



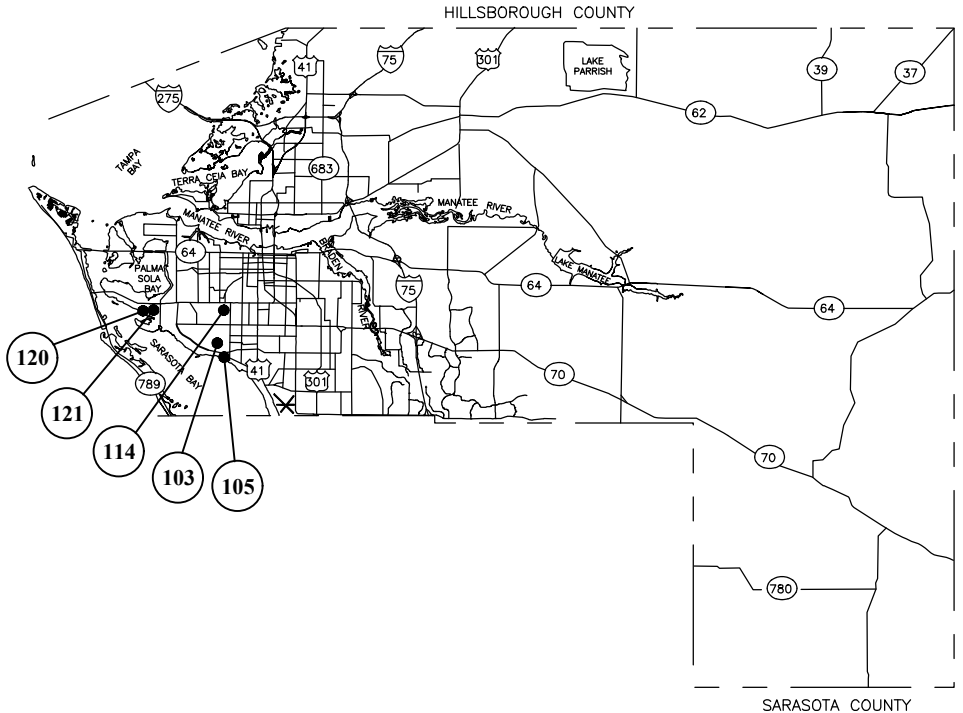
SATELLITE LIFT STATION R&R
2018 GROUP 2
402-0019707

September 2019

BID DOCUMENTS

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(*) THE INFLUENT FLOWS TO THE LIFT STATIONS COME FROM GRAVITY SANITARY SEWER SYSTEMS THAT ARE PRIVATELY OWNED & MAINTAINED. THE MANHOLE ADJACENT TO THE LIFT STATIONS CAN NOT BE UTILIZED FOR BYPASS PUMPING.



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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, 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



**PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES**
22 26th Avenue East, Bradenton, FL 34208

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

**SATELLITE LIFT STATION R&R
2018 GROUP 2**

COVER

[illegible]

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT | H:\Utility Eng Design\PROJ\15 SAN SWR Proj\San SWr - LS Upgrades\LS & R&R 2018 Group 2\dwg\LS & R&R 2018 Group 2.dwg, 02 General Notes & Legend, 3/7/2019 6:29 AM Shea Shoun, 111, ANSI full bleed B (17.00 x 11.00 inches), UC-2018.ctb

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.mymanatee.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 ALLEVATE 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, FILTER FIELDS, 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 THE F.D.O.T. DESIGN STANDARDS. CONCRETE WITH A 3,000 PSI @ 28 DAYS COMPRESSIVE STRENGTH SHALL BE USED.
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

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


























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LEGEND

EXISTING

- CM  BENCH MARK
 CONCRETE MONUMENT
 IRON PIPE
 IRON ROD
 HUB
 NAIL & DISK
 ELEVATION
 PARCEL ID NO.
 PARCEL ID NO.
 LOT NO.
PP  GUY WIRE
 POWER POLE
 LIGHT POLE
 MAIL BOX
 SIGN
REF  REFLECTOR
 SPRINKLER
 GAS MARKER
 BACKFLOW PREVENTER
 BLOW OFF VALVE
FH  FIRE HYDRANT
WV  WATER VALVE
ARV  AIR RELEASE VALVE
WM  WATER METER
 SANITARY SEWER MANHOLE
 SANITARY SEWER CLEAN OUT
SB#1  SOIL BORING LOCATION
TEL  TELEPHONE SERVICE BOX
 UTILITY BOX
 UTILITY RISER
 FLOW DIRECTION
GI  GRATE INLET
 METERED END SECTION
 STORM SEWER MANHOLE

- 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 CHARTER
UNDERGROUND CHARTER
OVERHEAD ELECTRIC
UNDERGROUND ELECTRIC
OVERHEAD FRONTIER
UNDERGROUND FRONTIER
UNDERGROUND PRECO
UNDERGROUND FPL
RAIL ROAD TRACKS
EDGE OF CONCRETE
EDGE OF ROAD
TOE OF SLOPE
TOP OF BANK
PROPERTY LINE
RIGHT OF WAY

ABBREVIATIONS

- R/W RIGHT OF WAY
CONC CONCRETE
ASPH ASPHALT
DRWY DRIVEWAY
SWK SIDEWALK
EP EDGE OF PAVEMENT
BOC BACK OF CURB

PROPOSED PROJECT NOTES
JOB SPECIFIC (EXAMPLE):

WATER LINE CALL-OUT
(TYPICAL)

STA. 40+60, 17' LT.
1-6" GATE VALVE
1-6" FITTING



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

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2018 GROUP 2

GENERAL NOTES & LEGEND

DATE	BY	REVISION DESCRIPTION

NO.					

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

DATE	
BY	

NO.	
DATE	

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

DATE	
BY	

NO.	
DATE	

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

DATE	
BY	

NO.	
DATE	

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

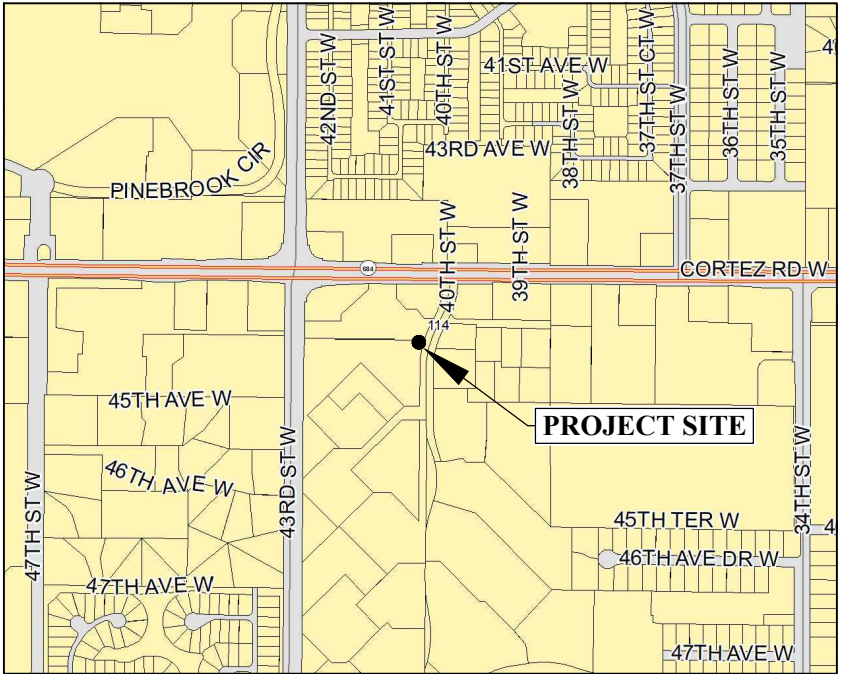
COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT [H:\Util Eng Design\PROJ\c-s\San Swr - US Upgrades\GIS R&R 2018 Group 2.dwg,03 Project Site Location Maps, 9/20/2019 6:29 AM Shea Shaun, 1:1, ANSI full bleed B (17.00 x 11.00 inches), MC-2016.dtb



