

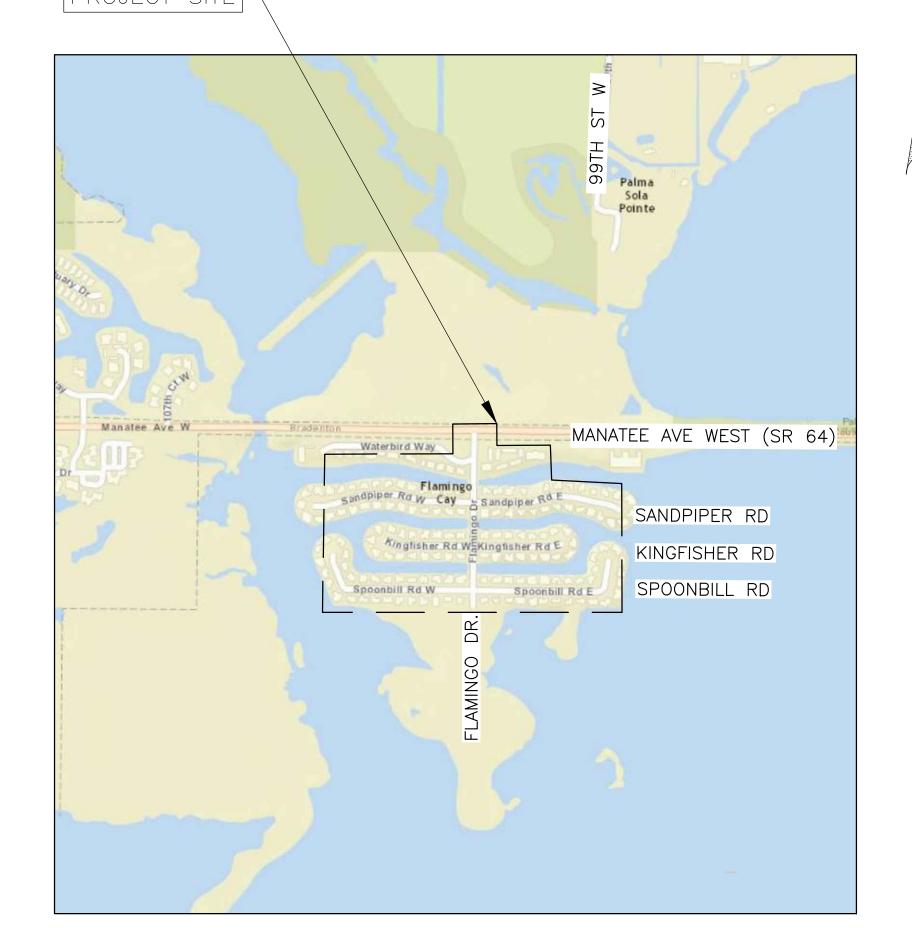


BID PLANS

FLAMINGO CAY WATERMAIN REPLACEMENT FLAMINGO CAY SUBDIVISION

404-6088970

FEBRUARY 2020



VICINITY MAP

N.T.S.

SARASOTA COUNTY

SARASOTA COUNTY

SARASOTA COUNTY

PROJECT DESCRIPTION

INSTALL APPROX. 6000' LF OF 8", 2,050 LF OF 4" AND 652 LF OF 2" WATER MAIN TO REPLACE CORRODED AND UNDERSIZED WATER MAINS.



NO.	SHEET
01	COVER
02	NOTES & LEGEND
03	KEY SHEET
04	FLAMINGO CAY STA. 20+00 TO 24+90
05	FLAMINGO CAY STA. 24+90 TO 29+90
06	FLAMINGO CAY STA. 29+90 TO END
07	SPOONBILL STA. 45+00 TO 48+80
08	SPOONBILL STA. 45+00 TO 54+70
09	SPOONBILL STA. 54+70 TO 60+70
10	SPOONBILL STA. 60+70 TO 66+20
11	SPOONBILL STA. 60+70 TO END
12	KINGFISHER STA. 78+00 TO 82+30
13	KINGFISHER STA. 82+30 TO 88+30
14	KINGFISHER STA. 88+30 TO END
15	SANDPIPER STA. 114+00 TO 118+30
16	SANDPIPER STA. 118+30 TO 124+50
17	SAND PIPER STA. 124+50 TO 130+50
18	SANDPIPER STA. 130+50 TO 136+30
19	SANDPIPER STA. 136+30 TO END
20	WATERBIRD STA. 149+00 TO 153+90
21	WATERBIRD STA. 153+90 TO 159+40
22	WATERBIRD STA. 159+40 TO END
23	TOWN HOUSES PLAN
24	TOWN HOUSES PROFILE & SECTION
25	DETAILS
26	DETAILS
27	DETAILS
28	SURVEY CONTROL & SUE DATA
29	EROSION CONTROL

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VORKS DEPARTMENT EERING SERVICES are East, Bradenton, FL 34

AIN REPI

SURVEY #

PROJECT # 404-608897

SURVEY #

SEC./TWN./RGE 26/34S/16E

SCALE

VERTICAL DATUM NAVD 88

BY DATE

BY DATE

SURVEYED GFY 02/08/13

DESIGNED JDS 02/10/13

DRAWN BLR/JEA 02/11/13

J. MASSHOUM, P.E.

RORIDAT F.E.S. H. 60523

No. 60923

STATE OF 02/19/2020

STATE OF 02/19/2020

- ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: JIM RENNEBERG, P.E. AND CAN BE REACHED AT (941) 708-7450 EXT. 7220
- 2. SITE VISITS ARE MANDATORY FOR ALL BIDDERS
- 3. ALL CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MANATEE COUNTY UTILITY AND TRANSPORTATION STANDARDS AND/OR FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" UNLESS OTHERWISE INDICATED ON THE PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS AND ALL GOVERNING FEDERAL, STATE, AND LOCAL AGENCIES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS THAT ARE NOT PROVIDED IN THE BID DOCUMENTS, AT NO ADDITIONAL COST
- 5. THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATION THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE
- 6. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS ON THE PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. SHOULD DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO OBTAIN THE ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH CONSTRUCTION.
- AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA AT 1-800-432-4770 OR THE NATIONAL 811 ONE CALL NUMBER WHEN APPLICABLE FOR UTILITY LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITIES FOR THE POSSIBLE RELOCATION OR THE TEMPORARY MOVEMENT OF ANY EXISTING UTILITIES WITHIN THE RIGHTS-OF-WAY.
- NO WORK, EXCEPT FOR EMERGENCY TYPE, SHALL BE PERFORMED AFTER 7:00 PM AND BEFORE 7:00 AM. FOR ADDITIONAL PROJECT RESTRAINTS, REFER TO SECTION 01310 OF THE SPECIFICATIONS.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT, 90-96, LAWS OF FLORIDA EFFECTIVE OCTOBER 1, AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS, 29 CFR 1926.650, SUBPART P, AS AMENDED. THE CONTRACTOR SHALL INCLUDE IN THE TOTAL BID PRICE ALL COSTS FOR COMPLIANCE WITH THESE REGULATIONS.
- 10. THE CONTRACTOR SHALL USE SHEET PILING, SHEETING, BRACING, ETC., AS REQUIRED IN ALL EXCAVATION AREAS AND CONFORM TO ALL OSHA REQUIREMENTS.
- 11. THE CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND UTILITIES, POWER LINES, ETC.
- 12. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT ALLEVIATE THE CONTRACTOR FOR PROVIDING A CONTINUOUS SAFE WORKSPACE.

<u>ENVIRONMENTAL</u>

- 13. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY STORM WATER, EROSION, AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THE FDEP "FLORIDA STORM WATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL AND 42. NO MATERIAL SHALL BE STOCKPILED IN ROADWAYS. ALL DIRT AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE DAILY. ROADS SHALL BE SWEPT DAILY AS PREVENT EROSION AND TRANSPORT OF SEDIMENT TO SURFACE DRAINS AND TO DITCHES DURING CONSTRUCTION.
- 14. STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILES IS REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY STOCKPILED MATERIAL REMAIN AFTER THIRTY (30) CALENDAR DAYS.
- 15. STORM WATER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION. THIS WILL BE MAINTAINED TO PREVENT DEGRADATION OF THE WATERS OF THE COUNTY AND STATE.
- 16. SEDIMENT BASINS AND TRAPS, PERIMETER BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING BODIES OF WATER, MUST BE INSTALLED, CONSTRUCTED, OR IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTHEN STRUCTURES INCLUDING BUT NOT LIMITED TO BERMS, EARTH FILTERS, DAMS OR DIKES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE (1) WEEK OF INSTALLATION.
- 17. ALL SWALES, DITCHES, AND CHANNELS LEADING FROM THE SITE SHALL BE PROTECTED FROM SILTATION AND EROSION DURING CONSTRUCTION AND BE SODDED WITHIN THREE (3) DAYS OF EXCAVATION.
- 18. SOIL DISPLACED BY CONSTRUCTION WILL BE REMOVED. EROSION CONTROL SHALL BE IMPLEMENTED IN AREAS WHICH ARE CONSIDERED ENVIRONMENTALLY SENSITIVE. EROSION CONTROL SYSTEMS SHALL BE REQUIRED FOR ALL WORK WITHIN JURISDICTIONAL AREAS. THESE SYSTEMS MAY INCLUDE STAKED HAY BALES, SILT SCREENS, FILTER FABRIC, AND TURBIDITY SCREENS.
- 19. ALL EROSION AND POLLUTION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND SHALL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
- 20. THE CONTRACTOR SHALL NOT ENTER UPON OR IN ANY WAY ALTER WETLAND AREAS THAT MAY BE ON OR NEAR THE CONSTRUCTION SITE. ALL WORK IN THE VICINITY OF OPEN WATER AND/OR WETLANDS IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL REGULATIONS AND/OR PERMITS FOR THE SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINES RESULTING FROM HIS VIOLATION OF ANY REGULATIONS OR PERMIT CONDITIONS.
- 21. FOR MORE INFORMATION, SEE THE EROSION CONTROL DETAIL SHEET INCLUDED IN THE PLANS.

- 22. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT-OF-WAY AND/OR EASEMENTS SHOWN ON THE DRAWINGS
- 23. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO REFERENCE AND RESTORE PROPERTY CORNER MONUMENTS, PINS, AND LANDMARKS THAT MAY BE DISTURBED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- 24. THE CONTRACTOR, PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHTS-OF-WAY USE PERMIT AND A TRAFFIC CONTROL PLAN. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM OTHER GOVERNMENTAL AGENCIES HAVING RELEVANT JURISDICTION, ALL MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION "MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES". A TRAFFIC CONTROL PLAN SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.
- 25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL DAMAGED STORM WATER STRUCTURES, PIPING, ENTRANCE PIPE AND HEADWALLS WHETHER SHOWN ON THE PLANS OR NOT. THE HEADWALLS SHALL BE REPLACED IN ACCORDANCE WITH F.D.O.T. STANDARDS.
- 26. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH IN THE FIELD THE RIGHT-OF-WAY LINES, BASE LINES, BENCH MARKS (ELEV.), CENTER LINES, AND STATIONING AS REQUIRED TO CONSTRUCT THIS PROJECT
- 27. THE CONTRACTOR SHALL COORDINATE THE CUTTING OF DRIVEWAYS WITH THE PROPERTY OWNER PRIOR TO CUT. ALL DRIVEWAYS WILL BE IN PASSABLE CONDITION AT THE END OF THE WORK DAY AND FULLY RESTORED PER SECTION 02575 OF THE INFRASTRUCTURE ENGINEERING STANDARD SPECIFICATIONS.
- 28. A RIGHT OF ENTRY AGREEMENT SHALL BE OBTAINED BY THE PROJECT MANAGER FROM THE PROPERTY OWNER BEFORE ANY DRIVEWAY CONSTRUCTION WORK IS DONE OUTSIDE OF THE RIGHT-OF-WAY OR EASEMENT.

- 29. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC. WHICH ARE WITHIN THE PROJECT AREA AND WHICH HAVE NOT BEEN LOCATED OR IDENTIFIED, MAY NOT BE IN THE EXACT LOCATION SHOWN OR RELOCATED SINCE THE PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES STRUCTURES AND OTHER FEATURES (WHETHER OR NOT SHOWN ON THE PLANS) THAT MAY EFFECT HIS WORK. ALL EXISTING UTILITIES TO BE EXTENDED, CROSSED OR CONNECTION POINTS SHALL BE EXPOSED PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND ELEVATION. ANY DISCREPANCIES OR CONFLICTS FOUND SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION.
- 30. 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.
- 31. ANY TEMPORARY SHUTDOWNS FOR MODIFICATIONS OF EXISTING UTILITY SYSTEMS THAT MUST REMAIN IN SERVICE DURING CONSTRUCTIONS SHALL BE KEPT TO A MINIMUM AND SHALL BE COORDINATED WITH AND APPROVED BY THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. IT IS NOTED THAT TEMPORARY SHUTDOWNS MAY BE RESTRICTED TO CERTAIN HOURS AT ANY TIME OF THE DAY OR NIGHT AND WILL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER.
- 32. FOR WORK BEING DONE ON EXISTING SANITARY SEWER LINES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE FLOW OF ALL SEWAGE DURING CONSTRUCTION, WHICH MAY REQUIRE BY-PASS PUMPING AND/OR PUMPER TRUCKS. THE CONTRACTOR SHALL SUBMIT A DETAILED BY-PASS PUMPING PLAN PER SECTION 02720 OF THE INFRASTRUCTURE ENGINEERING STANDARD SPECIFICATIONS.
- 33. ALL WATER SERVICES TO BE INSTALLED OR MODIFIED THAT REQUIRE A PLUMBING PERMIT;
- A. THE CONTRACTOR'S PLUMBER SHALL INSTALL A REDUCED PRESSURE (RP) TYPE BACKFLOW PREVENTION ASSEMBLIES (BPA'S) EQUIPPED WITH A PRESSURE 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.

- B. 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.
- C. IF IN-GROUND IRRIGATION SYSTEM IS CONNECTED TO THE POTABLE WATER LINE, AN ADDITIONAL RP BPA SHALL BE INSTALLED AT THE POINT OF CONNECTION.
- D. VACUUM BREAKERS SHALL BE INSTALLED ON ALL HOSE BIBBS.
- E. CONTRACTOR SHALL COORDINATE WITH COUNTY CROSS CONNECTION STAFF & PRIVATE PROPERTY OWNER AS REQUIRED.

- 34. ALL RESTORATION WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS SHOWN OTHERWISE.
- 35. ALL DISTURBED GRASSED AREAS SHALL BE SODDED OR SEEDED UNLESS OTHERWISE INDICATED. THE TYPE OF SOD USED TO REPLACE OWNER MAINTAINED AREAS IN RIGHT-OF-WAY SHALL BE COORDINATED WITH THE PROPERTY OWNER.
- 36. ALL CONCRETE THRUST BLOCKS INSTALLED FOR TESTING PURPOSES AND NOT REQUIRED FOR THE OPERATION OF THE PIPELINE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR, PRIOR TO FINAL ACCEPTANCE, AT NO ADDITIONAL COST TO THE OWNER.
- 37. ASPHALT DRIVES THAT ARE CUT SHALL BE RESTORED PER SECTION 02513 OF THE INFRASTRUCTURE ENGINEERING STANDARD SPECIFICATIONS
- CONCRETE DRIVEWAYS OR SIDEWALKS THAT ARE CUT SHALL BE RESTORED TO MATCH EXISTING ACCORDING TO THE CURRENT EDITIONS OF THE F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN AND THE F.D.O.T. DESIGN STANDARDS. CONCRETE WITH 3,000 PSI @ 28 DAYS SHALL BE USED. THE MINIMUM CURB REPLACEMENT LENGTH IS 10 FEET.
- WHENEVER A PERMANENT ROADWAY SURFACE IS NOT PLACED IMMEDIATELY AFTER BACKFILLING AND COMPACTION OF THE NEWLY INSTALLED PIPE LINE IN AREAS WHERE TRAFFIC MUST PASS, THE CONTRACTOR SHALL INSTALL A TEMPORARY SURFACE CONSISTING OF NINE INCHES OF COMPACTED LIME ROCK BASE AND A COAT OF ASPHALT EMULSION. PERMANENT ROADWAY REPAIR SHALL BE PERFORMED A MAXIMUM OF TWENTY-ONE CALENDAR DAYS AFTER THE INITIAL OPEN
- PERMANENT ROADWAY REPAIR SHALL BE PERFORMED A MAXIMUM OF TWENTY-ONE (21) CALENDAR DAYS AFTER THE INITIAL OPEN CUTTING, EXCEPT FOR FLAMINGO DRIVE FROM STA 30+00 TO MANATEE AVE, WHICH SHALL BE COMPLETED WITHIN TEN (10) CALENDAR DAYS.
- RESTORATION OF CURBS, DRIVEWAYS, SIDEWALKS, AND PLACEMENT OF SOD SHALL BE COMPLETED WITHIN FORTY-FIVE CALENDAR DAYS OF INITIAL DISTURBANCE, OR TWENTY-ONE CALENDAR DAYS OF SUBSTANTIAL COMPLETION, WHICHEVER OCCURS FIRST. RESTORATION EFFORTS SHALL BE INCLUDED IN THE PROJECT SCHEDULING AND PHASING PLAN TO DEMONSTRATE HOW THE RESTORATION WILL BE ACHIEVED.
- CONSTRUCTION

41. THE EXHAUST SYSTEM OF ALL GASOLINE AND DIESEL ENGINES SHALL BE EQUIPPED WITH MUFFLERS THAT MEET THE EQUIPMENT MANUFACTURER'S REQUIREMENTS

- FOR NOISE SUPPRESSION. THE CONTRACTOR SHALL INSTALL NOISE ABATEMENT BAFFLES POSITIONED TO BREAK LINE-OF-SITE FROM THE NOISE SOURCE TO AFFECTED RESIDENCES, AS APPROVED BY THE ENGINEER.
- PART OF DAILY CLEAN UP.
- 43. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.
- 44. INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT ALL TIMES.
- 45. PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA.
- 46. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY. DEWATERING IS REQUIRED TO 18" BELOW TRENCH
- ALL PIPING AND FITTINGS USED ON THIS PROJECT SHALL BE AS NOTED ON THE PLANS AND IN THE CONTRACT DOCUMENT AND SHALL BE INSTALLED TO THE LINES AND GRADES SHOWN ON THE PLANS AND PROFILES. MODIFICATIONS MUST BE APPROVED BY THE ENGINEER OF RECORD.
- 48. ALL PIPE SHALL BE COLOR CODED TO CONFORM TO MANATEE COUNTY STANDARDS.
- 49. ALL PIPE AND FITTINGS SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND ALL PIPE JOINTS SHALL BE RESTRAINED WHERE REQUIRED.
- 50. ALL FITTINGS FOR PRESSURE CLASS-RATED PIPE SHALL BE RESTRAINED DUCTILE IRON. RESTRAINED LENGTHS OF PIPE SHALL ADHERE TO THE REQUIREMENTS AS SHOWN ON THE DETAIL SHEETS.
- WHERE IT IS NECESSARY TO DEFLECT PIPE EITHER HORIZONTALLY OR VERTICALLY, PIPE DEFLECTION SHALL NOT EXCEED 75% OF THE MANUFACTURER'S MAXIMUM ALLOWABLE RECOMMENDED DEFLECTION.
- 52. ALL PIPE LENGTHS ARE PLUS OR MINUS AND MAY BE ADJUSTED IN THE FIELD AS REQUIRED. PIPE MEASUREMENTS ARE TO CENTER OF STRUCTURES OR
- 53. ALL ROCKS OR STONES LARGER THAN SIX INCH DIAMETER SHALL BE REMOVED FROM THE BACKFILL MATERIAL. BACKFILL MATERIAL PLACED WITHIN ONE FOOT OF PIPING AND APPURTENANCES SHALL NOT CONTAIN ANY STONES LARGER THAN TWO INCH DIAMETER.
- 54. ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF ARE AUTHORIZED TO OPERATE VALVES ON COUNTY OWNED AND MAINTAINED UTILITY SYSTEMS.
- 55. ALL CONCRETE PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY.
- 56. THE CONTRACTOR, PRIOR TO ANY TEMPORARY WATER SHUT-OFFS DURING WATER MAIN TIE-IN, ETC., SHALL NOTIFY THE AFFECTED RESIDENTS BY POSTING INFORMATIONAL SIGNS IN THE NEIGHBORHOOD AT LEAST TWO DAYS (48 HRS) PRIOR TO THE WATER SHUT-OFF. REFERENCE SECTION 01580, PARAGRAPH 1.03 OF THE SPECIFICATIONS. WHEN FEASIBLE, "DOOR HANGERS" SHALL BE DELIVERED TO AFFECTED RESIDENCES AT LEAST TWO DAYS (48 HRS) PRIOR TO WATER SHUT—OFF. FOR LARGE PROJECTS WITH HUNDREDS OF HOMES AFFECTED. THE CONTRACTOR SHALL ALSO MAKE EXTENSIVE USE OF THE MEDÍA AND SHALL HAVE PRIOR CONTACT WITH HOMEOWNER'S ASSOCIATIONS. WRITTEN NOTIFICATIONS SHALL ALSO BE FAXED TO THE TAMPA TRIBUNE, BRADENTON HERALD, SARASOTA HERALD TRIBUNE, WBRD RADIO, EMERGENCY COMMUNITY CENTERS, INSPECTIONS, WATER TREATMENT PLANT, WATER MANAGER, HELPLINE, CUSTOMER SERVICE, AND
- ALL NEW PIPE LINES SHALL BE PIG CLEANED (4" AND LARGER), FLUSHED, PRESSURE TESTED, DISINFECTED AND CERTIFIED PRIOR TO TIE-INS TO EXISTING FACILITIES. THE CONTRACTOR WILL BE ALLOWED TO USE TEMPORARY PLUGS FOR PIG CLEANING AND PRESSURE TESTING.
- 58. ALL TEST POINT PIPING SHALL BE CUT LOOSE FROM THE CORPORATION STOP AND COMPLETELY REMOVED AND DISPOSED OF BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE. A CORPORATION STOP PLUG SHALL BE INSTALLED AND THE CORPORATION STOP SHALL REMAIN IN PLACE.
- WATER MAINS CROSSING OVER OR UNDER SANITARY SEWERS, FORCE MAINS, AND RECLAIMED WATER LINES SHALL BE LAID PER CURRENT EDITION OF "10 STATE STANDARDS" AND MANATEE COUNTY UTILITY STANDARDS UNLESS NOTED OTHERWISE ON THE PLANS.
- 60. FIELD CONDITIONS MAY NECESSITATE MINOR ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED UTILITIES TO AVOID OBSTACLES, AS ORDERED BY THE
- CONTRACTOR SHALL PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH SECTION 1.14 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS AT NO COST TO THE OWNER. RECORD DRAWINGS SHALL BE SIGNED & SEALED BY A SURVEYOR CURRENTLY LICENSED BY THE STATE OF FLORIDA. ALL RECORD DRAWING INFORMATION REQUIREMENTS IN SECTION 1.14 SHALL BE STRICTLY ENFORCED. A COPY OF SECTION 1.14 WILL BE PROVIDED UPON REQUEST.
- 62. THE CONTRACTOR SHALL MAINTAIN AS-BUILT DRAWINGS OF THE WORK AS CONSTRUCTED. AS-BUILT DRAWINGS SHALL INCLUDE THE LOCATION OF ABANDONED MAIN CUT AND PLUG POINTS. AS-BUILT DRAWINGS SHALL BE ANNOTATED EACH DAY AS THE WORK PROCEEDS AND SHALL BE AVAILABLE TO THE COUNTY PROJECT MANAGER AND/OR FIELD INSPECTOR FOR REVIEW ON AN ONGOING BASIS. AS-BUILT DRAWINGS SHALL PROVIDE THE HORIZONTAL AND VERTICAL INSTALLED LOCATION OF ALL NEW PIPELINE, FITTINGS, VALVES AND APPURTENANCES REFERENCED TO FIXED SURFACE FEATURES THAT ARE SHOWN ON THE CONSTRUCTION DRAWINGS AND/OR RIGHT-OF-WAY LINES, PROPERTY CORNERS OR OTHER SURVEYED POINTS. THE CONTRACTOR SHALL BE ABLE TO PRESENT THE RECORD DRAWINGS TO THE COUNTY PROJECT MANAGER AND/OR INSPECTOR ON DEMAND AS THE WORK PROGRESSES.

