

MANATEE COUNTY
UTILITY ENGINEERING SECTION

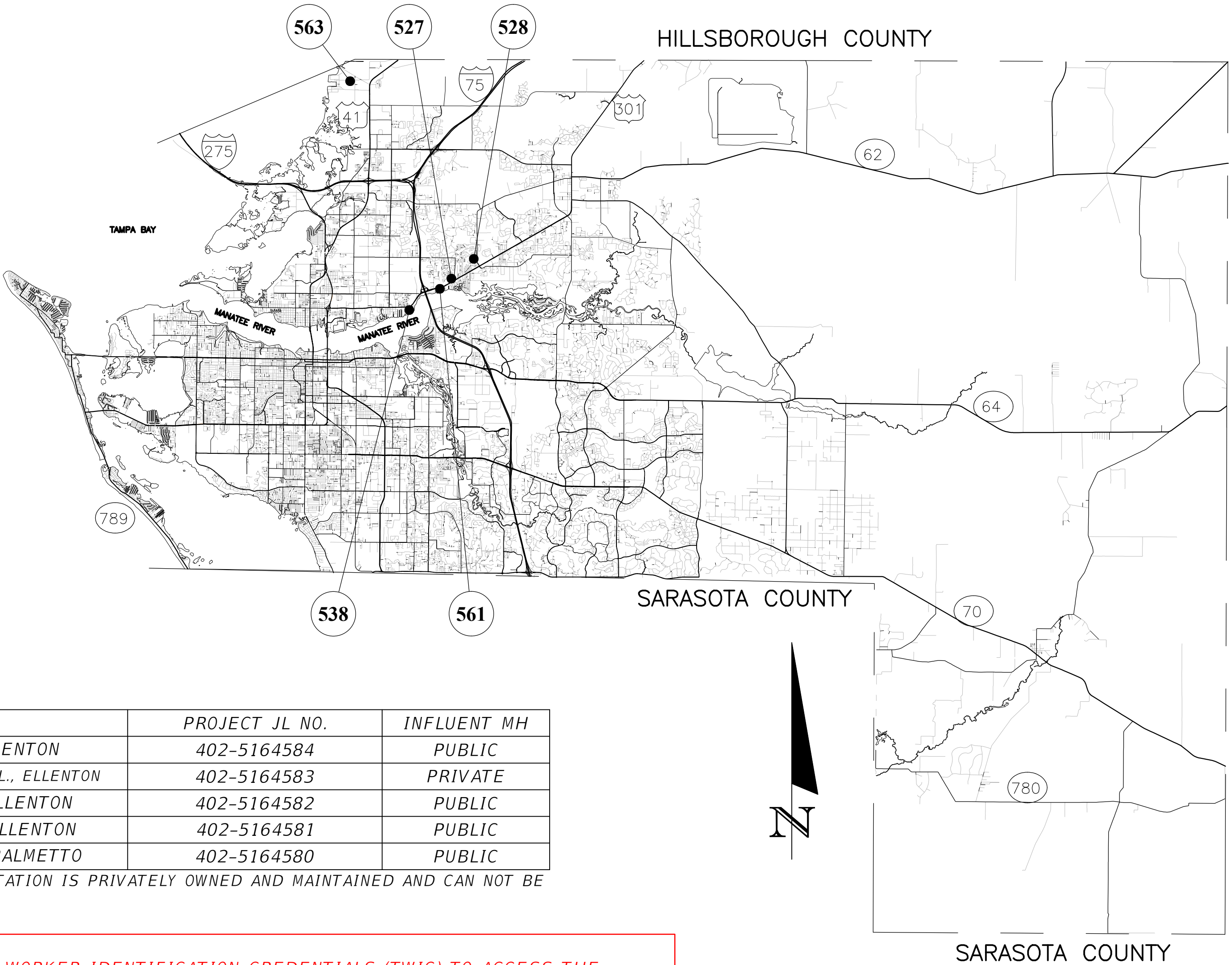
SATELLITE LIFT STATION R&R
2025 GROUP 1

402-0019707

JANUARY 2025

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L.S. NAME	RTU	ADDRESS	PROJECT JL NO.	INFLUENT MH
TERRA SIESTA 1	527	3307 ANASTASIA PLACE, ELLENTON	402-5164584	PUBLIC
TERRA SIESTA 2*	528	BTWN 8207 & 8209 GRETCHEN PL., ELLENTON	402-5164583	PRIVATE
N6A	538	901 NANCY GAMBLE LANE, ELLENTON	402-5164582	PUBLIC
N1E	561	6100 18TH STREET EAST, ELLENTON	402-5164581	PUBLIC
PORT MANATEE 3	563	805 NORTH DOCK STREET, PALMETTO	402-5164580	PUBLIC

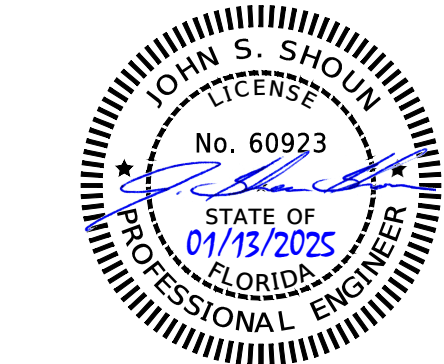
(*) THE GRAVITY SEWER MAIN(S) AND MANHOLE(S) ADJACENT TO THE LIFT STATION IS PRIVATELY OWNED AND MAINTAINED AND CAN NOT BE UTILIZED FOR BYPASS PUMPING.

ATTENTION:
SLS PORT MANATEE 3 (N1G) REQUIRES TEMPORARY TRANSPORTATION WORKER IDENTIFICATION CREDENTIALS (TWIC) TO ACCESS THE SECURE AREAS OF THE MANATEE PORT. THE TEMPORARY TWIC CARDS MUST BE RENEWED EACH DAY BY STOPPING IN THE MAIN ENTRANCE AND CHECKING IN. THE TWIC PROCESS IS THE SOLE-RESPONSIBILITY OF THE CONTRACTOR AND SHALL BEAR NO COST TO THE COUNTY.

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.



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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



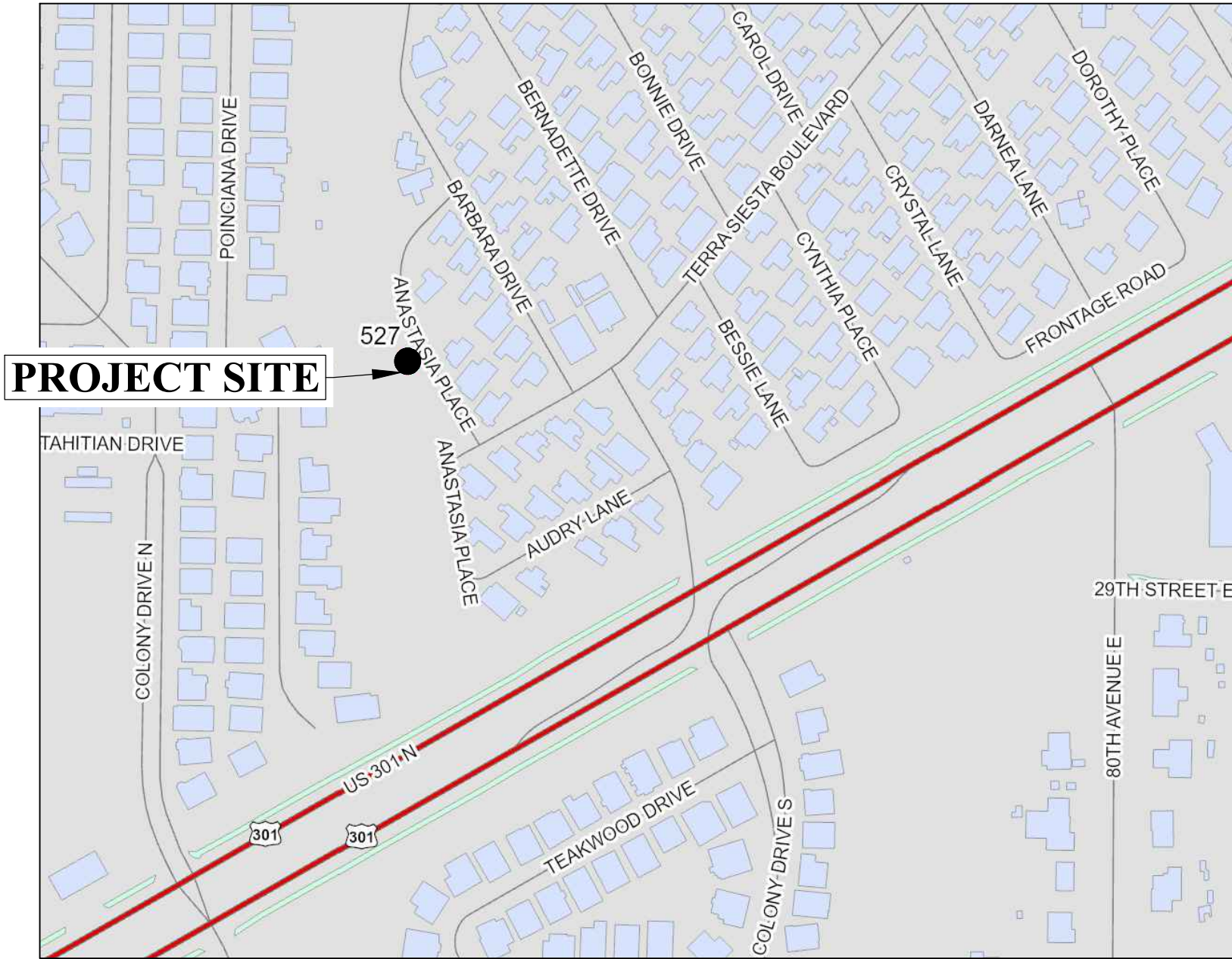
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Call before you dig

