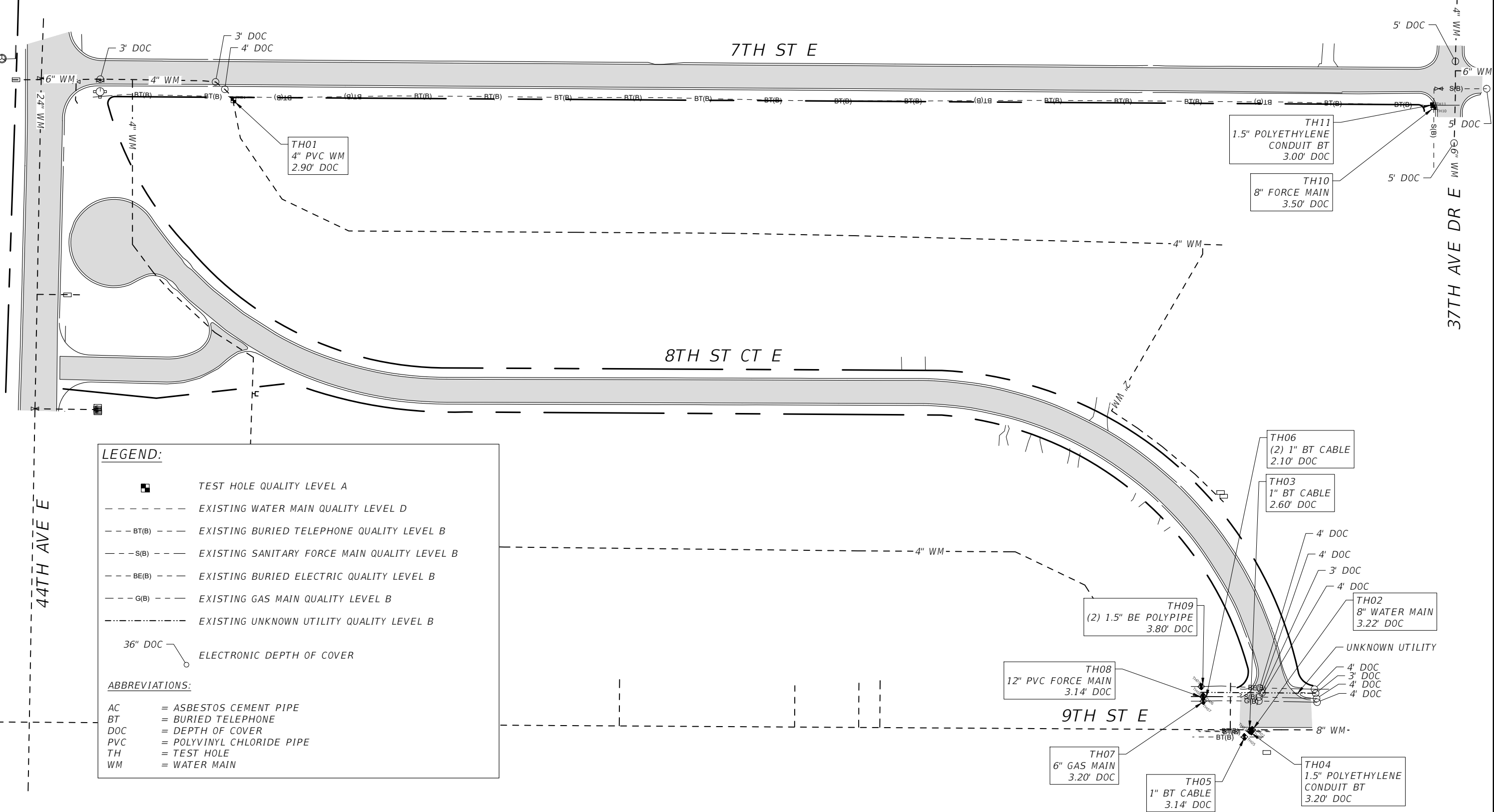
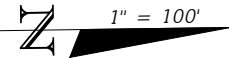
The diagram illustrates a cross-section of a sidewalk curb and joint filler. On the left, a horizontal section represents the joint filler, with a width labeled "D". It has a top surface slope of 1/4" : 1' and a height of 4". A vertical line indicates the abutment point. To the right of this line is a vertical section representing the curb, with a height of 6". The curb is labeled "TYPE 'AB, D OR F' CURB". The bottom of the curb is a horizontal section with a width of 2'. A note points to the abutment area: "WHERE SIDEWALK ABUTS CURB PROVIDE 1/2\" PREFORMED JOINT FILLER SEE NOTE #4 ON 300.1".