EXISTING UTILITY LOCATIONS

- 63. THE FOLLOWING IDENTIFIES THE QUALITY LEVEL OF EXISTING UTILITY LINEWORK ON PLANS.
- LEVEL "A" -VISUALLY LOCATED OR SOFT DIGS (HORIZONTAL AND VERTICAL) LEVEL "B" -DESIGNATED BY GPR OR FLAGGING (HORIZONTAL)
- LEVEL "C" -SURFACE VISIBLE FEATURES SURVEY
- LEVEL "D" -EXISTING RECORDS OR GIS REFERENCE 2010 EDITION OF FDOT UTILITY ACCOMODATION MANUAL (UAM)

MAINTENANCE OF TRAFFIC

- THE CONTRACTOR IS RESPONSIBLE FOR ANY TRAFFIC CONTROL PLAN (TCP) IMPLEMENTED. THE TCP BE PREPARED BY AN INDIVIDUAL CERTIFIED TO PREPARE A TCPs IN THE STATE OF FLORIDA THAT MEETS OR EXCEEDS THE REQUIREMENTS OF THE F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS LATEST EDITION (SERIES 600). ANY DEVIATIONS FROM THE 600 SERIES MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. THE TCP SHALL BE SUBMITTED TO THE COUNTY AND/OR F.D.O.T. FOR APPROVAL AT LEAST FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COUNTY AND/OR F.D.O.T. APPROVAL PRIOR TO IMPLEMENTATION AND FAILURE TO OBTAIN APPROVAL SHALL NOT BE GROUNDS FOR ANY DELAY CLAIM FOR TIME OR ADDITIONAL COMPENSATION.
- 65. THE CONTRACTOR PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHT-OF-WAY USE PERMIT AND A TRAFFIC CONTROL PLAN. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM OTHER GOVERNMENTAL AGENCIES HAVING RELEVANT JURISDICTION. ALL MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION "MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES". A TRAFFIC CONTROL PLAN SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.
- 66. THE CONTRACTOR SHALL USE, BUT ARE NOT LIMITED TO, F.D.O.T. INDICES 415, 600, 615, 616, AND 621. THE RECOMMENDED F.D.O.T. DESIGN STANDARD NDICES ARE CONCEPTUAL.

- 67. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE TEMPORARY DRAINAGE. THERE WILL BE NO DIRECT PAY FOR THIS WORK. COSTS SHALL BE INCLUDED IN THE COST OF PIPE.
- 68. MOTORIZED AND MECHANICAL EQUIPMENT SHALL BE EFFECTIVELY SHIELDED, PADDED, OR LOCATED TO MINIMIZE NOISE.
- THE CONTRACTOR WILL NOTIFY ALL EMERGENCY AND RESCUE AGENCIES LOCATED IN THE PROJECT VICINITY 24 HOURS IN ADVANCE OF ANY PROPOSED LANE CLOSURES OR DETOURS
- 70. ACCESS TO ALL SIDE STREETS AND DRIVEWAYS MUST BE PROVIDED AND MAINTAINED DURING CONSTRUCTION.
- 71. USE F.D.O.T. INDEX NO. 619 FOR TRAFFIC CONTROL MEASURES WHEN CONSTRUCTION EQUIPMENT IS DRIVEN ON OPEN TRAVEL LANES. THE REGULATORY SPEED IN WORK ZONES SHOULD BE AS CLOSE TO NORMAL CONDITIONS AS POSSIBLE, UNLESS NOTED ON THE TRAFFIC CONTROL PLANS.
- 72. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO WORKING NEAR THEIR EXISTING FACILITIES.
- 73. CONSTRUCTION SEQUENCES SHALL BE COORDINATED TO PROVIDE POSITIVE DRAINAGE OF THE TRAVELWAYS AT ALL TIMES.
- 74. ANY M.O.T. ITEM NOT SPECIFICALLY LISTED UNDER A PARTICULAR PAY ITEM SHALL BE CONSIDERED SUBSIDIARY TO OTHER BID ITEMS. THERE SHALL BE NO SEPARATE PAYMENT.
- 75. THE MAXIMUM SPACING BETWEEN WARNING DEVICES USED FOR DELINEATION BETWEEN THE TRAVELWAY(S) AND CONSTRUCTION AREA SHALL BE AS PER F.D.O.T. STANDARD INDEX 600.
- 76. ALL DETOURS, IF APPROVED BY THE COUNTY, SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D. LATEST EDITION) AND THE F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS, LATEST EDITION (600 SERIES). ANY DETOUR RECOMMENDED BY THE CONTRACTOR MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA AND SUBMITTED TO THE COUNTY AND/OR F.D.O.T. FOR APPROVAL AT LEAST FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COUNTY APPROVAL PRIOR TO IMPLEMENTATION AND FAILURE TO OBTAIN APPROVAL SHALL NOT BE GROUNDS FOR ANY DELAY CLAIM FOR TIME OR ADDITIONAL COMPENSATION.

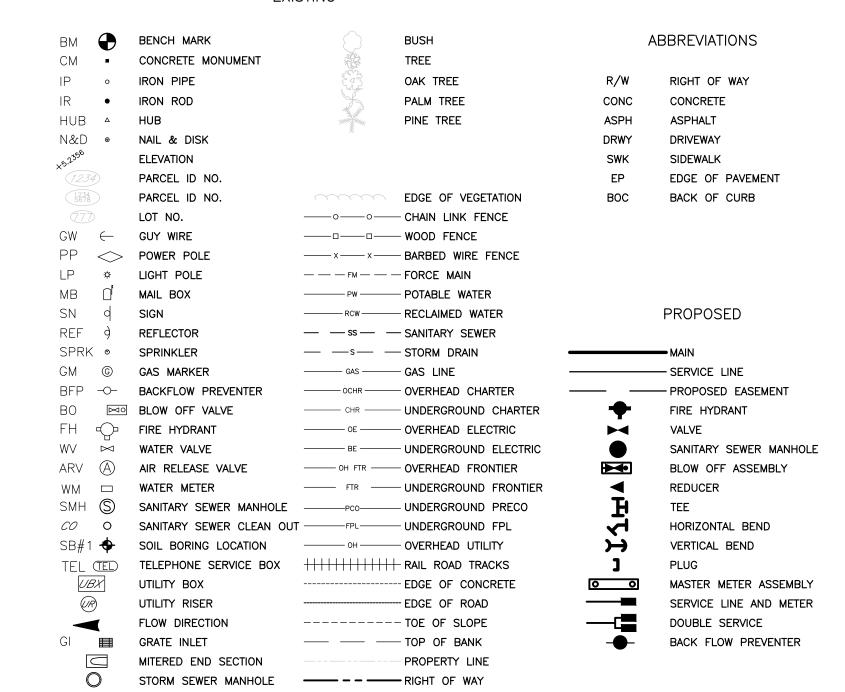
TMC FIBER AND CONSTRUCTION

(941) 708-7450, EXT. 7613

- ANY CONFLICTS BETWEEN EXISTING FIBER OPTIC CABLE (FOC) AND THE PROPOSED CONSTRUCTION SHALL BE RESOLVED BY THE CONTRACTOR AS FOLLOWS:
- a. PROPOSED RELOCATION WORK SHALL NOT INCLUDE ANY ADDITIONAL OR NEW SPLICES. b. FOC SHALL BE REPLACED FROM EXISTING SPLICE POINT TO EXISTING SPLICE POINT (SPLICE POINT LOCATIONS MAY EXCEED THE LIMITS OF THE PROPOSED
- CONSTRUCTION).
- c. ALL FOC ROUTE MARKERS SHALL BE RELOCATED AS NEEDED. THE CONTRACTOR SHALL PROVIDE A PLAN SHEET SHOWING PROPOSED / NEW FOC LOCATION FOR APPROVAL BY MANATEE COUNTY TRAFFIC ENGINEERING. d. PLACE THE FOLLOWING NOTES ON THIS SHEET:
- •INSTALL A FIBER OPTIC ROUTE MARKER AT THE PROPOSED PULL BOX AND RESTORE THE FIBER OPTIC LOCATION SYSTEM (I.E., ROUTE MARKERS AND TRACER WIRE).
- ALL MATERIAL REMOVED SHALL BE REPLACED WITH LIKE KIND TYPE AND SPECIFICATION. • NEW ADVANCED TRAFFIC MANAGEMENT SYSTEM (ATMS) INFRASTRUCTURE SHOULD BE PLACED WHILE LEAVING EXISTING ATMS INFRASTRUCTURE IN PLACE
- AND INTACT AS LONG AS FEASIBLE TO LIMIT THE DURATION OF SYSTEM DOWN TIME. • THE DEVELOPER WILL NEED TO HIRE A CERTIFIED CONTRACTOR THAT IS LICENSED TO PERFORM THIS WORK TO RELOCATE THE ATMS INFRASTRUCTURE AT THEIR COST.
- AT LEAST FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT MUKUNDA GOPALAKRISHNA, P.E., PTOE OF THE MANATEE COUNTY TRAFFIC ENGINEERING DIVISION AT (941) 749-3500, EXT. 7813 TO INFORM HIM OF CONSTRUCTION OPERATIONS.
- f. THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS OF ANY EXCAVATION OR DEMOLITION ACTIVITY THROUGH SUNSHINE ONE CALL OF FLORIDA INC. (811) AND SHALL ALSO NOTIFY THOSE UTILITY OWNERS/AGENCIES LISTED WITHIN OR IMPACTED BY THESE PLANS, NOT LESS THAN TWO (2) FULL BUSINESS DAYS IN
- ADVANCE OF BEGINNING CONSTRUCTION ON THE JOB SITE. g. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RIGHT-OF-WAY USE PERMITS WITH MATT MERUCCI, MANATEE COUNTY PUBLIC WORKS INFRASTRUCTURE
- INSPECTION OFFICER, AT (941) 7087450, EXT. 7342. h. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING BOND REQUIREMENTS WITH MANATEE COUNTY PUBLIC WORKS SENIOR ADMINISTRATIVE SPECIALIST, AT

EXISTING

e. THE CONTRACTOR MUST PROVIDE A SPLICE DIAGRAM FOR THE PROPOSED SPLICE ENCLOSURE AT THIS TIME.



MANATEE COUNTY PUBLIC WORKS DEPT 1022 26TH AVENUE EAST BRADENTON, FL. 34208 SCOTT MAY, P.E. (941) 708-7450 EXT. 7650 FAX: (941) 708-7415

TECO/PEOPLES GAS CO. 8261 VICO COURT SARASOTA, FL. 34240 (941) 342-4030 DAN SHANAHAN FAX: (941) 342-4011 EMERGENCY: 1-877-832-6911 2101 47TH TERRACE EAST

VISHAL KAKAAD, P.E.

FAX: (941) 749-3571

Greg_Coker@fpl.com 410 6th AVENUE EAST BRADENTON, FL 34203 BRADENTON, FL. 34208 (941) 749-3500 EXT. 7812 FAX: (941) 750-9364 vishal.kakkad@mymanatee.org.

FRONTIER

1253 12TH AVENUE EAST

1701 RINGLING BLVD. SARASOTA, FL. 34236JOHN PLOTT STEVE LOPES (941) 906-6707 FAX: (941) 906-6706 John.Plott@ftr.com FLORIDA POWER & LIGHT

PALMETTO, FL 34221 GREG COKER (941) 723-4430 CHAD HARRELL FAX: (941) 723-4444 EMERGENCY: 1-800-4-OUTAGE MANATEE COUNTY HEALTH DEPT. P.O. BOX 1310 (941) 748-0747 EXT. 1355

MANAGEMENT DISTRICT SARASOTA SERVICE OFFICE 6750 FRUITVILLE ROAD SARASOTA, FL. 34240 (941) 377-3722 FAX: (941) 373-7660

SOUTHWEST FLORIDA WATER

FLORIDA GAS TRANSMISSION 7804 ANDERSON RD. TAMPA FL 33634 PHONE: (813) 466-3327 E-mail: chad.harrell@sug.com

PEACE RIVER ELECTRIC COOPERATIVE, INC. WACHULA, FL 33873 KENDELL COKER (863) 767-4660 kendell.coker@preco.coop

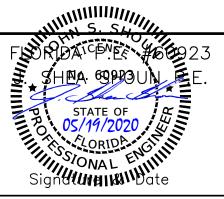
PROTECTION 13051 N. TELECOM PKWY TEMPLE TERRACE, FL 33637 ED WATSON PHONE: (813) 470-5875 FAX: (813) 470-5993

DEPARTMENT OF ENVIRONMENTAL

CHARTER/BRIGHTHOUSE COMMUNICATION 5413 E. STATE ROAD 64 BRADENTON, FL. 34208-5535 TOM WRIGHT (941) 748-3816 EXT. 21348 Tom.Wright@charter.com

SUNSHINE STATE ONE CALL OF FLORIDA 1-(800) 432-4770

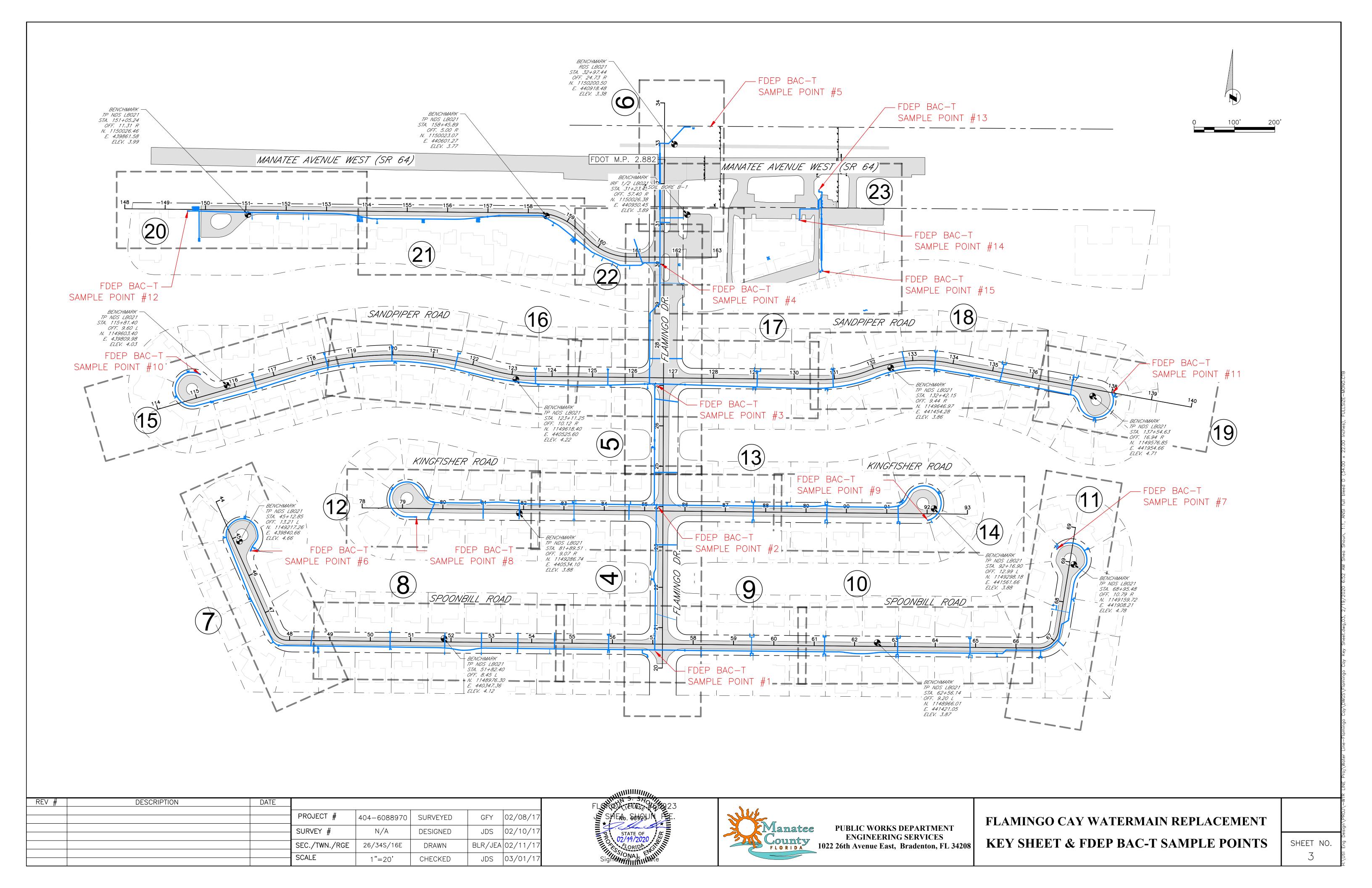
REV # DESCRIPTION DATE NOTE 40 REVISED. 5/19/2020 PROJECT # 02/08/ 404-6088970 SURVEYED SURVEY # DESIGNED |02/10/1 JDS SEC./TWN./RGE 26/34S/16E DRAWN BLR/JEA|02/11/ SCALE JDS |03/01/ 1"=20' CHECKED

