

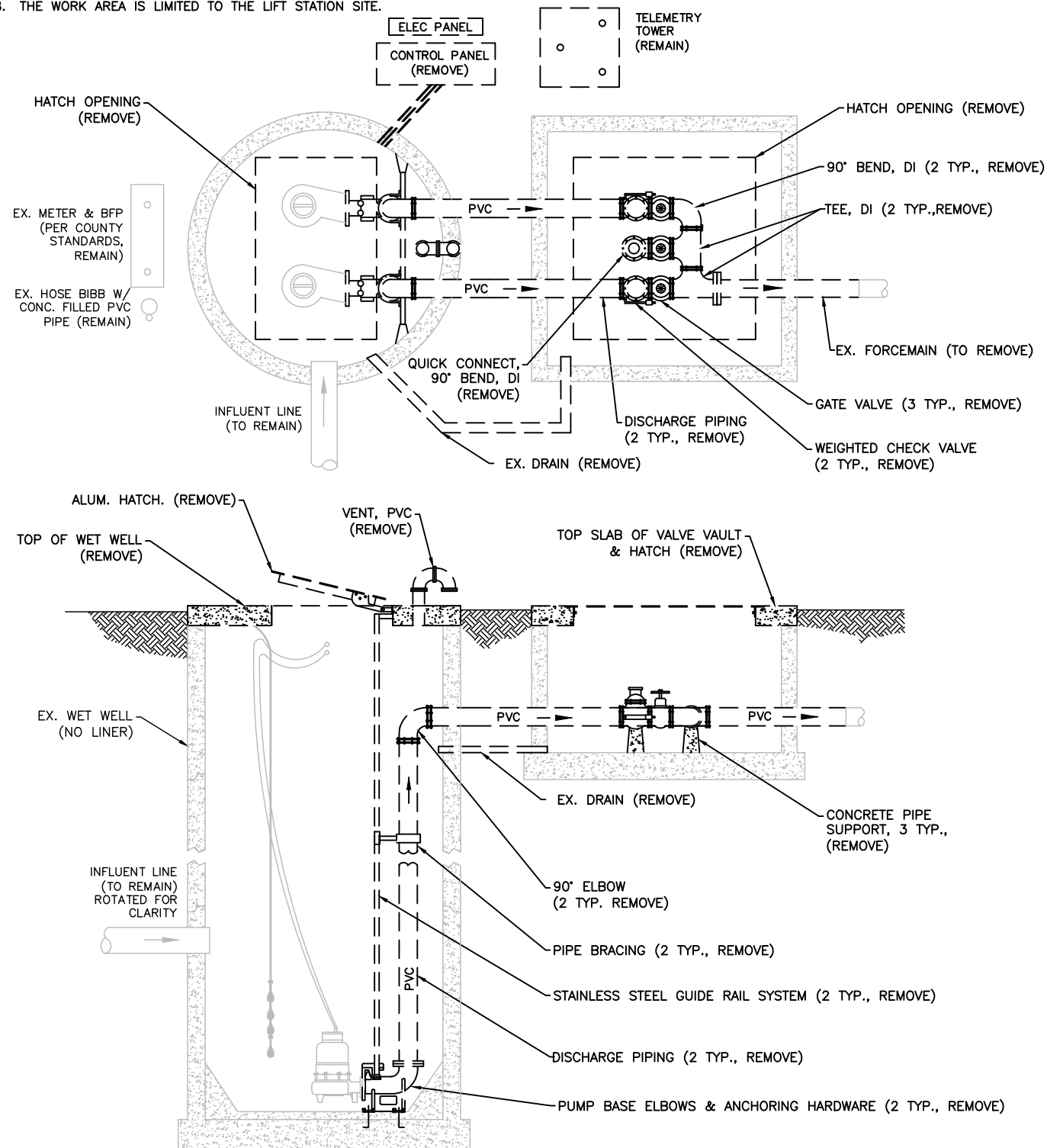
EXISTING

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)	314
DESIGN CAPACITY GPM/TDH	500/140
DISCHARGE PIPING DIAMETER	4"
WET WELL DIAMETER	6'
BOTTOM SLAB ELEVATION**	0.00
TOP ELEVATION**	14.83
VALVE VAULT HATCH ELEVATION**	14.83
INFLUENT INVERT ELEVATION**	UNK.
INFLUENT PIPE SIZE	10"
FORCE MAIN DIAMETER	4"
WET WELL VENT PIPE	PVC
ELECT. SERVICE SIZE, AMPS	60
ELECT. POWER, VOLTS/PH	230/1

* DATUM OF ELEVATIONS IS UNKNOWN
** NUMBERS ESTIMATED

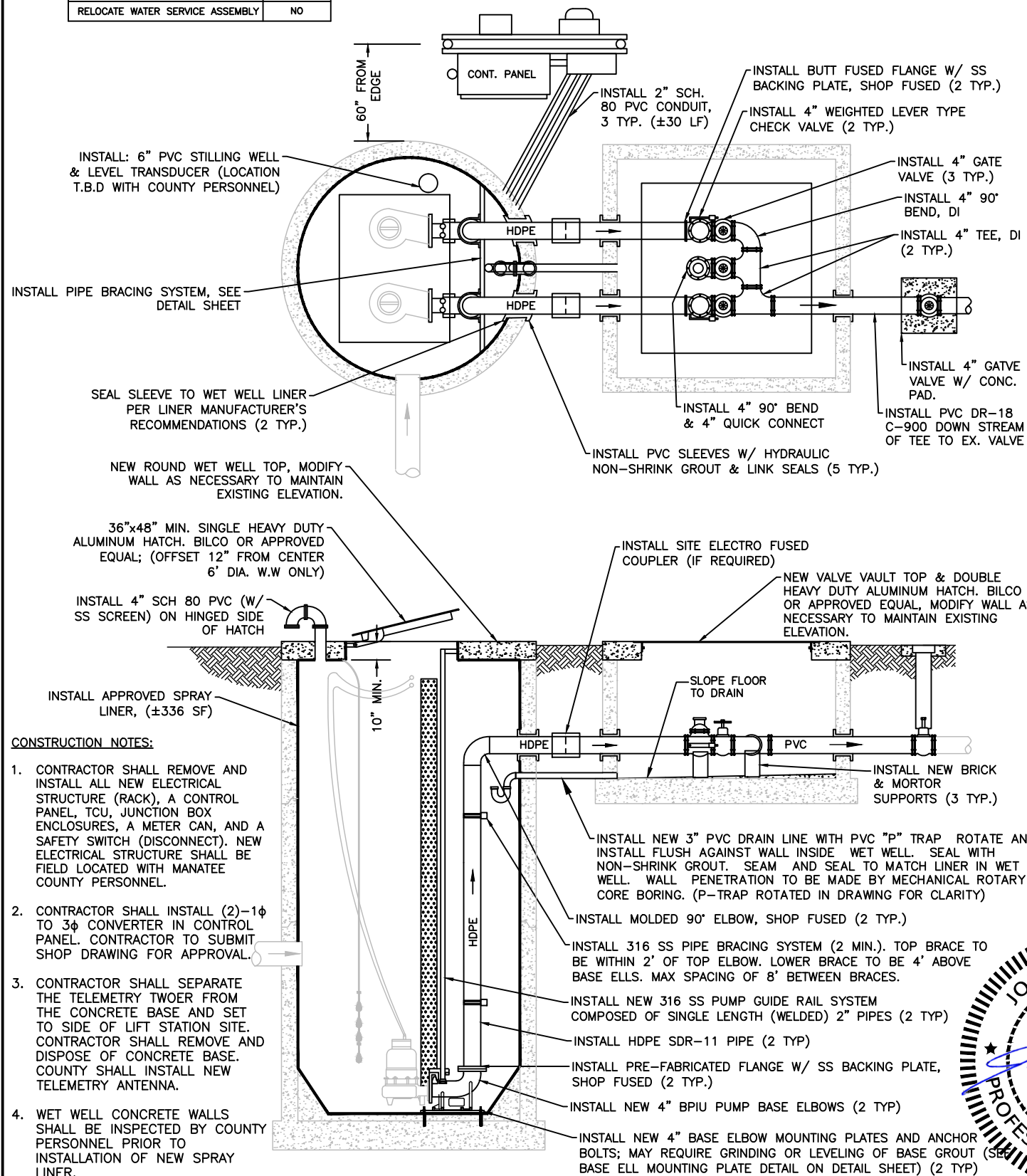


PROPOSED

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

GENERAL NOTES:

1. CONTRACTOR SHALL NOT BACKFILL OVER ELECTROFUSED COUPLINGS UNTIL INSPECTOR HAS VISUALLY CHECKED FOR LEAKS DURING PUMP STARTUP OR PRESSURE TEST AS DIRECTED BY THE COUNTY.
2. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.
3. 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.
4. ALL EXISTING DUCTILE IRON PIPE AND/OR FITTINGS LABELED TO REMAIN IN THE VALVE VAULT SHALL BE COATED WITH A BITUMINOUS COATING.
5. CONTRACTOR SHALL COAT THE EXTERIOR AND INTERIOR OF THE VALVE VAULT WALLS WITH TWO (2) COATS OF COAL TAR EPOXY.
6. ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM, MISCELLANEOUS WORK.



