



SATELLITE LIFT STATION R&R

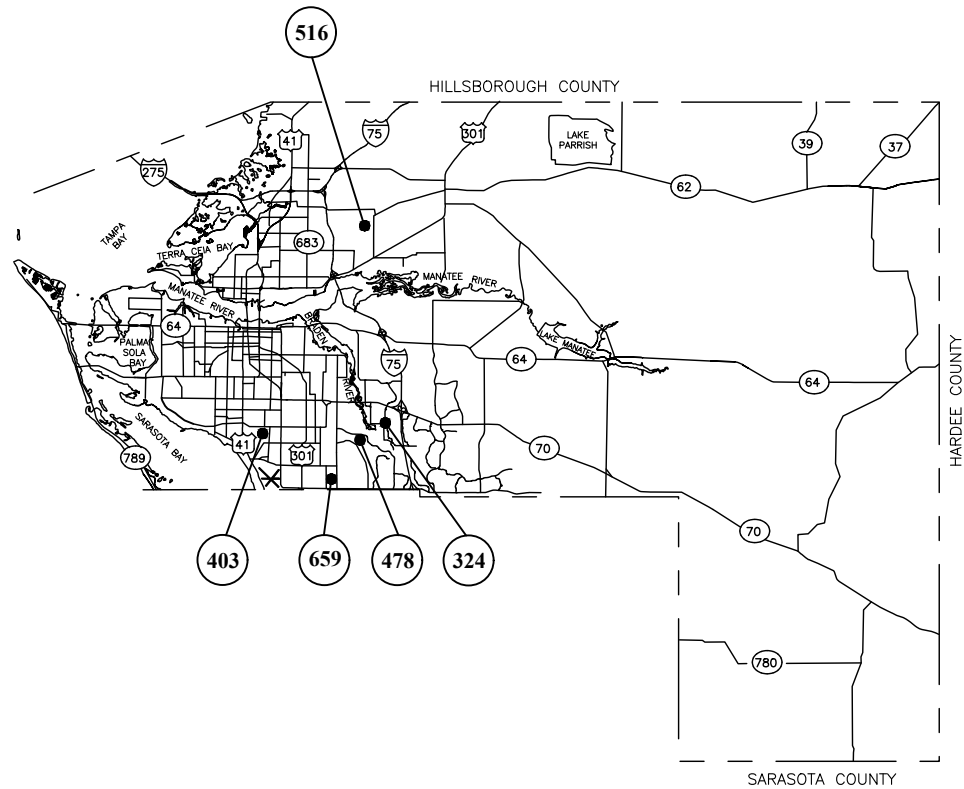
2018 GROUP 3

402-0019707

December 2019

BID DOCUMENTS

L.S.NAME/NO.	RTU #	ADDRESS	PROJECT JL NO.
BRADEN RIVER	324	6290 LINGER LODGE RD., BRADENTON	5005132
HAWAIIAN VILLAGE	403	102 MOLOKAI DR, BRADENTON	5005128
MOTE RANCH 1	478	5850 CARRIAGE DR., BRADENTON	5005129
THOUSAND OAKS	516	8001 55TH ST. E., BRADENTON	5005130
UNIVERSITY GROVES 1	659	3622 80TH DR. E., BRADENTON	5005131



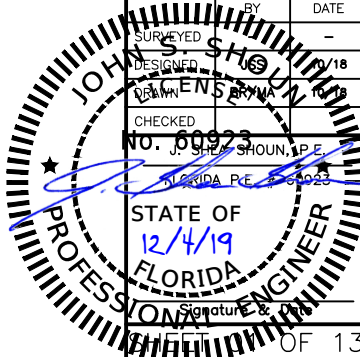
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PROJECT DESCRIPTION

REHABILITATE SEWAGE LIFT STATIONS TO REDUCE RISK TO PUBLIC HEALTH AND ENVIRONMENTAL POLLUTION. THE WORK SHALL CONSIST OF, BUT NOT LIMITED TO, 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.



Know what's below
Call before you dig



THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R

2018 GROUP 3

COVER

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT. THE USER EMPLOYER DESIGN PROFESSIONAL SAN SWR PROJ SAN SWR - US Uprates\GIS R&R 2018 Group 3\DWG\GIS R&R 2018 Group 3\dwg\02_12\4\2019_10558 AM SHW SHOUR.1-11 ANSI Full sheet B (17.00 x 11.00 inches). Fullsize-Microcb

GENERAL

- 1. ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: ANTHONY BENITEZ, P.E. AND CAN BE REACHED AT: (941) 708-7450 EXT. 7333
2. SITE VISITS ARE MANDATORY FOR ALL BIDDERS.
3. ALL CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MANATEE COUNTY UTILITY AND TRANSPORTATION STANDARDS AND/OR FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" UNLESS OTHERWISE INDICATED ON THE PLANS. THE STANDARDS CAN BE DOWNLOADED FROM THE MANATEE COUNTY WEBSITE. http://www.myanatee.org/home/government/departments/public-works/engineering-services/engineering-standards.html
4. 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.
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. WHEN A BENTONITE SPILL OR FRACK-OUT OCCURS OR THERE IS A LOSS OF RETURN INDICATING EXCESSIVE SEEPAGE OR LOSS OF DRILLING FLUID, DRILLING MUST BE STOPPED UNTIL THE LOCATION OF THE SPILL IS IDENTIFIED. UNDER NO CIRCUMSTANCES WILL DRILLING CONTINUE WHEN A SPILL IS APPARENT.
14. ONCE LOCATED, THE BENTONITE SPILL MUST BE ISOLATED AND SEEPAGE INTO ANY NEARBY WATER BODIES WILL BE BLOCKED DEPENDING ON THE DEGREE OF THE SPILL, THE ISOLATED BENTONITE MUST BE REMOVED MANUALLY OR MECHANICALLY AND DISPOSED OF BY APPROPRIATE MEANS OR REUSED.
15. 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.
16. 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.
17. 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.
18. 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.
19. 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.
20. 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.
21. ALL EROSION AND POLLUTION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND SHALL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
22. 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.
23. FOR MORE INFORMATION, SEE THE EROSION CONTROL DETAIL SHEET INCLUDED IN THE PLANS.
RIGHT-OF-WAY
24. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT-OF-WAY AND/OR EASEMENTS SHOWN ON THE DRAWINGS.
25. 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.
26. 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.
27. 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.
28. 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.
29. 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.
30. 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

- 31. 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.
32. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER AND SEWER LINES, STORM DRAINS, UTILITIES, DRIVEWAYS, SIDEWALKS, SIGNS, MAIL BOXES, FENCES, TREES, LANDSCAPING, AND ANY OTHER IMPROVEMENT OR FACILITY IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DAMAGED ITEM DUE TO HIS CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
33. THE CONTRACTOR SHALL USE APPROPRIATE TECHNIQUES, AS APPROVED, RECOMMENDED OR OFFERED BY 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 ALL RELATED COSTS.
34. ANY TEMPORARY SHUTDOWNS FOR MODIFICATIONS OF EXISTING UTILITY SYSTEMS THAT MUST REMAIN IN SERVICE DURING CONSTRUCTIONS SHALL BE KEPT TO A MINIMUM AND SHALL BE COORDINATED WITH AND APPROVED BY THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. IT IS NOTED THAT TEMPORARY SHUTDOWNS MAY BE RESTRICTED TO CERTAIN HOURS AT ANY TIME OF THE DAY OR NIGHT AND WILL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER.
35. 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.
RESTORATION
36. ALL RESTORATION WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS SHOWN OTHERWISE.
37. 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.
38. 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.
39. ASPHALT DRIVES THAT ARE CUT SHALL BE RESTORED PER SECTION 02513.
40. CONCRETE DRIVEWAYS OR SIDEWALKS THAT ARE CUT SHALL BE RESTORED TO MATCH EXISTING ACCORDING TO THE CURRENT EDITIONS OF THE F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN, AND F.D.O.T. DESIGN STANDARDS. CONCRETE USED SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS.
41. 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.
42. 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.
CONSTRUCTION
43. 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.
44. 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.
45. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.
46. INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT ALL TIMES.
47. PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA.
48. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY. DEWATERING IS REQUIRED TO 18" BELOW TRENCH BOTTOM.
49. 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.
50. ALL PIPE SHALL BE COLOR CODED TO CONFORM TO MANATEE COUNTY STANDARDS.
51. ALL PIPE AND FITTINGS SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND ALL PIPE JOINTS SHALL BE RESTRAINED WHERE REQUIRED.
52. 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.
53. 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.
54. 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.
55. 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.
56. ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF ARE AUTHORIZED TO OPERATE VALVES ON COUNTY OWNED AND MAINTAINED UTILITY SYSTEMS.
57. ALL PENETRATION OF EXISTING STRUCTURES SHALL BE BY THE MECHANICAL ROTARY CORE BORING METHOD.
58. ALL CONCRETE PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY.
59. 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, WBRD RADIO, EMERGENCY COMMUNITY CENTERS, INSPECTIONS, WATER TREATMENT PLANT, WATER MANAGER, HELPLINE, CUSTOMER SERVICE, AND THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT.
60. 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.
61. ALL TEST POINT PIPING SHALL BE CUT LOOSE FROM THE CORPORATION STOP AND COMPLETELY REMOVED AND DISPOSED OF BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE. A CORPORATION STOP PLUG SHALL BE INSTALLED AND THE CORPORATION STOP SHALL REMAIN IN PLACE.
62. ALL EXISTING MAINS THAT ARE BEING REPLACED SHALL BE ABANDONED IN PLACE UPON ACCEPTANCE AND ACTIVATION OF THE NEW MAINS. ABANDONED MAINS SHALL BE CUT, FILLED WITH GROUT, AND CAPPED. REFER TO SECTION 02064 OF THE SPECIFICATIONS FOR GROUTING OF ABANDONED PIPE.
63. 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.
64. FIELD CONDITIONS MAY NECESSITATE MINOR ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED UTILITIES TO AVOID OBSTACLES.

AS ORDERED BY THE ENGINEER.

65. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH SECTION 1.14 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS AT NO COST TO THE OWNER. RECORD DRAWINGS SHALL BE SIGNED & SEALED BY A SURVEYOR CURRENTLY LICENSED BY THE STATE OF FLORIDA. ALL RECORD DRAWING INFORMATION REQUIREMENTS IN SECTION 1.14 SHALL BE STRICTLY ENFORCED. A COPY OF SECTION 1.14 WILL BE PROVIDED UPON REQUEST.

EMERGENCY CONTACTS

- MANATEE COUNTY PUBLIC WORKS DEPT. UTILITY ENGINEERING SCOTT MAY, P.E. 1022 26TH AVENUE EAST BRADENTON, FL 34208 (941) 708-7450 EXT. 7650 FAX: (941) 708-7475
TECO/PEOPLES GAS CO. DAN SHANAHAN 8261 VICO COURT SARASOTA, FL 34240 (941) 342-4030 FAX: (941) 342-4011 EMERGENCY: 1-877-832-6911 dshanahan@tecoenergy.com
SUNSHINE STATE ONE CALL OF FLORIDA 1-(800) 432-4770
VERIZON FLORIDA INC. WAYNE SUMNER 1701 RINGLING BLVD. SARASOTA, FL 34236 (941) 330-9203 WAYNE.SUMNER@verizon.com
FLORIDA POWER & LIGHT GREG COKER 1253 12TH AVENUE EAST PALMETTO, FL 34221 (941) 723-4430 FAX: (941) 723-4444 EMERGENCY: 1-800-4-OUTAGE Greg_Coker@fpl.com
FLORIDA GAS TRANSMISSION SAFETY HARBOR TEAM 7804 ANDERSON RD. TAMPA, FL 33634 CHRIS LEE (813) 466-3327 CELL : (727) 639-7512 christopher.lee@sug.com
BRIGHT HOUSE NETWORKS TOM WRIGHT 5413 E. STATE ROAD 64 BRADENTON, FL 34208-5535 (941) 748-3816 EXT. 21348 tom.wright@mybriighthouse.com
DEPARTMENT OF ENVIRONMENTAL PROTECTION STEPHANIE BARIOS 13051 N. TELECOM PKWY TEMPLE TERRACE, FL 33637 PHONE: (813) 632-7600, EXT. 408 FAX: (813) 632-7662
PEACE RIVER ELECTRIC COOPERATIVE, INC. P.O. BOX 1310 WACHULA, FL 33873 KENDELL COKER (863) 767-4660 kendell.coker@preco.coop

LEGEND

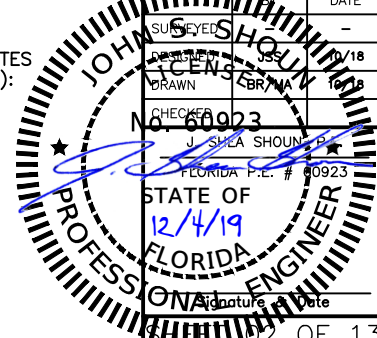
LEGEND table with columns: EXISTING, PROPOSED, ABBREVIATIONS. Includes symbols for BENCH MARK, CONCRETE MONUMENT, IRON PIPE, IRON ROD, HUB, N&D, ELEVATION, PARCEL ID NO., PARCEL ID NO., LOT NO., GUY WIRE, POWER POLE, LIGHT POLE, MAIL BOX, SIGN, REFLECTOR, SPRINKLER, GAS MARKER, BACKFLOW PREVENTER, BLOW OFF VALVE, FIRE HYDRANT, WATER VALVE, AIR RELEASE VALVE, WATER METER, SANITARY SEWER MANHOLE, SANITARY SEWER CLEAN OUT, SOIL BORING LOCATION, TELEPHONE SERVICE BOX, FLOW DIRECTION, GRATE INLET, MITERED END SECTION, BUSH, TREE, OAK TREE, PALM TREE, PINE TREE, EDGE OF VEGETATION, CHAIN LINK FENCE, WOOD FENCE, BARBED WIRE FENCE, FORCE MAIN, POTABLE WATER, RECLAIMED WATER, SANITARY SEWER, STORM DRAIN, GAS LINE, OVERHEAD TV, UNDERGROUND TV, OVERHEAD ELECTRIC, UNDERGROUND ELECTRIC, OVERHEAD VERIZON, UNDERGROUND VERIZON, VERIZON, UNDERGROUND UTILITY, OVERHEAD UTILITY, RAIL ROAD TRACKS, EDGE OF CONCRETE, EDGE OF ROAD, TOE OF SLOPE, TOP OF BANK, PROPERTY LINE, RIGHT OF WAY, R/W, RIGHT OF WAY, CONC, CONCRETE, ASPH, ASPHALT, DRWY, DRIVEWAY, SWK, SIDEWALK, EP, EDGE OF PAVEMENT, BOC, BACK OF CURB, MAIN, SERVICE LINE, PROPOSED EASEMENT, FIRE HYDRANT VALVE, SANITARY SEWER MANHOLE, BLOW OFF ASSEMBLY, REDUCER, TEE, HORIZONTAL BEND, VERTICAL BEND, PLUG, MASTER METER ASSEMBLY, SERVICE LINE & METER, DOUBLE SERVICE.