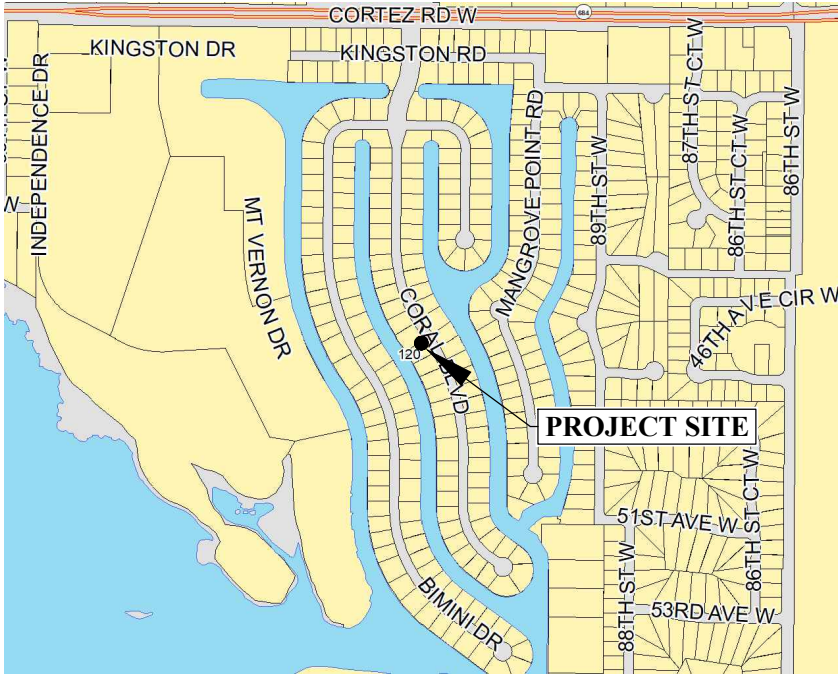
EL CONQUISTADOR, RTU 103,
5900 47TH ST. W., BRADENTON



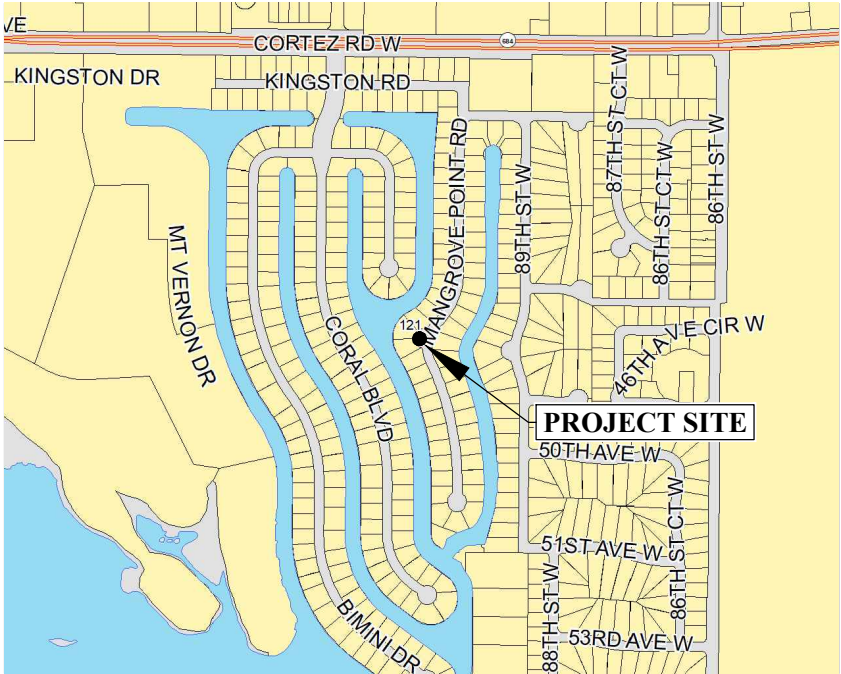
WILD OAK BAY, RTU 105,
6461 WILD OAK BAY BLVD., BRADENTON



WILDWOOD SPRINGS 1, RTU 114,
4490 WILDWOOD SPRING PKWY, BRADENTON



CORAL SHORES WEST, RTU 120,
4808 CORAL BLVD., BRADENTON



CORAL SHORES EAST 3, RTU 121,
4706 MANGROVE POINT RD., BRADENTON

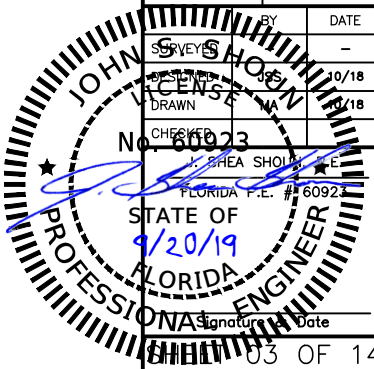
NOTE(S):
1. LIFT STATION SITE VISITS MAY BE COORDINATED WITH NICK WAGNER,
941-792-8811 x5377.

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2018 GROUP 2

PROJECT SITE LOCATION MAPS

NO.	REVISION DESCRIPTION	BY	DATE
PROJECT #	402-0019707		
SURVEY #	-		
SEC./TWN./RGE	VARIES		
SCALE	N.T.S.		
DRAWN	BY	DATE	
CHECKED	BY	DATE	
APPROVED	BY	DATE	
STATE OF FLORIDA	ENGINEER		
DATE			



MANATEE COUNTY GOVERNMENT
 COPYRIGHT 2010
 H: UHl Eng Design PROJ ~SAN SWR Pro) San Swr
 LS Upgrades SLS R&R 2018 Group 2'DWGS SLS R&R 2018 Group 2'awg,04 El Conquistador 2 RTU 103 Rehab, 9/20/2019 6:29 AM Sheo Shoun, 1:1' ANSI full bleed B (17.00 x 11.00 inches), MC-2016.stb

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.

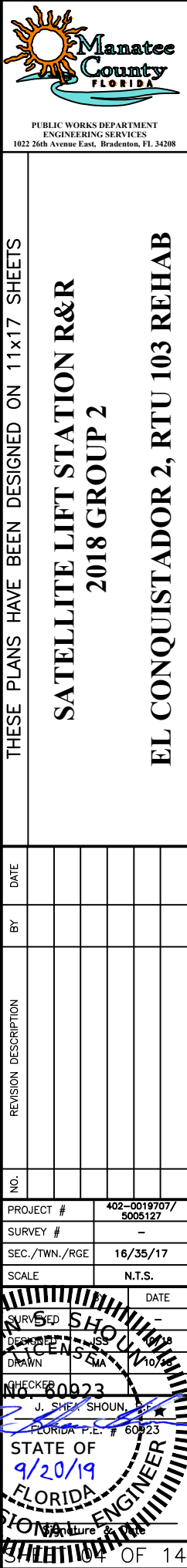
* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2018) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.