BID PLANS

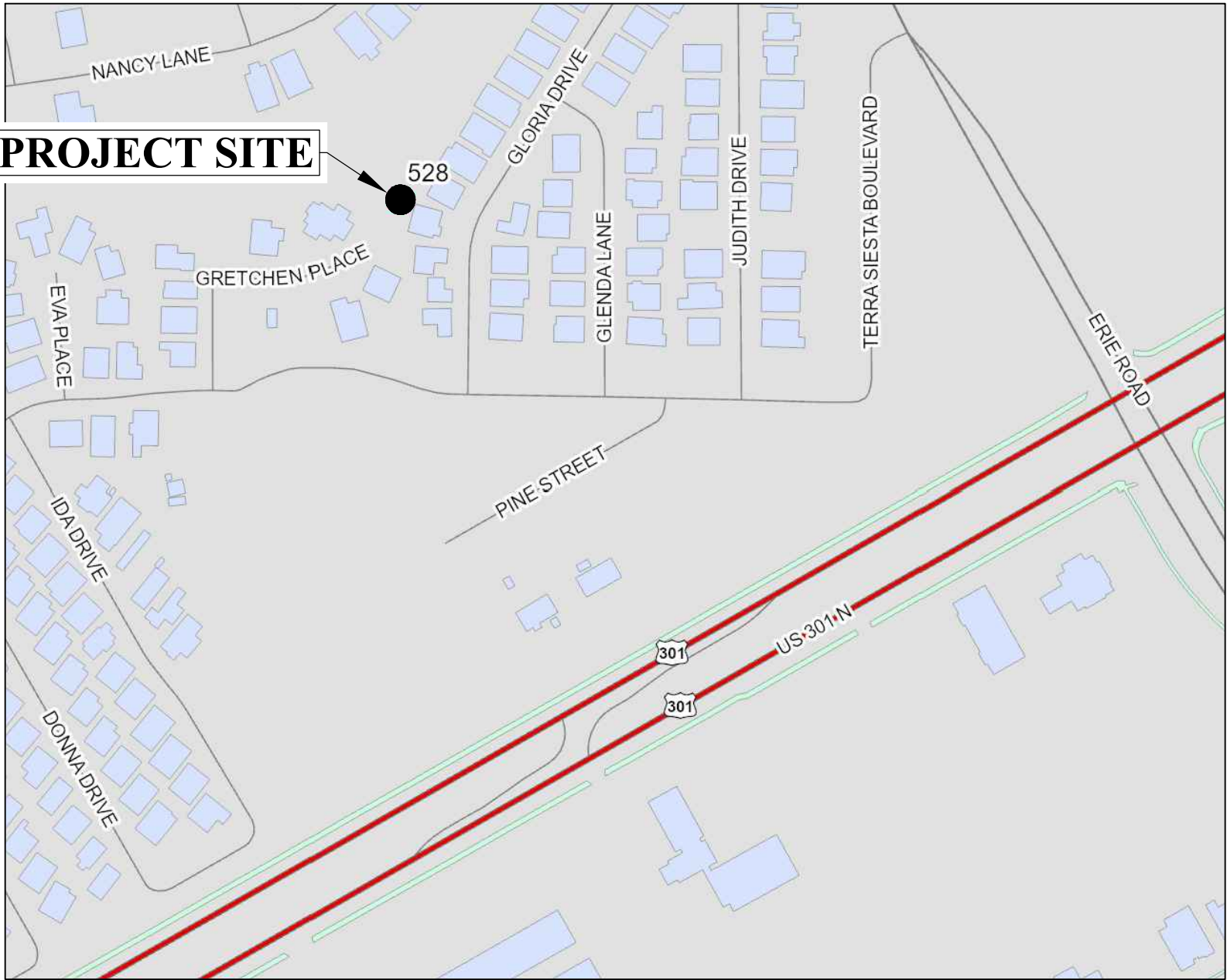


FISCAL YEAR	SHEET NO.
2024	01 of 12

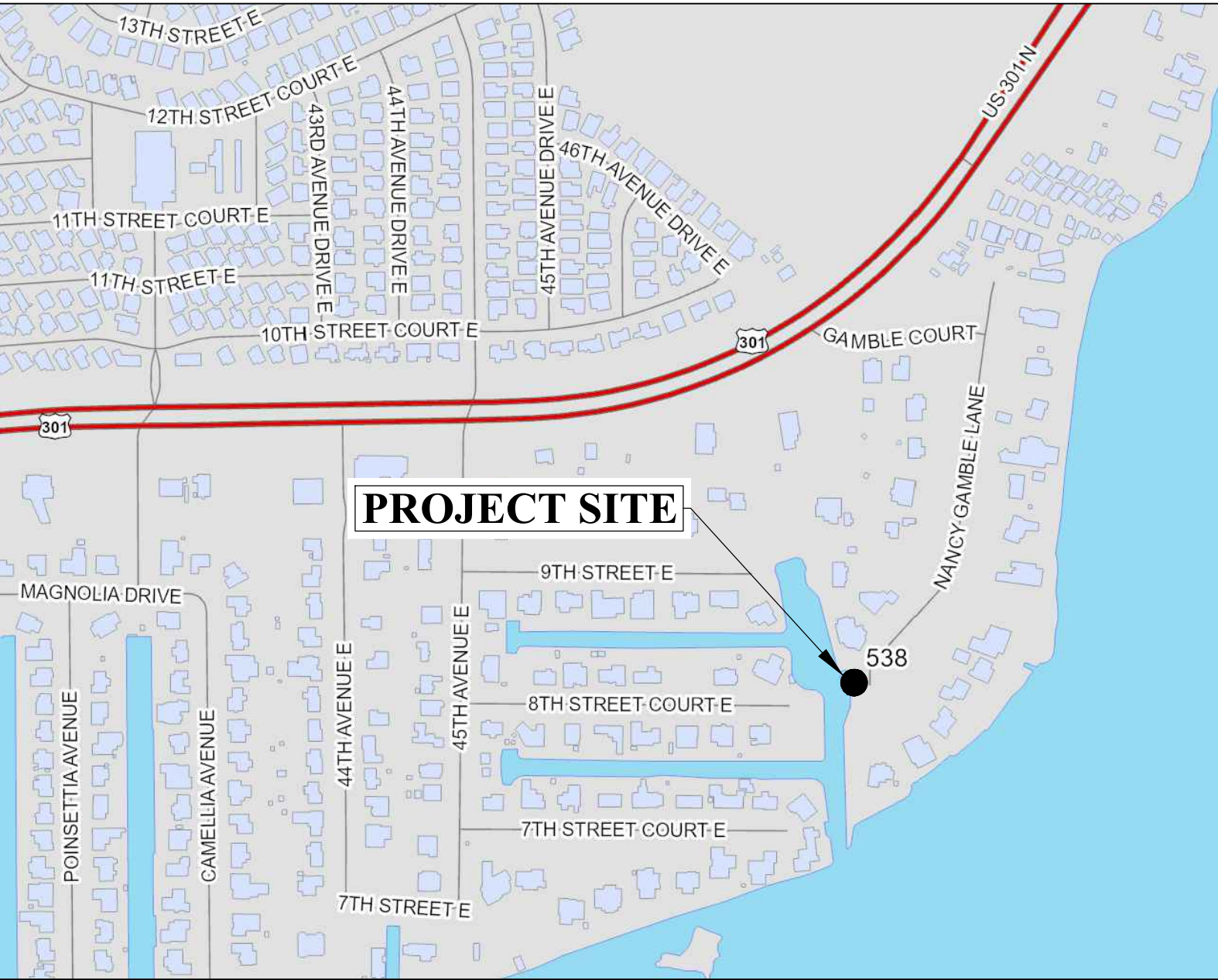
<div><div>GENERAL</div><div><div><div><div><div>1.</div><div>ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: PAUL HAAS, P.E. AND CAN BE REACHED AT 941.708.7450 x966.</div></div><div><div>2.</div><div>SITE VISITS ARE MANDATORY FOR ALL BIDDERS.</div></div><div><div>3.</div><div>ALL CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MANATEE COUNTY UTILITY AND TRANSPORTATION STANDARDS, FDOT "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.</div></div><div><div>4.</div><div>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 TO THE OWNER.</div></div><div><div>5.</div><div>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.</div></div><div><div>6.</div><div>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.</div></div><div><div>7.</div><div>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.</div></div><div><div>8.</div><div>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.</div></div></div><div><div>SAFETY</div><div><div><div>9.</div><div>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.</div></div><div><div>10.</div><div>THE CONTRACTOR SHALL USE SHEET PILING, SHEETING, BRACING, ETC., AS REQUIRED IN ALL EXCAVATION AREAS AND CONFORM TO ALL OSHA REQUIREMENTS.</div></div><div><div>11.</div><div>THE CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND UTILITIES, POWER LINES, ETC.</div></div><div><div>12.</div><div>THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT ALLEVIATE THE CONTRACTOR FOR PROVIDING A CONTINUOUS SAFE WORKSPACE.</div></div></div><div><div>ENVIRONMENTAL</div><div><div><div>13.</div><div>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.</div></div><div><div>14.</div><div>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.</div></div><div><div>15.</div><div>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.</div></div><div><div>16.</div><div>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.</div></div><div><div>17.</div><div>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.</div></div><div><div>18.</div><div>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.</div></div><div><div>19.</div><div>ALL EROSION AND POLLUTION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND SHALL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.</div></div><div><div>20.</div><div>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 OR ON WETLANDS SHALL 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.</div></div><div><div>21.</div><div>FOR MORE INFORMATION, SEE THE EROSION CONTROL DETAIL SHEET INCLUDED IN THE PLANS.</div></div></div><div><div>RIGHT-OF-WAY</div><div><div><div>22.</div><div>ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT-OF-WAY AND/OR EASEMENTS SHOWN ON THE DRAWINGS.</div></div><div><div>23.</div><div>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.</div></div><div><div>24.</div><div>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.</div></div><div><div>25.</div><div>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.</div></div><div><div>26.</div><div>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 STATIONINGS AS REQUIRED TO CONSTRUCT THIS PROJECT.</div></div><div><div>27.</div><div>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 0275.</div></div><div><div>28.</div><div>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.</div></div></div><div><div>UTILITIES</div><div><div><div>29.</div><div>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.</div></div><div><div>30.</div><div>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.</div></div><div><div>31.</div><div>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.</div></div><div><div>32.</div><div>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.</div></div><div><div>33.</div><div>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 SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER.</div></div><div><div>34.</div><div>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.</div></div><div><div>35.</div><div>ALL WATER SERVICES TO BE INSTALLED OR MODIFIED ON PRIVATE PROPERTY SHALL REQUIRE A PLUMBING PERMIT;<div><div>A.</div><div>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:<ul style="list-style-type: none">•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.</div></div></div></div></div><div><div>B.</div><div>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.</div></div><div><div>C.</div><div>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.</div></div><div><div>D.</div><div>ALL BPA SHALL BE INSTALLED 4-5 FEET FROM THE EDGE OF DRIVEWAYS OR ANY OTHER ITEMS/FEATURES THE BPA MAY CREATE AN OBSTRUCTION.</div></div><div><div>E.</div><div>VACUUM BREAKERS SHALL BE INSTALLED ON ALL EXTERNAL HOSE BIBBS.</div></div><div><div>F.</div><div>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.</div></div></div><div><div>RESTORATION</div><div><div><div>34.</div><div>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.</div></div><div><div>35.</div><div>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.</div></div><div><div>36.</div><div>ALL CONCRETE THURST 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.</div></div><div><div>37.</div><div>ASPHALT DRIVES THAT ARE CUT SHALL BE RESTORED PER SECTION 02513 OF THE INFRASTRUCTURE ENGINEERING STANDARD SPECIFICATION.</div></div><div><div>38.</div><div>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.</div></div><div><div>39.</div><div>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 CUTTING. LIME ROCK BASE SHALL COME FROM AN APPROVED FDOT PIT.</div></div><div><div>40.</div><div>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.</div></div></div><div><div>CONSTRUCTION</div><div><div><div>41.</div><div>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.</div></div><div><div>42.</div><div>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.</div></div><div><div>43.</div><div>NO MATERIAL SHALL BE STOCKPILED IN ROADWAYS. ALL DIRT AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE DAILY. ROADS SHALL BE SWEEP DAILY AS PART OF DAILY CLEAN UP.</div></div><div><div>44.</div><div>THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.</div></div><div><div>45.</div><div>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.</div></div><div><div>46.</div><div>PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA.</div></div><div><div>47.</div><div>THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY. DEWATERING IS REQUIRED TO 18" BELOW TRENCH BOTTOM.</div></div><div><div>48.</div><div>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.</div></div><div><div>49.</div><div>ALL PIPE SHALL BE COLOR CODED TO CONFORM TO MANATEE COUNTY STANDARDS.</div></div><div><div>50.</div><div>ALL PIPE AND FITTINGS SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND ALL PIPE JOINTS SHALL BE RESTRAINED WHERE REQUIRED.</div></div><div><div>51.</div><div>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.</div></div><div><div>52.</div><div>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.</div></div><div><div>53.</div><div>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.</div></div><div><div>54.</div><div>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.</div></div><div><div>55.</div><div>ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF ARE AUTHORIZED TO OPERATE VALVES ON COUNTY OWNED AND MAINTAINED UTILITY SYSTEMS.</div></div><div><div>56.</div><div>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.</div></div><div><div>57.</div><div>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 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, WBRO RADIO, EMERGENCY COMMUNITY CENTERS, INSPECTIONS, WATER TREATMENT PLANT, WATER MANAGER, HELPLINE, CUSTOMER SERVICE, AND THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT.</div></div><div><div>58.</div><div>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.</div></div><div><div>59.</div><div>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 BRASS PLUG SHALL BE INSTALLED AND THE CORPORATION STOP SHALL REMAIN IN PLACE.</div></div><div><div>60.</div><div>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.</div></div><div><div>61.</div><div>FIELD CONDITIONS MAY NECESSITATE MINOR ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED UTILITIES TO AVOID OBSTACLES, AS ORDERED BY THE ENGINEER.</div></div><div><div>62.</div><div>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.</div></div><div><div>63.</div><div>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 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. SEE SECTION 01720 FOR FURTHER DETAILED REQUIREMENTS OF THE DAILY RECORD DRAWING DOCUMENTATION.</div></div></div><div><div>EXISTING UTILITY LOCATIONS</div><div><div><div>64.</div><div>THE FOLLOWING IDENTIFIES THE QUALITY LEVEL OF EXISTING UTILITY LINework ON PLANS.<div><div>LEVEL "A"</div><div>-VISUALLY LOCATED OR SOFT DIGS (HORIZONTAL AND VERTICAL)</div></div><div><div>LEVEL "B"</div><div>-DESIGNATED BY GPR OR FLAGGING (HORIZONTAL)</div></div><div><div>LEVEL "C"</div><div>-SURFACE VISIBLE FEATURES SURVEY</div></div><div><div>LEVEL "D"</div><div>-EXISTING RECORDS OR GIS</div></div><div><div>REFERENCE</div><div>2010 EDITION OF FDOT UTILITY ACCOMMODATION MANUAL (UAM)</div></div></div></div></div><div><div>MANATEE COUNTY</div><div><div>MAINTENANCE OF TRAFFIC</div><div><div><div>65.</div><div>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.</div></div><div><div>66.</div><div>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.</div></div><div><div>67.</div><div>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.</div></div><div><div>68.</div><div>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.</div></div></div></div></div><div><div>LEGEND</div><div><div><div>EXISTING</div><div><div>CM</div><div><div><div>●</div><div>BENCH MARK</div></div><div><div>●</div><div>CONCRETE MONUMENT</div></div><div><div>○</div><div>IRON PIPE</div></div><div><div>●</div><div>IRON ROD</div></div><div><div>△</div><div>HUB</div></div><div><div>⊗</div><div>NAIL & DISK</div></div><div><div></div><div>ELEVATION</div></div><div><div></div><div>PARCEL ID NO.</div></div><div><div></div><div>LOT NO.</div></div><div><div></div><div>GUY WIRE</div></div><div><div></div><div>POWER POLE</div></div><div><div></div><div>LIGHT POLE</div></div><div><div></div><div>MAIL BOX</div></div><div><div></div><div>SIGN</div></div><div><div></div><div>REFLECTOR</div></div><div><div></div><div>SPRINKLER</div></div><div><div></div><div>GAS MARKER</div></div><div><div></div><div>BACKFLOW PREVENTER</div></div><div><div></div><div>BLOW OFF VALVE</div></div><div><div></div><div>FIRE HYDRANT</div></div><div><div></div><div>WATER VALVE</div></div><div><div></div><div>AIR RELEASE VALVE</div></div><div><div></div><div>WATER METER</div></div><div><div></div><div>SANITARY SEWER MANHOLE</div></div><div><div></div><div>SANITARY SEWER CLEAN OUT</div></div><div><div></div><div>SOIL BORING LOCATION</div></div><div><div></div><div>TELEPHONE SERVICE BOX</div></div><div><div></div><div>UTILITY BOX</div></div><div><div></div><div>UTILITY RISER</div></div><div><div></div><div>FLOW DIRECTION</div></div><div><div></div><div>GRATE INLET</div></div><div><div></div><div>MITERED END SECTION</div></div><div><div></div><div>STORM SEWER MANHOLE</div></div></div><div><div>LEGEND</div><div><div></div><div>BUSH</div></div><div><div></div><div>TREE</div></div><div><div></div><div>OAK TREE</div></div><div><div></div><div>PALM TREE</div></div><div><div></div><div>PINE TREE</div></div><div><div></div><div>EDGE OF VEGETATION</div></div><div><div></div><div>CHAIN LINK FENCE</div></div><div><div></div><div>WOOD FENCE</div></div><div><div></div><div>BARBED WIRE FENCE</div></div><div><div></div><div>FORCE MAIN</div></div><div><div></div><div>POTABLE WATER</div></div><div><div></div><div>RECLAIMED WATER</div></div><div><div></div><div>SANITARY SEWER</div></div><div><div></div><div>STORM DRAIN</div></div><div><div></div><div>GAS LINE</div></div><div><div></div><div>OVERHEAD CHARTER</div></div><div><div></div><div>UNDERGROUND CHARTER</div></div><div><div></div><div>OVERHEAD ELECTRIC</div></div><div><div></div><div>UNDERGROUND ELECTRIC</div></div><div><div></div><div>OVERHEAD FRONTIER</div></div><div><div></div><div>UNDERGROUND FRONTIER</div></div><div><div></div><div>UNDERGROUND PRECO</div></div><div><div></div><div>UNDERGROUND FPL</div></div><div><div></div><div>OVERHEAD UTILITY</div></div><div><div></div><div>RAIL ROAD TRACKS</div></div><div><div></div><div>EDGE OF CONCRETE</div></div><div><div></div><div>EDGE OF ROAD</div></div><div><div></div><div>TOE OF SLOPE</div></div><div><div></div><div>TOP OF BANK</div></div><div><div></div><div>PROPERTY LINE</div></div><div><div></div><div>RIGHT OF WAY</div></div></div><div><div>ABBREVIATIONS</div><div><div>R/W</div><div>RIGHT OF WAY</div></div><div><div>CONC</div><div>CONCRETE</div></div><div><div>ASPH</div><div>ASPHALT</div></div><div><div>DRWY</div><div>DRIVEWAY</div></div><div><div>SWK</div><div>SIDEWALK</div></div><div><div>EP</div><div>EDGE OF PAVEMENT</div></div><div><div>BOC</div><div>BACK OF CURB</div></div><div><div>FLOW</div><div>FLOW ARROW</div></div></div></div></div><div><div>MANATEE COUNTY</div><div><div>TECO/PEOPLES GAS CO.</div><div>ALEX MCFARLANE</div><div>8261 VICO COURT</div><div>SARASOTA, FL 34240</div><div>(813) 245-3762</div><div>EMERGENCY: 1-877-832-6911</div></div><div><div>FRONTIER</div><div>JOHN PLOTT</div><div>1701 RINGLING BLVD.</div><div>SARASOTA, FL 34236</div><div>(941) 906-6701</div><div>JOHN.PLOTT@FTR.COM</div></div><div><div>MANATEE COUNTY HEALTH DEPT.</div><div>HANS ROESE</div><div>410 6TH AVENUE EAST</div><div>BRADENTON, FL 34208</div><div>(941) 748-0747 EXT. 1355</div></div><div><div>SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT</div><div>SARASOTA SERVICE OFFICE</div><div>STEVE LOPES, P.E.</div><div>6750 FRUITVILLE ROAD</div><div>SARASOTA, FL 34240</div><div>(941) 377-3722</div></div><div><div>FLORIDA POWER & LIGHT</div><div>JOHN BULKEMA</div><div>1253 12TH AVENUE EAST</div><div>PALMETTO, FL 34221</div><div>(941) 927-4262</div><div>EMERGENCY: 1-800-4-OUTAGE</div><div>TODD.BULKEMA@FPL.COM</div></div><div><div>FLORIDA GAS TRANSMISSION COOPERATIVE, INC.</div><div>7804 ANDERSON RD.</div><div>WACHULA, FL 33634</div><div>PHONE: (813) 466-3327</div><div>E-MAIL: CHAD.HARRELL@UG.COM</div><div>TODD.BULKEMA@FPL.COM</div></div><div><div>FDEP, SOUTHWEST DISTRICT</div><div>ED WATSON</div><div>13051 N. TELECOM PKWY</div><div>2101 47TH TERRACE EAST</div><div>BRADENTON, FL 34203</div><div>(813) 470-5875</div></div><div><div>CHARTER COMMUNICATIONS</div><div>DR. WRIGHT</div><div>541 E. STATE ROAD 64</div><div>BRADENTON, FL 34208</div><div>(941) 749-3500 EXT. 7812</div><div>CITY OF BRADENTON</div><div>JIM.MCLELLAN@CITYOFBRADENTON.COM</div><div>PHONE: (941) 708-6300</div></div><div><div>PEACE RIVER ELECTRIC COOPERATIVE, INC.</div><div>P.O. BOX 1310</div><div>WACHULA, FL 33873</div><div>KENDELL COKER</div><div>(863) 767-4660</div><div>KENDELL.COKER@PRECO.COOP</div></div><div><div>MANATEE COUNTY PUBLIC WORKS DEPT./TRAFFIC ENGINEERING/ ATMS</div><div>2101 47TH TERRACE EAST</div><div>BRADENTON, FL 34203</div><div>VISHAL KAKKAD, P.E.</div><div>(941) 749-3500 EXT. 7812</div><div>VISHAL.KAKKAD@MANATEE.ORG.</div></div><div><div>MANATEE COUNTY PUBLIC WORKS DEPT./TRAFFIC ENGINEERING/ ATMS</div><div>1411 9TH ST. W.</div><div>BRADENTON, FL 34205</div><div>JIM.MCLELLAN@CITYOFBRADENTON.COM</div><div>PHONE: (941) 708-6300</div></div></div><div><div>REVISIONS</div><div><div>DATE</div><div>DESCRIPTION</div></div><div><div>1022 26th Avenue East, Bradenton, FL 34208</div></div></div><div><div>MANATEE COUNTY</div><div><div>PUBLIC WORKS DEPARTMENT</div><div><div>PROJECT #</div><div>402-0019707</div><div>SURVEYED</div><div>-</div><div>-</div></div><div><div>SEC./TWN./RGE</div><div>VARIABLES</div><div>DESIGNED</div><div>JSS</div><div>4/2024</div></div><div><div>SCALE</div><div>SEE PLANS</div><div>DRAWN</div><div>JSS</div><div>4/2024</div></div></div></div><div><div>J. SHEA SHOUN, P.E., STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 60923.</div><div><div>THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY J. SHEA SHOUN, P.E. ON THE DATE INDICATED HERE.</div><div><div>PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.</div></div></div><div><div>Manatee County Florida</div><div>1022 26th Avenue East, Bradenton, FL 34208</div></div><div><div>SATELLITE LIFT STATION R&R 2025 GROUP 1</div><div>GENERAL NOTES & LEGEND</div></div><div><div>SHEET NO.</div><div>02 of 12</div></div></div><div data-bbox="1824 1961 3045 1975" data-label="Page-Footer"><p>Originally plotted by Shea Shoun at 1:1 scale on 1/13/2025 at 9:31:05 AM on ANSI full bleed D (34.00 x 22.00 Inches) paper using CIP-2023.STB. File Name: SLS R&R 2025-1.DWG</p></div><div data-bbox="3045 40 3070 1798" data-label="Page-Footer"><p>SATELLITE LIFT STATION R&R 2025 GROUP 1 THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.</p></div></div></div></div></div></div></div></div></div></div></div></div>
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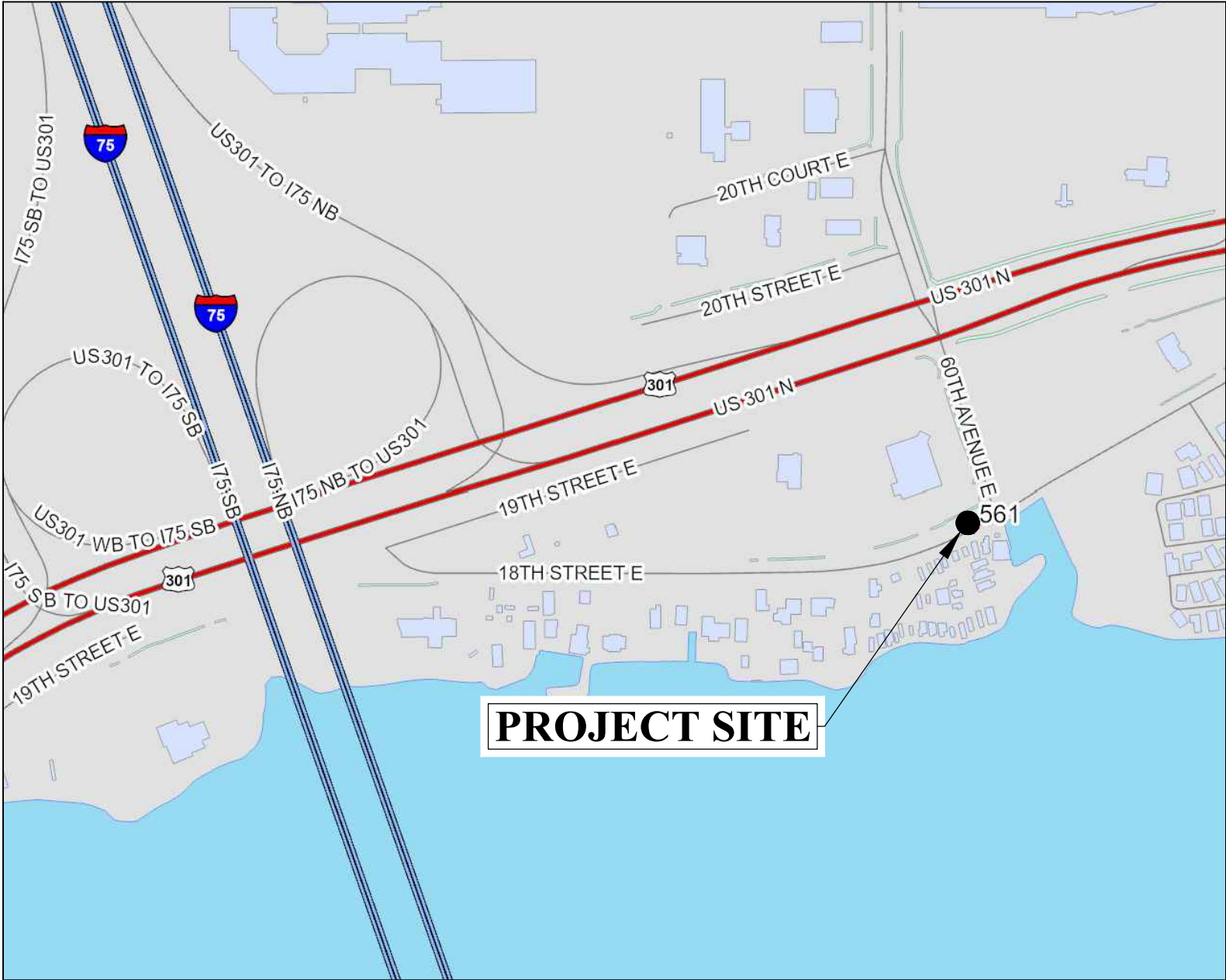
TERRA SIESTA 1, RTU 527,
3307 ANASTASIA PL., ELLENTON
LAT N: 27.540050°
LONG W: -82.485990°



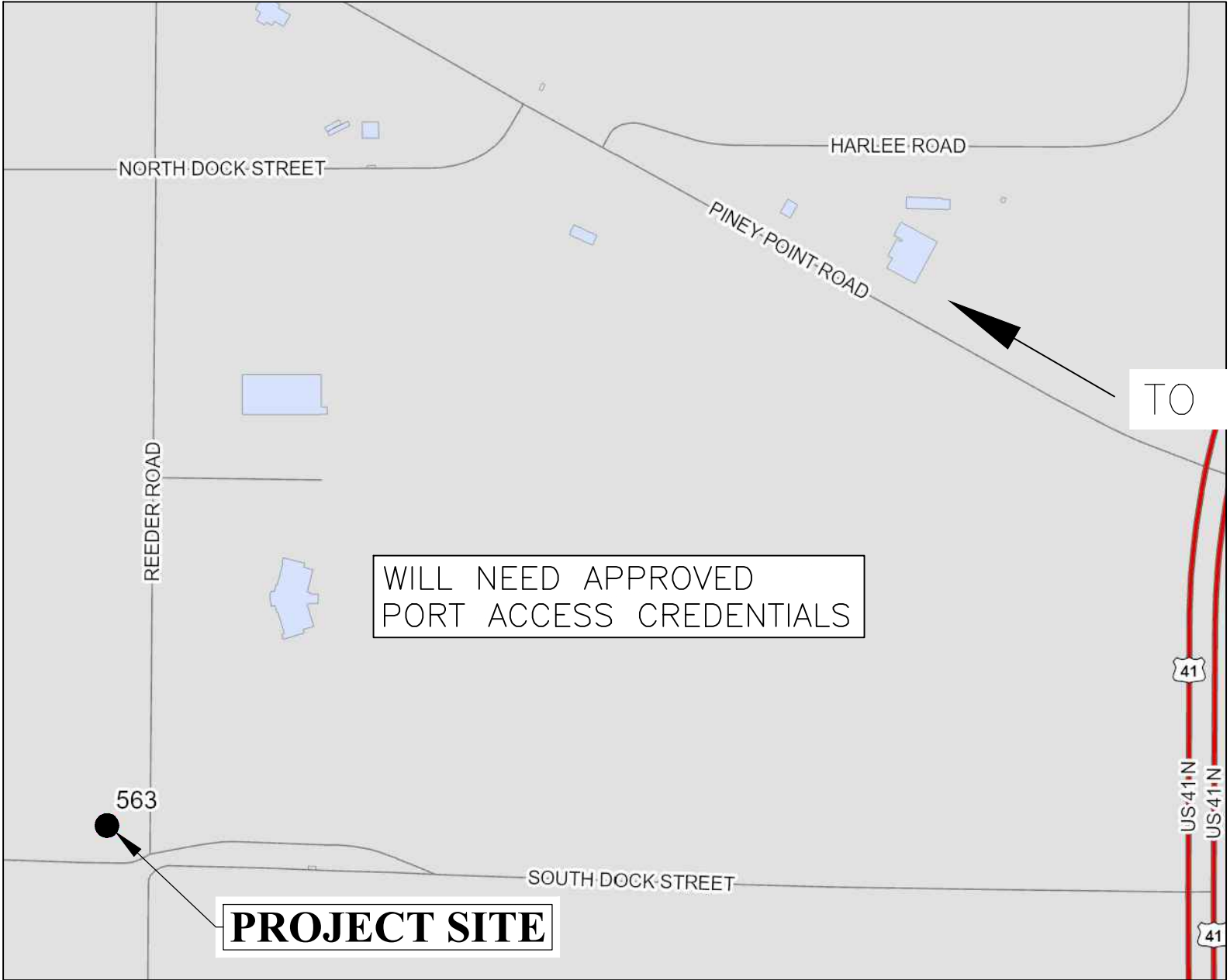
TERRA SIESTA 2, RTU 528,
BETWEEN 8207 & 8209 GRETCHEN PL., ELLENTON
LAT N: 27.543608°
LONG W: -82.480738°



N6A, RTU 538,
901 NANCY GAMBLE LN., ELLENTON
LAT N: 27.520043°
LONG W: -82.515582°




N1E, RTU 561,
6100 18TH ST E., ELLENTON
LAT N: 27.529784°
LONG W: -82.502519°



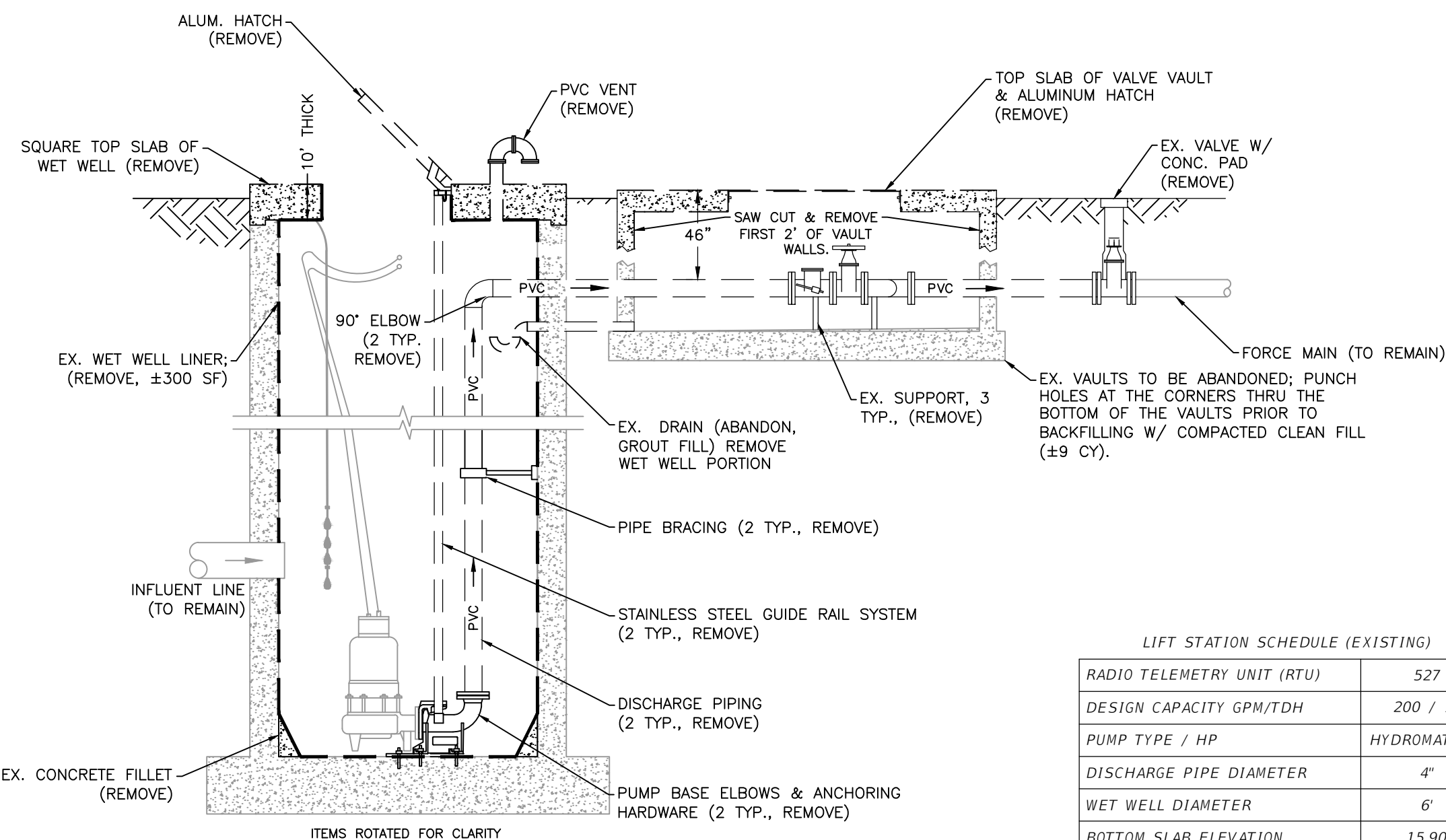
PORT MANATEE 3, RTU 563,
805 NORTH DOCK ST., PALMETTO
LAT N: 27.631367°
LONG W: -82.548502°

- NOTE(S):
- LIFT STATION SITE VISITS MAY BE COORDINATED WITH ERIK GIBSON, 941-792-8811 x5377.
 - DATA ON THE COUNTY'S UTILITY INFRASTRUCTURE MAY BE RESEARCHED AND VIEWED BY UTILIZING THE PUBLIC ACCESS TO THE COUNTY'S GIS SYSTEM. USE AN INTERNET BROWSER AND ENTER THE FOLLOWING URL, "https://www.mymonatee.org/gisapps/mobile/index.html?type=utilities-public".