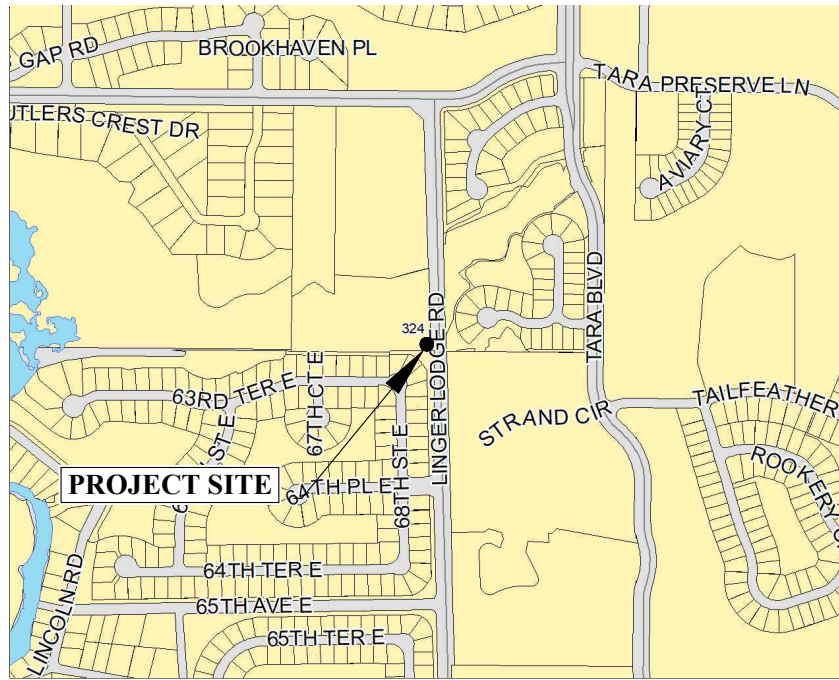
PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208

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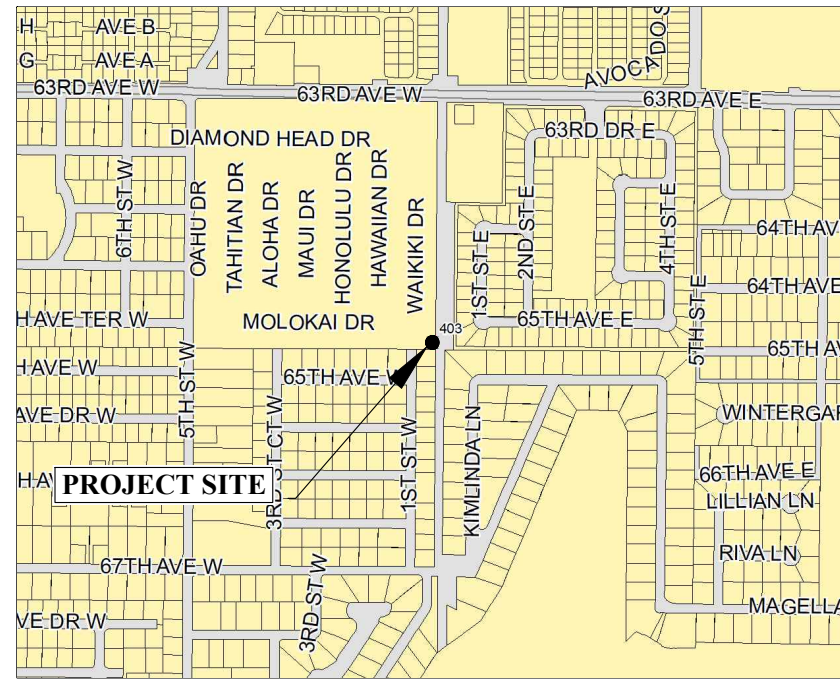
Table with columns: REVISION, DESCRIPTION, DATE. Includes project information: PROJECT # 402-0019707, SURVEY #, SEC./TWN./RGE VARIES, SCALE N.T.S., DATE 12/4/19.



PROPOSED PROJECT NOTES
JOB SPECIFIC (EXAMPLE):
WATER LINE CALL-OUT (TYPICAL)
STA. 40+60, 17' LT.
1-6" GATE VALVE
1-6" FITTING



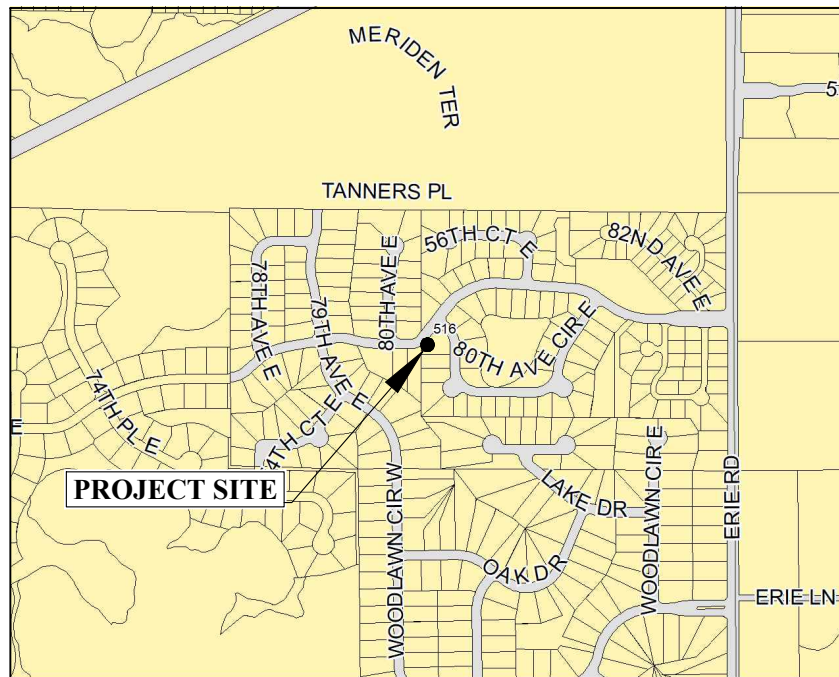
BRADEN RIVER, RTU 324,
6290 LINGER LODGE RD, BRADENTON



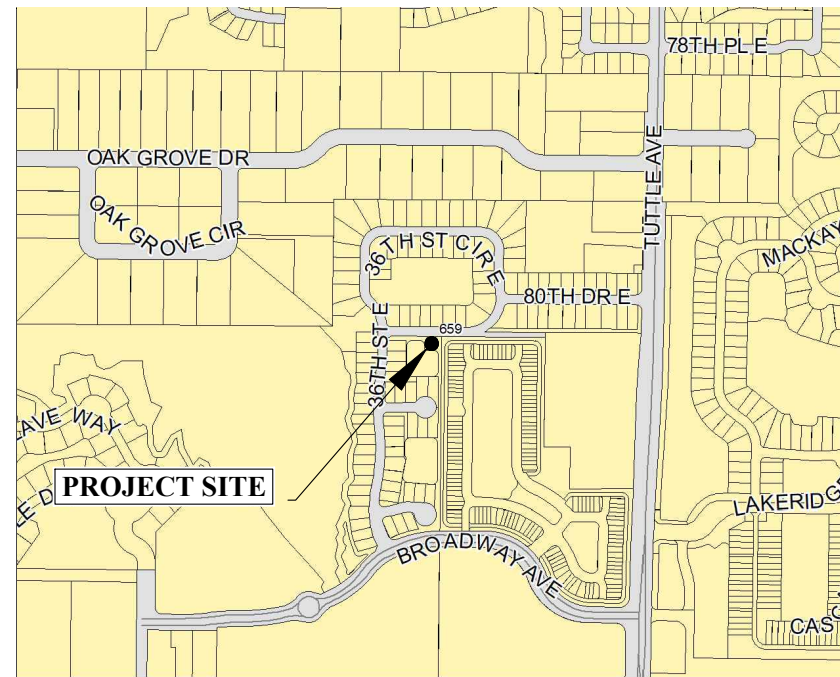
HAWAIIAN VILLAGE, RTU 403,
102 MOLOKAI DR., BRADENTON



MOTE RANCH 1, RTU 478,
5850 CARRIAGE DR., BRADENTON



THOUSAND OAKS, RTU 516,
8001 55TH ST. E., BRADENTON



UNIVERSITY GROVES 1, RTU 659,
3622 80TH DR. E., BRADENTON

NOTE(S):

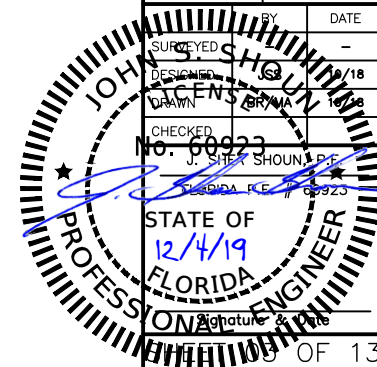
- LIFT STATION SITE VISITS MAY BE COORDINATED WITH NICK WAGNER, 941-792-8811 x5377.

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R 2018 GROUP 3 VICINITY MAPS

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	402-0019707
SURVEY #	-
SEC./TWN./RGE	VARIES
SCALE	N.T.S.
CHECKED	DATE
DESIGNED	12/4/19
DRAWN	
CHECKED	
DESIGNED	
DRAWN	
CHECKED	
DESIGNED	
DRAWN	
CHECKED	
DESIGNED	
DRAWN	
CHECKED	
DESIGNED	
DRAWN	



COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT | H:\JBI_Eng_Design\PROJ\SAN_SWR_Proj\San_Swr - US Upgrades\SLS R&R 2018 Group 3\Drawings\SLS R&R 2018 Group 3.dwg, 03/12/19 10:58 AM Shea Shoun, 1:1, ANSI Full Sheet B (17.00 x 11.00 inches), FullSize-Monocolor

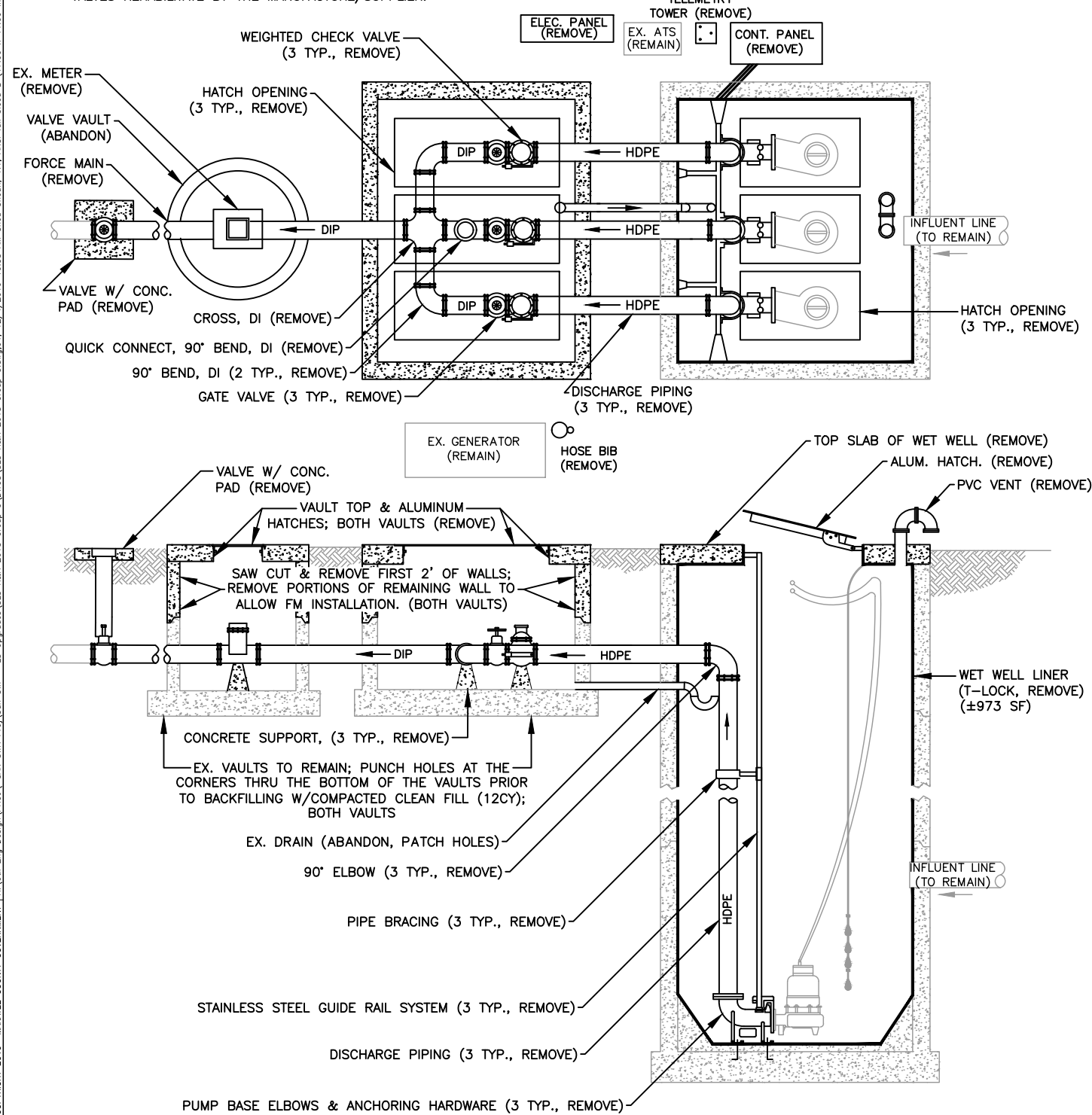
EXISTING

GENERAL 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.
- THE CONTRACTOR/BIDDER SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
- THE CONTRACTOR/BIDDER 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.
- THE EXISTING CHECK VALVES & GATE VALVE SHALL BE REUSED. THE CONTRACTOR SHALL HAVE THE VALVES REHABILITATE BY THE MANUFACTURE/SUPPLIER.

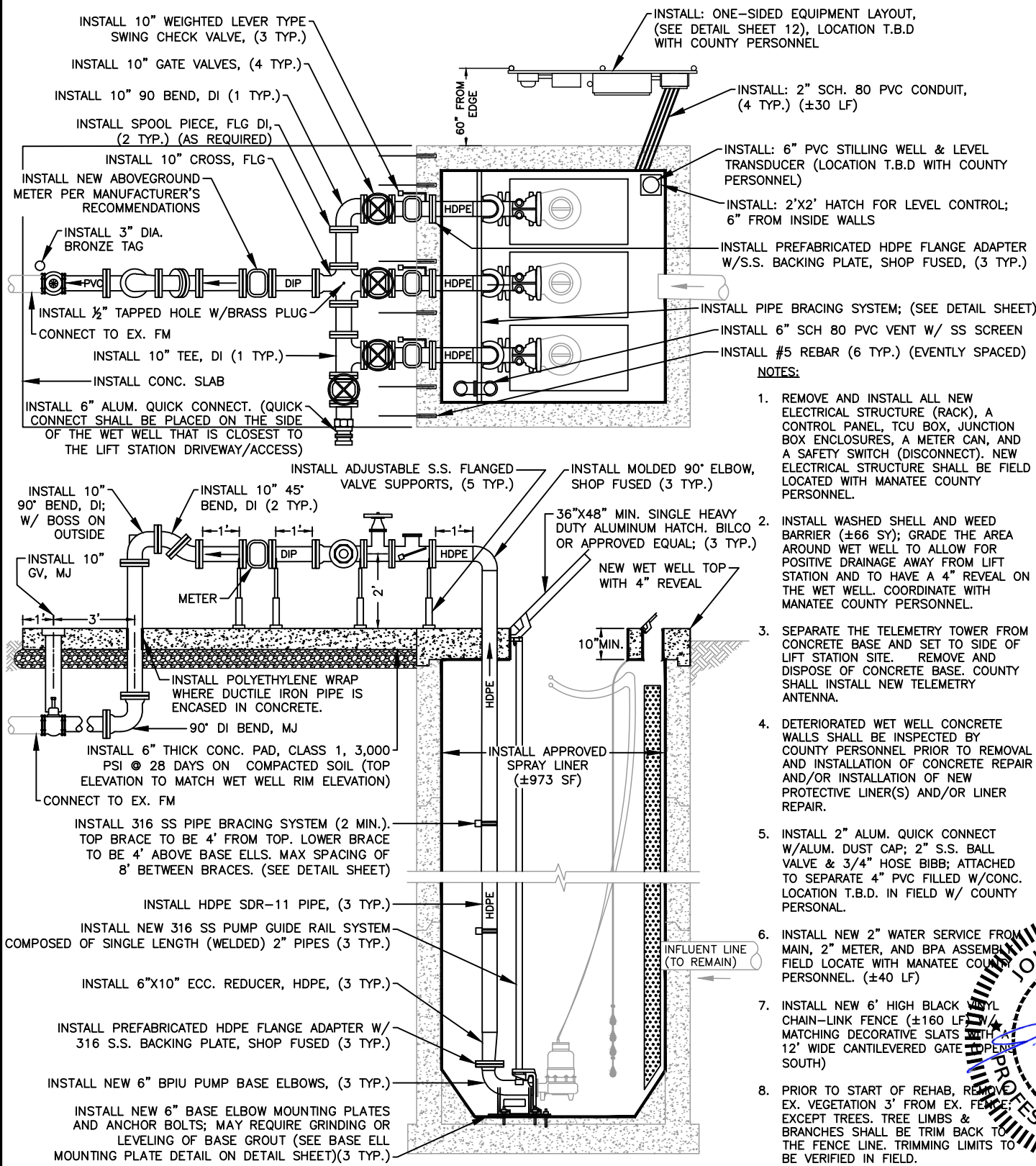
RADIO TELEMETRY UNIT (RTU)	324
DESIGN CAPACITY GPM/TD	600/56
DISCHARGE PIPING DIAMETER	10"
WET WELL I.D.	10'X12'
BOTTOM SLAB ELEVATION	-9.90'
TOP ELEVATION	12.00'
VALVE VAULT HATCH ELEVATION	12.00'
INFLUENT INVERT ELEVATION	-8.27'
INFLUENT PIPE SIZE	10"
FORCE MAIN DIAMETER	10"
WET WELL VENT PIPE	PVC
ELECT. SERVICE SIZE, AMPS	200
ELECT. POWER, VOLTS/PH	460/3
EX. FM TIE-IN	FM

* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2018) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.