D= SIDEWALK WIDTH SHALL BE 6' STANDARD, WHERE WALK ABUTS TYPE "AB, D OR F"
CURB. WHERE SPEED LIMIT IS 25 MPH OR LESS, WIDTH CAN BE 5'-6'.

ALTERNATE SIDEWALK LOCATION



MANATEE COUNTY TRANSPORTATION DEPARTMENT		SIDEWALK REQUIREMENTS	301.1
REV. BY	DATE		
	6/12/07 DATE OF B.O.C.C. APPROVAL		



AA-Standard.dwg
J:\06-0188-03 - Manatee County - Hazelhurst Subdivision Water Replacement (CIP# 6697170)\Drawings\Construction\66-0188-03 - SUE.dwg, Layout: SUE-01

DES BY CKM	PROJ NO 66-0188.03	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	HAZELHURST SUBDIVISION WATER MAIN BRADENTON, FLORIDA MANATEE COUNTY PUBLIC WORKS	AYRES ASSOCIATES TAMPA, FLORIDA	SUBSURFACE UTILITY ENGINEERING PLAN VIEW	SHEET NO. SUE-01
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AA-Standard.dwg
1/16/2018 03:03 - Manatee County - Hazelhurst Subdivision Potable Water Replacement (CIP# 6097170)DrawingConstruction06-0188-03 - SUE.dwg, Layout: SUE-02

SUMMARY OF VERIFIED UTILITIES								
TEST HOLE #	UTILITY DESCRIPTION (OWNER, TYPE)	SIZE	MATERIAL	DEPTH OF COVER	UTILITY DIRECTION	NORTHING	EASTING	COMMENTS
TH01	MANATEE COUNTY, WATER MAIN	4"	PVC	2.90'	E-W	1137837.6	475609.4	
TH02	MANATEE COUNTY, WATER MAIN	8"	ACP	3.22'	N-S	1138900.0	1138900.0	
TH03	TELEPHONE	1"	DIRECT BURIED	2.60'	N-S	1138897.5	476267.0	
TH04	TELEPHONE	1 1/2"	POLYETHYLENE	3.20'	N-S	1138898.8	476267.7	
TH05	TELEPHONE	1"	DIRECT BURIED	3.14'	N-S	1138891.8	476273.3	
TH06	TELEPHONE	(2) 1"	DIRECT BURIED	2.10'	N-S	1138848.7	476231.4	
TH07	GAS MAIN	6"	POLYETHYLENE	3.20'	N-S	1138848.8	476236.0	
TH08	MANATEE COUNTY, FORCE MAIN	12"	PVC	3.14'	N-S	1138848.8	476230.9	
TH09	BURIED ELECTRIC	(2) 1.5"	POLY PIPE	3.80'	N-S	1138846.7	476220.7	
TH10	MANATEE COUNTY, FORCE MAIN	8"	PVC	3.50'	E-W	1139089.3	475616.6	
TH11	TELEPHONE	1.5"	POLYWTHYLENE	3.00'	N-S	1139088.4	475614.5	

SUBSURFACE UTILITY ENGINEERING NOTES:

- THE PURPOSE OF THESE PLANS WERE TO LOCATE AND IDENTIFY EXISTING UNDERGROUND WATER MAIN LINES THAT MAYBE IN CONFLICT AND AT TIE-IN CONNECTION POINTS WITH PROPOSED WATER MAIN DESIGN. THIS IS NOT A SURVEY.
- FIELD SURVEY DATA COLLECTION WAS COLLECTED ON AUGUST 21, 2019.
- HORIZONTAL DATUM IS "NORTH AMERICAN DATUM OF 1983, FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE (0902)". THE HORIZONTAL POSITIONS ARE ACCURATE TO SUB-METER.
- ALL MEASUREMENTS ARE IN U.S. SURVEY FEET OR DECIMALS THEREOF UNLESS OTHERWISE STATED.
- 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.
- 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.
- 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.
- 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.
- UTILITY OWNER'S NAMES REFLECT INFORMATION OBTAINED FROM FIELD OBSERVATIONS, FIELD MEETINGS, AND UTILITY RESEARCH AND MAY NOT REFLECT ACTUAL OWNERSHIP.
- MEASUREMENTS DESCRIBED AS "ELECTRONIC DEPTH OF COVER", IF ANY HAVE BEEN OBTAINED BY ELECTRONIC DESIGNATING EQUIPMENT.
- THE 3-DIMENSIONAL POSITION OF ELECTRONICALLY DESIGNATED UTILITIES HAS NOT BEEN PHYSICALLY MEASURED AND SHOULD BE CONSIDERED APPROXIMATE.
- 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.

DES BY	CKM				
DR BY	AD	PROJ NO	66-0188.03		
CHK BY	CKM	DATE	OCT 2019	NO	DATE
		REVISION			

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

HAZELHURST SUBDIVISION WATER MAIN
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS

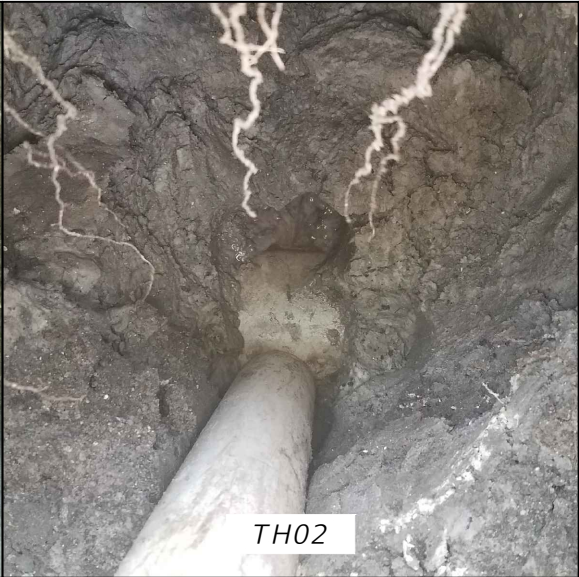


SUMMARY OF VERIFIED UTILITES & NOTES

SHEET NO.
SUE-02



TH01



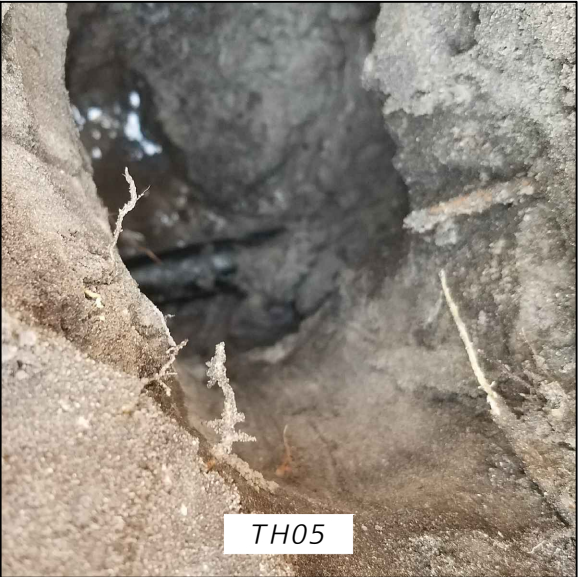
TH02



TH03



TH04



TH05



TH06



TH07



TH08



TH09



TH10



TH11

AA-Standard.dwg
06/01/18.03 - Manatee County - Hazelhurst Subdivision Potable Water Replacement (CIP# 6097170) Drawings Construction 06-0188.03 - SUE.dwg, Layout, SUE-03

DES BY	CKM			
DR BY	AD	PROJ NO	66-0188.03	
CHK BY	CKM	DATE	OCT 2019	NO DATE REVISION

PROFESSIONAL OF RECORD:
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HAZELHURST SUBDIVISION WATER MAIN
BRADENTON, FLORIDA
MANATEE COUNTY PUBLIC WORKS