REVISIONS		 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. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	MANATEE COUNTY PUBLIC WORKS DEPARTMENT					SATELLITE LIFT STATION R&R 2025 GROUP 1 VICINITY MAPS		SHEET NO.
DATE	DESCRIPTION			PROJECT #	402-0019707	SURVEYED	-	-			03 of 12
				SEC./TWN./RGE	VARIES	DESIGNED	JSS	4/2024			
				SCALE	SEE PLANS	DRAWN	JSS	4/2024			

NOTES:

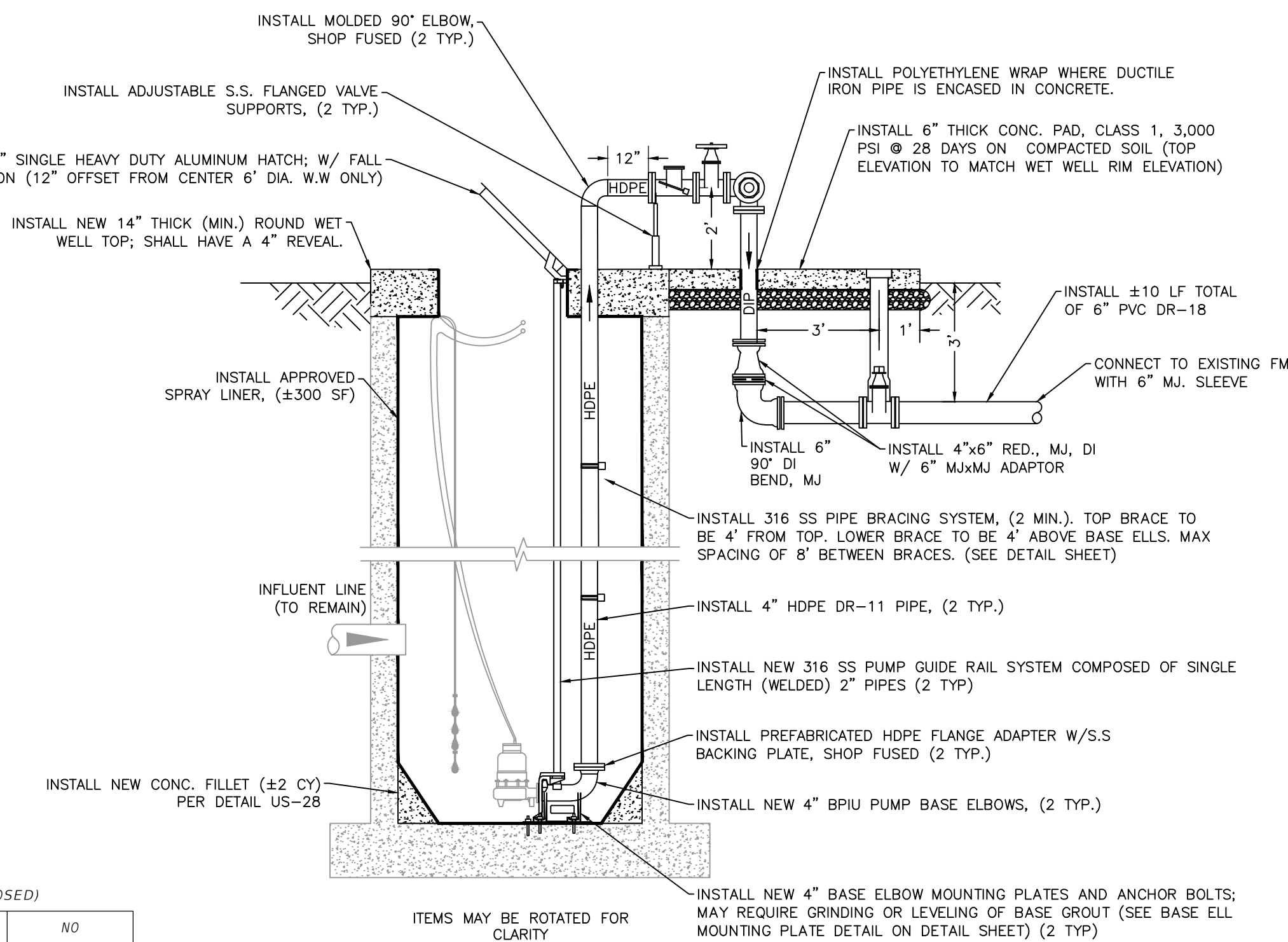
1. THE WET WELL AND VALVE VAULT CONFIGURATION SHOWN ON THESE GRAPHICS IS FOR IDENTIFICATION OF COMPONENTS TO BE REMOVED. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, CONFIGURATION, ETC. FOR ACCURACY.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
3. 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.



LIFT STATION SCHEDULE (EXISTING)	
RADIO TELEMETRY UNIT (RTU)	527
DESIGN CAPACITY GPM/TDH	200 / 16
PUMP TYPE / HP	HYDROMATIC/2
DISCHARGE PIPE DIAMETER	4"
WET WELL DIAMETER	6"
BOTTOM SLAB ELEVATION	15.90
TOP ELEVATION	28.82
VALVE VAULT ELEVATION	28.82
INFLUENT INVERT ELEVATION	23.43
INFLUENT PIPE SIZE	10" PVC
FORCE MAIN DIAMETER	6"
WET WELL VENT PIPE	6" PVC
ELECT. POWER, VOLTS / PH	240 / 3
ELECT. SERVICE SIZE, AMPS	100
EX. FORCE MAIN TIE-IN	FM
FLOODPLAIN INFORMATION	X
* INFORMATION TAKEN FROM LIFT STATION DATA FILE (INFO.XLS 2023) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.	

GENERAL NOTES:

1. 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.
2. 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".
3. 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.
4. 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.
5. ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM TO BE PAINTED.



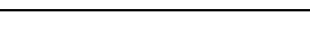
INSTALL FIBERGLASS W.W. LINER	NO
APPLY WET WELL SPRAY LINER	YES
INSTALL BUBBLER UNIT	YES
INSTALL FORCE MAIN ISOLATION VALVE	YES
NEW HDPE DISCHARGE PIPING	YES
NEW BASE ELBOW	YES
MODIFY TOP ELEVATION OF WET WELL (LOWER/RAISE)	NO
MODIFY TOP ELEVATION OF VALVE VAULT (LOWER/RAISE)	NA
INSTALL WET WELL VENT PIPE	YES
INSTALL NEW WATER SERVICE ASSEMBLY	YES
RELOCATE E.X. WATER SERVICE ASSEMBLY	NO

CONSTRUCTION NOTES:

1. INSTALL ALL NEW ELECTRICAL SERVICE WITH CONDUIT. IF THE EXISTING ELECTRICAL CONDUIT HAS A MINIMUM DIAMETER OF 2-INCHES OR IS PROPERLY SIZED PER NEC (WHICHEVER IS GREATER), THEN THE EXISTING ELECTRICAL CONDUIT CAN BE LEFT IN PLACE AND USED. (+/-100 LF).
2. REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), A CONTROL PANEL, TCU ENCLOSURE, JUNCTION BOX ENCLOSURE, A METER AND 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.
3. 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. SEPARATE THE TELEMETRY TOWER FROM CONCRETE BASE AND SET TO SIDE OF LIFT STATION SITE. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING CONCRETE BASE AND ALL GROUNDING RODS. 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.
5. 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.
6. WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER AND/OR LINER REPAIR.
7. INSTALL A NEW STANDARD METER/BPA ASSEMBLY; AND A 3/4-INCH HOSE BIBB ASSEMBLY PER COUNTY STANDARDS; 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.

NOTES:

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

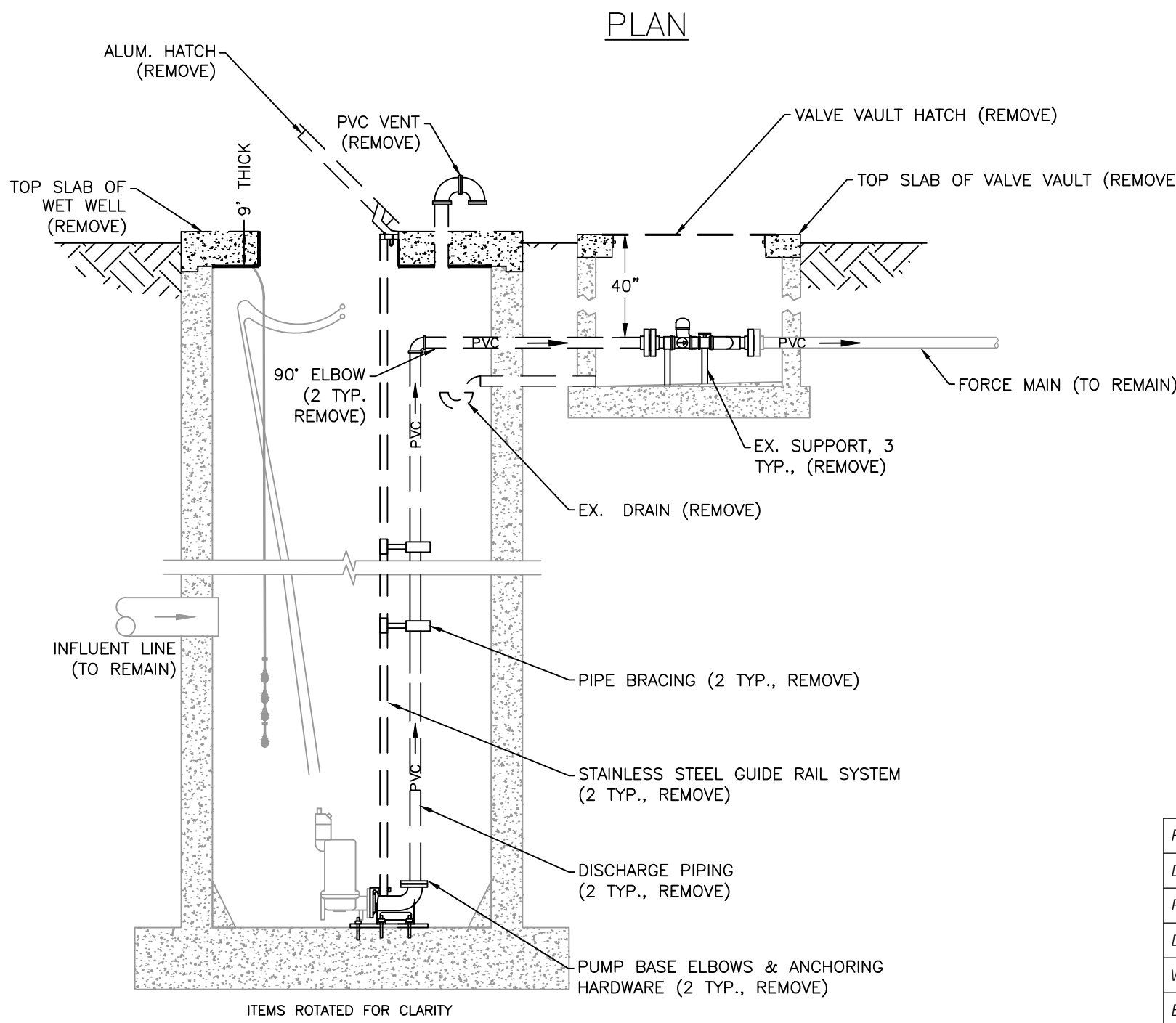
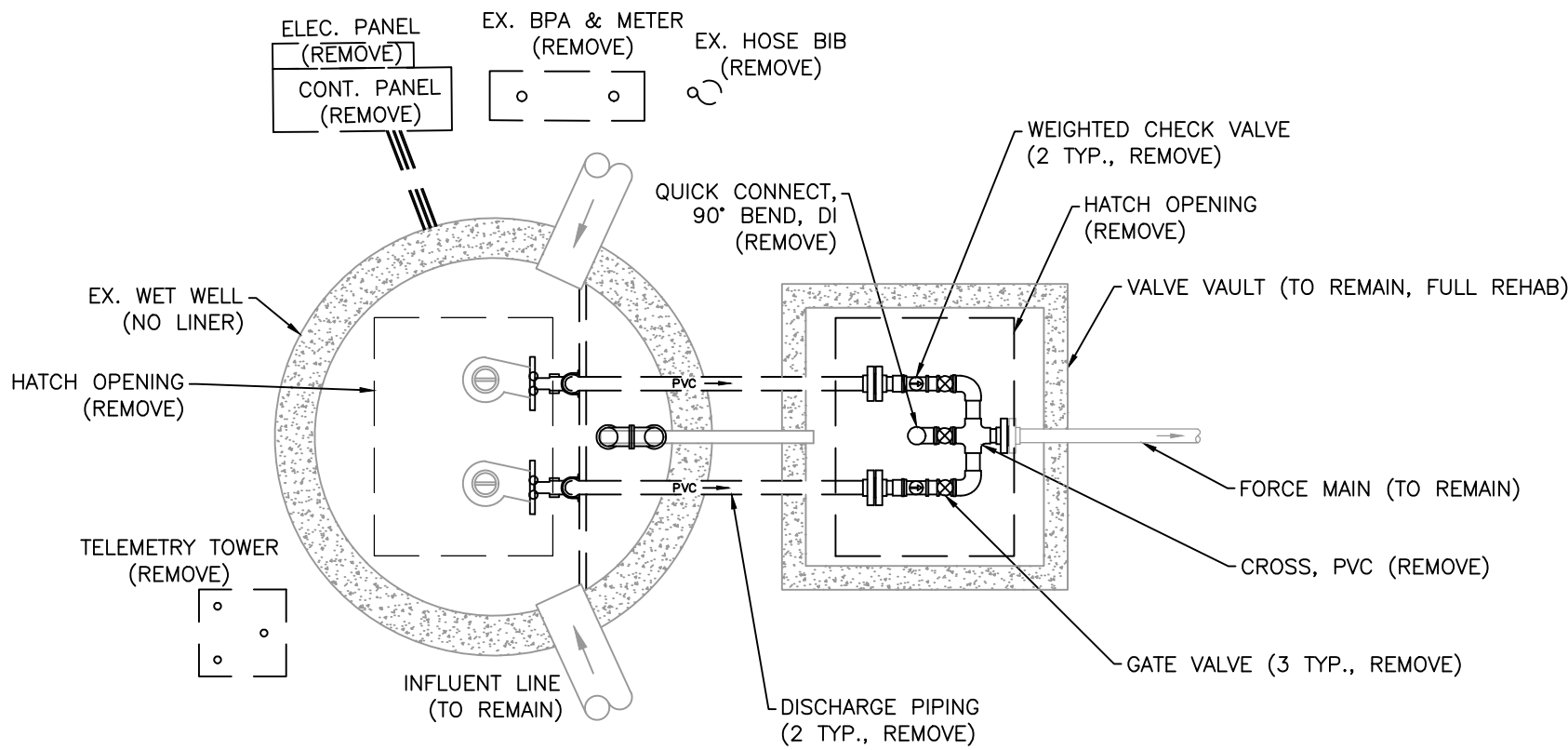
R E V I S I O N S		 1022 26th Avenue East, Bradenton, FL 34208	<p>J. SHEA SHOUN, P.E., STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 60923.</p> <p>THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY J. SHEA SHOUN, P.E. ON THE DATE INDICATED HERE.</p> <p>PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED 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 1 TERRA SIESTA 1, RTU 527	SHEET NO.
DATE	DESCRIPTION			PROJECT #	402-5164584	SURVEYED	-	-		
				SEC./TWN./RGE	10/35/18	DESIGNED	JSS	4/2024		
		SCALE	SEE PLANS	DRAWN	JSS	4/2024			04 of 12	

SATELLITE LIFT STATION R&R 2025 GROUP 1

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

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.

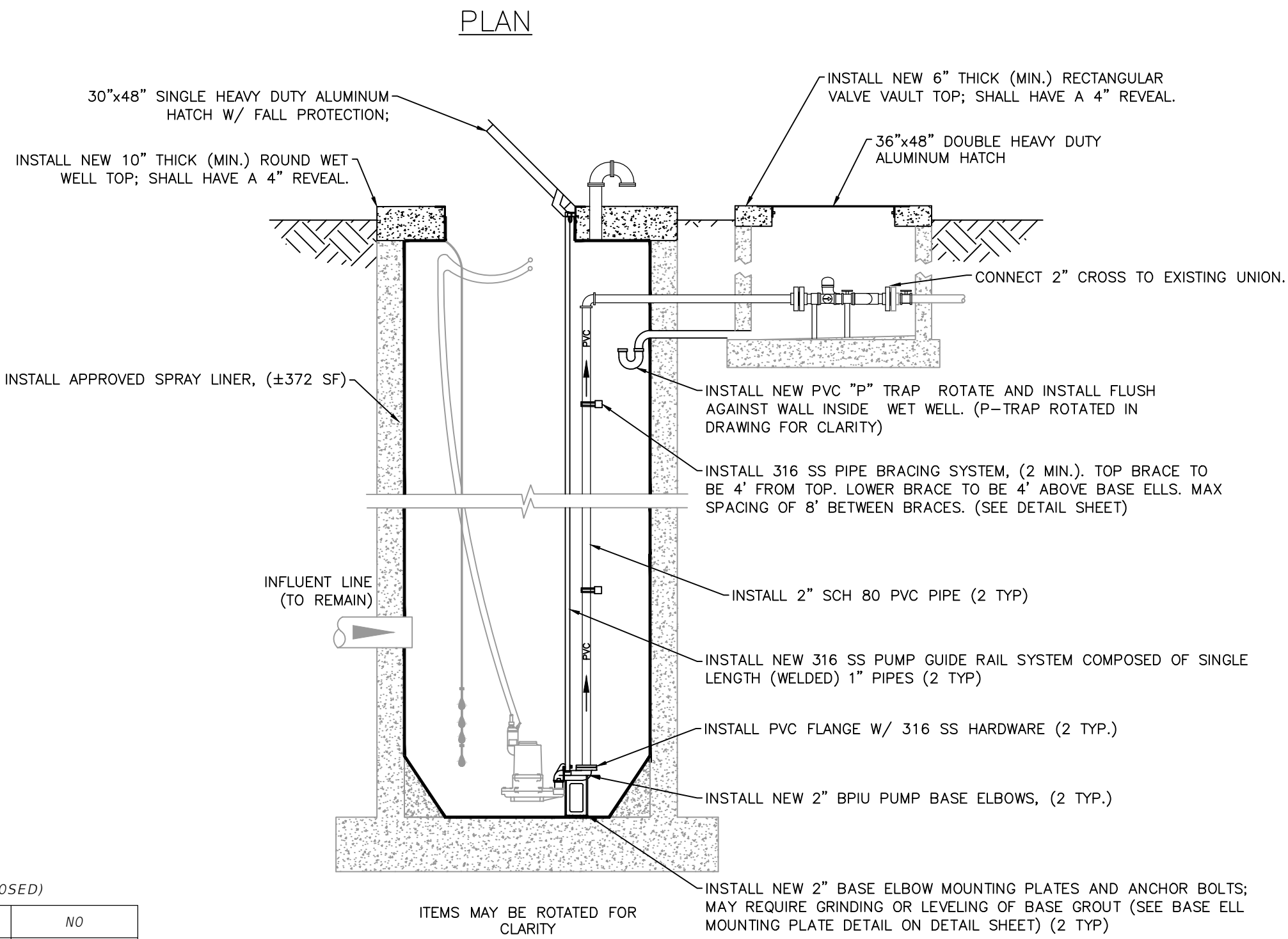
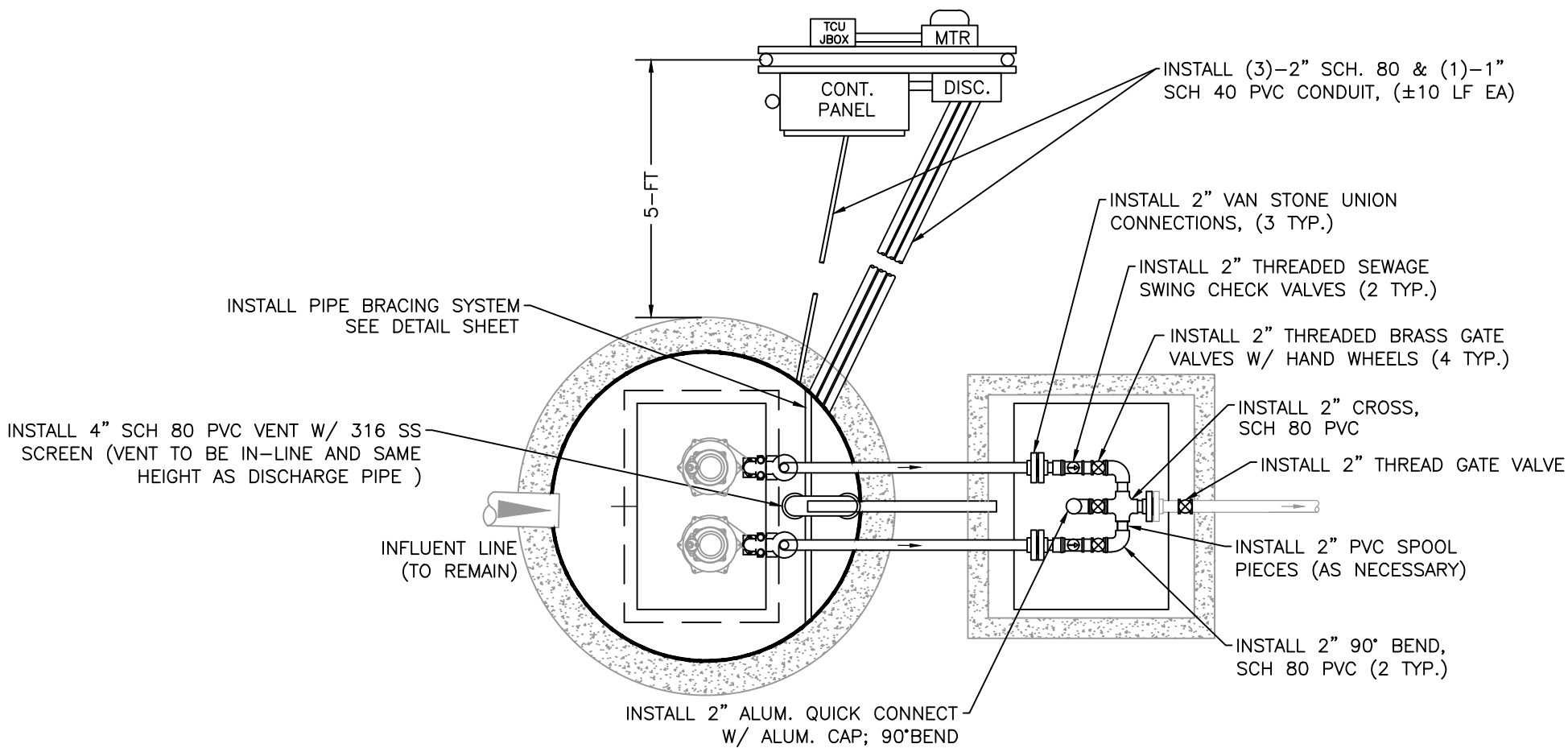


ELEVATION
EX. 2 PUMP LIFT STATION
NTS

LIFT STATION SCHEDULE (EXISTING)	
RADIO TELEMETRY UNIT (RTU)	528
DESIGN CAPACITY GPM/TDH	45 / 60
PUMP TYPE / HP	HYDROMATIC/3
DISCHARGE PIPE DIAMETER	
WET WELL DIAMETER	6"
BOTTOM SLAB ELEVATION	8.53
TOP ELEVATION	25.24
VALVE VAULT ELEVATION	25.24
INFLUENT INVERT ELEVATION	15.46
INFLUENT PIPE SIZE	(2) - 8", PVC
FORCE MAIN DIAMETER	2"
WET WELL VENT PIPE	PVC
ELECT. POWER, VOLTS / PH	240 / 1
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.	

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.



ELEVATION
EX. 2 PUMP LIFT STATION
NTS


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	YES
NEW BASE ELBOW	YES
MODIFY TOP ELEVATION OF WET WELL (LOWER/RAISE)	YES
MODIFY TOP ELEVATION OF VALVE VAULT (LOWER/RAISE)	NO
INSTALL WET WELL VENT PIPE	YES
INSTALL NEW WATER SERVICE ASSEMBLY	YES
RELOCATE EX. WATER SERVICE ASSEMBLY	NO

CONSTRUCTION NOTES:

1. INSTALL **ALL** NEW ELECTRICAL SERVICE WITH CONDUIT. IF THE EXISTING ELECTRICAL CONDUIT HAS A MINIMUM DIAMETER OF 2-INCHES OR IS PROPERLY SIZED PER NEC (WHICHEVER IS GREATER), THEN THE EXISTING ELECTRICAL CONDUIT CAN BE LEFT IN PLACE AND USED. (±200 LF).
2. 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.
3. INSTALL (2)-1 ϕ TO 3 ϕ CONVERTER IN 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. WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER AND/OR LINER REPAIR.
8. INSTALL A NEW STANDARD METER/BPA ASSEMBLY, AND A 3/4-INCH HOSE BIBB ASSEMBLY PER COUNTY STANDARDS VIA DIRECT BURY. ALL ITEMS SHALL BE FIELD LOCATE WITH MANATEE COUNTY PERSONNEL. (±10 LF).
9. REFRESH EXISTING SHELL DRIVEWAY WITH A 16-FT WIDE 2-INCH THICK SHELL DRIVEWAY FROM THE ASPHALT CUL-DE-SAC TO THE LIFT STATION SITE. EXACT LOCATION AND LAYOUT SHALL BE DETERMINED IN THE FIELD WITH COUNTY PERSONNEL. (±155 SY).
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. REMOVE EXISTING FENCE COMPLETELY, INCLUDING ALL POSTS AND CONCRETE FOOTERS (±65 LF).