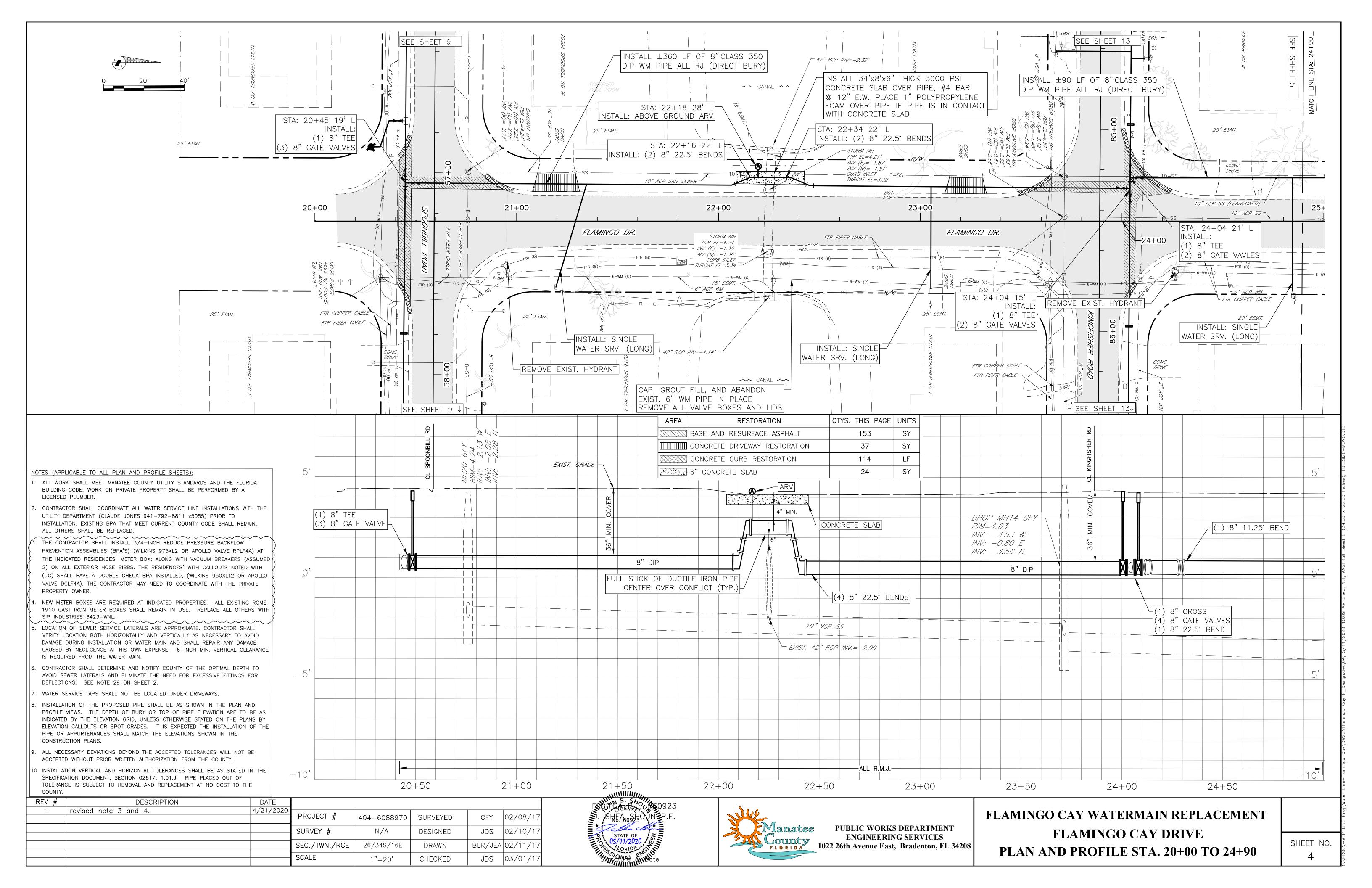


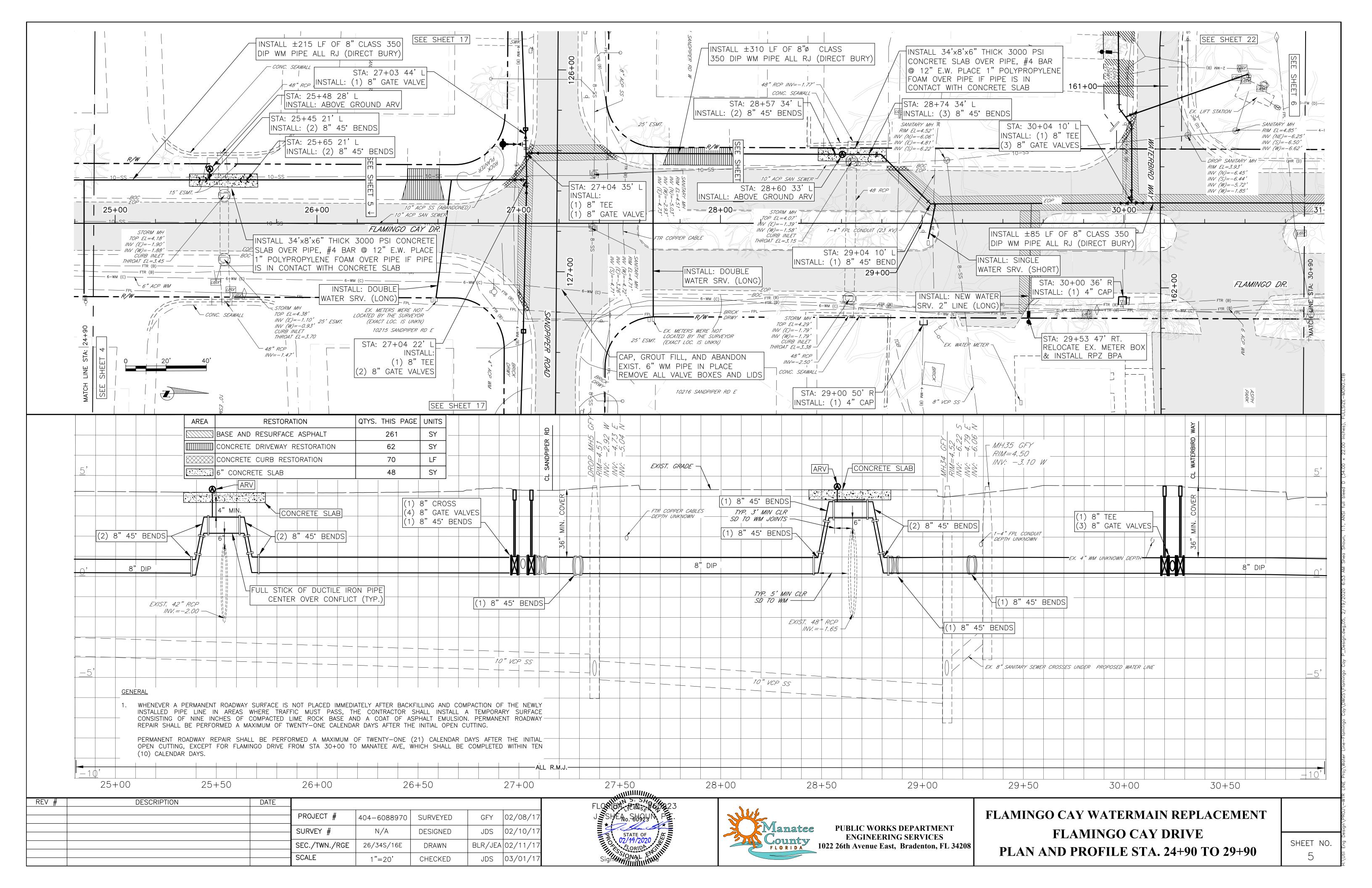


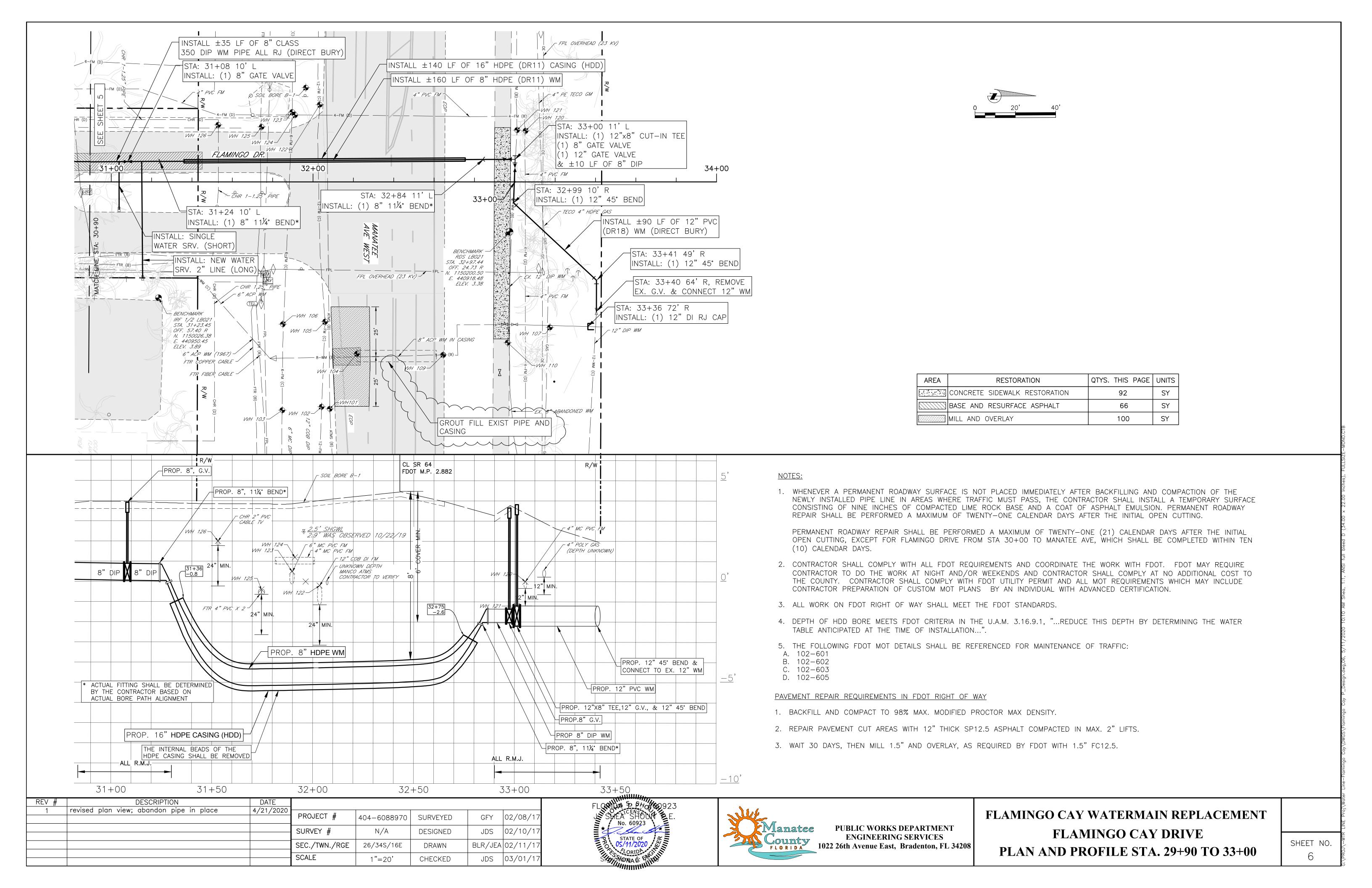
PUBLIC WORKS DEPARTMENT **ENGINEERING SERVICES** 1022 26th Avenue East, Bradenton, FL 34208 FLAMINGO CAY WATERMAIN REPLACEMENT