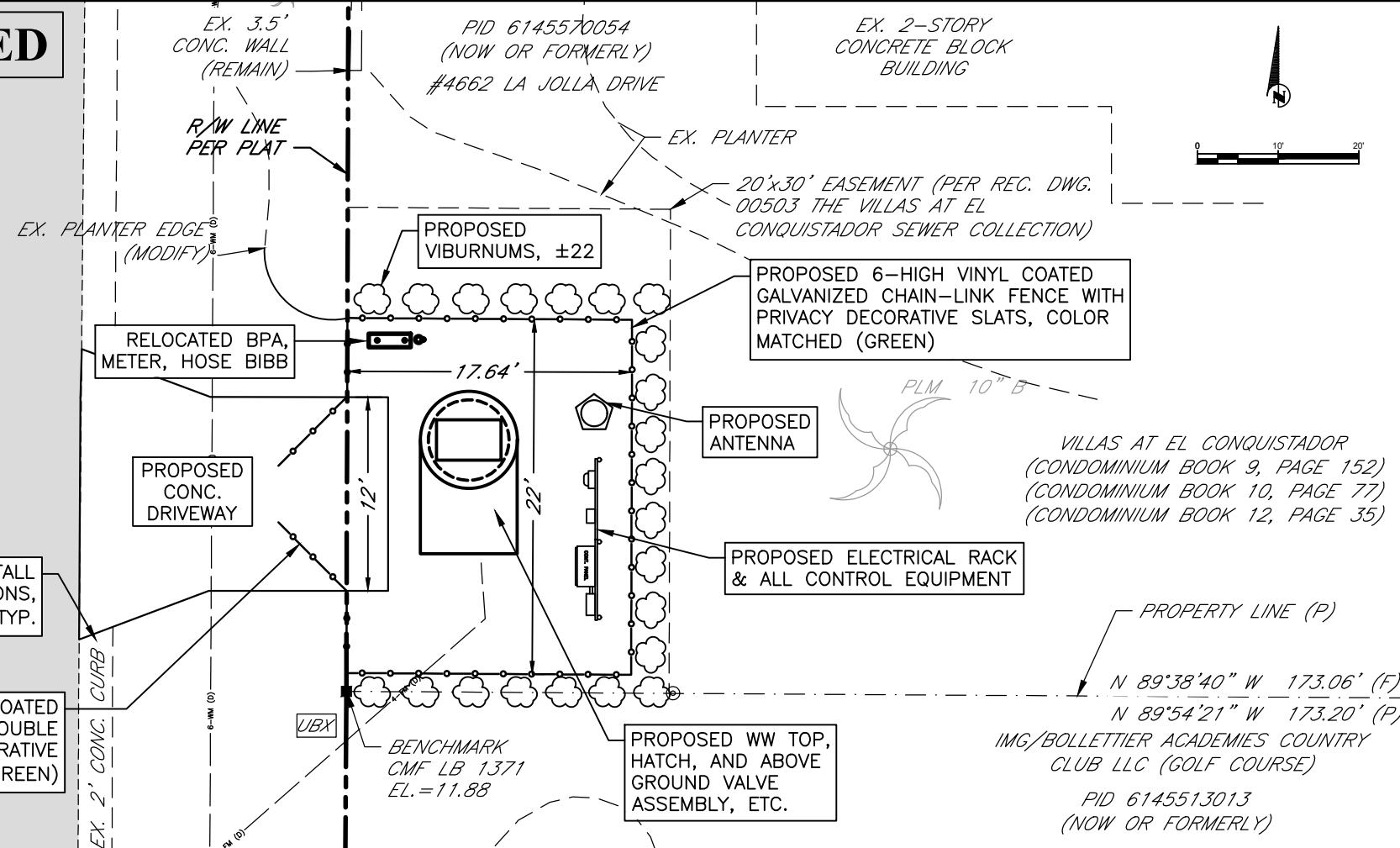
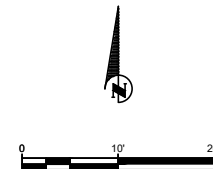
1. REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), A CONTROL PANEL, TCU BOX, JUNCTION BOX ENCLOSURES, A METER CAN, AND A SAFETY SWITCH (DISCONNECT). THE LOCATION AND CONFIGURATION OF THE NEW ELECTRICAL STRUCTURE SHALL BE FIELD DETERMINED WITH MANATEE COUNTY PERSONNEL.
2. INSTALL WASHED SHELL 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/VALVE VAULT. COORDINATE WITH MANATEE COUNTY PERSONNEL.
3. 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.
4. WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER AND/OR LINER REPAIR.
5. RELOCATE METER, BFP, & HOSE BIBB ASSEMBLY PER DETAIL. FIELD LOCATE WITH MANATEE COUNTY PERSONNEL. (±10 LF)
6. CONTRACTOR TO INSTALL A 12' WIDE CONCRETE DRIVEWAY. EXACT LOCATION AND LAYOUT SHALL BE DETERMINED IN THE FIELD WITH COUNTY PERSONNEL. (±28 SY).

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, 4"
NEW BASE ELL	4" BPIU-14
RAISE TOP OF WET WELL:	YES, 12"
RAISE TOP OF VALVE VAULT:	NA
REPLACE WET WELL VENT PIPE	YES
UPGRADE BPA TO STANDARD, US-15	NO
RELOCATE WATER SERVICE ASSEMBLY	YES

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.



ENTER _____ BY _____ DATE _____
 SURVEYED _____ 4/10/19
 DESIGNED _____ 10/18
 DRAWN _____
 CHECKED _____
 NO. 00823
 FLORIDA P.E. # 13023
 STATE OF
 4/20/19
 FLORIDA
 PROFESSIONAL ENGINEER
 Signature & Title _____
 SHEET NO. OF 14



ASPHALT PAVEMENT

PROPOSED 6-HIGH VINYL COATED
GALVANIZED CHAIN-LINK DOUBLE
GATE WITH PRIVACY DECORATIVE
SLATS, COLOR MATCHED (GREEN)

MANATEE COUNTY GOVERNMENT | H:\Util Eng Design\PROJ\MAN SWR Proj\Son Swr - LS Upgrades\SLS R&R 2018 Group 2.dwg,06 Wild Oak Boy RTU 105 Rehab, 9/20/2019 6:29 AM Shea Shoun, 1:1 ANS full bleed B (17.00 x 11.00 inches), MC-2016.stb

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.

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



1. INSTALL ± 25 LF NEW ELECTRICAL SERVICE W/ CONDUIT.
2. 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.
3. 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.
4. WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER AND/OR LINER REPAIR.
5. INSTALL NEW METER, BPA, & HOSE BIBB ASSEMBLY PER DETAIL. FIELD LOCATE WITH MANATEE COUNTY PERSONNEL. (± 10 LF)
6. REMOVE THE EX. CONC. BANJO PEDESTAL FOR THE METER & DISCONNECT ENCLOSURES OUTSIDE THE FENCE AREA.
7. REMOVE & REINSTALL THE EX. PVC FENCE ; EXTEND FENCE 3 LF TO THE SOUTH; 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.

INSTALL FIBERGLASS W.W. LINER	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, 4"
NEW BASE ELL	4" BPIU-14
LOWER TOP OF WET WELL:	YES, $\pm 2.80'$
RAISE TOP OF VALVE VAULT:	NA
REPLACE WET WELL VENT PIPE	YES
UPGRADE BPA TO STANDARD, US-15	YES
RELOCATE WATER SERVICE ASSEMBLY	YES

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.



THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

**SATELLITE LIFT STATION R&R
2018 GROUP 2**

WILD OAK BAY, RTU 105 REHAB

DATE								
BY								
REVISION DESCRIPTION								
NO.								
PROJECT #	402-0019707/ 5005124							
SURVEY #	-							
SEC./TWN./RGE	21/35/17							
SCALE	N.T.S.							
CHECKED BY					DATE			
SURVEYED					-			
DRAWN					9/20/18			
CHECKER	J. SHEA SHOUN				9/20/18			
FLORIDA P.E. #	60923				60923			
Signature	Date							