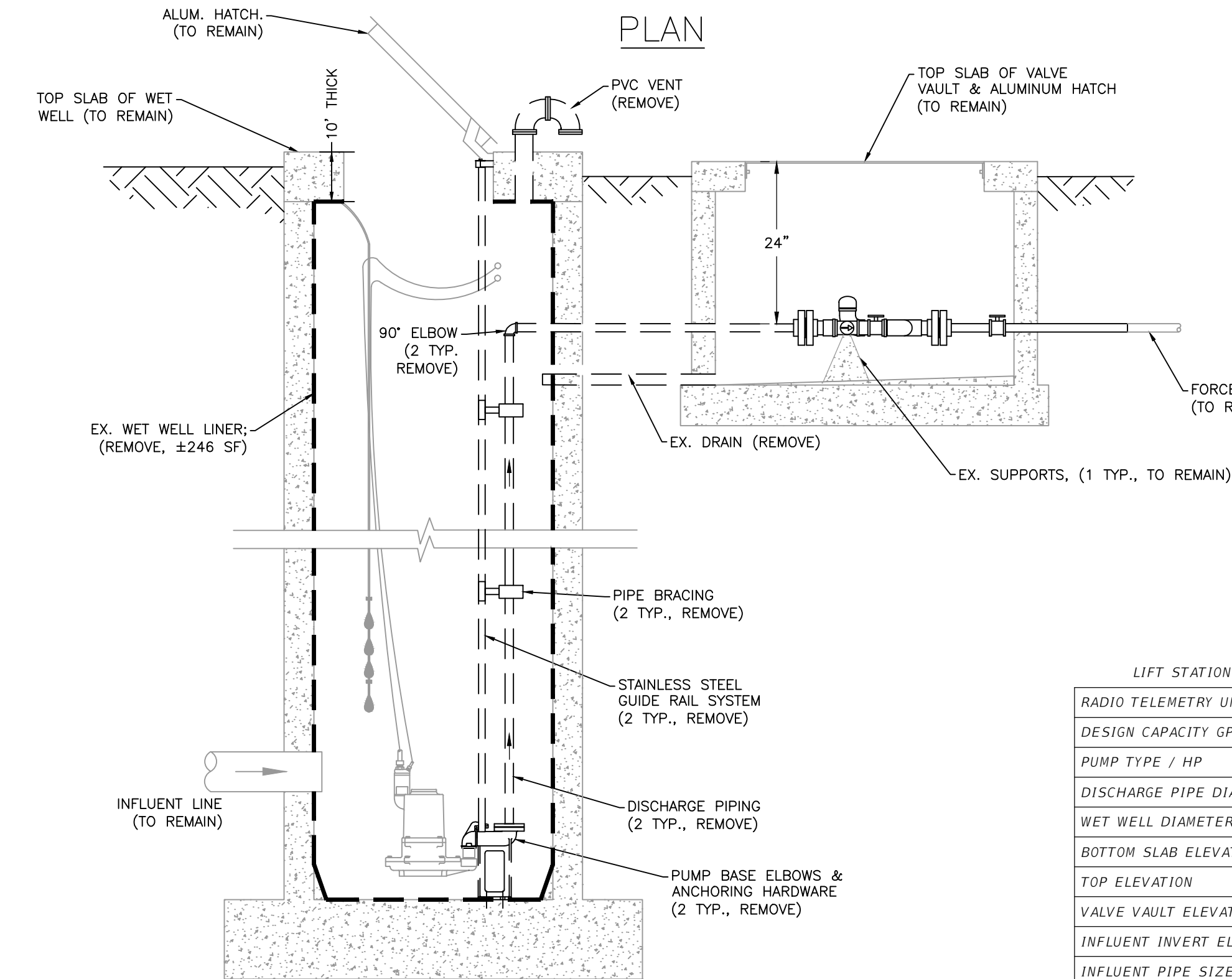
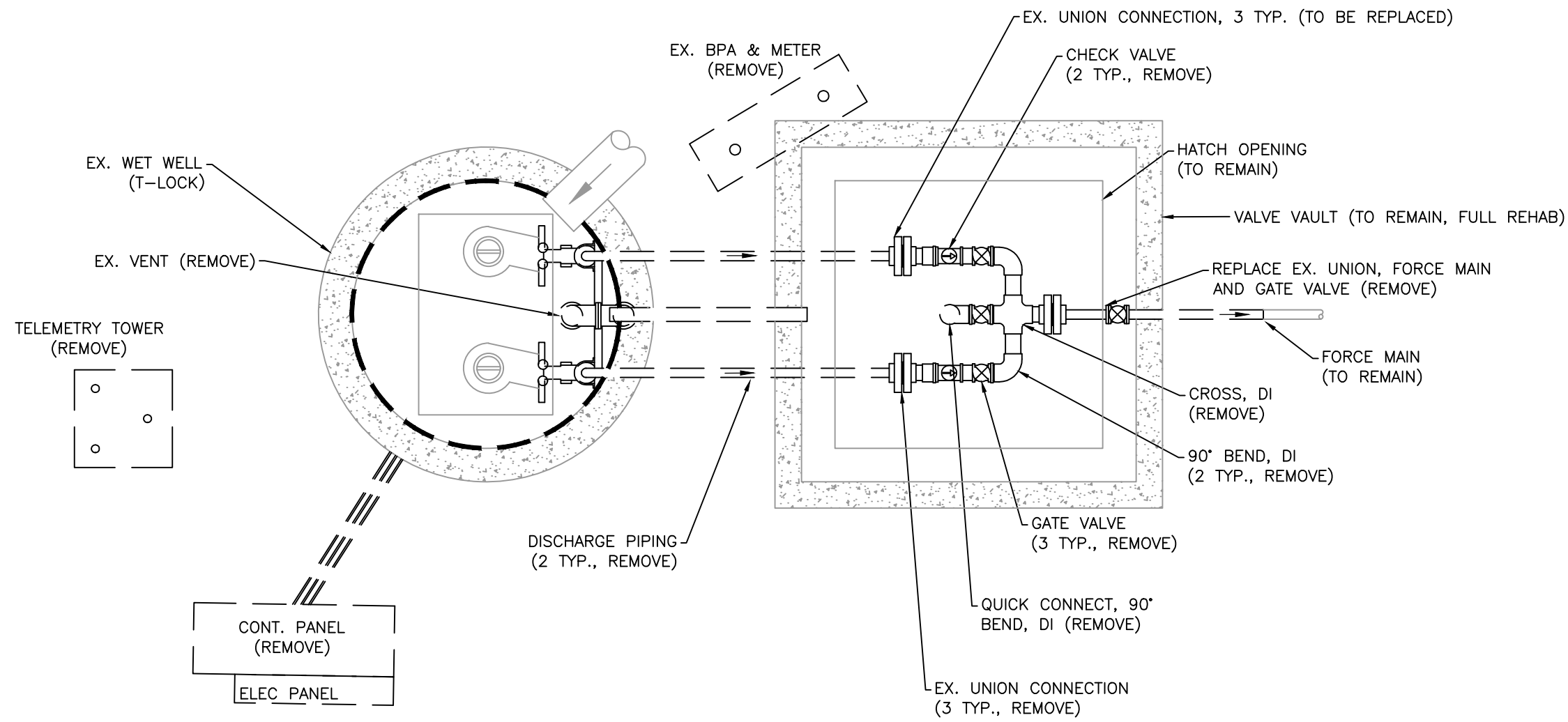
- NOTES:
1. WATER DISTRIBUTION IS PRIVATE.
 2. SEWER COLLECTION IS PUBLIC.
 3. LIFT STATION WITHIN COUNTY ROW.

REVISIONS		 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. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	MANATEE COUNTY PUBLIC WORKS DEPARTMENT					SATELLITE LIFT STATION R&R 2025 GROUP 1 TERRA SIESTA 2, RTU 528			SHEET NO.		
DATE	DESCRIPTION			PROJECT #	402-5164583	SURVEYED	-	-				SEC./TWN./RGE	2/35/18	DESIGNED
				SCALE	SEE PLANS	DRAWN	JSS	4/2024						

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.
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8. THE WORK AREA IS LIMITED TO THE LIFT STATION SITE.



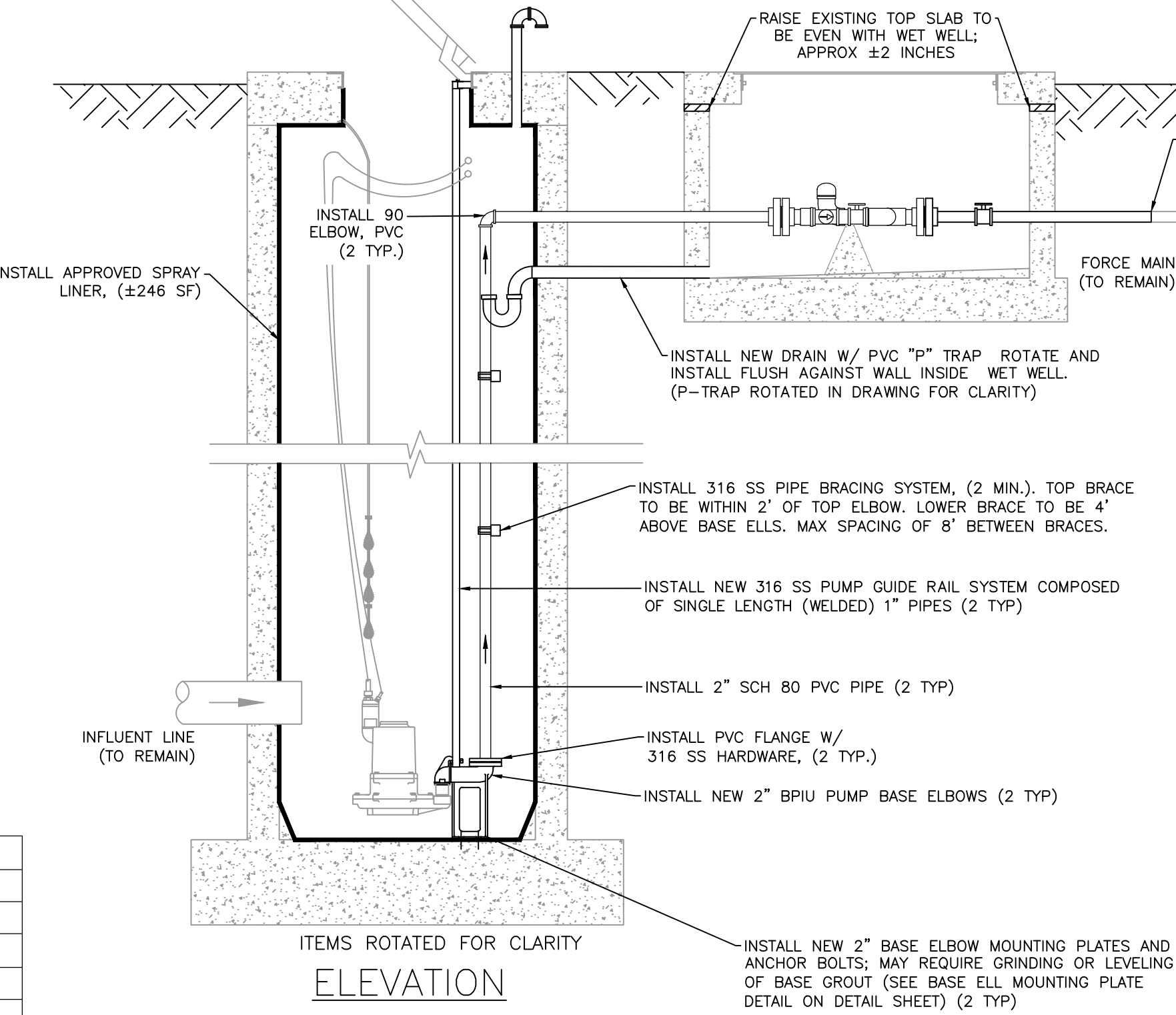
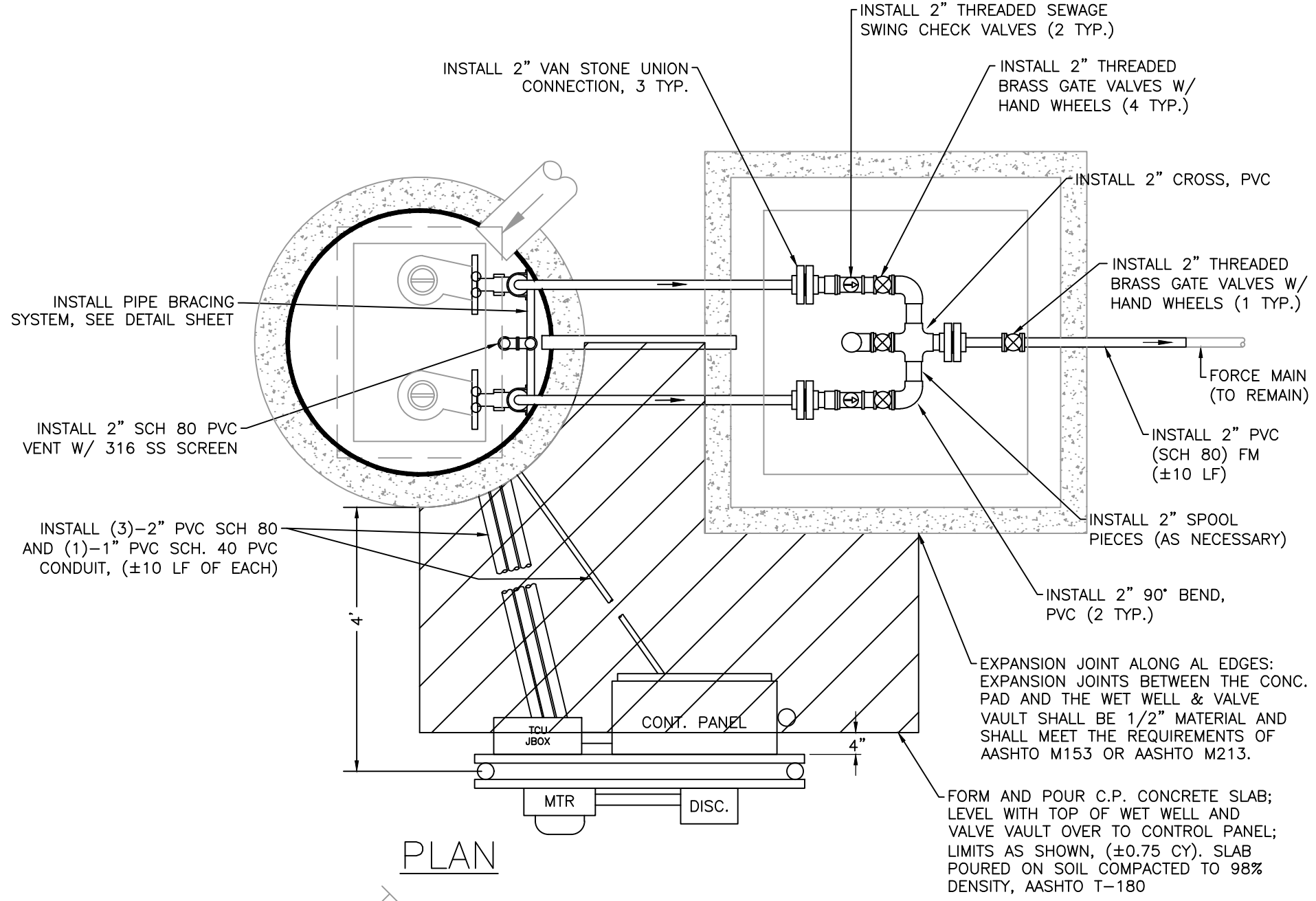
ITEMS ROTATED FOR CLARITY
ELEVATION
EX. 2 PUMP LIFT STATION
NTS

LIFT STATION SCHEDULE (EXISTING)	
RADIO TELEMETRY UNIT (RTU)	538
DESIGN CAPACITY GPM/TDH	75 / 90
PUMP TYPE / HP	HYDROMATIC/5
DISCHARGE PIPE DIAMETER	1.25"
WET WELL DIAMETER	4'
BOTTOM SLAB ELEVATION	-12.34
TOP ELEVATION	5.19
VALVE VAULT ELEVATION	5.19
INFLUENT INVERT ELEVATION	-6.46
INFLUENT PIPE SIZE	8", DI
FORCE MAIN DIAMETER	2"
WET WELL VENT PIPE	PVC
ELECT. POWER, VOLTS / PH	240 / 3
ELECT. SERVICE SIZE, AMPS	60
EX. FORCE MAIN TIE-IN	FM
FLOODPLAIN INFORMATION	AE-8
* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2023) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.	

PROPOSED

GENERAL NOTES:

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3. THE EXTERIOR SURFACES OF THE CONCRETE WET WELL, VALVE VAULT, AND POURED SLAB 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.




CONSTRUCTION NOTES:

1. INSTALL **ALL** NEW ELECTRICAL SERVICE WITH CONDUIT. IF THE EXISTING ELECTRICAL CONDUIT HAS A MINIMUM DIAMETER OF 2-INCHES OR IS PROPERLY SIZED PER NEC (WHICHEVER IS GREATER), THEN THE EXISTING ELECTRICAL CONDUIT CAN BE LEFT IN PLACE AND USED. (±100 LF).
2. 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.

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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 1" TRAP ROTATE AND INSTALL FLUSH AGAINST WALL 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. WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER AND/OR LINER REPAIR.
8. INSTALL A NEW 2-INCH WATER SERVICE LINE AND 4"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 OF THE ROADWAY. THE METER/BPA SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE FENCE / EASEMENT / RIGHT-OF-WAY LINE IN CLOSEST PROXIMITY TO THE WATER DISTRIBUTION MAIN. ALL ITEMS SHALL BE FIELD LOCATE WITH MANATEE COUNTY PERSONNEL. (±10 LF).
9. ABANDON EXISTING WATER SERVICE SADDLE AND CORPORATION AT MAIN; INSTALL A BRASS PLUG IN CORPORATION STOP.
10. INSTALL WASHED SHELL & WEED BARRIER (±50 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. ON THE SOUTH SIDE, EXTEND BARRIER AND WASHED SHELL APPROXIMATELY 10 FEET FROM THE STRUCTURE EDGES AND DAYLIGHT TO EXISTING GRADE. COORDINATE WITH MANATEE COUNTY PERSONNEL.
11. INSTALL A 10-FT WIDE 6-INCH THICK REINFORCE CONCRETE STANDARD DRIVEWAY ON THE NORTH SIDE OF WET WELL AND VALVE VAULT. EXACT LOCATION AND LAYOUT SHALL BE DETERMINED IN THE FIELD WITH COUNTY PERSONNEL, (±33 SY).
12. 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 LOCATED IN A FLOOD ZONE (AE-8) WITH A BASE FLOOD ELEVATION OF 8 NAVD. THE BASE OF ALL ELECTRICAL EQUIPMENT SHALL BE ABOVE THE FLOOD PROTECTION ELEVATION OF 9 NAVD. A FLOOD REVIEW & ELEVATION CERTIFICATE PREPARED BY A FLORIDA LICENSED SURVEYOR WILL BE REQUIRED.
14. V-GROOVE AND PATCH ALL LIFT MOUNTS ON THE WET WELL AND VALVE VAULT PRIOR TO PAINTING. COORDINATE WITH COUNTY INSPECTOR.

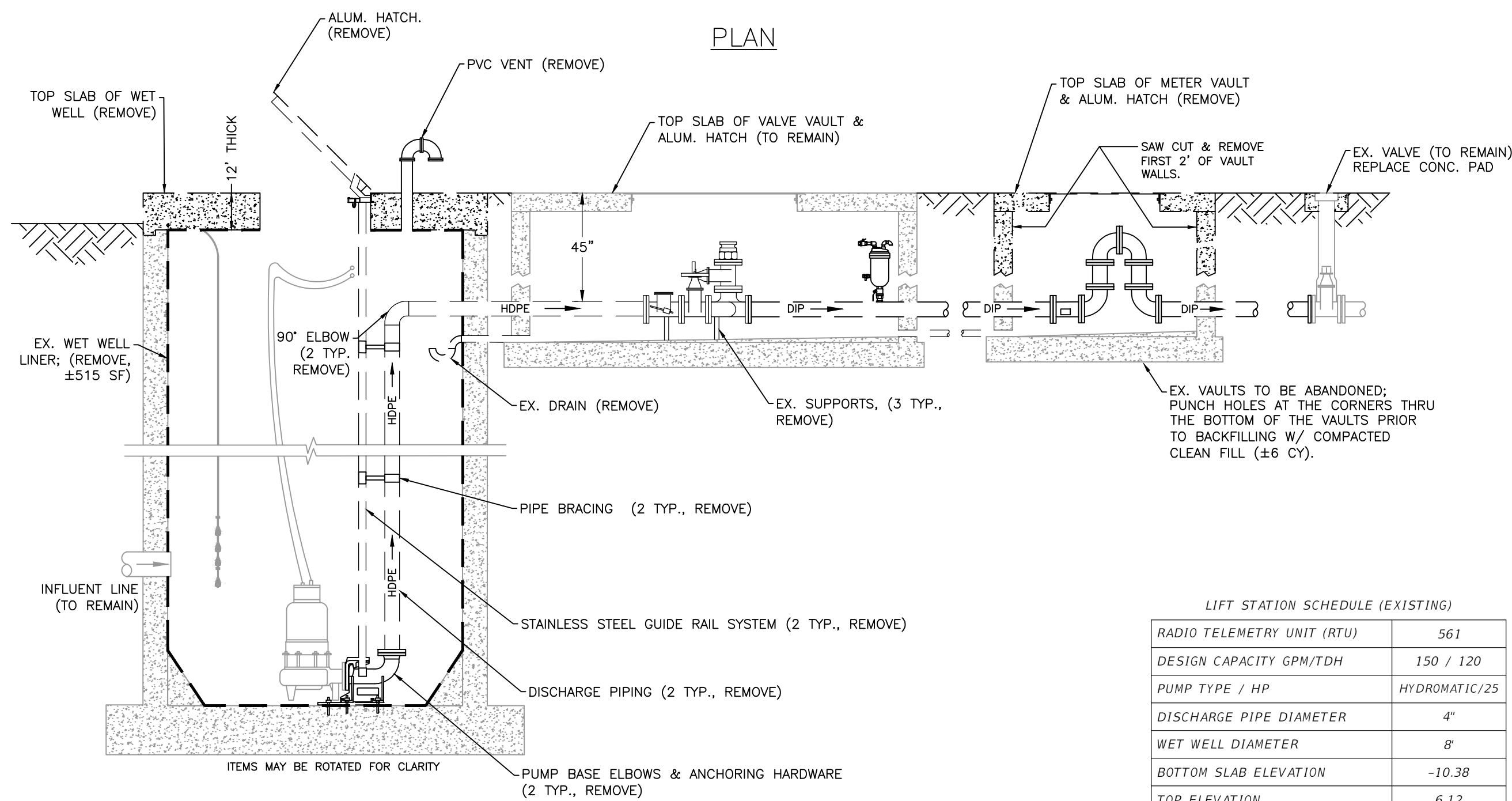
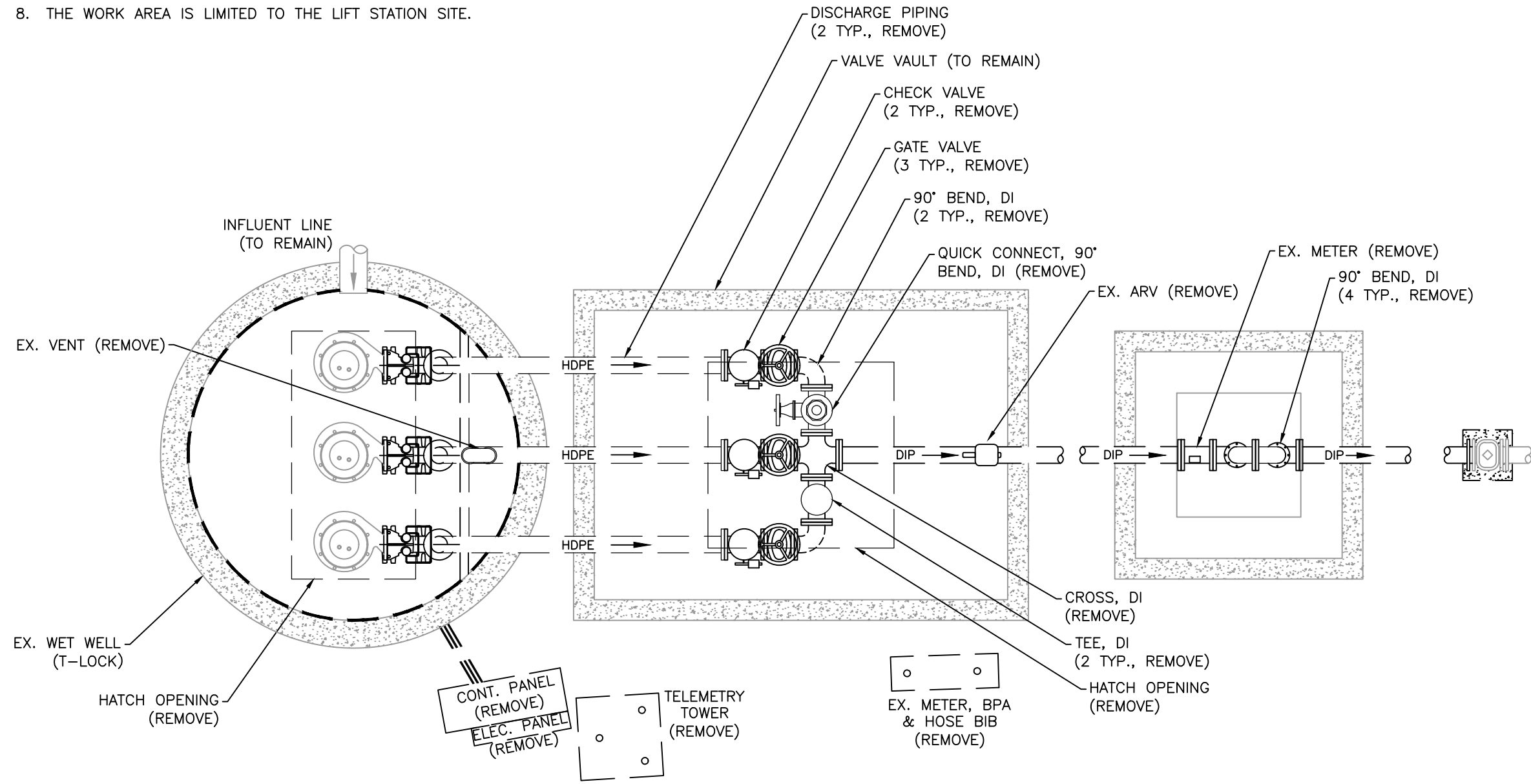
NOTES:

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

REVISIONS		 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. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	MANATEE COUNTY PUBLIC WORKS DEPARTMENT					SATELLITE LIFT STATION R&R 2025 GROUP 1 N6A, RTU 538			SHEET NO.							
DATE	DESCRIPTION			PROJECT #	402-5164582	SURVEYED	-	-				SEC./TWN./RGE	16/34/18	DESIGNED	JSS	4/2024	SCALE	SEE PLANS	DRAWN

EXISTING

- NOTES:
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 - CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
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 - THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ANY DAMAGED LANDSCAPING TO EXISTING OR DESIGN CONDITIONS.
 - THE WORK AREA IS LIMITED TO THE LIFT STATION SITE.

