

MANATEE COUNTY
UTILITY ENGINEERING SECTION

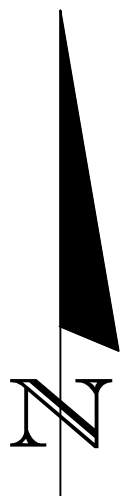
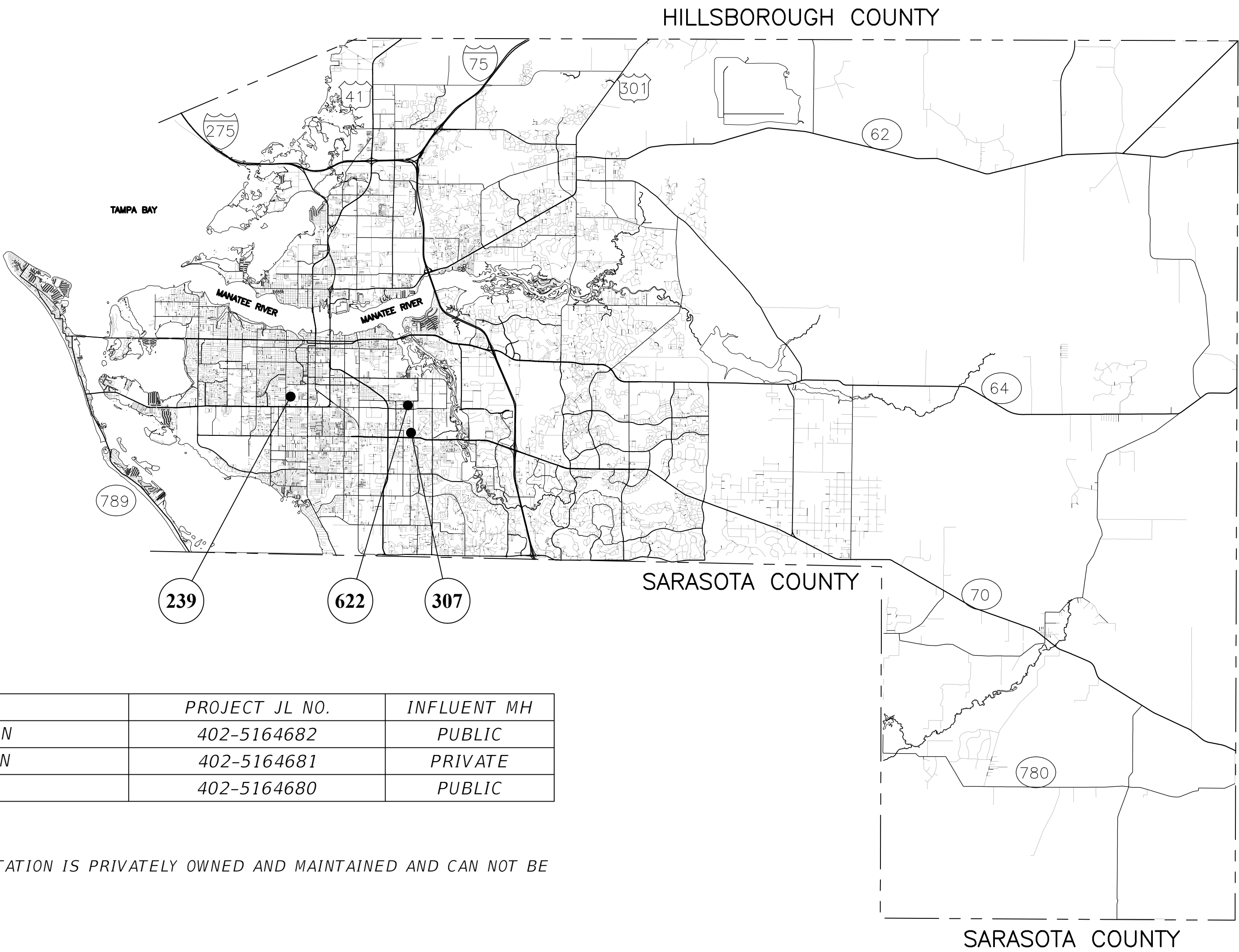
SATELLITE LIFT STATION R&R
2025 GROUP 3

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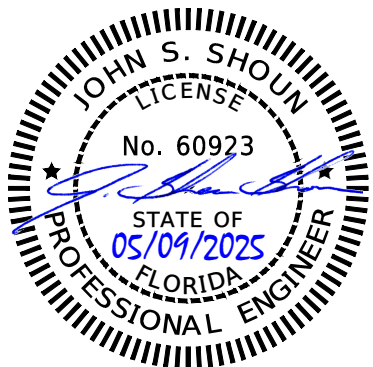
MAY 2025

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CONSTRUCTION
PLANS



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UTILITY PLANS
ENGINEER OF RECORD:
J. SHEA SHOUN, P.E.,
FL LICENSE No: 60923

MANATEE COUNTY PUBLIC WORKS
1022 26th AVENUE EAST
BRADENTON, FL 34208



Know what's below
Call before you dig

L.S. NAME	RTU	ADDRESS	PROJECT JL NO.	INFLUENT MH
34-A	239	4006 24TH ST W, BRADENTON	402-5164682	PUBLIC
ADD-A-ROOM*	307	5215 37TH ST E, BRADENTON	402-5164681	PRIVATE
WALLINGFORD	622	4410 33 CT E, BRADENTON	402-5164680	PUBLIC

(*) THE GRAVITY SEWER MAIN(S) AND MANHOLE(S) ADJACENT TO THE LIFT STATION IS PRIVATELY OWNED AND MAINTAINED AND CAN NOT BE
UTILIZED FOR BYPASS PUMPING.

PROJECT DESCRIPTION

REHABILITATE SEWAGE LIFT STATIONS (AND/OR MANHOLES) TO REDUCE RISK TO PUBLIC HEALTH AND ENVIRONMENTAL
POLLUTION. THE WORK SHALL CONSIST OF, BUT NOT LIMITED TO, UPGRADE OR FULL REPLACEMENT OF THE ELECTRICAL
CONTROL EQUIPMENT, WET WELL CLEANING, THE REPLACEMENT OF DISCHARGE PIPING, FITTINGS, VALVES, SWING CHECK
VALVES, GUIDE RAILS, PIPE BRACINGS, BASE ELLS, AND/OR MOUNTING PLATES. WET WELL LINER MAY NEED TO BE
INSTALLED, REPAIRED OR REPLACED. SEE INDIVIDUAL PLAN SHEETS FOR SPECIFIC REHABILITATION AND INSTALLATIONS
REQUIREMENTS FOR EACH LIFT STATION.

ATTENTION IS DIRECTED TO THE FACT THAT
THESE PLANS MAY HAVE BEEN REDUCED IN SIZE
BY REPRODUCTION. THIS MUST BE CONSIDERED
WHEN OBTAINING SCALED DATA.

FISCAL YEAR	SHEET NO.
2024	01 of 10

GENERAL

1. ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: PAUL HAAS, P.E. AND CAN BE REACHED AT 941.708.7450 x4966.
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, "DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND/OR THE FLORIDA BUILDING CODE. ALL WORK ON PRIVATE PROPERTY SHALL BE PERFORMED BY A LICENSED PLUMBER REGISTERED IN MANATEE COUNTY, UNLESS OTHERWISE INDICATED ON THE PLANS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS AND ALL GOVERNING FEDERAL, STATE, AND LOCAL AGENCIES. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS THAT ARE NOT PROVIDED IN THE BID DOCUMENTS, AT NO ADDITIONAL COST TO THE OWNER.
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 BASED.
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.
7. 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.
8. 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.

SAFETY

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT, 90-96, LAWS OF FLORIDA EFFECTIVE OCTOBER 1, 1990 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.

ENVIRONMENTAL

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 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 OPERATIONAL 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.

RIGHT-OF-WAY

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.
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.

UTILITIES

14. ALL EXISTING FACILITIES IN THE PROJECT AREA SHALL REMAIN OPERATIONAL AND ACCESSIBLE BY COUNTY PERSONNEL AT ALL TIMES, I.E. VALVES, MANHOLE COVERS, SEWER CLEAN-OUTS, ETC.
30. 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.
31. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER/RECLAIM/SEWER LINES, STORM DRAINS, OTHER 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 COUNTY. ALL EXISTING AND PROPOSED VALVE COVERS, RIMS, ETC, SHALL BE BROUGHT TO FINAL GRADE OF THE PROJECT AREA.
32. THE CONTRACTOR SHALL USE APPROPRIATE TECHNIQUES, AS APPROVED, RECOMMENDED, OR OFFERED BY AN EXISTING UTILITY, (I.E. FLORIDA POWER AND LIGHT) TO PREVENT UNDERMINING OF POWER POLES DURING CONSTRUCTION. IF HOLDING OF POWER POLES IS RECOMMENDED OR REQUIRED BY THE UTILITY, THE CONTRACTOR SHALL COORDINATE THIS ACTIVITY WITH THE UTILITY AND BEAR ANY RELATED COSTS.
33. 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 DEDICATED SITS. IT 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.
34. 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.
35. ALL WATER SERVICES TO BE INSTALLED OR MODIFIED ON PRIVATE PROPERTY SHALL 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:
- SWIMMING POOL
 - IN-GROUND IRRIGATION SYSTEM OR UNDERGROUND SPRINKLERS,
 - SECONDARY SOURCE OF WATER (I.E. RECLAIMED WATER OR WELL),

- PROPERTY THAT ABUTS A BODY OF WATER, INCLUDING RIVER, BAY, LAKE OR POND ON THE PROPERTY OR BORDERING THE PROPERTY,
 - FLOOD ZONE DESIGNATION, (IF ONLY FLOOD ZONE, INSTALL A DOUBLE CHECK BPA),
 - SOLAR WATER HEATING SYSTEM,
 - COMMERCIAL, INDUSTRIAL, MULTISTORY OR MULTIFAMILY RESIDENTIAL FACILITY,
 - CROSS CONNECTION IS FOUND,
 - FOUNTAIN WITH A DEDICATED FILL PIPE,
 - FIRE SPRINKLER SYSTEM.
- 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 REDUCED PRESSURE (RP) BPA SHALL BE INSTALLED AT THE POINT OF CONNECTION.
- D. ALL BPA SHALL BE INSTALLED 4-5 FEET FROM THE EDGE OF DRIVEWAYS OR ANY OTHER ITEMS/FEATURES THE BPA MAY CREATE AN OBSTRUCTION.
- E. VACUUM BREAKERS SHALL BE INSTALLED ON ALL EXTERNAL HOSE BIBBS.
- F. CONTRACTOR SHALL COORDINATE WITH COUNTY CROSS CONNECTION STAFF & PRIVATE PROPERTY OWNER AS REQUIRED. CROSS CONNECTION STAFF SHALL DETERMINE WHICH PROPERTIES REQUIRE A BPA AND TYPE OF BPA TO BE INSTALLED.

RESTORATION

34. ALL RESTORATION WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS SHOWN OTHERWISE. ALL RESTORATION LIMITS ARE APPROXIMATE AND SUBJECT TO THE DIRECTION OF THE COUNTY FIELD REPRESENTATIVE.
35. ALL DISTURBED GRASSED AREAS SHALL BE SODED 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 SPECIFICATION.
38. CONCRETE DRIVEWAYS OR SIDEWALKS THAT ARE CUT SHALL BE RESTORED TO MATCH EXISTING ACCORDING TO THE CURRENT EDITIONS OF THE MANATEE COUNTY PUBLIC WORKS STANDARDS PART 3. HIGHWAY & TRAFFIC STANDARDS MANUAL DATED JUNE 2015, SECTION 3.7 DRIVEWAYS AND SECTION 3.8 SIDEWALKS AND/OR THE F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN AND THE F.D.O.T. DESIGN STANDARDS. CONCRETE WITH A 3,000 PSI @ 28 DAYS SHALL BE USED.
39. 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 LIM ROCK BASE AND A FOUR INCH COMPACTED LIME STABILIZED SAND. PAVER SHALL BE PERFORMED A MAXIMUM OF TWENTY-ONE CALENDAR DAYS AFTER THE INITIAL OPEN CUTTING. LIM ROCK BASE SHALL COME FROM AN APPROVED FDOT PIT.
40. ALL EXISTING SIGNING, THERMOPLASTIC PAVEMENT MARKINGS, ETC... SHALL BE RESTORED/PROVIDED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE MUTCD, FDOT DESIGN STANDARDS AND THE MANATEE COUNTY PUBLIC WORKS DEPARTMENT HIGHWAY, TRAFFIC AND STORMWATER STANDARDS, AND/OR AS DIRECTED BY THE COUNTY.
41. 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

42. 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.
43. NO MATERIAL SHALL BE STOCKPILED IN ROADWAYS. ALL DIRT AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE DAILY. ROADS SHALL BE SWEEPED DAILY AS PART OF DAILY CLEAN UP.
44. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.
45. INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT ALL TIMES. CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNER PRIOR TO CONSTRUCTION ACTIVITIES.
46. PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA.
47. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY. DEWATERING IS REQUIRED TO 18" BELOW TRENCH BOTTOM.
48. 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.
49. ALL PIPE SHALL BE COLOR CODED TO CONFORM TO MANATEE COUNTY STANDARDS.
50. ALL PIPE AND FITTINGS SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND ALL PIPE JOINTS SHALL BE RESTRAINED WHERE REQUIRED.
51. 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.
52. 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.
53. ALL PIPE LENGTHS ARE PLUS OR MINUS AND MAY BE ADJUSTED IN THE FIELD AS REQUIRED. PIPE MEASUREMENTS ARE TO CENTER OF STRUCTURES OR FITTINGS.
54. 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.
55. ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF ARE AUTHORIZED TO OPERATE VALVES ON COUNTY OWNED AND MAINTAINED UTILITY SYSTEMS.
56. ALL PENETRATIONS OF EXISTING STRUCTURES SHALL BE BY MECHANICAL ROTARY CORE DRILLING METHOD. ALL CONCRETE PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY.
57. 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 LARGER PROJECTS WITH HUNDREDS OF HOMES AFFECTED, THE CONTRACTOR SHALL ALSO MAKE EXTENSIVE USE OF THE MEDIA AND SHALL HAVE PRIOR CONTACT WITH HOMEOWNER'S ASSOCIATIONS. WRITTEN NOTIFICATIONS SHALL ALSO BE FAXED TO THE TAMPA TRIBUNE, BRADENTON HERALD, SARASOTA HERALD TRIBUNE, WBFD RADIO, EMERGENCY COMMUNITY CENTERS, INSPECTIONS, WATER TREATMENT PLANT, WATER MANAGER, HELPLINE, CUSTOMER SERVICE, AND THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT.
58. 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 PIGS FOR PIG CLEANING AND PRESSURE TESTING.

59. ALL TEST POINT PIPING SHALL BE CU LOOSE FROM THE CORPORATION STOP AND COMPLETELY REMOVED AND DISPOSED OF BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE. A CORPORATION STOP BRASS PLUG SHALL BE INSTALLED AND THE CORPORATION STOP SHALL REMAIN IN PLACE.
60. 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.
61. FIELD CONDITIONS MAY NECESSITATE MINOR ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED UTILITIES TO AVOID OBSTACLES, AS ORDERED BY THE ENGINEER.
62. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH SECTION 1.15 AND/OR 1.16 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 1.15 AND/OR 1.16 SHALL BE STRICTLY ENFORCED. A COPY OF SECTION 1.15 AND 1.16 CAN BE PROVIDED UPON REQUEST.
63. THE CONTRACTOR SHALL MAINTAIN AS-BUILT DRAWINGS OF THE WORK AS CONSTRUCTED. AS-BUILT DRAWINGS SHALL INCLUDE THE LOCATION OF ABANDONED MAINS 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 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. SEE SECTION 01720 FOR FURTHER DETAILED REQUIREMENTS OF THE DAILY RECORD DRAWING DOCUMENTATION.

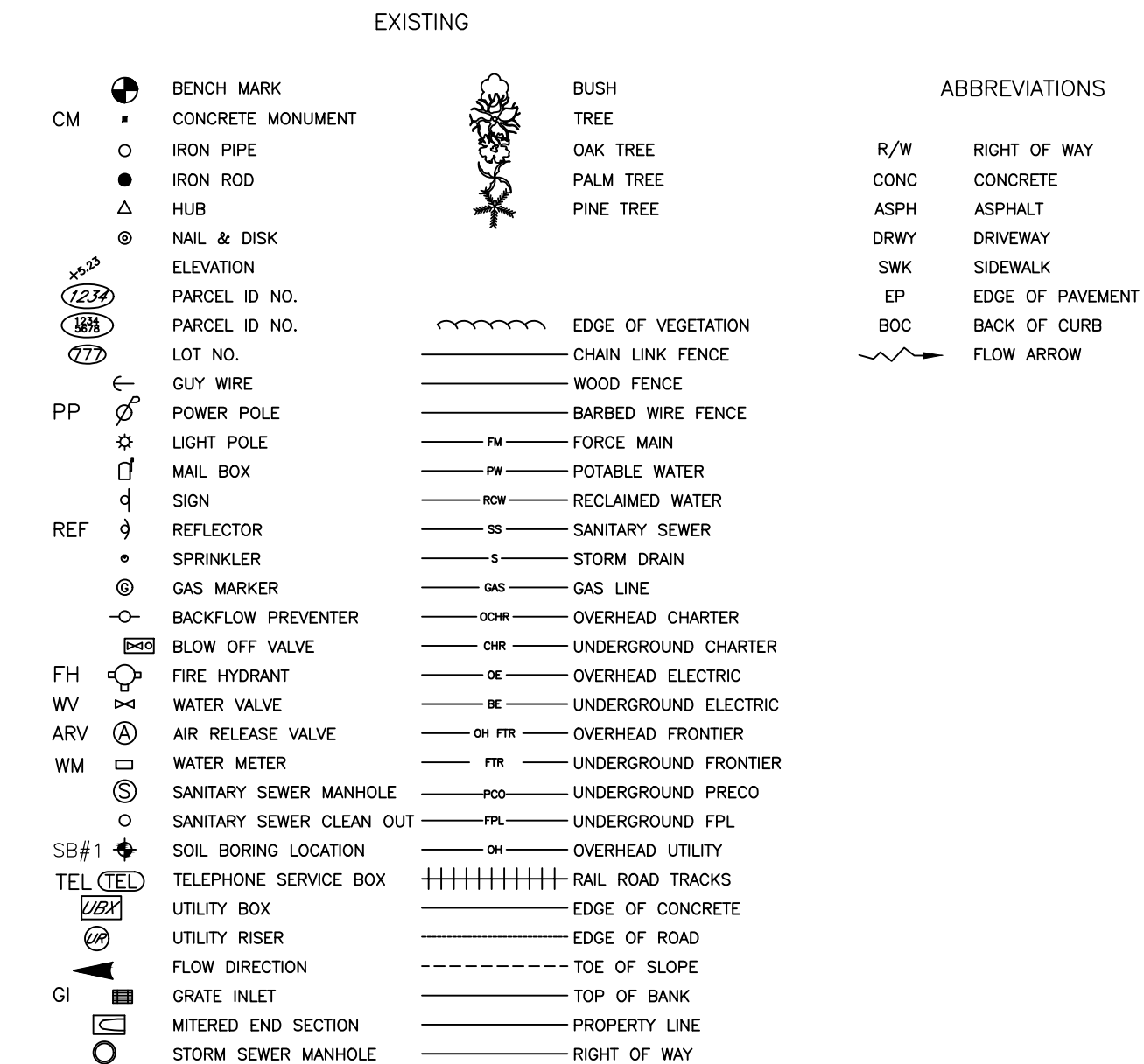
EXISTING UTILITY LOCATIONS

64. 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 ACCOMMODATION MANUAL (UAM)

MAINTENANCE OF TRAFFIC

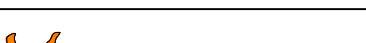
65. THE CONTRACTOR IS RESPONSIBLE FOR ANY TRAFFIC CONTROL PLAN (TCP) IMPLEMENTED. THE TCP SHALL BE PREPARED BY AN INDIVIDUAL CERTIFIED TO PREPARE A TCP IN THE STATE OF FLORIDA THAT MEETS OR EXCEEDS THE REQUIREMENTS OF THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS LATEST EDITION (SERIES 600). ANY DEVIATIONS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA AND SUBMITTED TO COUNTY (AND FDOT) FOR APPROVAL AT LEAST FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COUNTY (AND FDOT) APPROVAL PRIOR TO IMPLEMENTATION AND FAILURE TO OBTAIN APPROVAL SHALL NOT BE GROUNDS FOR ANY DELAY CLAIM FOR TIME OR ADDITIONAL COMPENSATION.
66. THE CONTRACTOR PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHT-OF-WAY USE PERMIT AND A TRAFFIC CONTROL PLAN (TCP). 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 TCP SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.
67. MAINTENANCE OF TRAFFIC MUST MEET THE FDOT 102-600 SERIES STANDARDS AT ALL TIMES. FULL CLOSURES SHALL BE AVOIDED. FULL CLOSURES WITH DETOURS MAY BE CONSIDERED (AND ARE NOT GUARANTEED) WITH THREE-WEEK ADVANCE NOTICE AND MUST HAVE PRIOR COUNTY APPROVAL BEFORE IMPLEMENTATION.
68. 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.
69. MOTORIZED AND MECHANICAL EQUIPMENT SHALL BE EFFECTIVELY SHIELDED, PADDED, OR LOCATED TO MINIMIZE NOISE.
70. 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.
71. ACCESS TO ALL SIDE STREETS AND DRIVEWAYS MUST BE PROVIDED AND MAINTAINED DURING CONSTRUCTION.
72. USE FDOT 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.
73. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO WORKING NEAR THEIR EXISTING FACILITIES.
74. CONSTRUCTION SEQUENCES SHALL BE COORDINATED TO PROVIDE POSITIVE DRAINAGE OF THE TRAVELWAYS AT ALL TIMES.
75. ANY MOT ITEM NOT SPECIFICALLY LISTED UNDER A PARTICULAR PAY ITEM SHALL BE CONSIDERED SUBSIDIARY TO OTHER BID ITEMS. THERE SHALL BE NO SEPARATE PAYMENT.
76. THE MAXIMUM SPACING BETWEEN WARNING DEVICES USED FOR DELINEATION BETWEEN THE TRAVELWAY(S) AND CONSTRUCTION AREA SHALL BE AS PER FDOT STANDARD INDEX 600.
77. 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 FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, LATEST EDITION (600 SERIES). ANY DETOUR RECOMMENDED BY THE CONTRACTOR MUST BE SUBMITTED TO THE COUNTY (AND FDOT) FOR APPROVAL AT LEAST FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COUNTY (AND FDOT) APPROVAL PRIOR TO IMPLEMENTATION AND FAILURE TO OBTAIN APPROVAL SHALL NOT BE GROUNDS FOR ANY DELAY CLAIM FOR TIME OR ADDITIONAL COMPENSATION.