CONSTRUCTION NOTES:

1. CONTRACTOR SHALL REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), A CONTROL PANEL, TCU, JUNCTION BOX ENCLOSURES, A METER CAN, AND A SAFETY SWITCH (DISCONNECT). NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL.
2. CONTRACTOR SHALL INSTALL (2)-1φ TO 3φ CONVERTER IN CONTROL PANEL. CONTRACTOR TO SUBMIT SHOP DRAWING FOR APPROVAL.
3. CONTRACTOR SHALL SEPARATE THE TELEMETRY TOWER FROM THE 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.



THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2016 GROUP 1
HORSESHOE COVE 2, RTU 314 (REHAB)

DATE	
BY	
REVISION DESCRIPTION	
NO.	
PROJECT #	402-5135881
SURVEY #	-
SEC./TWN./RGE	10/35/18
SCALE	N.T.S.
BY	DATE
SURVEYED	
DESIGNED	
CHECKED	
NO. 00923	
J. SHEA SHOWN, P.E.	
FLORIDA P.E. # 34925	
STATE OF FLORIDA	
PROFESSIONAL ENGINEER	
OF 15	

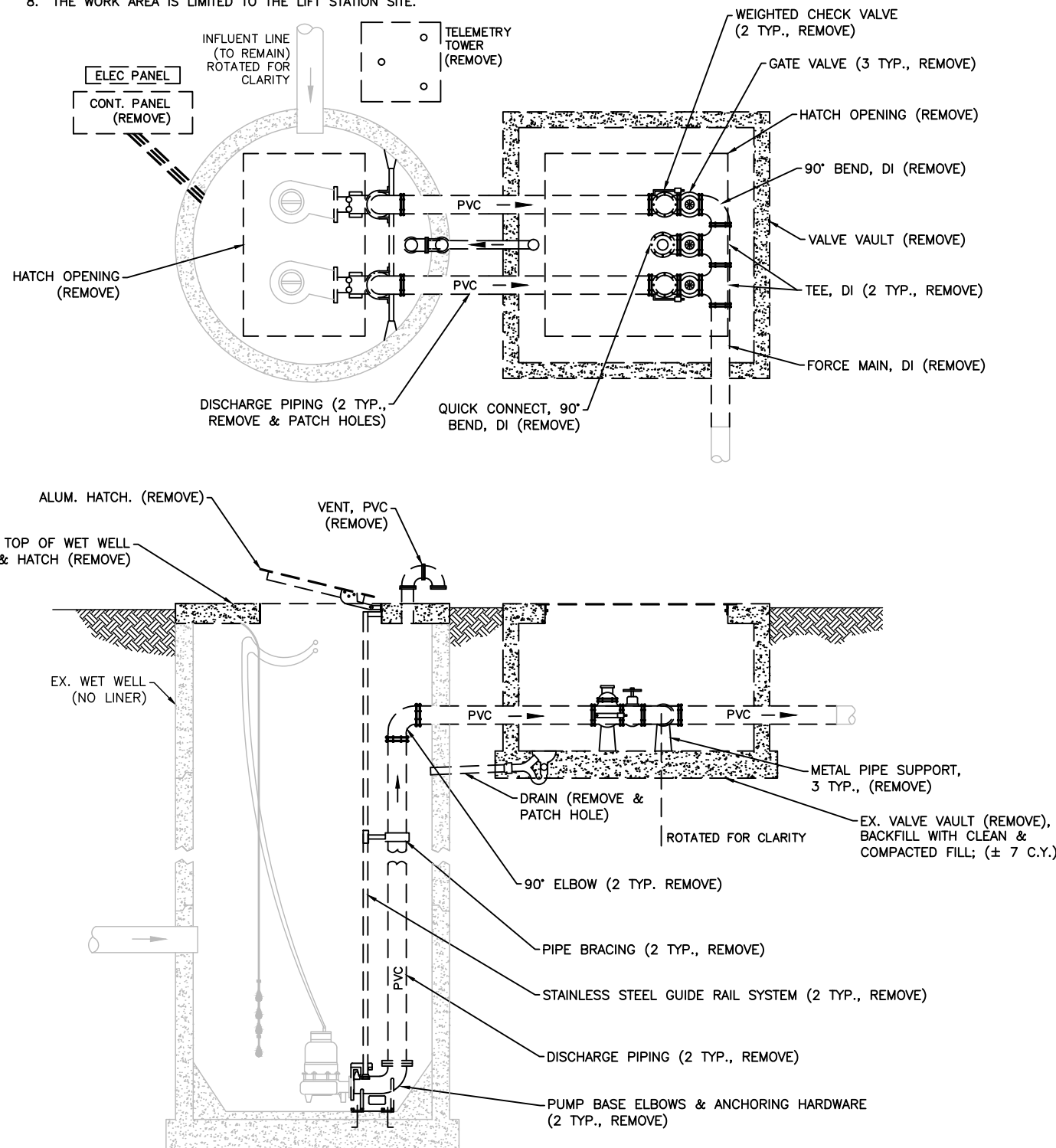
EXISTING

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)	409
DESIGN CAPACITY GPM/TD	200 / 20
DISCHARGE PIPING DIAMETER	3"
WET WELL DIAMETER	5'
BOTTOM SLAB ELEVATION**	0.00
TOP ELEVATION**	16.08
VALVE VAULT HATCH ELEVATION	16.08
INFLUENT INVERT ELEVATION**	UNK.
INFLUENT PIPE SIZE	12"
FORCE MAIN DIAMETER	4"
WET WELL VENT PIPE	PVC
ELECT. SERVICE SIZE, AMPS	60
ELECT. POWER, VOLTS/PH	230/1

* DATUM OF ELEVATIONS IN UNKNOWN.
** NUMBERS ESTIMATED.

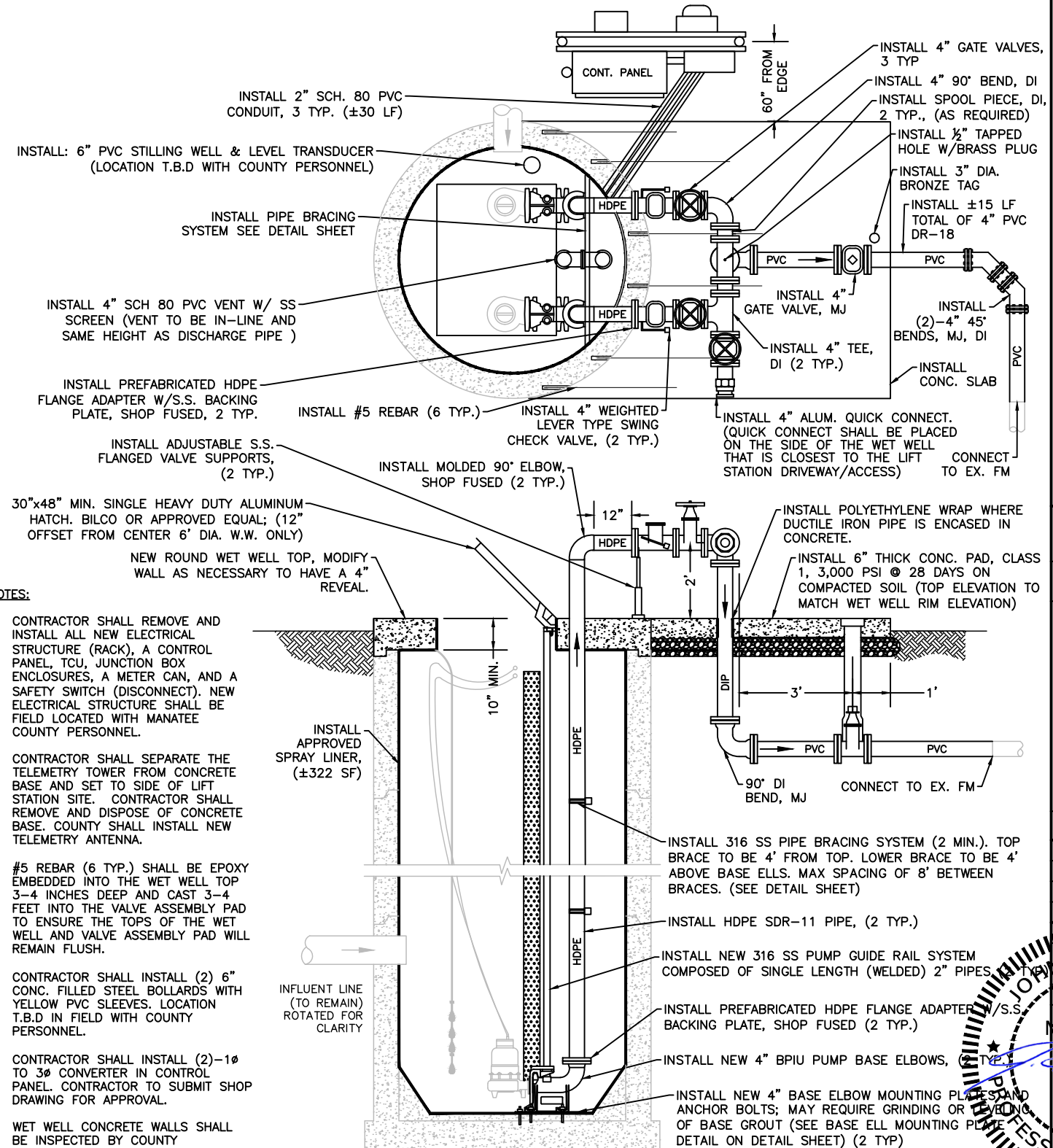


PROPOSED

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

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. CONTRACTOR SHALL REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), A CONTROL PANEL, TCU, JUNCTION BOX ENCLOSURES, A METER CAN, AND A SAFETY SWITCH (DISCONNECT). NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL.
2. CONTRACTOR SHALL 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. #5 REBAR (6 TYP.) SHALL BE EPOXY EMBEDDED INTO THE WET WELL TOP 3-4 INCHES DEEP AND CAST 3-4 FEET INTO THE VALVE ASSEMBLY PAD TO ENSURE THE TOPS OF THE WET WELL AND VALVE ASSEMBLY PAD WILL REMAIN FLUSH.
4. CONTRACTOR SHALL INSTALL (2) 6" CONC. FILLED STEEL BOLLARDS WITH YELLOW PVC SLEEVES. LOCATION T.B.D IN FIELD WITH COUNTY PERSONNEL.
5. CONTRACTOR SHALL INSTALL (2)-1# TO 3# CONVERTER IN CONTROL PANEL. CONTRACTOR TO SUBMIT SHOP DRAWING FOR APPROVAL.
6. WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER.



THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2016 GROUP 1
PESCARA LAKES, RTU 409 (REHAB)

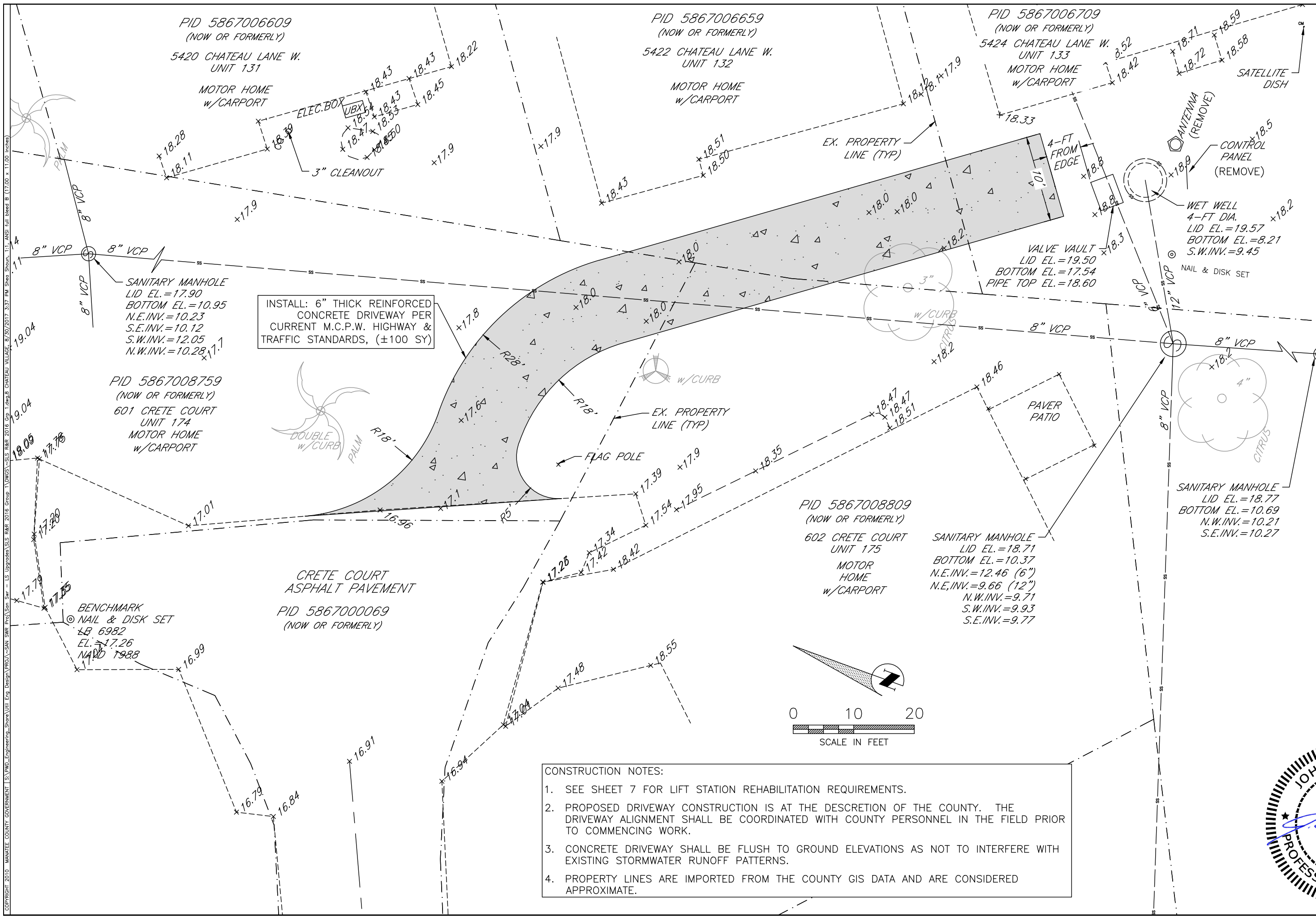
DATE	
BY	
REVISION DESCRIPTION	
NO.	
PROJECT #	402-5138780
SURVEY #	-
SEC./TWN./RGE	14/35/17
SCALE	N.T.S.
BY	DATE
SURVEYED	----
DESIGNED	8/30/17
CHECKED	8/30/17
NO. 60923	
J. SHY SHOUN, P.E.	
FLORIDA REG. # 34225	
STATE OF FLORIDA	
REGISTERED PROFESSIONAL ENGINEER	
Signature	

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

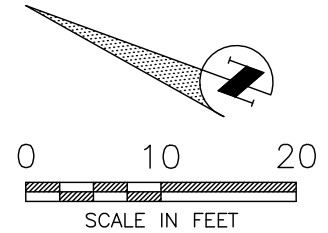
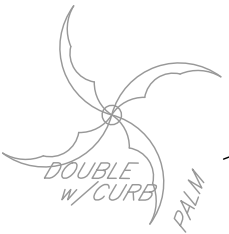
SATELLITE LIFT STATION R&R

2016 GROUP 1

CHATEAU VILLAGE, RTU 412 (SITE PLAN)



INSTALL: 6" THICK REINFORCED CONCRETE DRIVEWAY PER CURRENT M.C.P.W. HIGHWAY & TRAFFIC STANDARDS, (±100 SY)



- CONSTRUCTION NOTES:**
1. SEE SHEET 7 FOR LIFT STATION REHABILITATION REQUIREMENTS.
 2. PROPOSED DRIVEWAY CONSTRUCTION IS AT THE DESCRETION OF THE COUNTY. THE DRIVEWAY ALIGNMENT SHALL BE COORDINATED WITH COUNTY PERSONNEL IN THE FIELD PRIOR TO COMMENCING WORK.
 3. CONCRETE DRIVEWAY SHALL BE FLUSH TO GROUND ELEVATIONS AS NOT TO INTERFERE WITH EXISTING STORMWATER RUNOFF PATTERNS.
 4. PROPERTY LINES ARE IMPORTED FROM THE COUNTY GIS DATA AND ARE CONSIDERED APPROXIMATE.

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	402-5138980
SURVEY #	-
SEC./TWN./RGE	14/35/17
SCALE	N.T.S.

JOHN S. SHOUPS
PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE NO. 60923
DATE 8/30/17

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT (S:\PVD_Engineering_Share\Util_Eng_Design\PROJ\CHATEAU VILLAGE\San_Svr - LS Upgrades\SLS R&R 2016 Group 1\DWG\SLS R&R 2016 Grp 1.dwg, CHATEAU VILLAGE, 8/30/2017 3:37 PM Shea Shoups, L1, ANSI full bleed B (17.00 x 11.00 inches)