PROPOSED

INSTALL FIBERGLASS W.W. LINER NO	YES
APPLY SPRAY LINER W.W. LINER	YES
INSTALL STILLING WELL	YES
INSTALL FORCE MAIN G.V.	YES
NEW HDPE PIPING IN W.W.	YES, 10"
NEW BASE ELL	6" BPIU-16
RAISE TOP OF WET WELL:	NO
RAISE TOP OF VALVE VAULT:	NO
REPLACE WET WELL VENT PIPE	YES
UPGRADE BPA TO STANDARD, US-15	YES
RELOCATE WATER SERVICE ASSEMBLY	YES



NOTES:

- REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), A CONTROL PANEL, TCU BOX, JUNCTION BOX ENCLOSURES, A METER CAN, AND A SAFETY SWITCH (DISCONNECT). NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL.
- INSTALL WASHED SHELL AND WEED BARRIER (± 66 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. COORDINATE WITH MANATEE COUNTY PERSONNEL.
- SEPARATE THE TELEMETRY TOWER FROM CONCRETE BASE AND SET TO SIDE OF LIFT STATION SITE. REMOVE AND DISPOSE OF CONCRETE BASE. COUNTY SHALL INSTALL NEW TELEMETRY ANTENNA.
- 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 2" ALUM. QUICK CONNECT W/ALUM. DUST CAP; 2" S.S. BALL VALVE & 3/4" HOSE BIBB; ATTACHED TO SEPARATE 4" PVC FILLED W/CONC. LOCATION T.B.D. IN FIELD W/ COUNTY PERSONAL.
- INSTALL NEW 2" WATER SERVICE FROM MAIN, 2" METER, AND BPA ASSEMBLY. FIELD LOCATE WITH MANATEE COUNTY PERSONNEL. (± 40 LF)
- INSTALL NEW 6' HIGH BLACK CHAIN-LINK FENCE (± 160 LF) WITH MATCHING DECORATIVE SLATS WITH 12" WIDE CANTILEVERED GATE OPENING SOUTH)
- PRIOR TO START OF REHAB, REMOVE EX. VEGETATION 3' FROM EX. FENCE, EXCEPT TREES. TREE LIMBS & BRANCHES SHALL BE TRIM BACK TO THE FENCE LINE. TRIMMING LIMITS TO BE VERIFIED IN FIELD.

GENERAL NOTES:

- ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.
- 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 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 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, MISCELLANEOUS WORK.



THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2018 GROUP 3
BRADEN RIVER, RTU 324

NO.	DATE	BY	REVISION DESCRIPTION

PROJECT # 402-0019707/5005132
 SURVEY # -
 SEC./TWN./RGE 23/35/18
 SCALE N.T.S.
 DATE -
 CHECKED BY J. SHEA SHOWN
 DRAWN BY GR/MA
 PROJECT # 60923
 J. SHEA SHOWN
 FLORIDA P.E. # 60923
 STATE OF FLORIDA
 ENGINEER
 DATE 12/4/19

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT [H:\J\J\J\Eng\Design\PROJ\1-SAN SWR Pro\SAN SWR Pro\18 Group 3\18 Group 3.dwg, 12/4/2019 10:58 AM Shea Shoun, 1:1, ANSI Full sheet B (17.00 x 11.00 inches), FullSize-Monocolor

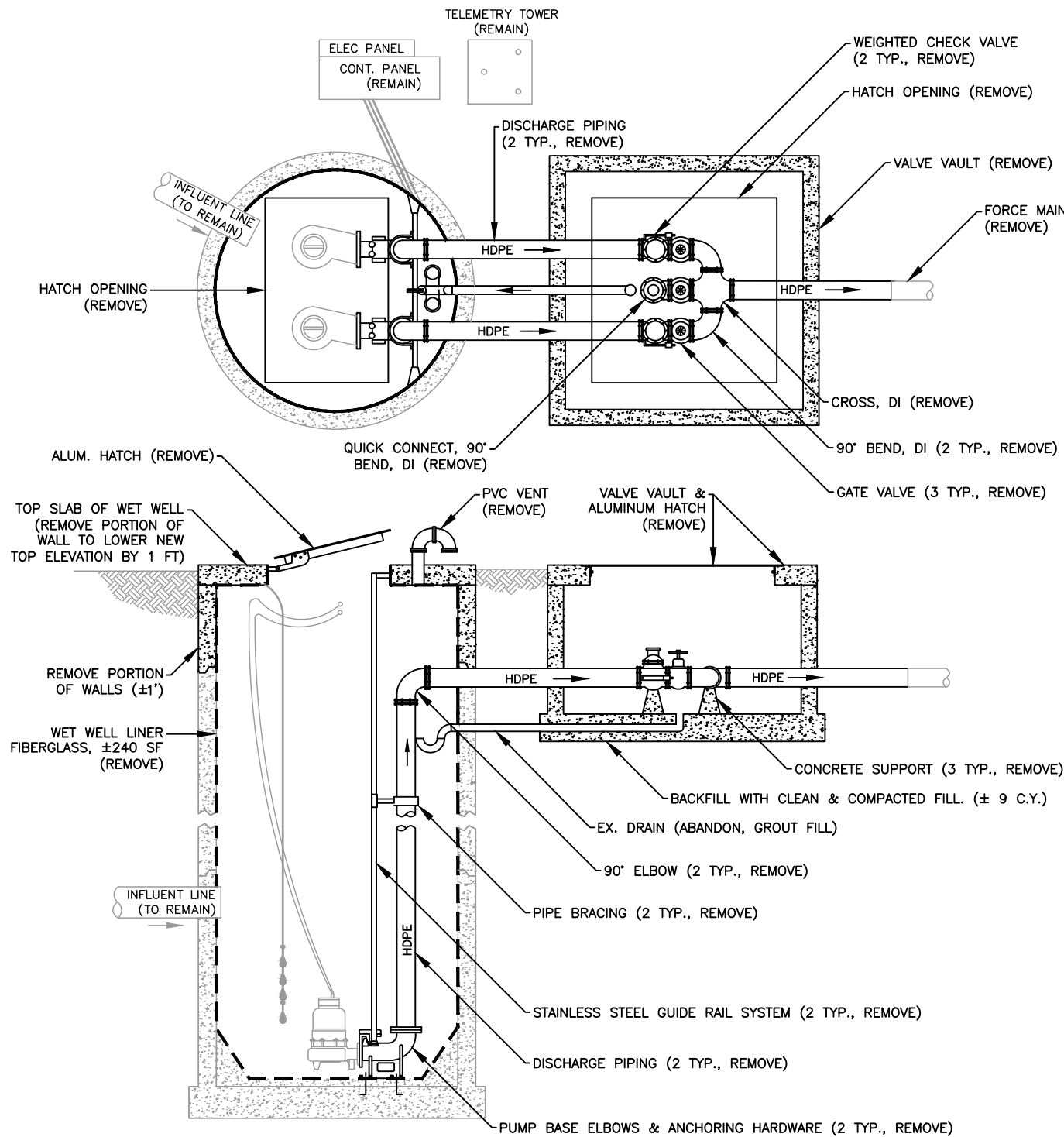
EXISTING

GENERAL 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. THE CONTRACTOR/BIDDER SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
3. THE CONTRACTOR/BIDDER 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.

RADIO TELEMETRY UNIT (RTU)	403
DESIGN CAPACITY GPM/TDH	155/18.0
DISCHARGE PIPING DIAMETER	3"
WET WELL DIAMETER	4'
BOTTOM SLAB ELEVATION	10.60'
TOP ELEVATION	28.70'
VALVE VAULT HATCH ELEVATION	28.70'
INFLUENT INVERT ELEVATION	13.60'
INFLUENT PIPE SIZE	8"
FORCE MAIN DIAMETER	3"
WET WELL VENT PIPE	PVC
ELECT. SERVICE SIZE, AMPS	40
ELECT. POWER, VOLTS/PH	230/3
EX. FM TIE-IN	MH

* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2018) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.

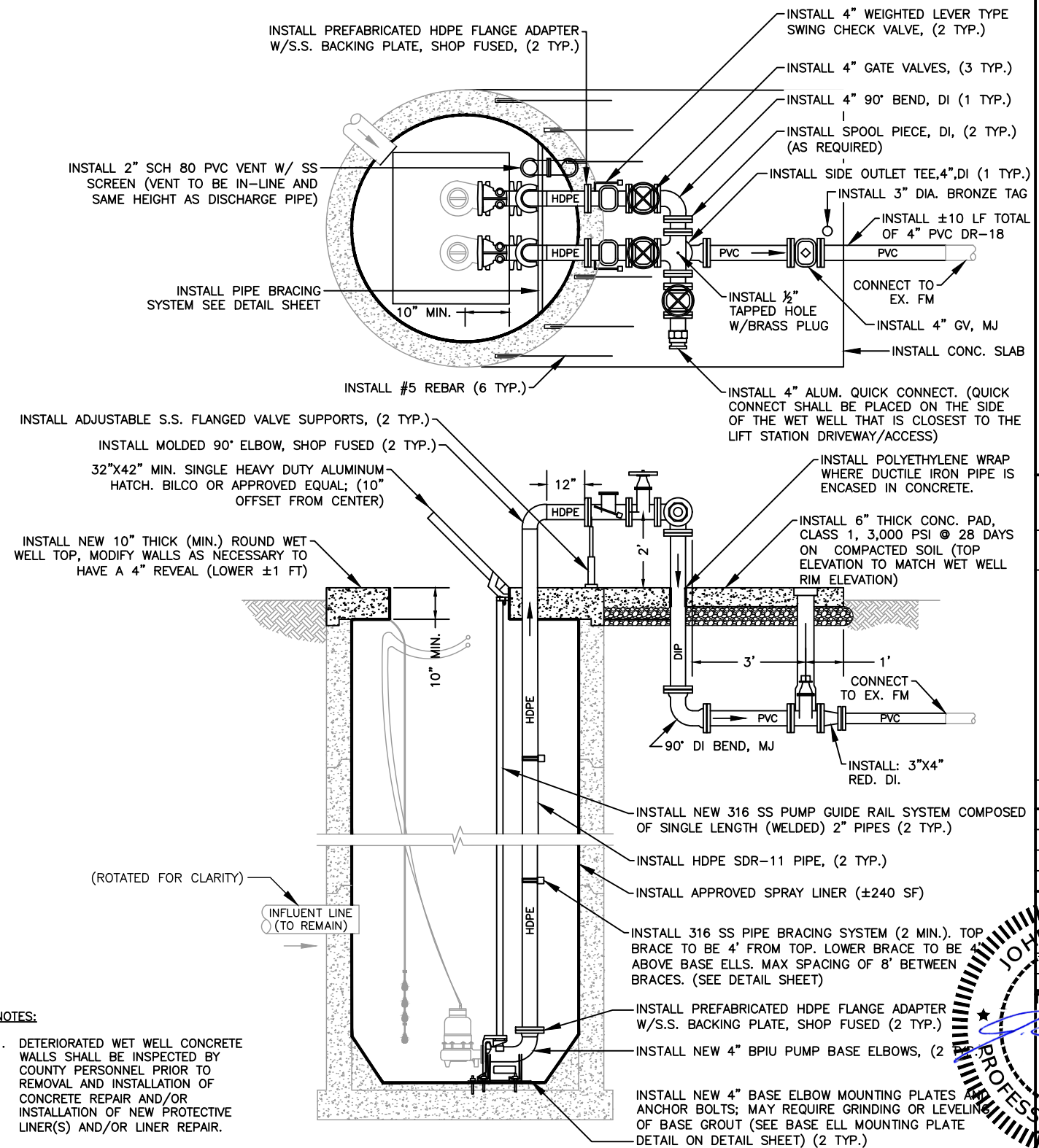


PROPOSED

INSTALL FIBERGLASS W.W. LINER NO	NO
APPLY SPRAY LINER W.W. LINER	YES
INSTALL STILLING WELL	NO
INSTALL FORCE MAIN G.V.	YES
NEW HDPE PIPING IN W.W.	YES, 4"
NEW BASE ELL	4" BPIU-14
RAISE TOP OF WET WELL:	YES, 1'
RAISE TOP OF VALVE VAULT:	NA
REPLACE WET WELL VENT PIPE	YES
UPGRADE BPA TO STANDARD, US-15	NA
RELOCATE WATER SERVICE ASSEMBLY	NA

GENERAL NOTES:

1. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.
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 A 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, MISCELLANEOUS WORK.



- NOTES:
1. 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.



PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1022 24th Avenue East, Bradenton, FL 34208

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R

2018 GROUP 3

HAWAIIAN VILLAGE, RTU 403

NO.	DATE
BY	
REVISION DESCRIPTION	

PROJECT #	402-0019707/5005128
SURVEY #	-
SEC./TWN./RGE	23/35/17
SCALE	N.T.S.

DATE: 12/4/19

DESIGNED BY: J. SHEA SHOUN, P.E.

CHECKED BY: J. SHEA SHOUN, P.E.

NO. 60923

STATE OF FLORIDA

PROFESSIONAL ENGINEER

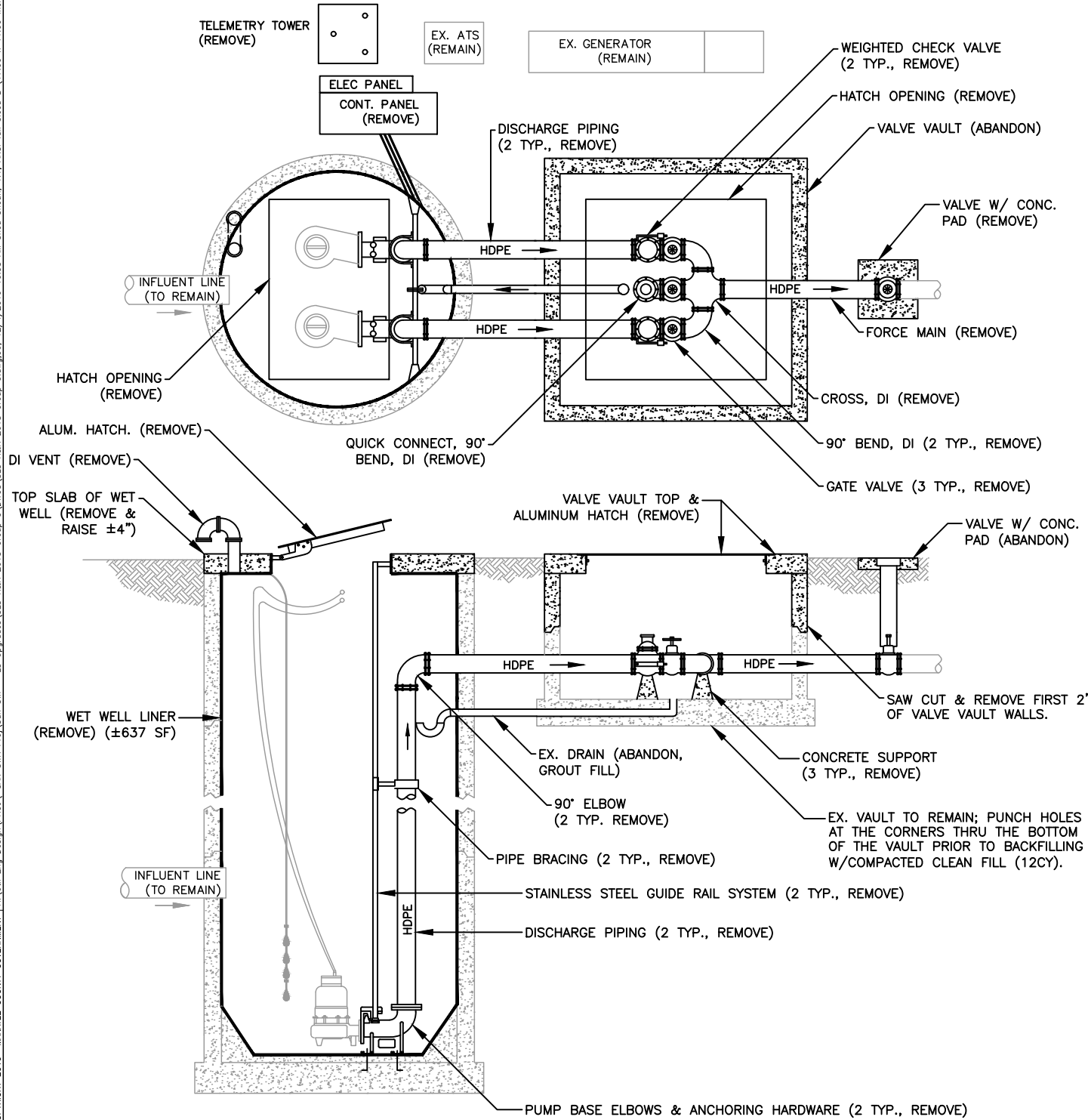
EXISTING

GENERAL 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. THE CONTRACTOR/BIDDER SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
3. THE CONTRACTOR/BIDDER 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.