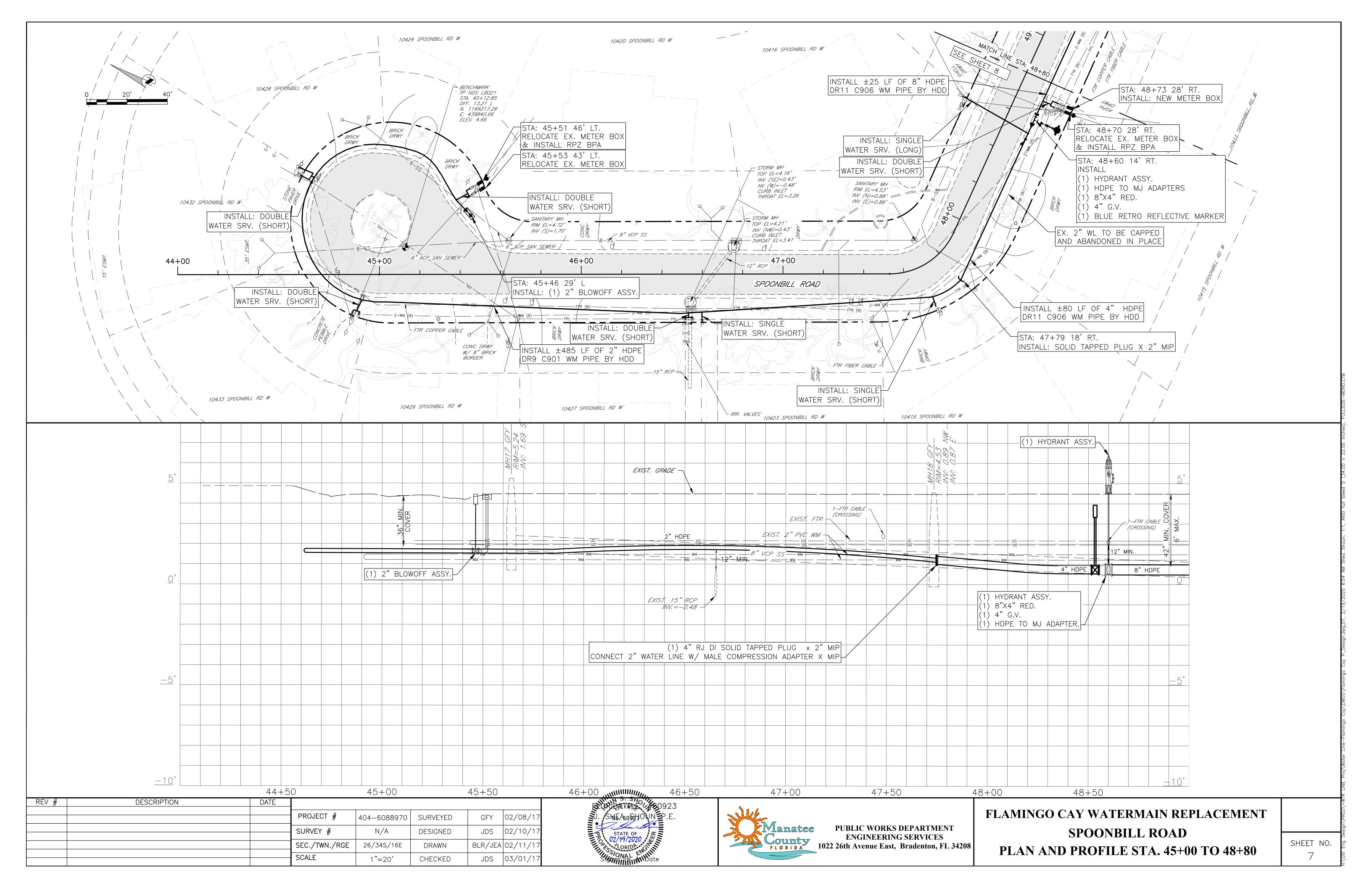
NOTES & LEGEND

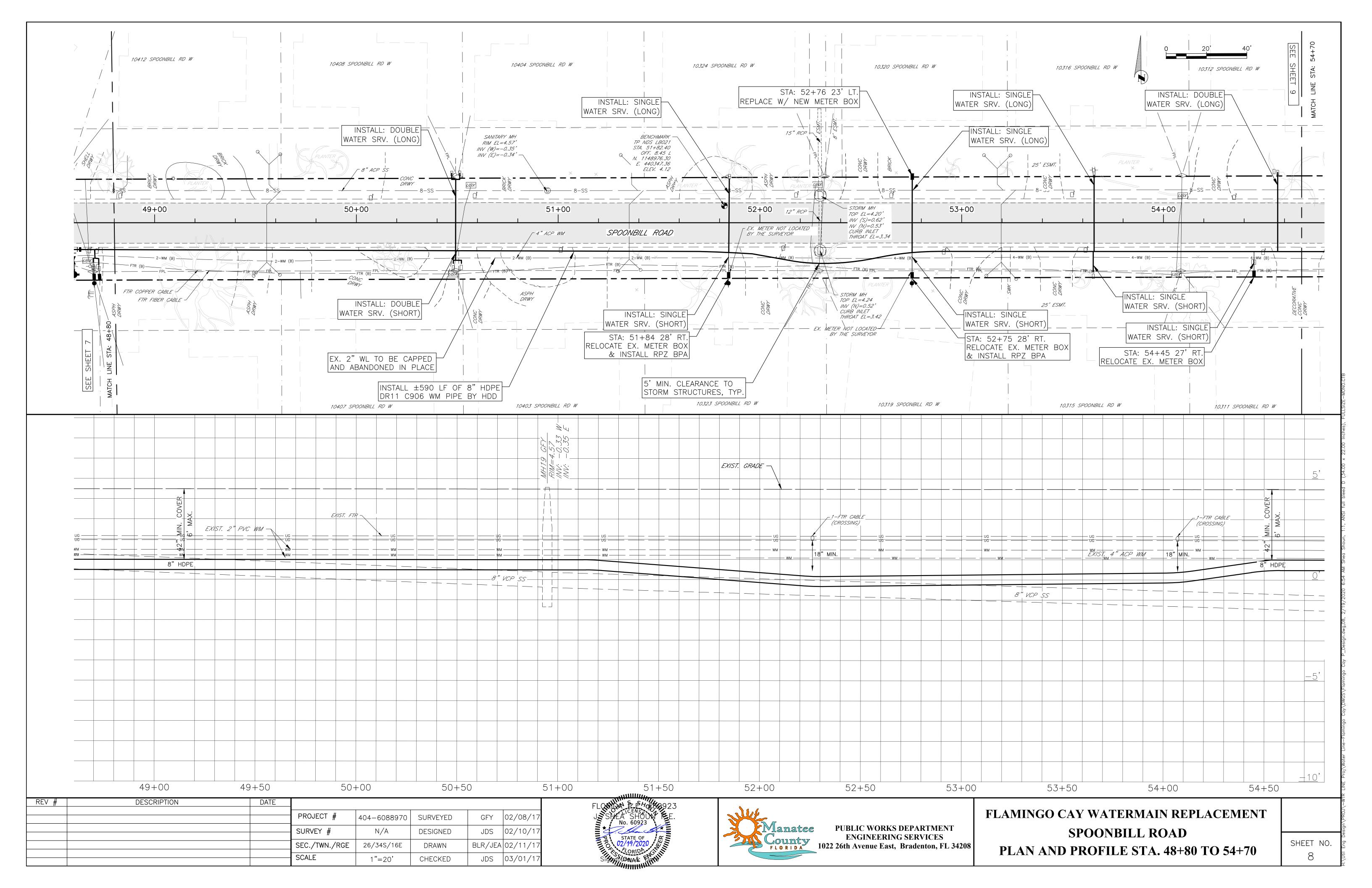


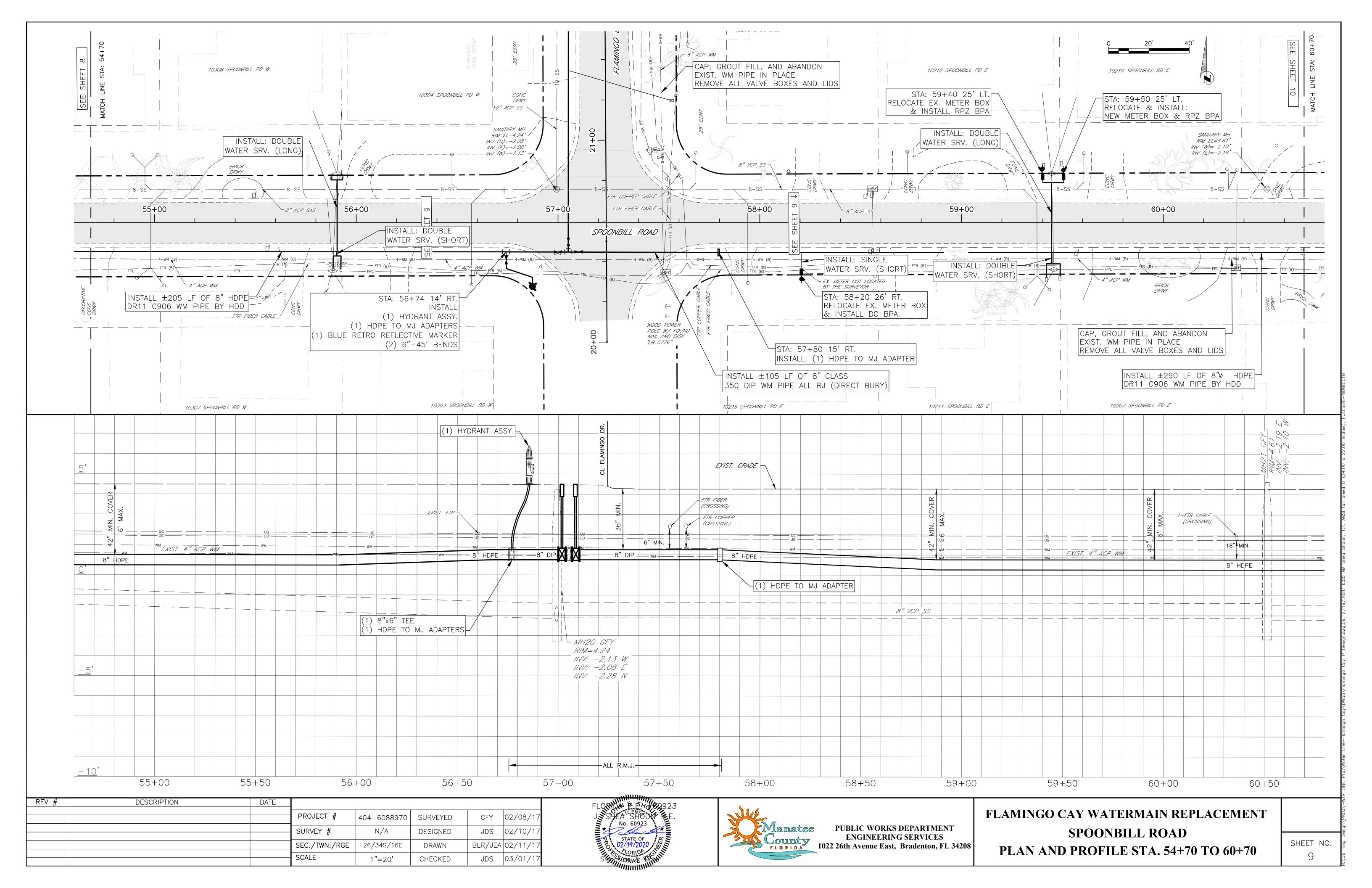


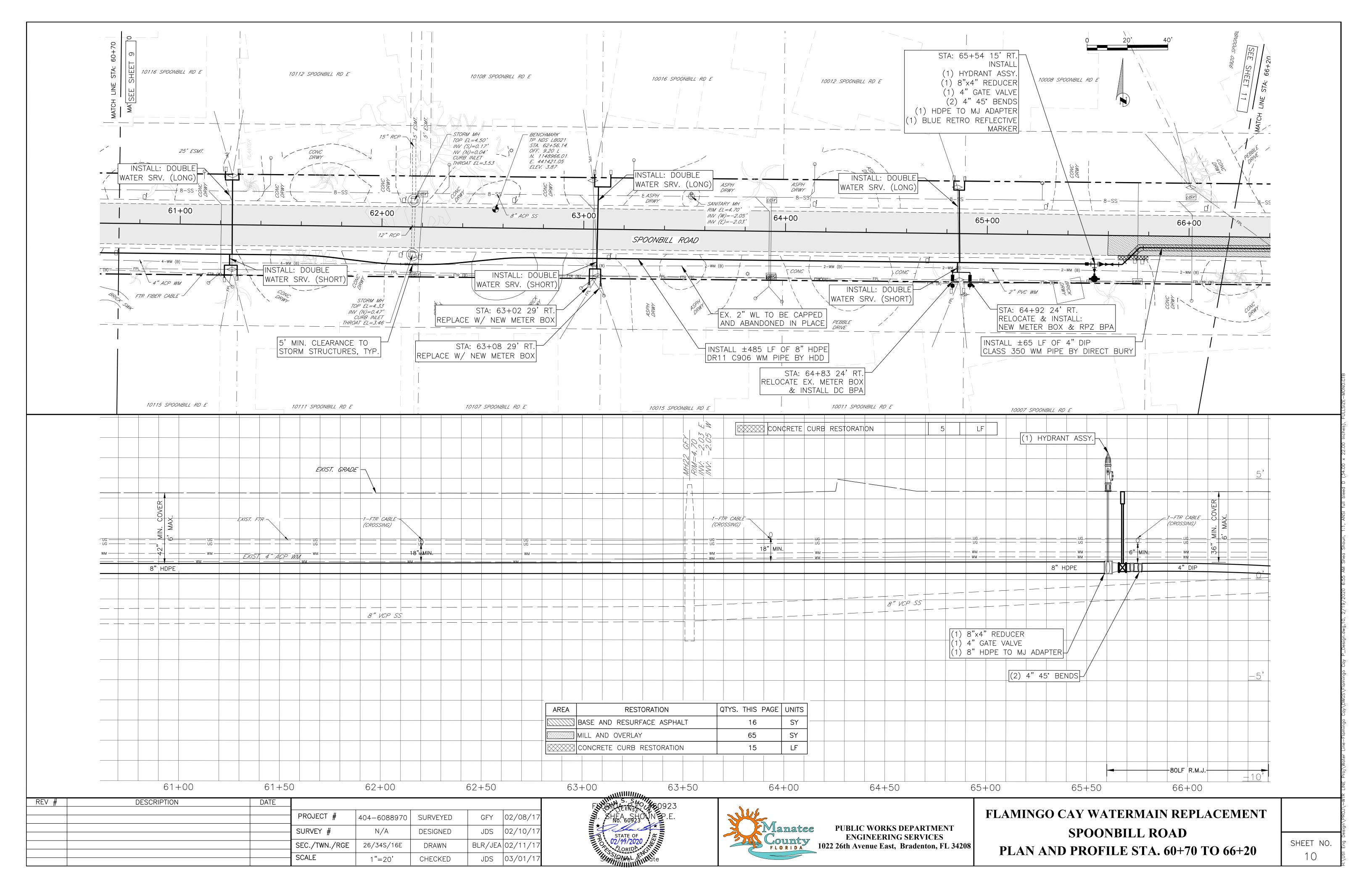


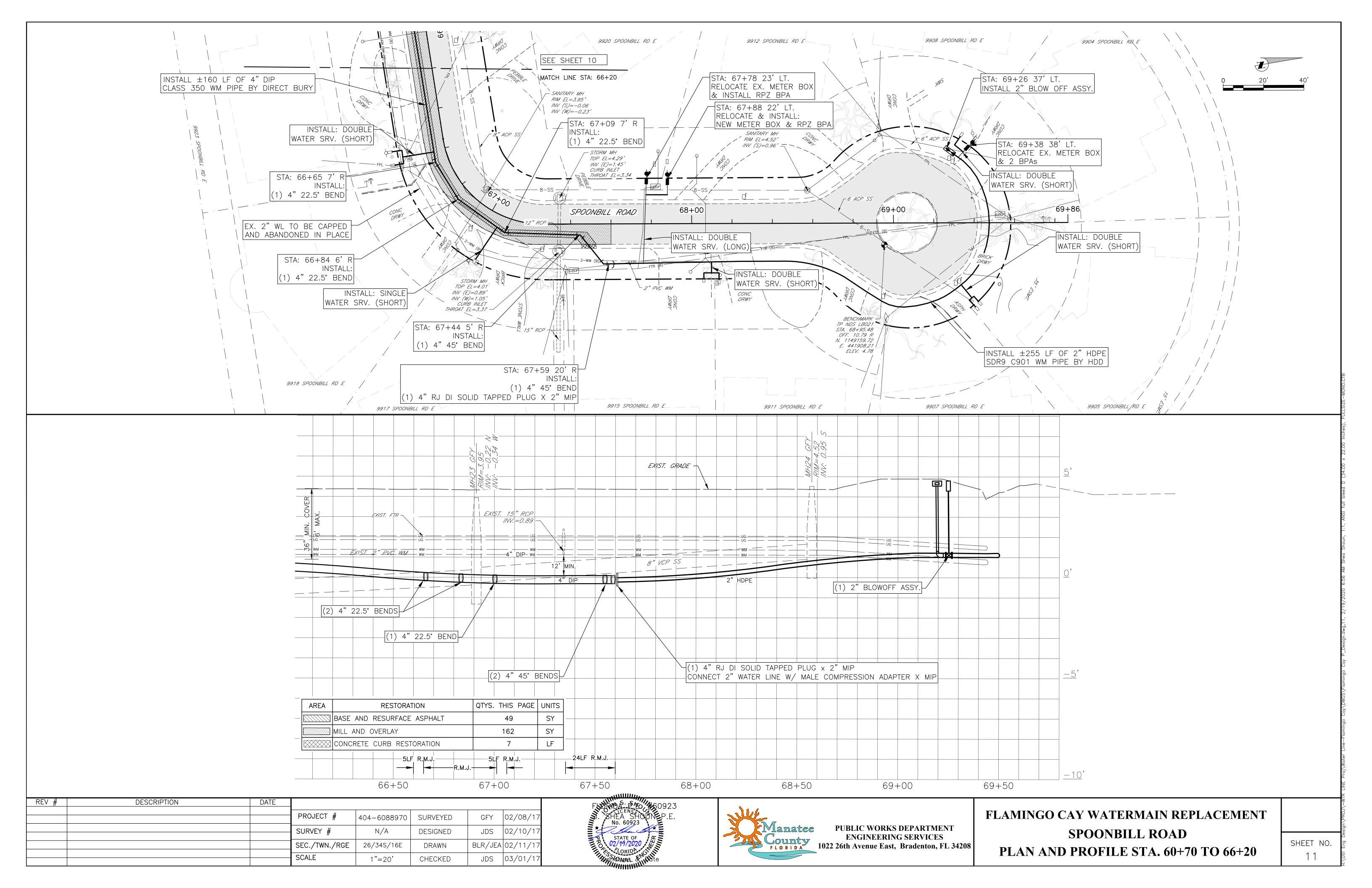


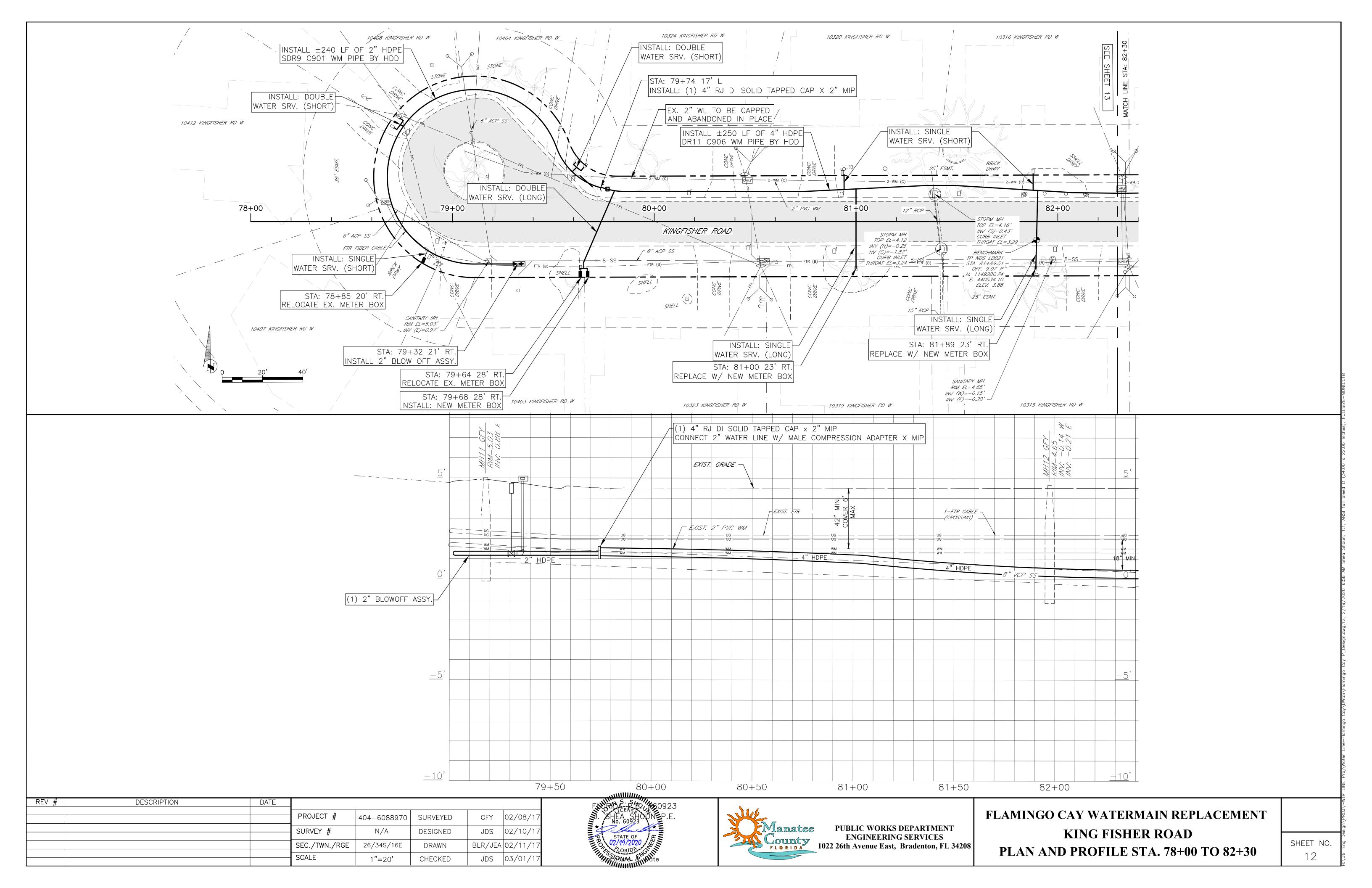


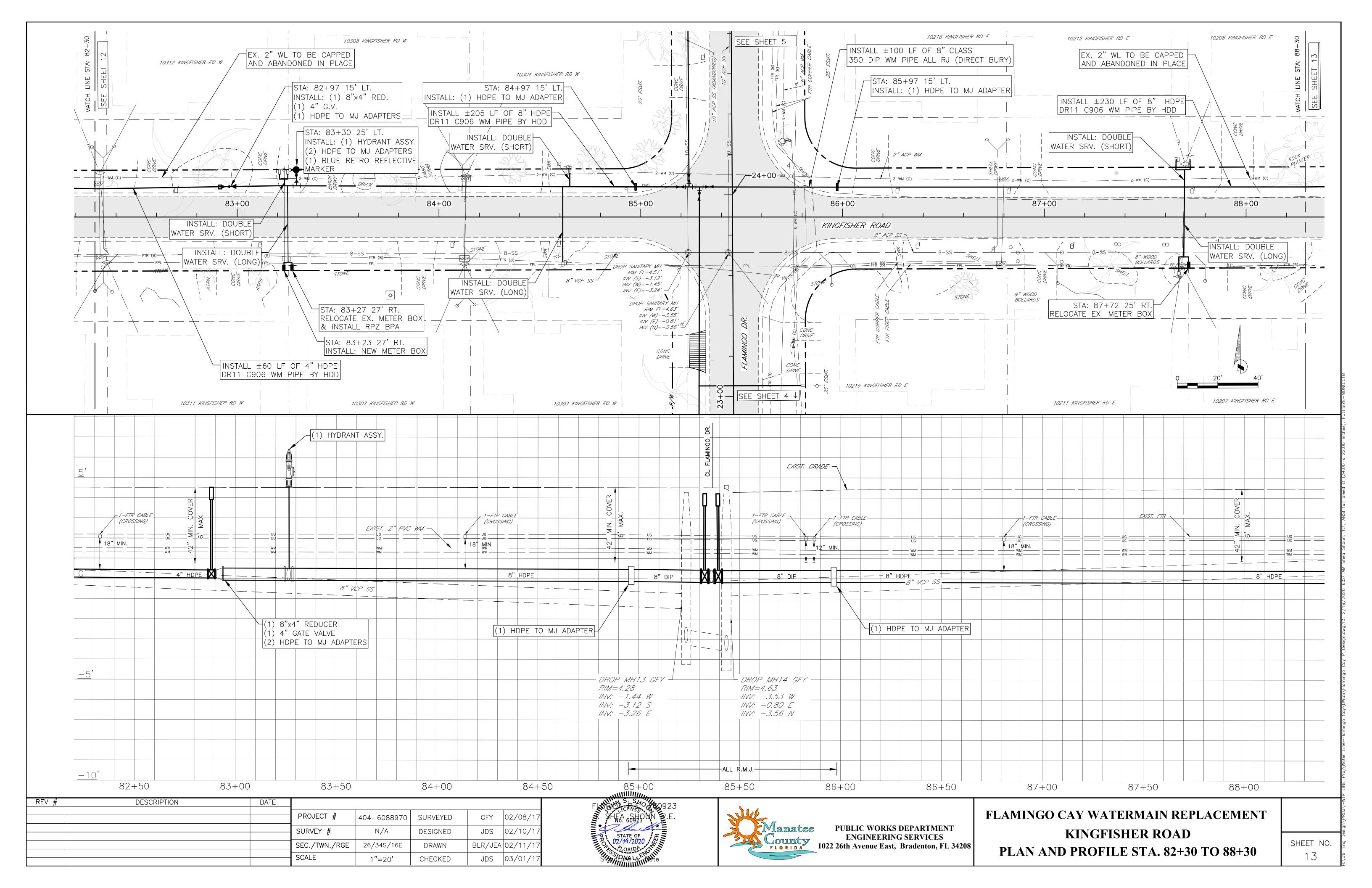


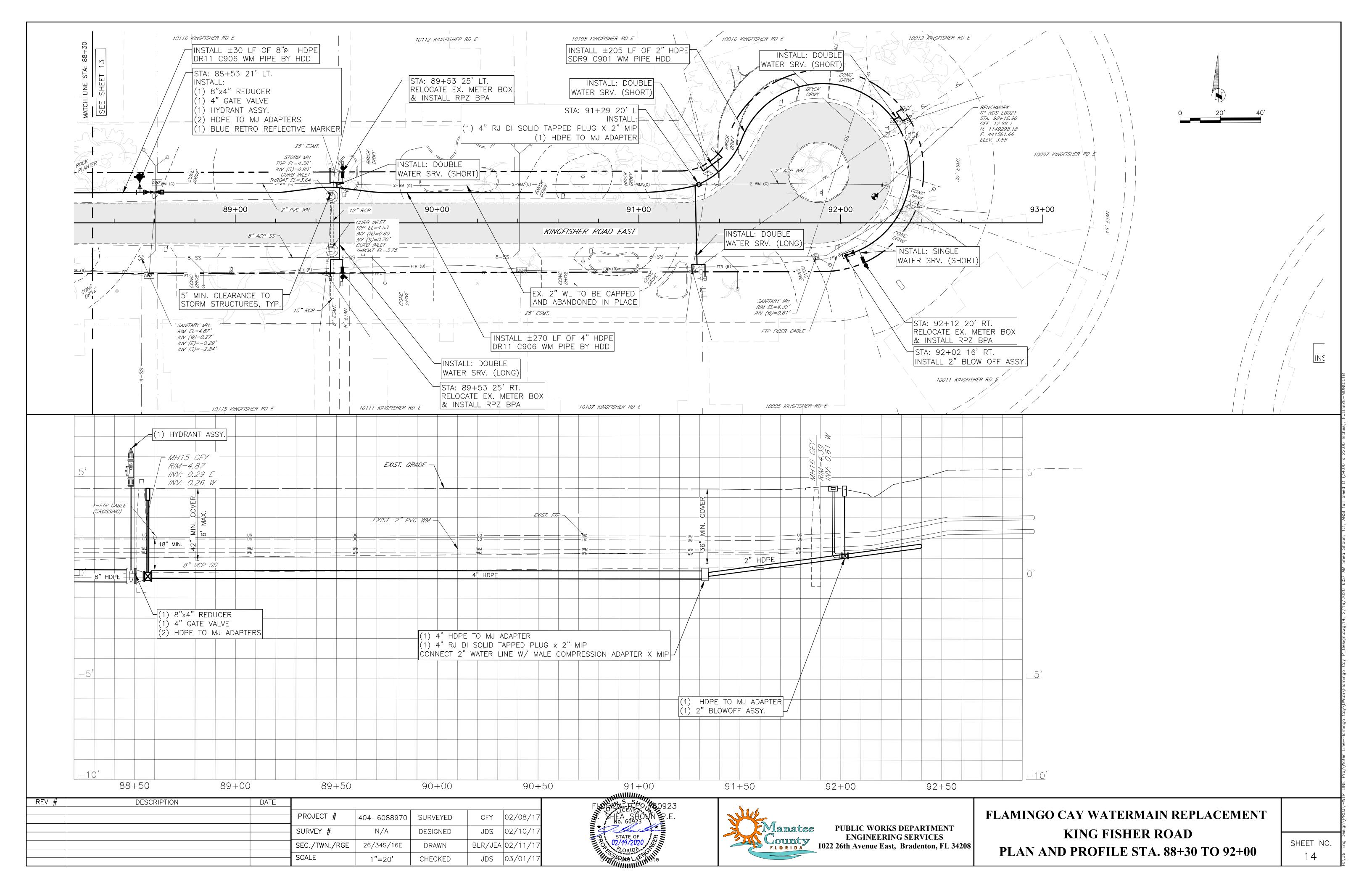


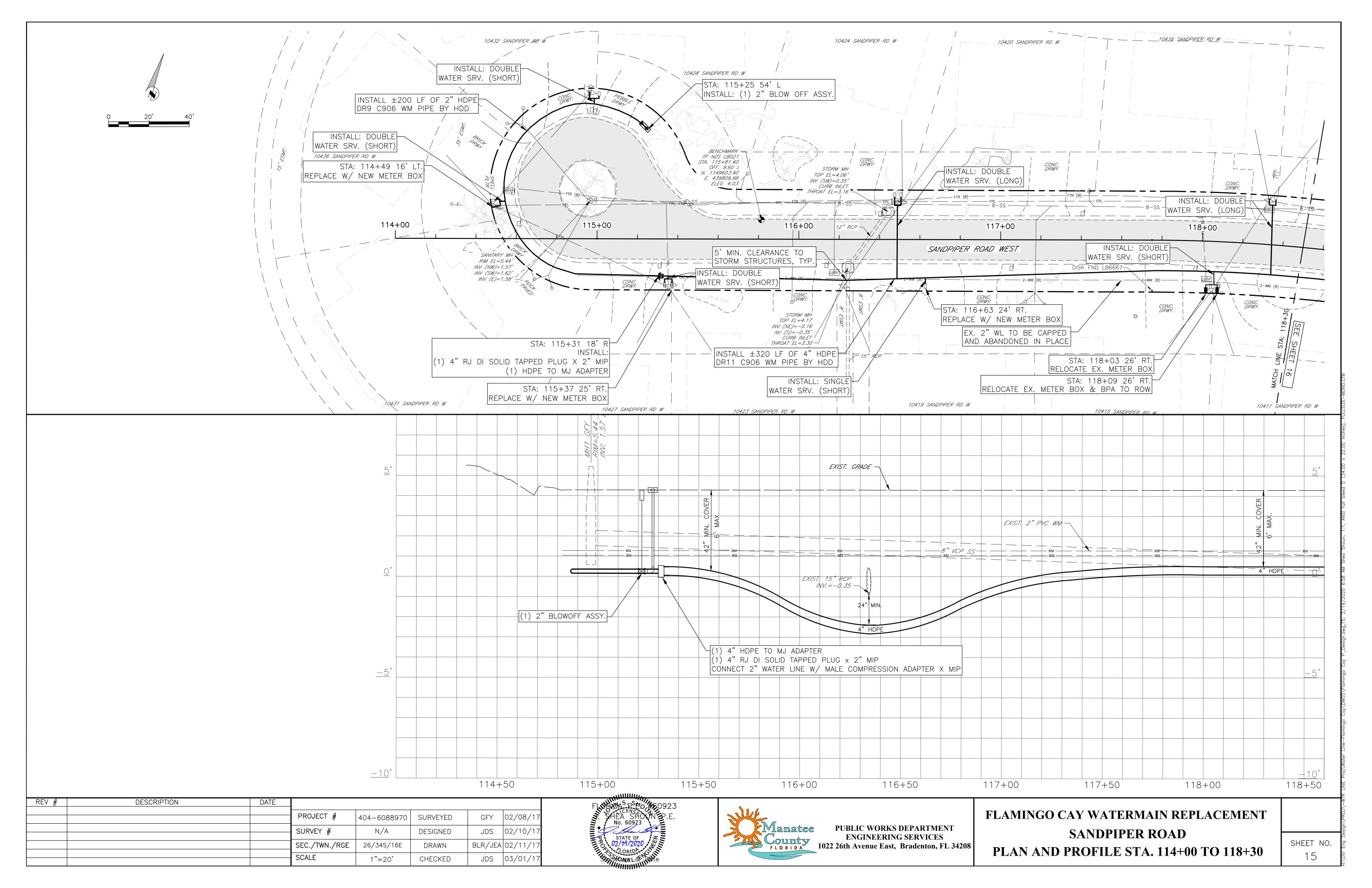


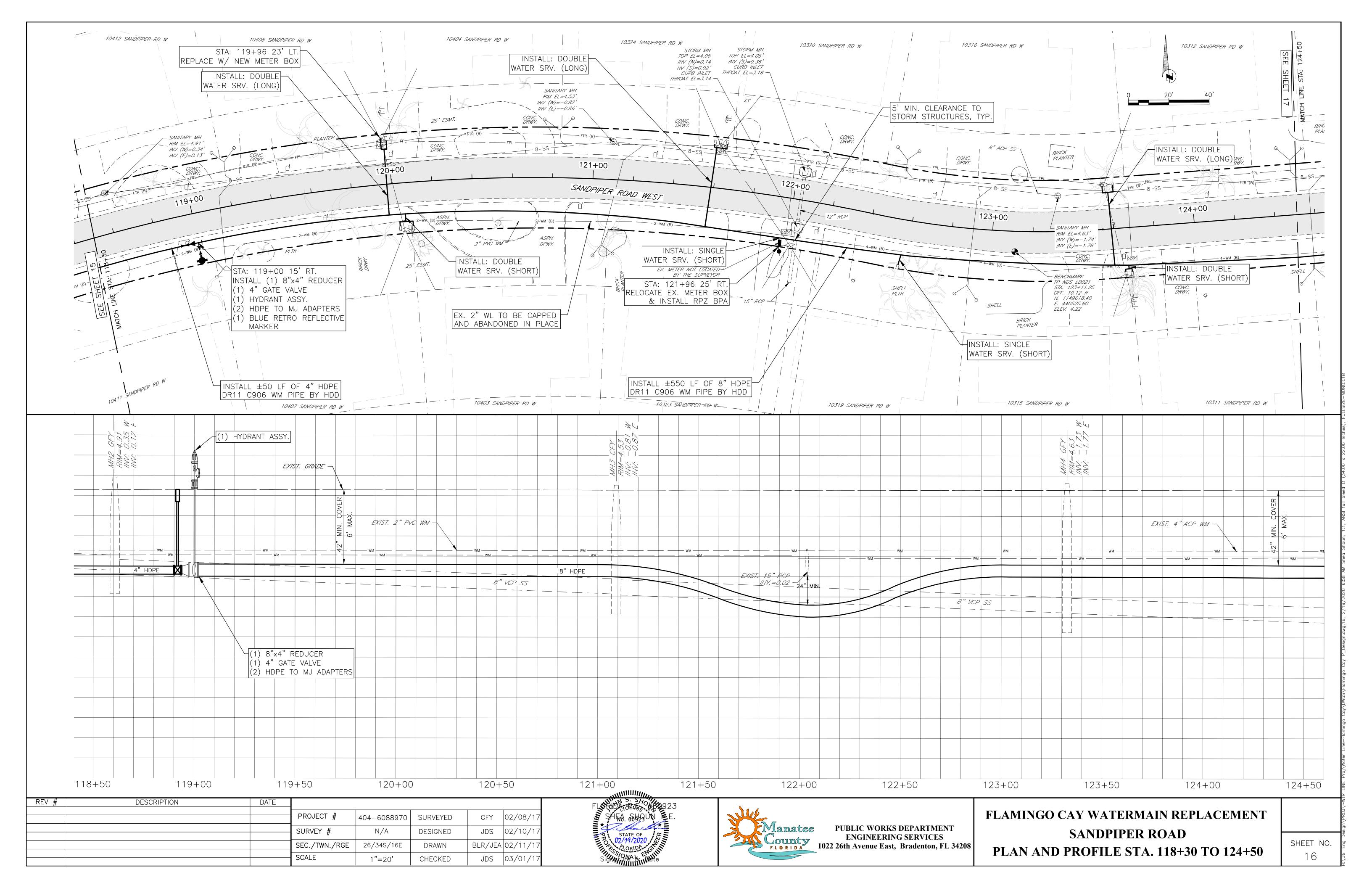


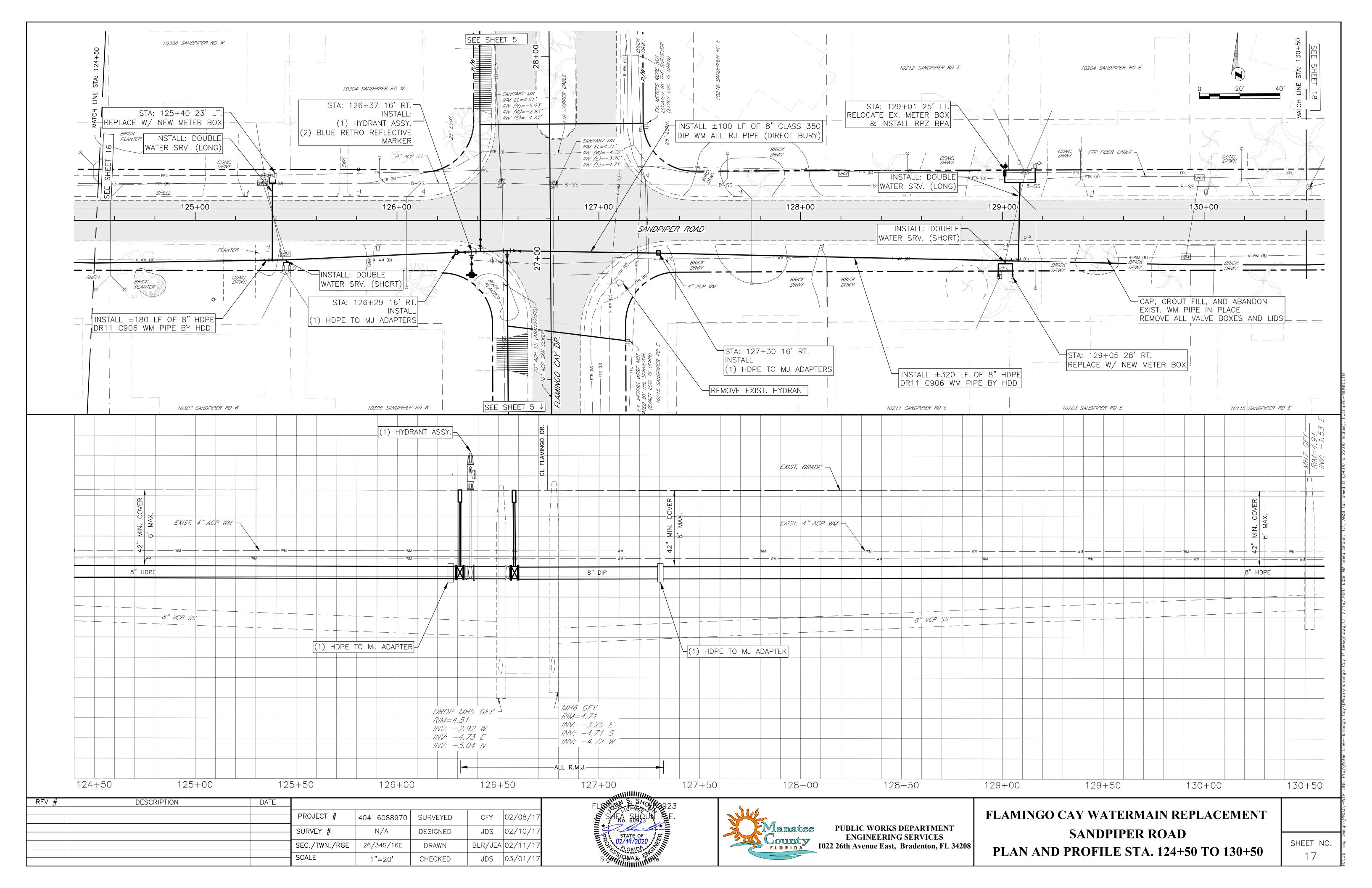


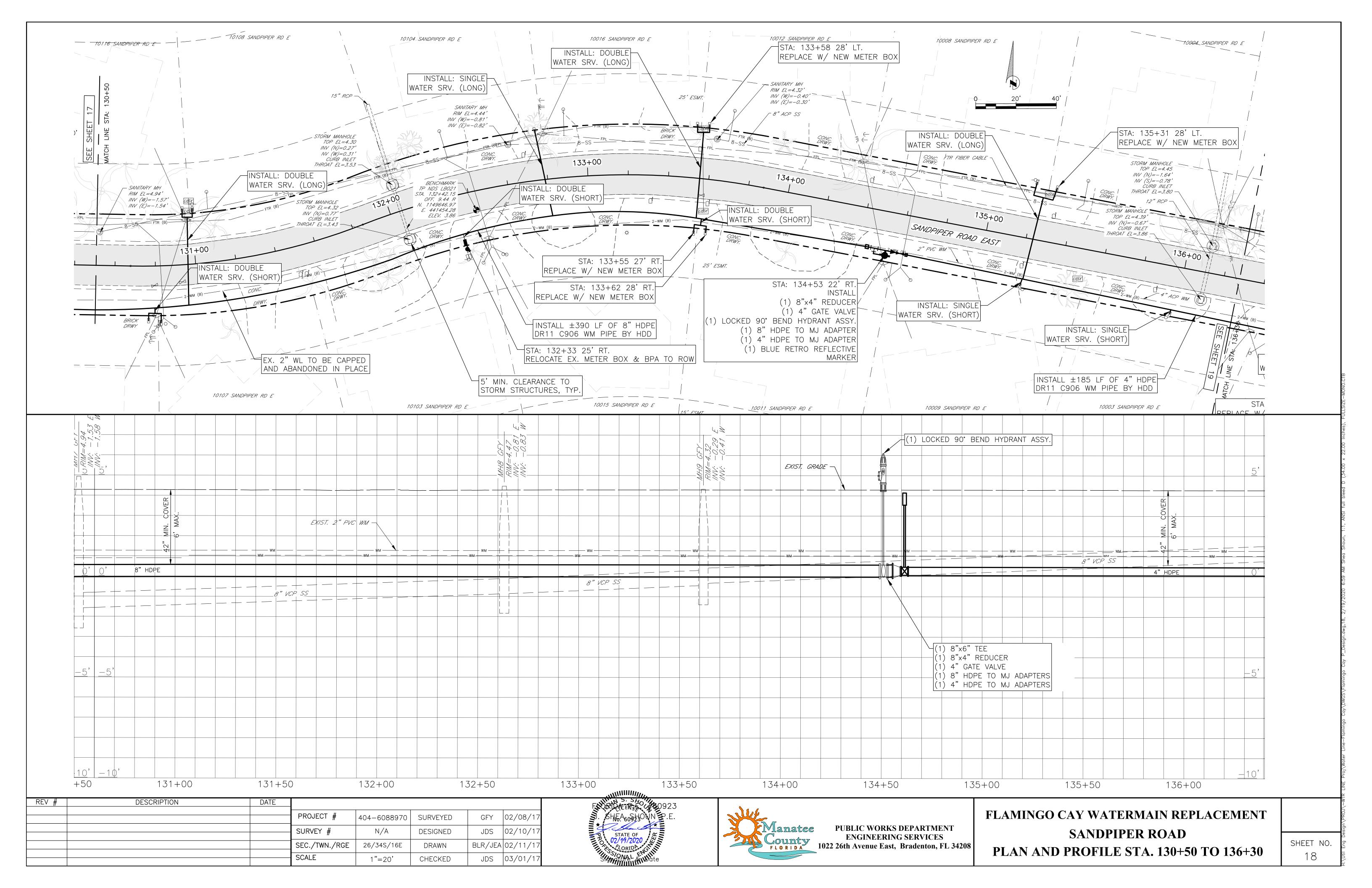


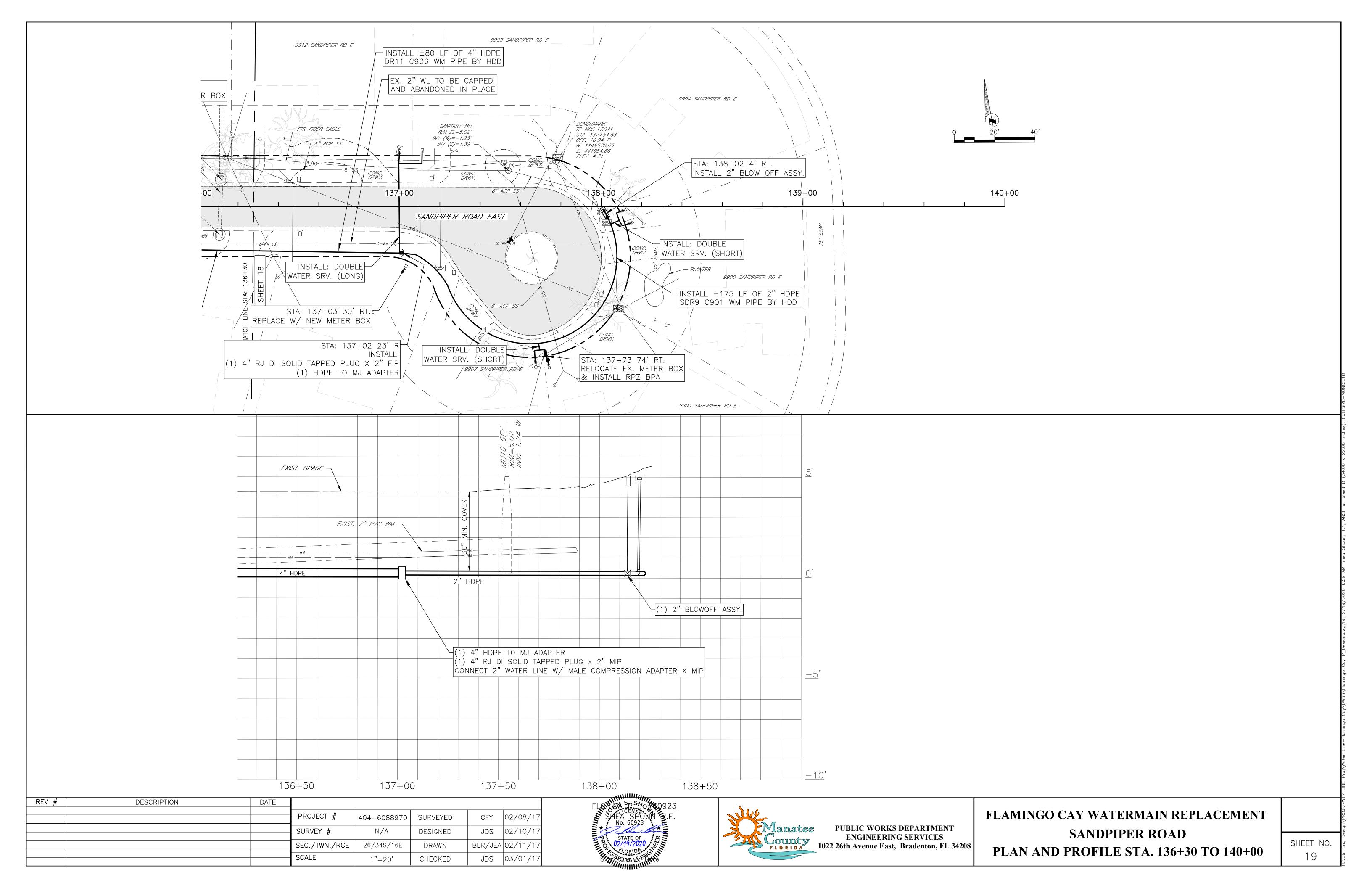


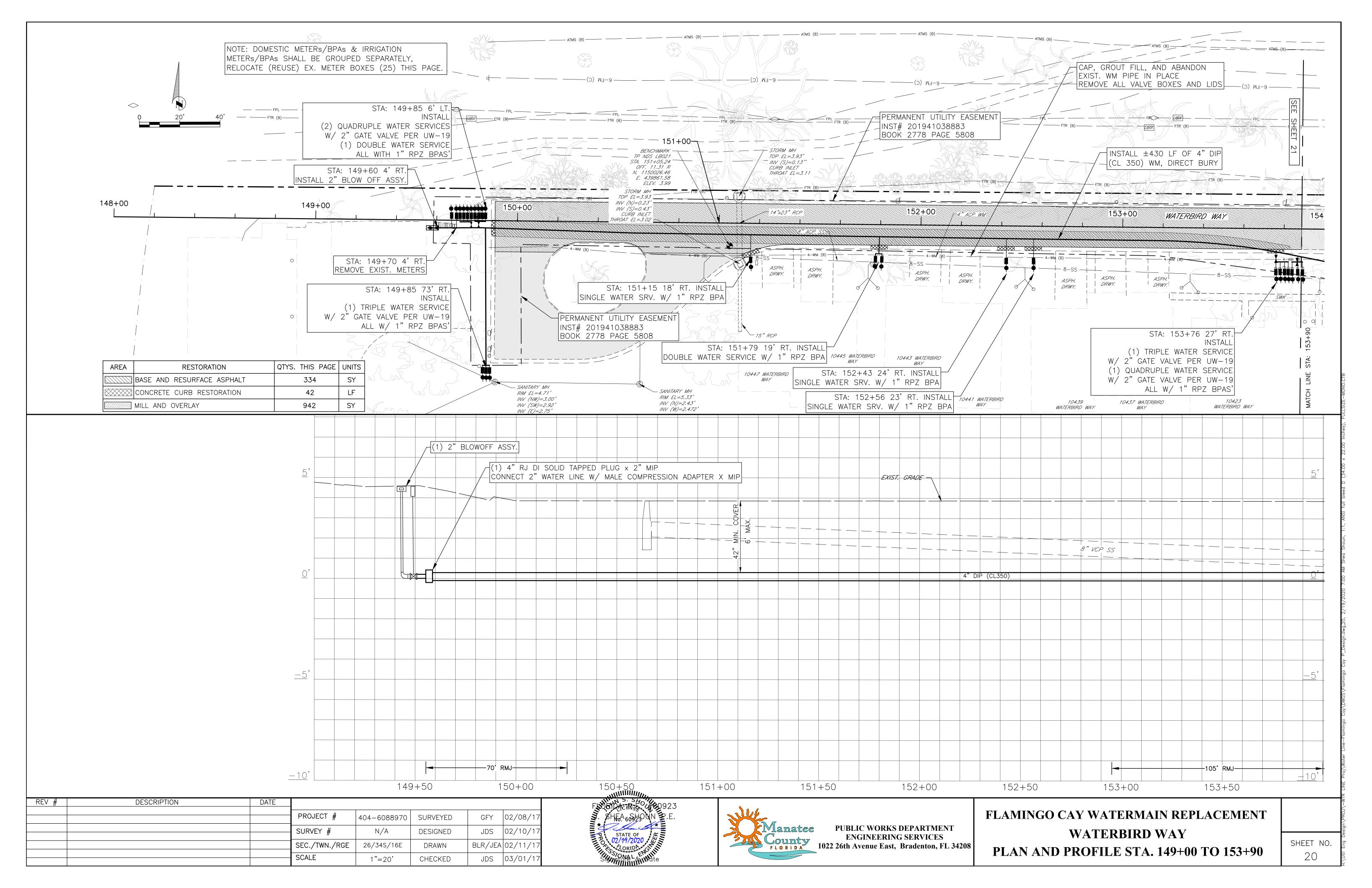


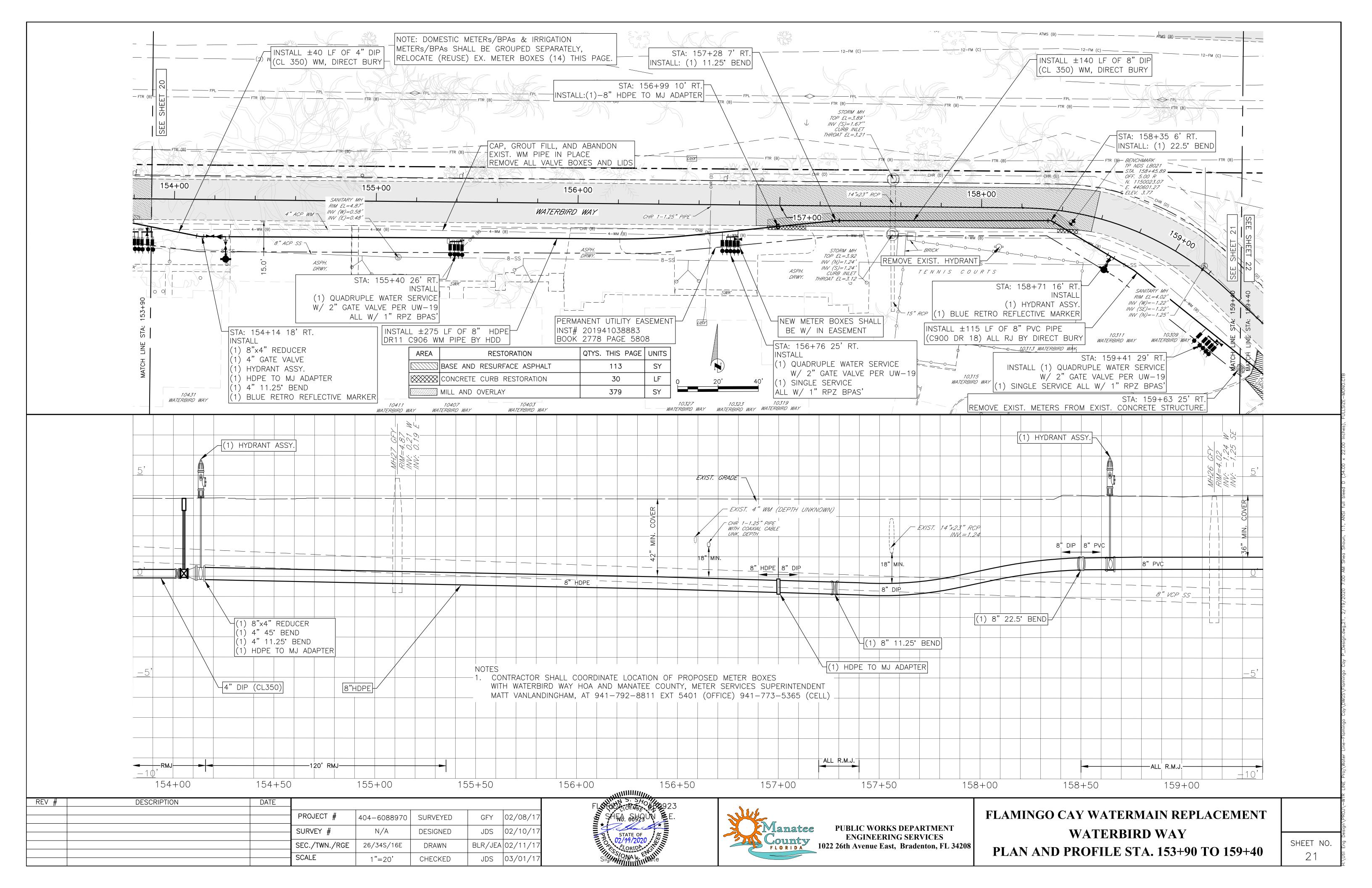


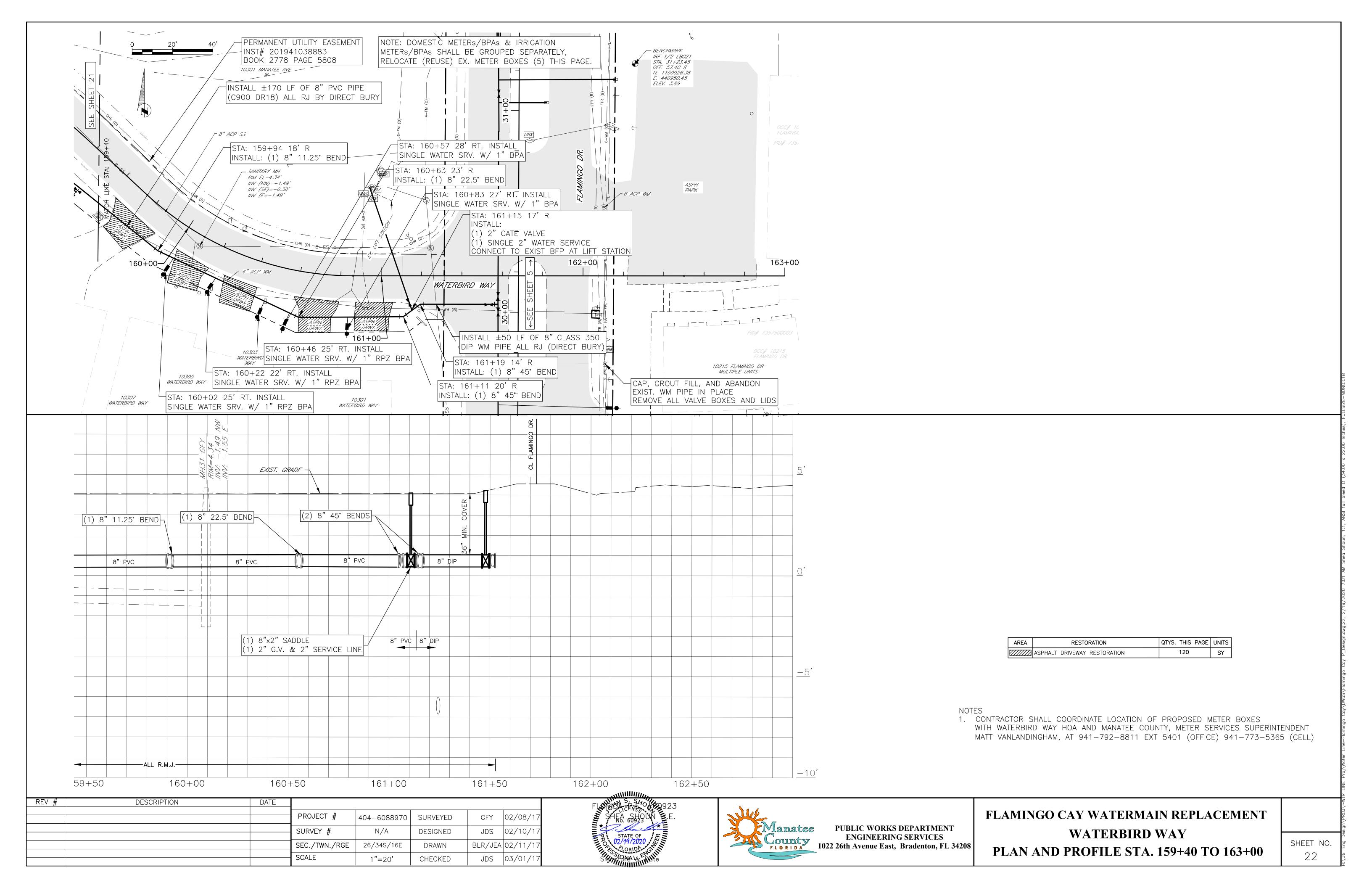


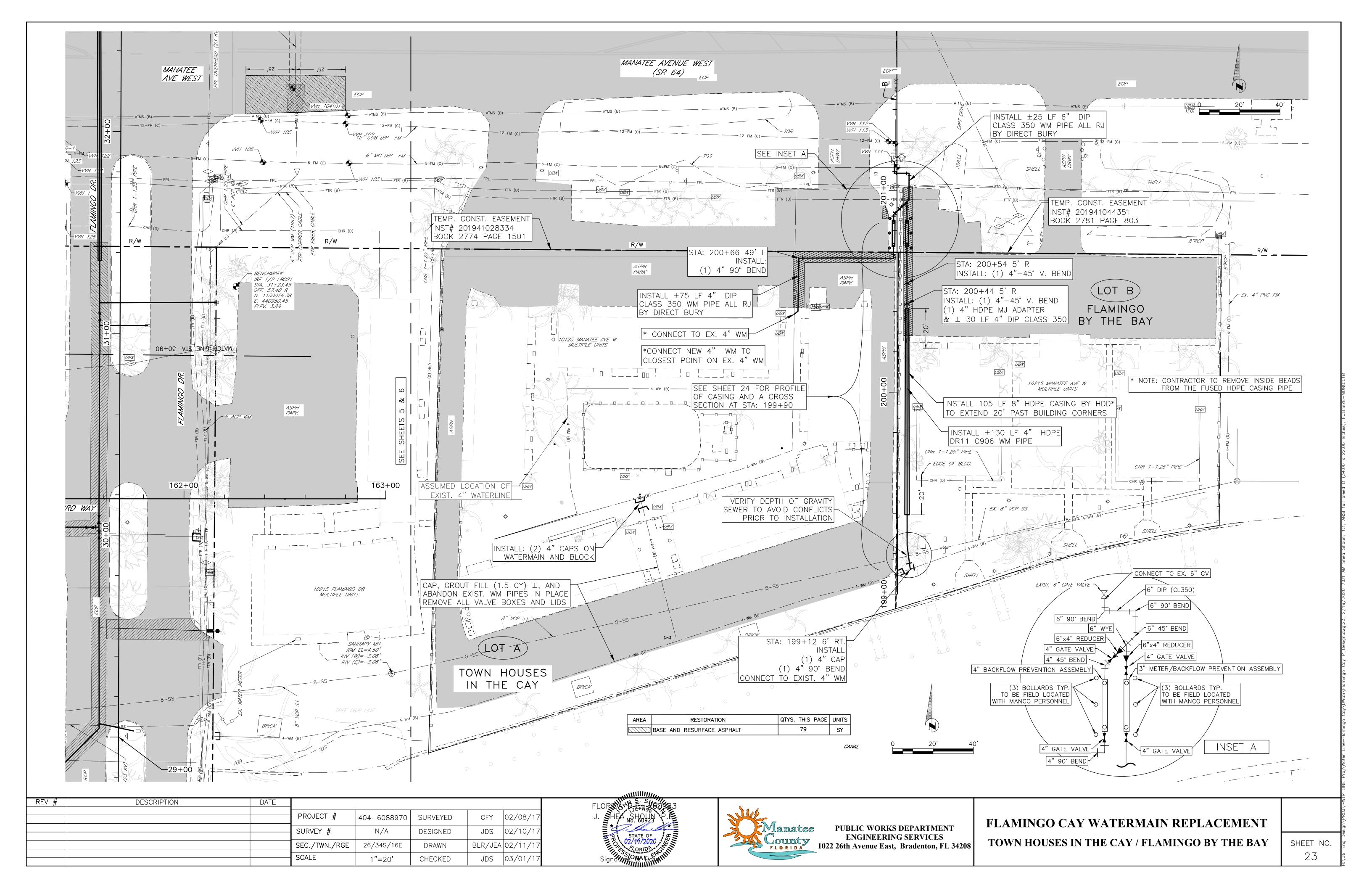


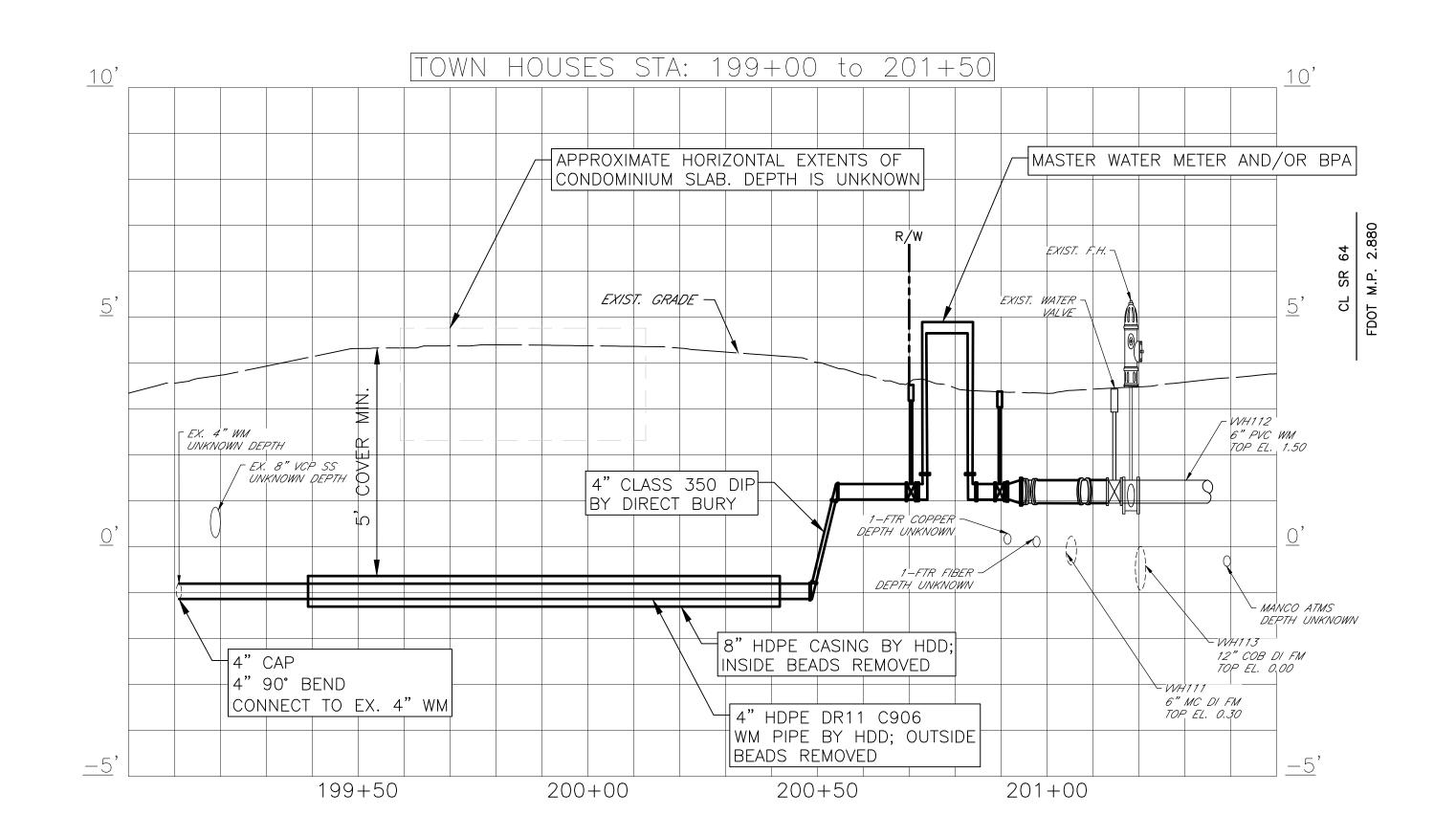


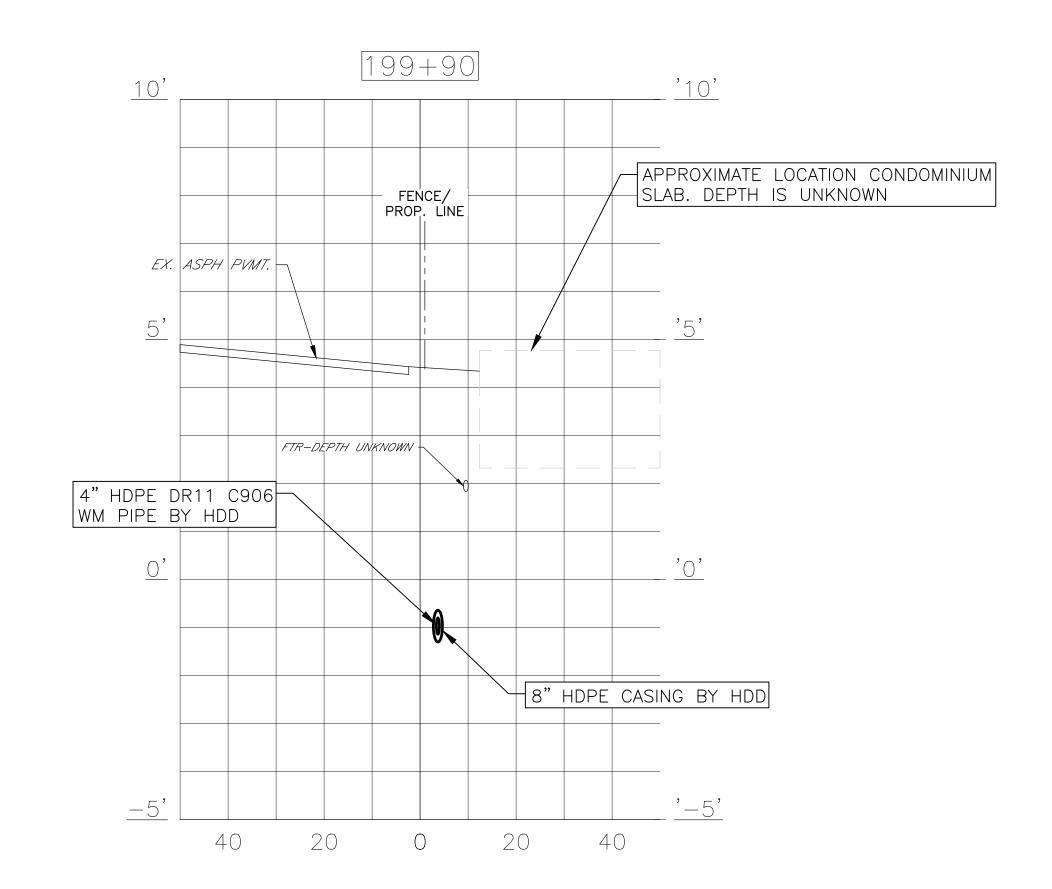




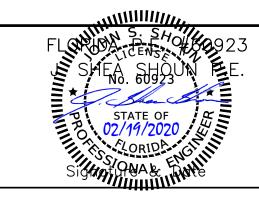




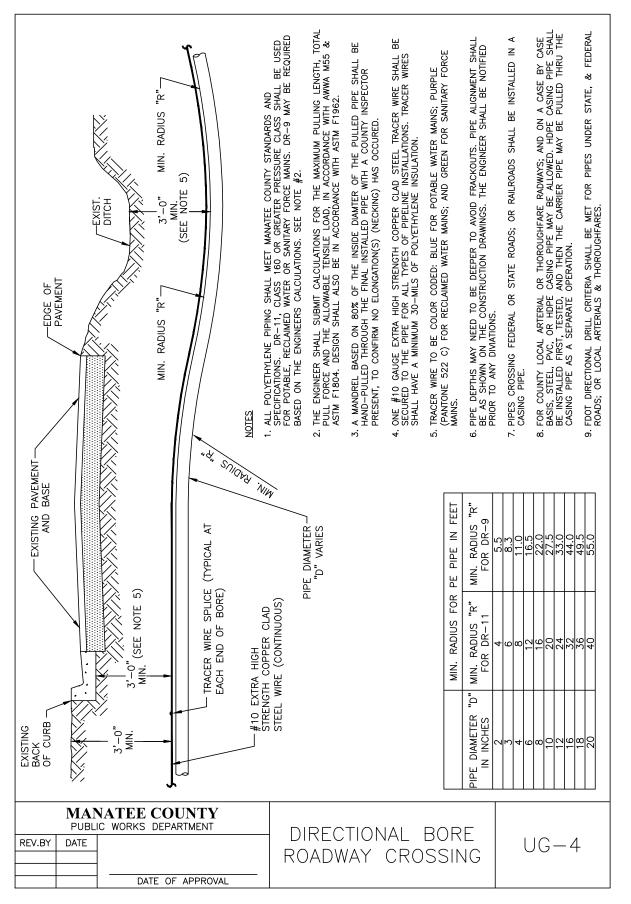


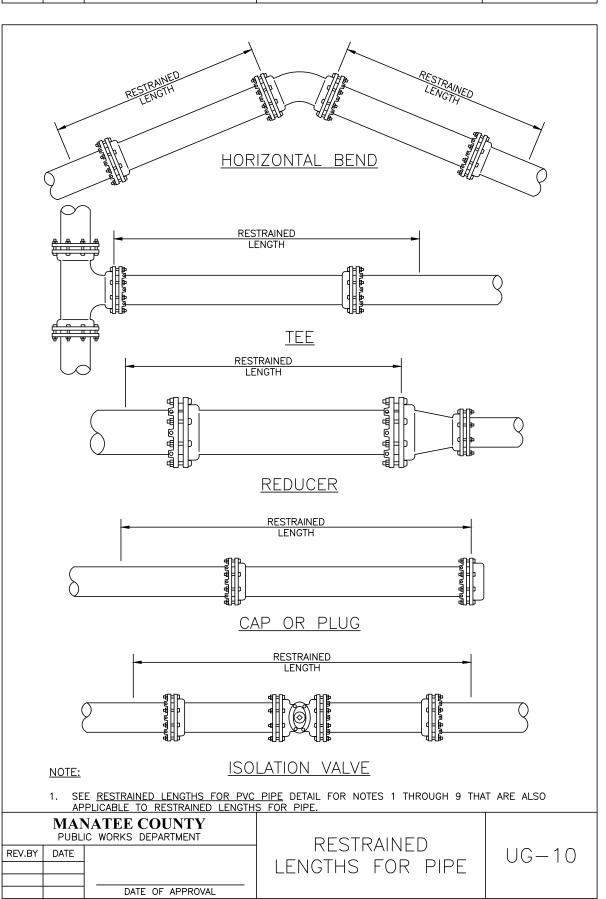


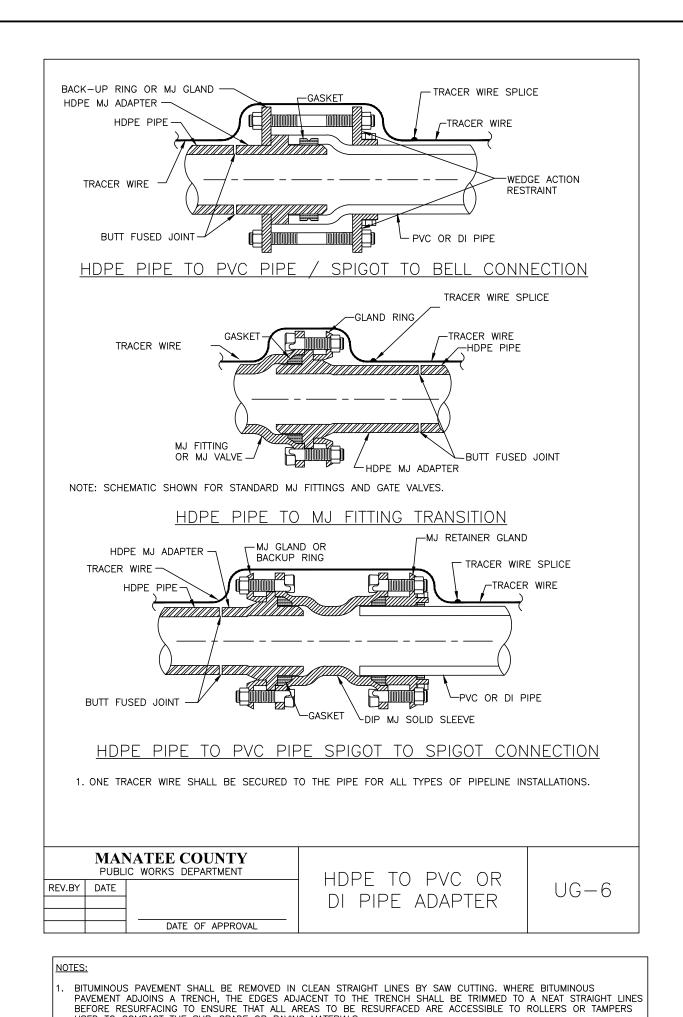
REV #	DESCRIPTION	DATE					
			PROJECT #	404-6088970	SURVEYED	GFY	02/08/17
			SURVEY #	N/A	DESIGNED	JDS	02/10/17