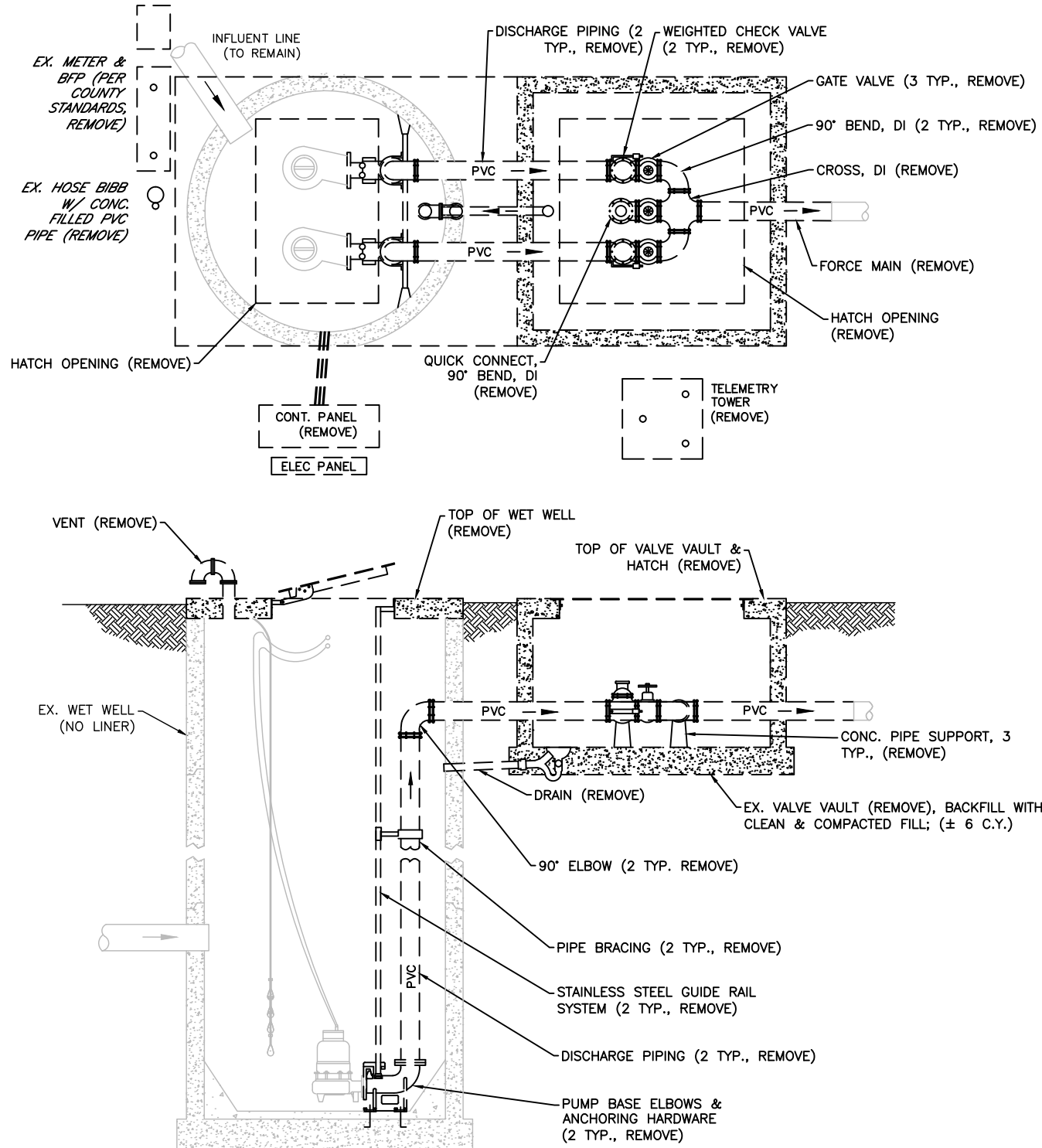
EXISTING

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)	415
DESIGN CAPACITY GPM/TDH	150 / 29
DISCHARGE PIPING DIAMETER	3"
WET WELL DIAMETER	4'
BOTTOM SLAB ELEVATION	N/A
TOP ELEVATION	N/A
VALVE VAULT HATCH ELEVATION	N/A
INFLUENT INVERT ELEVATION	N/A
INFLUENT PIPE SIZE	6"
FORCE MAIN DIAMETER	4"
WET WELL VENT PIPE	PVC
ELECT. SERVICE SIZE, AMPS	60
ELECT. POWER, VOLTS/PH	230/1

* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2016) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.

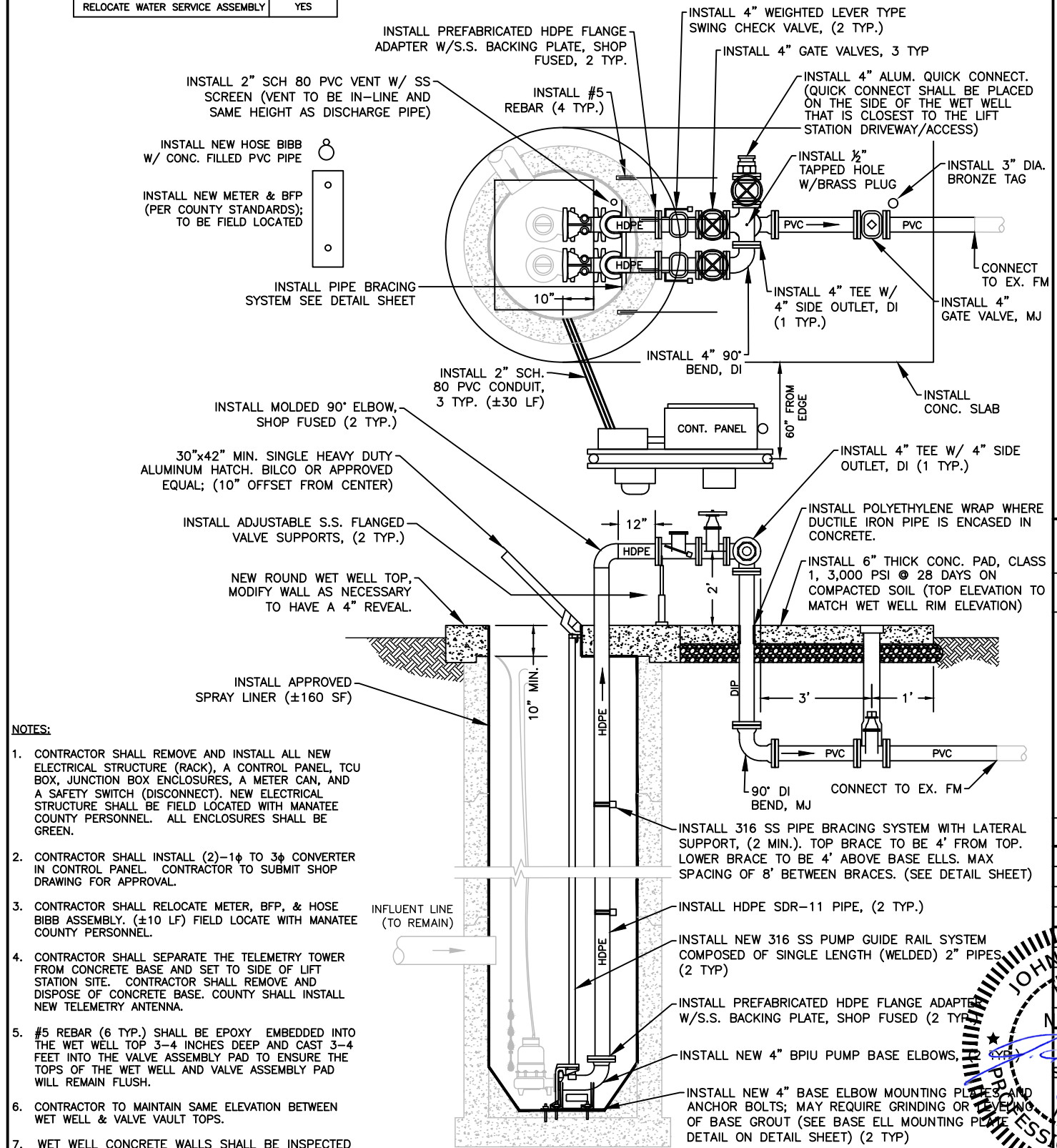


PROPOSED

INSTALL FIBERGLASS W.W. LINER	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:	NO
RAISE TOP OF VALVE VAULT:	NO
REPLACE WET WELL VENT PIPE	YES
UPGRADE BFP 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. CONTRACTOR SHALL 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. ALL ENCLOSURES SHALL BE GREEN.
2. CONTRACTOR SHALL INSTALL (2)-1φ TO 3φ CONVERTER IN CONTROL PANEL. CONTRACTOR TO SUBMIT SHOP DRAWING FOR APPROVAL.
3. CONTRACTOR SHALL RELOCATE METER, BFP, & HOSE BIBB ASSEMBLY. (±10 LF) FIELD LOCATE WITH MANATEE COUNTY PERSONNEL.
4. CONTRACTOR SHALL 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. #5 REBAR (6 TYP.) SHALL BE EPOXY EMBEDDED INTO THE WET WELL TOP 3-4 INCHES DEEP AND CAST 3-4 FEET INTO THE VALVE ASSEMBLY PAD TO ENSURE THE TOPS OF THE WET WELL AND VALVE ASSEMBLY PAD WILL REMAIN FLUSH.
6. CONTRACTOR TO MAINTAIN SAME ELEVATION BETWEEN WET WELL & VALVE VAULT TOPS.
7. WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER.



THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2016 GROUP 1
CASA LOMA, RTU 415 (REHAB)

NO.	DATE	REVISION DESCRIPTION
PROJECT #	402-5138680	
SURVEY #	-	
SEC./TWN./RGE	12/35/17	
SCALE	N.T.S.	
DATE		
SUBMITTED	8/30/17	
DESIGNED		
CHECKED		
DRAWN		
PROJECT #	402-5138680	
DATE	8/30/17	
DESIGNED		
CHECKED		
DRAWN		
PROJECT #	402-5138680	
DATE	8/30/17	
DESIGNED		
CHECKED		
DRAWN		



COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT | S:\P\W\Engineering_Share\Util_Eng_Design\PROJ\15-11 SAN SWR Proj\San_Swr - LS Upgrades\SLS R&R 2016 Group 1\DWG\SLS R&R 2016 Group 1.dwg, 9/20/2017 3:37 PM Shea Shoultz, P.E., ANSI full bleed B (17.00 x 11.00 inches)