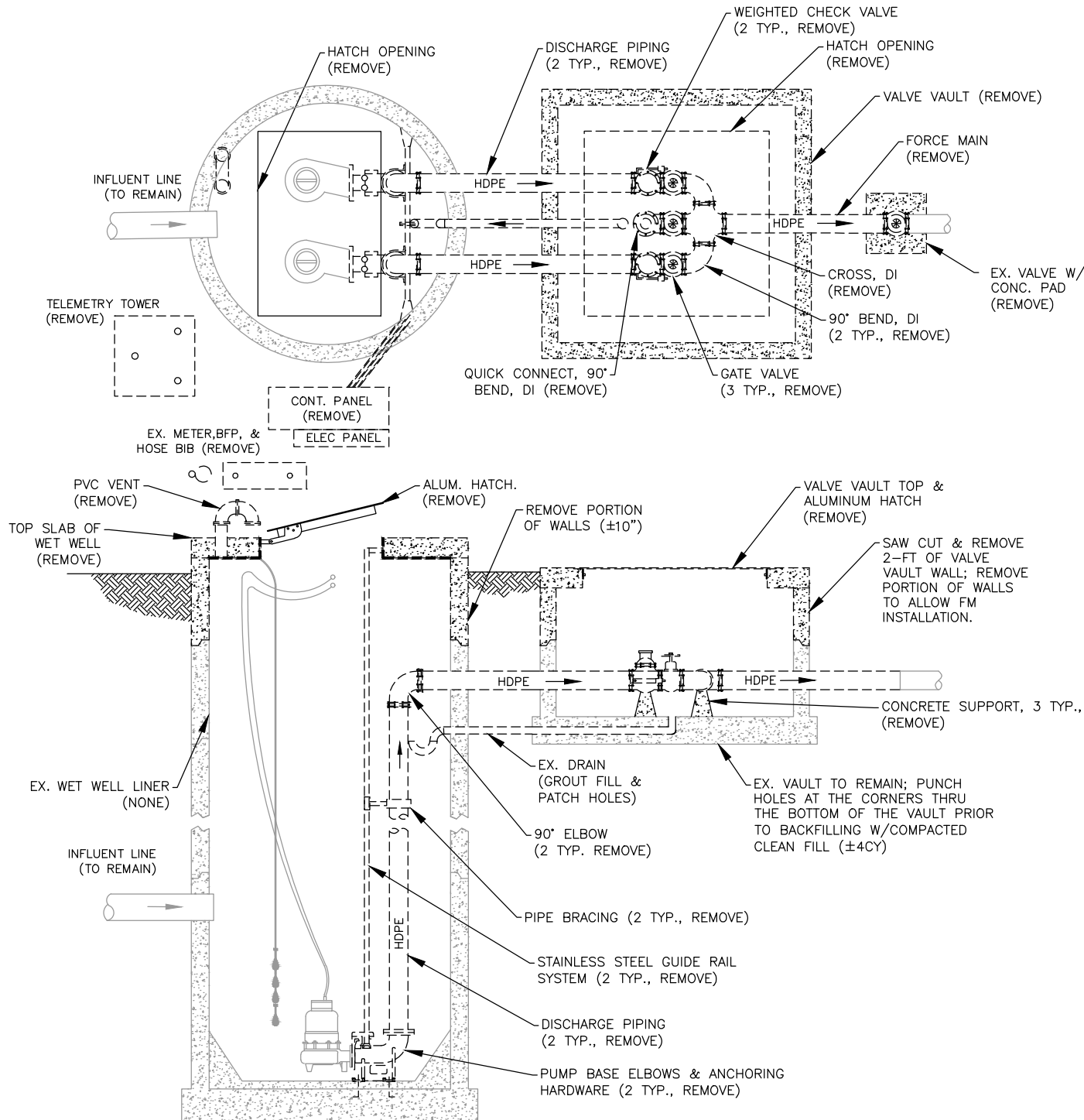
EXISTING

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)	114
DESIGN CAPACITY GPM/TDH	325/62.5
DISCHARGE PIPING DIAMETER	4"
WET WELL DIAMETER	6'
BOTTOM SLAB ELEVATION	4.44
TOP ELEVATION	22.80
VALVE VAULT HATCH ELEVATION	22.80
INFLUENT INVERT ELEVATION	12.70
INFLUENT PIPE SIZE	10"
FORCE MAIN DIAMETER	8"
WET WELL VENT PIPE	PVC
ELECT. SERVICE SIZE, AMPS	100
ELECT. POWER, VOLTS/PH	230/3

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

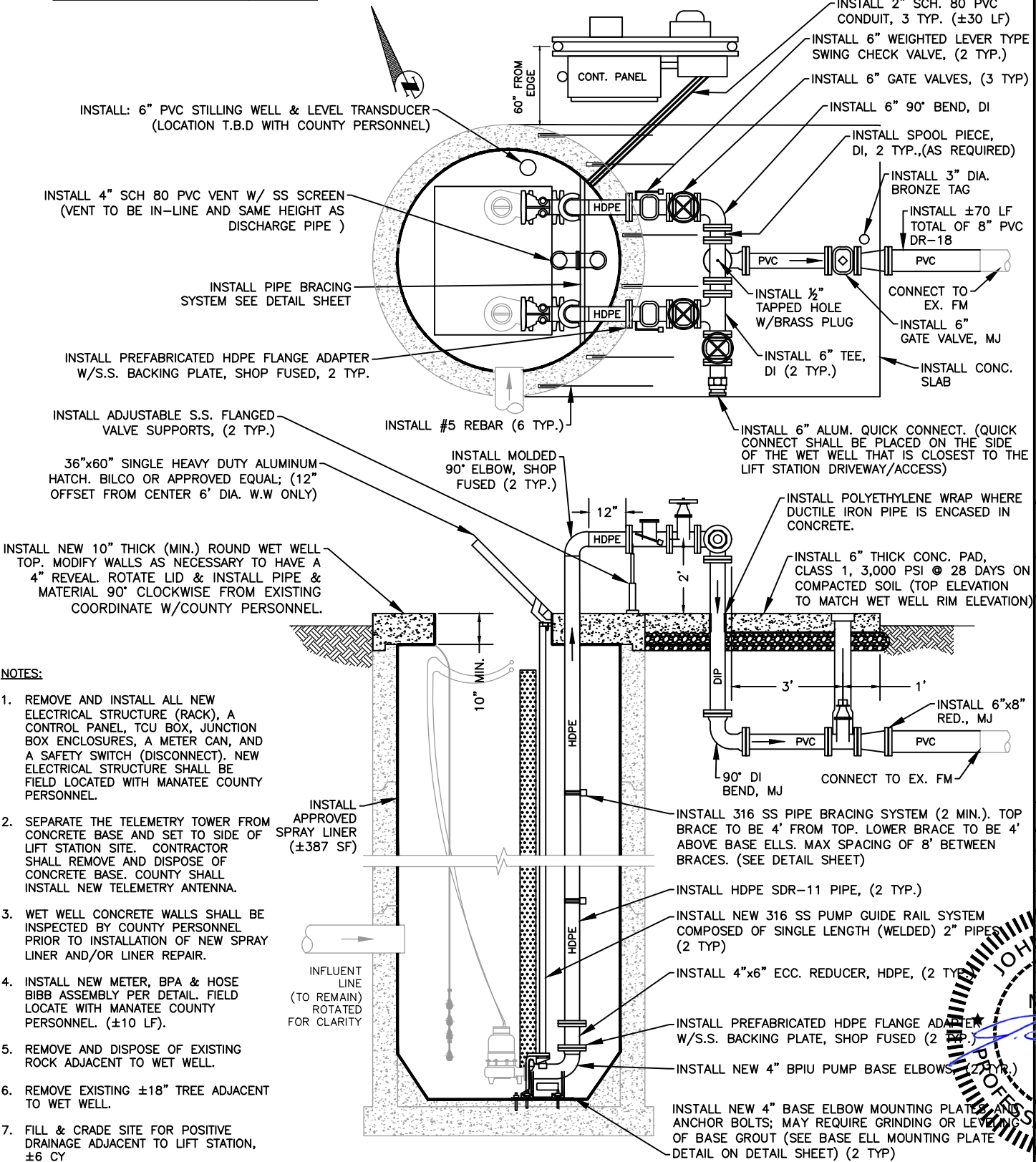


PROPOSED

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
LOWER TOP OF WET WELL:	YES, 10"
RAISE TOP OF VALVE VAULT:	NA
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. WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER AND/OR LINER REPAIR.
- 4. INSTALL NEW METER, BPA & HOSE BIBB ASSEMBLY PER DETAIL. FIELD LOCATE WITH MANATEE COUNTY PERSONNEL. (±10 LF).
- 5. REMOVE AND DISPOSE OF EXISTING ROCK ADJACENT TO WET WELL.
- 6. REMOVE EXISTING ±18" TREE ADJACENT TO WET WELL.
- 7. FILL & GRADE SITE FOR POSITIVE DRAINAGE ADJACENT TO LIFT STATION, ±6 CY

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

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2018 GROUP 2

WILD WOOD SPRINGS 1, RTU 114 REHAB

NO.	DATE	BY	REVISION DESCRIPTION

PROJECT # 402-0019707/5005123

SURVEY # -

SEC./TWN./RGE 09/35/17

SCALE N.T.S.