			SEC./TWN./RGE	26/34S/16E	DRAWN	BLR/JEA	02/11/17
			SCALE	1"=20'	CHECKED	JDS	03/01/17

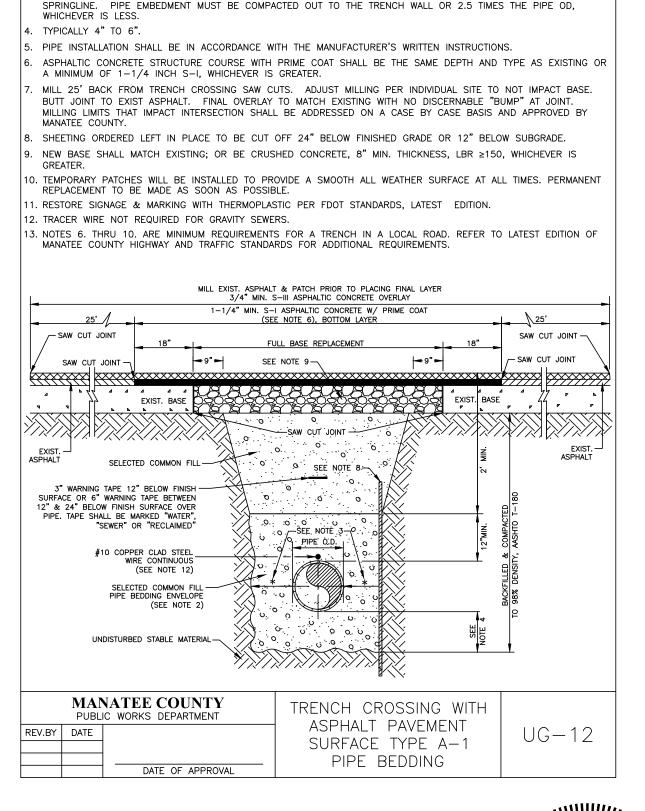








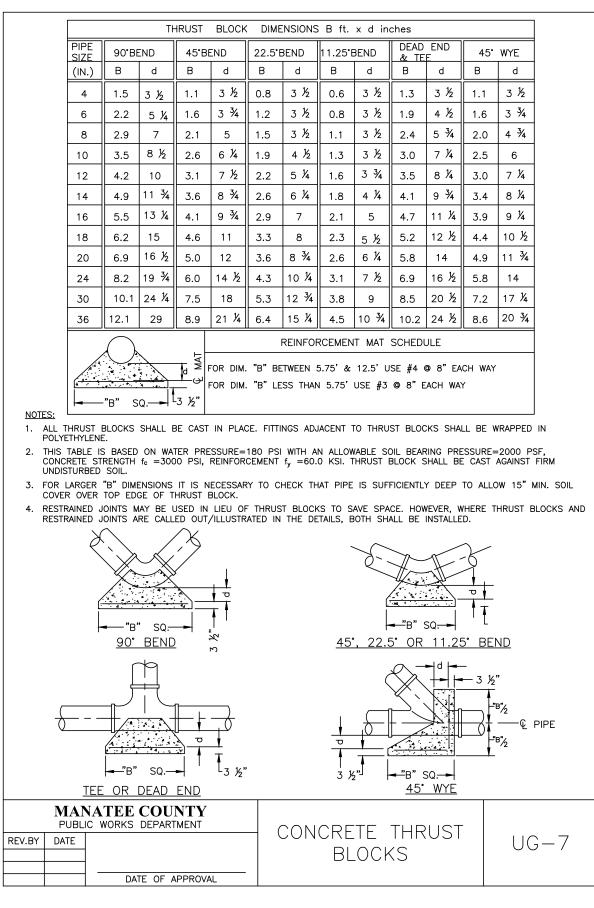


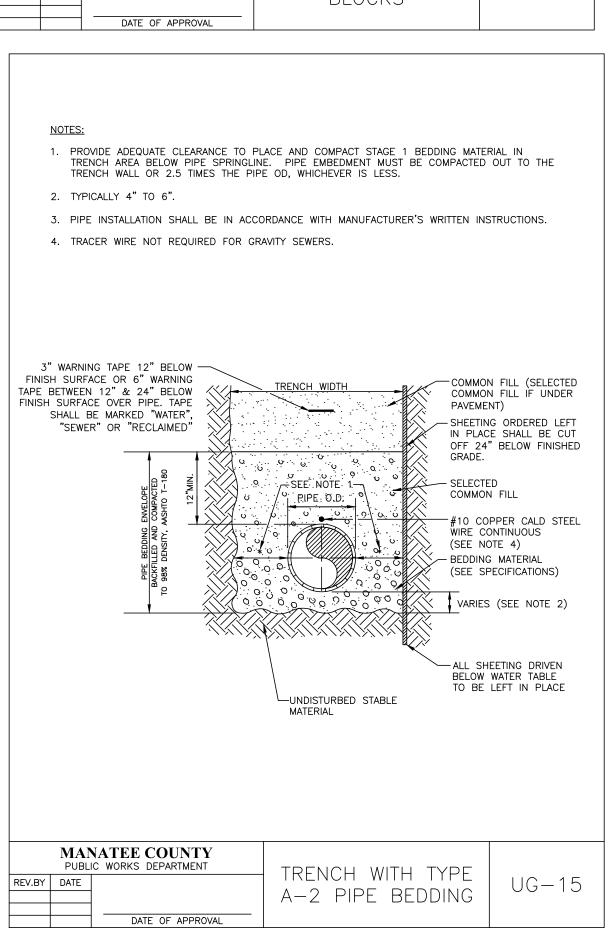


USED TO COMPACT THE SUB-GRADE OR PAVING MATERIALS.

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





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

_																
	MAIN PIPE	HOR	RIZ. B	BENDS			TE	ES				REDU	CERS		PLUGS 4	& VALVES
	SIZE	90.	45°	22.5*			SIZE	LENGTI	4			SIZE	LENGTH	4		
	36	142	59	28	x36 393	x30 318	x24 232	x20 165	x16 84	x12 1	X30 137	X24 247	X20 309	X16 359	4	53
	30	124	51	25	X30 333	X24 252	X20 189	X16 115	X12 23	x10 1	X24 137	X20 213	X16 276		3	391
	24	106	44	21	X24 270	X20 211	X16 143	X12 61	X10 10	x8 1	X20 98	X16 178	X12 241		3	27
	20	92	38	18	X20 225	X16 161	X12 85	X10 39	x8 ₁		X16 98	X12 176	X10 227		2	:80
	16	77	32	15	X16 177	X12 107	X10 65	X8 19	x6 ₁		X12 98	X10 163	X8 169		2	231
	12	61	25	12	X12 127	X10 89	X8 50	x6 ₁			X10 88	X8 96	X6 131		1	81
	10	52	22	10	X10 101	X8 64	x6 11				X8 51	X6 94	X4 125		1	53