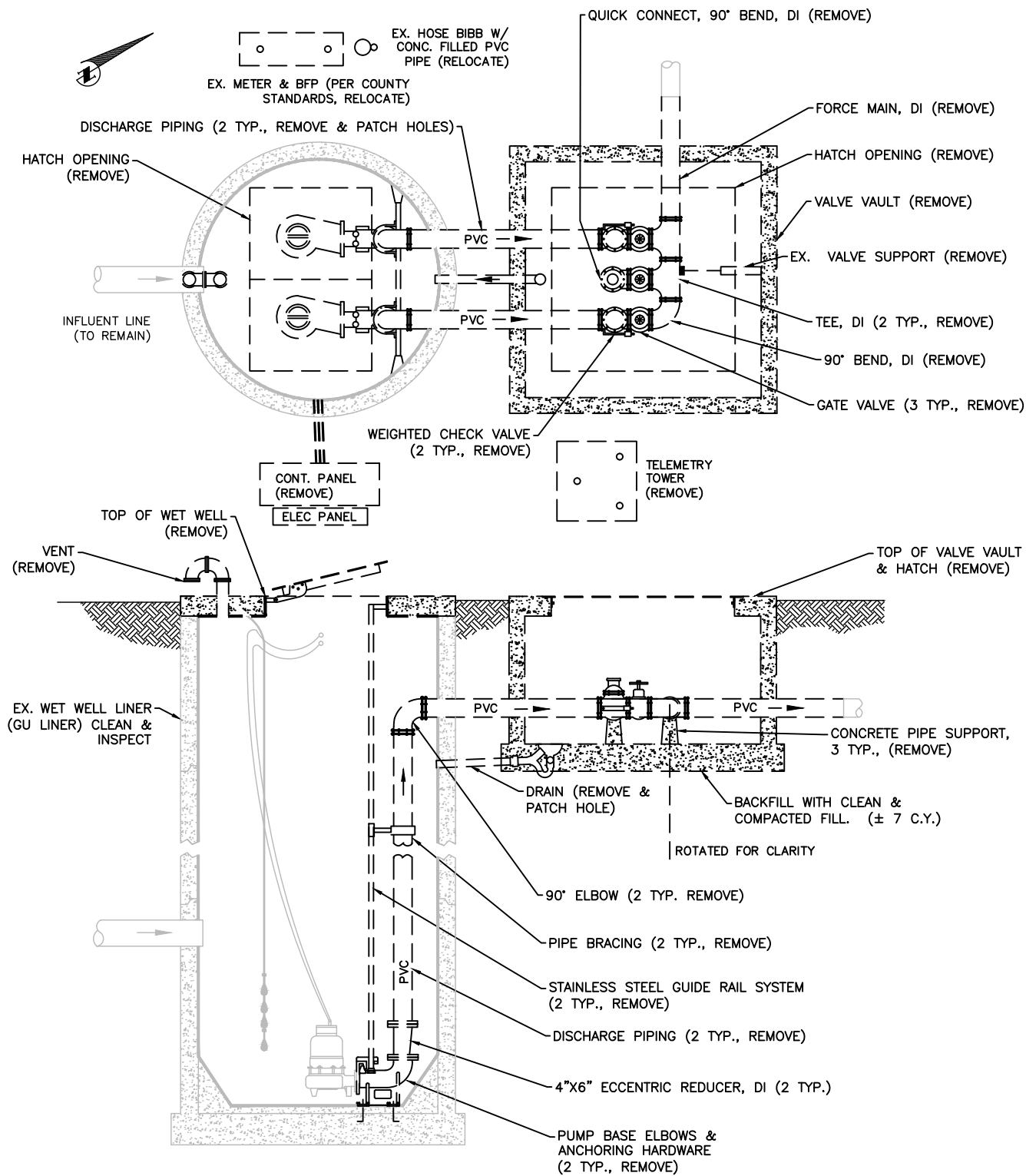
EXISTING

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)	645
DESIGN CAPACITY GPM/TDH	445 / 53
DISCHARGE PIPING DIAMETER	6"
WET WELL DIAMETER	8"
BOTTOM SLAB ELEVATION	-10.29
TOP ELEVATION	22.32
VALVE VAULT HATCH ELEVATION	22.32
INFLUENT INVERT ELEVATION	-2.63
INFLUENT PIPE SIZE	8"
FORCE MAIN DIAMETER	8"
WET WELL VENT PIPE	N/A
ELECT. SERVICE SIZE, AMPS	100
ELECT. POWER, VOLTS/PH	230/3

* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2016) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.

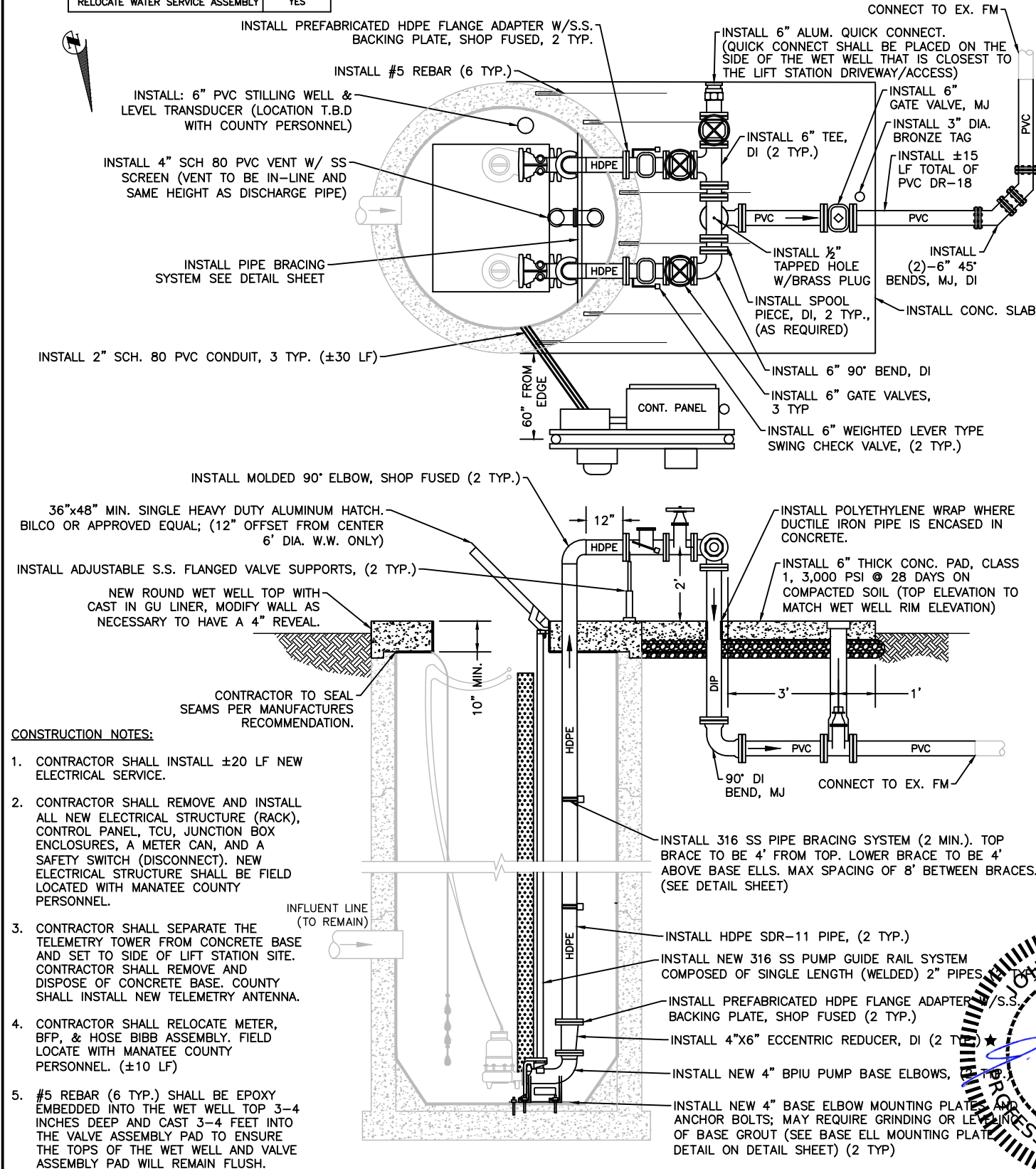


PROPOSED

INSTALL FIBERGLASS W.W. LINER	NO
APPLY SPRAY LINER W.W. LINER	NO
INSTALL STILLING WELL	NO
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:	N/A
INSTALL WET WELL VENT PIPE	YES
UPGRADE BFP 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 NOT BE MORE THAN 1/4" UNDER A TEN FOOT (10') STRAIGHTEDGE, NOT MORE THAN 1/8" ON A FIVE FOOT (5') TRANSVERSE SECTION. THE EDGE OF THE CONCRETE PAD SHALL BE CAREFULLY FINISHED WITH AN EDGING TOOL HAVING A RADIUS OF 1/2"
3. EXPANSION JOINT: EXPANSION JOINTS BETWEEN THE CONC. PAD AND THE WET WELL SHALL BE 1/2" MATERIAL AND SHALL MEET THE REQUIREMENTS OF AASHTO M153 OR AASHTO M213.
4. THE EXTERIOR SURFACES OF THE CONCRETE WET WELL AND VALVE PAD EXPOSED ABOVE GRADE SHALL BE COATED WITH AT LEAST TWO COATS OF H & C SILICONE ACRYLIC CONCRETE STAIN, PATIO GREEN, MANUFACTURED BY FLR PAINTS. THE ABOVE GROUND VALVE ASSEMBLY & PIPING SHALL BE PAINTED, RUSOLEUM 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.