LEGEND



EMERGENCY CONTACTS

MANATEE COUNTY PUBLIC WORKS DEPT. UTILITY ENGINEERING ERIC SHROYER, P.E. 1022 26TH AVENUE EAST BRADENTON, FL 34208 (941) 708-7450 EXT. 7344	FLORIDA POWER & LIGHT TODD BOKLEMA 1253 6TH AVENUE EAST PALMETTO, FL 34221 (941) 927-4262 EMERGENCY: 1-800-4-OUTAGE TODD.BOKLEMA@FPL.COM	FLORIDA GAS TRANSMISSION JOHN LUDLOW 7804 ANDERSON RD. TAMPA, FL 33634 PHONE: (813) 466-3327 E-MAIL: CHAD.HARRELL@SUG.COM	PEACE RIVER ELECTRIC COOPERATIVE, INC. P.O. BOX 1310 BACHUCA, FL 33873 KENDELL COKER (863) 767-4660 KENDELL.COKER@PRECO.COOP
TECO/PEOPLES GAS CO. ALEX MCFARLANE 8261 VICO COURT BRADENTON, FL 34240 (813) 278-3762 EMERGENCY: 1-877-832-6911	MANATEE COUNTY HEALTH DEPT. HANS ROESE 410 6TH AVENUE EAST BRADENTON, FL 34208 (941) 748-0747 EXT. 1355	FDEP, SOUTHWEST DISTRICT ED WATSON 13051 N. TELECOM PKWY TEMPLE TERRACE, FL 33637 (813) 470-5875	MANATEE COUNTY PUBLIC WORKS DEPT./TRAFFIC ENGINEERING/ ATMS 10141 47TH TERRACE EAST BRADENTON, FL 34203 BRIAN KAKKAD (941) 749-3500 EXT. 7812 VISHAL.KAKKAD@MANATEE.ORG
FRONTIER JOHN PLOTT 1701 RINGLING BLVD. SARASOTA, FL 34236 (941) 906-6707 JOHN.PLOTT@FTR.COM	SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT SARASOTA SERVICE OFFICE STEVE LOPES, P.E. 6750 FRUITVILLE ROAD SARASOTA, FL 34240 (941) 377-3722	CHARTER COMMUNICATIONS TOM WRIGHT 5413 E. STATE ROAD 64 BRADENTON, FL 34208-5535 (941) 748-3816 EXT. 2138 TOM.WRIGHT@CHARTER.COM	CITY OF BRADENTON PUBLIC WORKS 1411 9TH ST. W. BRADENTON, FL 34205 JIM MCLELLAN JIM.MCLELLAN@CITYOFBRADENTON.COM PHONE: (941) 708-6300

REVISIONS		 1022 26th Avenue East, Bradenton, FL 34208	<p>J. SHEA SHOUN, P.E., STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 60923.</p> <p>THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY J. SHEA SHOUN, P.E. ON THE DATE INDICATED HERE.</p> <p>PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.</p>	MANATEE COUNTY PUBLIC WORKS DEPARTMENT					<i>SATELLITE LIFT STATION R&R 2025 GROUP 3 NOTES</i>	SHEET NO.
DATE	DESCRIPTION			PROJECT #	402.0019707	SURVEYED	-	-		
				SEC./TWN./RGE	VARIES	DESIGNED	JSS	8/2024		
				SCALE	NTS	DRAWN	JKW	8/2024		

NOTES:

1. THE WET WELL AND VALVE VAULT CONFIGURATION SHOWN ON THESE GRAPHICS IS FOR IDENTIFICATION OF COMPONENTS TO BE REMOVED. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, CONFIGURATION, ETC. FOR ACCURACY.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
3. THE CONTRACTOR SHALL DETERMINE THE DISCHARGE PIPING ELEVATIONS DURING THE SITE VISITS.
4. REMOVAL AND REINSTALLATION OF THE PUMPS DURING THE REHABILITATION SHALL BE DONE BY MANATEE COUNTY PERSONNEL IN COORDINATION WITH THE CONTRACTOR
5. BY-PASS PUMPING IS THE RESPONSIBILITY OF THE CONTRACTOR.
6. MANATEE COUNTY GOVERNMENT WILL PROVIDE ONE (1) LIFT STATION SHUT-DOWN AT NO COST TO THE CONTRACTOR. ADDITIONAL SHUT-DOWNS WILL COST THE CONTRACTOR \$3,500 EACH, IF NEEDED.
7. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ANY DAMAGED LANDSCAPING TO EXISTING OR DESIGN CONDITIONS.
8. THE WORK AREA IS LIMITED TO THE LIFT STATION SITE.

APPROX. BACK OF CURB

PIPE BRACING (2 TYP., REMOVE)

HATCH OPENING (REMOVE)

REMOVE SECONDARY WET WELL CHIMNEY AND HATCH OPENING DOWN TO WET WELL TOP SLAB

INFLUENT LINE (TO REMAIN)

EX. WET WELL (RAVEN 405)

45° BEND, DI (4 TYP., REMOVE)

QUICK CONNECT, 90° BEND, DI (REMOVE)

HATCH OPENING (REMOVE)

VALVE VAULT (REMOVE)

EX. FORCEMAIN (TO REMAIN)

CROSS, DI (REMOVE)

90° BEND, DI (2 TYP., REMOVE)

GATE VALVES (3 TYP., REMOVE)

WEIGHTED CHECK VALVES (2 TYP., REMOVE)

DISCHARGE PIPING (2 TYP., REMOVE)

EX. ODOR CONTROL & PIPING (TO BE REMOVED BY OTHERS)

EX. METER & BFP (REMOVE)

ELECTRIC METER & POST (REMOVE)

CONT. PANEL (REMOVE)

EX. TREE (REMOVE)

PLAN

REMOVE SECONDARY WET WELL CHIMNEY AND HATCH OPENING DOWN TO WET WELL TOP SLAB

23"

EX. WET WELL LINER: (REMOVE, ±889 SF)

INFLUENT LINE (TO REMAIN)

ALUM. HATCH (REMOVE)

REMOVE ±14" EX. WET WELL CHIMNEY; CONTRACTOR TO VERIFY

PRIMARY WET WELL CHIMNEY TO REMAIN

±12" THICK

±8" THICK

TOP SLAB OF VALVE VAULT & ALUMINUM HATCH (REMOVE)

EX. 10" VALVE W/ CONC. PAD (TO REMAIN)

SS

PVC

EX. DRAIN (REMOVE)

CONC. SUPPORT, 3 TYP., (REMOVE)

90° ELBOW (2 TYP. REMOVE)

PIPE BRACING (2 TYP., REMOVE)

STAINLESS STEEL GUIDE RAIL SYSTEM (2 TYP., REMOVE)

DISCHARGE PIPING (2 TYP., REMOVE)

PUMP BASE ELBOWS & ANCHORING HARDWARE (2 TYP., REMOVE)

ITEMS MAY BE ROTATED FOR CLARITY

LIFT STATION SCHEDULE (EXISTING)	
RADIO TELEMETRY UNIT (RTU)	239
DESIGN CAPACITY GPM/TD _H	963 / 49
PUMP TYPE / HP	BARNES / 30
DISCHARGE PIPE DIAMETER	6"
WET WELL DIAMETER	10'
BOTTOM SLAB ELEVATION	-0.08
TOP ELEVATION	22.50
VALVE VAULT ELEVATION	22.50
INFLUENT INVERT ELEVATION	6.70

EX. 2 PUMP LIFT STATION

GENERAL NOTES:

1. CONTRACTOR SHALL NOT BACKFILL OVER DISCHARGE PIPING UNTIL INSPECTOR HAS VISUALLY CHECKED IT FOR LEAKS DURING PUMP STARTUP OR PRESSURE TEST AS DIRECTED BY THE COUNTY.
2. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS. ALL HORIZONTAL AND VERTICAL DISTANCES AND MEASUREMENTS SHALL BE FIELD VERIFIED PRIOR TO ORDERING MATERIALS AND COMMENCING WORK. ALL MEASUREMENTS AND CALCULATIONS SHALL BE THE RESPONSIBILITY OF THE AWARDED CONTRACTOR.
3. THE EXTERIOR SURFACES OF THE CONCRETE WET WELL AND VALVE VAULT EXPOSED ABOVE GRADE SHALL BE COATED WITH AT LEAST TWO COATS OF H & C SILICONE ACRYLIC CONCRETE STAIN, PATIO GREEN, MANUFACTURED BY FLR PAINTS, INC.
4. ALL EXISTING DUCTILE IRON PIPE AND/OR FITTINGS LABELED TO REMAIN IN THE VALVE VAULT SHALL BE COATED WITH A BITUMINOUS COATING.
5. COAT THE INTERIOR OF THE VALVE VAULT WALLS WITH TWO (2) COATS OF COAL TAR EPOXY.
6. ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM TO BE PAINTED.

APPROX. BACK OF CURB

PATCH $\pm 26" \times 26"$ HOLE IN EX. CONC. TOP SLAB. SEE SHEET S-1 FOR DETAILS.

INFLUENT LINE (TO REMAIN)

INSTALL PIPE BRACING SYSTEM SEE DETAIL SHEET

INSTALL (3)-2" PVC SCH 80 AND (1)-1" PVC SCH. 40 PVC CONDUIT, (± 10 LF OF EACH)

INSTALL ELECTRICAL RACK (FIELD LOCATE W/ COUNTY PERSONNEL); TO BE LOCATED IN EXISTING ROW

INSTALL PREFABRICATED HDPE FLANGE ADAPTER W/S.S. BACKING PLATE, SHOP FUSED, 2 TYP.

HDPE

12" MIN.

$\pm 107"$

12" MIN.

INSTALL 6" ALUM. QUICK CONNECT WITH ALUM. DUST COVER AND 6"x8" RED. 90° BEND.

INSTALL 8" 90° BEND, DI (2 TYP.)

INSTALL 8" CROSS, DI

USE HYDRAULIC NON-SHRINK GROUT TO SEAL HOLES (3 TYP.)

INSTALL ± 10 LF 10" DR-18 PVC AND (2) 10" 45° BEND, DI; CONNECT TO EX. VALVE

INSTALL 8"x10" RED., MJ

PVC

INSTALL 8" GATE VALVES, (3 TYP.)

INSTALL 8" WEIGHTED LEVER TYPE SWING CHECK VALVE, (2 TYP.)

INSTALL 1" PVC AND 4" PVC PIPES FOR ODOR CONTROL (FIELD LOCATE)

INSTALL NEW CONC. VALVE PAD

TOU 200A

CONT. PANEL

MTR

DISC

PLAN

ITEMS MAY BE ROTATED FOR CLARITY

LIFT STATION SCHEDULE (PROPOSED)	
INSTALL FIBERGLASS W.W. LINER	NO
APPLY WET WELL SPRAY LINER	YES
INSTALL BUBBLER UNIT	YES
INSTALL FORCE MAIN ISOLATION VALVE	YES

EX. 2 PUMP LIFT STATION

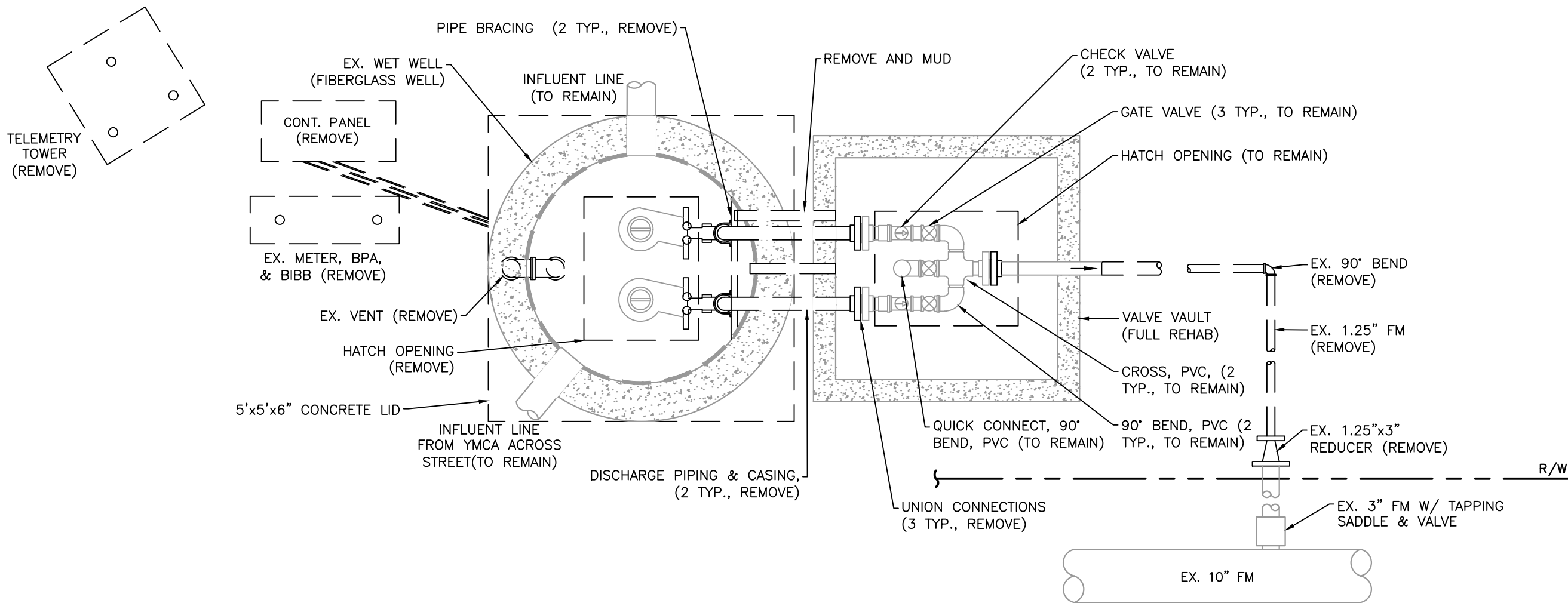
1. INSTALL ALL NEW ELECTRICAL SERVICE WITH CONDUIT, IF EXISTING ELEC. CONDUIT IS 2-INCH DIAMETER, THEN THE EXISTING ELEC. CONDUIT CAN BE LEFT IN PLACE AND USED. (+300 LF).
2. ANY ELECTRICAL WIRING THAT IS INSTALLED BETWEEN THE LIFT STATION WET WELL AND VAULTS SHALL BE INSTALLED IN A CARRIER PIPE THAT IS STRAPPED TO THE STRUCTURE.
3. REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), A CONTROL PANEL, TCU ENCLOSURE, JUNCTION BOX ENCLOSURE, A METER CAN, AND A SAFETY SWITCH (DISCONNECT), ALL REMAINING EXISTING ELECTRICAL EQUIPMENT CONNECTED TO THE EXISTING CONTROL PANEL SHALL REMAIN AND ESTABLISH TO THE NEW PANEL. THE NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL. CONTRACTOR RESPONSIBLE FOR VERIFYING SIZE OF RACK TO HOLD ALL PROPOSED ELECTRICAL ENCLOSURES/COMPONENTS.
4. A TCU BUBBLER UNIT (RPT-001) SYSTEM PROVIDED AND INSTALLED BY DATA FLOW SYSTEMS (DFS) FOR WET WELL LEVEL CONTROL AND SHALL BE INCLUDED WITH THE CONTROL PANEL.
THE LIFT STATION SITE HAS AUXILIARY EQUIPMENT. INSTALL THE FOLLOWING ADDITIONAL BREAKER(S) IN THE CONTROL PANEL:
 - ODDOR CONTROL EQUIPMENT: (1)-3 POLE 20A BREAKER.
4. AN ELECTRICAL SYSTEM STUDY, ELECTRICAL STUDY ANALYSIS, AND PROPER LABELING IN COMPLIANCE WITH NFPA 70E "STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE" AND IEEE 1584 2018 "GUIDE FOR PERFORMING ARC FLASH HAZARD CALCULATIONS" SHALL BE PROVIDED.
5. INSTALL NEW 3-INCH PVC DRAIN LINE WITH PVC "P" TRAP ROTATE AND INSTALL FLUSH AGAINST WALL INSIDE WET WELL. SEAL WITH NON-SHRINK GROUT. SEAM AND SEAL TO MATCH LINE IN WET WELL. WALL PENETRATION TO BE MADE BY MECHANICAL ROTARY CORE BORING. (P-TRAP ROTATED IN DRAWINGS FOR CLARITY).
6. WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER AND/OR LINER REPAIR.
7. REPAIR CONCRETE WALLS, AS NEEDED, IN WET WELL, 2-INCH MIN. THICK OVER EXISTING REBAR, (+445 SF). ALL REPAIRS TO BE VERIFIED WITH COUNTY PERSONNEL PRIOR TO WORK.
8. INSTALL A NEW 2-INCH WATER SERVICE LINE AND 6"x2" TAPPING ASSEMBLY, 2-INCH METER/BPA ASSEMBLY, A 3/4-INCH HOSE BIBB ASSEMBLY, AND A 1/2-INCH QUICK CONNECT PER COUNTY STANDARDS VIA HORIZONTAL DIRECTIONAL DRILL. THE EXISTING WATER MAIN IS LOCATED IN THE ROW ON THE OTHER SIDE OF THE ROADWAY. THE METER/BPA SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE FEEDER ELEMENT / RIGHT-OF-WAY LINE IN CLOSEST PROXIMITY TO THE WATER DISTRIBUTION MAIN. ALL ITEMS SHALL BE FIELD LOCATE WITH MANATEE COUNTY PERSONNEL, (+40 LF).
9. ABANDON EXISTING WATER SERVICE SADDLE AND CORPORATION AT MAIN; INSTALL A BRASS PLUG IN CORPORATION STOP.
10. REGRADE SITE TO ALLOW FOR A POSITIVE DRAINAGE SLOPE AWAY FROM THE LIFT STATION AREA TOWARDS THE SURROUNDING DITCHES. MAXIMUM OF 1% SLOPE.
11. INSTALL TWO CAPPED STUB-OUTS; 3 LF EACH OF 4 INCH PVC AND A 1 INCH PVC DIAMETER PIPES BY CORE BORING THROUGH THE WET WELL WALL. USE HYDRAULIC NON-SHRINK GROUT TO REPAIR THE HOLES FOR THE ODDOR CONTROL EQUIPMENT CONNECTIONS. FIELD VERIFY LOCATE WITH COUNTY PERSONNEL.
12. VEGETATION/TREE REMOVAL; REMOVE BOTTLE-BRUSH TREE NEXT TO EXISTING CONTROL PANEL. COORDINATE WITH COUNTY INSPECTOR PRIOR TO REMOVAL.
13. THE LIFT STATION IS ADJACENT TO AND NEXT TO LOCAL ROAD. MAINTENANCE OF TRAFFIC WILL BE REQUIRED, ALONG WITH A SUBMITTED AND APPROVED TRAFFIC CONTROL PLAN.
14. CONTRACTOR SHALL COORDINATE WITH COUNTY STAFF TO VERIFY THE 12-INCH THICK WET WELL TOP SLAB IS STRUCTURALLY SOUND PRIOR TO APPLYING NEW SPRAY LINER.

1. WATER DISTRIBUTION IS PUBLIC.
2. SEWER COLLECTION IS PUBLIC.
3. LIFT STATION WITHIN COUNTY ROW.

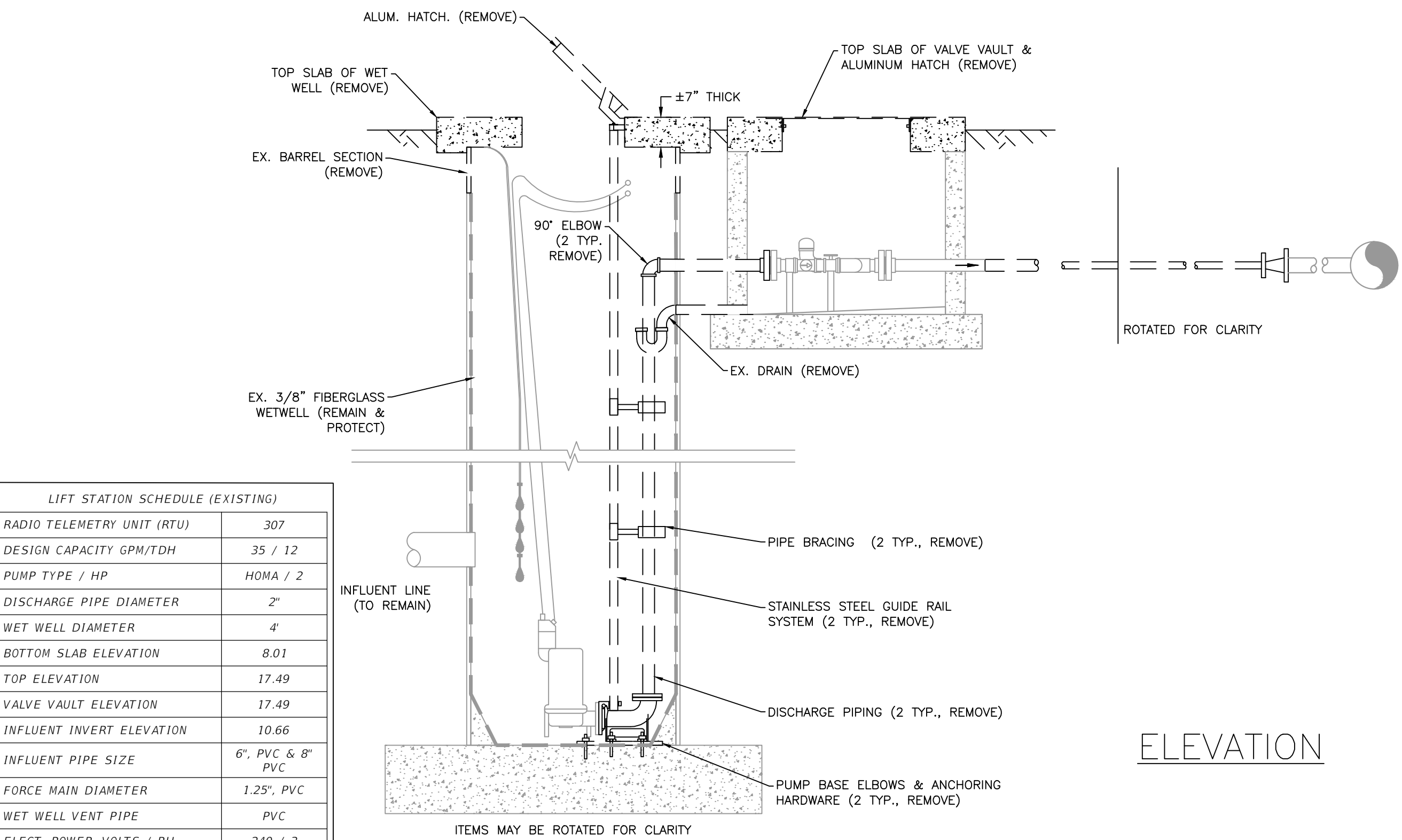
Originally plotted by Kyle Wright at 1:1 scale on 5/9/2025 at 8:10:21 AM on ANSI full bleed D (34.00 x 22.00 Inches) paper using CIP-2023.STB. File Name: SLS R&R 2025-3.DWG

EXISTING

- NOTES:
1. THE WET WELL AND VALVE VAULT CONFIGURATION SHOWN ON THESE GRAPHICS IS FOR IDENTIFICATION OF COMPONENTS TO BE REMOVED. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, CONFIGURATION, ETC. FOR ACCURACY.
 2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
 3. THE CONTRACTOR SHALL DETERMINE THE DISCHARGE PIPING ELEVATIONS DURING THE SITE VISITS.
 4. REMOVAL AND REINSTALLATION OF THE PUMPS DURING THE REHABILITATION SHALL BE DONE BY MANATEE COUNTY PERSONNEL IN COORDINATION WITH THE CONTRACTOR
 5. BY-PASS PUMPING IS THE RESPONSIBILITY OF THE CONTRACTOR.
 6. MANATEE COUNTY GOVERNMENT WILL PROVIDE ONE (1) LIFT STATION SHUT-DOWN AT NO COST TO THE CONTRACTOR. ADDITIONAL SHUT-DOWNS WILL COST THE CONTRACTOR \$3,500 EACH, IF NEEDED.
 7. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ANY DAMAGED LANDSCAPING TO EXISTING OR DESIGN CONDITIONS.
 8. THE WORK AREA IS LIMITED TO THE LIFT STATION SITE.