SUE PHOTOS

SHEET NO.
SUE-03

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

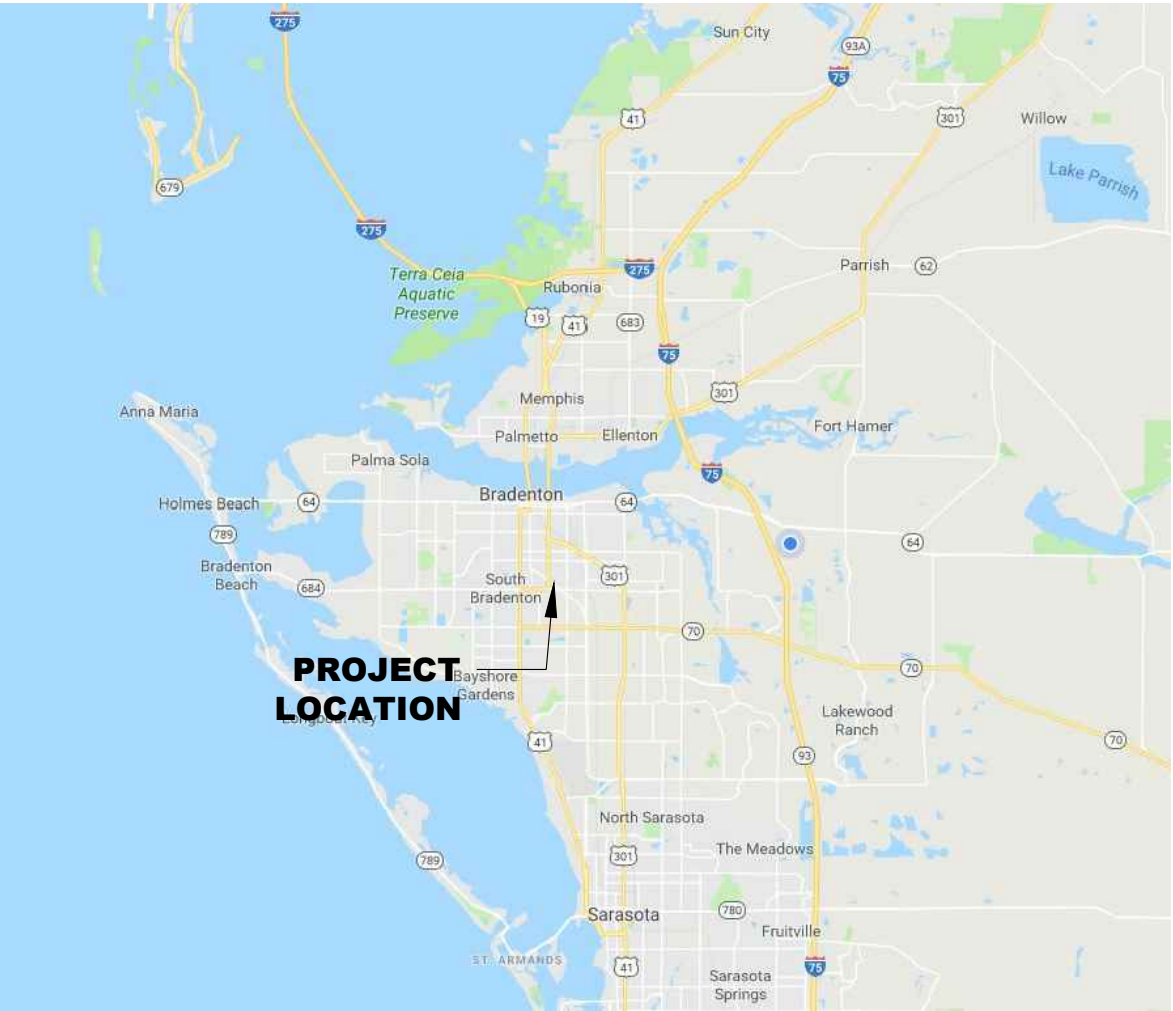
NO.	INDEX OF SHEETS
1	COVER SHEET
2-4	PLAN SHEET