CONSTRUCTION NOTES:

1. CONTRACTOR SHALL INSTALL ±20 LF NEW ELECTRICAL SERVICE.
2. CONTRACTOR SHALL REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), CONTROL PANEL, TCU, JUNCTION BOX ENCLOSURES, A METER CAN, AND A SAFETY SWITCH (DISCONNECT). NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL.
3. CONTRACTOR SHALL 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. CONTRACTOR SHALL RELOCATE METER, BFP, & HOSE BIBB ASSEMBLY. FIELD LOCATE WITH MANATEE COUNTY PERSONNEL. (±10 LF)
5. #5 REBAR (6 TYP.) SHALL BE EPOXY EMBEDDED INTO THE WET WELL TOP 3-4 INCHES DEEP AND CAST 3-4 FEET INTO THE VALVE ASSEMBLY PAD TO ENSURE THE TOPS OF THE WET WELL AND VALVE ASSEMBLY PAD WILL REMAIN FLUSH.



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

2016 GROUP 1

CASCADES, RTU 645 (REHAB)

NO.	DATE
BY	
REVISION DESCRIPTION	

PROJECT #	402-5138580
SURVEY #	-
SEC./TWN./RGE	21/35/18
SCALE	N.T.S.

STATE OF FLORIDA

8/30/17

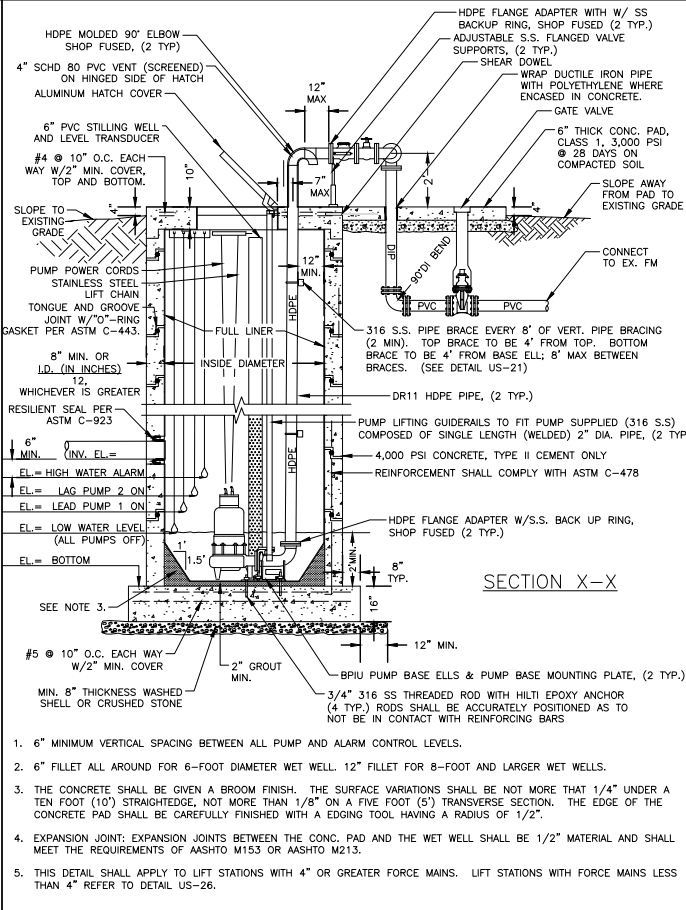
PROFESSIONAL ENGINEER

NO. 00923

J. SHAW, P.E.

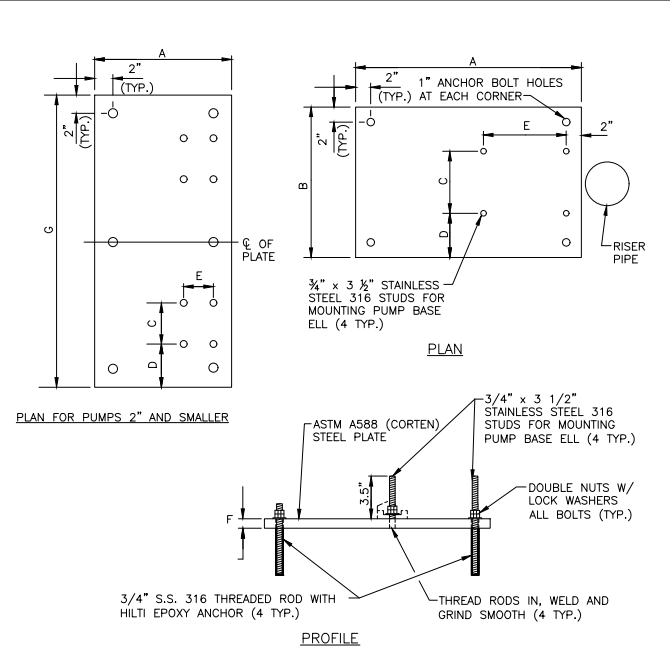
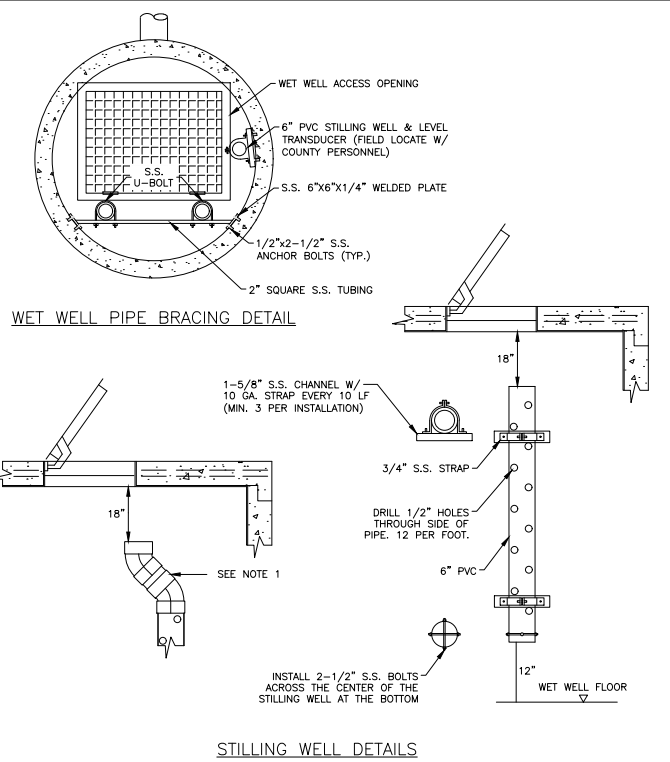
FLORIDA P.E. # 24023

OF 15



GENERAL LIFT STATION NOTES:

- ALL ACCESS COVERS SHALL BE ALUMINUM, WITH 316 STAINLESS STEEL HARDWARE AND RATED FOR 300 P.S.F. LOADING. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL HAVE 2 COATS BITUMASTIC EPOXY, TOTAL 16 MILS DFT. ALL ACCESS COVERS SHALL BE EQUIPPED WITH A LOCKING STAPLE OR BAR FOR USE WITH A PADLOCK. PADLOCKS FOR WETWELL, FENCE GATE AND CONTROL PANELS OF PUBLICLY OWNED & MAINTAINED LIFT STATIONS SHALL BE FURNISHED BY THE MANATEE COUNTY UTILITIES DEPARTMENT, UPON ACCEPTANCE.
- INSTALL WET WELL VENT ON THE HINGED SIDE OF THE WET WELL HATCH COVER, BETWEEN DISCHARGE PIPING AND MATCH HEIGHT.
- GROUND SHALL BE SLOPED AWAY FROM SLAB TO NATURAL GROUND ELEVATION IN ALL DIRECTIONS. A 4-INCH REVEAL SHALL BE PROVIDED AROUND THE STRUCTURES. SITE SHALL INCLUDE A WEED BARRIER FABRIC THAT IS COVERED WITH SHREDDED WOOD TYPE MULCH UNDER THE SHRUBS AND UP TO OUTSIDE OF THE FENCE. WEED BARRIER FABRIC THAT IS COVERED WITH SHREDDED WOOD-TYPE MULCH SHALL BE LOCATED UNDER THE TREES FOR A MINIMUM DISTANCE OF 3 FEET FROM THE TREE. SODDING OR SHREDDED WOOD-TYPE MULCH SHALL BE INSTALLED ON THE REMAINDER OF THE SITE TO THE EDGE OF THE EASEMENT.
- ALL FORCE MAIN PIPING AND FITTINGS FROM THE PUMP BASE ELBOW IN THE WETWELL UP TO THE CHECK VALVE IN THE ABOVE GROUND VALVE ASSEMBLY, SHALL BE DR11 HDPE. THE HDPE FITTINGS SHALL BE MOLDED FITTINGS. ALL CONNECTIONS TO IRON BODIED FITTINGS IN THE WETWELL (PUMP BASE ELLS) AND TO THE CHECK VALVES SHALL BE MADE USING HDPE FLANGE ADAPTERS WITH 316 STAINLESS STEEL BACKUP RINGS. ALL HDPE CONNECTIONS SHALL BE THERMAL FUSED. ALL PIPING DOWNSTREAM OF THE VALVE ASSEMBLY TO THE ISOLATION VALVE SHALL BE DUCTILE IRON PIPE (DI-53).
- ALL PIPING BELOW GROUND SHALL BE COLOR CODED IN ACCORDANCE WITH THESE STANDARDS. GREEN-RAW SEWAGE; PANTONE 522C PURPLE-RECLAIMED; BLUE-POTABLE WATER.
- ANCHORS & LIFTING DEVICES SHALL NOT PENETRATE THE WALLS OF THE WET WELL.
- ALL INTERIOR SURFACES OF WET WELL SHALL BE LINED. SEE STANDARD PRE-CAST SANITARY SEWER MANHOLE FOR TURBULENT FLOW DETAIL.
- ALL METAL APPURTENANCES INCLUDING BOLTS, NUTS AND WASHERS SHALL BE 316 STAINLESS STEEL. ALL STAINLESS STEEL BOLTS SHALL BE TREATED WITH NEVER-SEIZE PRIOR TO ASSEMBLY.
- VERTICAL HDPE PUMP DISCHARGE PIPE IN THE WET WELL SHALL BE BRACED PER DETAIL US-21. THE PIPE SHALL BE CLAMPED TO A SINGLE LENGTH OF 2\"/>