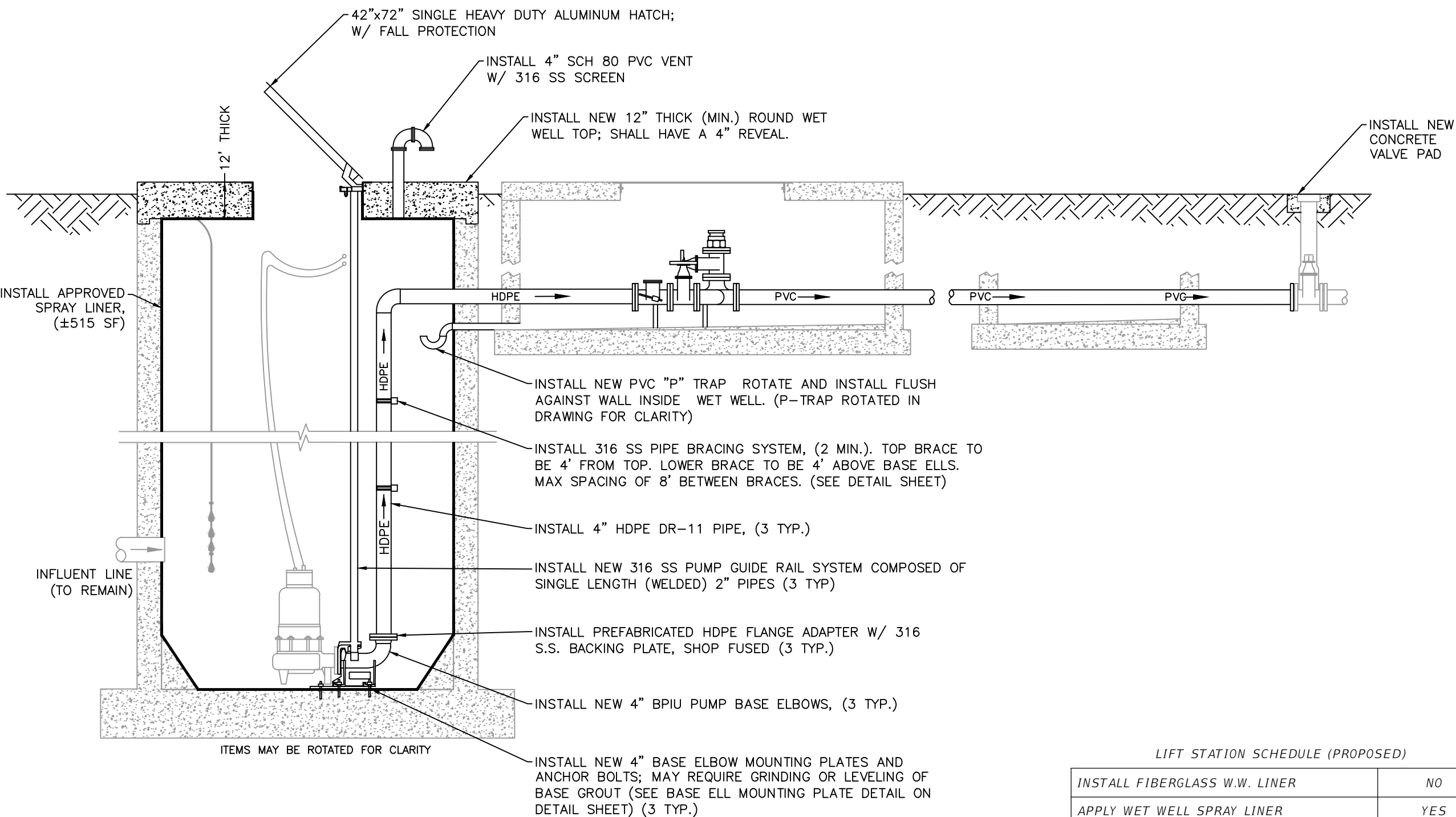
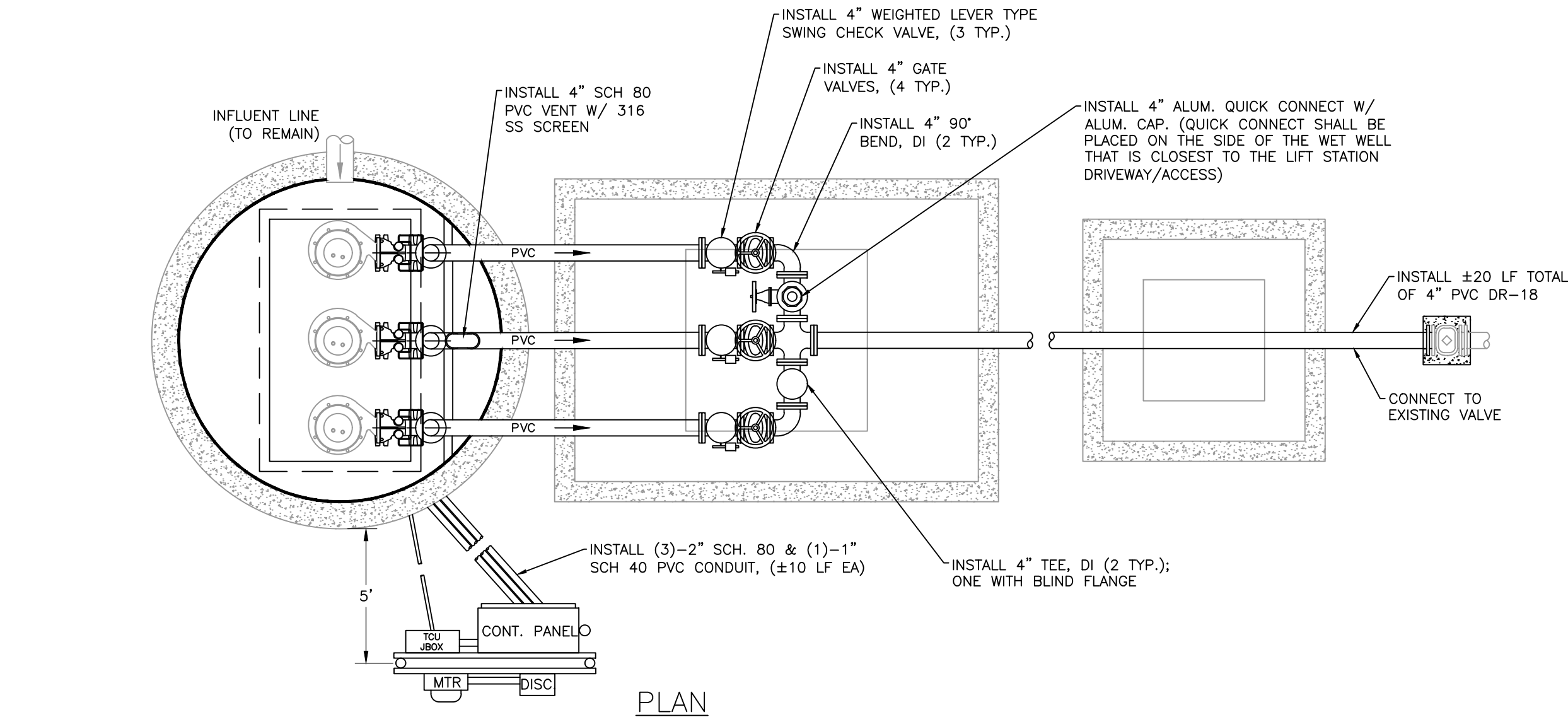


ELEVATION
EX. 2 PUMP LIFT STATION
NTS

LIFT STATION SCHEDULE (EXISTING)	
RADIO TELEMETRY UNIT (RTU)	561
DESIGN CAPACITY GPM/TDH	150 / 120
PUMP TYPE / HP	HYDROMATIC/25
DISCHARGE PIPE DIAMETER	4"
WET WELL DIAMETER	8"
BOTTOM SLAB ELEVATION	-10.38
TOP ELEVATION	6.12
VALVE VAULT ELEVATION	6.12
INFLUENT INVERT ELEVATION	-5.96
INFLUENT PIPE SIZE	8", DI
FORCE MAIN DIAMETER	4"
WET WELL VENT PIPE	DI
ELECT. POWER, VOLTS / PH	240 / 3
ELECT. SERVICE SIZE, AMPS	175
EX. FORCE MAIN TIE-IN	FM
FLOODPLAIN INFORMATION	AE-9
* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2023) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.	

PROPOSED

- GENERAL NOTES:
- 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.
 - 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 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.
 - ALL EXISTING DUCTILE IRON PIPE AND/OR FITTINGS LABELED TO REMAIN IN THE VALVE VAULT SHALL BE COATED WITH A BITUMINOUS COATING.
 - COAT THE INTERIOR OF THE VALVE VAULT WALLS WITH TWO (2) COATS OF COAL TAR EPOXY.
 - ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM TO BE PAINTED.




ELEVATION
EX. 2 PUMP LIFT STATION
NTS

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 HDPE DISCHARGE PIPING	YES
NEW BASE ELBOW	YES
MODIFY TOP ELEVATION OF WET WELL (LOWER/RAISE)	NO
MODIFY TOP ELEVATION OF VALVE VAULT (LOWER/RAISE)	NO
INSTALL WET WELL VENT PIPE	YES
INSTALL NEW WATER SERVICE ASSEMBLY	YES
RELOCATE EX. WATER SERVICE ASSEMBLY	NO

- CONSTRUCTION NOTES:
- INSTALL ALL NEW ELECTRICAL SERVICE WITH CONDUIT FROM CONTROL PANEL TO EXISTING HANDHOLE. IF THE EXISTING ELECTRICAL CONDUIT HAS A MINIMUM DIAMETER OF 2-INCHES OR IS PROPERLY SIZED PER NEC (WHICHEVER IS GREATER), THEN THE EXISTING ELECTRICAL CONDUIT CAN BE LEFT IN PLACE AND USED. (±20 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.

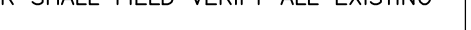
A TCU BUBBLER UNIT (RPT-001) SYSTEM PROVIDED AND INSTALLED BY DATA FLOW SYSTEMS (DFS) FOR WET WELL LEVEL CONTROL AND SHALL BE INCLUDED WITH THE CONTROL PANEL.
 - AN ELECTRICAL SYSTEM STUDY, ELECTRICAL STUDY ANALYSIS, AND PROPER LABELING IN COMPLIANCE WITH NFPA 70E "STANDARD FOR ELECTRICAL SAFETY IN THE 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 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 LINER IN WET WELL. WALL PENETRATION TO BE MADE BY MECHANICAL ROTARY CORE BORING. (P-TRAP ROTATED IN DRAWING FOR CLARITY).
 - WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER AND/OR LINER REPAIR.
 - INSTALL A NEW STANDARD METER/BPA ASSEMBLY; AND A 3/4-INCH HOSE BIBB ASSEMBLY PER COUNTY STANDARDS VIA DIRECT BURY. ALL ITEMS SHALL BE FIELD LOCATE WITH MANATEE COUNTY PERSONNEL, (±10 LF).
 - REGRADE SITE TO ALLOW FOR A POSITIVE DRAINAGE SLOPE AWAY FROM THE LIFT STATION AREA TOWARDS THE SURROUNDING DITCHES. MAXIMUM OF 1% SLOPE.
 - INSTALL TWO BOLLARDS; YELLOW PVC COVER WITH 360° RED REFLECTOR AT THE END OF THE EXISTING DRIVEWAY. FIELD LOCATE WITH COUNTY PERSONNEL.
 - THIS LIFT STATION IS LOCATED IN A FLOOD ZONE (AE-9) WITH A BASE FLOOD ELEVATION OF 9 NAVD. THE BASE OF ALL ELECTRICAL EQUIPMENT SHALL BE ABOVE THE FLOOD PROTECTION ELEVATION OF 10 NAVD. A FLOOD REVIEW & ELEVATION CERTIFICATE PREPARED BY A FLORIDA LICENSED SURVEYOR WILL BE REQUIRED.

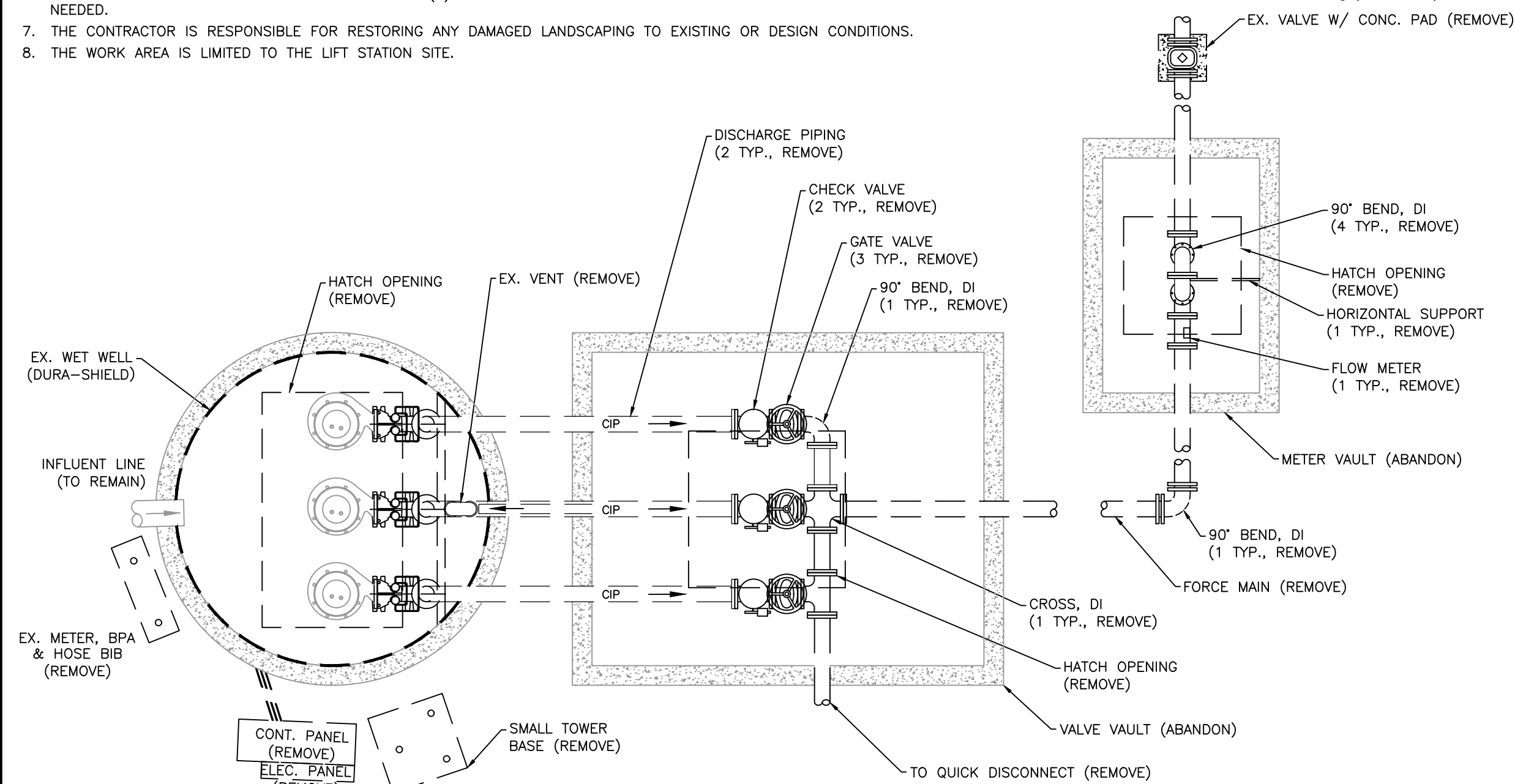
- NOTES:
- WATER DISTRIBUTION IS PUBLIC.
 - SEWER COLLECTION IS PUBLIC.
 - LIFT STATION WITHIN COUNTY ROW.

REVISIONS		 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. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	MANATEE COUNTY PUBLIC WORKS DEPARTMENT					SATELLITE LIFT STATION R&R 2025 GROUP 1 N1E, RTU 561		SHEET NO. 07 of 12
DATE	DESCRIPTION			PROJECT #	402-5164581	SURVEYED	-	-			
				SEC./TWN./RGE	27/35/18	DESIGNED	JSS	4/2024			
				SCALE	SEE PLANS	DRAWN	JSS	4/2024			

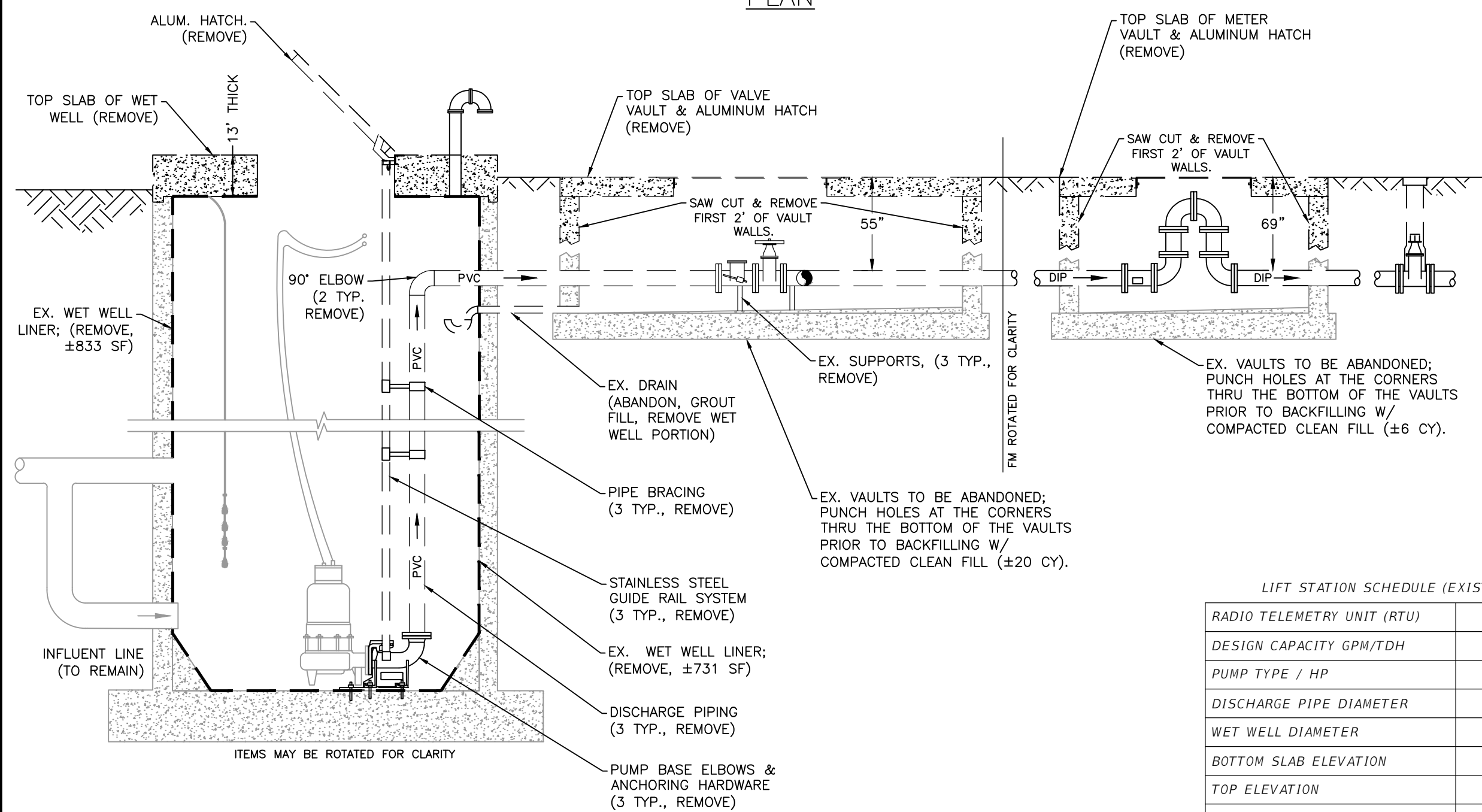
EXISTING

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

LIFT STATION SCHEDULE (EXISTING)	
RADIO TELEMETRY UNIT (RTU)	563
DESIGN CAPACITY GPM/TDH	200 / 53
PUMP TYPE / HP	HOMA/7.5
DISCHARGE PIPE DIAMETER	4"
WET WELL DIAMETER	8"
BOTTOM SLAB ELEVATION	-19.34
TOP ELEVATION	9.80
VALVE VAULT ELEVATION	9.80
INFLUENT INVERT ELEVATION	-13.12
INFLUENT PIPE SIZE	8" PVC
FORCE MAIN DIAMETER	6"
WET WELL VENT PIPE	PVC
ELECT. POWER, VOLTS / PH	240 / 3
ELECT. SERVICE SIZE, AMPS	150
EX. FORCE MAIN TIE-IN	FM
FLOODPLAIN INFORMATION	AE-9