PLAN

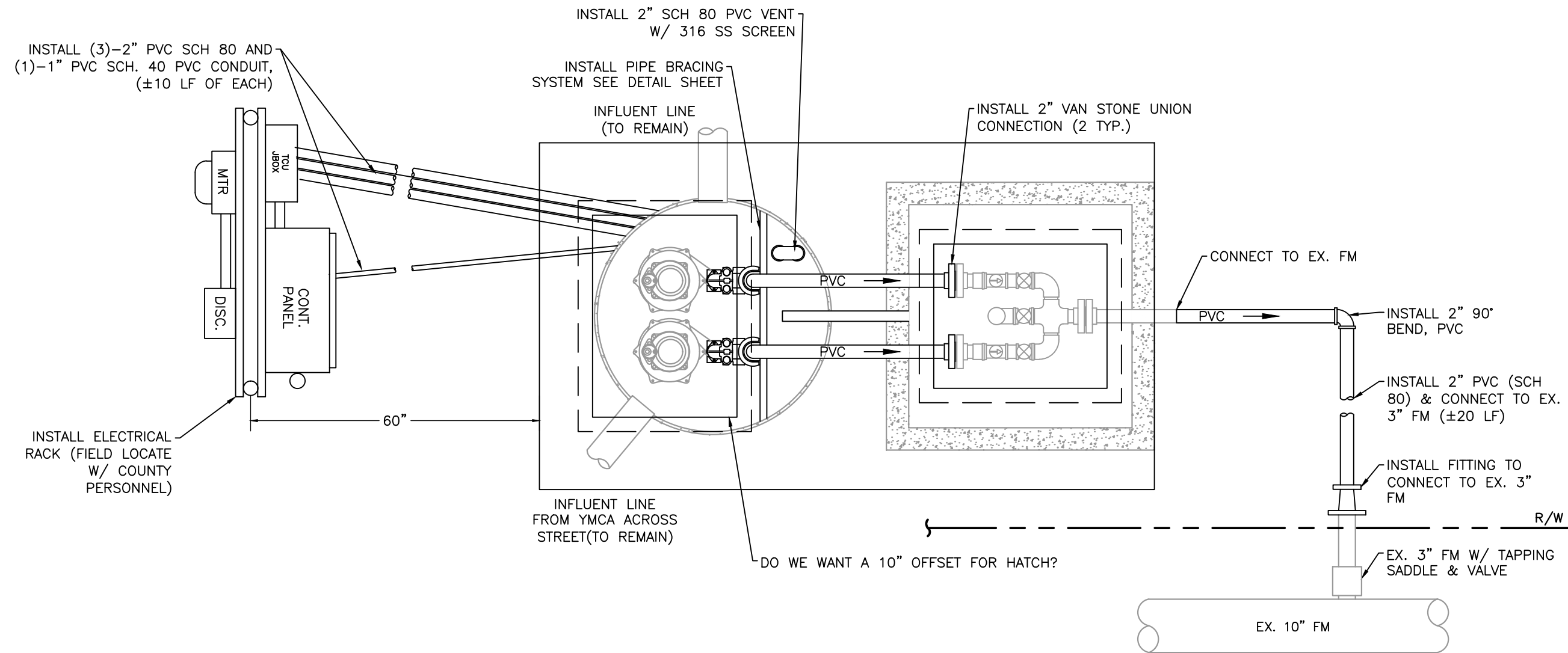


ELEVATION

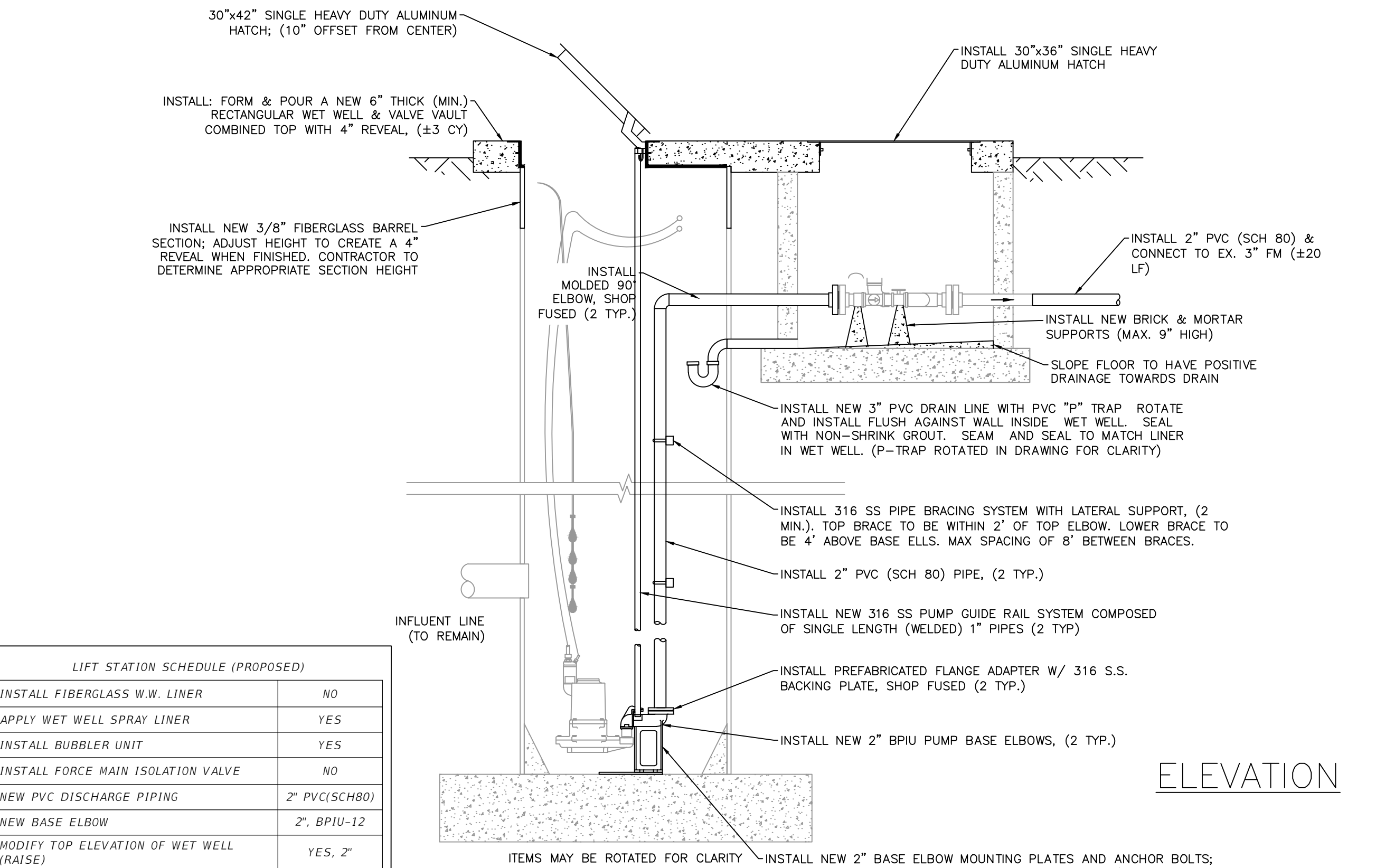
EX. 2 PUMP
LIFT STATION
NTS

PROPOSED

- GENERAL NOTES:
1. CONTRACTOR SHALL NOT BACKFILL OVER DISCHARGE PIPING UNTIL INSPECTOR HAS VISUALLY CHECKED IT FOR LEAKS DURING PUMP STARTUP OR PRESSURE TEST AS DIRECTED BY THE COUNTY.
 2. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS. ALL HORIZONTAL AND VERTICAL DISTANCES AND MEASUREMENTS SHALL BE FIELD VERIFIED PRIOR TO ORDERING MATERIALS AND COMMENCING WORK. ALL MEASUREMENTS AND CALCULATIONS SHALL BE THE RESPONSIBILITY OF THE AWARDED CONTRACTOR.
 3. THE EXTERIOR SURFACES OF THE CONCRETE WET WELL AND VALVE VAULT EXPOSED ABOVE GRADE SHALL BE COATED WITH AT LEAST TWO COATS OF H & C SILICONE ACRYLIC CONCRETE STAIN, PATIO GREEN, MANUFACTURED BY FLR PAINTS, INC.
 4. ALL EXISTING DUCTILE IRON PIPE AND/OR FITTINGS LABELED TO REMAIN IN THE VALVE VAULT SHALL BE COATED WITH A BITUMINOUS COATING.
 5. COAT THE INTERIOR OF THE VALVE VAULT WALLS WITH TWO (2) COATS OF COAL TAR EPOXY.
 6. ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM TO BE PAINTED.



PLAN



ELEVATION

EX. 2 PUMP
LIFT STATION
NTS

CONSTRUCTION NOTES:

1. INSTALL ALL NEW ELECTRICAL SERVICE WITH CONDUIT. IF EXISTING ELEC. CONDUIT IS 2-INCH DIAMETER, THEN THE EXISTING ELEC. CONDUIT CAN BE LEFT IN PLACE AND USED. (±120 LF).
2. ANY ELECTRICAL WIRING THAT IS INSTALLED BETWEEN THE LIFT STATION WET WELL AND VAULTS SHALL BE INSTALLED IN A CARRIER PIPE THAT IS STRAPPED TO THE STRUCTURE.
3. REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), A CONTROL PANEL, TCU ENCLOSURE, JUNCTION BOX ENCLOSURE, A METER CAN, AND A SAFETY SWITCH (DISCONNECT). ALL REMAINING EXISTING ELECTRICAL EQUIPMENT CONNECTED TO THE EXISTING CONTROL PANEL SHALL BE RE-ESTABLISHED TO THE NEW PANEL. THE NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL. CONTRACTOR RESPONSIBLE FOR VERIFYING SIZE OF RACK TO HOLD ALL PROPOSED ELECTRICAL ENCLOSURES/COMPONENTS.

A TCU BUBBLER UNIT (RPT-001) SYSTEM PROVIDED AND INSTALLED BY DATA FLOW SYSTEMS (DFS) FOR WET WELL LEVEL CONTROL AND SHALL BE INCLUDED WITH THE CONTROL PANEL.
4. AN ELECTRICAL SYSTEM STUDY, ELECTRICAL STUDY ANALYSIS, AND PROPER LABELING IN COMPLIANCE WITH NFPA 70E "STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE" AND IEEE 1584 2018 "GUIDE FOR PERFORMING ARC FLASH HAZARDS CALCULATIONS" SHALL BE PROVIDED.
5. SEPARATE THE TELEMETRY TOWER FROM CONCRETE BASE AND SET TO SIDE OF LIFT STATION SITE. CONTRACTOR SHALL REMOVE AND DISPOSE OF CONCRETE BASE AND ALL GROUNDING ROD(S). CONTRACTOR SHALL INSTALL NEW CONCRETE BASE, TELEMETRY TOWER BASE, ALL CONDUIT, ETC. CONTRACTOR SHALL COORDINATE WITH COUNTY PERSONNEL. ANTENNA LOCATION SHALL BE DETERMINED IN THE FIELD WITH COUNTY PERSONNEL. THE TELEMETRY TOWER BASE SHALL BE SUPPLIED BY THE COUNTY TO THE CONTRACTOR.
6. INSTALL NEW 3-INCH PVC DRAIN LINE WITH PVC "P" TRAP ROTATE AND INSTALL FLUSH AGAINST WILL INSIDE WET WELL. SEAL WITH NON-SHRINK GROUT. SEAM AND SEAL TO MATCH LINER IN WET WELL. WALL PENETRATION TO BE MADE BY MECHANICAL ROTARY CORE BORING. (P-TRAP ROTATED IN DRAWING FOR CLARITY).
7. INSTALL A NEW 2-INCH WATER SERVICE LINE AND 8"x2" TAPPING SADDLE; A STANDARD METER/BPA ASSEMBLY; AND A 3/4-INCH HOSE BIBB ASSEMBLY PER COUNTY STANDARDS VIA DIRECT BURY. THE EXISTING WATER MAIN IS LOCATED IN THE ROW ON THE SAME SIDE AS THE LIFT STATION SITE. THE METER/BPA SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE RIGHT-OF-WAY LINE IN CLOSEST PROXIMITY TO THE WATER DISTRIBUTION MAIN. ALL ITEMS SHALL BE FIELD LOCATE WITH MANATEE COUNTY PERSONNEL, (±10 LF).
8. REGRADE SITE TO ALLOW FOR A POSITIVE DRAINAGE SLOPE AWAY FROM THE LIFT STATION AREA TOWARDS THE SURROUNDING DITCHES. MAXIMUM OF 1% SLOPE.
13. THIS LIFT STATION IS ADJACENT TO AND NEXT TO A LOCAL ROAD. MAINTENANCE OF TRAFFIC WILL BE REQUIRED, ALONG WITH A SUBMITTED AND APPROVED TRAFFIC CONTROL PLAN.
14. EXISTING HEDGE SHALL BE PROTECTED, WHERE POSSIBLE.
15. TRAFFIC FLOW FROM ADJACENT BUSINESS CAN NOT BE BLOCKED OR DISRUPTED.

NOTES:

1. WATER DISTRIBUTION IS PUBLIC.
2. SEWER COLLECTION IS PRIVATE.
3. LIFT STATION WITHIN COUNTY ROW.

LIFT STATION SCHEDULE (EXISTING)	
RADIO TELEMETRY UNIT (RTU)	307
DESIGN CAPACITY GPM/TDH	35 / 12
PUMP TYPE / HP	HOMA / 2
DISCHARGE PIPE DIAMETER	2"
WET WELL DIAMETER	4'
BOTTOM SLAB ELEVATION	8.01
TOP ELEVATION	17.49
VALVE VAULT ELEVATION	17.49
INFLUENT INVERT ELEVATION	10.66
INFLUENT PIPE SIZE	6", PVC & 8" PVC
FORCE MAIN DIAMETER	1.25", PVC
WET WELL VENT PIPE	PVC
ELECT. POWER, VOLTS / PH	240 / 3
ELECT. SERVICE SIZE, AMPS	70
EX. FORCE MAIN TIE-IN	FM
FLOODPLAIN INFORMATION	X
* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2023) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.	

LIFT STATION SCHEDULE (PROPOSED)	
INSTALL FIBERGLASS W.W. LINER	NO
APPLY WET WELL SPRAY LINER	YES
INSTALL BUBBLER UNIT	YES
INSTALL FORCE MAIN ISOLATION VALVE	NO
NEW PVC DISCHARGE PIPING	2" PVC(SCH80)
NEW BASE ELBOW	2", BPIU-12
MODIFY TOP ELEVATION OF WET WELL (RAISE)	YES, 2"
MODIFY TOP ELEVATION OF VALVE VAULT (RAISE)	YES, 2"
INSTALL WET WELL VENT PIPE	YES
INSTALL NEW WATER SERVICE ASSEMBLY	YES, STD
RELOCATE EX. WATER SERVICE ASSEMBLY	NO

REVISIONS	
DATE	DESCRIPTION



1022 26th Avenue East, Bradenton, FL 34208

J. SHEA SHOUN, P.E., STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 60923.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY
J. SHEA SHOUN, P.E. ON THE DATE INDICATED HERE.

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MANATEE COUNTY
PUBLIC WORKS DEPARTMENT

PROJECT #	402.5164681	SURVEYED	-	-
SEC./TWN./RGE	8/35/18	DESIGNED	JSS	8/2024
SCALE	NTS	DRAWN	JKW	8/2024

SATELLITE LIFT STATION R&R
2025 GROUP 3
ADD-A-ROOM RTU 307 (REHAB)

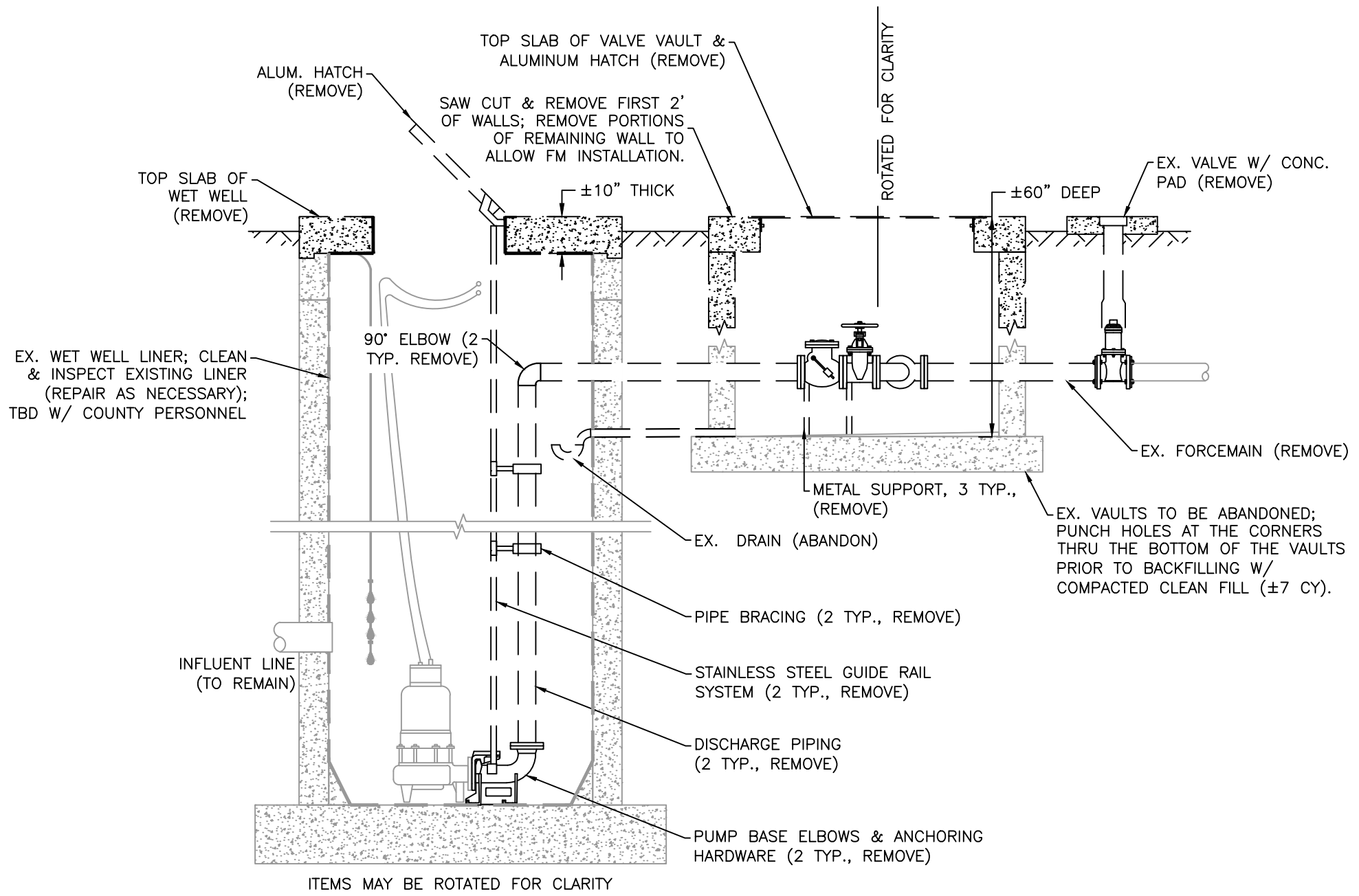
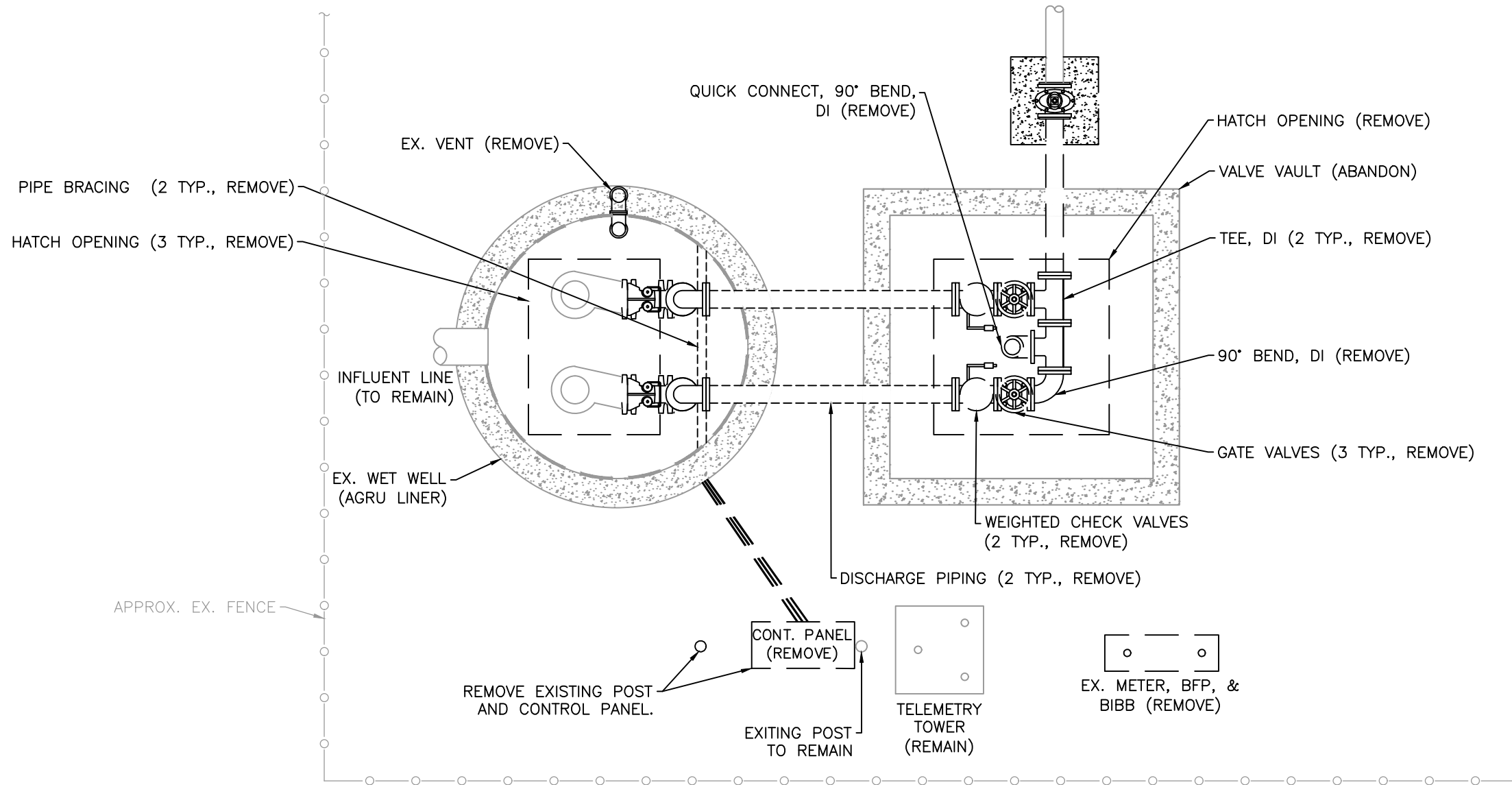
SHEET
NO.

05 of 10

EXISTING

NOTES:

- THE WET WELL AND VALVE VAULT CONFIGURATION SHOWN ON THESE GRAPHICS IS FOR IDENTIFICATION OF COMPONENTS TO BE REMOVED. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, CONFIGURATION, ETC. FOR ACCURACY.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
- THE CONTRACTOR SHALL DETERMINE THE DISCHARGE PIPING ELEVATIONS DURING THE SITE VISITS.
- REMOVAL AND REINSTALLATION OF THE PUMPS DURING THE REHABILITATION SHALL BE DONE BY MANATEE COUNTY PERSONNEL IN COORDINATION WITH THE CONTRACTOR
- BY-PASS PUMPING IS THE RESPONSIBILITY OF THE CONTRACTOR.
- MANATEE COUNTY GOVERNMENT WILL PROVIDE ONE (1) LIFT STATION SHUT-DOWN AT NO COST TO THE CONTRACTOR. ADDITIONAL SHUT-DOWNS WILL COST THE CONTRACTOR \$3,500 EACH, IF NEEDED.
- THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ANY DAMAGED LANDSCAPING TO EXISTING OR DESIGN CONDITIONS.
- THE WORK AREA IS LIMITED TO THE LIFT STATION SITE.