PUMP BASE ELL MOUNTING PLATE DIMENSIONS							
DIMENSIONS	A	B	C	D	E	F	G
FOR 6\"/>							

NOTES:

- INSTALL DOUBLE 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

SEWAGE PUMP STATION SECTION VIEW US-21

REV. BY: DATE: DATE OF APPROVAL:

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PUBLIC WORKS DEPARTMENT

PUMP STATION NOTES US-22

REV. BY: DATE: DATE OF APPROVAL:

MANATEE COUNTY
PUBLIC WORKS DEPARTMENT

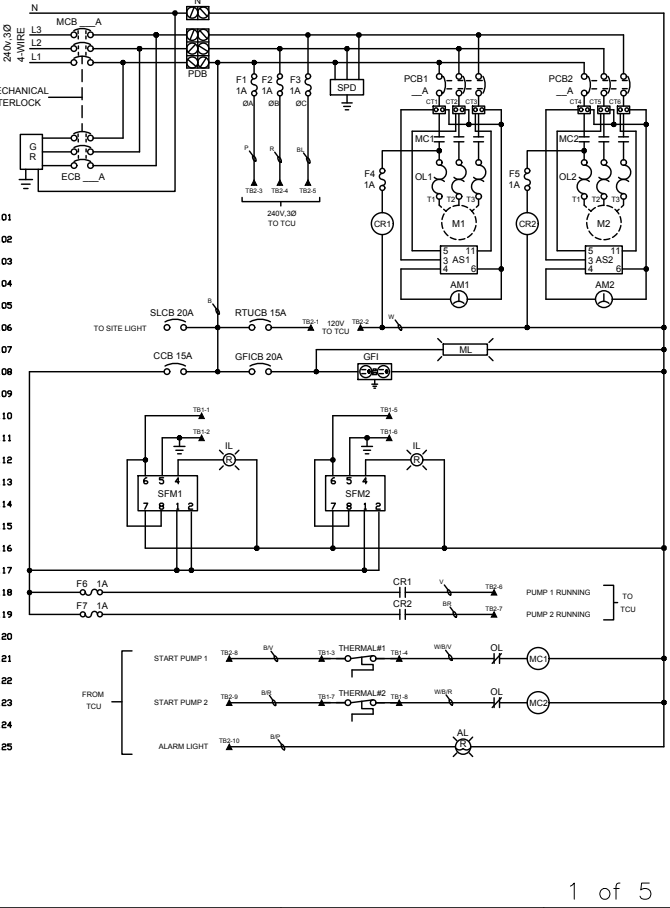
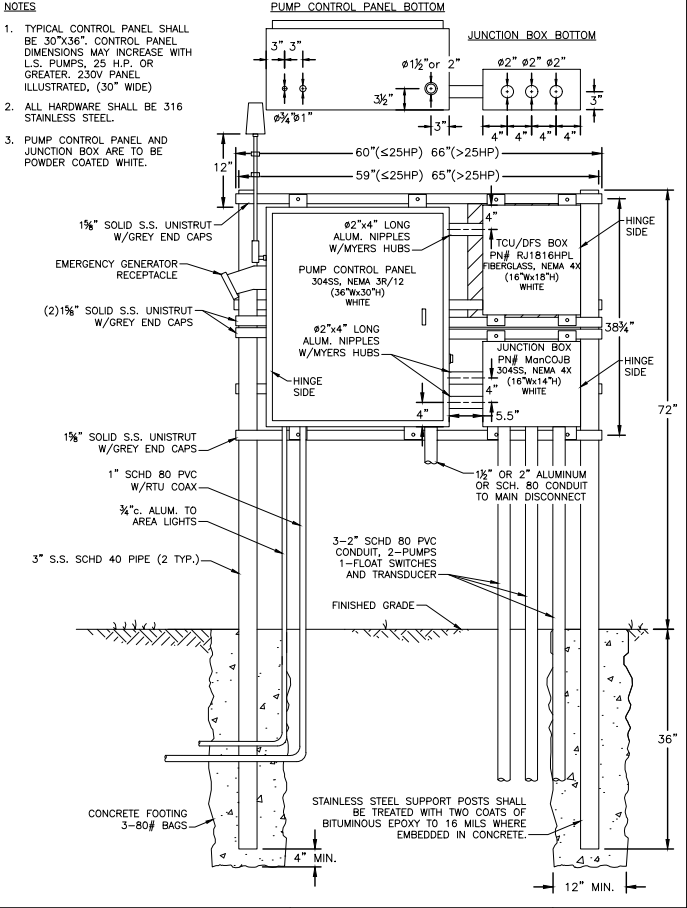
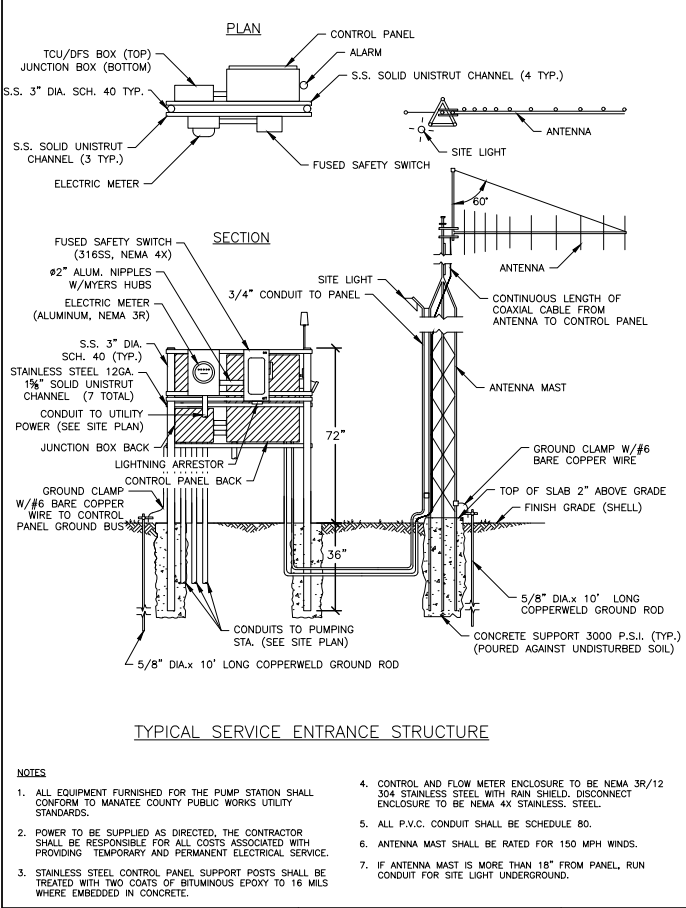
PUMP STATION PIPE BRACING, & STILLING WELL DETAILS US-23

REV. BY: DATE: DATE OF APPROVAL:

MANATEE COUNTY
PUBLIC WORKS DEPARTMENT

PUMP BASE ELL MOUNTING PLATE US-24

REV. BY: DATE: DATE OF APPROVAL:



PUMP CONTROL PANEL BILL OF MATERIALS

QTY.	ABBR.	DESCRIPTION	MANUFACTURER, PART#
1	ENC	ENCLOSURE, 304SS N3R/12 (WHITE)	CUSTOM EQUIPMENT, 36X30X12-WHT-MANCO
1	MCB	MAIN CIRCUIT BREAKER	SO.D. (SIZE AS REQUIRED - 100A MIN.)
1	ECB	EMERGENCY CIRCUIT BREAKER	SO.D. (SIZE AS REQUIRED - 100A MIN.)
2	PCB1,2	PUMP CIRCUIT BREAKER	SO.D. (SIZE AS REQUIRED)
1	CCB	CONTROL CIRCUIT BREAKER	SO.D. QOU115
1	RTUCB	RTU CIRCUIT BREAKER	SO.D. QOU115
1	GFCB	GFI CIRCUIT BREAKER	SO.D. QOU120
1	SLCB	SITE LIGHT CIRCUIT BREAKER	SO.D. QOU120
2	MC1,2	SOLID STATE CONTACTOR	CRYDON, AS3TP (SIZE AS REQUIRED)
2	CR1-2	CURRENT RELAY	CRYDON, CWA2410
2	OL1-2	OVERLOAD RELAY	SIEMENS, ESP200 (SIZE AS REQUIRED)
1	GR	GENERATOR RECEPTACLE	RUSSELL STOLL, JRSB1044FR (230V, 100A)
1	SPD	SURGE PROTECTOR	DITEK, DTK-2403CMX+
6	CT1-6	CURRENT TRANSFORMER 5	ELECTRO. IND. 2SFT. (SIZE AS REQUIRED)
2	AS1-2	AMMETER SELECTOR SWITCH	SPRECHER & SCHUI, LE2-12-8751
2	AM1-2	AMMETER 0-5 A	YOKOGAWA, YE-250-340-LS (SIZE AS REQUIRED)
7	F1-7	FUSE, 1A	FERRAZ, ATM-1
1	GFI	120V RECEPTACLE	PASS & SEYMOUR, 1595-1
1	ML	MAINTENANCE LIGHT, LED	HOFFMAN, LEDA1335
2	SFM1,2	SEAL FAIL MODULE	SYRELEC, PNRU-110A
2	IL	INDICATING LIGHT, RED LED	EATON, C22-LX-R-120
1	ASB	ALARM SILENCE BUTTON	SO.D. 9001-SKR1BH5
1	AL	ALARM LIGHT, 120V STROBE	FEDERAL, LP3P-120R