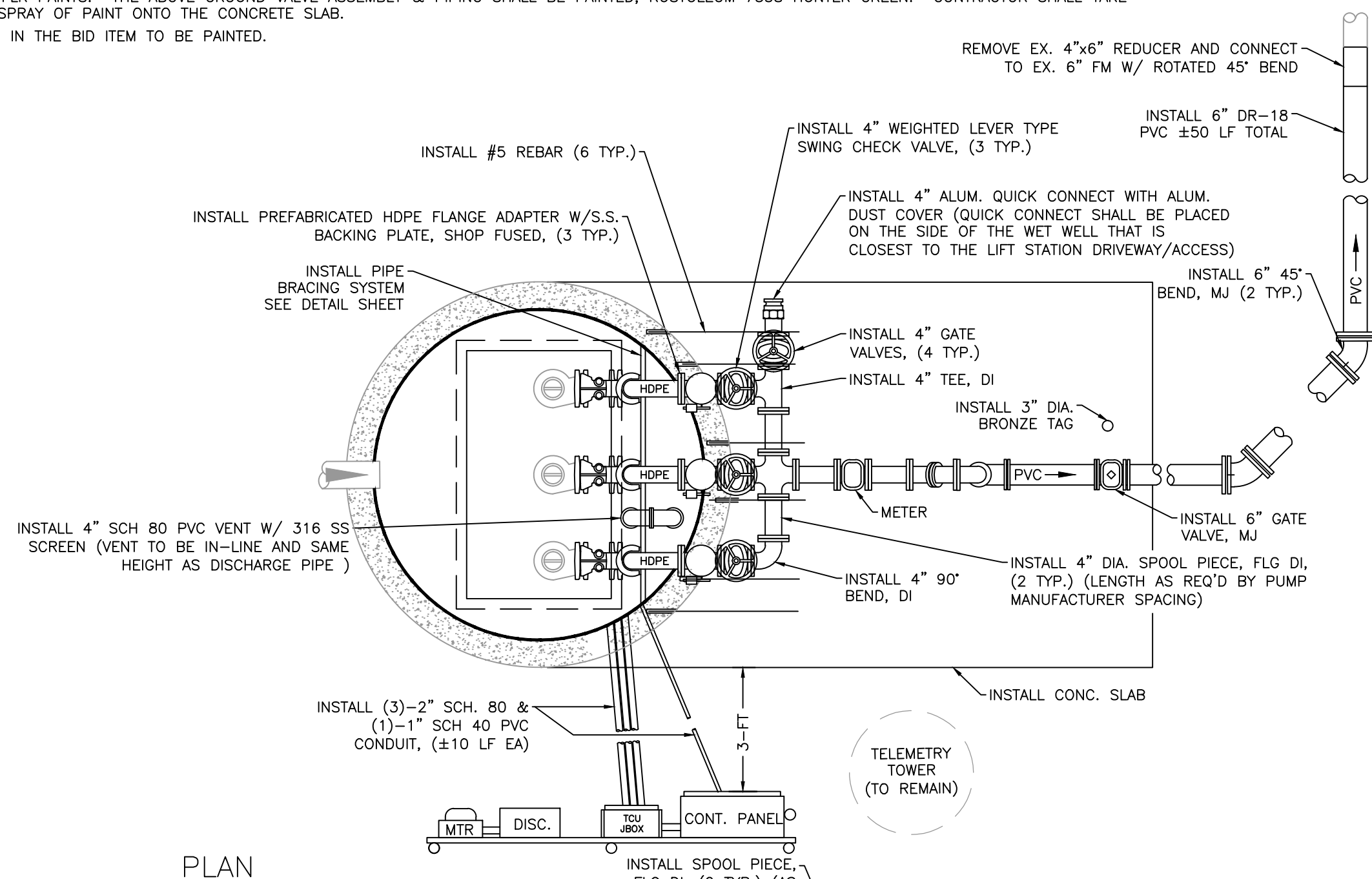
* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LIFTING TO 2023) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.

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	YES
NEW BASE ELBOW	YES
MODIFY TOP ELEVATION OF WET WELL (LOWER/RAISE)	NO
MODIFY TOP ELEVATION OF VALVE VAULT (LOWER/RAISE)	NO
INSTALL WET WELL VENT PIPE	YES
INSTALL NEW WATER SERVICE ASSEMBLY	YES
RELOCATE E.X. WATER SERVICE ASSEMBLY	NO

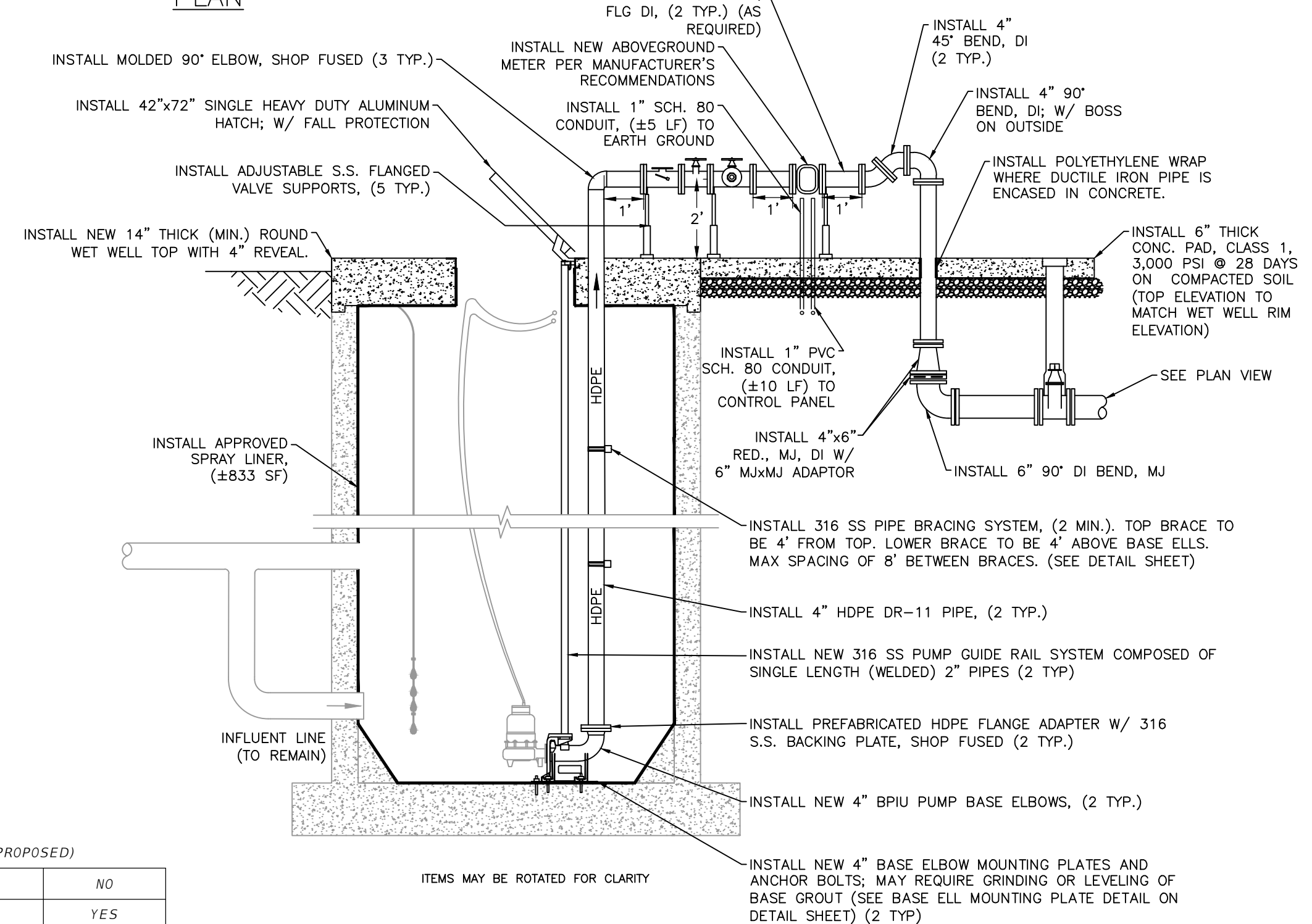
PROPOSED

GENERAL NOTES:

1. 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.
2. THE CONCRETE SHALL BE GIVEN A BROOM FINISH. THE SURFACE VARIATIONS SHALL BE NOT MORE THAN 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".
3. 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.
4. 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. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT OVER-SPRAY OF PAINT ONTO THE CONCRETE SLAB.
5. ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM TO BE PAINTED.



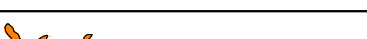
PLAN

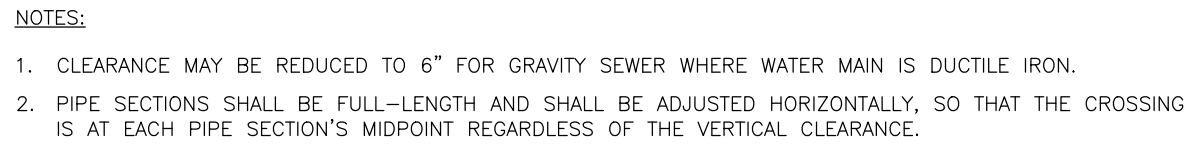


ELEVATION
EX. 2 PUMP LIFT STATION
NTS

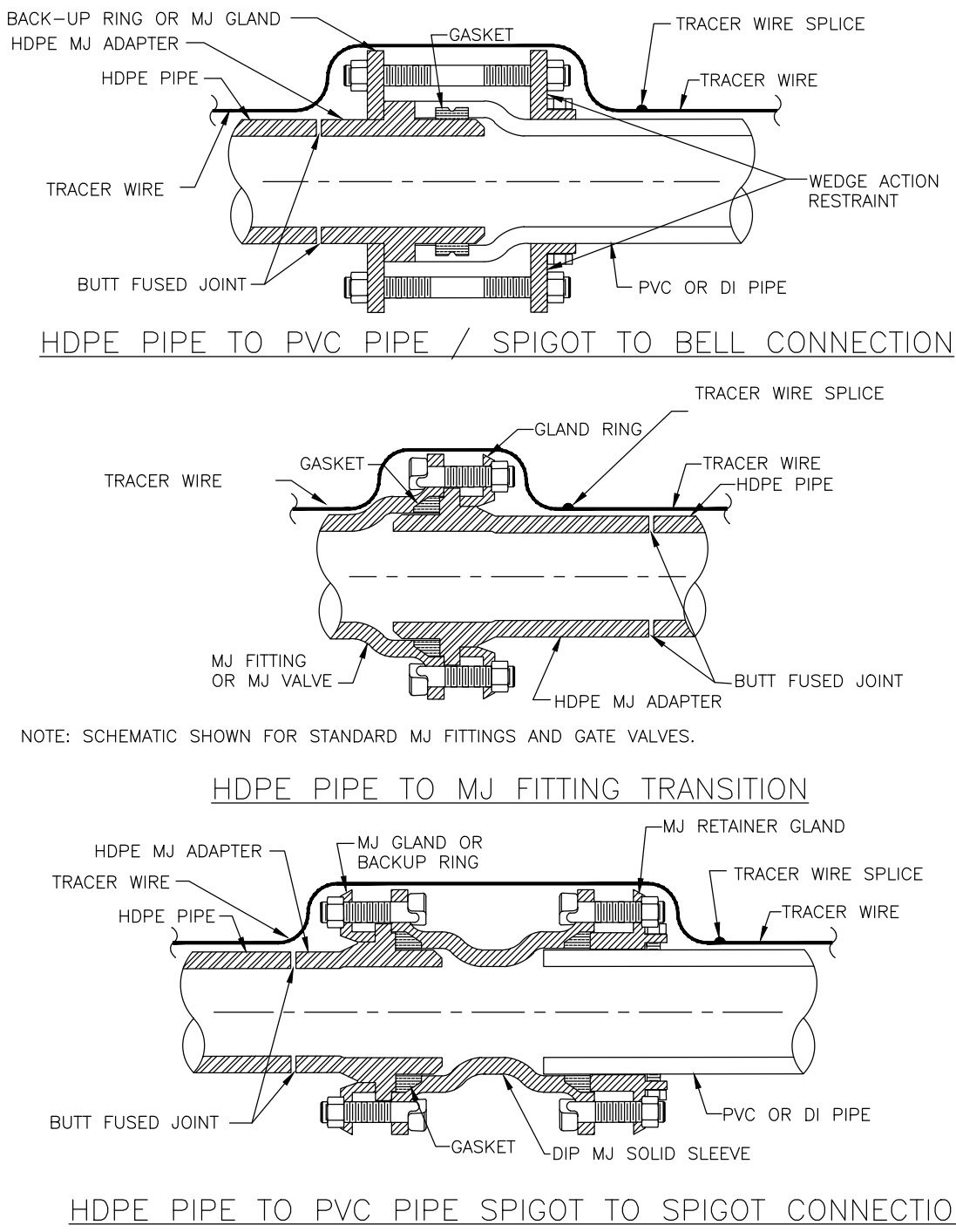
- CONSTRUCTION NOTES:
2. INSTALL ALL NEW ELECTRICAL SERVICE WITH CONDUIT. IF THE EXISTING ELECTRICAL CONDUIT HAS A MINIMUM DIAMETER OF 2-INCHES OR IS PROPERLY SIZED PER NEC (WHICHEVER IS GREATER), THEN THE EXISTING ELECTRICAL CONDUIT CAN BE LEFT IN PLACE AND USED. (+120 LF).
3. REMOVE AND INSTALL ALL NEW ONE-SIDED ELECTRICAL STRUCTURE (RACK), A CONTROL PANEL, TCU ENCLOSURE, JUNCTION BOX ENCLOSURE, A METER CAN, AND A SAFETY SWITCH (DISCONNECT). ALL REMAINING EXISTING ELECTRICAL EQUIPMENT CONDUIT 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 THE PANEL TO HOLD ALL PROPOSED ELECTRICAL ENCLOSURES / COMPONENTS.
4. A TCU BUBBLER UNIT (RPT-001) SYSTEM PROVIDED AND OPERATED BY DAYTON FLOW SYSTEMS (DFS) FOR WET WELL LEVEL CONTROL AND SHALL BE INCLUDED WITH THE CONTROL PANEL.
5. AN ELECTRICAL SYSTEM STUDY, ELECTRICAL STUDY ANALYSIS, AND PROPER LABELING IN COMPLIANCE WITH NFPA 70 "STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE" AND IEEE 1584 2018 "GUIDE FOR PERFORMING ARC FLASH HAZARDS CALCULATIONS" SHALL BE PROVIDED.
6. 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 ASSEMBLY, AND 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.
7. INSTALL #5 REBAR (6 TYP.) EPOXY EMBEDDED INTO THE WET WELL TOWER 4-INCHES DEEP AND CAST 3-4 FEET INTO THE WET WELL ASSEMBLY CONCRETE PAD TO ENSURE THE TOPS OF THE WET WELL AND VALVE ASSEMBLY PAD WILL REMAIN FLUSH.
8. WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER AND/OR LINER REPAIR.
9. INSTALL A NEW 2-INCH WATER SERVICE LINE AND 12"x12" 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 EXISTING WATER MAIN SHALL BE AS CLOSE AS POSSIBLE TO THE FENCE LINE IN CLOSEST PROXIMITY TO THE WATER DISTRIBUTION MAIN. ALL ITEMS SHALL BE FIELD LOCATE WITH MANATEE COUNTY PERSONNEL. (+40 LF).
10. ABANDON EXISTING WATER SERVICE SADDLE AND CORPORATION AT MAIN; INSTALL A BRASS PLUG IN CORPORATION STOP.
11. INSTALL WASHED SHELL & WEED BARRIER (+275 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.
12. 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 LOCATED IN A FLOOD ZONE (AE-9) WITH A BASE FLOOD ELEVATION OF 9 NAVD. THE BASE OF ALL ELECTRICAL EQUIPMENT SHALL BE ABOVE THE FLOOD PROTECTION ELEVATION OF 10 NAVD. A FLOOD REVIEW & ELEVATION CERTIFICATE PREPARED BY A FLORIDA LICENSED SURVEYOR WILL BE REQUIRED.
14. SLS PORT MANATEE 3 (N10) REQUIRES ALL WORKERS TO HAVE A TEMPORARY TOW TO ACCESS THE SECURE AREAS OF THE PORT. ALL PORTER AND ALL INDIVIDUALS REQUIRED TO ACCESS THE PORT OF MANATEE SITE MUST APPLY FOR AND OBTAIN A TEMPORARY TRANSPORTATION WORKER IDENTIFICATION CREDENTIALS (TWIC) AT THE MAIN ENTRANCE OFFICE PRIOR TO SCHEDULING ANY REHABILITATION WORK. THE TEMPORARY TWIC CARDS MUST BE OBTAINED AT THE BEGINNING OF EACH DAY BY STOPPING IN THE MAIN ENTRANCE AND CHECKING IN.

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

R E V I S I O N S		 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. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	MANATEE COUNTY PUBLIC WORKS DEPARTMENT					SATELLITE LIFT STATION R&R 2025 GROUP 1 PORT MANATEE 3, RTU 563					SHEET NO.
DATE	DESCRIPTION			PROJECT #	402-5164580	SURVEYED	-	-	SCALE/TWN./RGE	1/33/17	DESIGNED	JSS	4/2024	08 of 12
				SEC.	SEE PLANS	DRAWN	JSS	4/2024						



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TYPICAL NEW WATER & SEWER LINE CROSSING	UG-2
REV. BY	DATE		
SEPT 12, 2023 DATE OF APPROVAL			



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		HDPE TO PVC OR DI PIPE ADAPTER	UG-6
REV. BY	DATE		
	SEPT 12, 2023 DATE OF APPROVAL		

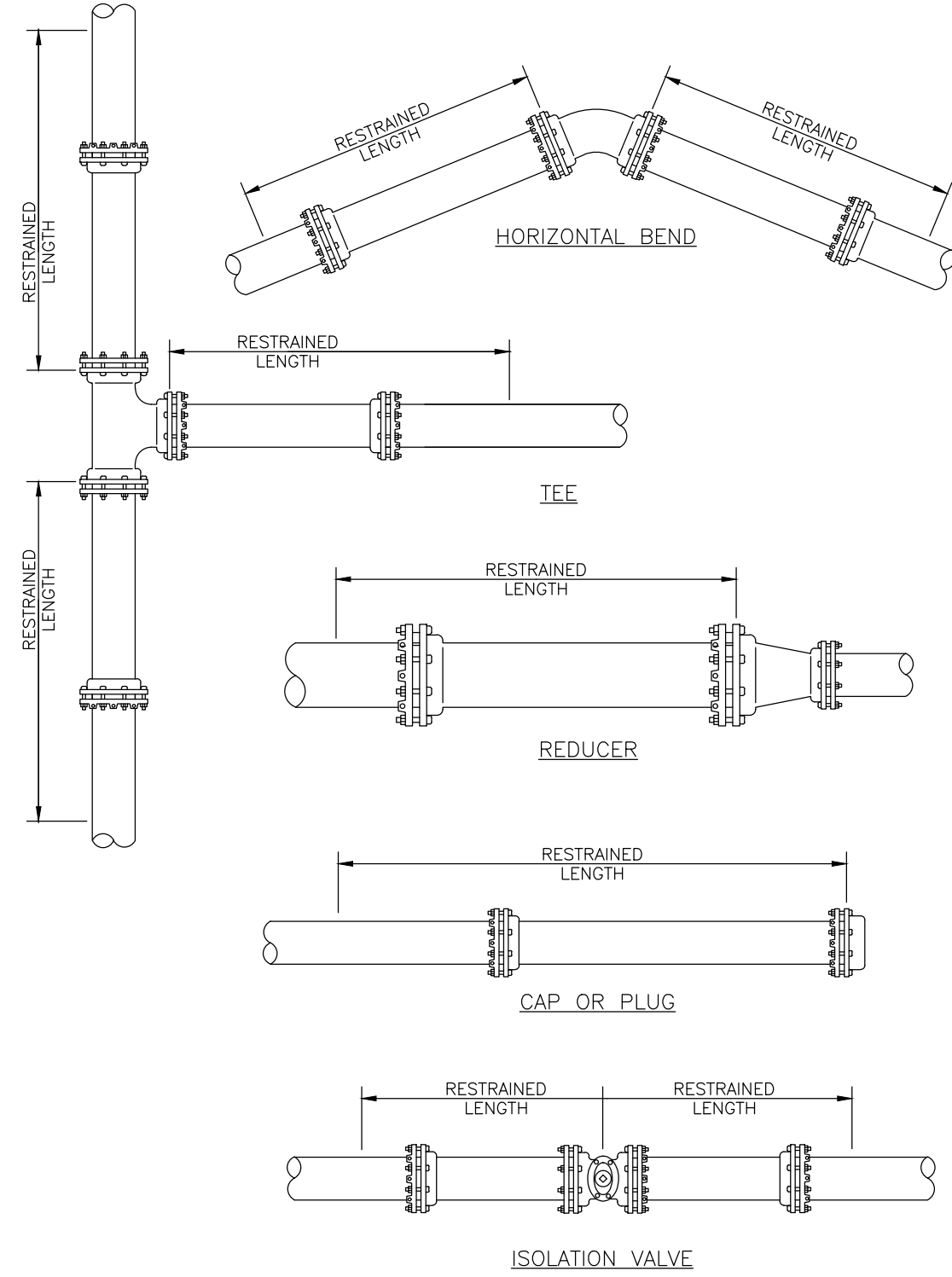
REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR C900-16 PVC PIPE (DR-18)

MAIN PIPE SIZE	HORIZ. BENDS			TEES							REDUCERS							PLUGS & VALVES
	90°	45°	22.5°	SIZE							SIZE							
				24	30	36	42	48	60	72	20	24	30	36	42	48	60	
24	90	38	18	X ₂₄ ¹⁶	X ₂₀ ¹²	X ₁₆ ¹⁰	X ₁₂ ⁸	X ₁₀ ⁶	X ₈ ⁴	X ₆ ³	X ₂₀ ¹⁶	X ₁₆ ¹²	X ₁₂ ⁸	X ₁₀ ⁶	X ₈ ⁴	214		
20	78	32	16	X ₂₀ ¹⁴	X ₁₆ ¹⁰	X ₁₂ ⁸	X ₁₀ ⁶	X ₈ ⁴	X ₆ ³	X ₄ ²	X ₁₆ ¹²	X ₁₂ ⁸	X ₁₀ ⁶	X ₈ ⁴	X ₆ ³	184		
16	66	27	13	X ₁₆ ¹¹	X ₁₂ ⁸	X ₁₀ ⁶	X ₈ ⁴	X ₆ ³	X ₄ ²	X ₃ ¹	X ₁₂ ⁸	X ₁₀ ⁶	X ₈ ⁴	X ₆ ³	X ₄ ²	158		
12	52	22	10	X ₁₂ ⁸	X ₁₀ ⁶	X ₈ ⁴	X ₆ ³	X ₄ ²	X ₃ ¹	X ₂ ¹	X ₁₀ ⁶	X ₈ ⁴	X ₆ ³	X ₄ ²	X ₃ ¹	118		
10	44	18	9	X ₁₀ ⁸	X ₈ ⁶	X ₆ ⁴	X ₄ ³	X ₃ ²	X ₂ ¹	X ₁ ¹	X ₈ ⁶	X ₆ ⁴	X ₄ ³	X ₃ ²	X ₂ ¹	100		
8	37	15	7	X ₈ ⁶	X ₆ ⁴	X ₄ ³	X ₃ ²	X ₂ ¹	X ₁ ¹	X ₁ ¹	X ₆ ⁴	X ₄ ³	X ₃ ²	X ₂ ¹	X ₁ ¹	83		
6	29	12	6	X ₆ ⁴	X ₄ ³	X ₃ ²	X ₂ ¹	X ₁ ¹	X ₁ ¹	X ₁ ¹	X ₄ ³	X ₃ ²	X ₂ ¹	X ₁ ¹	X ₁ ¹	63		
4	21	8	4	X ₄ ³	X ₃ ²	X ₂ ¹	X ₁ ¹	X ₁ ¹	X ₁ ¹	X ₁ ¹	X ₃ ²	X ₂ ¹	X ₁ ¹	X ₁ ¹	X ₁ ¹	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 THE TABLES ARE BASED ON SOIL CLASSIFICATION SP WITH AWWA TYPE TRENCH CONDITIONS, 180 PSI TEST PRESSURE, 3 FEET OF COVER AND 1.5 FACTOR OF SAFETY. ACTUAL BURY CONDITIONS MUST BE DETERMINED BY THE ENGINEER OF RECORD AND THE RESTRAINED LENGTHS MODIFIED ACCORDINGLY.
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.