RADIO TELEMETRY UNIT (RTU)	478
DESIGN CAPACITY GPM/TDH	423/115.0
DISCHARGE PIPING DIAMETER	6"
WET WELL DIAMETER	8'
BOTTOM SLAB ELEVATION	-3.00'
TOP ELEVATION	18.00'
VALVE VAULT HATCH ELEVATION	18.00'
INFLUENT INVERT ELEVATION	4.44'
INFLUENT PIPE SIZE	10"
FORCE MAIN DIAMETER	6"
WET WELL VENT PIPE	PVC
ELECT. SERVICE SIZE, AMPS	200
ELECT. POWER, VOLTS/PH	460/3
EX. FM TIE-IN	FM

* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2018) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.

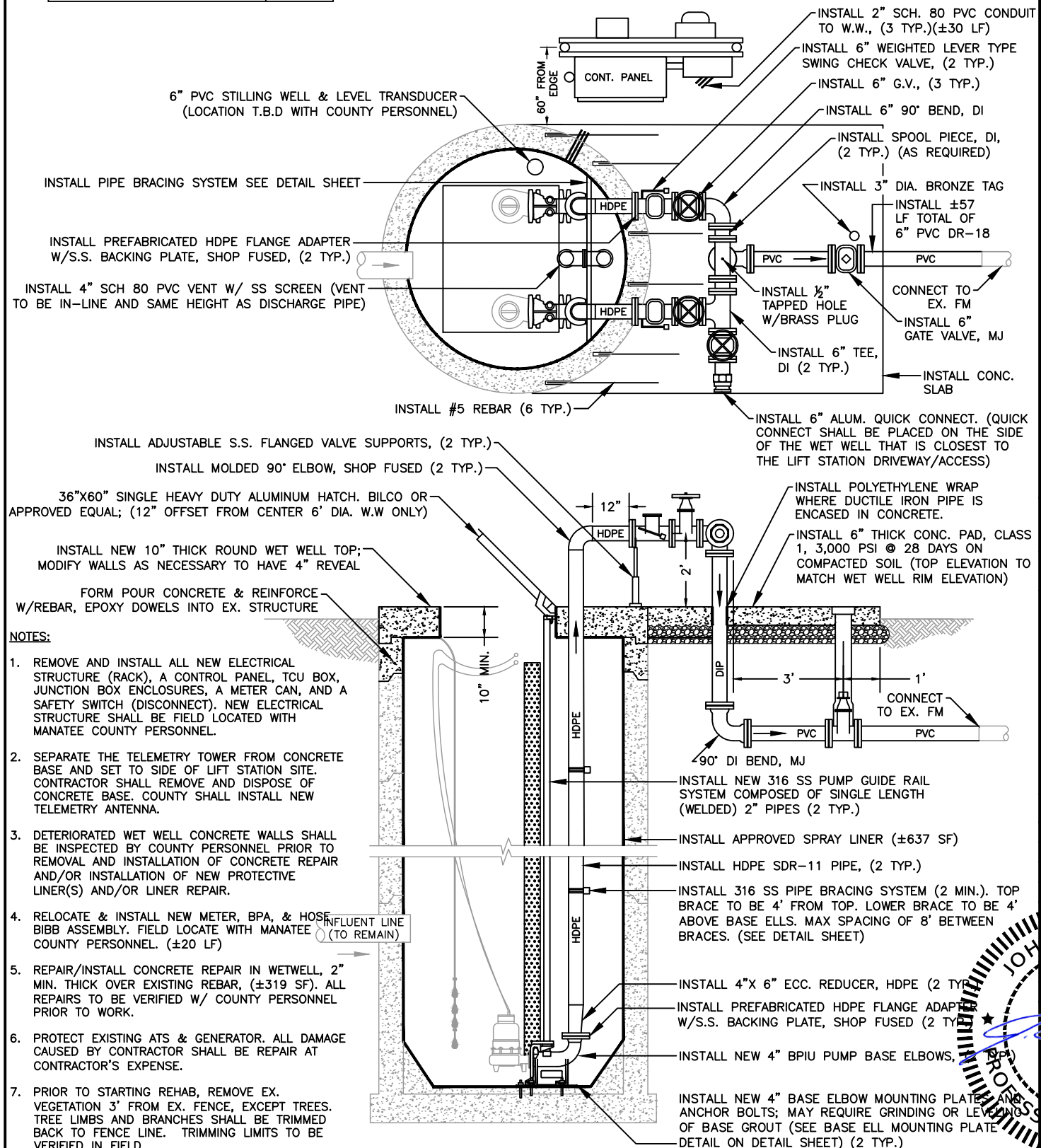


PROPOSED

INSTALL FIBERGLASS W.W. LINER NO	NO
APPLY SPRAY LINER W.W. LINER	YES
INSTALL STILLING WELL	YES
INSTALL FORCE MAIN G.V.	NO
NEW HDPE PIPING IN W.W.	YES, 6"
NEW BASE ELL	4" BPIU-14
RAISE TOP OF WET WELL:	YES, 4"
RAISE TOP OF VALVE VAULT:	NO
REPLACE WET WELL VENT PIPE	YES
UPGRADE BPA TO STANDARD, US-15	YES
RELOCATE WATER SERVICE ASSEMBLY	YES

GENERAL NOTES:

1. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.
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 A 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, MISCELLANEOUS WORK.



NOTES:

1. REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), A CONTROL PANEL, TCU BOX, JUNCTION BOX ENCLOSURES, A METER CAN, AND A SAFETY SWITCH (DISCONNECT). NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL.
2. SEPARATE THE TELEMETRY TOWER FROM CONCRETE BASE AND SET TO SIDE OF LIFT STATION SITE. CONTRACTOR SHALL REMOVE AND DISPOSE OF CONCRETE BASE. COUNTY SHALL INSTALL NEW TELEMETRY ANTENNA.
3. 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.
4. RELOCATE & INSTALL NEW METER, BPA, & HOSE BIBB ASSEMBLY. FIELD LOCATE WITH MANATEE COUNTY PERSONNEL. (±20 LF)
5. REPAIR/INSTALL CONCRETE REPAIR IN WETWELL, 2" MIN. THICK OVER EXISTING REBAR, (±319 SF). ALL REPAIRS TO BE VERIFIED W/ COUNTY PERSONNEL PRIOR TO WORK.
6. PROTECT EXISTING ATS & GENERATOR. ALL DAMAGE CAUSED BY CONTRACTOR SHALL BE REPAIR AT CONTRACTOR'S EXPENSE.
7. PRIOR TO STARTING REHAB, REMOVE EX. VEGETATION 3' FROM EX. FENCE, EXCEPT TREES. TREE LIMBS AND BRANCHES SHALL BE TRIMMED BACK TO FENCE LINE. TRIMMING LIMITS TO BE VERIFIED IN FIELD.



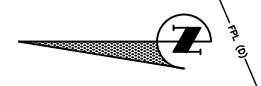
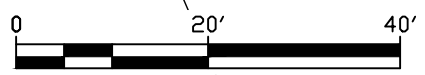
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1022 24th Avenue East, Bradenton, FL 34208

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS
**SATELLITE LIFT STATION R&R
2018 GROUP 3**
MOTE RANCH 1, RTU 478

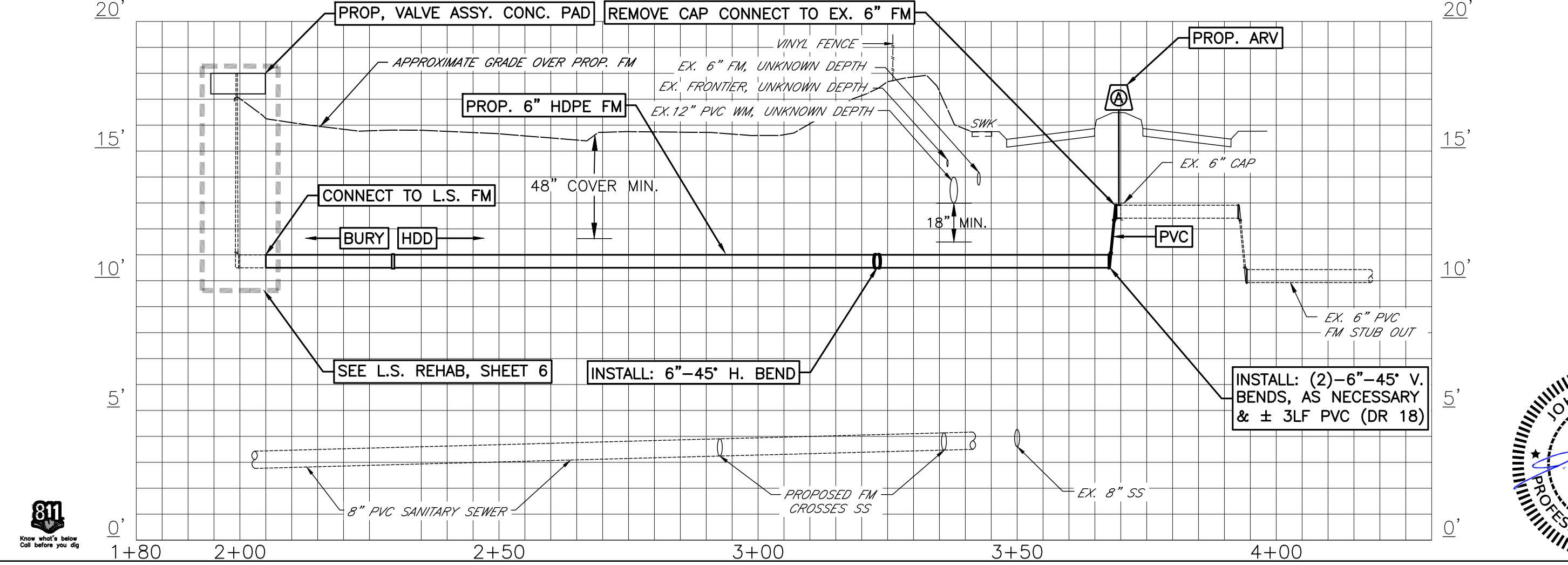
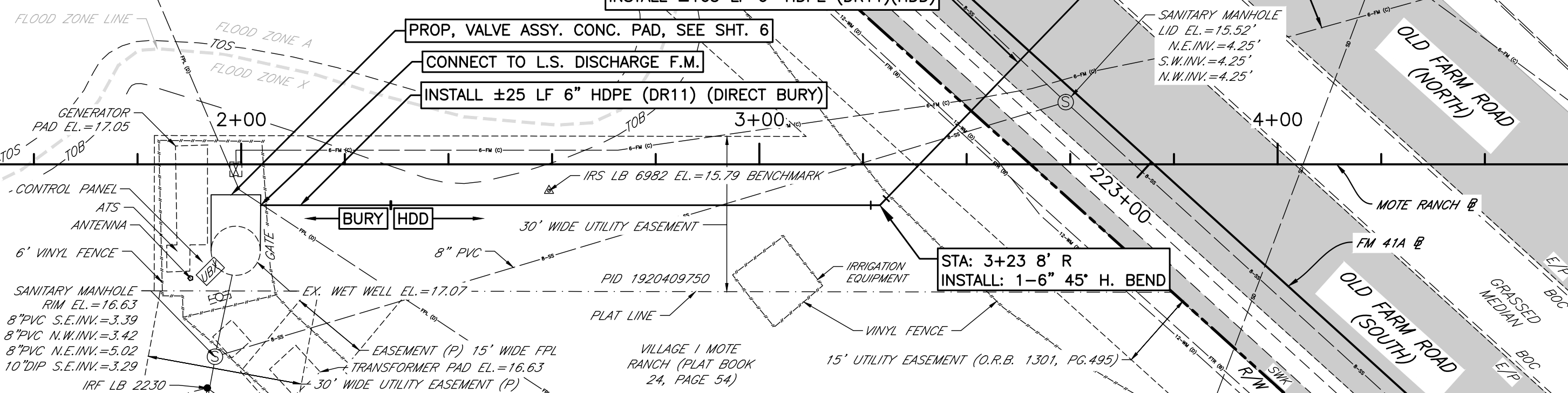
NO.	REVISION DESCRIPTION	DATE

PROJECT #	402-0019707/5005129
SURVEY #	-
SEC./TWN./RGE	27/35/18
SCALE	N.T.S.

DESIGNED BY: J. SHEN SHOUN, P.E.
CHECKED BY: J. SHEN SHOUN, P.E.
DATE: 12/4/19
STATE OF FLORIDA
PROFESSIONAL ENGINEER



LONGPOND AT MOTE RANCHES, PHASE III (PLAT BOOK 27, PAGE 176)
 10' WIDE FPL EASEMENT (P)
 15' UTILITY EASEMENT (O.R.B. 1301, PG.495)



THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2018 GROUP 3
MOTE RANCH 1
FORCE MAIN RE-ALIGNMENT

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	402-0019707/5005129
SURVEY #	00-44789
SEC./TWN./RGE	27/35/18
SCALE H/V	1"=20'/1"=4'

DESIGNED BY: J. SPEARS SHOUN
 DATE: 12/19/18
 CHECKED BY: J. SPEARS SHOUN
 DATE: 12/19/18
 No. 60923
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 12/4/19
 OF 13



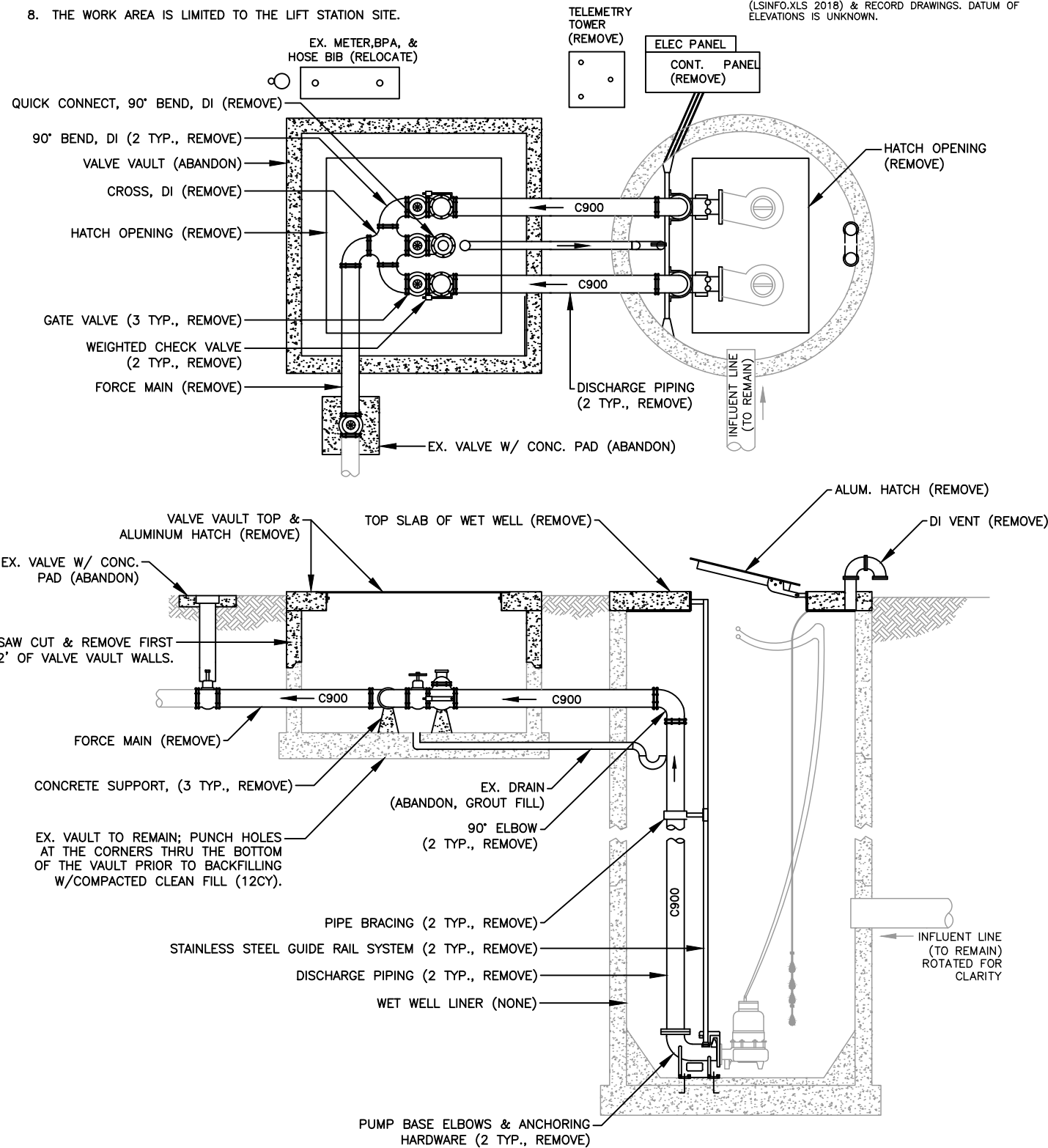
EXISTING

GENERAL 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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3. THE CONTRACTOR/BIDDER 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.