DATE -

SURVEYED BY -

DESIGNED BY -

DRAWN BY -

RECHECKED BY -

DATE 9/20/19

STATE OF FLORIDA

PROFESSIONAL ENGINEER

Signature

Date

SHEET 07 OF 14

H: Util Eng Design PROJ ~ SAN SWR Proj, San Swr- IS Upgrades / SLS R&R 2018 Group 2 DWGS/ SLS R&R 2018 Group 2 dwg.08 Coral Shores W RTU 120 Rehab, 9/20/2019 6:29 AM Sheq Shown, 1:1" ANSI full bleed B (17.00 x 11.00 inches), MC-2016.stb

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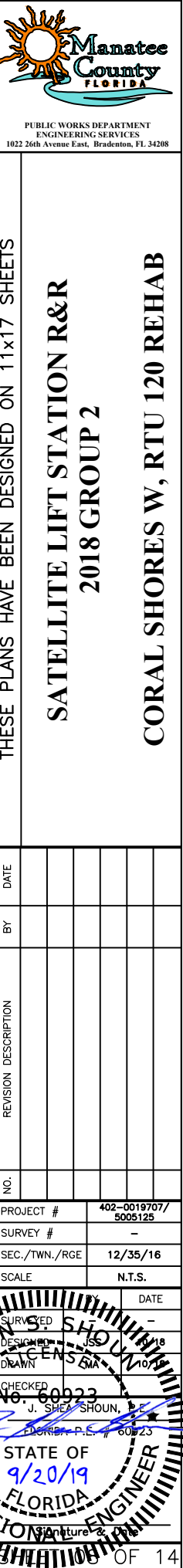
* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2018) & FROM MEASUREMENT TAKEN ON SITE. DATUM OF ELEVATIONS IS UNKNOWN.



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 CONFIGURED AND LOCATED WITH MANATEE COUNTY PERSONNEL.
2. EXTEND THE NEW GENERATOR RECEPTACLE TO OUTSIDE THE FENCE AREA AND MOUNT ON A 3" SS SCH 40 POST, (± 7 LF).
3. INSTALL WASHED SHELL (± 30 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 VAULT. COORDINATE WITH MANATEE COUNTY PERSONNEL.
4. 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.
5. WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER AND/OR LINER REPAIR.
6. RELOCATE METER, BFP, & HOSE BIBB ASSEMBLY. FIELD LOCATE WITH MANATEE COUNTY PERSONNEL. (± 10 LF); RELOCATION SHALL INCLUDE A NEW HOSE BIB CONC. FILLED PVC POST.

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:	NO
RAISE TOP OF VALVE VAULT:	NA
REPLACE WET WELL VENT PIPE	YES
UPGRADE BPA TO STANDARD, US-15	NO
RELOCATE WATER SERVICE ASSEMBLY	YES

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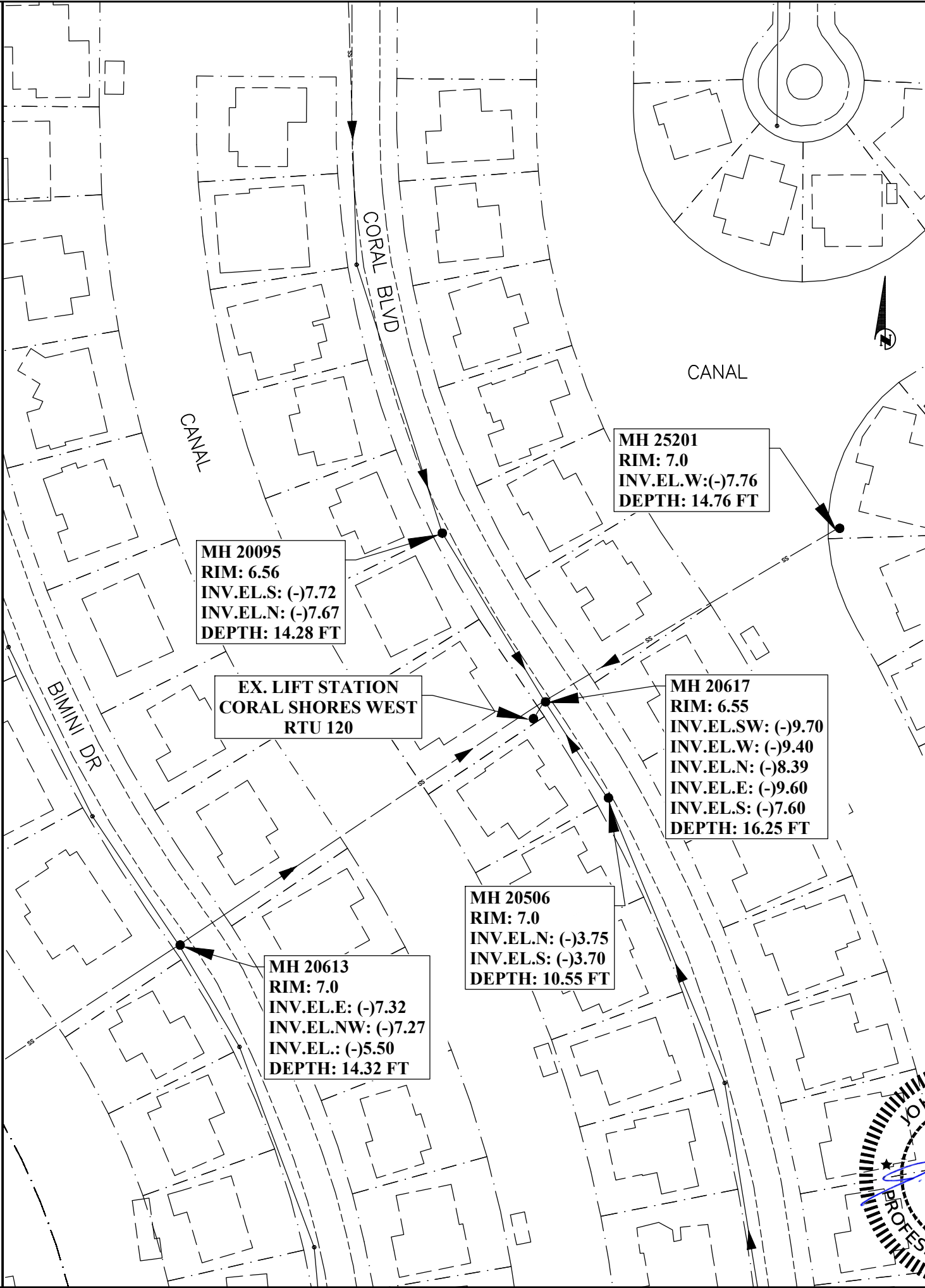
COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT | H:\Utility Eng Design\PROJ\CSW R&R 2018 Group 2\Updates\SS R&R 2018 Group 2.dwg,09 Coral Shores West RTU 120 MH Rehab, 9/20/2019 6:23 AM Shee Shoun, L1, ANSI full bleed B (17.00 x 11.00 inches), MC-2018.tb




CORAL SHORES WEST, RTU 120,
4808 CORAL BLVD., BRADENTON

NOTES:

1. THIS PLAN SHEET HAS BEEN PREPARED FOR THE SOLE PURPOSE OF REHABILITATING EXISTING MANHOLES. ALL DATA SHALL BE VERIFIED, IF USED FOR OTHER PURPOSE.
2. MANHOLE ELEVATIONS WERE TAKEN FROM EXISTING RECORD DRAWINGS FOUND IN THE COUNTY'S RECORD DRAWING REPOSITORY (#02556.003, #02556.007 & #00336.004).
3. THE DATUM OF THE RECORD DRAWING IS BELIEVED TO BE NGVD 29.
4. ALL INDICATED MANHOLES SHALL BE COMPLETELY REHABILITATED, LINED, AND SHALL RECEIVE NEW HEAVY-DUTY COMPOSITE RING & COVERS; (CAP-ONE BY COMPOSITE ACCESS PRODUCTS OR ATG-2400 BY AQUATECHNOLOGY).
5. CONTRACTOR SHALL USE AN APPROVED LINING MATERIAL LISTED IN THE APPROVED MATERIAL PRODUCT LIST AS PROVIDED BY THE COUNTY.