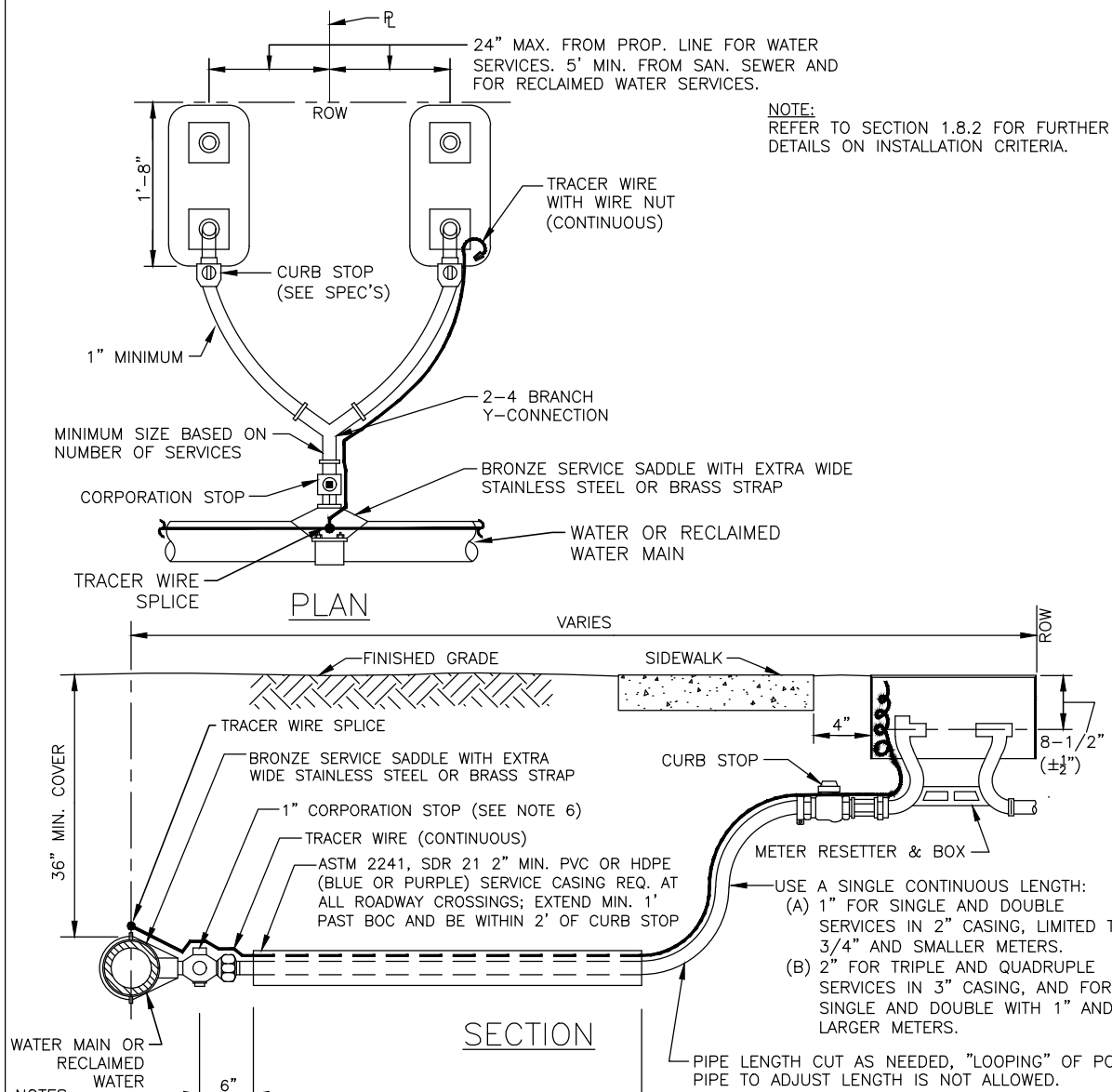
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		RESTRAINED LENGTHS FOR PVC PIPE	UG-8
REV. BY	DATE		
	SEPT 12, 2023 DATE OF APPROVAL		



NOTE:

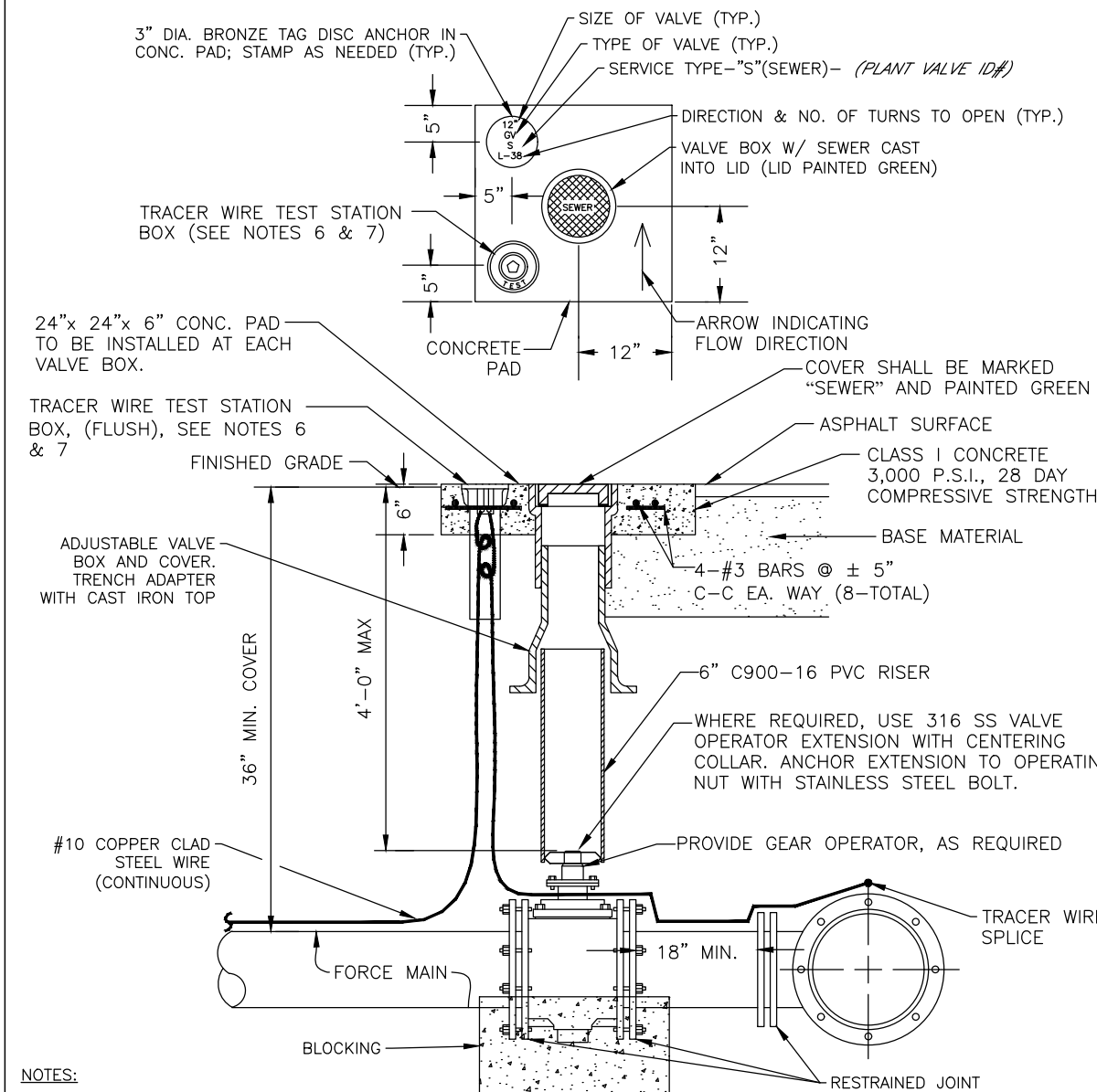
1. SEE DETAIL UG-8 RESTRAINED LENGTHS FOR PVC PIPE FOR NOTES 1 THROUGH 10 THAT ARE ALSO APPLICABLE TO RESTRAINED LENGTHS FOR PIPE.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		RESTRAINED LENGTHS FOR PIPE	UG-10
REV. BY	DATE		
	SEPT 12, 2023 DATE OF APPROVAL		



- NOTES:
1. ALL SERVICE TAPS TO BE LOCATED IN THE FID. TAPS SHALL BE NO CLOSER THAN 2'-0" STAGGERED INTERVALS OR WITHIN 1'-0" FROM REE.
 2. SERVICE TAPS SHALL BE INSTALLED BY THE INFRASTRUCTURE CONTRACTOR AND SHALL NOT BE SET IN DRAINAGE SLOES, SIDEWALKS OR DRIVEWAYS. WITH PRIOR APPROVAL BY COUNTY, METAL BOXES WITH LOCKABLE LIDS MAY BE USED FOR SERVICE TAPS.
 3. "W" OR "R" SHALL BE IMPRESSED INTO THE NEWLY Poured CONCRETE CURB (OR ROUTED INTO EXISTING CONCRETE CURB USING AN APPROVED TEMPLATE) AND INSTALL AN ALUMINUM BLUE DISC WITH "R" OR ALUMINUM PURPLE DISC WITH "W" AND THE FOOTAGE FROM THE DISC TO THE METAL USING A 1/8"x 1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT.
 4. COLOR CODED TRACER WIRE SHALL BE INSTALLED WITH WATER AND RECLAIMED MAIN AND ALL SERVICES. SERVICE WIRE SHALL BE CONNECTED TO THE TRACER WIRE ALONG THE MAIN, ON DOUBLE SERVICES, WHEN SECOND WIRE IS OVER 6" FROM TRACER. TRACER WIRE SHALL BE INSTALLED AT LEAST 18" FROM THE MAIN AND ADJACENT TO THE ROW.
 5. WATER AND RECLAIMED WATER SERVICE LINES TO BE 5' MINIMUM FROM SEWER SERVICE PIPES.
 6. FOR 2" SERVICES, REPLACE CORPORATION STOP WITH A 2" RESILIENT WEDGE FID GATE W/BOX, IUD, W/ MEDIAN.
 7. WHEN THE DISTANCE BETWEEN THE EDGE OF THE SIDEWALK AND THE ROW IS ONE FOOT (CUL-DE-SAC, U/V ADJACENT), THE CORPORATION STOP SHALL BE LOCATED AT THE END OF THE ROW.
 8. TEMPORARY RESIDENTIAL USE CAN BE PROVIDED BY CONTACTING THE UTILITY CUSTOMER SERVICE. SEE DETAIL UN-21.
 9. SERVICE TUBING SHALL NOT BE CRIMPED OR KINKED TO RE-ADJUST CURB STOP LOCATION.

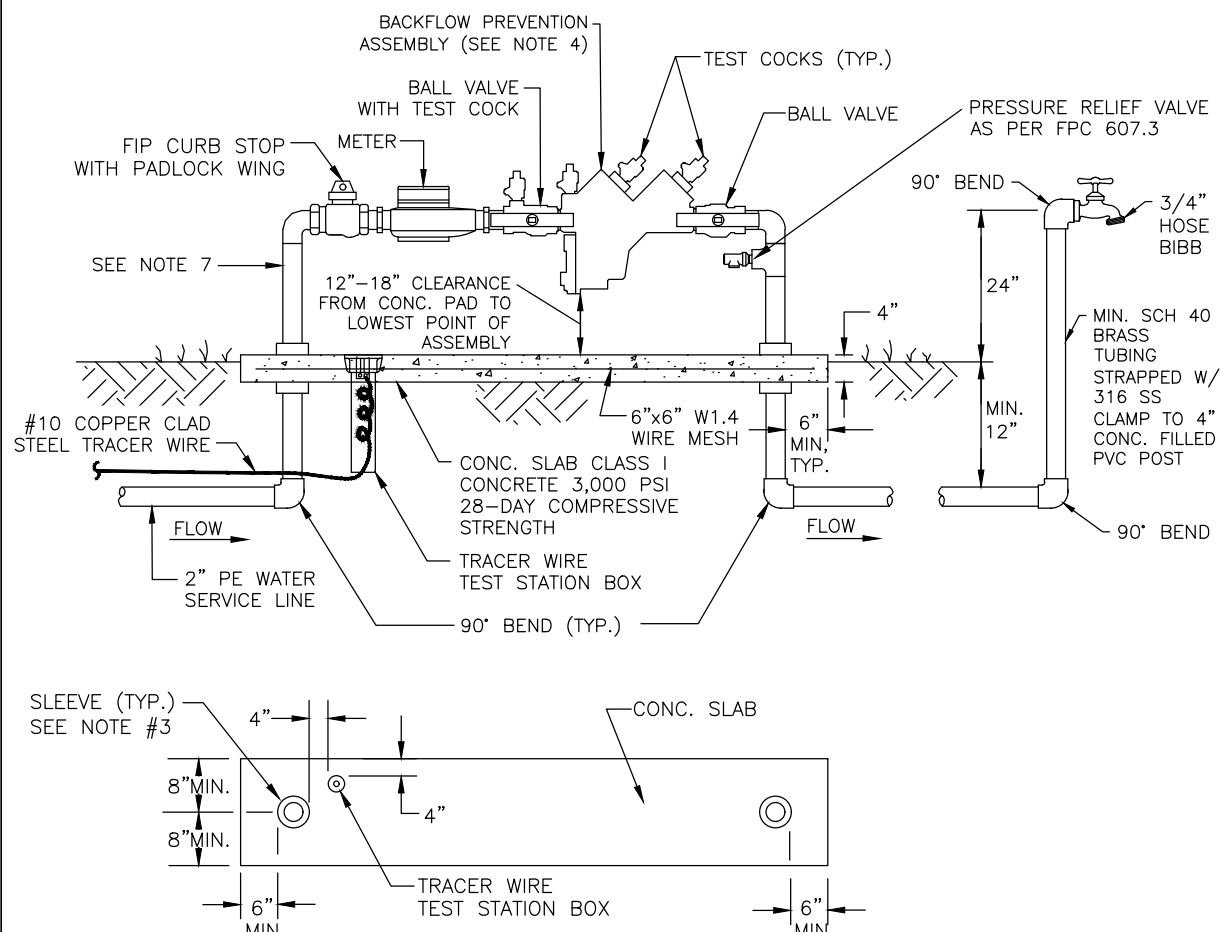
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TYPICAL SERVICE CONNECTION	UW-23
REV. BY	DATE		
SEPT 12, 2023 DATE OF APPROVAL			



NOTES:

1. "S" SHALL BE IMPRESSED INTO THE NEWLY-POURED CONCRETE CURB (OR ROUTED INTO EXISTING CONCRETE CURB USING AN APPROVED TEMPLATE) AND INSTALL AN ALUMINUM GREEN DISC WITH "S" AND THE FOOTAGE FROM THE DISC TO THE END OF THE 1/2" GALVANIZED STEEL SCREW IN THE SURFACE OF PAVEMENT. LETTERS SHALL COMPLY WITH PRACTICE DETAIL UO-21.
2. ALL EXISTING AND PRECAST VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADES AS DETERMINED IN THE FIELD. VALVES SHALL NOT BE PLACED IN HANDING SLOPES.
3. PRECAST CONCRETE PADS AND THRUST BLOCKS SHALL NOT BE USED.
4. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
5. TRACER WIRE BOX SHALL BE LOCATED OUTSIDE THE ROADWAY OR PARKING UNDER VEHICLE TRAFFIC USE. IF TRAFFIC RATED BOXES, WHERE POSSIBLE, LOCATE TRACER WIRE TESTING STATION OUTSIDE OF TRAVEL LANE OR IN MEDIAN, CENTER IN SEPARATE CONCRETE PAD SIMILAR TO STANDARD VALVE BOX PAD.
6. TRACER WIRE BOX SHALL BE LOCATED OUTSIDE THE ROADWAY ON THOROUGHFARES (COLLECTORS & ARTERIAL) AND STATE ROADWAYS.
7. TRACER WIRE BOX SHALL BE LOCATED ON CONCRETE PAD OVERLAP SIDEWALK. THE TRACER WIRE BOX SHALL NOT BE LOCATED WITHIN THE SIDEWALK.
8. THE BRASS TAG SHALL HAVE A "PLANT VALVE" ID WHEN VALVES ARE INSTALLED WITHIN THE COUNTY TRAVEL PLANT AND SHALL BE SHOWN ON THE PLANT VALVE MAP. THE TAG SHALL BE SHOWN ON THE PLANT VALVE MAP FOR ALL PLANT VALVES CROSSINGS.
9. REFER TO SECTION 11.1 IN THE PUBLIC WORKS UTILITIES STANDARDS MANUAL FOR FURTHER DETAILS.

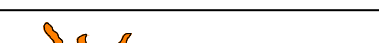
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		VALVE, BOX, COVER AND TAG	US-14
REV. BY	DATE		
JSS	2/24		
	SEPT 12, 2023 DATE OF APPROVAL		

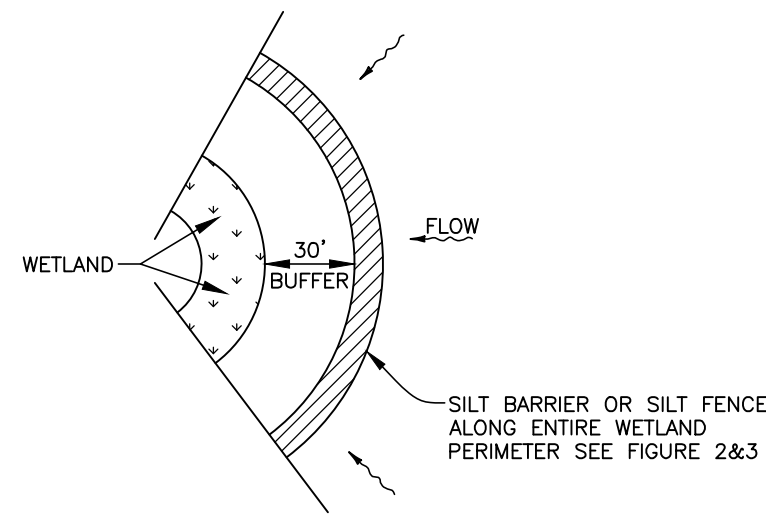


NOTES:

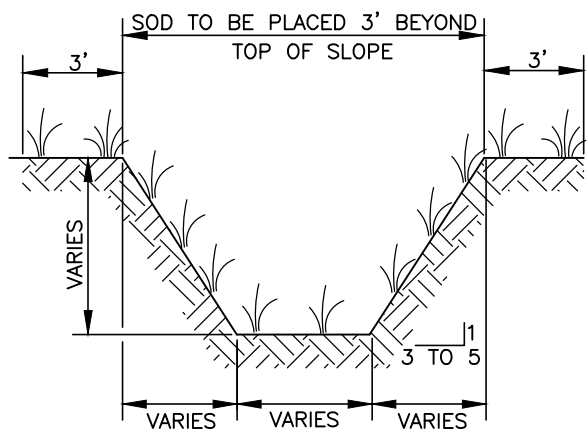
1. BACKFLOW PREVENTATION ASSEMBLY DEVICE MUST BE INSTALLED DOWNSTREAM OF WATER, AS CLOSE TO METER AS POSSIBLE.
2. COPPER PIPE TYPE "K" OR "L" OR BRASS PIPE MINIMUM SCHEDULE 40 SHALL BE USED TO A MINIMUM DEPTH OF 12" BELOW GRADE.
3. PIPES PASSING THROUGH OR ENCASED IN CONCRETE MUST BE PROPERLY PROTECTED AND SLEEVED.
4. BACK 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 PREVENTATION ASSEMBLY, IF SYSTEM PRESSURE EXCEEDS 80 PSI.
8. 4" MIN. CLEARANCE FROM LANDSCAPING PLANTS AND 10' MIN. CLEARANCE FROM TREES TO EDGE OF CONCRETE SLAB AND CLEAR OPENING FOR ACCESS FROM STREET.
9. THE WATER METER AND BACKFLOW PREVENTATION ASSEMBLY SHALL BE LOCATED AT THE ROW LINE. THE BACKFLOW PREVENTATION ASSEMBLY SHALL BE LOCATED WITHIN THE ROW LINE. THE WATER METER SHALL BE LOCATED WITHIN THE EASEMENT OUTSIDE OF THE FENCING.
10. SATELLITE LIFT STATIONS SHALL HAVE A 2" WATER SERVICE LINE, A 5/8"-INCH WATER METER, AND A 3/4"-INCH REDUCED ORifice REPAIR BUSHING. THE WATER SERVICE LINE SHALL BE 1/2" MIN. THICK WALL, 10' MIN. DEPTH, AND 1/2" MIN. WALL DIAMETERS TO FEET AND LARGER SHALL HAVE A 2-INCH METER AND RPTL BACKFLOW PREVENTATION ASSEMBLY, AND AN ADDITIONAL 2" ALUMINUM GYI CONNECT HOSE CONNECTION, SEE DETAILS U-22. ALL ITEMS SHALL BE FIELD VERIFIED BY THE CITY ENGINEER.
11. BACKFLOW PREVENTATION ASSEMBLIES USED FOR POTABLE APPLICATIONS SHALL BE LEAD FREE AS DEFINED IN THE FLORIDA PLUMBING CODE (LATEST EDITION) AND CHAPTER 2-31 ARTICLE X OF THE MANATEE COUNTY CODE OF ORDINANCES. 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		

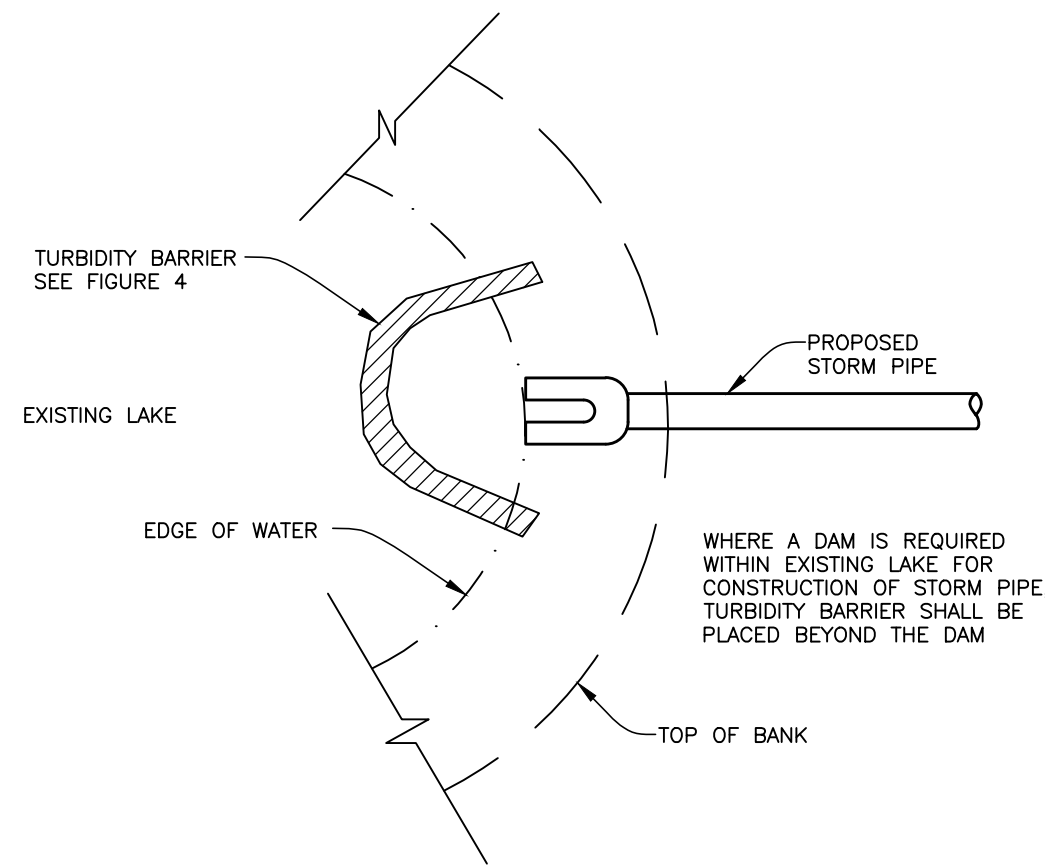
REVISIONS		 1022 26th Avenue East, Bradenton, FL 34208	<p>J. SHEA SHOUN, P.E., STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 60923.</p> <p>THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY J. SHEA SHOUN, P.E. ON THE DATE INDICATED HERE.</p> <p>PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED 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 1 DETAILS1	SHEET NO. 09 of 12
DATE	DESCRIPTION			PROJECT #	402-0019707	SURVEYED	-	-		
				SEC./TWN./RGE	N/A	DESIGNED	JSS	4/2024		
			SCALE	SEE PLANS	DRAWN	JSS	4/2024			