WIRE COLOR CODE

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

MANATEE COUNTY
PUBLIC WORKS DEPARTMENT

SEWAGE PUMP STATION METER & ELECTRICAL DETAILS US-25

REV. BY: DATE: DATE OF APPROVAL:

MANATEE COUNTY
PUBLIC WORKS DEPARTMENT

SEWAGE PUMP STATION CONTROL PANEL US-26

REV. BY: DATE: DATE OF APPROVAL:

MANATEE COUNTY
PUBLIC WORKS DEPARTMENT

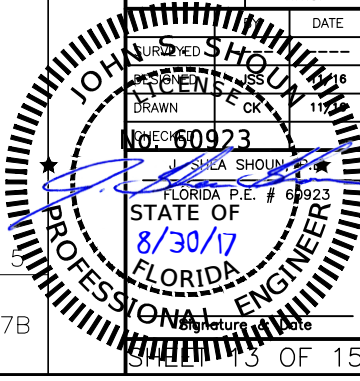
SEWAGE PUMP STATION CONTROL PANEL (230V) US-27A

REV. BY: DATE: DATE OF APPROVAL:

MANATEE COUNTY
PUBLIC WORKS DEPARTMENT

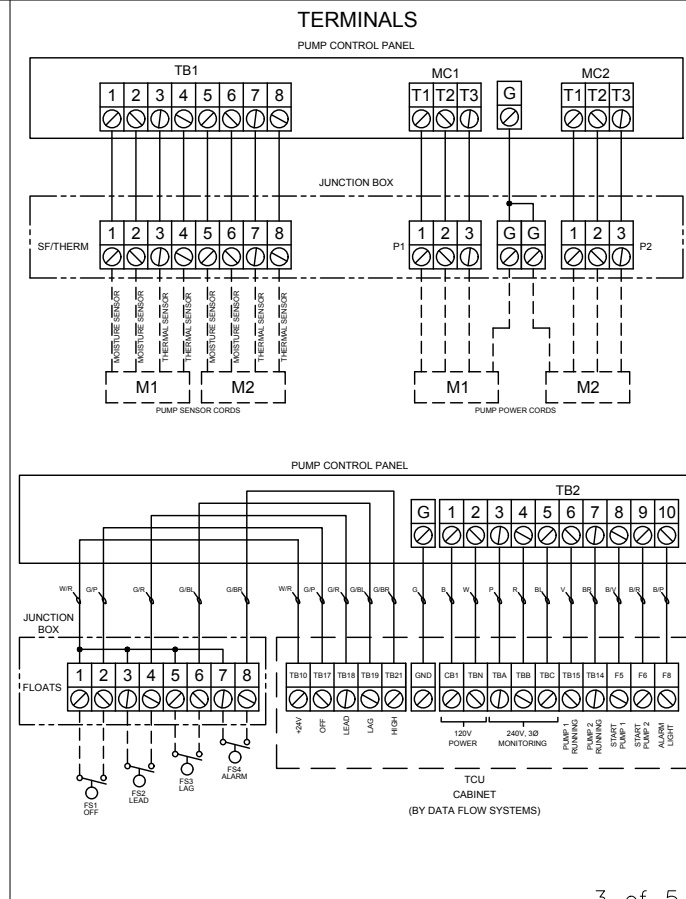
SEWAGE PUMP STATION CONTROL PANEL (230V) US-27B

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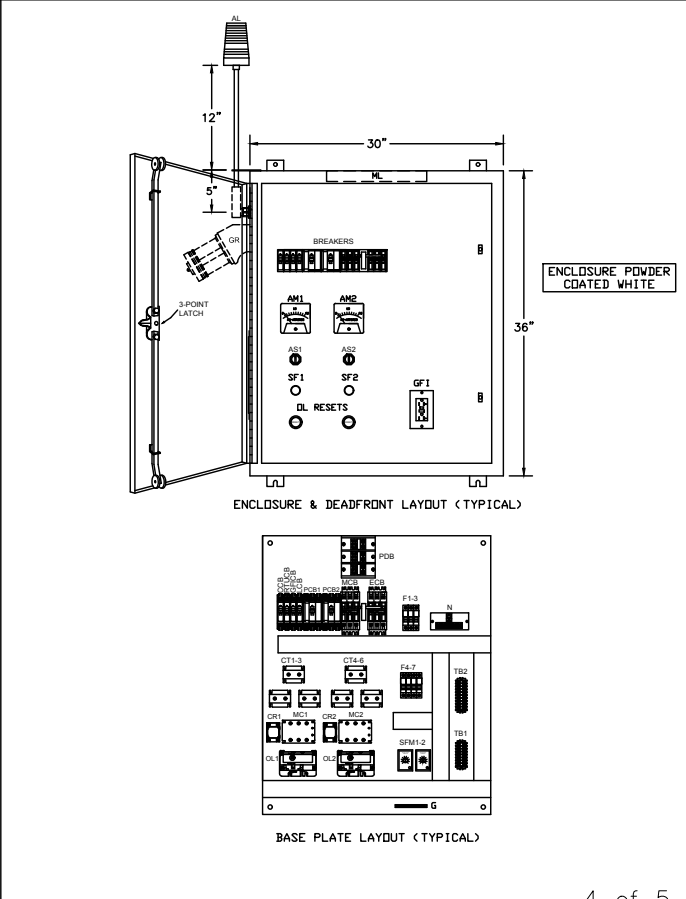
COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT (S:\P\O\Engineering_Share\Util_Eng_Design\PROJ\SSAN_SWR_Proj\San_Srv - US Upgrades\SLS R&R 2016 Group 1\US-21\US-21.dwg, 13:02:28, 8/30/2017 3:37 PM, Shee Shoups, 1:1, ANSI full bleed B (17.00 x 11.00 inches)

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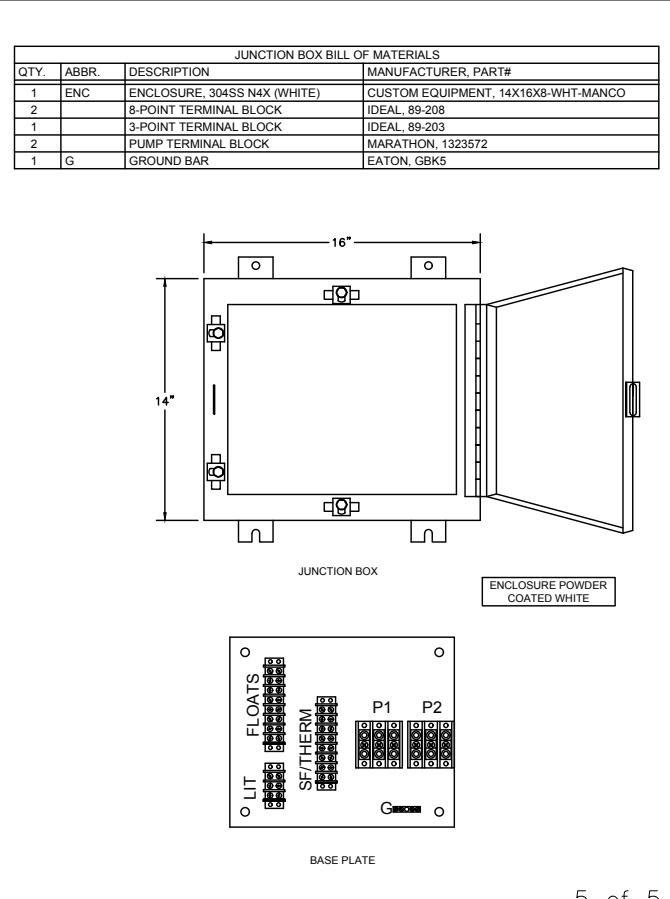
3 of 5

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SEWAGE PUMP STATION CONTROL PANEL (230V)	US-27C
REV. BY	DATE	DATE OF APPROVAL	



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MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SEWAGE PUMP STATION CONTROL PANEL (230V)	US-27D
REV. BY	DATE	DATE OF APPROVAL	



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MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SEWAGE PUMP STATION CONTROL PANEL (230V)	US-27E
REV. BY	DATE	DATE OF APPROVAL	



THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R 2016 GROUP 1 DETAILS

NO.	REVISION DESCRIPTION	BY	DATE

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

BY _____ DATE _____
 SURVEYED _____
 DESIGNED BY **JOHN S. SHOUN** 8/30/17
 LICENSE # 11111
 CHECKED BY _____
NO. J. SHOUN, P.E.
 FLORIDA P.E. # 12345
 STATE OF FLORIDA
 8/30/17
 PROFESSIONAL ENGINEER