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

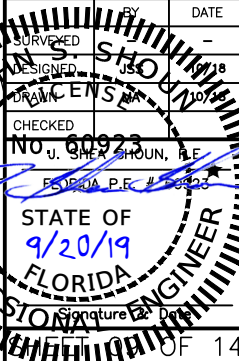
THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

**SATELLITE LIFT STATION R&R
2018 GROUP 2**

CORAL SHORES WEST, RTU 120 MH REHAB

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	402-0019707/5005127
SURVEY #	-
SEC./TWN./RGE	16/35/17
SCALE	N.T.S.
CHECKED	DATE
DESIGNED	DATE
DRAWN	DATE
SURVEYED	DATE



STATE OF
9/20/19
FLORIDA
ENGINEER

Signature: J. Shoun

OF 14

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.

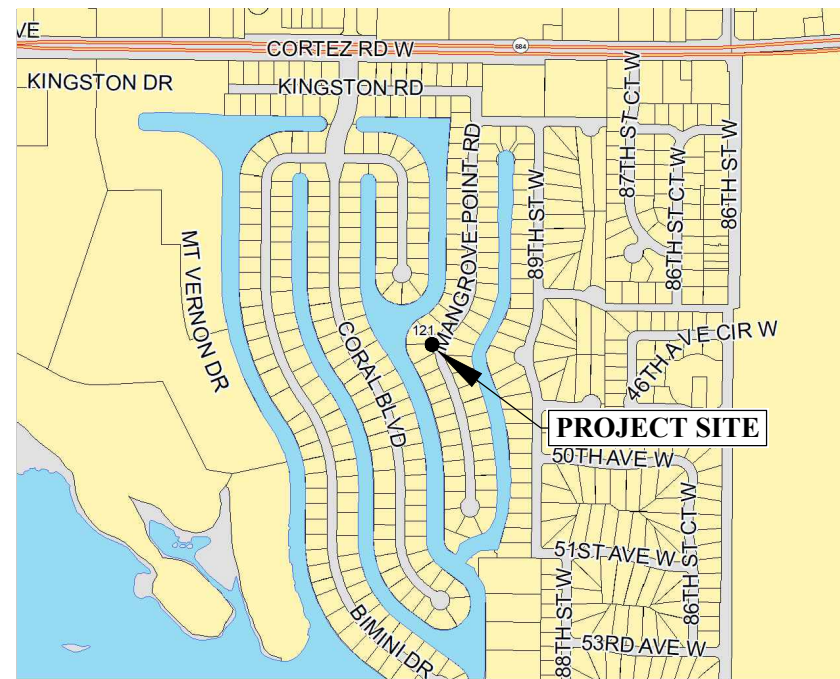
* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2018) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.

ELECTRICAL STRUCTURE NOT SHOWN IN ACTUAL LOCATION
 CONT. PANEL
 60" FROM EDGE
 INSTALL 4" SCH 80 PVC VENT W/ SS SCREEN (VENT TO BE IN-LINE AND SAME HEIGHT AS DISCHARGE PIPE)
 INSTALL PIPE BRACING SYSTEM SEE DETAIL SHEET
 INSTALL PREFABRICATED HDPE FLANGE ADAPTER W/S.S. BACKING PLATE, SHOP FUSED, 2 TYP.
 INSTALL #5 REBAR (6 TYP.)
 INSTALL MOLDED 90° ELBOW, SHOP FUSED (2 TYP.)
 INSTALL ADJUSTABLE S.S. FLANGED VALVE SUPPORTS, (2 TYP.)
 36"x48" SINGLE HEAVY DUTY ALUMINUM HATCH. BILCO OR APPROVED EQUAL; (12" OFFSET FROM CENTER 6' DIA. W.W ONLY)
 INSTALL NEW 10" THICK ROUND WET WELL TOP; MODIFY WALLS AS NECESSARY TO HAVE 4" REVEAL
 TALL ±20 LF NEW ELECTRICAL SERVICE W/ CONDUIT.
 MOVE 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 ON NORTH SIDE OF WET WELL.
 TALL (2)-1φ TO 3φ CONVERTER IN CONTROL PANEL. CONTRACTOR TO OBTAIN SHOP DRAWING FOR APPROVAL.
 SEPARATE THE TELEMETRY TOWER FROM CONCRETE BASE AND SET TO SIDE OF LIFT STATION SITE. CONTRACTOR SHALL REMOVE AND REPOSE OF CONCRETE BASE. COUNTY SHALL INSTALL NEW TELEMETRY ANTENNA.
 WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER AND/OR LINER PAIR.
 TALL NEW METER, BPA, & HOSE ASSEMBLY PER DETAIL. FIELD LOCATE WITH MANATEE COUNTY PERSONNEL. (±10 LF)
 DETECT EX. LANDSCAPING. IF MOVED, REPLACE W/LIKE.

CONDUIT, 3 TYP. (±30 LF)
 INSTALL 4" WEIGHTED LEVER TYPE SWING CHECK VALVE, (2 TYP.)
 INSTALL 4" GATE VALVE, 3 TYP.
 INSTALL 4" 90° BEND, 3 TYP.
 INSTALL SPOOL PIECE DI, 2 TYP., (AS REQUIRED)
 INSTALL 3" DIA. BRONZE TAG
 INSTALL ±10 LF TOTAL OF 4" PVC DR-18
 CONNECT TO EX. FM
 INSTALL 4" GATE VALVE, MJ
 INSTALL CONC. SLAB
 INSTALL 4" TEE, DI (2 TYP.)
 INSTALL 1/2" TAPPED HOLE W/BRASS PLUG
 INSTALL 4" ALUM. QUICK CONNECT. (QUICK CONNECT SHALL BE PLACED ON THE SIDE OF THE WET WELL THAT IS CLOSEST TO THE LIFT STATION DRIVEWAY/ACCESS)
 INSTALL POLYETHYLENE WRAP WHERE DUCTILE IRON PIPE IS ENCASED IN CONCRETE.
 INSTALL 6" THICK CONC. PAD, CLASS 1, 3,000 PSI @ 28 DAYS ON COMPACTED SOIL (TOP ELEVATION MATCH WET WELL RIM ELEVATION)
 12"
 2"
 10" MIN.
 3'
 1'
 90° DI BEND, MJ
 CONNECT TO EX. FM
 INSTALL 316 SS PIPE BRACING SYSTEM (2 MIN.). TOP BRACE TO BE 4' FROM TOP. LOWER BRACE TO BE 4' ABOVE BASE ELLS. MAX SPACING OF 8' BETWEEN BRACES. (SEE DETAIL SHEET)
 INSTALL HDPE SDR-11 PIPE, (2 TYP.)
 INSTALL NEW 316 SS PUMP GUIDE RAIL SYSTEM COMPOSED OF SINGLE LENGTH (WELDED) 2" PIPES (2 TYP.)
 INSTALL PREFABRICATED HDPE FLANGE ADAPTER W/S.S. BACKING PLATE, SHOP FUSED (2 TYP.)
 INSTALL NEW 4" BPIU PUMP BASE ELBOWS, (2 TYP.)
 INSTALL NEW 4" BASE ELBOW MOUNTING PLATES AND ANCHOR BOLTS; MAY REQUIRE GRINDING OR LEVELING OF BASE GROUT (SEE BASE ELL MOUNTING PLATE DETAIL ON DETAIL SHEET) (2 TYP.)

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.