SURVEY NOTES

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

"APALACHICOLA" NAVD 1988 ELEVATION 38.91'
2. THIS SURVEY IS REFERENCED TO A GRID PROJECTION OF THE FLORIDA STATE PLANE COORDINATE SYSTEM (WEST ZONE NAD 1983/2011 ADJUSTMENT).
3. THIS IS NOT A BOUNDARY SURVEY. TITLE WORK WAS NOT PROVIDED.
4. FIELD WORK COMPLETED MARCH 22, 2019.
5. ORIGINAL SHEET SIZE IS 11" X 17".
6. THIS SURVEY IS SUBJECT TO PERTINENT EASEMENTS, RIGHTS-OF-WAY AND RESTRICTIONS OF RECORD, IF ANY.
7. 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.
8. THIS SURVEY IS CERTIFIED TO AYRES ASSOCIATES.

VICINITY MAP (NOT TO SCALE)

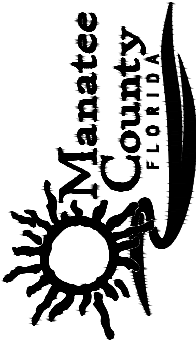


Control Table				
Point #	Northing	Easting	Elevation	Description
124	1137691.23	475868.70	38.87	TP IRS
125	1138389.36	475924.52	38.15	TP NDS
126	1138756.45	475961.53	37.62	TP NDS
127	1138931.05	476203.31	37.32	TP NDS
128	1139080.93	475576.92	38.66	TP NDS
129	1138524.42	475574.07	38.59	TP NDS
130	1137846.41	475569.85	38.03	TP NDS