RADIO TELEMETRY UNIT (RTU)	516
DESIGN CAPACITY GPM/TDH	373/85.0
DISCHARGE PIPING DIAMETER	6"
WET WELL DIAMETER	8'
BOTTOM SLAB ELEVATION	11.68'
TOP ELEVATION	30.28'
VALVE VAULT HATCH ELEVATION	30.28'
INFLUENT INVERT ELEVATION	17.16'
INFLUENT PIPE SIZE	8"
FORCE MAIN DIAMETER	6"
WET WELL VENT PIPE	-
ELECT. SERVICE SIZE, AMPS	200
ELECT. POWER, VOLTS/PH	230/3
EX. FM TIE-IN	FM

* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2018) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.

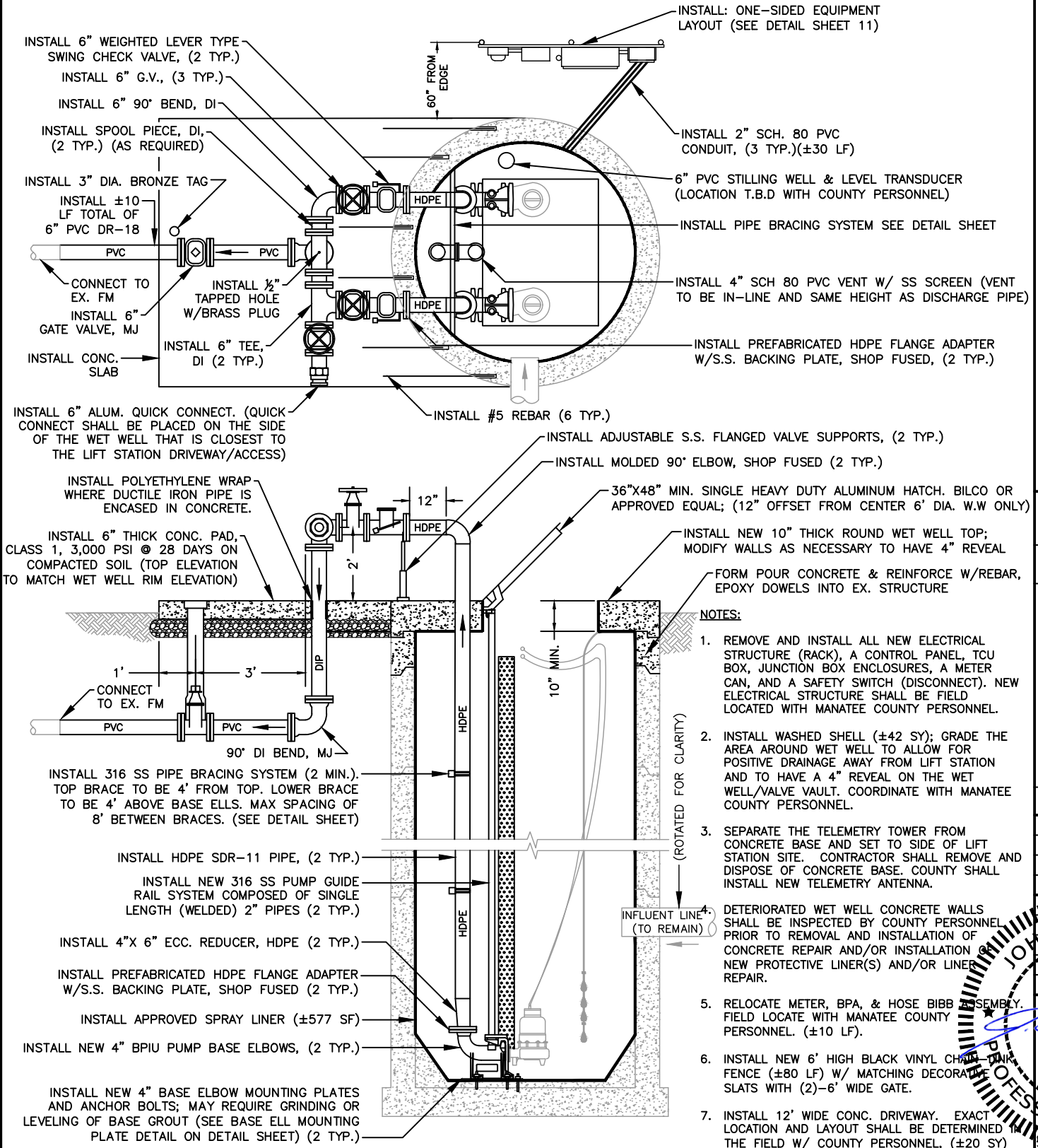


PROPOSED

INSTALL FIBERGLASS W.W. LINER	NO
APPLY SPRAY LINER W.W. LINER	YES
INSTALL STILLING WELL	YES
INSTALL FORCE MAIN G.V.	YES
NEW HDPE PIPING IN W.W.	YES, 6"
NEW BASE ELL	4" BPIU-14
RAISE TOP OF WET WELL:	YES, 4"
RAISE TOP OF VALVE VAULT:	NO
REPLACE WET WELL VENT PIPE	YES
UPGRADE BPA TO STANDARD, US-15	NO
RELOCATE WATER SERVICE ASSEMBLY	YES

GENERAL NOTES:

1. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.
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 A 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, MISCELLANEOUS WORK.



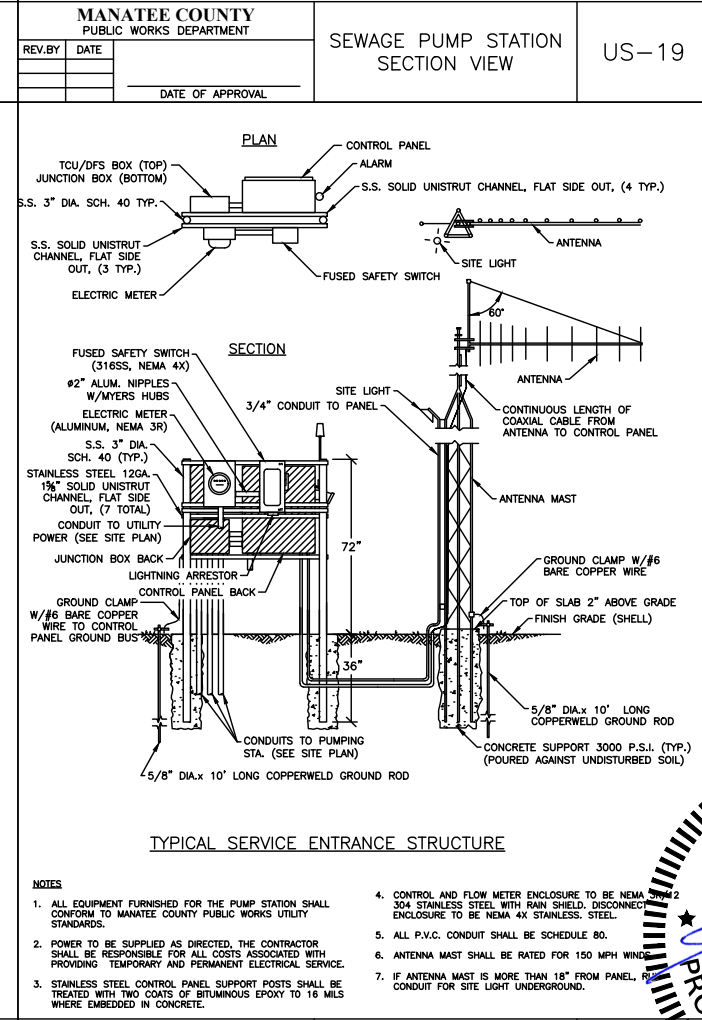
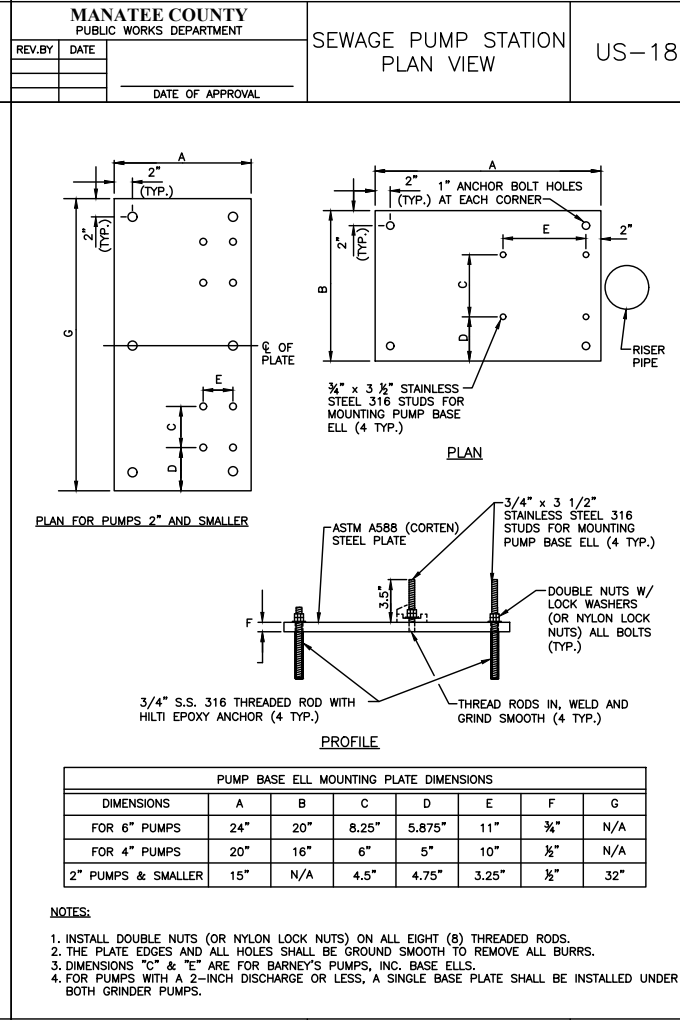
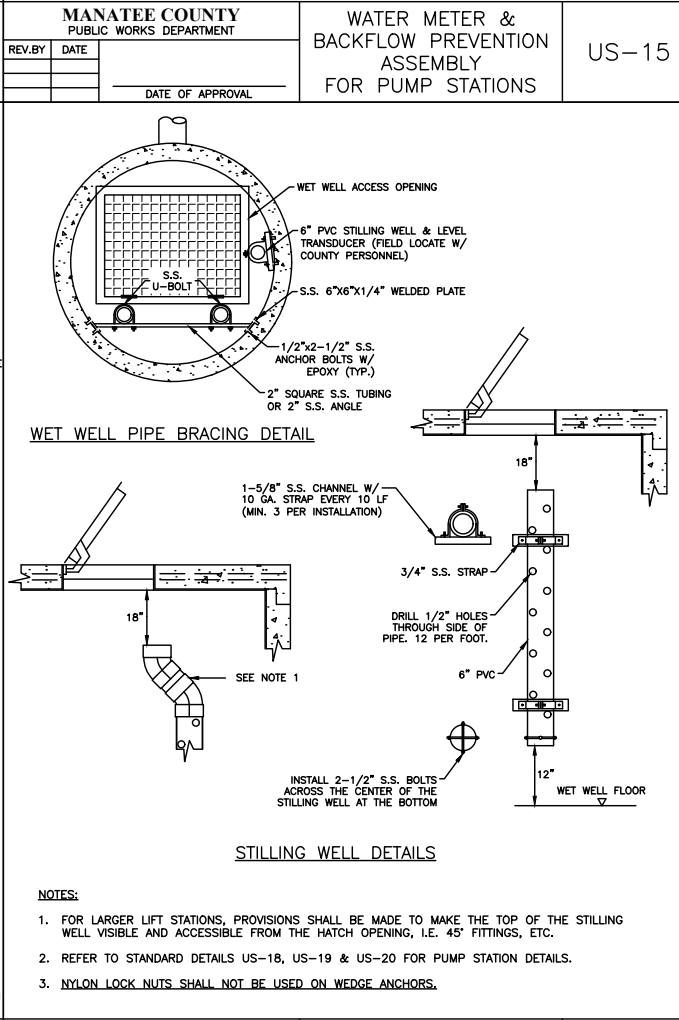
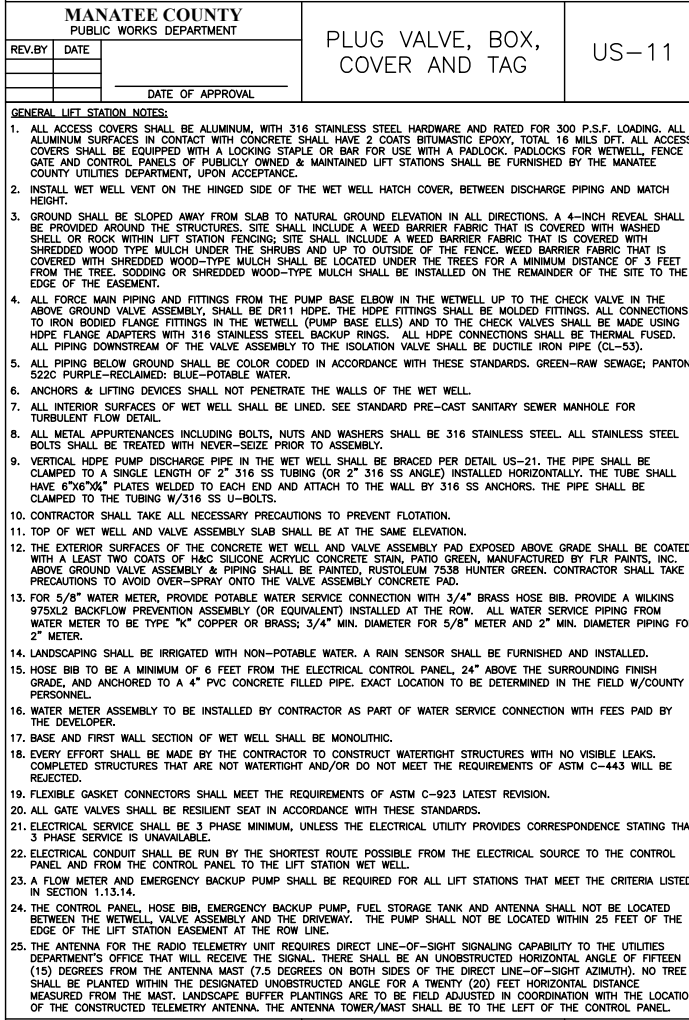
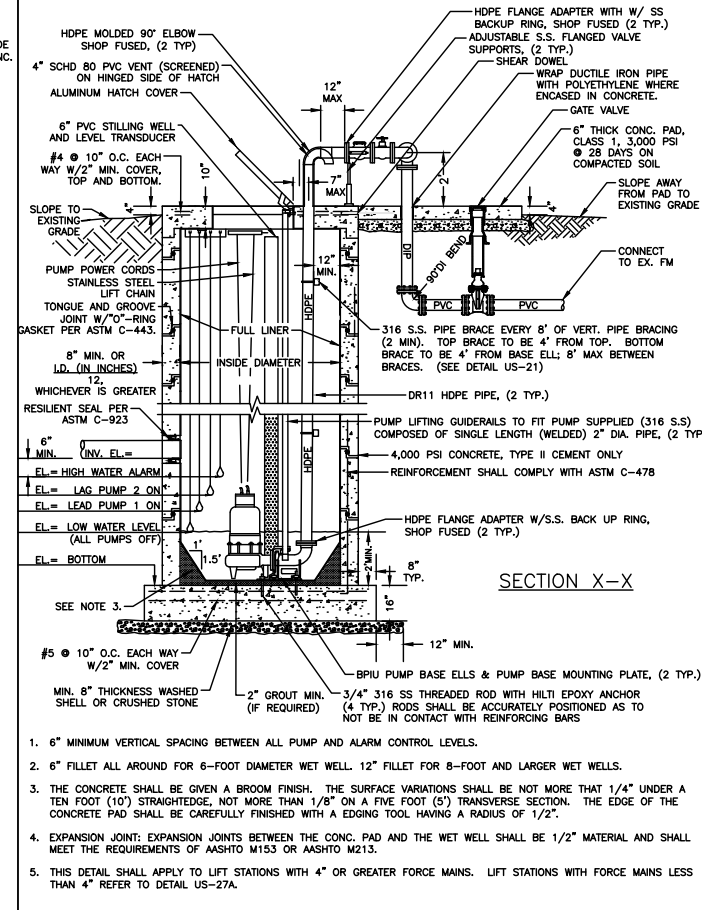
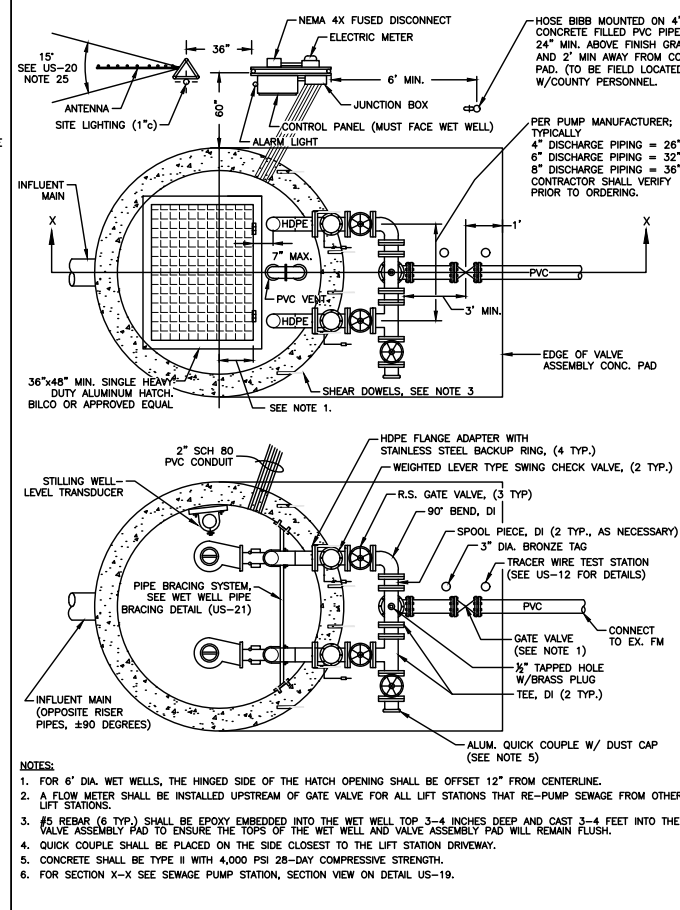
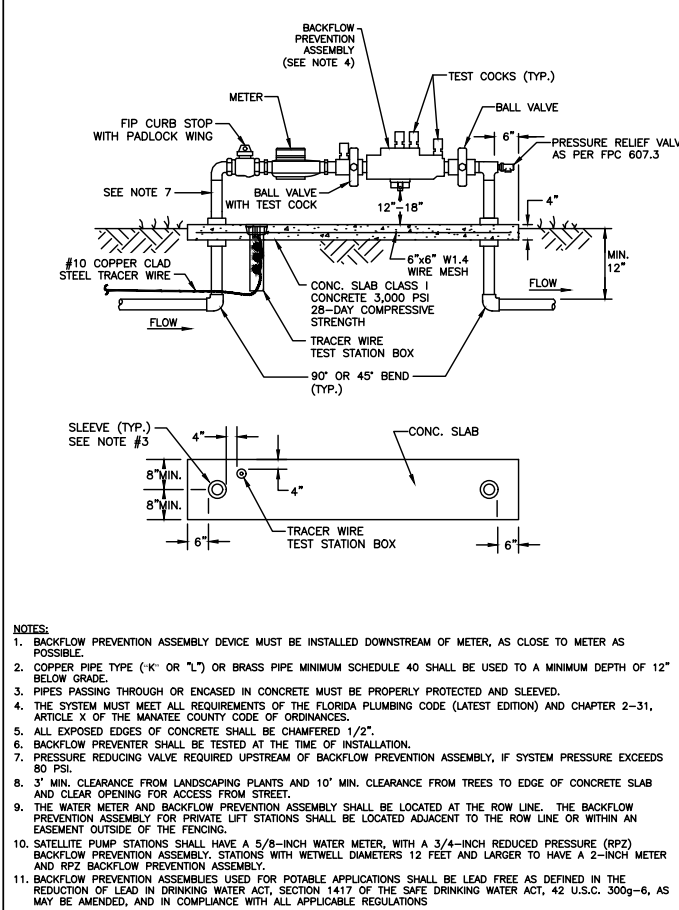
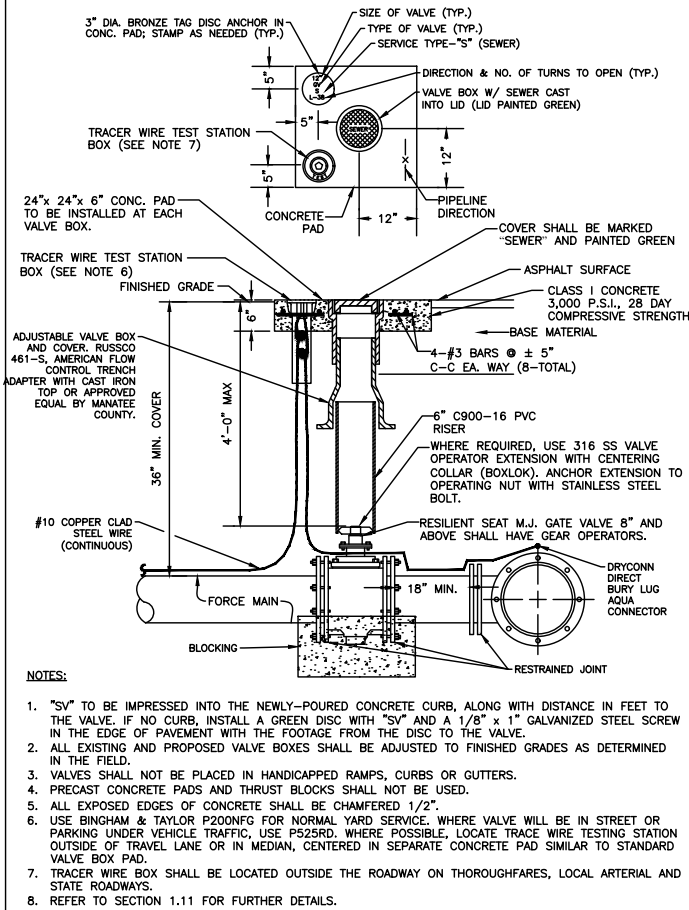
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1022 24th Avenue East, Bradenton, FL 34208