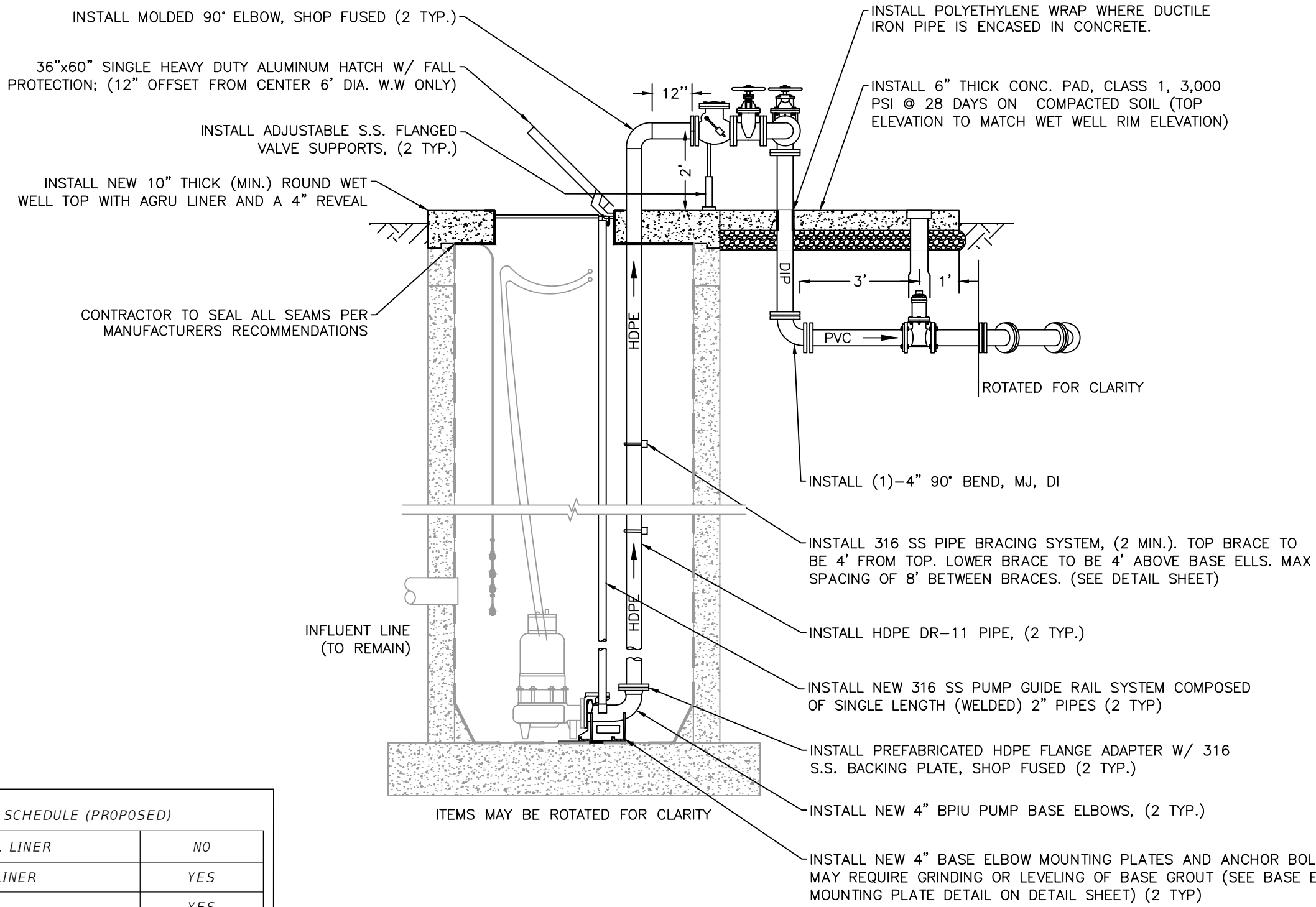
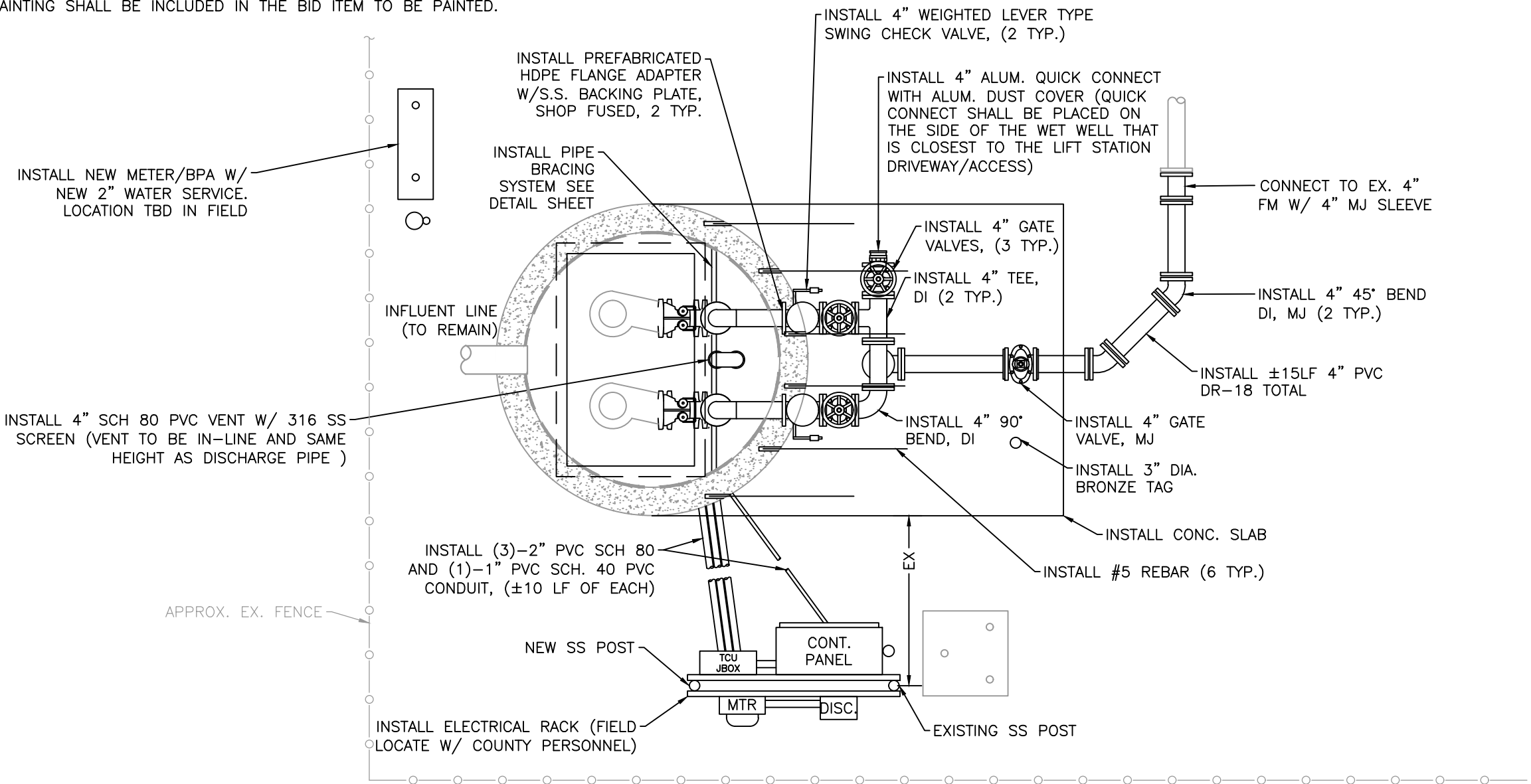
EX. 2 PUMP LIFT STATION

NTS

PROPOSED

GENERAL NOTES:

- ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS. ALL HORIZONTAL AND VERTICAL DISTANCES AND MEASUREMENTS SHALL BE FIELD VERIFIED PRIOR TO ORDERING MATERIALS AND COMMENCING WORK. ALL MEASUREMENTS AND CALCULATIONS SHALL BE THE RESPONSIBILITY OF THE AWARDED CONTRACTOR.
- THE CONCRETE SHALL BE GIVEN A BROOM FINISH. THE SURFACE VARIATIONS SHALL BE NOT MORE THAT 1/4" UNDER A TEN FOOT (10') STRAIGHTEDGE, NOT MORE THAN 1/8" ON A FIVE FOOT (5') TRANSVERSE SECTION. THE EDGE OF THE CONCRETE PAD SHALL BE CAREFULLY FINISHED WITH AN EDGING TOOL HAVING A RADIUS OF 1/2".
- EXPANSION JOINT: EXPANSION JOINTS BETWEEN THE CONC. PAD AND THE WET WELL SHALL BE 1/2" MATERIAL AND SHALL MEET THE REQUIREMENTS OF AASHTO M153 OR AASHTO M213.
- THE EXTERIOR SURFACES OF THE CONCRETE WET WELL AND VALVE PAD EXPOSED ABOVE GRADE SHALL BE COATED WITH AT LEAST TWO COATS OF H & C SILICONE ACRYLIC CONCRETE STAIN, PATIO GREEN, MANUFACTURED BY FLR PAINTS. THE ABOVE GROUND VALVE ASSEMBLY & PIPING SHALL BE PAINTED, RUSTOLEUM 7538 HUNTER GREEN. CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT OVER-SPRAY OF PAINT ONTO THE CONCRETE SLAB.
- ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM TO BE PAINTED.



EX. 2 PUMP LIFT STATION

NTS

CONSTRUCTION NOTES:

- INSTALL ALL NEW ELECTRICAL SERVICE WITH CONDUIT. IF EXISTING ELEC. CONDUIT IS 2-INCH DIAMETER, THEN THE EXISTING ELEC. CONDUIT CAN BE LEFT IN PLACE AND USED. (±10 LF).
- REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), A CONTROL PANEL, TCU ENCLOSURE, JUNCTION BOX ENCLOSURE, A METER CAN, AND A SAFETY SWITCH (DISCONNECT). ALL REMAINING EXISTING ELECTRICAL EQUIPMENT CONNECTED TO THE EXISTING CONTROL PANEL SHALL BE RE-ESTABLISHED TO THE NEW PANEL. THE NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL. CONTRACTOR RESPONSIBLE FOR VERIFYING SIZE OF RACK TO HOLD ALL PROPOSED ELECTRICAL ENCLOSURES/COMPONENTS.
A TCU BUBBLER UNIT (RPT-001) SYSTEM PROVIDED AND INSTALLED BY DATA FLOW SYSTEMS (DFS) FOR WET WELL LEVEL CONTROL AND SHALL BE INCLUDED WITH THE CONTROL PANEL.
- AN ELECTRICAL SYSTEM STUDY, ELECTRICAL STUDY ANALYSIS, AND PROPER LABELING IN COMPLIANCE WITH NFPA 70E "STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE" AND IEEE 1584 2018 "GUIDE FOR PERFORMING ARC FLASH HAZARDS CALCULATIONS" SHALL BE PROVIDED.
- SEPARATE THE TELEMETRY TOWER FROM CONCRETE BASE AND SET TO SIDE OF LIFT STATION SITE. CONTRACTOR SHALL REMOVE AND DISPOSE OF CONCRETE BASE AND ALL GROUNDING ROD(S). CONTRACTOR SHALL INSTALL NEW CONCRETE BASE. TELEMETRY TOWER BASE, ALL CONDUIT, ETC. CONTRACTOR SHALL COORDINATE WITH COUNTY PERSONNEL. ANTENNA LOCATION SHALL BE DETERMINED IN THE FIELD WITH COUNTY PERSONNEL. THE TELEMETRY TOWER BASE SHALL BE SUPPLIED BY THE COUNTY TO THE CONTRACTOR.
- INSTALL #5 REBAR (6 TYP.) EPOXY EMBEDDED INTO THE WET WELL TOP 3-4 INCHES DEEP AND CAST 3-4 FEET INTO THE VALVE ASSEMBLY CONCRETE PAD TO ENSURE THE TOPS OF THE WET WELL AND VALVE ASSEMBLY PAD WILL REMAIN FLUSH.
- DAMAGED EXISTING PROTECTIVE LINER(S) AND DETERIORATED WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO REMOVAL AND INSTALLATION OF CONCRETE REPAIR AND/OR INSTALLATION OF NEW PROTECTIVE LINER(S) AND/OR LINER REPAIR.
- INSTALL A NEW 2-INCH WATER SERVICE LINE AND 6"x2" TAPPING SADDLE; A STANDARD METER/BPA ASSEMBLY; AND A 3/4-INCH HOSE BIBB ASSEMBLY PER COUNTY STANDARDS VIA HORIZONTAL DIRECTIONAL DRILL. THE EXISTING WATER MAIN IS LOCATED IN THE ROW ON THE OTHER SIDE OF THE ROADWAY. THE METER/BPA SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE FENCE IN CLOSEST PROXIMITY TO THE WATER DISTRIBUTION MAIN. ALL ITEMS SHALL BE FIELD LOCATE WITH MANATEE COUNTY PERSONNEL. (±30 LF).
- INSTALL WASHED SHELL & WEED BARRIER (±135 SY); GRADE THE AREA AROUND WET WELL TO ALLOW FOR POSITIVE DRAINAGE AWAY FROM LIFT STATION AND TO HAVE A 4" REVEAL ON THE WET WELL/VALVE ASSEMBLY PAD. COORDINATE WITH MANATEE COUNTY PERSONNEL. REMOVE AND KILL EXISTING WEEDS PRIOR TO INSTALLING BARRIER/WASHED SHELL.
- REGRADE SITE TO ALLOW FOR A POSITIVE DRAINAGE SLOPE AWAY FROM THE LIFT STATION AREA TOWARDS THE SURROUNDING DITCHES. MAXIMUM OF 1% SLOPE.
- COUNTY SHALL HAVE FIRST RIGHTS TO THE CONTROL PANEL EQUIPMENT AND MATERIALS.

NOTES:

- WATER DISTRIBUTION IS PUBLIC.
- SEWER COLLECTION IS PUBLIC.
- LIFT STATION WITHIN COUNTY ROW.

LIFT STATION SCHEDULE (EXISTING)	
RADIO TELEMETRY UNIT (RTU)	622
DESIGN CAPACITY GPM/TDH	115 / 48
PUMP TYPE / HP	HYDRO / 5
DISCHARGE PIPE DIAMETER	4"
WET WELL DIAMETER	6'
BOTTOM SLAB ELEVATION	5.60
TOP ELEVATION	22.67
VALVE VAULT ELEVATION	22.67
INFLUENT INVERT ELEVATION	9.97
INFLUENT PIPE SIZE	10" PVC
FORCE MAIN DIAMETER	4", PVC
WET WELL VENT PIPE	PVC
ELECT. POWER, VOLTS / PH	240 / 3
ELECT. SERVICE SIZE, AMPS	100
EX. FORCE MAIN TIE-IN	MH
FLOODPLAIN INFORMATION	X
* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2023) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.	

LIFT STATION SCHEDULE (PROPOSED)	
INSTALL FIBERGLASS W.W. LINER	NO
APPLY WET WELL SPRAY LINER	YES
INSTALL BUBBLER UNIT	YES
INSTALL FORCE MAIN ISOLATION VALVE	YES
NEW HDPE DISCHARGE PIPING	4"
NEW BASE ELBOW	4", BPIU-14
MODIFY TOP ELEVATION OF WET WELL (LOWER/RAISE)	NO
MODIFY TOP ELEVATION OF VALVE VAULT (LOWER/RAISE)	N/A
INSTALL WET WELL VENT PIPE	YES
INSTALL NEW WATER SERVICE ASSEMBLY	YES, STD
RELOCATE EX. WATER SERVICE ASSEMBLY	NO

MANATEE COUNTY
PUBLIC WORKS DEPARTMENT

PROJECT #	402.5164680	SURVEYED	-	-
SEC./TWN./RGE	8/35/18	DESIGNED	JSS	8/2024
SCALE	NTS	DRAWN	JKW	8/2024

SATELLITE LIFT STATION R&R
2025 GROUP 3
WALLINGFORD RTU 622 (REHAB)

SHEET
NO.

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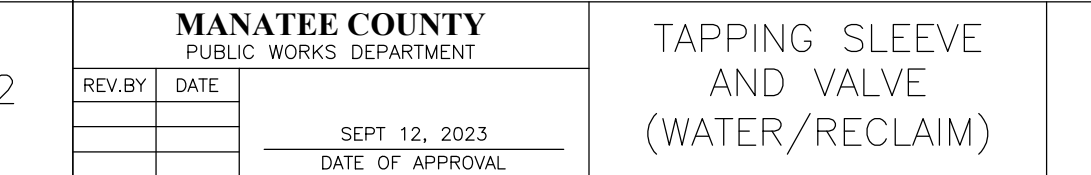
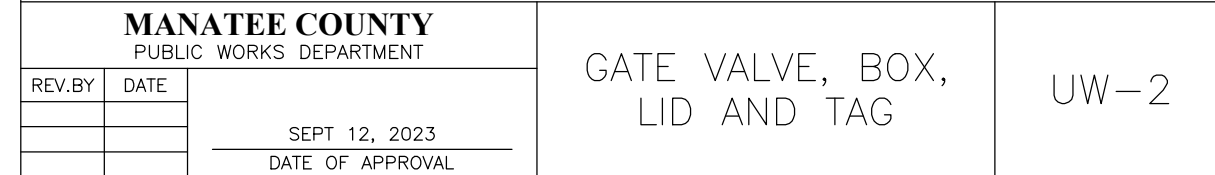


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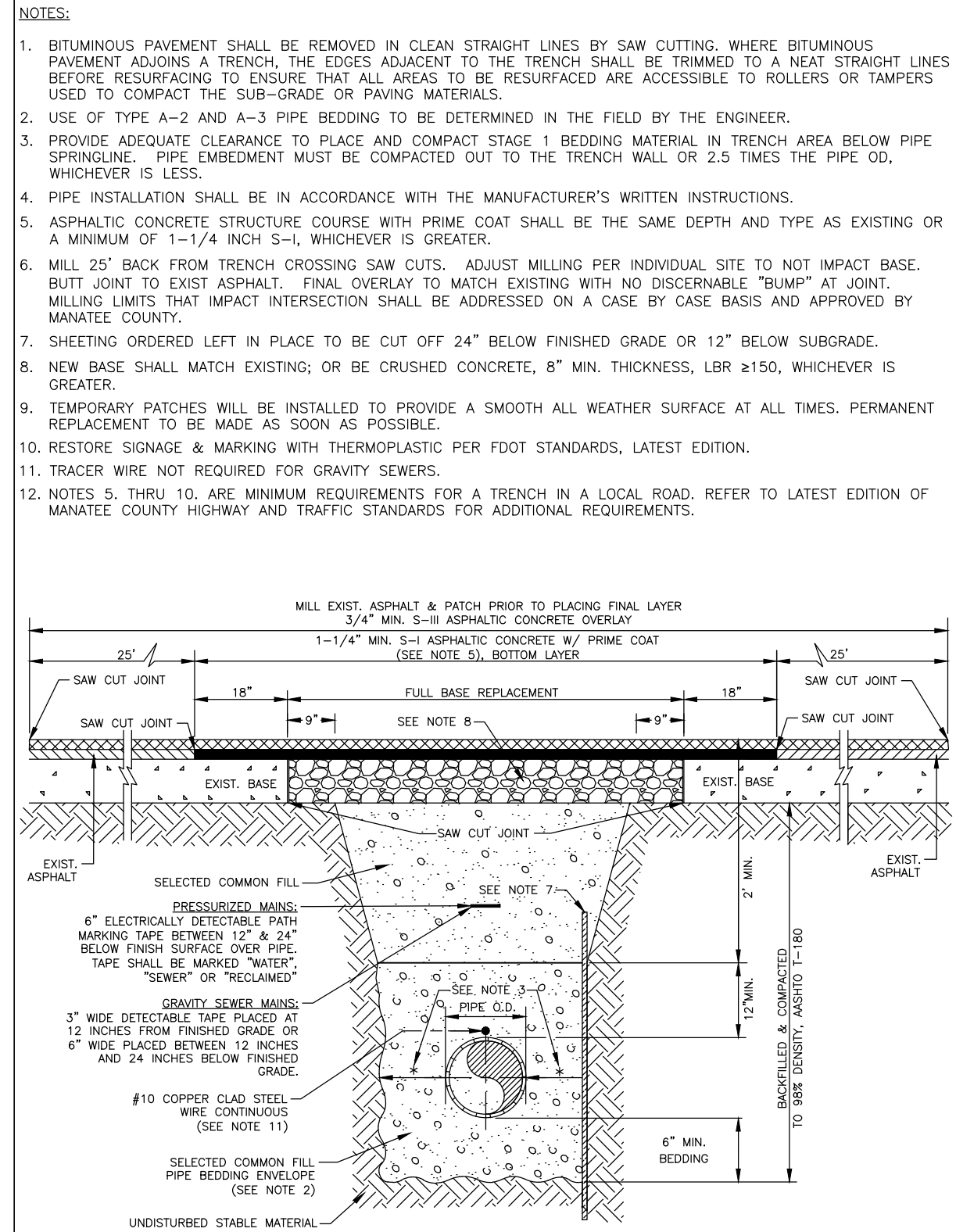
MAIN PIPE SIZE	HORIZ. BENDS			TEES										REDUCERS				PLUGS & VALVES
	90°	45°	22.5°	SIZE					LENGTH					SIZE		LENGTH		
				X24	X20	X16	X12	X10	X20	X16	X12	X10	X24	X20	X16	X12	X10	
24	90	38	18	X24 ₆₉	X20 ₆₀	X16 ₅₀	X12 ₃₆	X10 ₃₀	X8 ₁	X24 ₆₄	X20 ₅₄	X16 ₄₂	X12 ₃₀	X10 ₂₄	X8 ₁	X24 ₁₅₈	214	
20	78	32	16	X20 ₄₁	X16 ₃₄	X12 ₂₇	X10 ₂₁	X8 ₁₇	X6 ₁₂	X20 ₄₄	X16 ₃₅	X12 ₂₇	X10 ₂₁	X8 ₁₇	X6 ₁₂	X20 ₁₄₉	184	
16	66	27	13	X16 ₃₁	X12 ₂₅	X10 ₂₀	X8 ₁₆	X6 ₁₂	X4 ₈	X16 ₃₄	X12 ₂₇	X10 ₂₁	X8 ₁₇	X6 ₁₂	X4 ₈	X16 ₁₁₁	151	
12	52	22	10	X12 ₂₀	X10 ₁₆	X8 ₁₃	X6 ₁₀	X4 ₆	X3 ₄	X12 ₂₀	X10 ₁₆	X8 ₁₃	X6 ₁₀	X4 ₆	X3 ₄	X12 ₁₀₇	118	
10	44	18	9	X10 ₁₃	X8 ₁₀	X6 ₈	X4 ₆	X3 ₄	X2 ₂	X10 ₁₃	X8 ₁₀	X6 ₈	X4 ₆	X3 ₄	X2 ₂	X10 ₈₆	100	
8	37	15	7	X8 ₉	X6 ₇	X4 ₅	X3 ₄	X2 ₂	X1 ₁	X8 ₉	X6 ₇	X4 ₅	X3 ₄	X2 ₂	X1 ₁	X8 ₆₁	83	
6	29	12	6	X6 ₇	X4 ₅	X3 ₄	X2 ₂	X1 ₁	X0 ₀	X6 ₇	X4 ₅	X3 ₄	X2 ₂	X1 ₁	X0 ₀	X6 ₅₃	63	
4	21	8	4	X4 ₅	X3 ₄	X2 ₂	X1 ₁	X0 ₀	X0 ₀	X4 ₅	X3 ₄	X2 ₂	X1 ₁	X0 ₀	X0 ₀	X4 ₄₁	45	

NOTES:

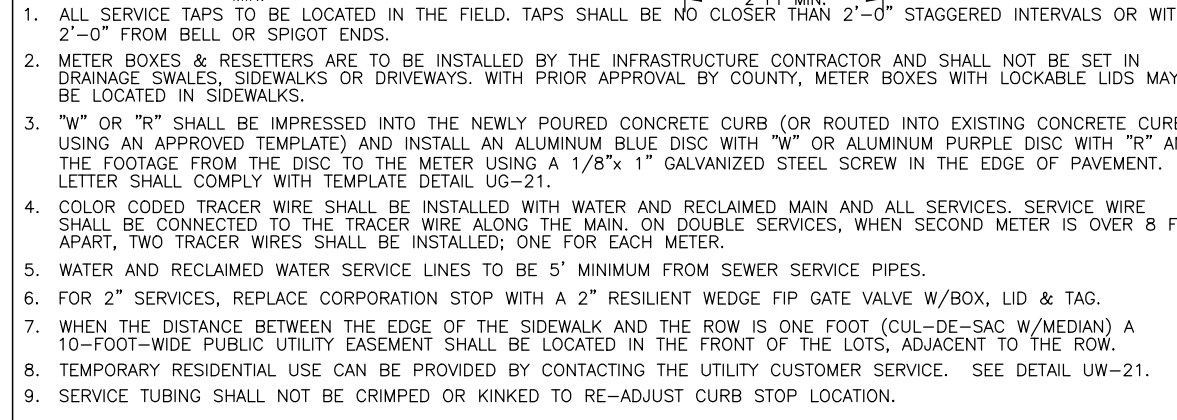
1. RESTRAIN 11.25" BENDS 50% OF LENGTH FOR 22.5" BENDS.
2. ALL VALVES AND FITTINGS SHALL BE RESTRAINED TO THE CONNECTING SECTIONS OF PIPE.
3. ALL ISOLATION VALVES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI TEST PRESSURE IN EITHER DIRECTION.
4. PIPE SIZES ARE GIVEN IN INCHES.
5. RESTRAINED PIPE LENGTHS ARE GIVEN IN FEET.
6. LENGTHS SHOWN ARE FOR A TEST PRESSURE OF 180 PSI.
7. 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 BEFORE THE LENGTHS ARE TO BE APPLIED. LENGTHS MODIFIED ACCORDINGLY.
8. RESTRAINED LENGTHS TO BE APPLIED TO PIPELINES PER DETAIL UG-10 RESTRAINED LENGTHS FOR PIPE.
9. ALL RESTRAINED JOINT HARDWARE SHALL CONFORM TO 1.11.17 OF THE PUBLIC WORKS UTILITIES STANDARDS MANUAL.
10. ALL THREE "LEGS" OF TEES SHALL BE RESTRAINED PER THE STATED LENGTH IN THE TABLE.