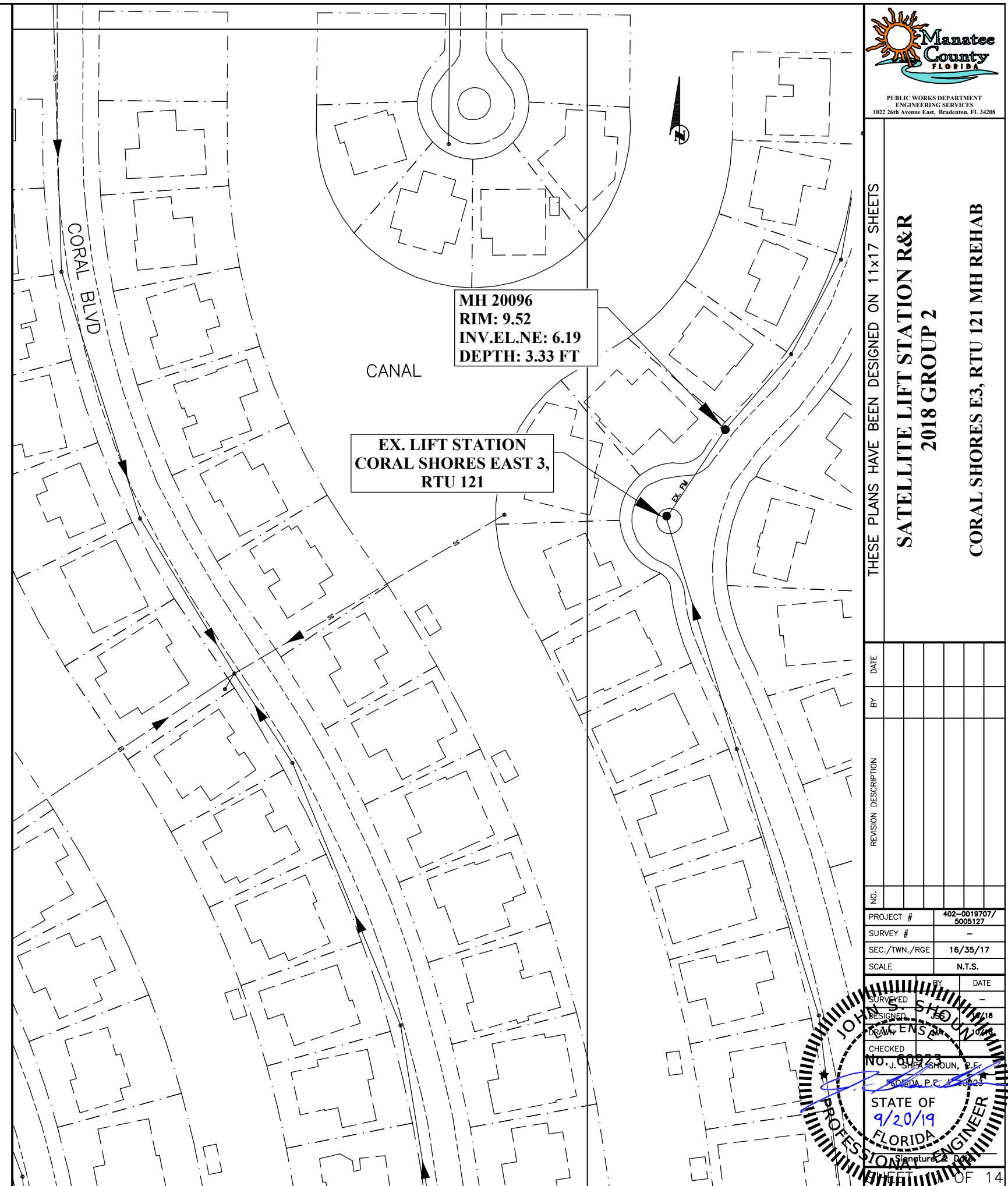
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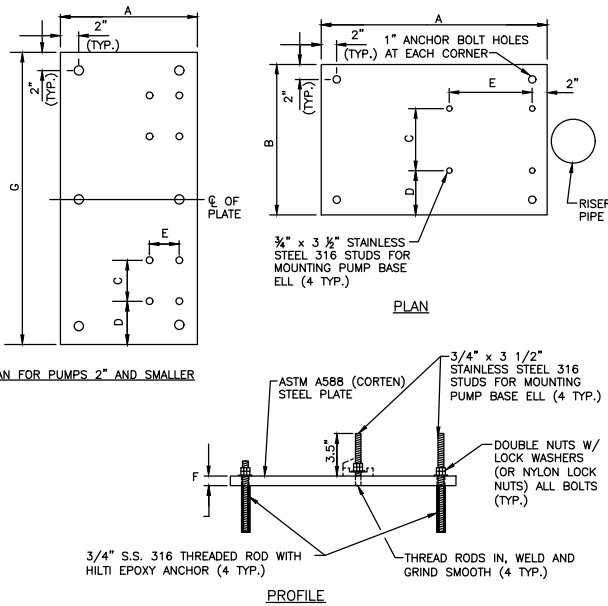
CORAL SHORES EAST 3, RTU 121,
4706 MANGROVE POINT ROAD, BRADENTON

NOTES:

1. THIS PLAN SHEET HAS BEEN PREPARED FOR THE SOLE PURPOSE OF REHABILITATING EXISTING MANHOLES. ALL DATA SHALL BE VERIFIED, IF USED FOR OTHER PURPOSE.
2. MANHOLE ELEVATIONS WERE TAKEN FROM EXISTING RECORD DRAWINGS FOUND IN THE COUNTY'S RECORD DRAWING REPOSITORY (#01955).
3. THE DATUM OF THE RECORD DRAWING IS BELIEVED TO BE NGVD 29.
4. ALL INDICATED MANHOLES SHALL BE COMPLETELY REHABILITATED, LINED, AND SHALL RECEIVE NEW HEAVY-DUTY COMPOSITE RING & COVERS; (CAP-ONE BY COMPOSITE ACCESS PRODUCTS OR ATG-2400 BY AQUATECHNOLOGY).
5. CONTRACTOR SHALL USE AN APPROVED LINING MATERIAL LISTED IN THE APPROVED MATERIAL PRODUCT LIST AS PROVIDED BY THE COUNTY.



COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT [H:\Util Eng Design\PROJ\CSAN SWR Proj\San Swr - US Upgrade\SSLS R&R 2018 Group 2.dwg, 13 Details, 9/20/2019 6:30 AM Sha Shaun, 11, ANSI full bleed B (17.00 x 11.00 inches), WC-2016.dbt



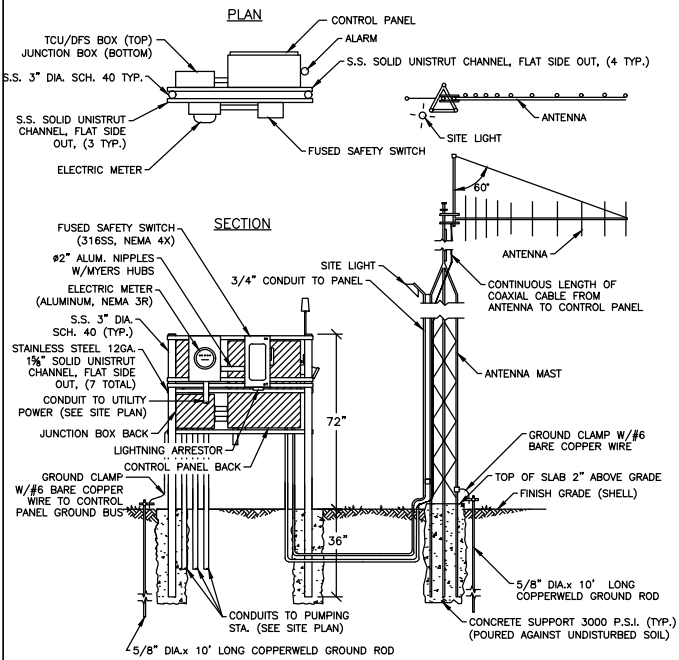
PUMP BASE ELL MOUNTING PLATE DIMENSIONS							
DIMENSIONS	A	B	C	D	E	F	G
FOR 6" PUMPS	24"	20"	8.25"	5.875"	11"	3/4"	N/A
FOR 4" PUMPS	20"	16"	6"	5"	10"	1/2"	N/A
2" PUMPS & SMALLER	15"	N/A	4.5"	4.75"	3.25"	1/2"	32"