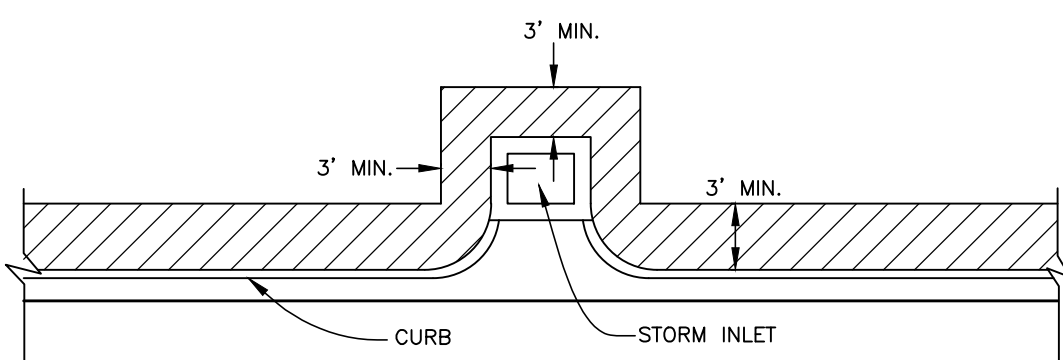
WETLAND BUFFER
FIGURE 1



TYPICAL SWALE SECTION
FIGURE 5

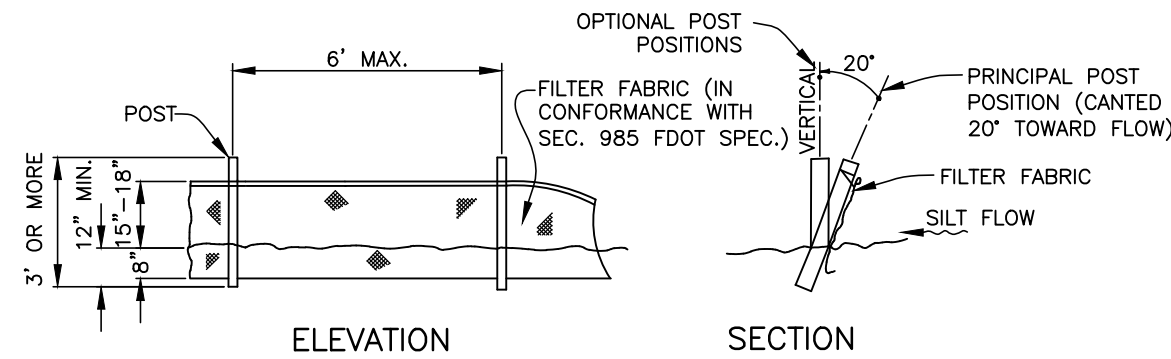


TURBIDITY BARRIER AT CONNECTION OF
STORM PIPE TO EXISTING LAKE
FIGURE 9



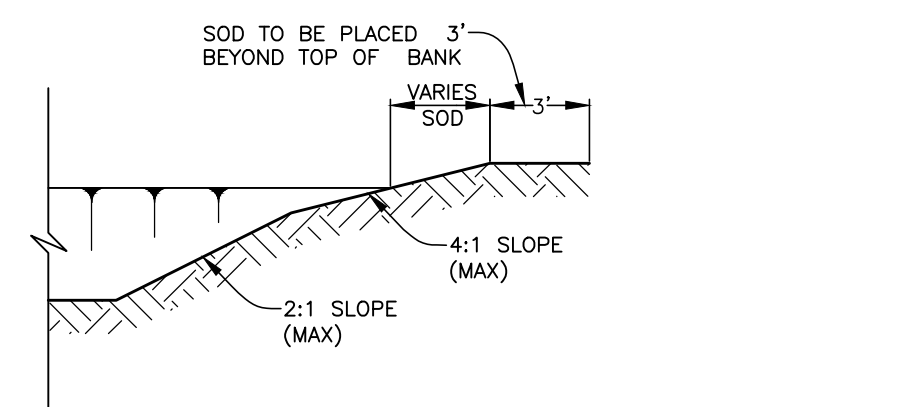
SOD ALONG CURB
AND AROUND INLET
FIGURE 14

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

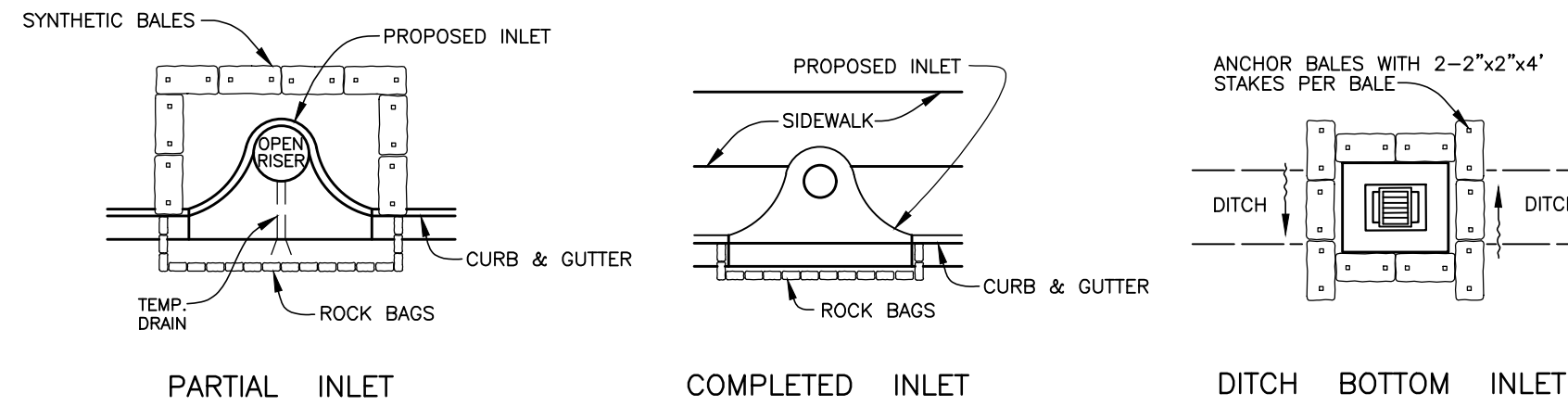


NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

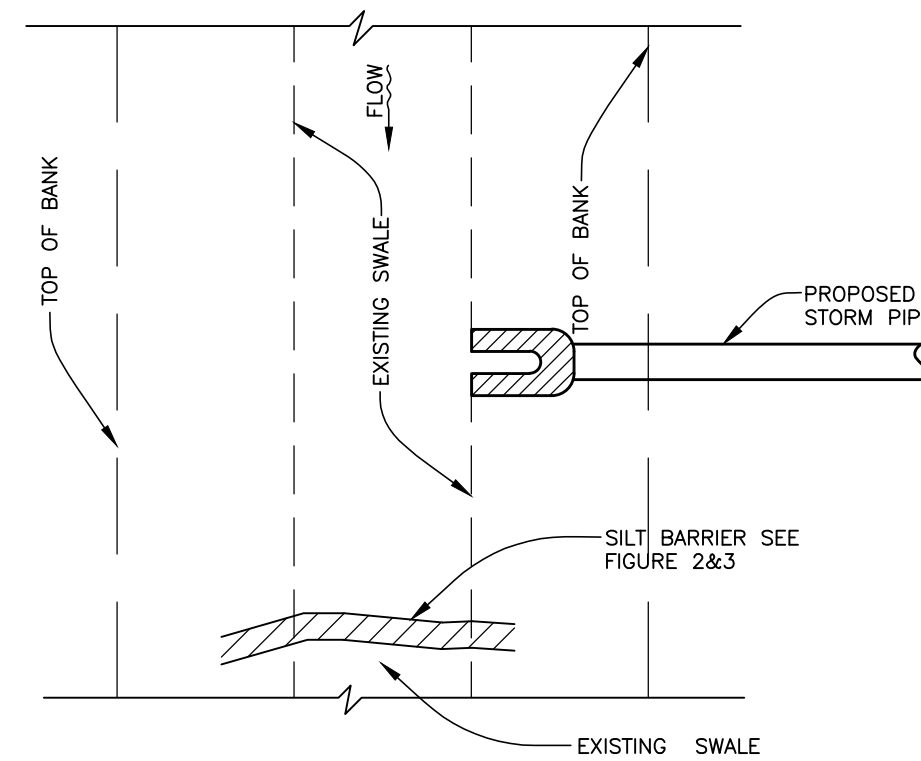
TYPICAL SILT FENCE
FIGURE 2



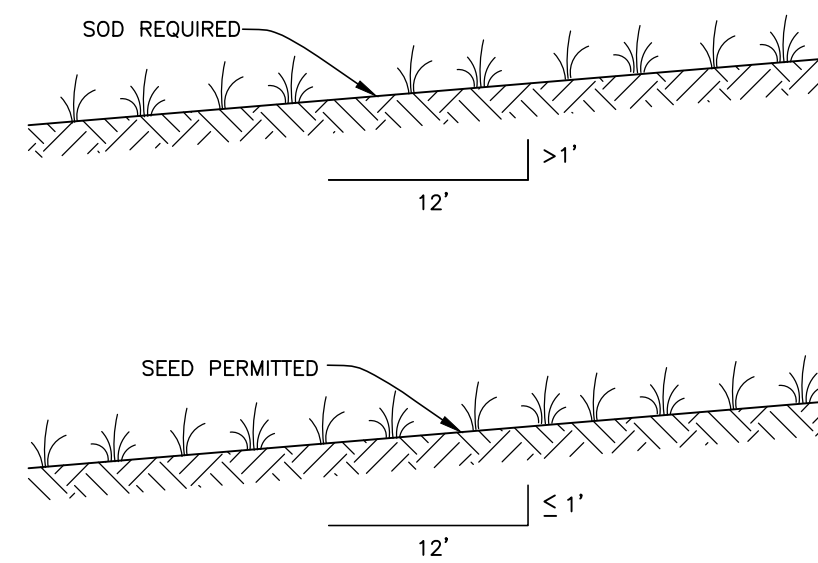
TYPICAL RETENTION/DETENTION POND SECTION
FIGURE 6



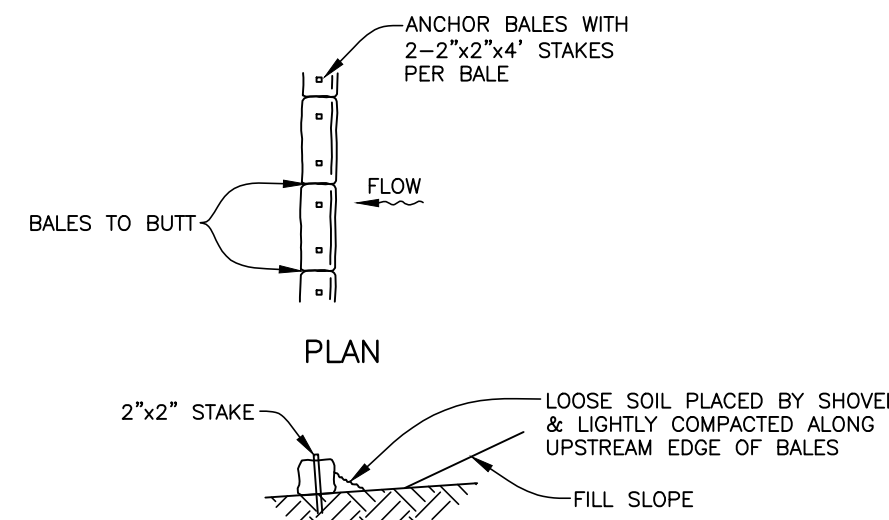
SYNTHETIC BALE PROTECTION AROUND
INLETS OR SIMILAR STRUCTURES
FIGURE 7



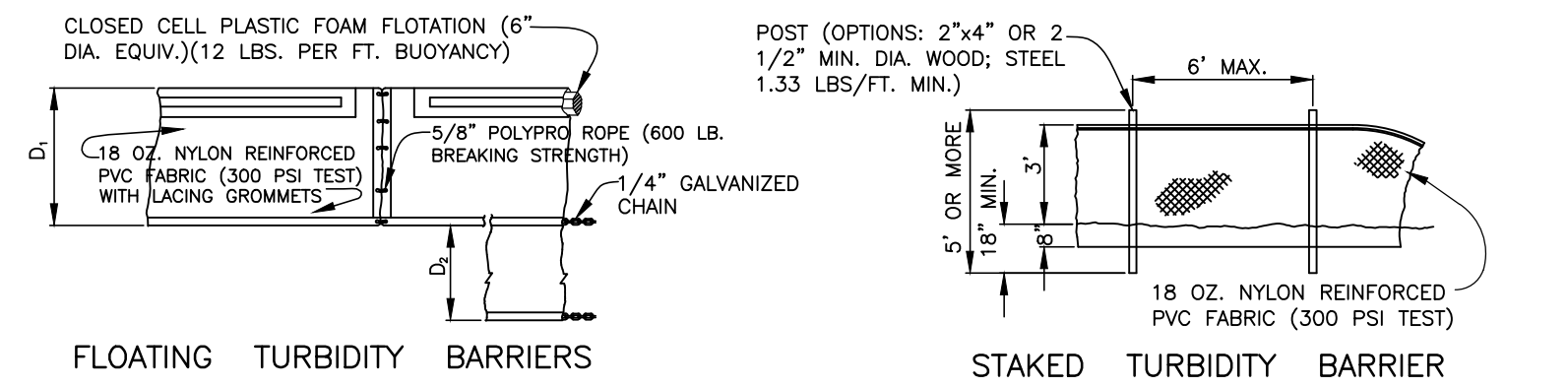
SILT BARRIER AT CONNECTION OF
STORM PIPE TO EXISTING SWALE
FIGURE 10



GRASS SLOPES
FIGURE 13



TYPICAL BALE SILT BARRIER
FIGURE 3



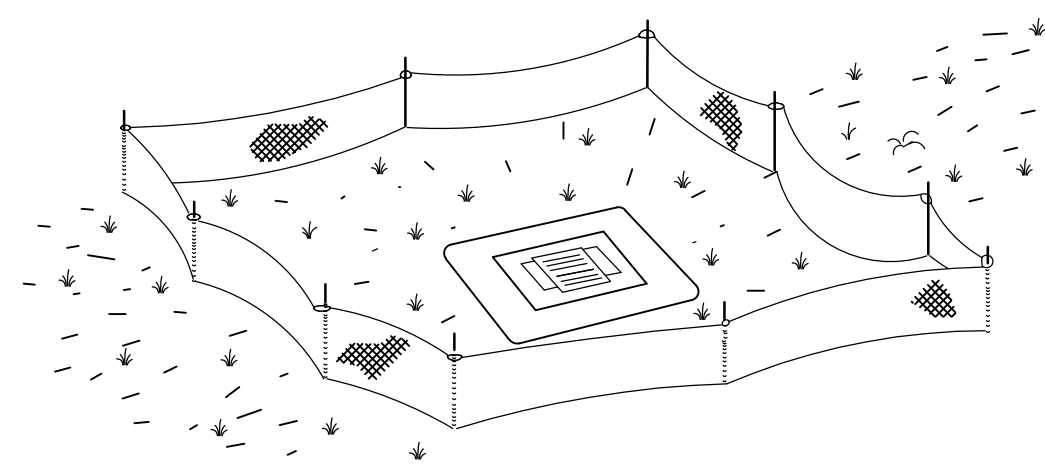
FLOATING TURBIDITY BARRIERS

STAKED TURBIDITY BARRIER

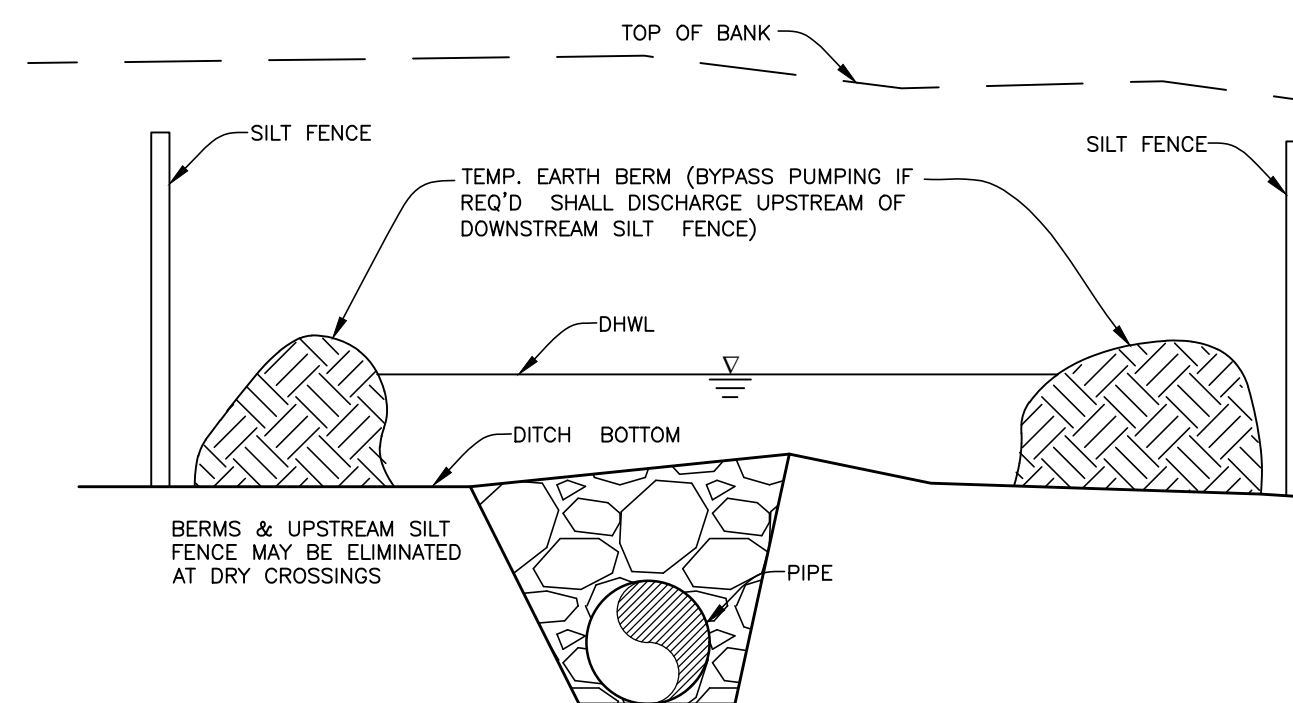
D₁ = 5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS). D₂ = 5' STD. (ADDITIONAL PANEL FOR DEPTHS > 5'). CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO(2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

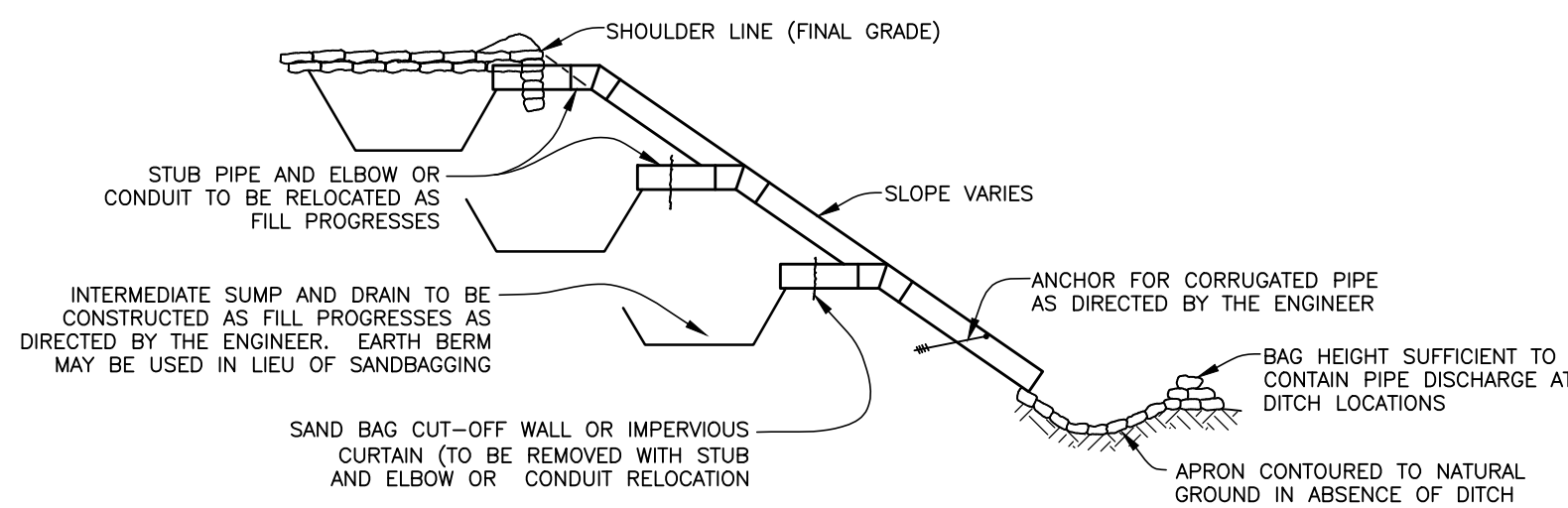
TURBIDITY BARRIERS
FIGURE 4



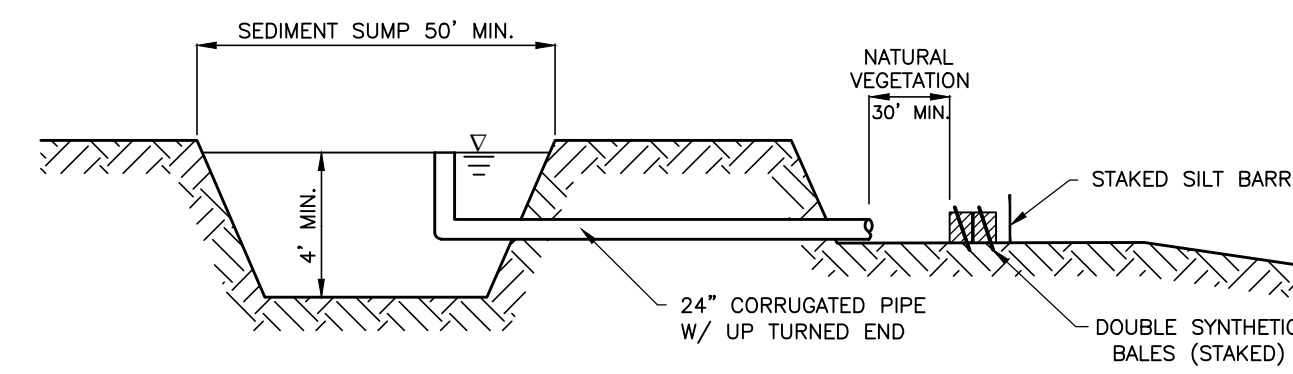
TYPE III SILT FENCE PROTECTION
AROUND DITCH BOTTOM INLETS
STAKED SILT BARRIER OR SILT FENCE
PROTECTION AROUND DITCH BOTTOM INLETS
FIGURE 8



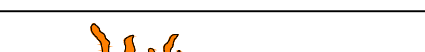
UNDERGROUND PIPE CROSSING
FIGURE 12



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	4/2024				
				SCALE	SEE PLANS	DRAWN	JSS	4/2024				
												12 of 12