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



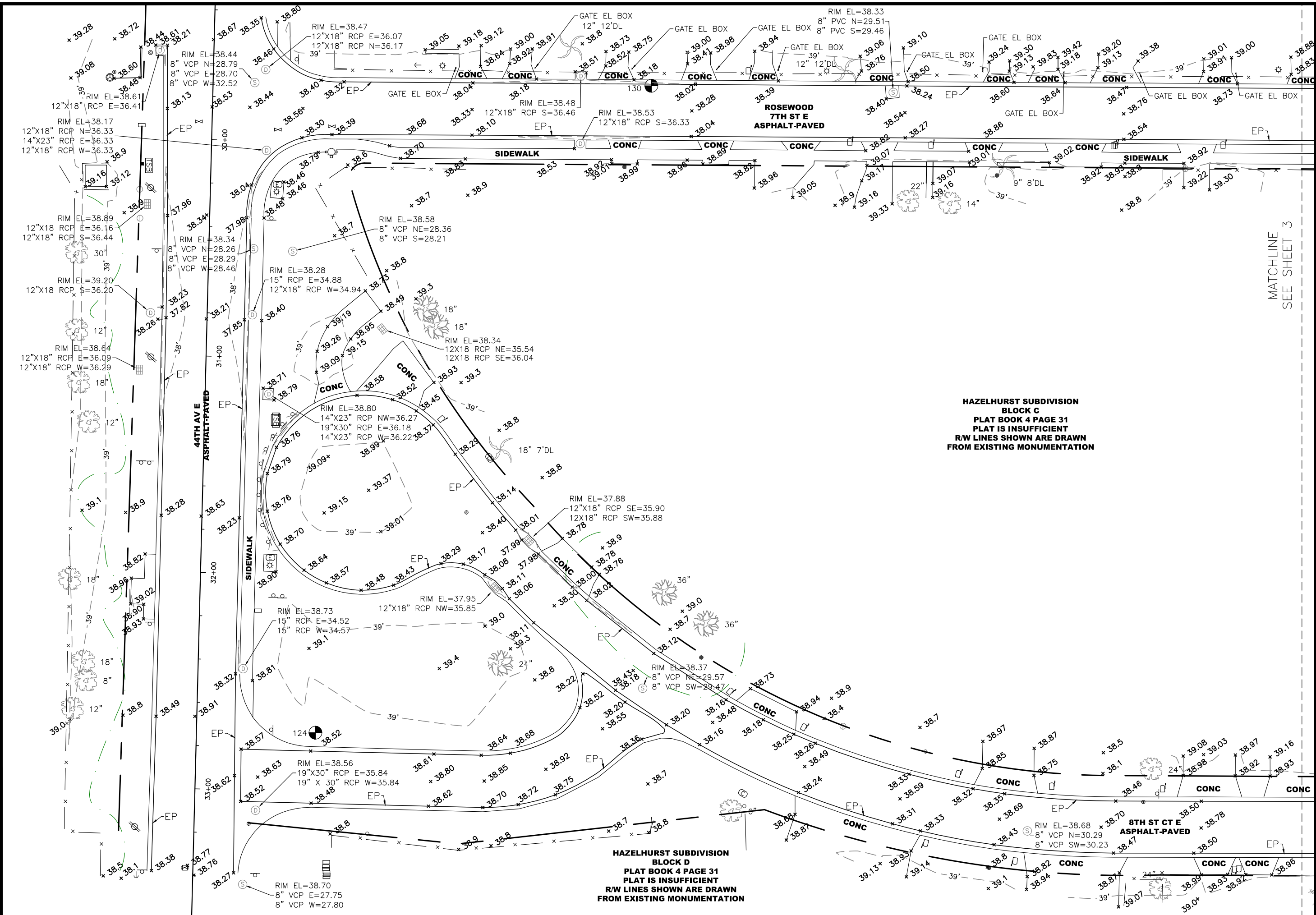
TOPOGRAPHIC SURVEY
HAZELHURST SUBDIVISION
MANATEE COUNTY, FLORIDA

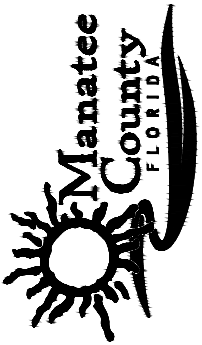
PROJECT #	19-2332	
SURVEY #	19-2332	
SECTION TWN RNG	1-35-17	
SCALE	1" = N/A	
SURVEYED	HYATT	3/2019
DESIGNED		
DRAWN	SC	3/2019
CHECKED	RH	3/2019