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2018 GROUP 3

THOUSAND OAKS, RTU 516

DATE	
BY	
REVISION DESCRIPTION	
NO.	
PROJECT #	402-0019707/ 5005130
SURVEY #	-
SEC./TWN./RGE	34/33/18
SCALE	N.T.S.
DATE	
CHECKED	J. SHEA SHOUN, P.E.
DESIGNED	J. SHEA SHOUN, P.E.
DRAWN	J. SHEA SHOUN, P.E.
DATE	12/4/19
STATE OF	FLORIDA
PROFESSIONAL ENGINEER	
NO. OF 13	



MANATEE COUNTY PUBLIC WORKS DEPARTMENT
PUMP STATION NOTES
US-20

REV. BY DATE DATE OF APPROVAL

MANATEE COUNTY PUBLIC WORKS DEPARTMENT
PUMP STATION PIPE BRACING, & STILLING WELL DETAILS
US-21

REV. BY DATE DATE OF APPROVAL

MANATEE COUNTY PUBLIC WORKS DEPARTMENT
PUMP BASE ELL MOUNTING PLATE
US-22

REV. BY DATE DATE OF APPROVAL

MANATEE COUNTY PUBLIC WORKS DEPARTMENT
SEWAGE PUMP STATION METER & ELECTRICAL DETAILS
US-23

REV. BY DATE DATE OF APPROVAL

DATE

BY

REVISION DESCRIPTION

NO.

PROJECT # 402-0019707

SURVEY #

SEC./TWN./RGE

SCALE N.T.S.

DATE

DESIGNED BY J. SHOU, 12/4/19

CHECKED BY J. SHOU, 12/4/19

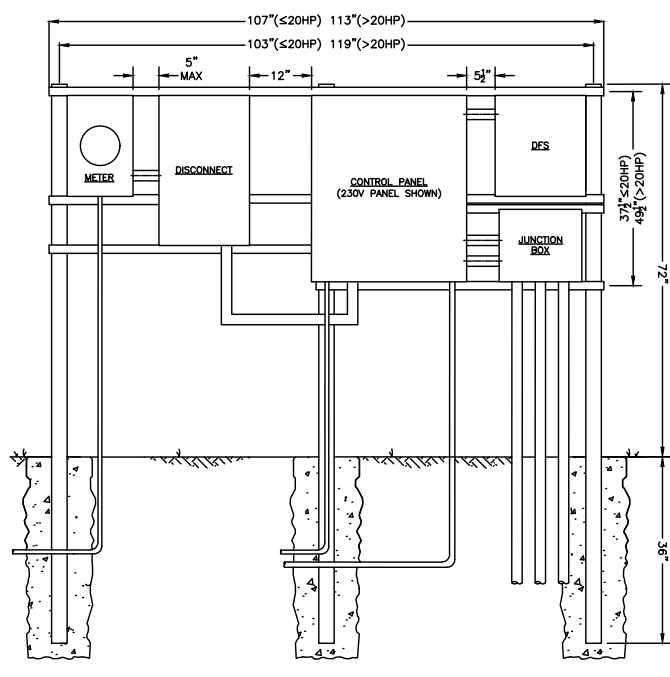
STATE OF FLORIDA

PROFESSIONAL ENGINEER

12/4/19

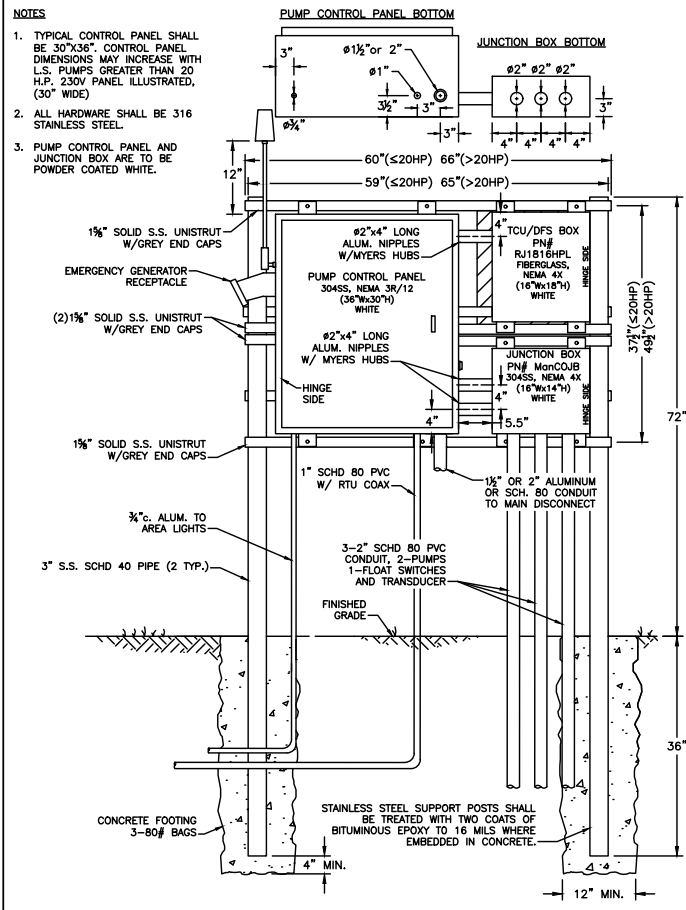
OF 13

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT | H:\User\Eng\Design\PERVA\S&R\2018 Group 3\005\US-11.dwg | 12/4/2019 10:58 AM | Sheet 1 of 1 | ANSI Full Sheet B (17.00 x 11.00 inches) | FileSize=1000kb

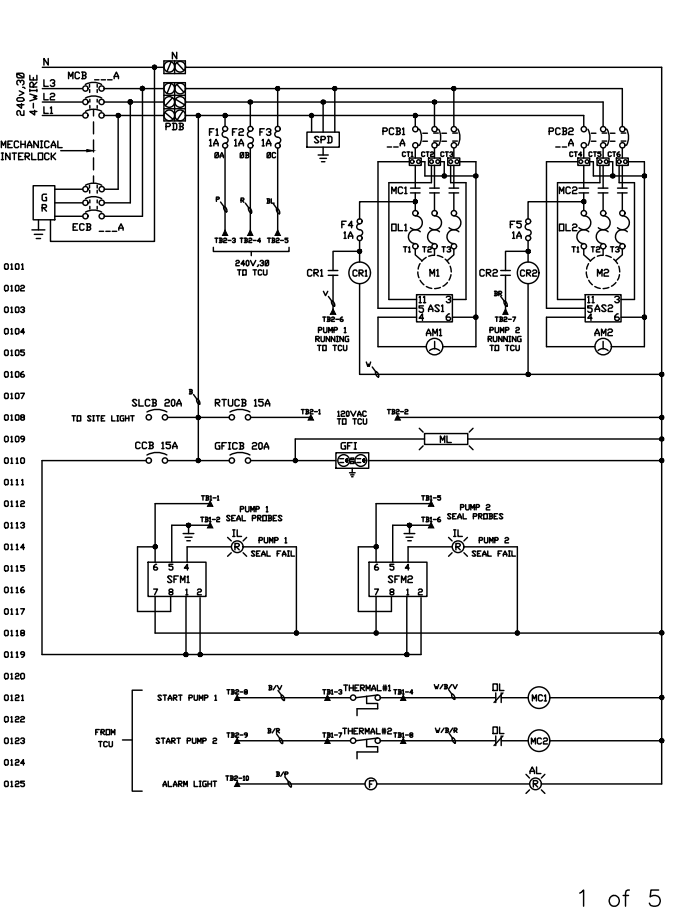


THOUSAND OAKS RTU 516 SCHEMATIC OF LIFT STATION ELECTRICAL COMPONENTS

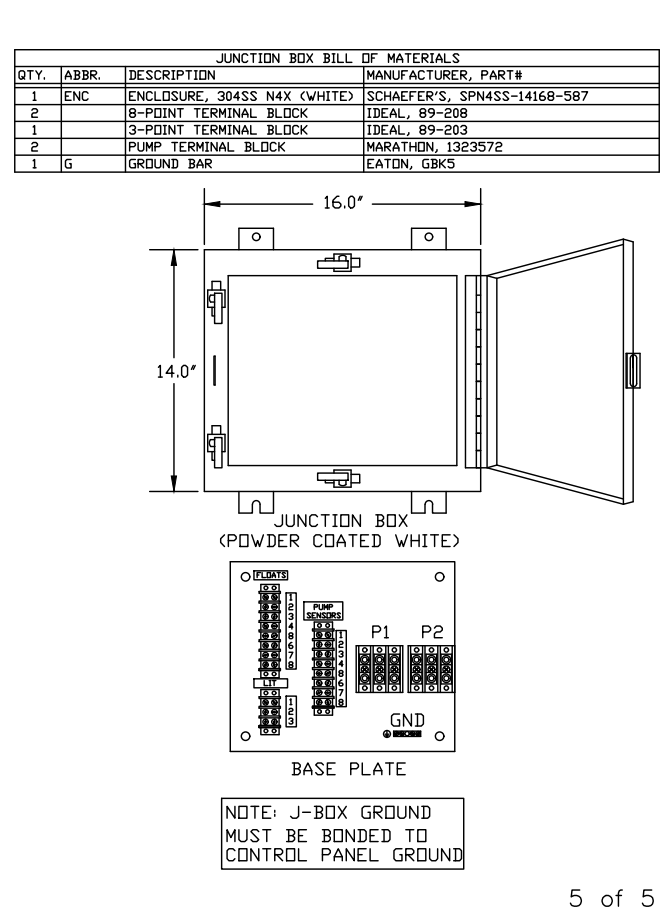
- NOTES
1. THIS DETAIL IS ONLY TO SHOW THE GENERAL LAYOUT OF THE CONTROL EQUIPMENT. REFER TO DETAILS US-23 & US-24 FOR FURTHER DETAIL INFORMATION.
 2. A REMOTE EMERGENCY GENERATOR RECEPTACLE SHALL BE REQUIRED WHEN USING A ONE-SIDED LAYOUT. THE RECEPTACLE SHALL BE MOUNTED 34 LF HIGH AND ATTACHED WITH 316 S.S. HARDWARE TO A CONCRETE BANJO PEDESTAL, WHICH SHALL BE FIELD LOCATED WITH COUNTY PERSONNEL.