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

MANATEE COUNTY PUBLIC WORKS DEPARTMENT			PUMP BASE ELL MOUNTING PLATE	US-22
REV.	BY	DATE		

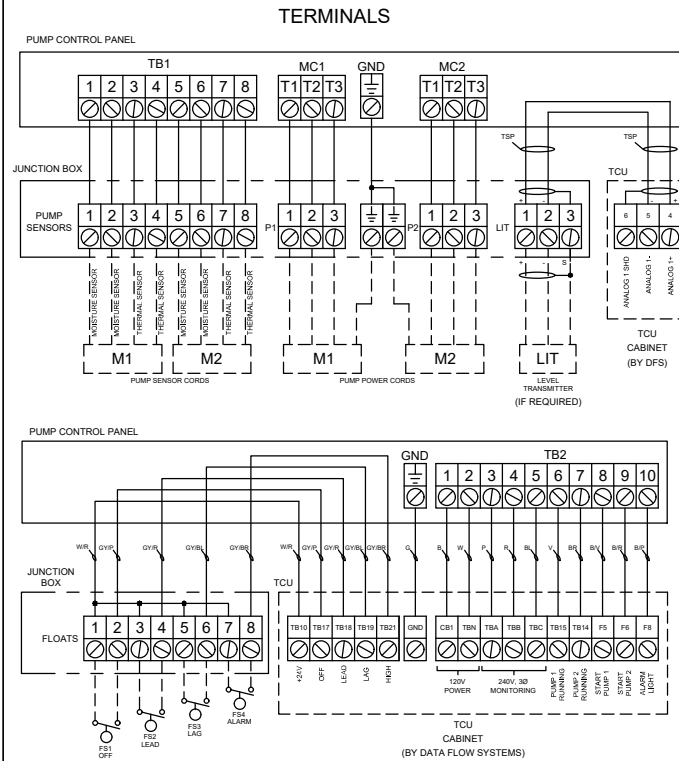
PUMP CONTROL PANEL BILL OF MATERIALS			
QTY.	ABBR.	DESCRIPTION	MANUFACTURER, PART#
1	ENC	ENCLOSURE, 304SS N3R/12 (WHITE)	HOFFMAN, A36H012SLP-P8743 (MINIMUM SIZE)
1	MCB	MAIN CIRCUIT BREAKER	SQ.D. (SIZE AS REQUIRED - 100A MIN.)
1	ECB	EMERGENCY CIRCUIT BREAKER	SQ.D. (SIZE AS REQUIRED - 100A MIN.)
2	PCB1,2	PUMP CIRCUIT BREAKER	SQ.D. (SIZE AS REQUIRED)
1	CCB	CONTROL CIRCUIT BREAKER	SQ.D. OOU115
1	RTUCB	RTU CIRCUIT BREAKER	SQ.D. OOU115
1	GFICB	GFI CIRCUIT BREAKER	SQ.D. OOU120
1	SLCB	SITE LIGHT CIRCUIT BREAKER	SQ.D. OOU120
2	MC1,2	SOLID STATE CONTACTOR + HEAT SINK	CRYDOM, A53TP (SIZE AS REQUIRED)
2	CR1,2	CURRENT RELAY + HEAT SINK	CRYDOM, CWA2410 + HS501DR + HSP-2
2	OL1,2	OVERLOAD RELAY	SIEMENS, ESP200 (SIZE AS REQUIRED)
1	GR	GENERATOR RECEPTACLE	RUSSELL STOLL, JRSB1044FR (230V, 100A)
1	SPD	SURGE PROTECTOR	RUSSELL STOLL, JRSB2044FR (230V, 200A)
8	CT1-6	CURRENT TRANSFORMER .5	DITEK, DTK-2403CMA+ (SIZE AS REQUIRED)
2	AS1,2	AMMETER SELECTOR SWITCH	SPRECHER & SCHUH, LE2-12-8751
2	AM1,2	AMMETER D- A	CROMPTON, 013-75AA-LS -C6-B3 (SIZE AS REQD)
5	F1-5	FUSE, 1A	FERRAZ, ATMR-1
1	GFI	120V RECEPTACLE	PASS & SEYMOUR, 1597-I
1	ML	MAINTENANCE LIGHT, LED	HOFFMAN, LEDA1S35
2	SFM1,2	SEAL FAIL MODULE	SYRELEC, PNRU-110A
2	IL	INDICATING LIGHT, RED LED	EATON, C22-L-XR-120
1	ASB	ALARM SILENCE BUTTON	SQ.D. 9001-SKR1BHS
1	F	FLASHER	INGRAM, SSF-150W
1	AL	ALARM LIGHT, 120V LED	FEDERAL, LP3PL-120R

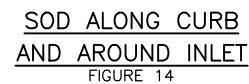
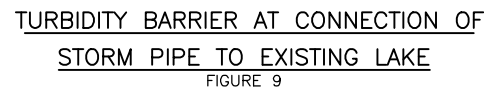
WIRE COLOR CODE	
SYMBOL	COLOR
B	BLACK
W	WHITE
G	GREEN
B/L	BLUE
R	RED
P	PINK
V	VIOLET
B/R	BROWN
B/R	BLACK/RED
B/V	BLACK/VIOLET
B/P	BLACK/PINK
G/P	GREEN/PINK
G/R	GREEN/RED
G/B	GREEN/BLUE
G/Y	GREEN/YELLOW
W/B	WHITE/BLACK
W/Y	WHITE/YELLOW
W/R	WHITE/RED
W/G	WHITE/GREEN
W/B	WHITE/BLUE



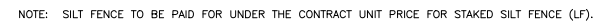
- NOTES:
- ALL EQUIPMENT FURNISHED FOR THE PUMP STATION SHALL CONFORM TO MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.
 - POWER TO BE SUPPLIED AS DIRECTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH PROVIDING TEMPORARY AND PERMANENT ELECTRICAL SERVICE.
 - STAINLESS STEEL CONTROL PANEL SUPPORT POSTS SHALL BE TREATED WITH TWO COATS OF BITUMINOUS EPOXY TO 16 MILS WHERE EMBEDDED IN CONCRETE.
 - CONTROL AND FLOW METER ENCLOSURE TO BE NEMA 3R/12 304 STAINLESS STEEL WITH RAIN SHIELD, DISCONNECT ENCLOSURE TO BE NEMA 4X STAINLESS STEEL.
 - ALL P.V.C. CONDUIT SHALL BE SCHEDULE 80.
 - ANTENNA MAST SHALL BE RATED FOR 150 MPH WINDS.
 - IF ANTENNA MAST IS MORE THAN 18\"/>

MANATEE COUNTY PUBLIC WORKS DEPARTMENT			SEWAGE PUMP STATION METER & ELECTRICAL DETAILS	US-23
REV.	BY	DATE		

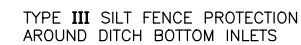
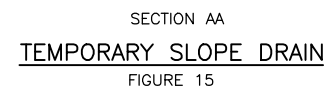
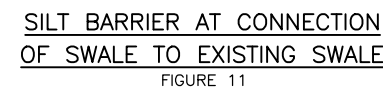
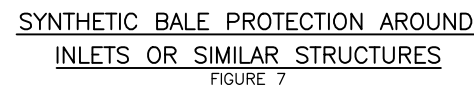




NOTE:
REFERENCE THE FDOT DESIGN STANDARDS
LATEST EDITION FOR ALL TEMPORARY
EROSION CONTROL MEASURES.



TYPICAL SILT FENCE
FIGURE 2



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

[illegible]