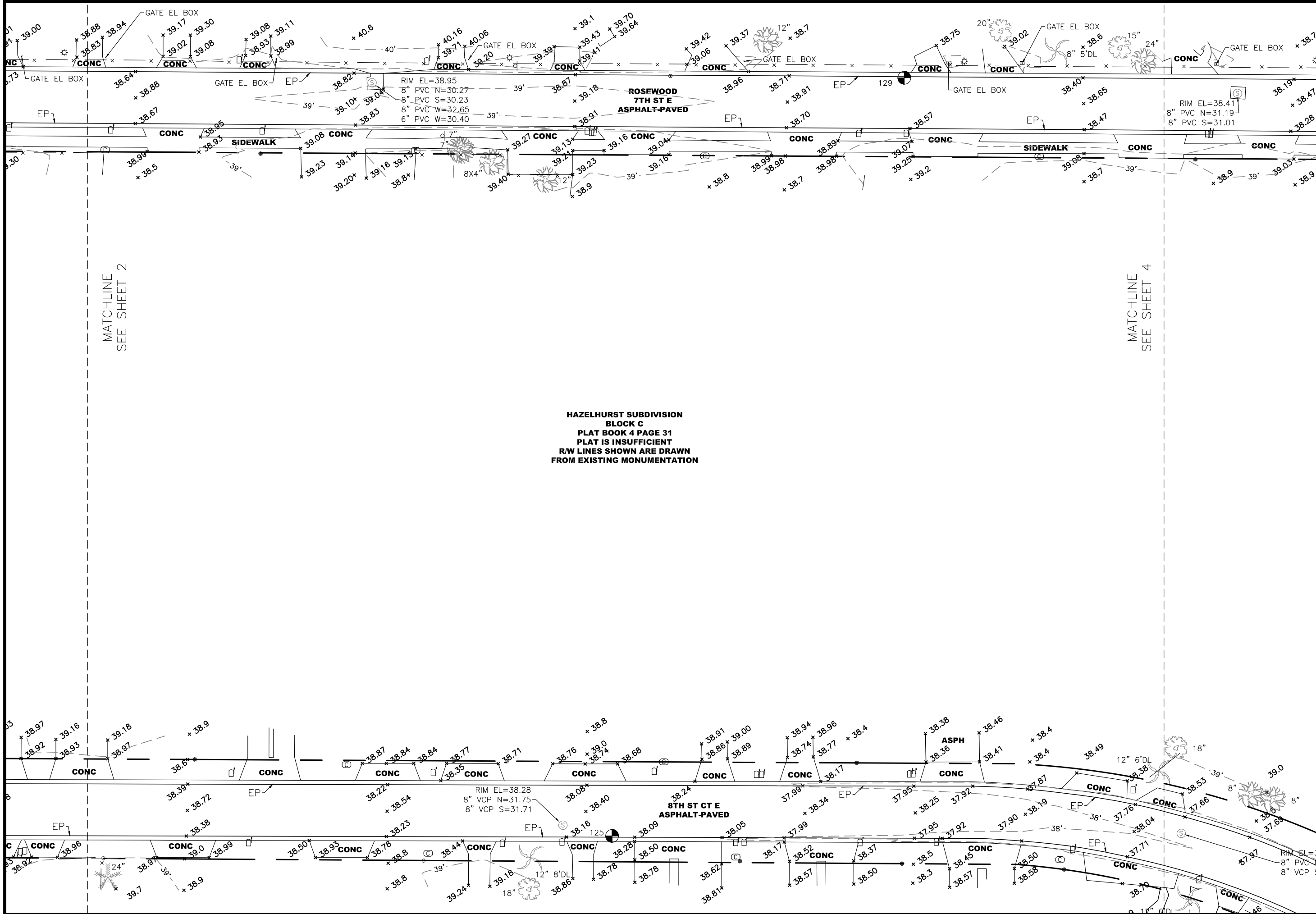
TOPOGRAPHIC SURVEY
HAZELHURST SUBDIVISION
MANATEE COUNTY, FLORIDA

PROJECT #	19-2332
SURVEY #	19-2332
SECTION TWN RNG	1-35-17
SCALE	1" = 40'
SURVEYED	HYATT 3/2019
DESIGNED	
DRAWN	SC 3/2019
CHECKED	RH 3/2019

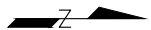


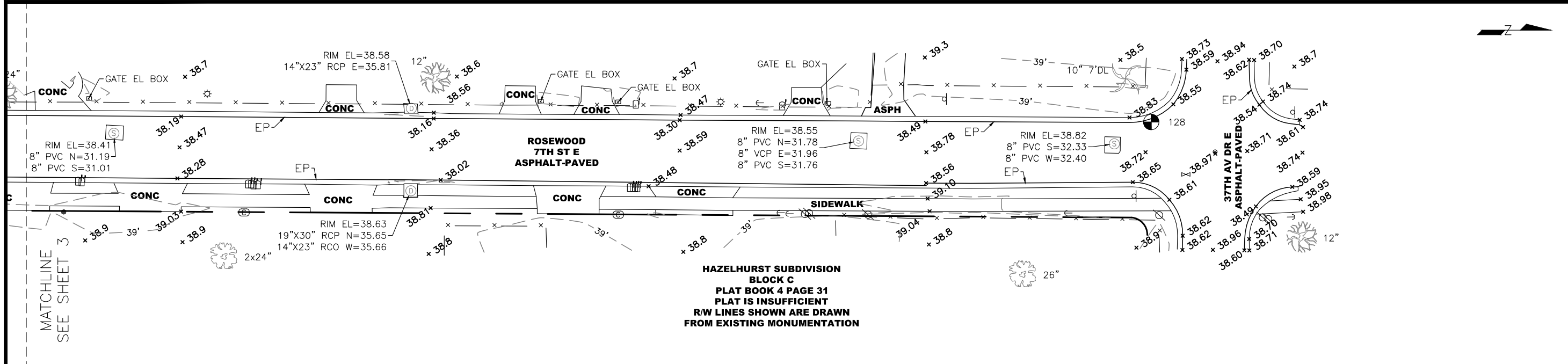


**TOPOGRAPHIC SURVEY
HAZELHURST SUBDIVISION
MANATEE COUNTY, FLORIDA**



PROJECT #	19-2332	
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DESIGNED		
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SHEET 4 OF 4