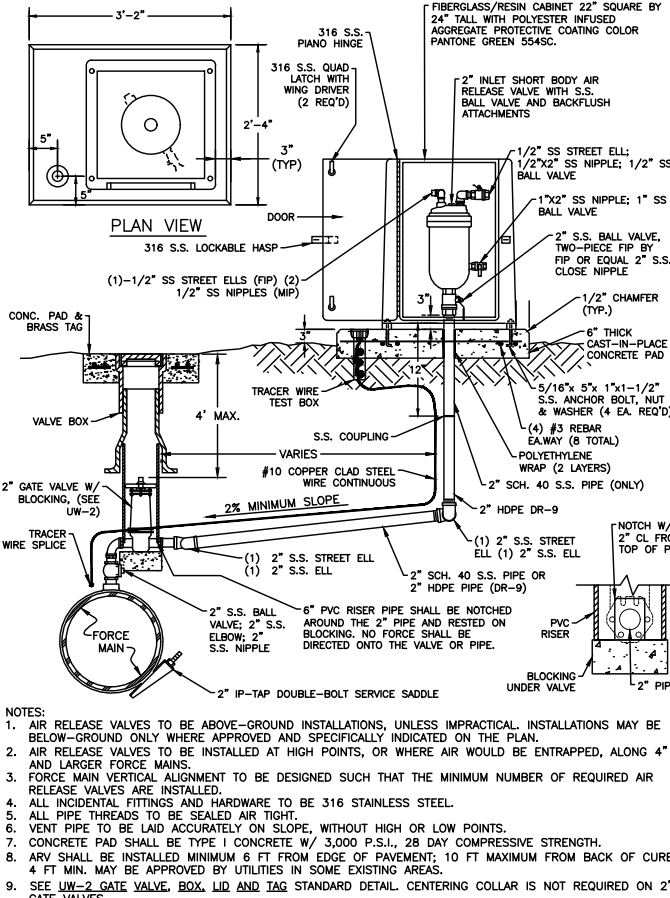
MANATEE COUNTY PUBLIC WORKS DEPARTMENT SEWAGE PUMP STATION CONTROL PANEL (ONE-SIDED LAYOUT) US-24



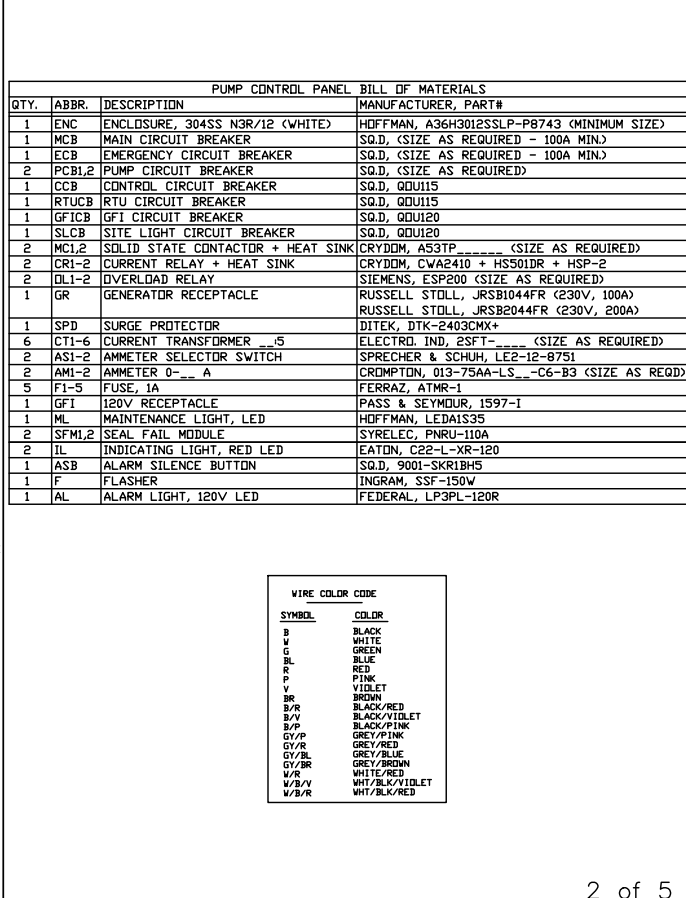
MANATEE COUNTY PUBLIC WORKS DEPARTMENT SEWAGE PUMP STATION CONTROL PANEL (230V) US-25A



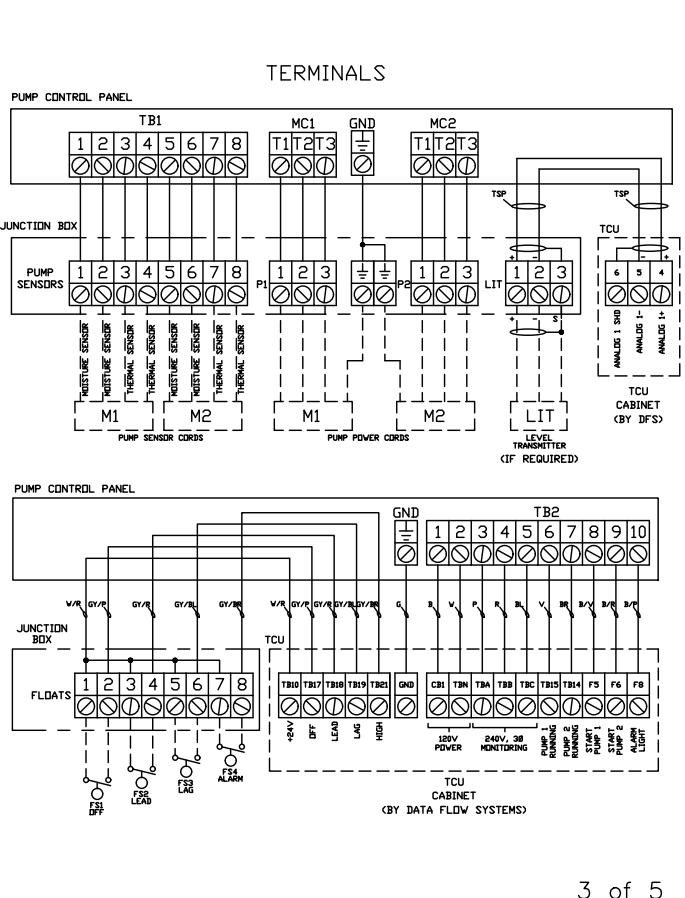
MANATEE COUNTY PUBLIC WORKS DEPARTMENT SEWAGE PUMP STATION CONTROL PANEL (230V) US-25E



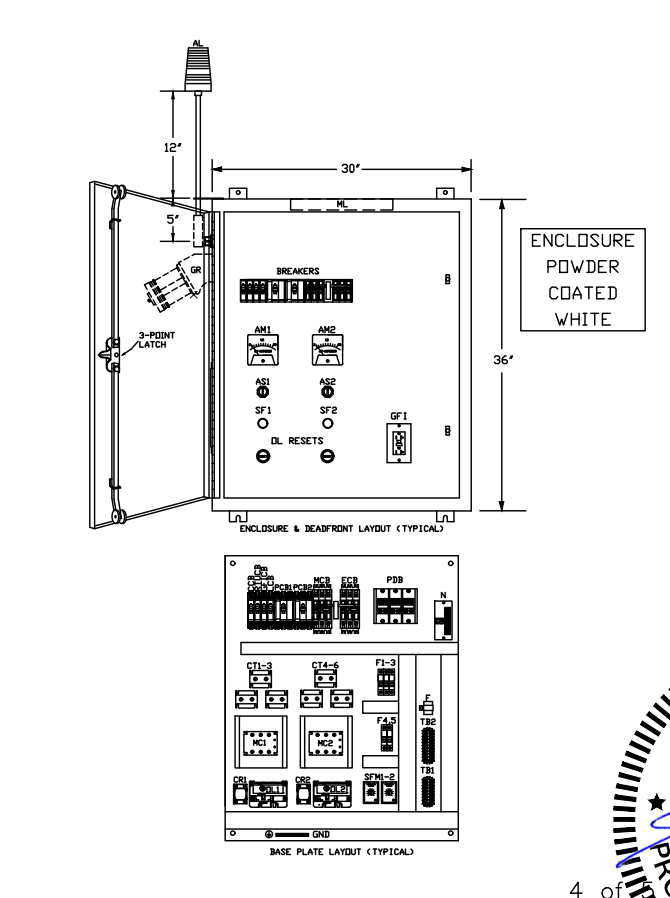
MANATEE COUNTY PUBLIC WORKS DEPARTMENT ABOVE-GROUND AIR RELEASE VALVE ASSY. FOR FORCE MAINS US-9



MANATEE COUNTY PUBLIC WORKS DEPARTMENT SEWAGE PUMP STATION CONTROL PANEL (230V) US-25B



MANATEE COUNTY PUBLIC WORKS DEPARTMENT SEWAGE PUMP STATION CONTROL PANEL (230V) US-25C



MANATEE COUNTY PUBLIC WORKS DEPARTMENT SEWAGE PUMP STATION CONTROL PANEL (230V) US-25D

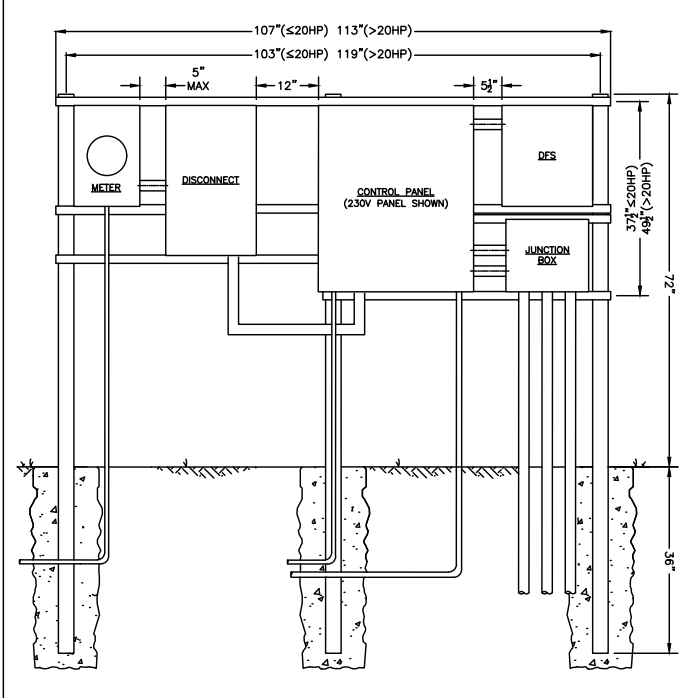


PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1022 24th Avenue East, Bradenton, FL 34208

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2018 GROUP 3

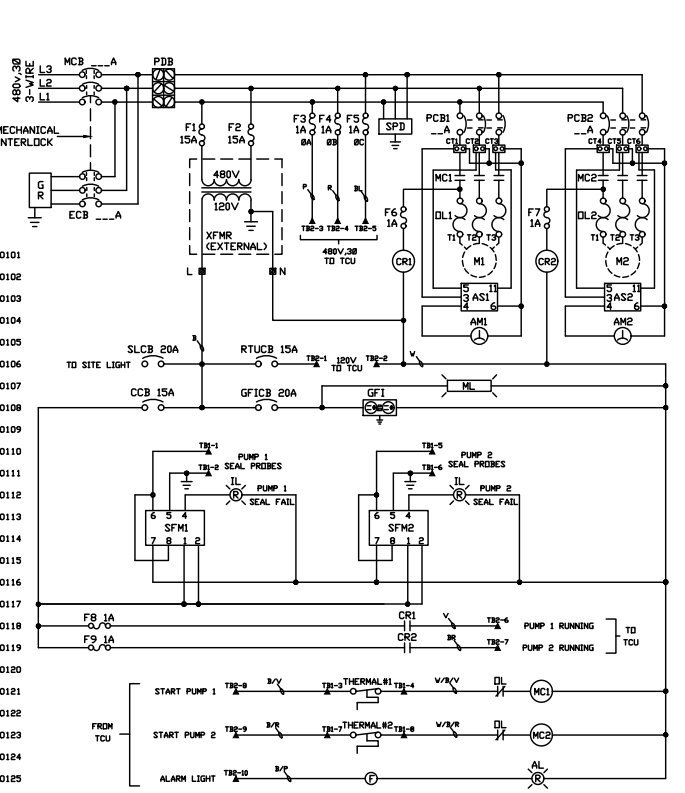
DETAILS



BRADEN RIVER RTU 324
SCHEMATIC OF LIFT STATION
ELECTRICAL COMPONENTS

- NOTES
- 1. THIS DETAIL IS ONLY TO SHOW THE GENERAL LAYOUT OF THE CONTROL EQUIPMENT. REFER TO DETAILS US-23 & US-24 FOR FURTHER DETAIL INFORMATION.
 - 2. A REMOTE EMERGENCY GENERATOR RECEPTACLE SHALL BE REQUIRED WHEN USING A ONE-SIDED LAYOUT. THE RECEPTACLE SHALL BE MOUNTED ±4 LF HIGH AND ATTACHED WITH 3/16 S.S. HARDWARE TO A CONCRETE BANJO PEDESTAL, WHICH SHALL BE FIELD LOCATED WITH COUNTY PERSONNEL.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SEWAGE PUMP STATION CONTROL PANEL (ONE-SIDED LAYOUT)
REV. BY	DATE	
DATE OF APPROVAL		



PUMP CONTROL PANEL BILL OF MATERIALS

QTY.	ABBR.	DESCRIPTION	MANUFACTURER, PART#
1	ENC	ENCLOSURE, 304SS N3R/12 (WHITE)	HOFFMAN, A36H302SSLP-P8743 (MINIMUM SIZE)
1	MCB	MAIN CIRCUIT BREAKER	SQ.D. HGL (SIZE AS REQUIRED - 100A MIN.)
1	ECB	EMERGENCY CIRCUIT BREAKER	SQ.D. HGL (SIZE AS REQUIRED - 100A MIN.)
2	PCB1,2	PUMP CIRCUIT BREAKER	SQ.D. HGL (SIZE AS REQUIRED) + S29450
1	CCB	CONTROL CIRCUIT BREAKER	SQ.D. QDU115
1	RTUCB	RTU CIRCUIT BREAKER	SQ.D. QDU115
1	GFICB	GFI CIRCUIT BREAKER	SQ.D. QDU120
1	SLCB	SITE LIGHT CIRCUIT BREAKER	SQ.D. QDU120
2	MC1,2	SOLID STATE CONTACTOR + HEAT SINK	CRYDOM, CVA42410 + HSS01DR + HSP-2 (SIZE AS REQUIRED)
2	CR1-2	CURRENT RELAY + HEAT SINK	CRYDOM, CVA42410 + HSS01DR + HSP-2
2	DL1-2	OVERLOAD RELAY	SIEMENS, ESP200 (SIZE AS REQUIRED)
1	GR	GENERATOR RECEPTACLE	RUSSELL STOLL, JRSB2034HR
1	SPD	SURGE PROTECTOR	DITEK, DTK-4803CMX+
6	CT1-6	CURRENT TRANSFORMER	ELECTRO. IND. 2SFT- (SIZE AS REQUIRED)
2	AS1-2	AMMETER SELECTOR SWITCH	SPRECHER & SCHUH, LE2-12-8751
2	AM1-2	AMMETER 0-5 A	CROMPTON, 013-75AA-LS-C6-B3 (SIZE AS REQD)
2	F1-2	FUSE, 15A	FERRAZ, ATQR-15
1	XFMR	TRANSFORMER, 480V/120VAC 3KVA	SQ.D. 7400-3SIF (SHIPPED LOOSE)
7	F3-9	FUSE, 1A	FERRAZ, ATMR-1
1	GFI	120V RECEPTACLE	PASS & SEYMOUR, 1597-1
1	ML	MAINTENANCE LIGHT, LED	HOFFMAN, LE41S35
2	SFM1,2	SEAL FAIL MODULE	SYRELEC, PNR-110A
2	IL	INDICATING LIGHT, RED LED	EATON, C22-L-XR-120
1	F	FLASHER	INGRAM, SSF-150V
1	AL	ALARM LIGHT, 120V LED	FEDERAL, LP3PL-120R