	8	44	18	9	X8 78	X6 30	×4_1				X6 54	X4 92			1	28
	6	34	14	7	X6 46	x4_1					X4 50				,	98
	4	24	10	5	x4 19										(69

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

PILICS & VALVES

REDUCERS

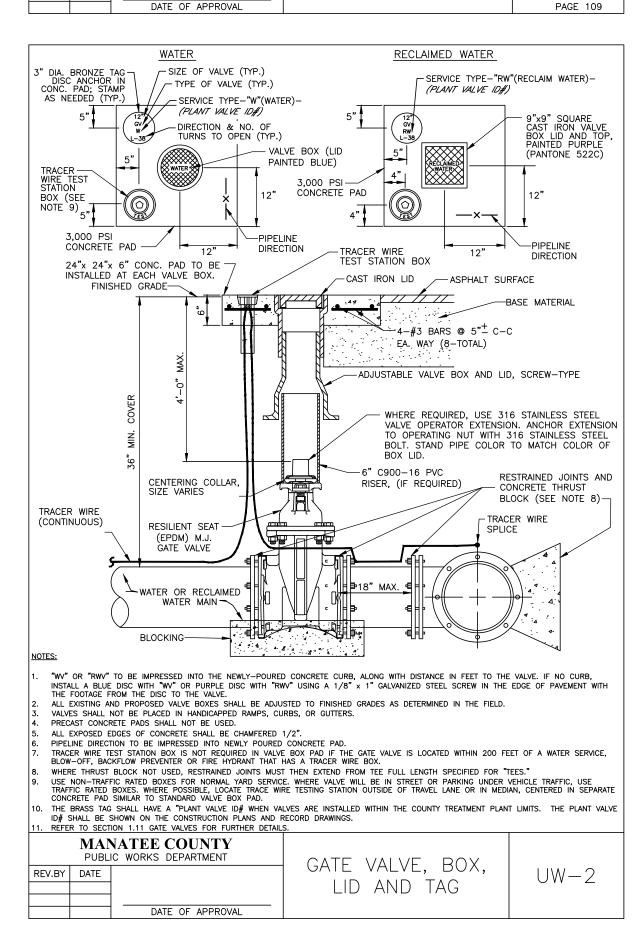
-	PIPE	l nor	NZ. D	ENDS		10	LLS				KEDU	CERS	Triugs &	VALVES
	SIZE	90,	45°	22.5°		SIZE	LENGTI	+			SIZE	LENGTH		
	36	100	42	20	x36 x30	132 ×24 96	x20 68	x16 35	x12	X30 57	X24 103	X20 X16 14!	18	8
	30	88	37	18	X30 X24	X20 104 78	X16 48	X12 10	x10_1	X24 57	X20 88	X16 114	16	2
	24	75	31	15	X24 X20	X16 87 59	X12 25	×104	x8 ₁	X20 40	X16 74	X12 100	13	5
	20	65	27	13	X20 X16	X12 67 35	X10 16	x8_1		X16 41	X12 73	X10 94	11	6
	16	54	22	11	X16 73 X12	X10 44 27	x8 ₈	x6_1		X12 41	X10 68	X8 70	96	5
	12	43	18	8	X12 X10	X8 21	x6 ₁			X10 37	X8 40	X6 54	75	5
	10	37	15	7	X10 X8	26 ×6 5				X8 21	X6 39	X4 52	63	3
	8	30	13	6	X8 X6	12 ×4 1				X6 22	X4 38		53	3
	6	24	10	5	X6 x4					X4 21			4	1
	4	17	7	3	x4 8								29)
-											·			

NOTE:

MAIN HORIZ BENDS

SEE <u>RESTRAINED LENGTHS FOR PVC PIPE</u> DETAIL FOR NOTES 1 THROUGH 8 THAT ARE ALSO APPLICABLE TO RESTRAINED LENGTHS FOR DIP.