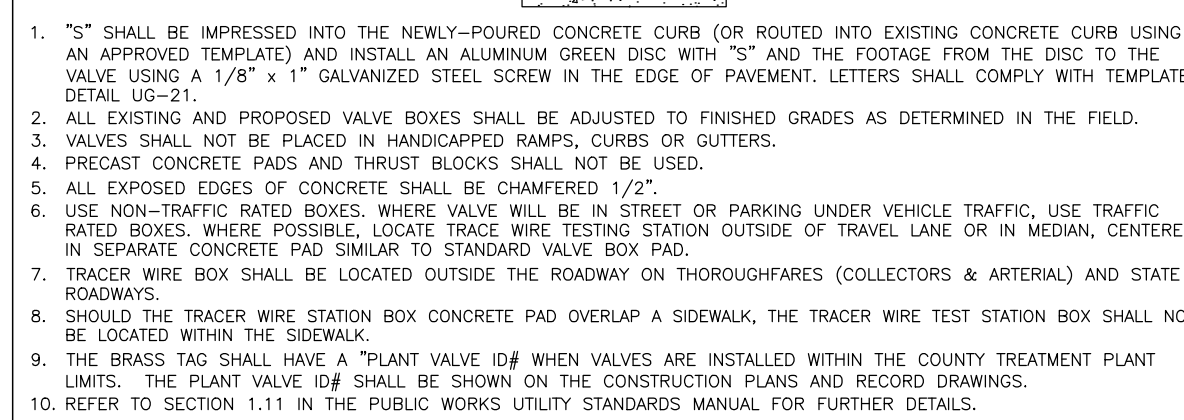
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		RESTRAINED LENGTHS FOR PIPE	UG-
REV. BY	DATE		
	SEPT 12, 2023 DATE OF APPROVAL		



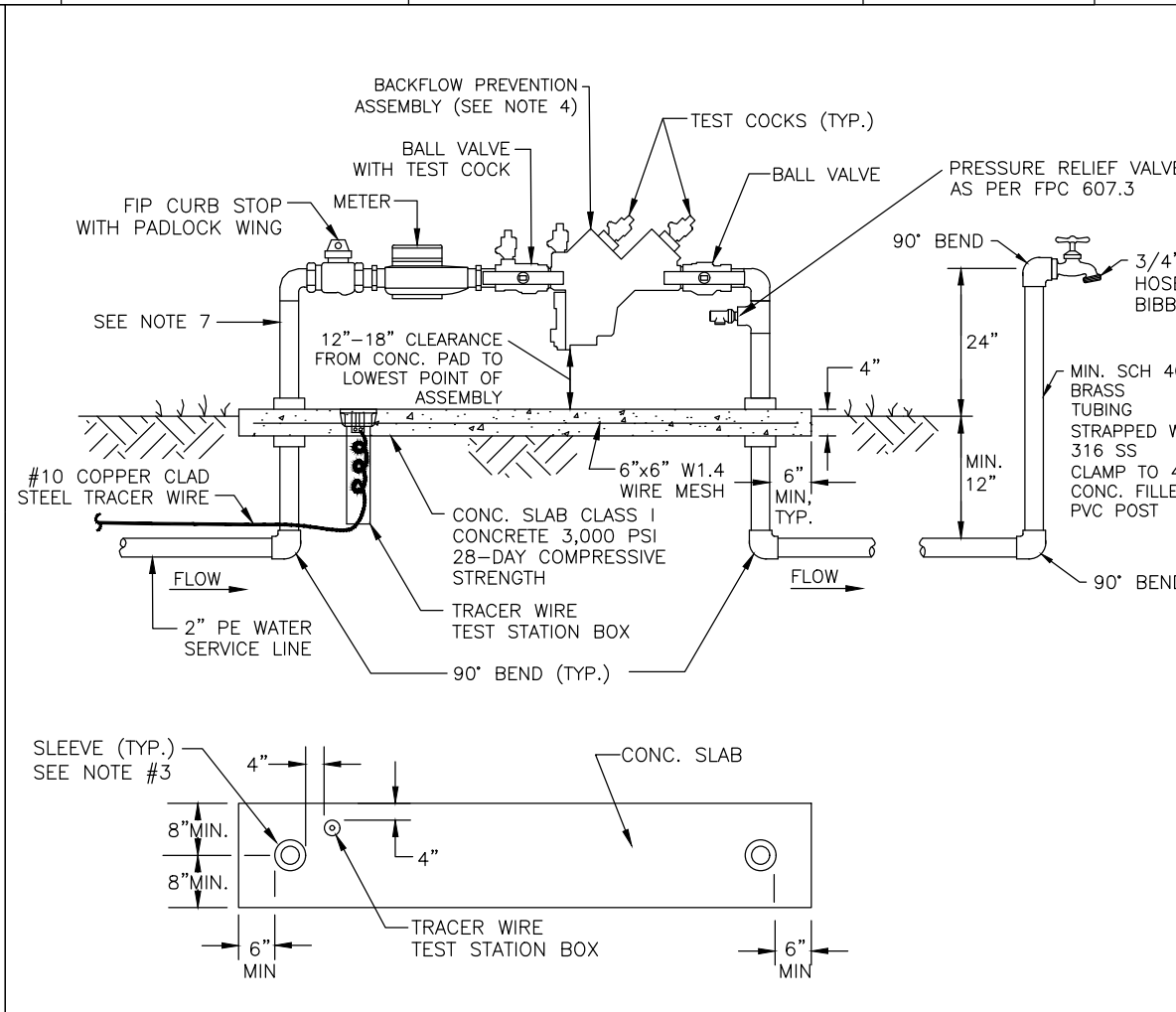
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH ASPHALT PAVEMENT SURFACE TYPE A-1 PIPE BEDDING (CROSSING)	UG-12
REV. BY	DATE		
	SEPT 12, 2023		
	DATE OF APPROVAL		



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TYPICAL SERVICE CONNECTION	UW-23
REV. BY	DATE		
	SEPT 12, 2023 DATE OF APPROVAL		




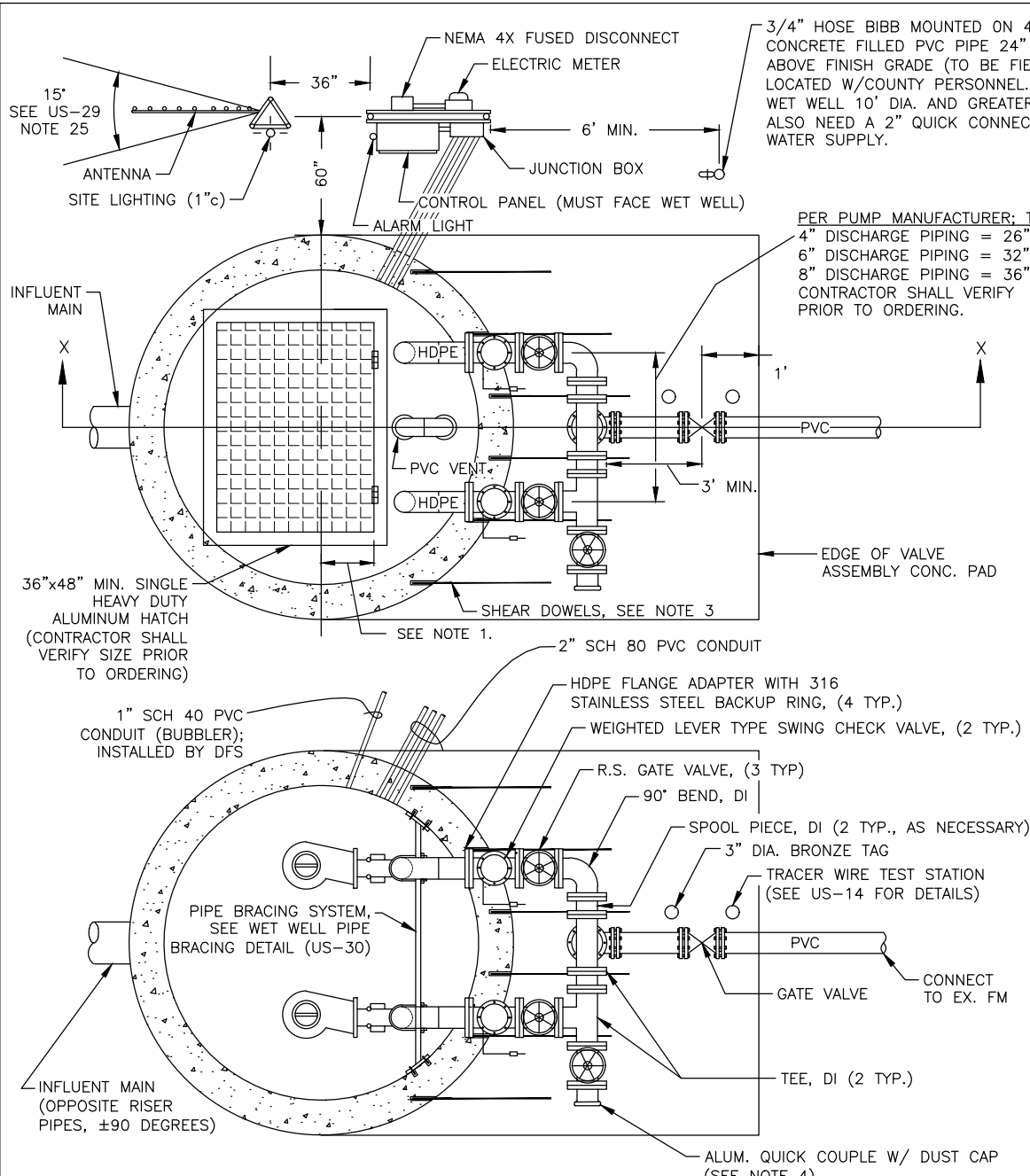
MANATEE COUNTY PUBLIC WORKS DEPARTMENT			VALVE, BOX, COVER AND TAG	US-14
REV. BY	DATE			
JSS	2/24			
		SEPT 12, 2023 <hr/> DATE OF APPROVAL		



- NOTES:
1. BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED DOWNSTREAM OF METER, AS CLOSE TO METER AS POSSIBLE.
2. COPPER PIPE TYPE "K" OR "L" OR BRASS PIPE MINIMUM SCHEDULE 40 SHALL BE USED TO A MINIMUM DEPTH OF 12" BELOW GRADE.
3. PIPES PASSING THROUGH OR ENCASED IN CONCRETE MUST BE PROPERLY PROTECTED AND SLEEVED.
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.
7. PRESSURE REDUCING VALVE REQUIRED UPSTREAM OF BACKFLOW PREVENTION ASSEMBLY, IF SYSTEM PRESSURE EXCEEDS 80 PSI.
8. 3" MIN. CLEARANCE FROM LANDSCAPING PLANTS AND 10' MIN. CLEARANCE FROM TREES TO EDGE OF CONCRETE SLAB REQUIRED FOR CLEAR OPENING FOR ACCESS FROM ABOVE.
9. THE WATER METER AND BACKFLOW PREVENTION ASSEMBLY SHALL BE LOCATED AT THE ROW LINE. THE BACKFLOW PREVENTION ASSEMBLY FOR PRIVATE LOT STATIONS SHALL BE LOCATED ADJACENT TO THE ROW LINE OR WITHIN AN ADJACENT LOTSIDE OF THE FENCING.
10. SATELLITE LOT STATIONS SHALL HAVE A 2" WATER SERVICE LINE, A 5/8-INCH WATER METER, AND A 3/4-INCH REDUCED PRESSURE (RP2) BACKFLOW PREVENTION ASSEMBLY, AND A SEPARATE POST MOUNTED HOBBE STATIONS WITH WET PIPES. 10-12" DIAMETER 10 FEET DEEP LARGER SHALL HAVE A 2-INCH WATER METER AND RP2 BACKFLOW PREVENTION ASSEMBLY, AND AN ADDITIONAL 2" ALUMINUM QUICK CONNECT HOSE CONNECTION, SEE DETAILS U-22. ALL ITEMS SHALL BE FIELD LOCATED WITH COUNTY PERSONNEL.
11. DISINFECTANTS SHALL BE 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		5/8" WATER METER & BACKFLOW PREVENTION ASSEMBLY FOR LIFT STATIONS	US-21
REV. BY	DATE		
SEPT 12, 2023 DATE OF APPROVAL			

REVISIONS		 1022 26th Avenue East, Bradenton, FL 34208	<p>J. SHEA SHOUN, P.E., STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 60923.</p> <p>THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY J. SHEA SHOUN, P.E. ON THE DATE INDICATED HERE.</p> <p>PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.</p>	MANATEE COUNTY PUBLIC WORKS DEPARTMENT					SATELLITE LIFT STATION R&R 2025 GROUP 3 DETAILS 1	SHEET NO.
DATE	DESCRIPTION			PROJECT #	402.0019707	SURVEYED	-	-		
				SEC./TWN./RGE	N/A	DESIGNED	JSS	8/2024		
		SCALE	NTS	DRAWN	JKW	8/2024				

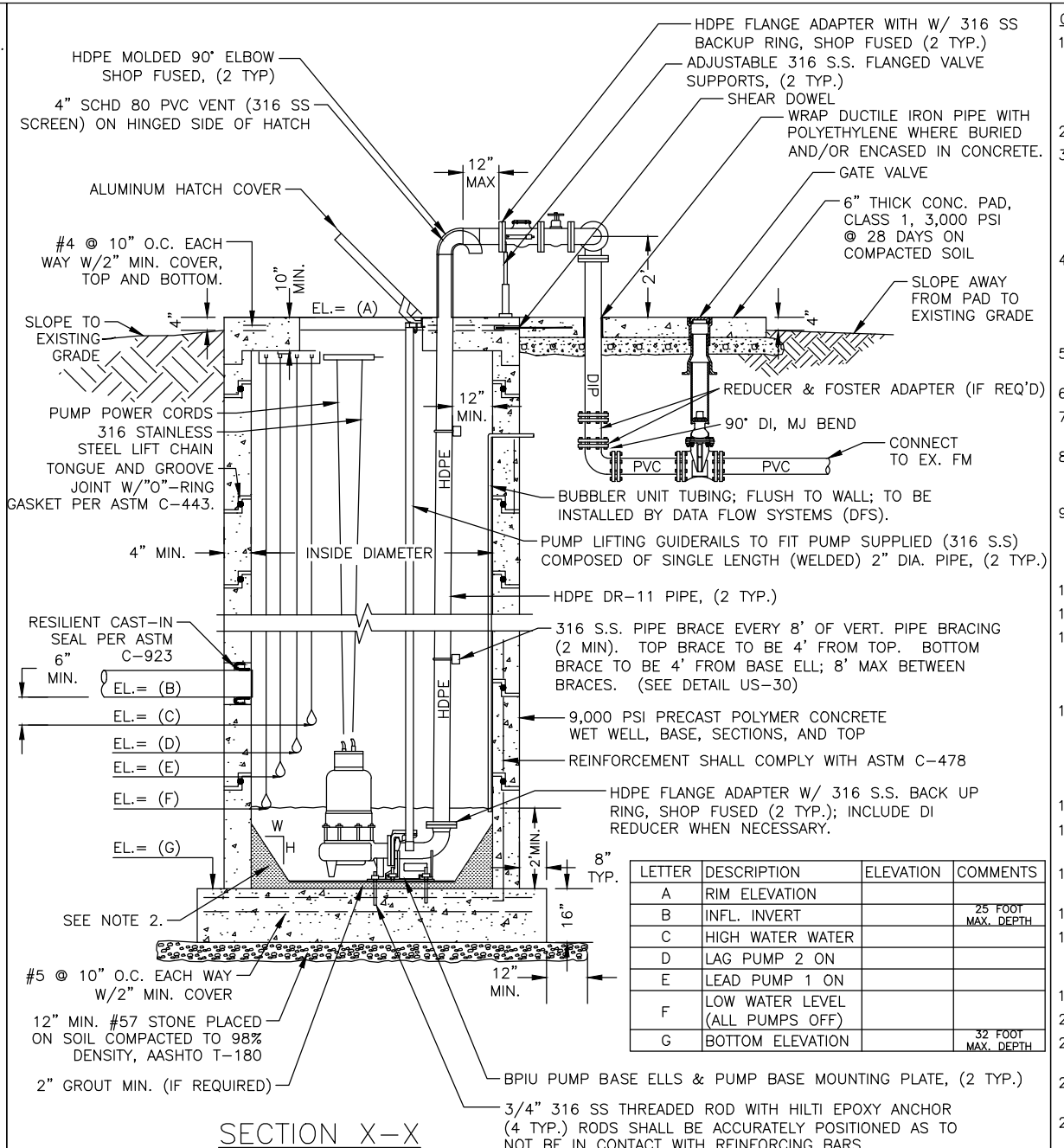


- NOTES:
- FOR 6" DIA. WET WELLS, THE HINGED SIDE OF THE HATCH OPENING SHALL BE OFFSET 12" FROM CENTERLINE.
 - A FLOW METER SHALL BE INSTALLED UPSTREAM OF ISOLATION GATE VALVE FOR ALL LIFT STATIONS THAT RE-PUMP SEWAGE FROM OTHER LIFT STATIONS.
 - #5 REBAR (6 TYP.) SHALL BE EPOXY EMBEDDED INTO THE WET WELL TOP 3-4 INCHES DEEP AND CAST 3-4 FEET INTO THE VALVE ASSEMBLY PAD TO ENSURE THE TOPS OF THE WET WELL AND VALVE ASSEMBLY PAD WILL REMAIN FLUSH.
 - QUICK COUPLE SHALL BE PLACED ON THE SIDE CLOSEST TO THE LIFT STATION DRIVEWAY.
 - POLYMER CONCRETE W/ 9,000 PSI COMPRESSIVE STRENGTH SHALL BE USED IN THE WET WELL CONSTRUCTION. STANDARD PORTLAND CONCRETE MAY BE USED FOR THE VALVE ASSEMBLY PAD, 3,000 PSI 28-DAY COMPRESSIVE STRENGTH.
 - FOR SECTION X-X SEE SEWAGE LIFT STATION, SECTION VIEW ON DETAIL US-28.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	
REV. BY	DATE
	SEPT 12, 2023
	DATE OF APPROVAL

SEWAGE LIFT STATION
PLAN VIEW

US-26

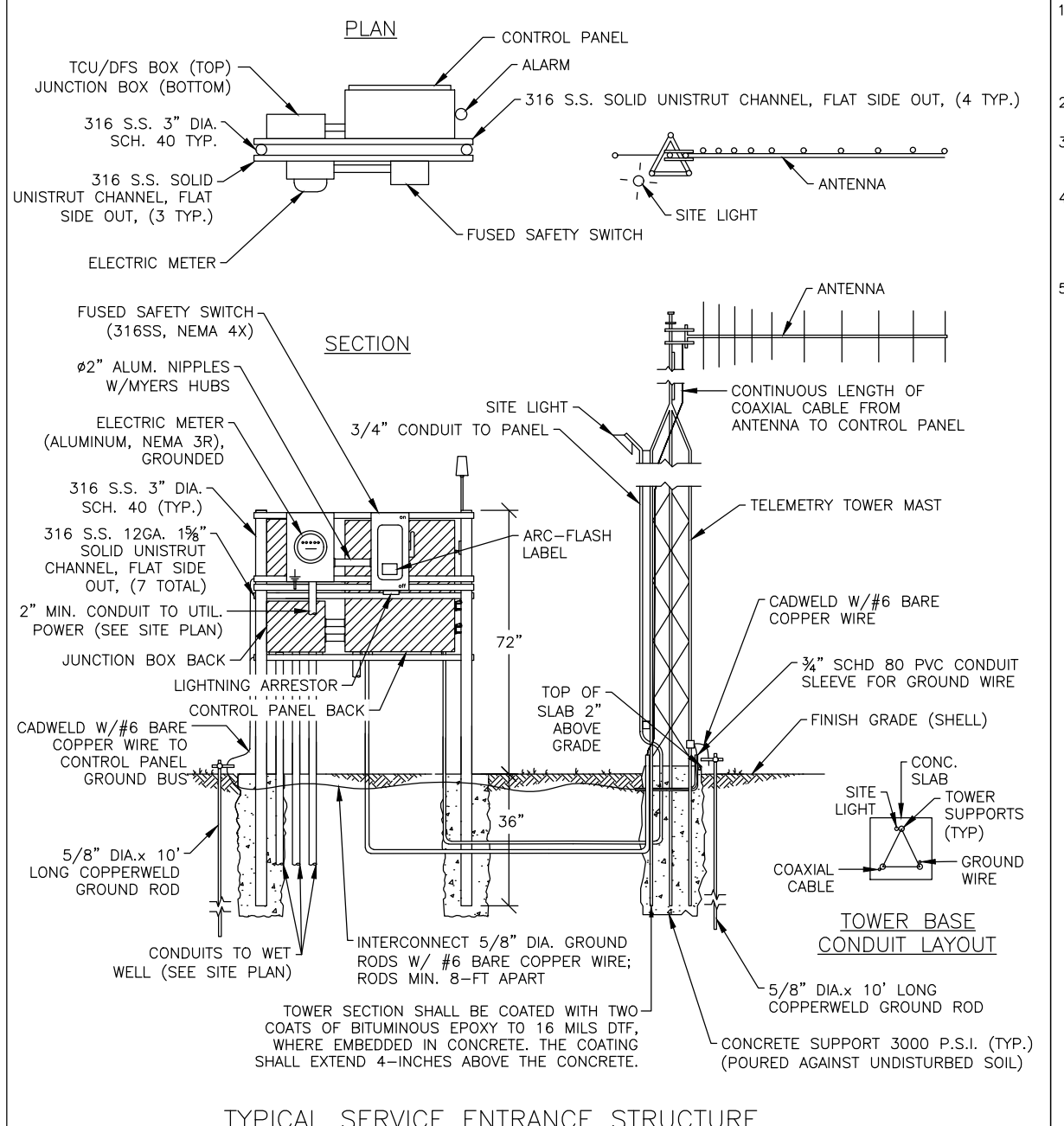


- NOTES:
- 6" MINIMUM VERTICAL SPACING BETWEEN ALL PUMP AND ALARM CONTROL LEVELS.
 - POLYMER CONCRETE FILLET ALL AROUND WET WELL 6'-FT DIA=12'-H x 6'-W, 8'-FT DIA. & GREATER=18'-H x 12'-W.
 - THE VALVE GASKET PAD SHALL BE OVER A BROW FINISH. THE SURFACE VARIATIONS SHALL BE NOT MORE THAN 1/4" UNDER A TEN FOOT (10') STRAIGHT EDGE, NOT MORE THAN 1/8" ON A FIVE FOOT (5') TRANSVERSE SECTION. THE EDGE OF THE CONCRETE PAD SHALL BE CAREFULLY FINISHED WITH A EDGING TOOL, HAVING A RADIUS OF 1/2".
 - EXPANSION JOINT: EXPANSION JOINTS BETWEEN THE CONC. PAD AND THE WET WELL SHALL BE 1/2" MATERIAL AND SHALL MEET THE REQUIREMENTS OF AASHTO M183 OR AASHTO M213.
 - THIS DETAIL SHALL APPLY TO LIFT STATIONS WITH 4" OR GREATER FORCE MAINS. LIFT STATIONS WITH FORCE MAINS LESS THAN 4" REFER TO DETAIL US-34.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	
REV. BY	DATE
	SEPT 12, 2023
	DATE OF APPROVAL