WIRE COLOR CODE

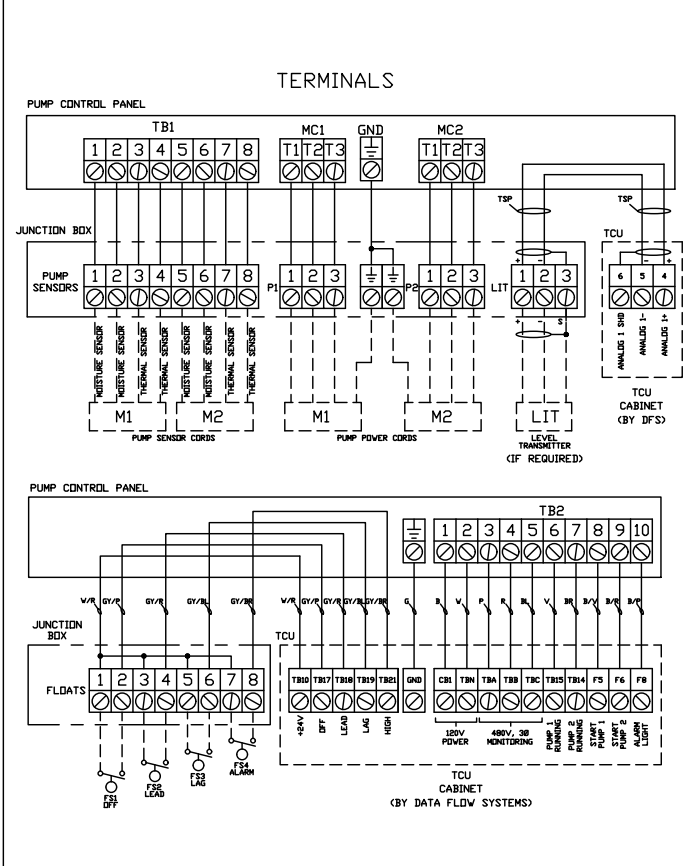
SYMBOL	COLOR
B	BLACK
W	WHITE
G	GREEN
BL	BLUE
R	RED
V	VIOLET
P	PINK
Y	YELLOW
BR	BROWN
B/R	BLACK/RED
B/W	BLACK/WHITE
G/Y	GREEN/YELLOW
G/P	GREEN/PINK
GY/R	GREY/RED
GY/BL	GREY/BLUE
GY/BR	GREY/BROWN
W/R	WHITE/RED
W/B/V	WHIT/BLK/VIOLET
W/B/R	WHIT/BLK/RED

1 of 5

2 of 5

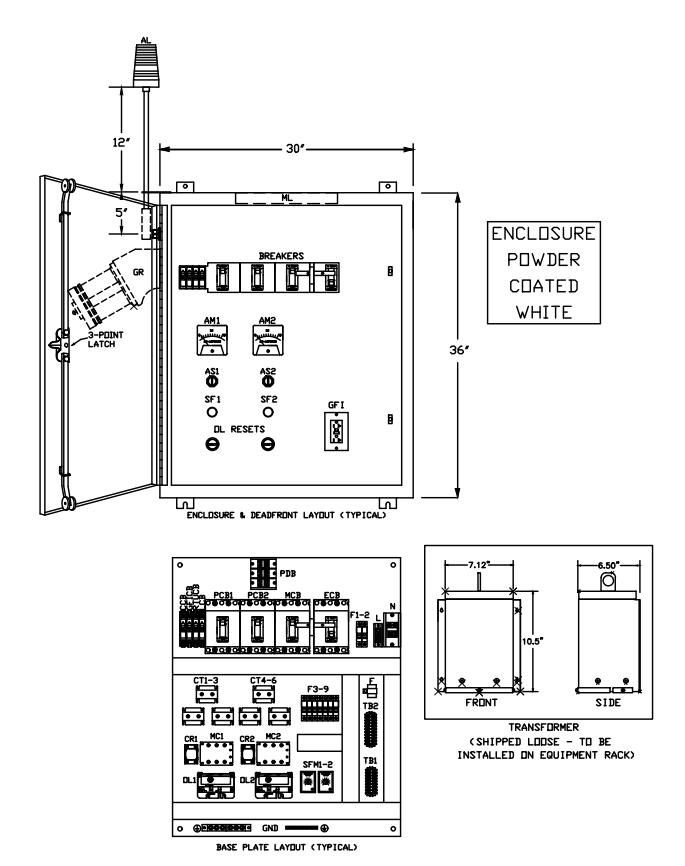
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SEWAGE PUMP STATION CONTROL PANEL (460V)	US-26A
REV. BY	DATE		
DATE OF APPROVAL			

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SEWAGE PUMP STATION CONTROL PANEL (460V)	US-26B
REV. BY	DATE		
DATE OF APPROVAL			



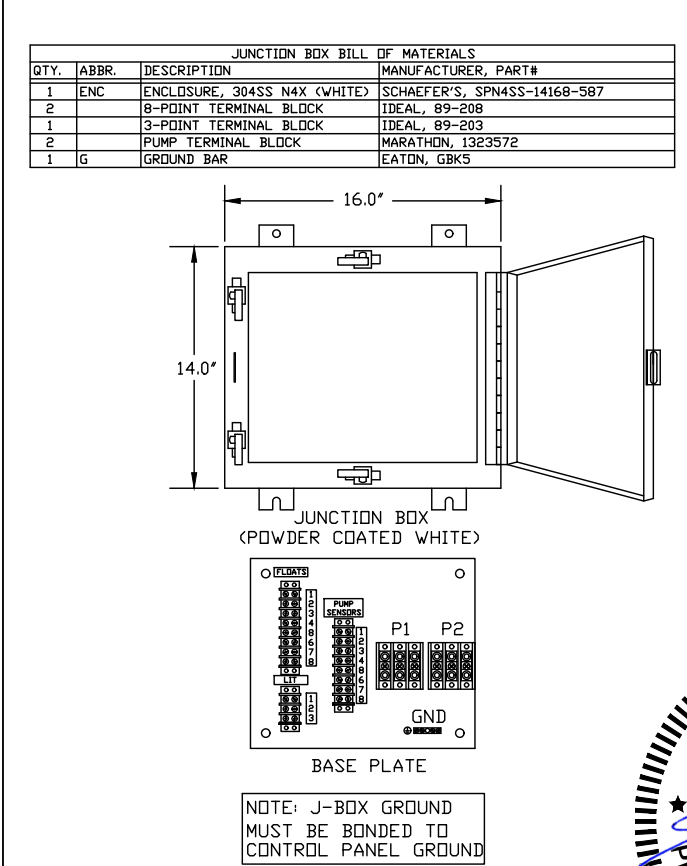
3 of 5

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SEWAGE PUMP STATION CONTROL PANEL (460V)	US-26C
REV. BY	DATE		
DATE OF APPROVAL			



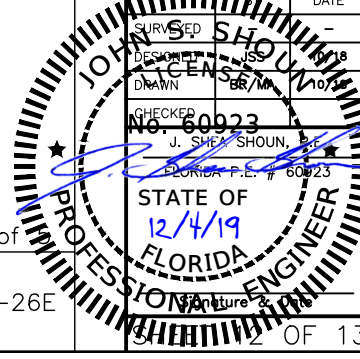
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MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SEWAGE PUMP STATION CONTROL PANEL (460V)	US-26D
REV. BY	DATE		
DATE OF APPROVAL			

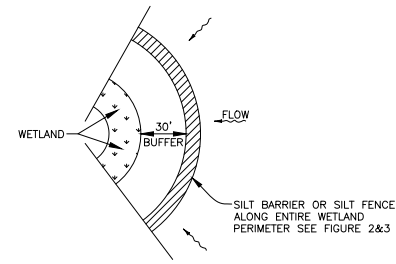


5 of 5

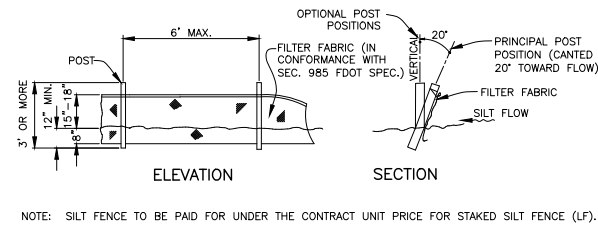
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SEWAGE PUMP STATION CONTROL PANEL (460V)	US-26E
REV. BY	DATE		
DATE OF APPROVAL			



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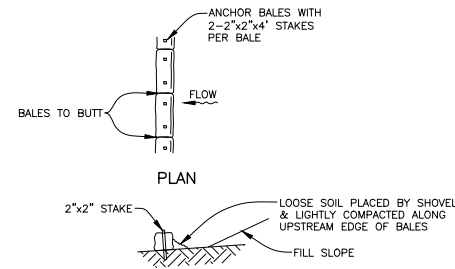


WETLAND BUFFER
FIGURE 1

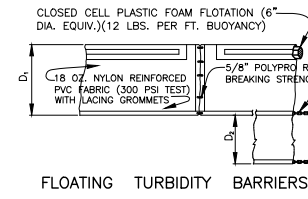


NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

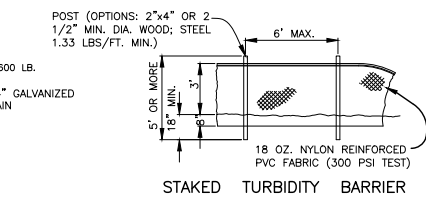
TYPICAL SILT FENCE
FIGURE 2



TYPICAL BALE SILT BARRIER
FIGURE 3



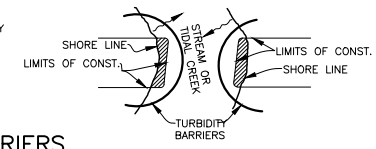
FLOATING TURBIDITY BARRIERS



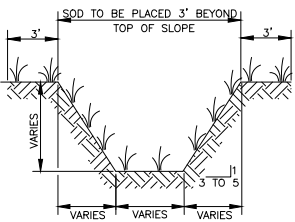
STAKED TURBIDITY BARRIER

D₅₀ = 5" STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS), D₅₀ = 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.

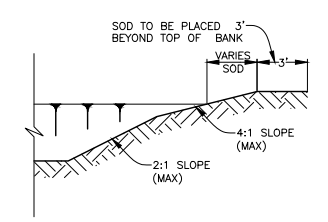
NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.



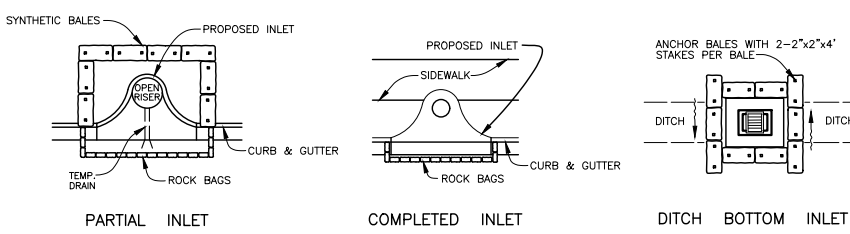
TURBIDITY BARRIERS
FIGURE 4



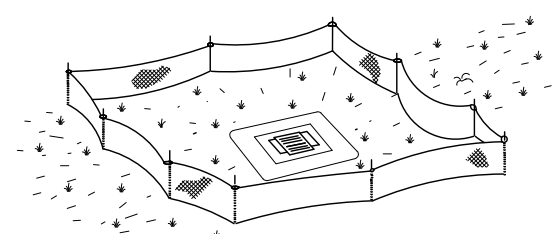
TYPICAL SWALE SECTION
FIGURE 5



TYPICAL RETENTION/DETENTION POND SECTION
FIGURE 6

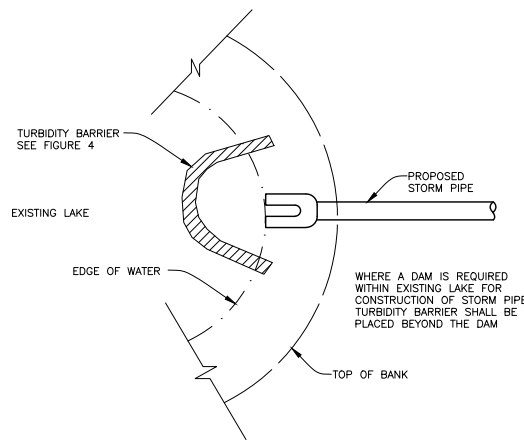


SYNTHETIC BALE PROTECTION AROUND INLETS OR SIMILAR STRUCTURES
FIGURE 7

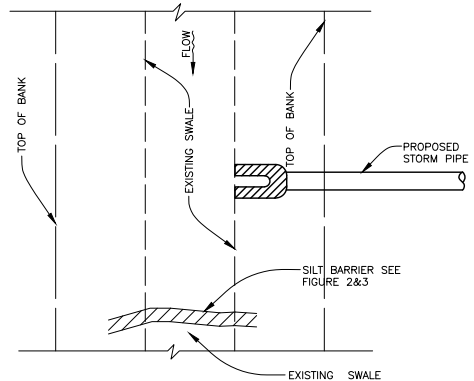


TYPE III SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS

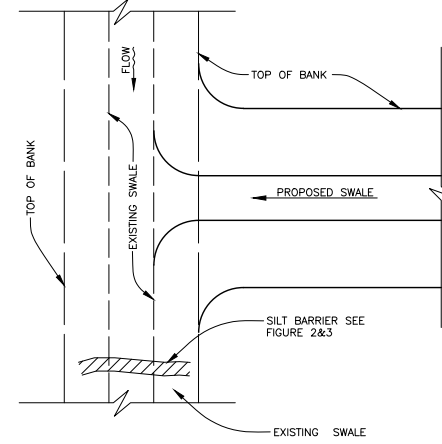
STAKED SILT BARRIER OR SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS
FIGURE 8



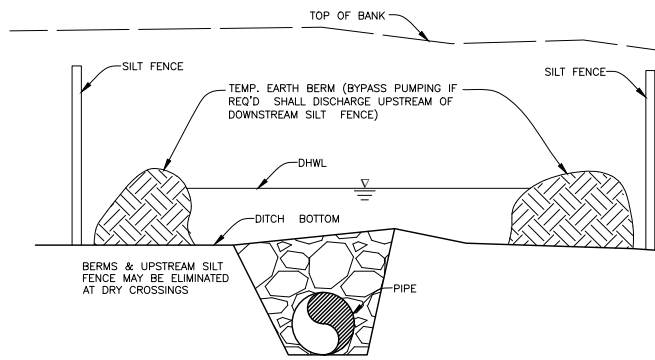
TURBIDITY BARRIER AT CONNECTION OF STORM PIPE TO EXISTING LAKE
FIGURE 9



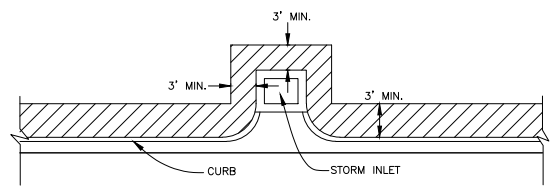
SILT BARRIER AT CONNECTION OF STORM PIPE TO EXISTING SWALE
FIGURE 10



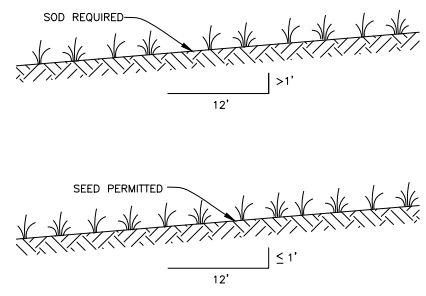
SILT BARRIER AT CONNECTION OF SWALE TO EXISTING SWALE
FIGURE 11



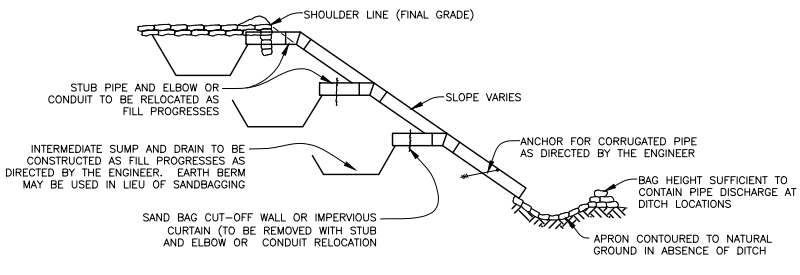
UNDERGROUND PIPE CROSSING
FIGURE 12



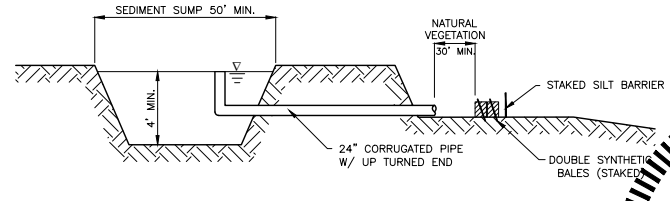
SOD ALONG CURB AND AROUND INLET
FIGURE 14



GRASS SLOPES
FIGURE 13



SECTION AA
TEMPORARY SLOPE DRAIN
FIGURE 15



SEDIMENT SUMP SECTION
FIGURE 16

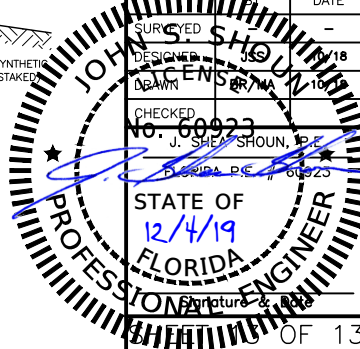
NOTE: REFERENCE THE FDOT DESIGN STANDARDS LATEST EDITION FOR ALL TEMPORARY EROSION CONTROL MEASURES.

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2018 GROUP 3
EROSION CONTROL

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT # 402-0019707
SURVEY # -
SEC./TWN./RGE -
SCALE N.T.S.



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