		NATEE COUNTY IC WORKS DEPARTMENT	RESTRAINED	
REV.BY	DATE		1 (2011 () (11 (2)	UG-9
CLB/BR	11/10	MAY 10, 2011	LENGTHS FOR DIP	
				DAOE 400



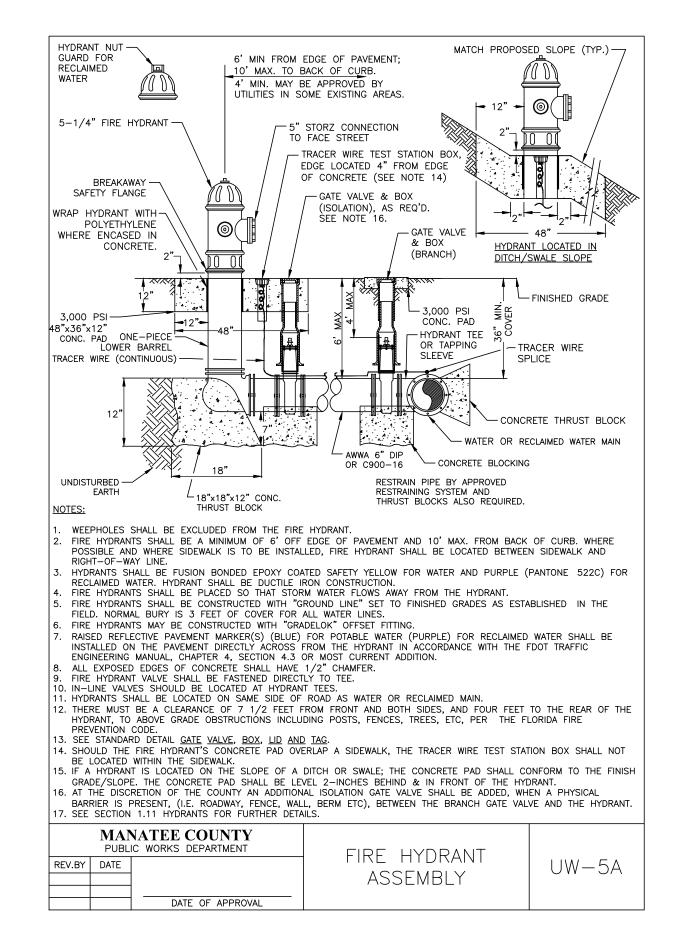
REV #	DESCRIPTION	DATE					
			PROJECT #	404-6088970	SURVEYED	GFY	02/08/17
			SURVEY #	N/A	DESIGNED	JDS	02/10/17
			SEC./TWN./RGE	26/34S/16E	DRAWN	BLR/JEA	02/11/17
			SCALE	1"=20'	CHECKED	JDS	03/01/17

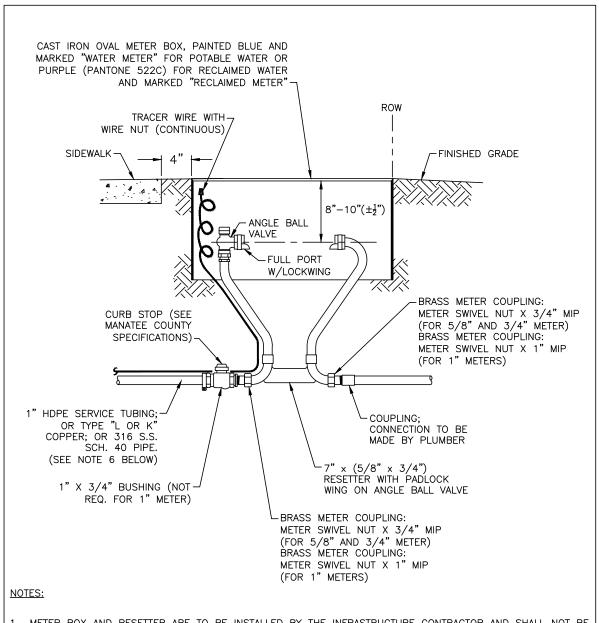




PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1022 26th Avenue East, Bradenton, FL 34208

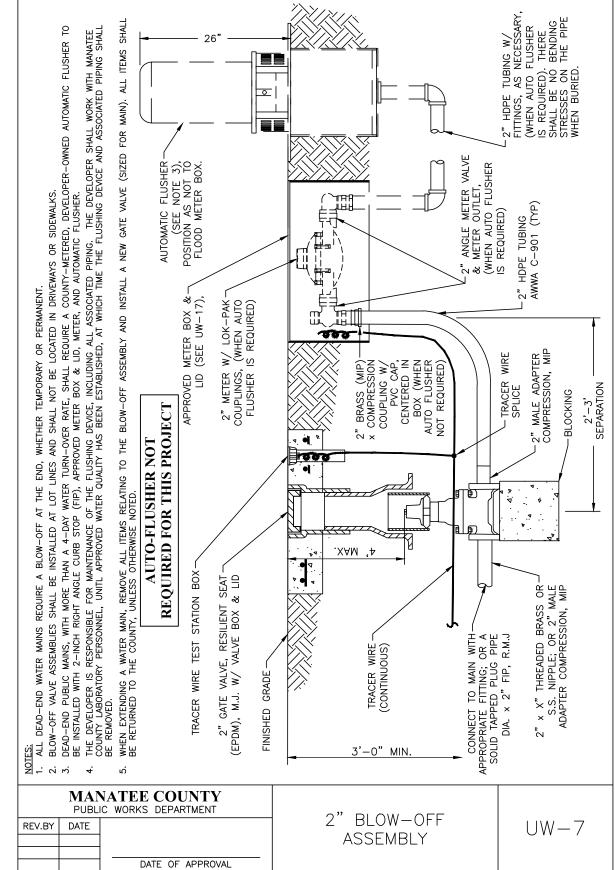
FLAMINGO CAY WATERMAIN REPLACEMENT DETAILS

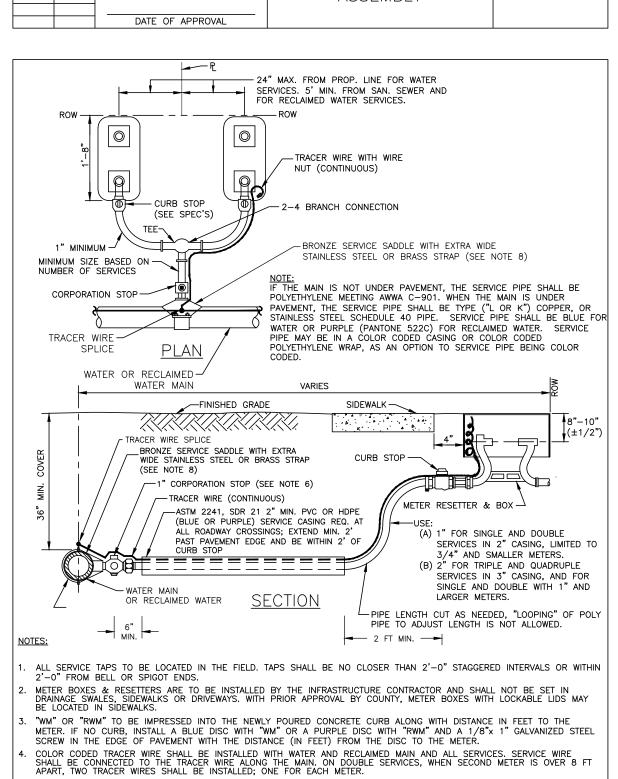




- METER BOX AND RESETTER ARE TO BE INSTALLED BY THE INFRASTRUCTURE CONTRACTOR AND SHALL NOT BE SET IN DRAINAGE SWALES, SIDEWALKS OR DRIVEWAYS. WITH PRIOR APPROVAL BY COUNTY, METER BOXES WITH LOCKABLE LIDS MAY BE LOCATED IN SIDEWALKS.
- THE METER RESETTER SHALL BE INSTALLED IN SUCH A MANNER AS TO ALLOW REMOVAL AND REPLACEMENT WITHOUT DISTURBING THE STRUCTURAL INTEGRITY OF THE PIPING SYSTEM, THE SHUTOFF VALVES, OR THE
- FOR COMPLETE SERVICE CONNECTION ASSEMBLY, SEE DETAIL 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.
- 6. HDPE SERVICE TUBING SHALL NOT BE CRIMPED OR KINKED TO RE-ADJUST CURB STOP LOCATION.

			EB ON MINNEB TO THE PROCEST COMB CTCT	
		NATEE COUNTY IC WORKS DEPARTMENT	METER BOX ASSEMBLY	
REV.BY	DATE		FOR 5/8" X 3/4",	UW - 17
			3/4" & 1" METERS	
		DATE OF APPROVAL	,	





WATER AND RECLAIMED WATER SERVICE LINES TO BE 5' MINIMUM FROM SEWER SERVICE PIPES.

MANATEE COUNTY

PUBLIC WORKS DEPARTMENT

DATE OF APPROVAL

REV.BY DATE

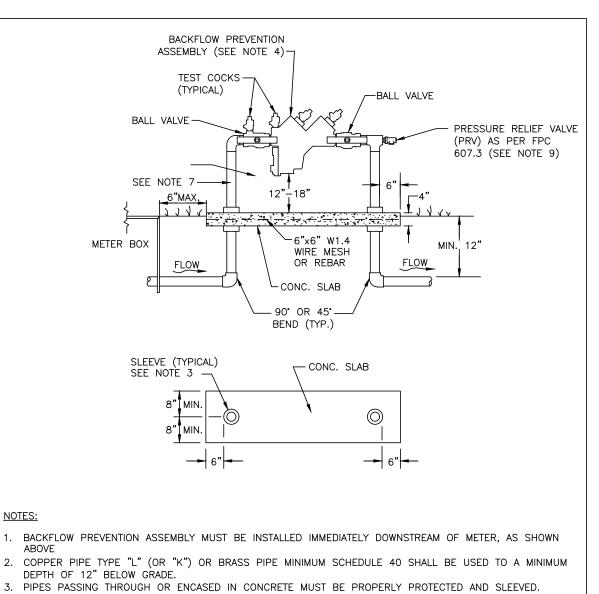
6. FOR 2" SERVICES REPLACE CORPORATION STOP WITH 2" RESILIENT WEDGE FIP GATE VALVE W/BOX, LID & TAG.

WHEN THE DISTANCE BETWEEN THE EDGE OF THE SIDEWALK AND THE ROW 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.

TEMPORARY RESIDENTIAL USE CAN BE PROVIDED BY CONTACTING THE UTILITY CUSTOMER SERVICE. SEE DETAIL UW-24.

TYPICAL SERVICE

CONNECTION



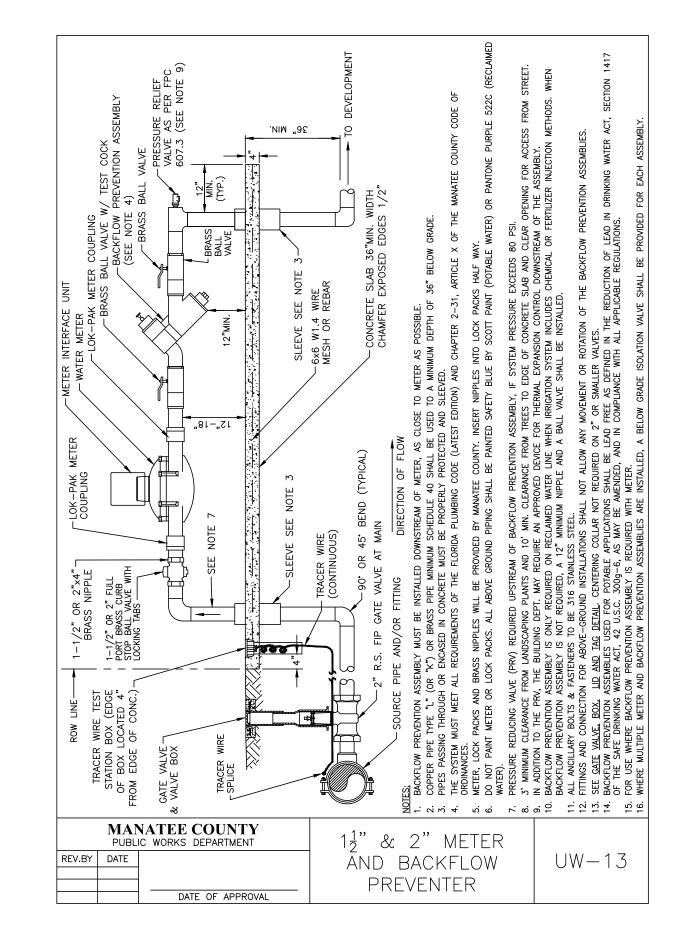
NOTES:

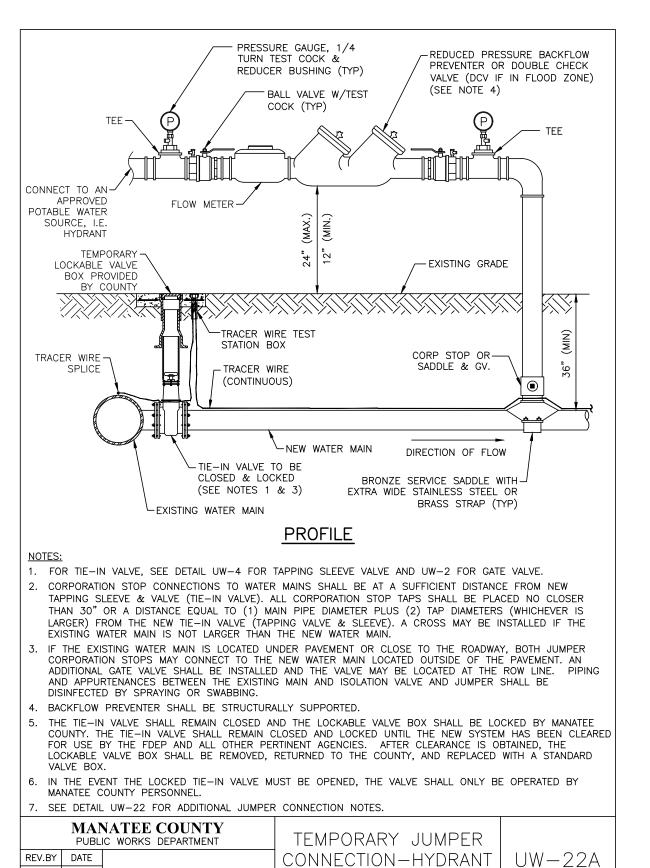
- BACKFLOW PREVENTION ASSEMBLY MUST BE INSTALLED IMMEDIATELY DOWNSTREAM OF METER, AS SHOWN
- DEPTH OF 12" BELOW GRADE.
- 4. THE SYSTEM MUST MEET ALL REQUIREMENTS OF THE FLORIDA PLUMBING CODE (LATEST EDITION) AND CHAPTER 2-31, ARTICLE X OF THE MANATEE COUNTY CODE OF ORDINANCES.
- 5. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2". 6. BACKFLOW PREVENTER SHALL BE TESTED AT THE TIME OF INSTALLATION.
- . PRESSURE REDUCING VALVE (PRV) REQUIRED UPSTREAM OF BACKFLOW PREVENTION ASSEMBLY, IF SYSTEM PRESSURE EXCEEDS 80 PSI.
- 8. 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. O. FITTINGS AND CONNECTIONS FOR ABOVE-GROUND INSTALLATIONS SHALL NOT ALLOW ANY MOVEMENT OR

U.S.C. 300g-6, AS MAY BE AMENDED, AND IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS

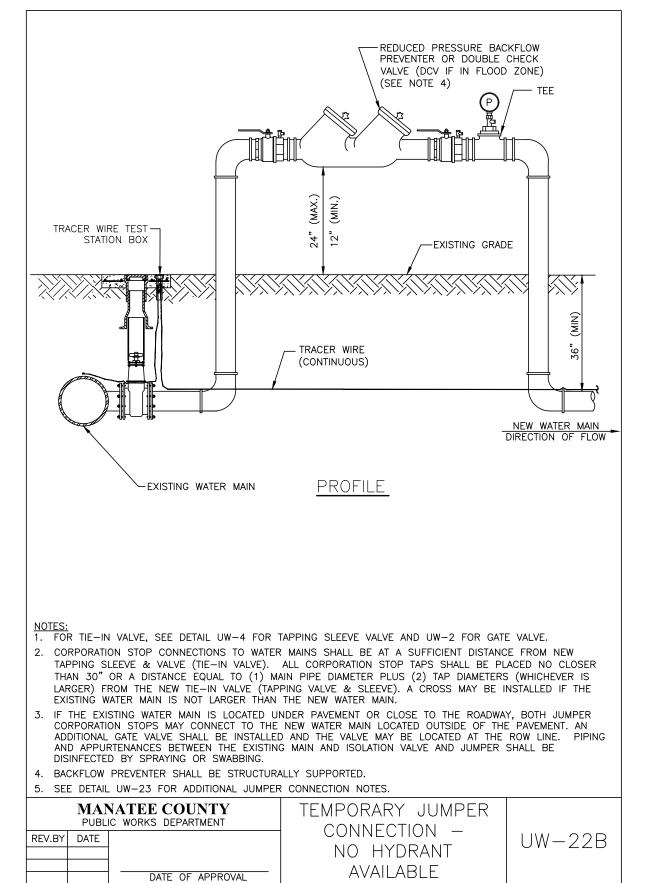
- ROTATION OF BACKFLOW PREVENTION ASSEMBLY. 11. REFER TO DETAIL <u>WATER METER</u> & <u>BACKFLOW PREVENTER FOR LIFT STATIONS</u> FOR WATER SERVICE AT SEWAGE PUMPING STATION.
- 12. BACKFLOW PREVENTION ASSEMBLIES USED FOR POTABLE APPLICATIONS SHALL BE LEAD FREE AS DEFINED IN THE REDUCTION OF LEAD IN DRINKING WATER ACT, SECTION 1417 OF THE SAFE DRINKING WATER ACT, 42

		NATEE COUNTY C WORKS DEPARTMENT	3/4" & 1"		
REV.BY	DATE		BACKFLOW	UW-12	
			DI TOTTI LOTT	0 11 12	
			PRFVFNTFR		
		DATE OF APPROVAL			

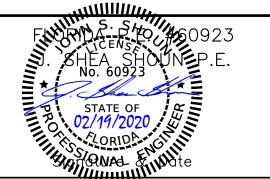




AVAILABLE



REV #	DESCRIPTION	DATE					
			PROJECT #	404-6088970	SURVEYED	GFY	02/08/17
			SURVEY #	N/A	DESIGNED	JDS	02/10/17
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			SCALE	1"=20'	CHECKED	JDS	03/01/17



UW-20



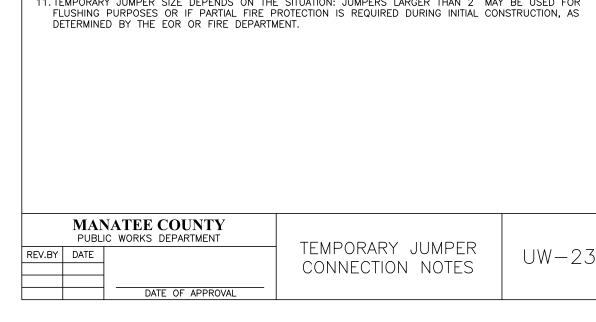
DATE OF APPROVAL

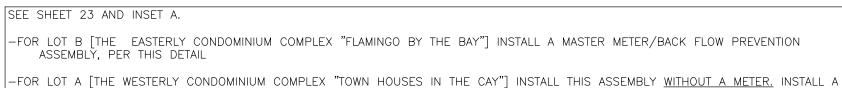
PUBLIC WORKS DEPARTMENT **ENGINEERING SERVICES** 1022 26th Avenue East, Bradenton, FL 34208

FLAMINGO CAY WATERMAIN REPLACEMENT **DETAILS**

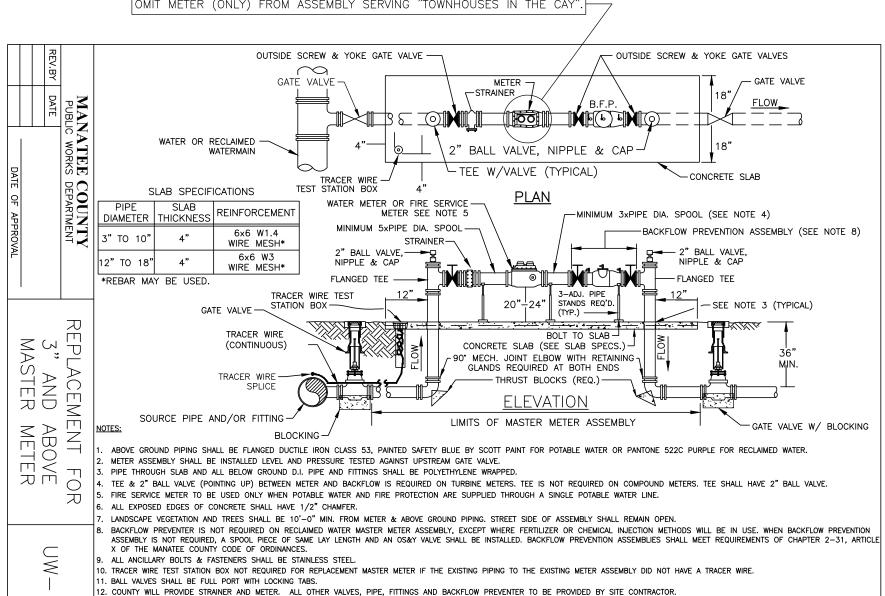


- A. PROJECTS THAT INCLUDE A PERMANENT BACKFLOW PREVENTER AT THE RIGHT-OF-WAY WHICH IS ADJACENT TO THE EXISTING WATER MAIN:
- B. PROJECTS THAT INCLUDE NEW WATER MAINS THAT ARE LESS THAN OR EQUAL TO 18 LINEAR FEET IN
- C. OTHER PROPOSED CASES THAT ARE APPROVED BY MANATEE COUNTY AND THE CONSTRUCTION
- DRAWINGS SPECIFICALLY STATE THAT A TEMPORARY JUMPER CONNECTION IS NOT REQUIRED. 2. A TEMPORARY JUMPER SHALL BE USED AND BE CONNECTED TO AN APPROVED POTABLE WATER SOURCE (E.G., EXISTING FIRE HYDRANT, EXISTING MAIN, EXISTING SERVICE TAP OR TANK TRUCK, ETC.) AS SHOWN E STANDARD TEMPORARY JUMPER DETAIL UW-21A. A TEMPORARY JUMPER SHALL BE USED FOR FILLING, FLUSHING AND FOR DISINFECTION OF ANY NEW MAIN OF ANY SIZE. THE JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER THE FILLING, FLUSHING, TESTING AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) HAS BEEN OBTAINED.
- 5. LOCATIONS AND ORIENTATION OF JUMPERS ASSOCIATED WITH CONNECTIONS TO EXISTING WATER MAINS HAT ARE LOCATED UNDER THE ROADWAY PAVEMENT SHALL BE APPROVED ON A CASE-BY-CASE BASIS. 4. PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED
- PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C651, LATEST EDITION. UNLESS APPROVED OTHERWISE, THE TAPPING SLEEVE, AND EXTERIOR OF THE EXISTING MAIN TO BE TAPPED, PIPING WITHIN THE JUMPER, AND NEW PIPING SHOWN ON STANDARD TEMPORARY JUMPER DETAIL UW-21A OR UW-21B SHALL BE DISINFECTED BY SPRAYING OR SWABBING PER SECTION 4.6 OF AWWA C651
- . A SEPARATE AND SUCCESSFUL HYDROSTATIC TEST ON THE NEW SYSTEM SHALL OCCUR BETWEEN THE TIE-IN VALVE AND THE CLOSEST DOWNSTREAM GATE VALVE BEFORE PERFORMING A HYDROSTATIC TEST ON THE REMAINDER OF THE NEWLY-CONSTRUCTED WATER MAIN. THE TIE-IN VALVE AND THE CLOSEST DOWNSTREAM GATE VALVE SHALL BE CLOSED DURING THE HYDROSTATIC TEST OF THE REMAINDER OF THE NEWLY CONSTRUCTED WATER MAIN.
- 6. THE JUMPER SHALL INCLUDE A FLOW METER TO ENSURE THAT THE FLOW FROM THE SUPPLY SOURCE IS AT A CONSTANT MEASURED RATE WHILE CHLORINATING THE NEW MAIN. THE CHLORINE CONCENTRATION SHALL BE MEASURED AT REGULAR INTERVALS TO ENSURE THAT IT IS FED AT A CONSTANT RATE OF NOT LESS THAN 25 MILLIGRAMS PER LITER (MG/L) OF FREE CHLORINE.
- . THE JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI IN THE NEW MAINS CONTINUOUSLY AFTER DISINFECTION AND UNTIL FDEP CLEARANCE LETTER IS OBTAINED.
- B. ALL TEMPORARY BACKFLOW DEVICES OR "JUMPERS" UTILIZED DURING PIPELINE CONSTRUCTION MUST SHOW CERTIFICATION THAT THEY HAVE BEEN TESTED ANNUALLY ACCORDING TO THE FLORIDA BUILDING CODE, PLUMBING SECTION, CHAPTER 3, SECTION 312.9.1, 312.9.2, CHAPTER 6, SECTION 608, AND RESOLUTION R87-125. ANNUAL CERTIFICATION MUST BE VALID AT TIME OF INSTALLATION AND PROVIDED O THE MANATEE COUNTY INSPECTOR UPON REQUEST.
- 3. AFTER RECEIPT OF CLEARANCE FOR USE BY FDEP, MANATEE COUNTY, AND ALL OTHER PERTINENT AGENCIES, THE CONTRACTOR SHALL REMOVE THE TEMPORARY JUMPER CONNECTION. THE CORPORATION STOPS ARE TO BE CLOSED AND PLUGGED WITH 2-INCH BRASS.
- O.ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACKFLOW PREVENTION DEVICE, FLOW METER, FITTINGS, VALVES, ETC., SHALL BE THE RESPONSIBILITY OF
- 1. TEMPORARY JUMPER SIZE DEPENDS ON THE SITUATION: JUMPERS LARGER THAN 2" MAY BE USED FOR FLUSHING PURPOSES OR IF PARTIAL FIRE PROTECTION IS REQUIRED DURING INITIAL CONSTRUCTION, AS





LENGTH OF PIPE IN THE ASSEMBLY WHERE THE METER WOULD HAVE BEEN, THUS LEAVING SPACE FOR A FUTURE METER. OMIT METER (ONLY) FROM ASSEMBLY SERVING "TOWNHOUSES IN THE CAY".