SEWAGE LIFT STATION
SECTION VIEW

US-28



- NOTES:
- ALL EQUIPMENT FURNISHED FOR THE LIFT STATION SHALL CONFORM TO MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.
 - POWER TO BE SUPPLIED AS DIRECTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH PROVIDING TEMPORARY AND PERMANENT ELECTRICAL SERVICE.
 - STAINLESS STEEL CONTROL PANEL SUPPORT POSTS SHALL BE TREATED WITH TWO COATS OF BITUMINOUS EPOXY TO 16 MILS WHERE EMBEDDED IN CONCRETE.
 - CONTROL AND FLOW METER ENCLOSURE TO BE NEMA 3R/12 504 STAINLESS STEEL WITH RAIN SHIELD. DISCONNECT ENCLOSURE TO BE NEMA 4X 304 STAINLESS STEEL.
 - ALL PVC CONDUIT SHALL BE SCHEDULE 80.
 - ELECTRICITY TOWER MAST SHALL BE RATED FOR 150 MPH WINDS.
 - IF TELEMETRY TOWER MAST IS MORE THAN 18-INCHES FROM PANEL, RUN ALL CONDUIT UNDERGROUND.
 - DISCONNECT MUST HAVE PROPERLY ENGINEERED ARC FLASH LABEL PER IEEE 1582 / NFPA 70E.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	
REV. BY	DATE
JSS	8/24
	SEPT 12, 2023
	DATE OF APPROVAL

SEWAGE LIFT STATION
METER & ELECTRICAL
DETAILS

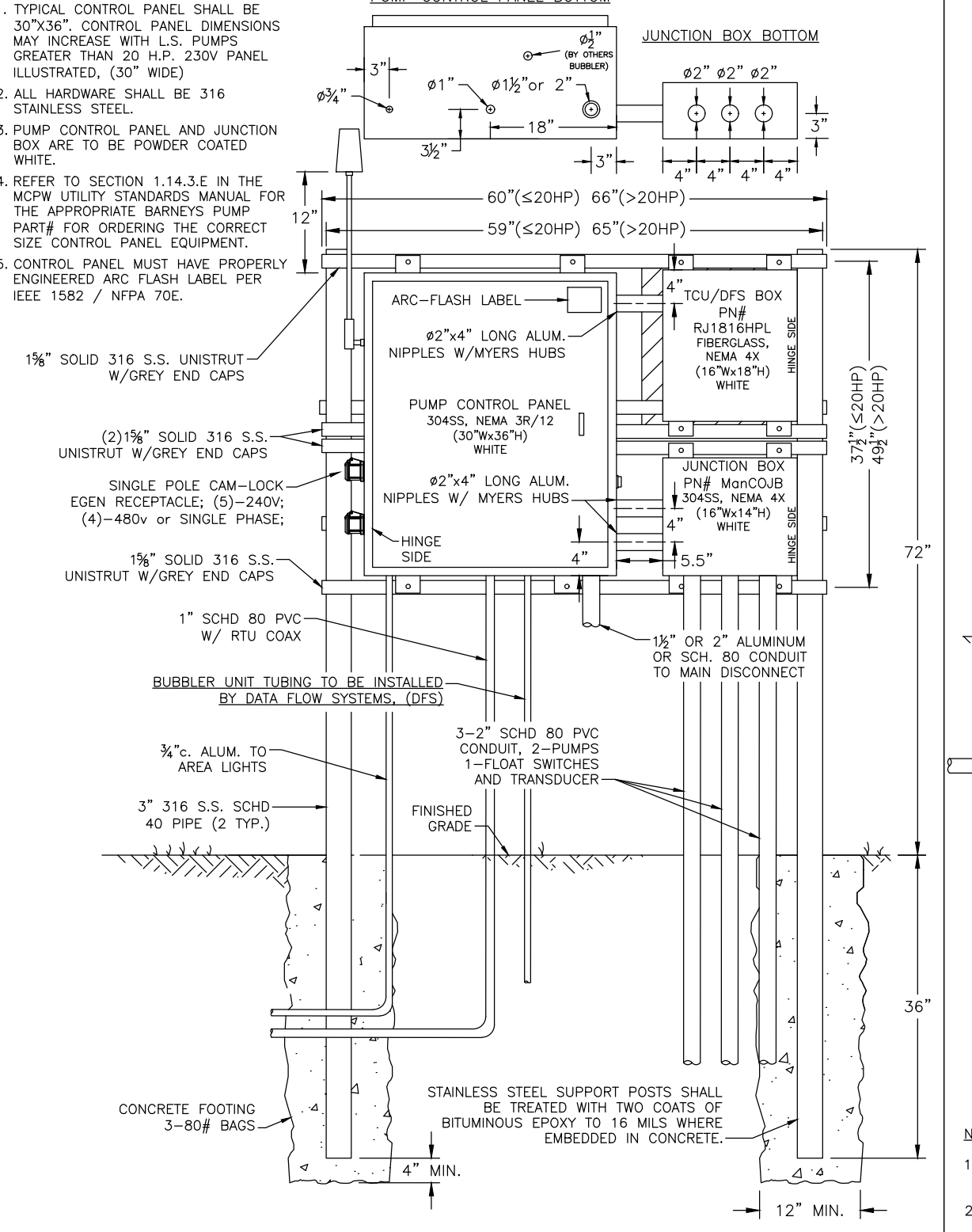
US-32

- GENERAL LIFT STATION NOTES:
- ALL ACCESS COVERS SHALL BE ALUMINUM, WITH 316 STAINLESS STEEL HARDWARE AND RATED FOR 300 P.S.F. LOADING. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL HAVE 2 COATS BITUMINOUS EPOXY, TOTAL 16 MILS DFT. ALL ACCESS COVERS SHALL BE EQUIPPED WITH A LOCKING STAPLE OR BAR FOR USE WITH A PADLOCK. PADLOCKS FOR WETWELL, FENCE GATE AND CONTROL PANELS ARE PUBLICLY OWNED & MAINTAINED LIFT STATIONS SHALL BE FURNISHED BY THE MANATEE COUNTY UTILITIES DEPARTMENT, UPON ACCEPTANCE.
 - INSTALL WET WELL VENT ON THE HINGED SIDE OF THE WET WELL HATCH COVER, BETWEEN DISCHARGE PIPING AND MATCH HEIGHT.
 - GROUND SHALL BE SLOPED AWAY FROM SLAB TO NATURAL GROUND ELEVATION IN ALL DIRECTIONS. A 4-INCH REVEAL SHALL BE REQUIRED AROUND THE PERIMETER OF THE WET WELL. THE REVEAL SHALL BE COVERED WITH SHREDDED WOOD TYPE ROCK WITHIN LIFT STATION FENCING. SITE SHALL INCLUDE A WEED BARRIER FABRIC THAT IS COVERED WITH SHREDDED WOOD TYPE MULCH. MULCH SHALL BE LOCATED UNDER THE TREES FOR A MINIMUM DISTANCE OF 3 FEET FROM THE TREE. SODDING OR SHREDDED WOOD-TYPE MULCH SHALL BE INSTALLED ON THE REMAINDER OF THE SITE TO THE EDGE OF THE DRAINAGE.
 - FORCE MAIN PIPING AND FITTINGS FROM THE PUMP BASE FLOW IN THE WETWELL UP TO THE CHECK VALVE IN THE ABOVE GROUND VALVE ASSEMBLY, SHALL BE DR11 HDPE. THE HDPE FITTINGS SHALL BE MOLDED FITTINGS. ALL CONNECTIONS TO IRON BODIED FLANGE FITTINGS IN THE WETWELL (PUMP BASE ELLS) AND TO THE CHECK VALVES SHALL BE MADE USING HDPE FLANGE ADAPTERS WITH 316 STAINLESS STEEL BACKUP RINGS. ALL HDPE CONNECTIONS SHALL BE THERMAL FUSED. ALL PIPING DOWNSTREAM OF THE VALVE ASSEMBLY TO THE FIRST BURIED FITTING SHALL BE DUCTILE IRON PIPE (CL-53), THEN PIPING (DR18).
 - ALL PIPING BELOW GROUND SHALL BE COLOR CODED IN ACCORDANCE WITH THESE STANDARDS, GREEN-RAW SEWAGE; PURPLE-RECLAIMED BLUE-POTABLE WATER.
 - ANCHORS & LIFTING DEVICES SHALL NOT PENETRATE THE WALLS OF THE WET WELL.
 - ALL TOP, SECTIONS, AND BASE SHALL BE PRECAST POLYMER CONCRETE, MIN. 9,000 PSI COMPRESSIVE STRENGTH. SEE PRECAST POLYMER CONCRETE SANITARY SEWER MANHOLE FOR TURBULENT FLOW DETAIL.
 - ALL ABOVE-GROUND METAL APPURTENANCES INCLUDING BOLTS, NUTS AND WASHERS SHALL BE 316 STAINLESS STEEL. ALL STAINLESS STEEL BOLTS SHALL BE TREATED WITH NEVER-SEIZE PRIOR TO ASSEMBLY. ALL FLANGED CONNECTIONS SHALL REQUIRE FLAT 316 STAINLESS STEEL WASHERS ON BOTH SIDES TO PROTECT COATINGS.
 - VERTICAL HDPE PUMP DISCHARGE PIPE IN THE WET WELL SHALL BE BRACED PER DETAIL US-28. THE PIPE SHALL BE CLAMPED TO A SINGLE LENGTH OF 2" 316 SS TUBING (OR 2" 316 SS ANGLE) INSTALLED HORIZONTALLY. THE TUBE SHALL HAVE 6"x6"x1/2" PLATES WELDED TO EACH END AND ATTACH TO THE WALL BY 316 SS ANCHORS. THE PIPE SHALL BE CLAMPED TO THE TUBING WITH 316 SS 3/8" DIA. U-BOLTS.
 - CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT FLOTATION.
 - TOP OF WET WELL AND VALVE ASSEMBLY SLAB SHALL BE AT THE SAME ELEVATION.
 - THE EXTERIOR SURFACES OF THE CONCRETE WET WELL AND VALVE ASSEMBLY PAD EXPOSED ABOVE GRADE SHALL BE COATED WITH AT LEAST TWO COATS OF 1/4" SILICONE ACRYLIC CONCRETE STAIN, PATO GREEN, MANUFACTURED BY FLR PAINTS, INC. THE EXTERIOR GROUND SURFACES SHALL BE PAINTED, RUSTOLEUM 753B HUNTER GREEN. CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID OVER-SPRAY ONTO THE VALVE ASSEMBLY CONCRETE PAD.
 - SATELLITE LIFT STATIONS SHALL HAVE A 2" WATER SERVICE LINE, A 5/8-INCH WATER METER, AND A 3/4-INCH REDUCED PRESSURE (RP2) BACKFLOW PREVENTION ASSEMBLY, AND A SEPARATE POST MOUNTED HOSE BIBB. STATIONS WITH WET WELL DIAMETERS 10 FEET AND LARGER SHALL HAVE A 2-INCH METER AND RP2 BACKFLOW PREVENTION ASSEMBLY, AND AN ADDITIONAL 2" ALUMINUM QUICK CONNECT HOSE CONNECTION. SEE DETAIL US-22. ALL ITEMS SHALL BE FIELD LOCATED WITH COUNTY PERSONNEL.
 - LANDSCAPING SHALL BE IRRIGATED WITH NON-POTABLE WATER. A RAIN SENSOR SHALL BE FURNISHED AND INSTALLED.
 - HOSE BIB TO BE A MINIMUM OF 6 FEET FROM THE ELECTRICAL CONTROL PANEL, 24" ABOVE THE SURROUNDING FINISH GRADE, AND ANCHORED TO A 4" PVC CONDUIT FILLED PIPE. EXACT LOCATION TO BE DETERMINED IN THE FIELD W/ COUNTY PERSONNEL.
 - WATER METER ASSEMBLY TO BE INSTALLED BY CONTRACTOR AS PART OF WATER SERVICE CONNECTION WITH FEES PAID BY THE DEVELOPER.
 - BASE AND FIRST WALL SECTION OF WET WELL SHALL BE MONOTHIC.
 - EVERY EFFORT SHALL BE MADE BY THE CONTRACTOR TO CONSTRUCT WATERTIGHT STRUCTURES WITH NO VISIBLE LEAKS. COMPLETED STRUCTURES THAT ARE NOT WATERTIGHT AND/OR DO NOT MEET THE REQUIREMENTS OF ASTM C-443 WILL BE REJECTED.
 - FLEXIBLE GASKET CONNECTORS SHALL MEET THE REQUIREMENTS OF ASTM C-923 LATEST REVISION.
 - ALL GATE VALVES SHALL BE RESILIENT SEAT NON-RISING STEM TYPE IN ACCORDANCE WITH THESE STANDARDS.
 - ELECTRIC UTILITY SERVICE SHALL BE 3 PHASE MINIMUM, UNLESS THE ELECTRICAL UTILITY PROVIDES CORRESPONDENCE STATING THAT 3 PHASE SERVICE IS UNAVAILABLE.
 - ELECTRICAL CONDUIT SHALL BE RUN BY THE SHORTEST ROUTE POSSIBLE FROM THE ELECTRICAL SOURCE TO THE CONTROL PANEL AND FROM THE CONTROL PANEL TO THE LIFT STATION WET WELL.
 - A FLOW METER AND DIESEL EMERGENCY BACKUP GENERATOR SHALL BE REQUIRED FOR ALL LIFT STATIONS THAT MEET THE CRITERIA LISTED IN SECTION 1.14 OF THE PUBLIC WORKS UTILITY STANDARDS MANUAL.
 - THE CONTROL PANEL, HOSE BIBB, EMERGENCY BACKUP GENERATOR, FUEL STORAGE TANK AND ANTENNA SHALL NOT BE LOCATED BETWEEN THE WET WELL, VALVE ASSEMBLY AND THE DRIVEWAY. THE PUMP SHALL NOT BE LOCATED WITHIN 25 FEET OF THE EDGE OF THE LIFT STATION EASEMENT AT THE ROW LINE.
 - THE ANTENNA FOR THE RADIO TELEMETRY UNIT REQUIRES DIRECT LINE-OF-SIGHT SIGNALING CAPABILITY TO THE UTILITIES DEPARTMENT'S OFFICE THAT WILL RECEIVE THE SIGNAL. THERE SHALL BE AN UNOBSTRUCTED HORIZONTAL ANGLE OF FIFTEEN (15) DEGREES FROM THE ANTENNA MAST (7.5 DEGREES ON BOTH SIDES OF THE DIRECT LINE-OF-SIGHT AZIMUTH). NO TREE SHALL BE PLANTED WITHIN THE DESIGNATED UNOBSTRUCTED ANGLE. A TWENTY (20) FEET HORIZONTAL DISTANCE MEASURED FROM THE MAST, LANDSCAPE BUFFER PLANTINGS ARE TO BE FIELD ADJUSTED IN COORDINATION WITH THE LOCATION OF THE CONSTRUCTED TELEMETRY ANTENNA. THE ANTENNA TOWER/MAST SHALL BE TO THE LEFT OF THE CONTROL PANEL.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	
REV. BY	DATE
	SEPT 12, 2023
	DATE OF APPROVAL

LIFT STATION NOTES

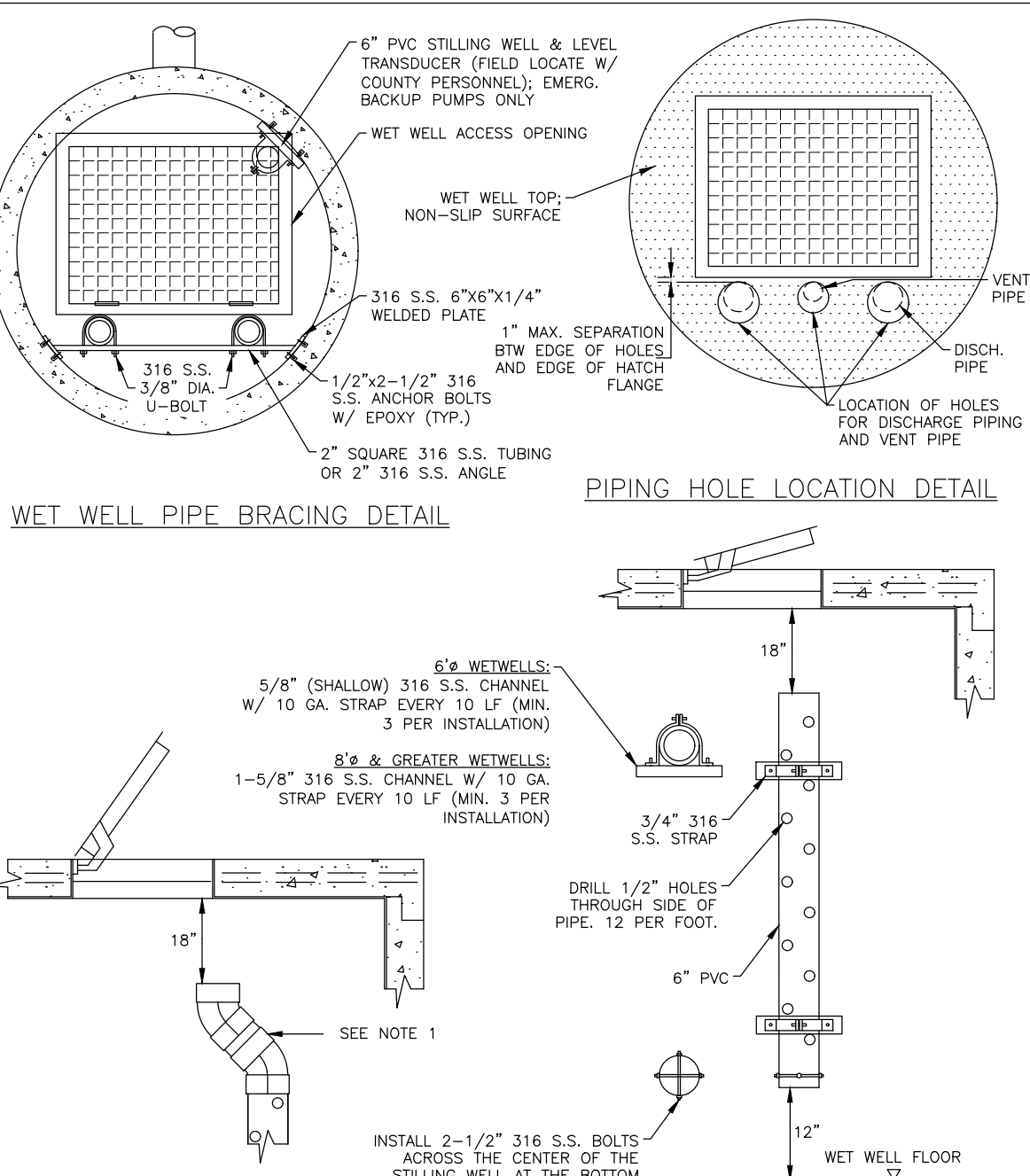
US-29



MANATEE COUNTY PUBLIC WORKS DEPARTMENT	
REV. BY	DATE
JSS	7/24
	SEPT 12, 2023
	DATE OF APPROVAL

SEWAGE LIFT STATION
CONTROL PANEL

US-33

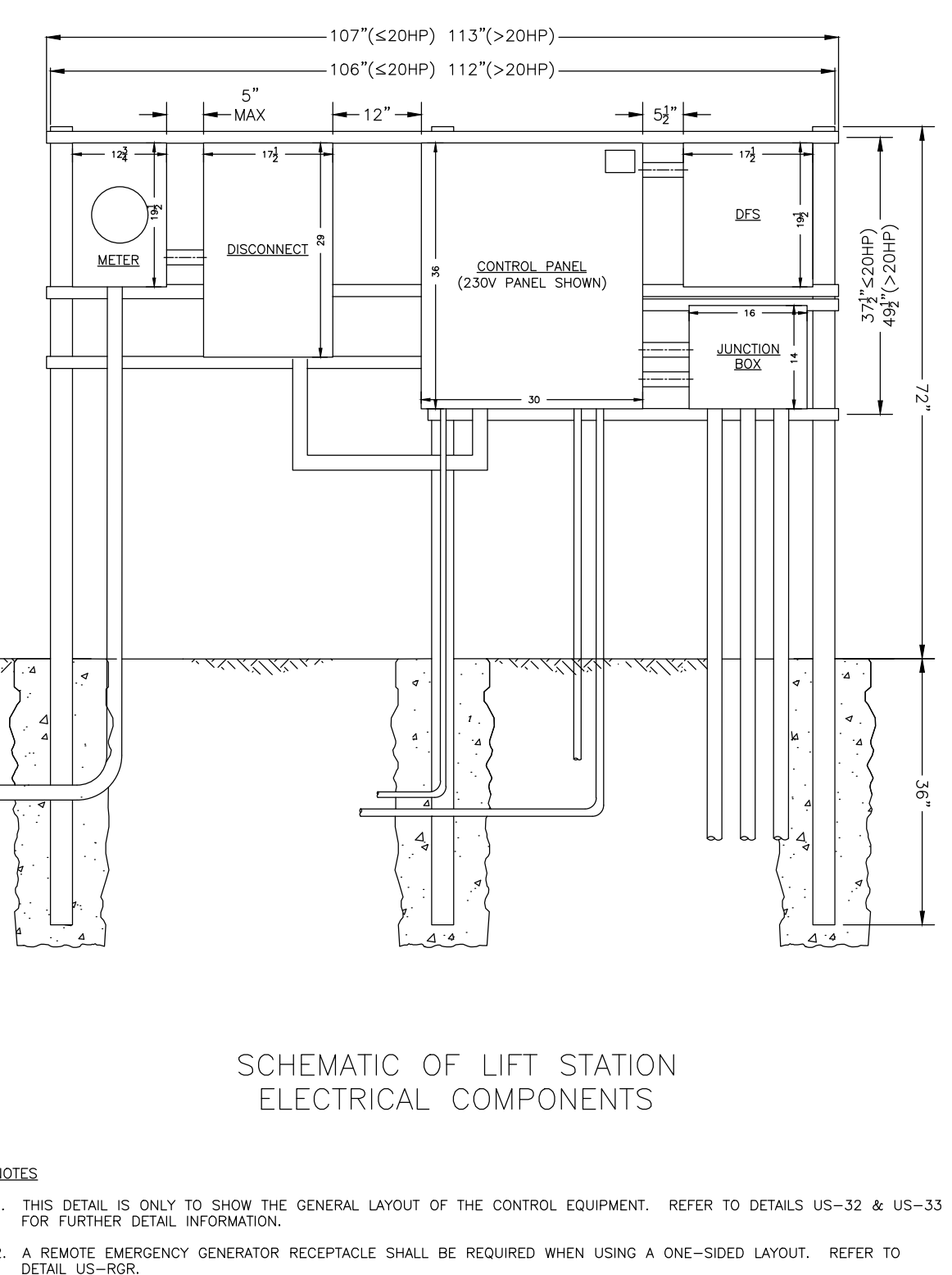


- NOTES:
- FOR LARGER LIFT STATIONS, PROVISIONS SHALL BE MADE TO MAKE THE TOP OF THE STILLING WELL VISIBLE AND ACCESSIBLE FROM THE HATCH OPENING, I.E. 45° FITTINGS, ETC.
 - NYLON LOCK NUTS SHALL NOT BE USED ON WEDGE ANCHORS.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	
REV. BY	DATE
	SEPT 12, 2023
	DATE OF APPROVAL

LIFT STATION PIPE
BRACING, & STILLING
WELL DETAILS

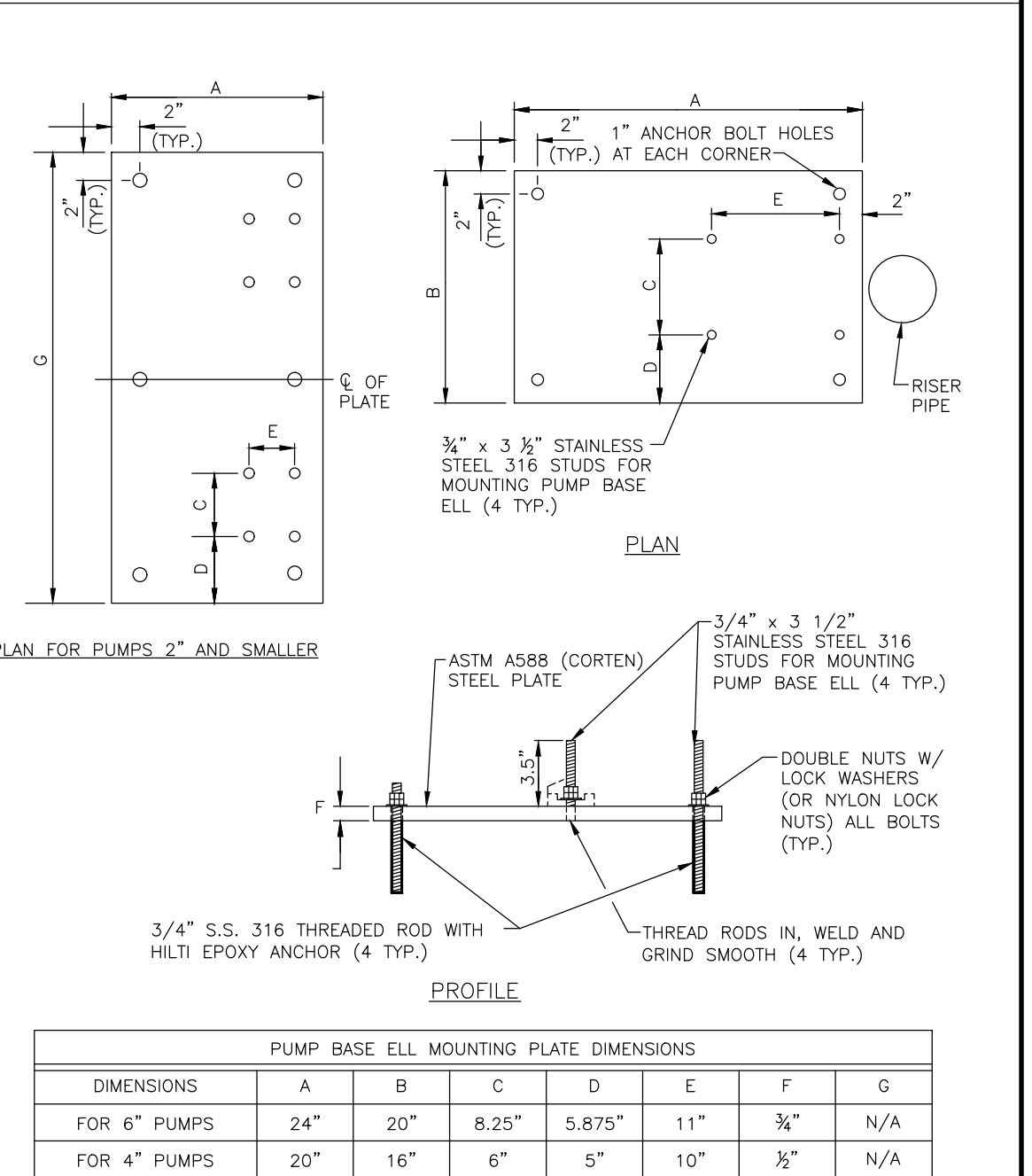
US-30



MANATEE COUNTY PUBLIC WORKS DEPARTMENT	
REV. BY	DATE
	SEPT 12, 2023
	DATE OF APPROVAL

SEWAGE PUMP STATION
CONTROL PANEL
(ONE-SIDED LAYOUT)

US-OSL



- NOTES:
- INSTALL DOUBLE NUTS (OR NYLON LOCK NUTS) ON ALL EIGHT (8) THREADED RODS.
 - THE PLATE EDGES AND ALL HOLES SHALL BE GROUND SMOOTH TO REMOVE ALL BURRS.
 - DIMENSIONS "C" AND "E" ARE FOR BARNEY'S PUMPS, INC. BASE ELLS.
 - FOR PUMPS WITH A 2-INCH DISCHARGE OR LESS, A SINGLE BASE PLATE SHALL BE INSTALLED UNDER BOTH GRINDER PUMPS.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	
REV. BY	DATE
	SEPT 12, 2023
	DATE OF APPROVAL

PUMP BASE ELL
MOUNTING PLATE

US-31

REVISIONS	
DATE	DESCRIPTION



1022 26th Avenue East, Bradenton, FL 34208

J. SHEA SHOUN, P.E., STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 60923.

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J. SHEA SHOUN, P.E. ON THE DATE INDICATED HERE.

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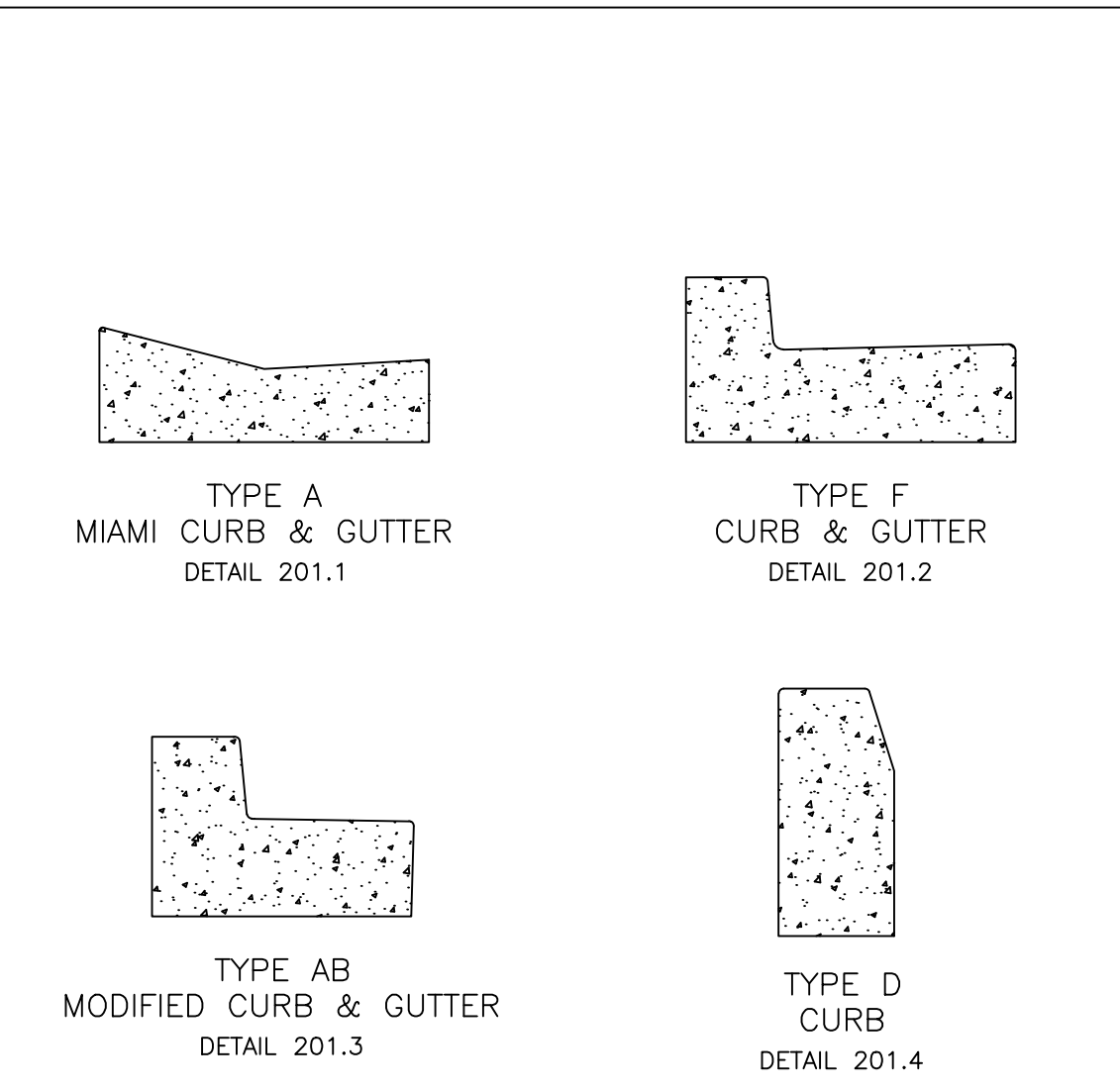
MANATEE COUNTY PUBLIC WORKS DEPARTMENT				
PROJECT #	402.0019707	SURVEYED	-	-
SEC./TWN./RGE	N/A	DESIGNED	JSS	8/2024
SCALE	NTS	DRAWN	JKW	8/2024

SATELLITE LIFT STATION R&R
2025 GROUP 3
DETAILS 2

SHEET
NO.
08 of 10

Originally plotted by Kyle Wright at 1:1 scale on 5/9/2025 at 8:10:38 AM on ANSI full bleed D (34.00 x 22.00 Inches) paper using CIP-2023.STB. File Name: SLS R&R 2025-3.DWG

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C. SATELLITE LIFT STATION R&R 2025 GROUP 3



NOTES:

- ALL CURB AND GUTTER SHALL HAVE A 1/8" TO 1/4" CONTRACTION JOINT AT 10' CENTERS.
- ALL CURB AND GUTTER SHALL BE CONSTRUCTED IN COMPLIANCE WITH FDOT STANDARD PLANS, INDEX NO. 520-001, LATEST EDITION.
- TOP OF FINISHED PAVEMENT SHALL BE 1/4" ABOVE LIP OF GUTTER ON THE LOW SIDE.

TYPE A
MIAMI CURB & GUTTER

TYPE F
CURB & GUTTER

TYPICAL SIDEWALK LOCATION

NOTES:

A. CLASS 1 CONCRETE 3,000 PSI AT 28 DAYS.

B. CURB AND GUTTER SHALL MEET FDOT STANDARD SPECIFICATIONS AND FDOT STANDARD PLANS, INDEX 520-001, LATEST EDITION.

NOTES:

A. CLASS 1 CONCRETE 3,000 PSI AT 28 DAYS.

B. CURB AND GUTTER SHALL MEET FDOT STANDARD SPECIFICATIONS AND FDOT STANDARD PLANS, INDEX 520-001, LATEST EDITION.


SIDEWALK LOCATION CLOSE TO TREES

NOTES:

A. CLASS 1 CONCRETE 3,000 PSI AT 28 DAYS.

B. CURB AND GUTTER SHALL MEET FDOT STANDARD SPECIFICATIONS AND FDOT STANDARD PLANS, INDEX 520-001, LATEST EDITION.

E., STATE OF FLORIDA, JER, LICENSE NO. 60923. TALLY SIGNED AND SEALED BY THE DATE INDICATED HERE. THIS DOCUMENT ARE NOT SEALED AND THE SIGNATURE ANY ELECTRONIC COPIES.	MANATEE COUNTY PUBLIC WORKS DEPARTMENT					SATELLITE LIFT STATION R&R 2025 GROUP 3 DETAILS 3	SHEET NO.
	PROJECT #	402.0019707	SURVEYED	-	-		09 of 10
	SEC./TWN./RGE	N/A	DESIGNED	JSS	8/2024		
	SCALE	NTS	DRAWN	JKW	8/2024		

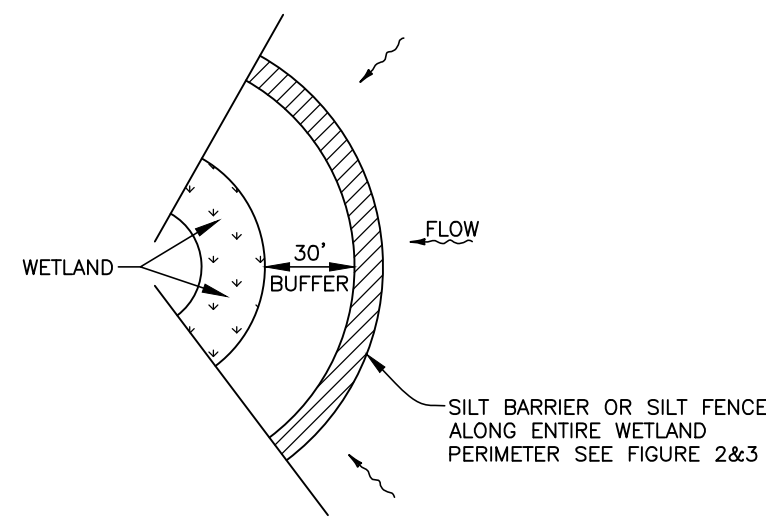


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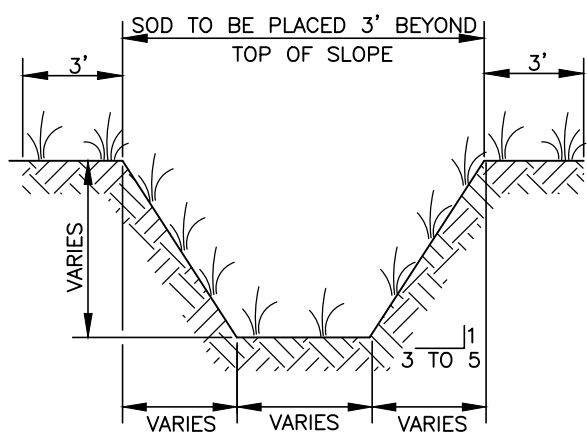
MANATEE COUNTY PUBLIC WORKS DEPARTMENT				
PROJECT #	402.0019707	SURVEYED	-	
SEC./TWN./RGE	N/A	DESIGNED	JSS	8/2024
SCALE	NTS	DRAWN	JKW	8/2024

SHEET
NO.

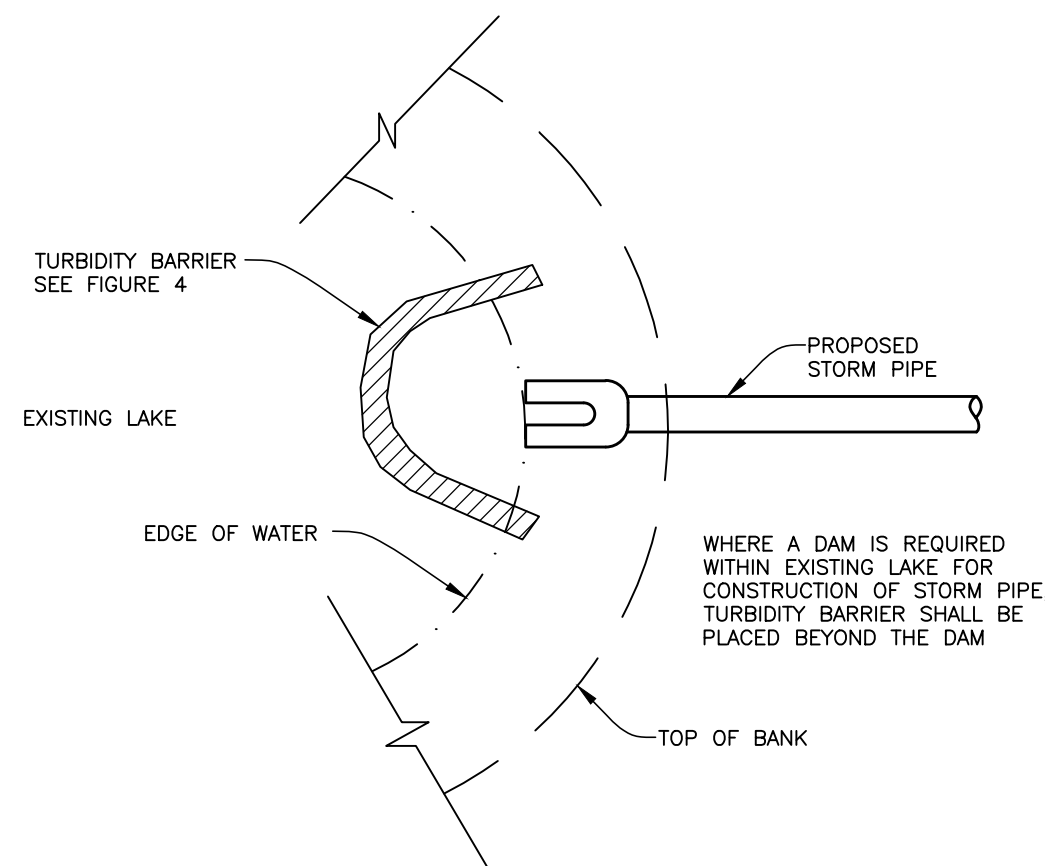
09 of 10



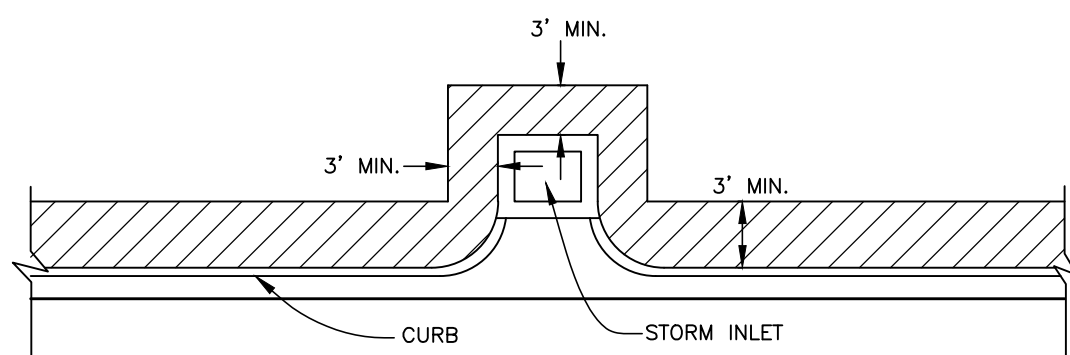
WETLAND BUFFER
FIGURE 1



TYPICAL SWALE SECTION
FIGURE 5

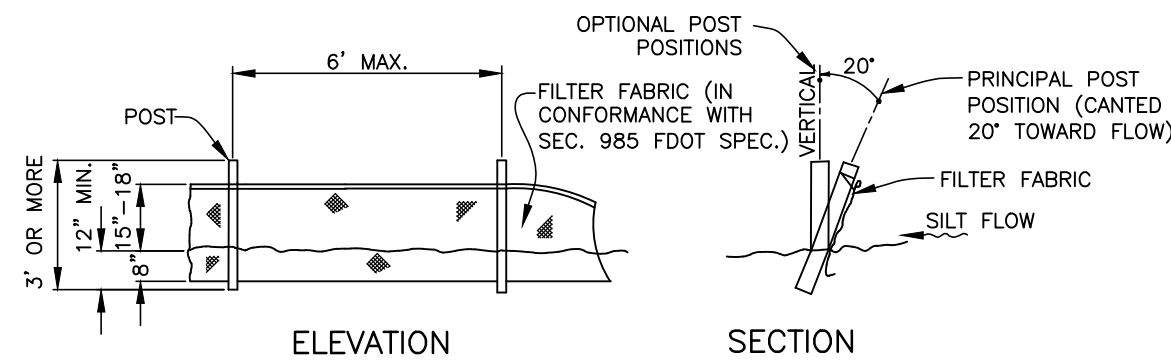


TURBIDITY BARRIER AT CONNECTION OF
STORM PIPE TO EXISTING LAKE
FIGURE 9



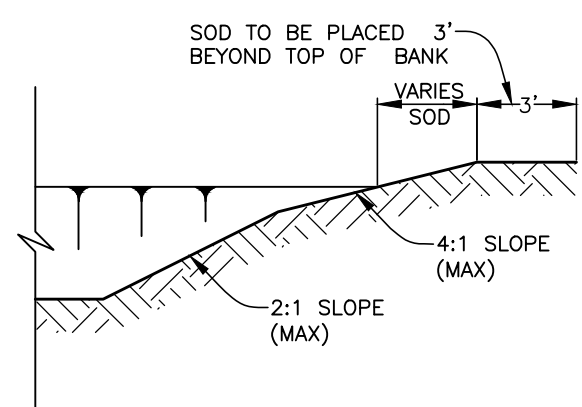
SOD ALONG CURB
AND AROUND INLET
FIGURE 14

NOTE:
REFERENCE THE STATE OF FLORIDA EROSION
AND SEDIMENT CONTROL DESIGNER AND
REVIEWER MANUAL, LATEST EDITION, FOR ALL
TEMPORARY EROSION CONTROL MEASURES

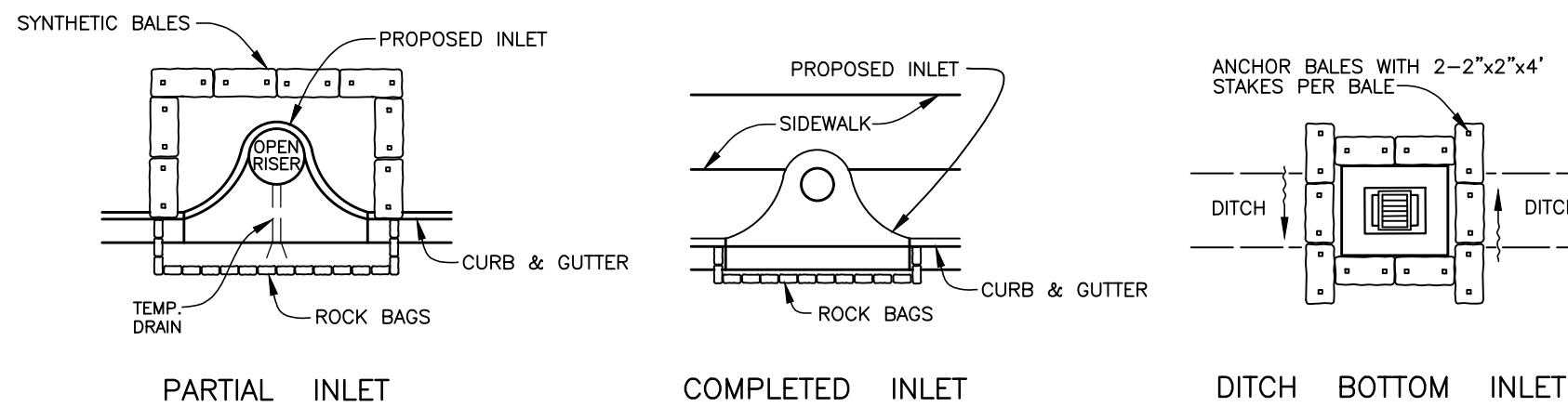


NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

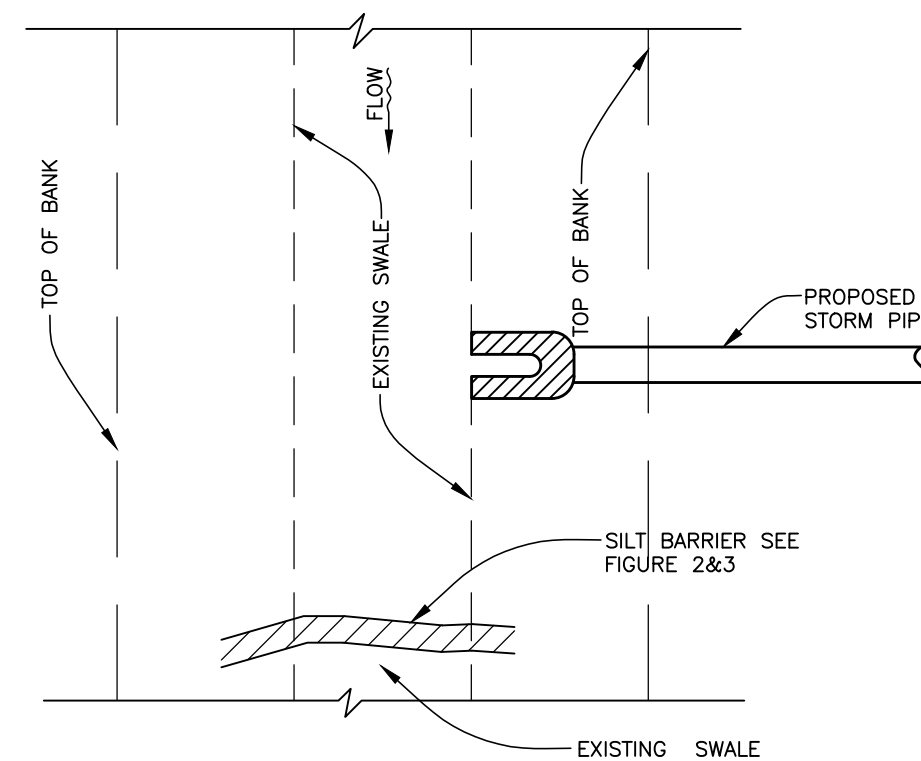
TYPICAL SILT FENCE
FIGURE 2



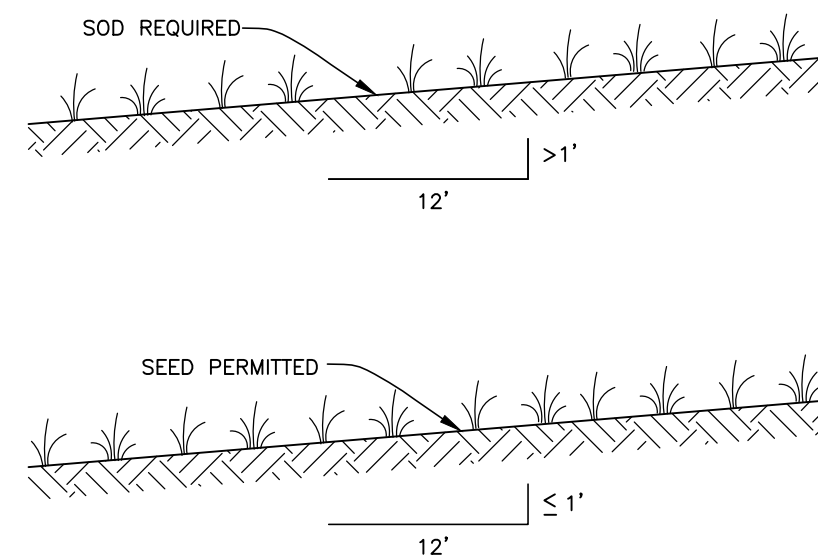
TYPICAL RETENTION/DETENTION POND SECTION
FIGURE 6