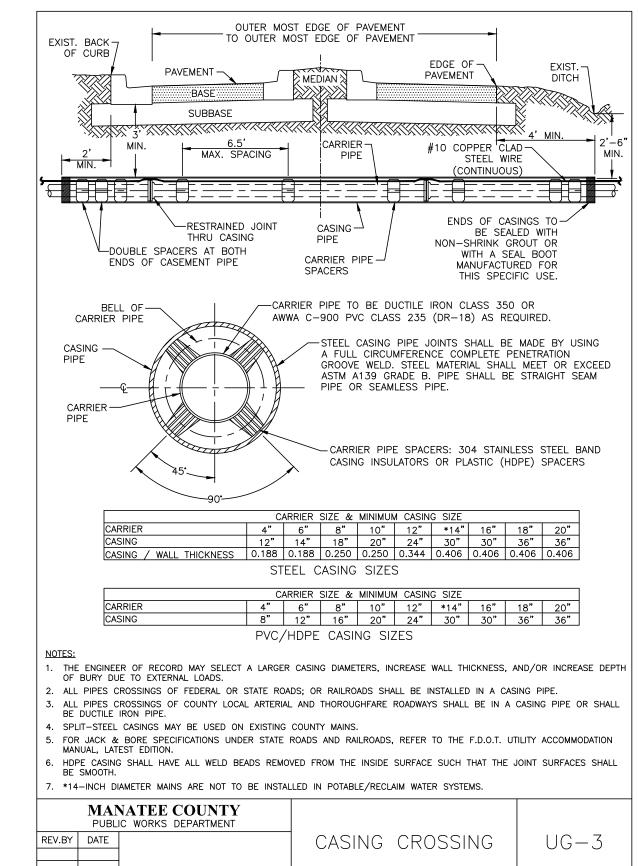


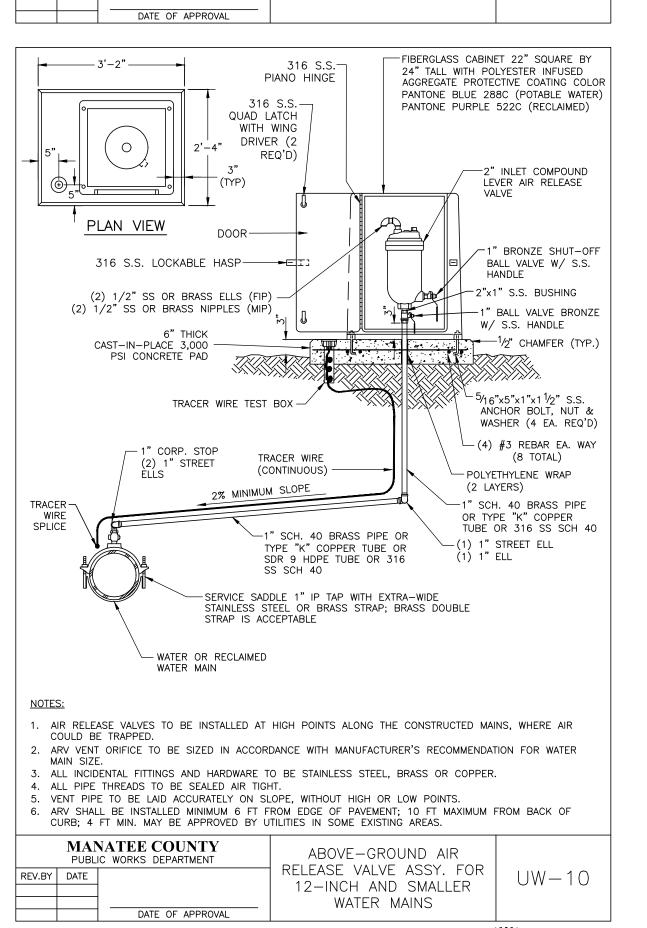
3. BACKFLOW PREVENTION ASSEMBLIES USED FOR POTABLE APPLICATIONS SHALL BE LEAD FREE AS DEFINED IN THE REDUCTION OF LEAD IN DRINKING WATER ACT, SECTION 1417 OF THE SAFE DRINKING

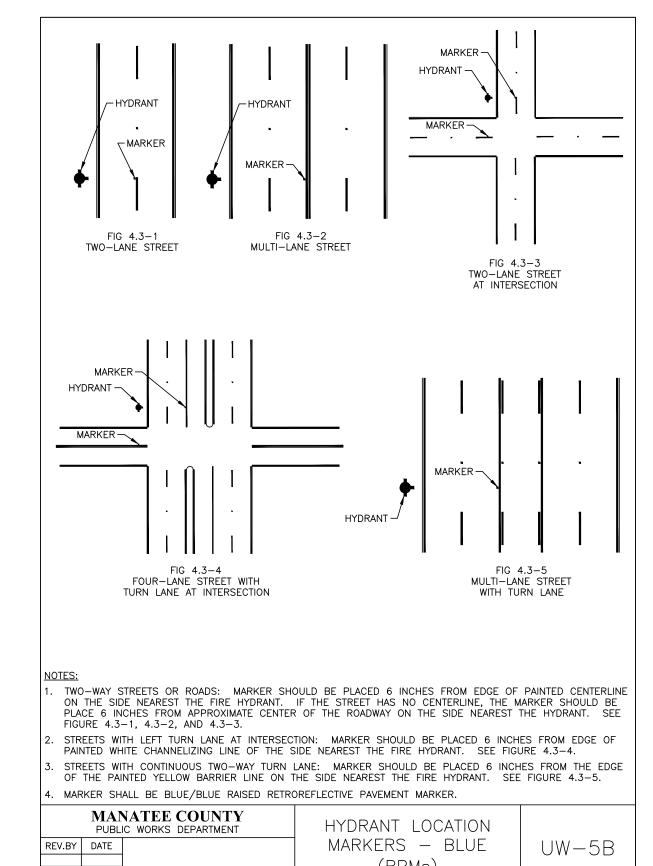
WATER ACT, 42 U.S.C. 300g-6, AS MAY BE AMENDED, AND IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.

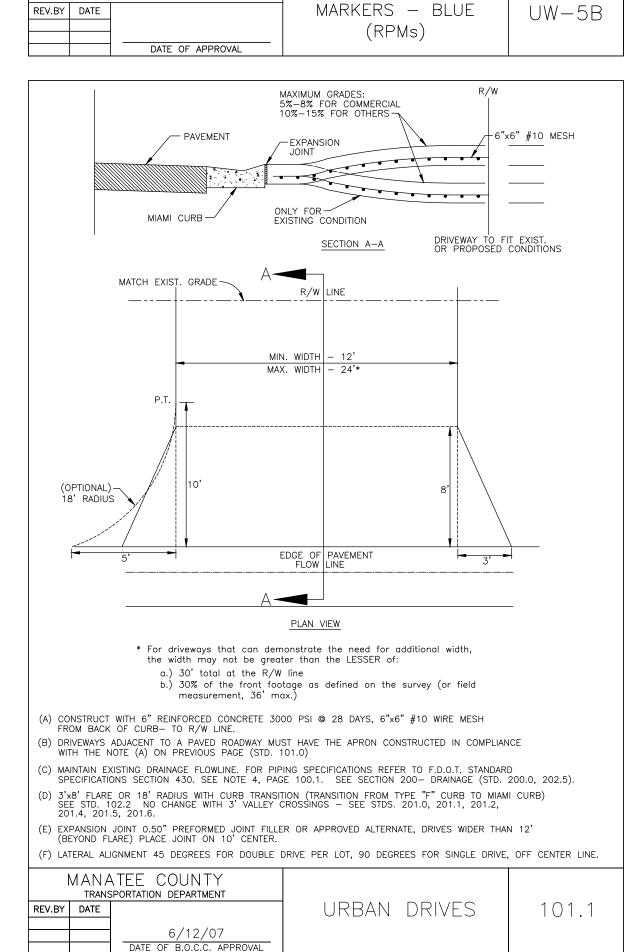
. WHERE MULTIPLE METER AND BACKFLOW PREVENTION ASSEMBLIES ARE INSTALLED, A BELOW GRADE ISOLATION VALVE SHALL BE PROVIDED FOR EACH ASSEMBLY.

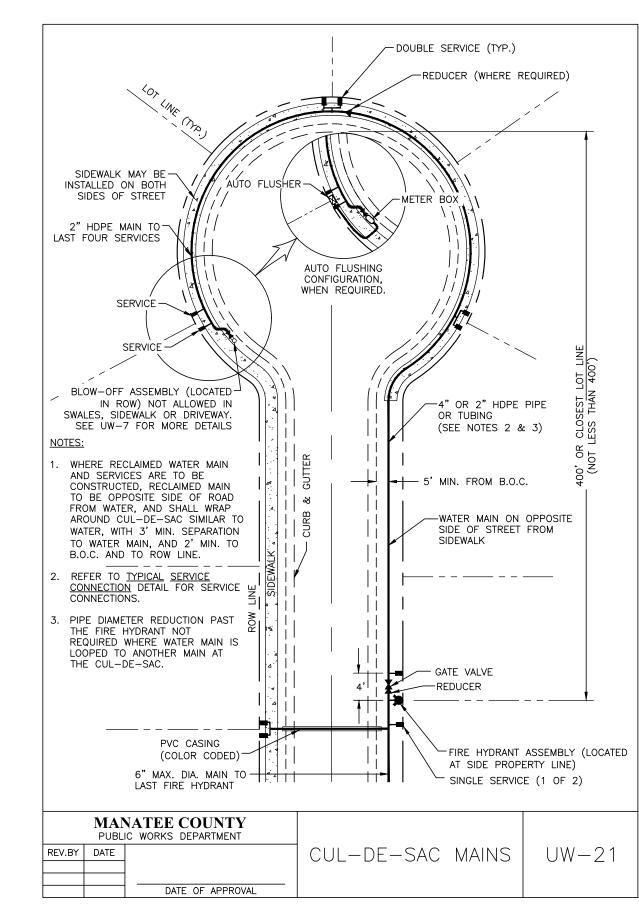
4. REFER TO 1.1.1.C FOR FURTHER DETAILS.

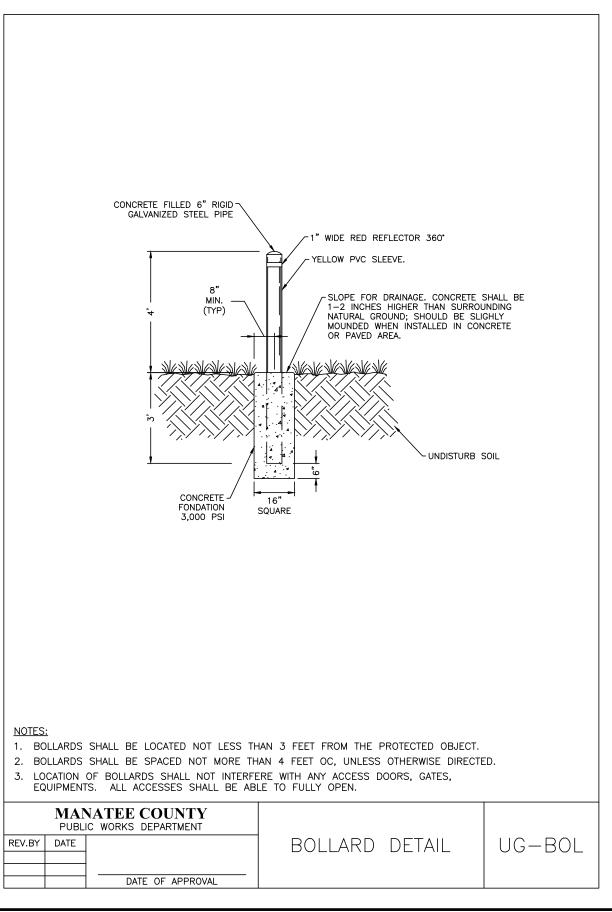


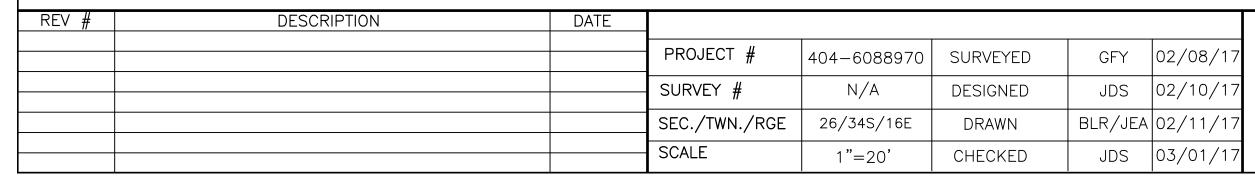
















PUBLIC WORKS DEPARTMENT **ENGINEERING SERVICES** 1022 26th Avenue East, Bradenton, FL 34208

FLAMINGO CAY WATERMAIN REPLACEMENT **DETAILS**

CONSTRUCTION BASELINE HORIZONTAL CONTROL TABLES

	Kingfisher Road								
Number	LENGTH	RADIUS	LINE/CHORD DIRECTION	START STATION	START NORTHING	START EASTING	END STATION	END NORTHING	END EASTING
L1	1500.000		S89°24′30.01″E	78+00.00	1149299.83	440144.70	93+00.00	1149284.34	441644.62

	Sandpiper Road											
Number	LENGTH	RADIUS	LINE/CHORD DIRECTION	START STATION	START NORTHING	START EASTING	END STATION	END NORTHING	END EASTING			
L2	375.024		N73° 59' 01.28"E	114+00.00	1149544.12	439638.26	117+75.02	1149647.60	439998.73			
С3	465.192	805.000	S89°27′40.77″E	117+75.02	1149647.5983	439998.73	122+40.22	1149643.29	440457.45			
C4	114.383	395.000	S81°04'27.32"E	122+40.22	1149643.2854	440457.45	123+54.60	1149625.60	440570.06			
L3	713.094		S89°22′12.19″E	123+54.60	1149625.60	440570.06	130+67.69	1149617.76	441283.11			
L4	713.094		S89°22′12.19″E	123+54.60	1149625.60	440570.06	130+67.69	1149617.76	441283.11			
C5	117.681	300.000	N79°23′31.94″E	130+67.69	1149617.7602	441283.11	131+85.37	1149639.28	441398.04			
C6	202.119	360.000	N84° 14' 20.84"E	131+85.37	1149639.2850	441398.04	133+87.49	1149659.31	441596.50			
L5	612.506		S79°40′36.27″E	133+87.49	1149659.31	441596.50	140+00.00	1149549.55	442199.10			

	Flamingo Cay Drive											
Number LENGTH RADIUS LINE/CHORD DIRECTION START STATION START NORTHING START EASTIN							START EASTING	END STATION	END NORTHING	END EASTING		
L6	6	1400.000		N00° 13′ 49.25″E	20+00.00	1148903.18	440888.53	34+00.00	1150303.16	440894.16		

	Spoonbill Road										
Number	LENGTH	RADIUS	LINE/CHORD DIRECTION	START STATION	START NORTHING	START EASTING	END STATION	END NORTHING	END EASTING		
L7	352.776		S23° 57′ 30.10″E	44+00.00	1149315.02	439782.77	47+52.78	1148992.64	439926.02		
C1	39.946	35.000	S56° 39' 17.18"E	47+52.78	1148992.6412	439926.02	47+92.72	1148971.86	439957.61		
L8	1862.729		S89°24′39.86″E	47+92.72	1148971.86	439957.61	66+55.45	1148952.71	441820.24		
L9	1862.729		S89°24′39.86″E	47+92.72	1148971.86	439957.61	66+55.45	1148952.71	441820.24		
C2	70.897	50.000	N49° 58' 04.12"E	66+55.45	1148952.7099	441820.24	67+26.35	1148994.59	441870.09		
L10	260.111		N09° 20′ 48.10″E	67+26.35	1148994.59	441870.09	69+86.46	1149251.24	441912.34		

Waterbird Way											
Number	LENGTH	RADIUS	LINE/CHORD DIRECTION	START STATION	START NORTHING	START EASTING	END STATION	END NORTHING	END EASTING		
L11	1020.426		S89°24′39.98″E	148+00.00	1150040.90	439556.48	158+20.43	1150030.41	440576.85		
C7	110.626	150.000	S68° 16' 58.95"E	158+20.43	1150030.4137	440576.85	159+31.05	1149990.40	440677.31		
L12	42.890		S47°09'17.91"E	159+31.05	1149990.40	440677.31	159+73.94	1149961.23	440708.76		
C8	112.122	150.000	S68° 34' 07.29"E	159+73.94	1149961.2349	440708.76	160+86.06	1149921.21	440810.71		
L13	213.935		S89°58′56.68″E	160+86.06	1149921.21	440810.71	163+00.00	1149921.15	441024.65		

SURVEYORS REPORT By George F Young, Inc. Feb 2017 No.14Y13312LS

EXCERPTS TAKEN FROM REPORT

- 1. BEARINGS AND COORDINATES (IF ANY) SHOWN ARE BASED ON STATE PLANE COORDINATES, FLORIDA WEST ZONE—NAD '83(2011), AND WERE DERIVED USING THE FLORIDA DEPARTMENT OF TRANSPORTATION VIRTUAL REFERENCE STATION (VRS) NETWORK AND CHECKED AGAINST NATIONAL GEODETIC SURVEY (NGS) SHARED SOLUTION FOR NGS BENCHMARK Q 689 (NGS PID#DL1833) WHICH HAS PUBLISHED COORDINATES OF (N) 1150100.33, (E) 444416.74, AND NGS BENCHMARK R 689 (NGS PID#DL1834) WHICH HAS PUBLISHED COORDINATES OF (N) 1150153.03, (E) 439219.06
- 2. THE ELEVATIONS SHOWN HEREON ARE BASED ON NATIONAL GEODETIC SURVEY (NGS) BENCHMARK Q 689 (NGS PID#DL1833), WHICH HAS A PUBLISHED ELEVATION OF 18.63' FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AND NGS BENCHMARK R 689 (NGS PID#DL1834), WHICH HAS A PUBLISHED ELEVATION OF 18.56' FEET NAVD88. THE CONVERSION FACTOR FROM NAVD88 TO NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29) IS (+)0.984', CALCULATED WITH 'CORPSCON' PROGRAM.
- 3. AS PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) NUMBER 12081C0281E, COMMUNITY NUMBER 120155, PANEL 0281, SUFFIX E, EFFECTIVE DATE OF MARCH 17, 2014 THE ABOVE-DESCRIBED PROPERTY APPEARS TO BE IN ZONE AE, WITH BASE FLOOD ELEVATIONS OF 10, 11 AND 12 FEET (NAVD 88) AND ZONE VE, WITH A BASE FLOOD ELEVATION OF 12 FEET (NAVD 88).

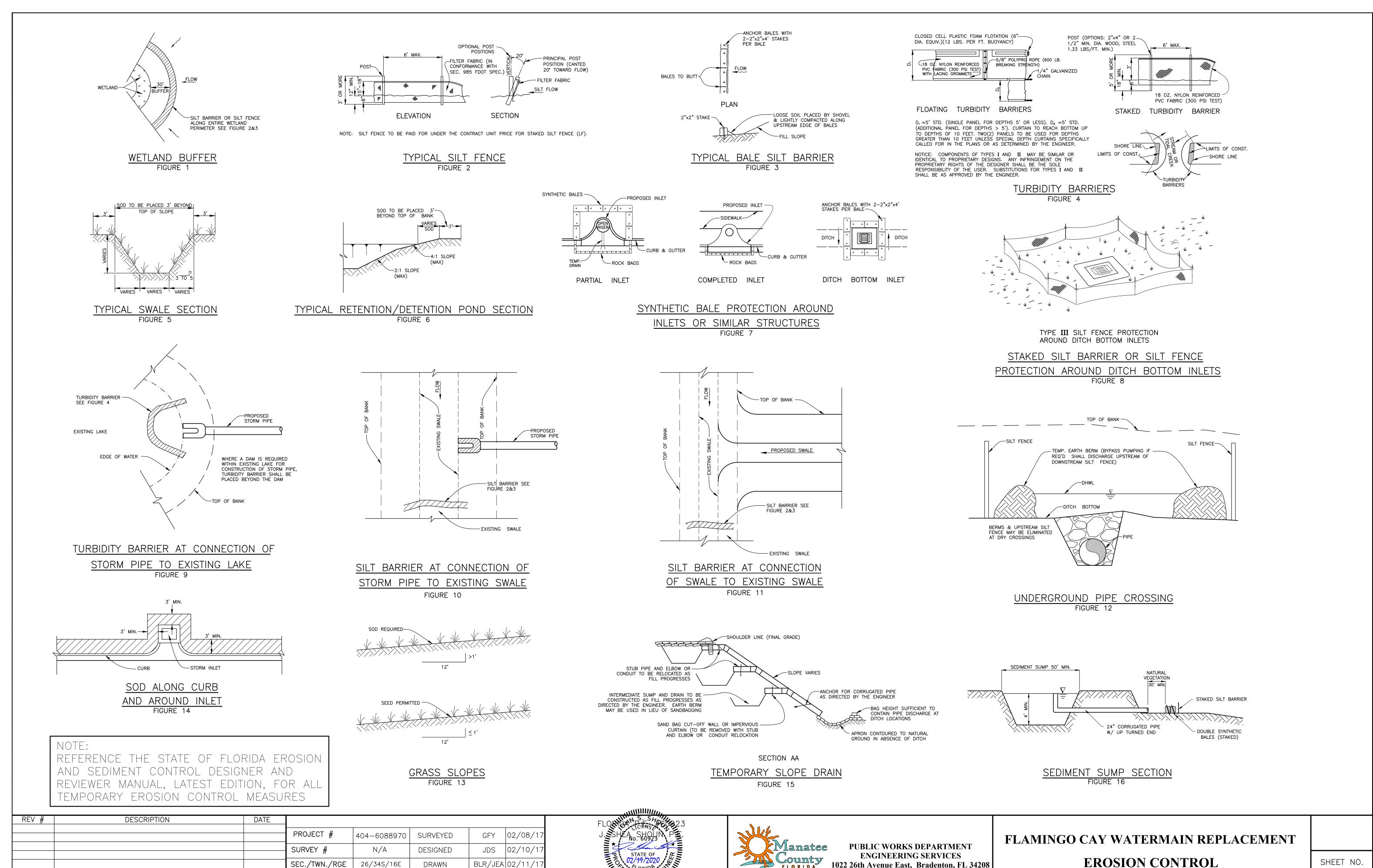
SUBSURFACE UTILITY ENGINEERING DATA, VERIFIED VERTICALLY AND HORIZONTALY

			Ground	Top of			
VVH#	Northing	Easting	Elevation	Utility	Size	Description	Owner
101	1150111.0	441005.9	3.5	-4.7	NFV	Fiber Optic	Manatee County
102	1150107.0	441004.8	3.3	0.8	12"	Ductile Iron Pipe - Forced Main	Manatee County
103	1150087.5	441006.4	3.2	-0.5	6"	PVC (white)	Manatee County
104	1150124.6	440978.6	3.9	-4.1	NFV ED	Water Main	Manatee County
105	1150108.9	440962.6	3.1	0.8	12"	Ductile Iron Pipe - Force Main	Manatee County
106	1150087.9	440963.8	3.4	0.2	6"	PVC Force Main (white)	Manatee County
107	1150220.3	440965.9	2.9	-0.8	12"	Ductile Iron Pipe - Water main (wrapped)	Manatee County
108	1150217.8	440964.4	2.9	0.6	4"	Polly Gas Main (yellow)	Teco
109	1150167.4	440979.3	3.9	-0.1	10"	Ductile Iron Pipe - Water Main (casing)	Manatee County
110	1150199.3	440973.4	3.3	-0.1	12"	PVC Water Main (blue)	Manatee County
120	1150208.6	440868.5	3.4	0.0	4"	PVC Force Main (white)	Manatee County
121	1150204.4	440868.1	3.4	-1.2	NFV	PVC Water Main (blue)	Manatee County
122	1150106.7	440855.1	3.7	-0.2	NFV	Ductile Iron Pipe-Force Main (black)	Manatee County
123	1150093.0	440858.7	3.9	0.5	6"	PVC Force Main (white)	Manatee County
124	1150094.4	440860.2	3.9	1.2	4"	PVC Force Main (white)	Manatee County
125	1150077.8	440866.0	3.7	-0.4	4"x2	PVC Telephone (grey)	Frontier
126	1150056.3	440864.9	3.8	2.0	2"	PVC Cable TV (white)	Charter

REV #	DESCRIPTION	DATE					
			PROJECT #	404-6088970	SURVEYED	GFY	02/08/17
			SURVEY #	N/A	DESIGNED	JDS	02/10/17
			SEC./TWN./RGE	26/34S/16E	DRAWN	BLR/JEA	02/11/17
			SCALE	1"=20'	CHECKED	JDS	03/01/17







1022 26th Avenue East, Bradenton, FL 34208

FLORIDA

BLR/JEA 02/11/1

JDS 03/01/1

SEC./TWN./RGE

SCALE

26/34S/16E

1"=20'

DRAWN

CHECKED