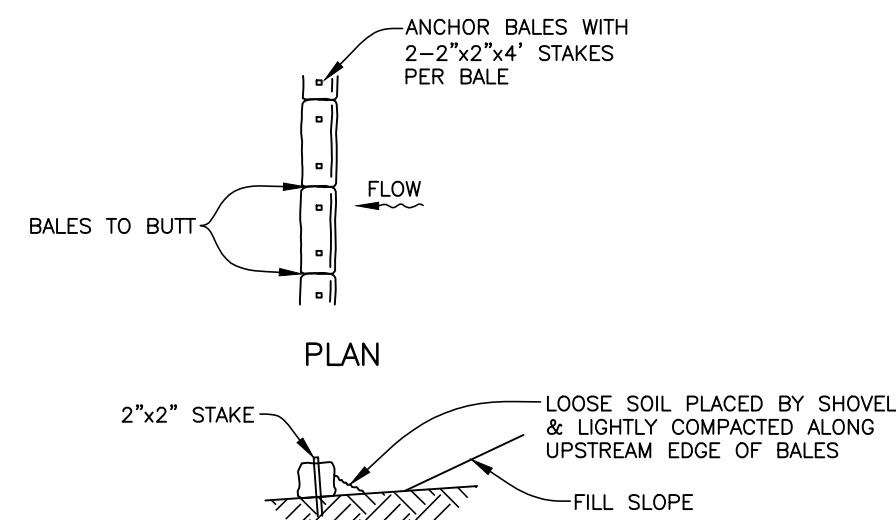
SYNTHETIC BALE PROTECTION AROUND
INLETS OR SIMILAR STRUCTURES
FIGURE 7



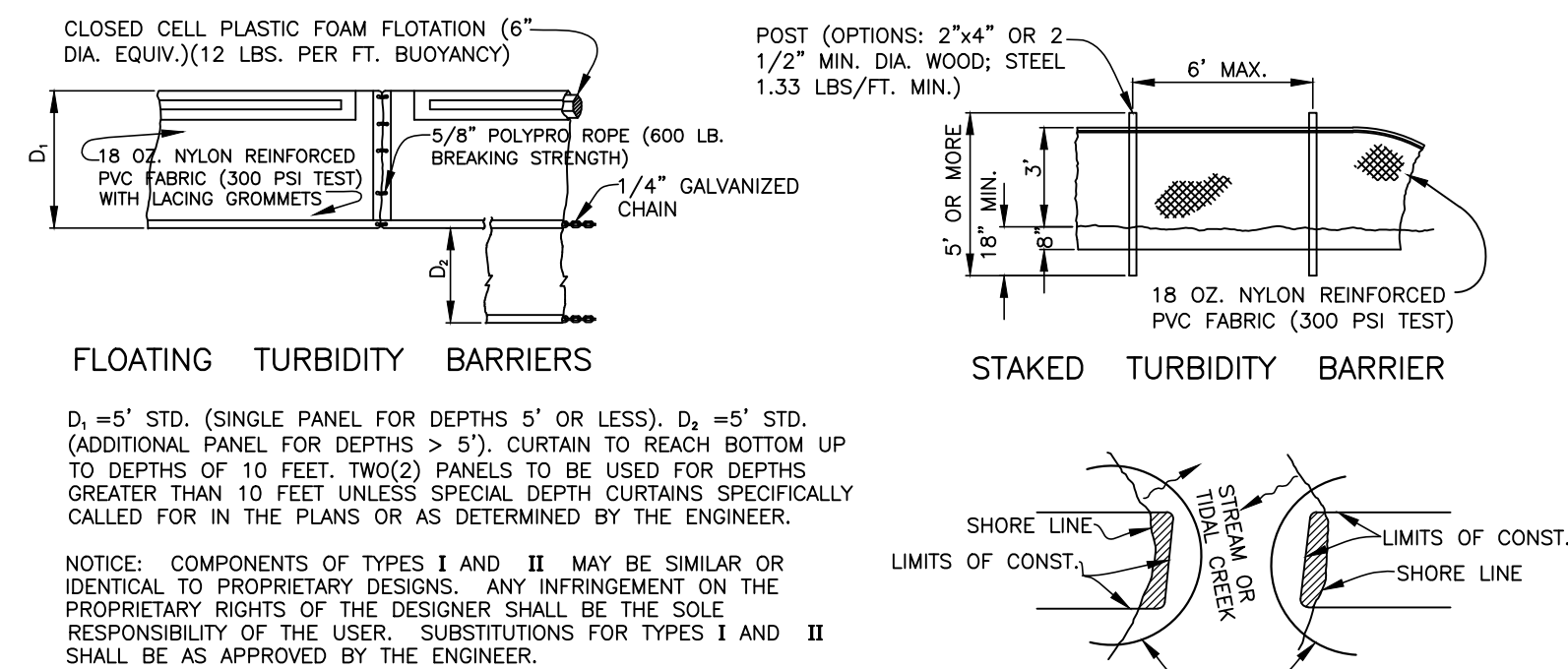
SILT BARRIER AT CONNECTION OF
STORM PIPE TO EXISTING SWALE
FIGURE 10



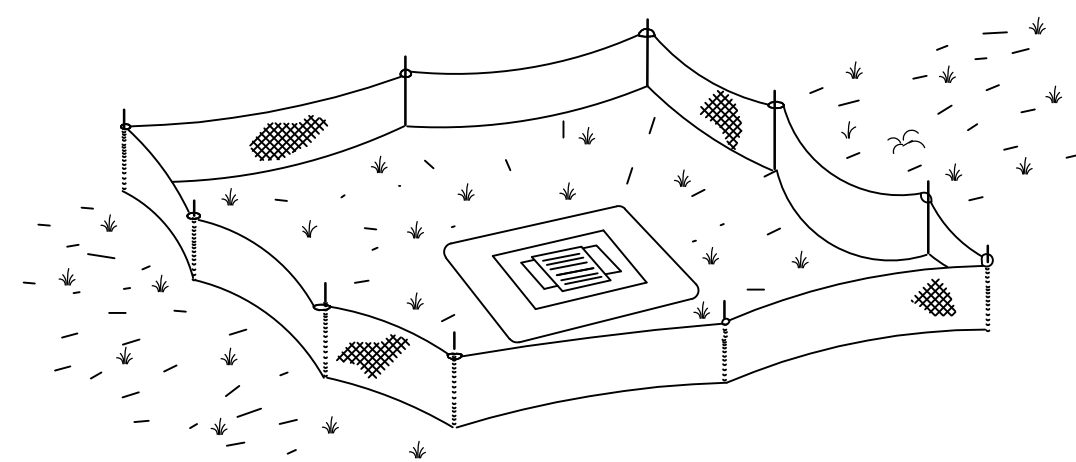
GRASS SLOPES
FIGURE 13



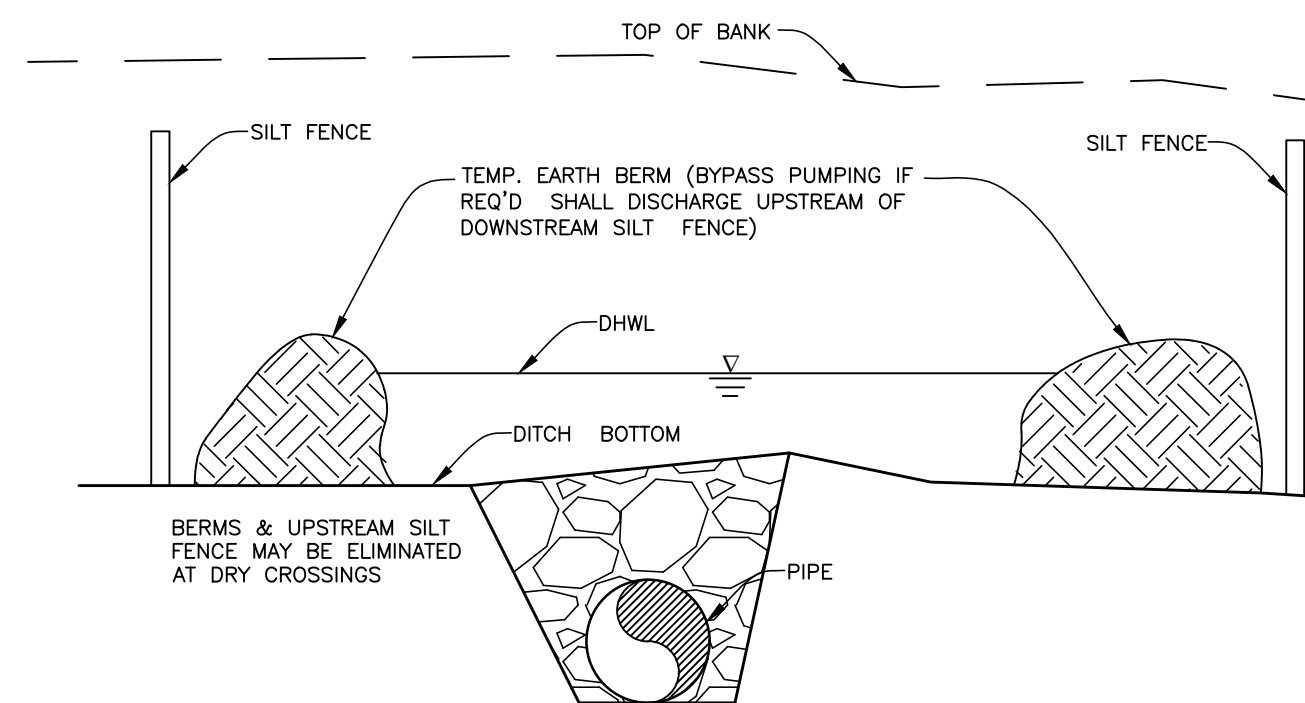
TYPICAL BALE SILT BARRIER
FIGURE 3



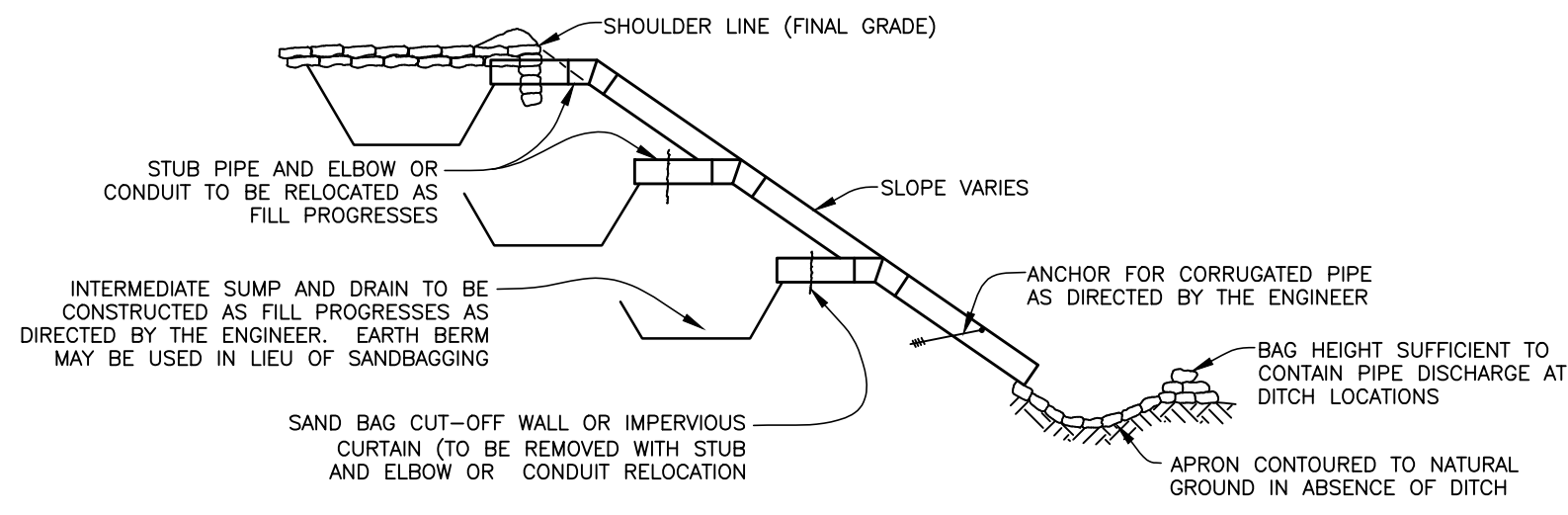
TURBIDITY BARRIERS
FIGURE 4



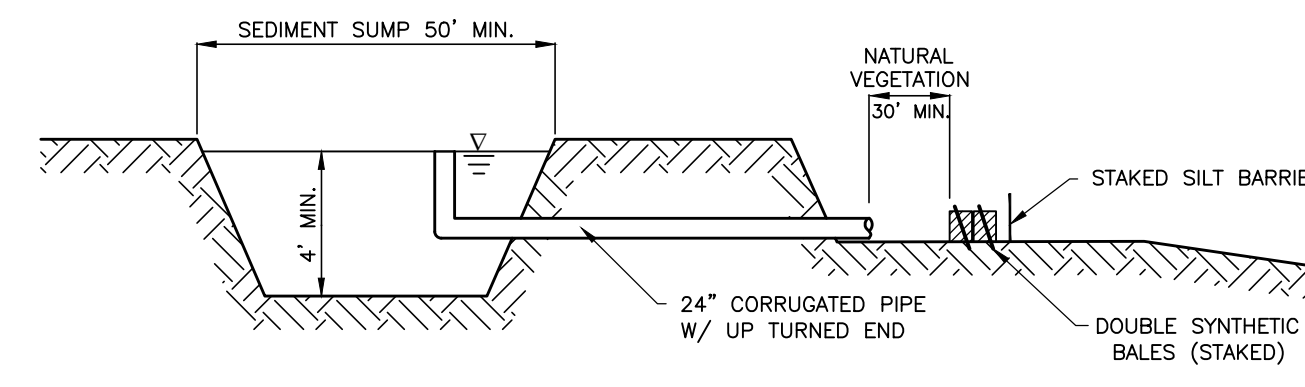
TYPE III SILT FENCE PROTECTION
AROUND DITCH BOTTOM INLETS
STAKED SILT BARRIER OR SILT FENCE
PROTECTION AROUND DITCH BOTTOM INLETS
FIGURE 8



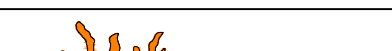
UNDERGROUND PIPE CROSSING
FIGURE 12



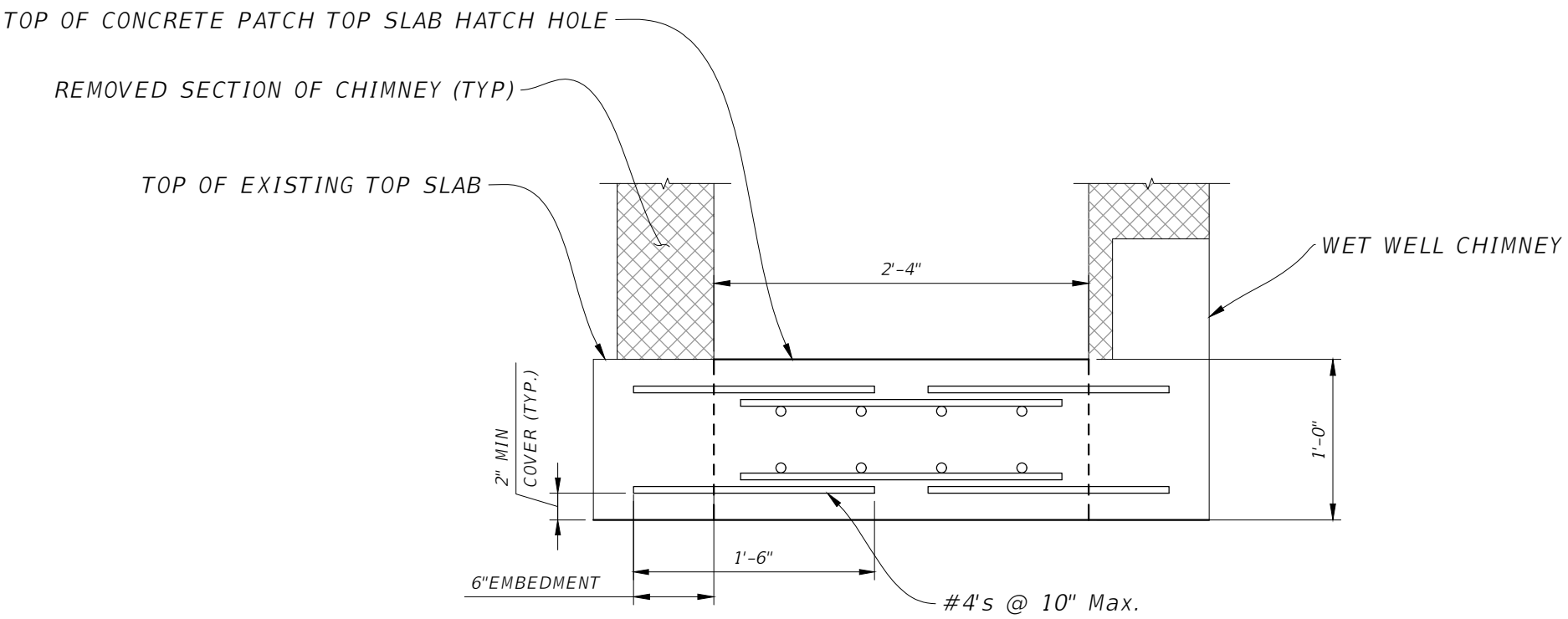
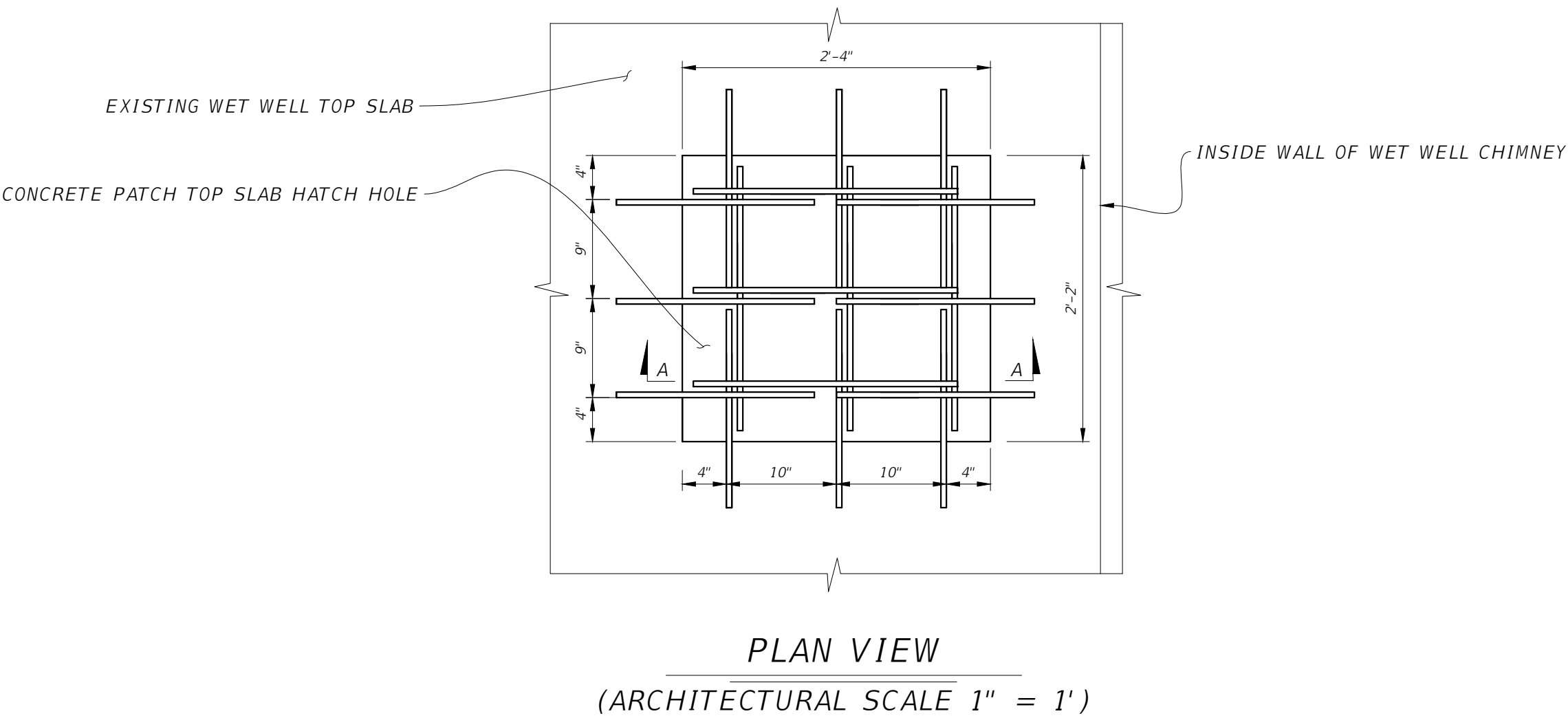
SECTION AA
TEMPORARY SLOPE DRAIN
FIGURE 15



SEDIMENT SUMP SECTION
FIGURE 16

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DATE	DESCRIPTION			PROJECT #	402.0019707	SURVEYED	-	-					
				SEC./TWN./RGE	VARIES	DESIGNED	JSS	8/2024					
				SCALE	NTS	DRAWN	JKW	8/2024					

- CONCRETE MATERIALS:
- 1.1. REINFORCING STEEL: STEEL BARS FOR CONCRETE REINFORCEMENT SHALL CONFORM TO ASTM A615 GRADE 60 CARBON STEEL PER SECTION 03200.
 - 1.2. CONCRETE SHALL BE IN ACCORDANCE TO ACI 318 AND SPECIFICATION 03300:
f'c Min. 28-Day Compressive Strength = 4,500 psi
 - 1.3. CONCRETE COVER:
a. 3" FOR CONCRETE CAST AGAINST EARTH AND PERMANENTLY IN CONTACT WITH THE GROUND.
b. 2" FOR CONCRETE EXPOSED TO THE WEATHER.
- ADHESIVE ANCHOR SYSTEM:
- 2.1 USE HILTI HIT-RE 500 V3 EPOXY ADHESIVE ANCHORING SYSTEM OR APPROVED EQUAL.




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STRUCTURAL PLANS
ENGINEER OF RECORD:
STEVEN M. LANEY,
FL LICENSE No: 46449

MANATEE COUNTY PUBLIC WORKS
1022 26th AVENUE EAST
BRADENTON, FL 34208

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DATE	DESCRIPTION			PROJECT #	402.5164680	SURVEYED	-	-		
				SEC./TWN./RGE	8/35/18	DESIGNED	RN	12/2024		
				SCALE	1"=1'	DRAWN	RN	12/2024		S-1