



SATELLITE LIFT STATION R&R

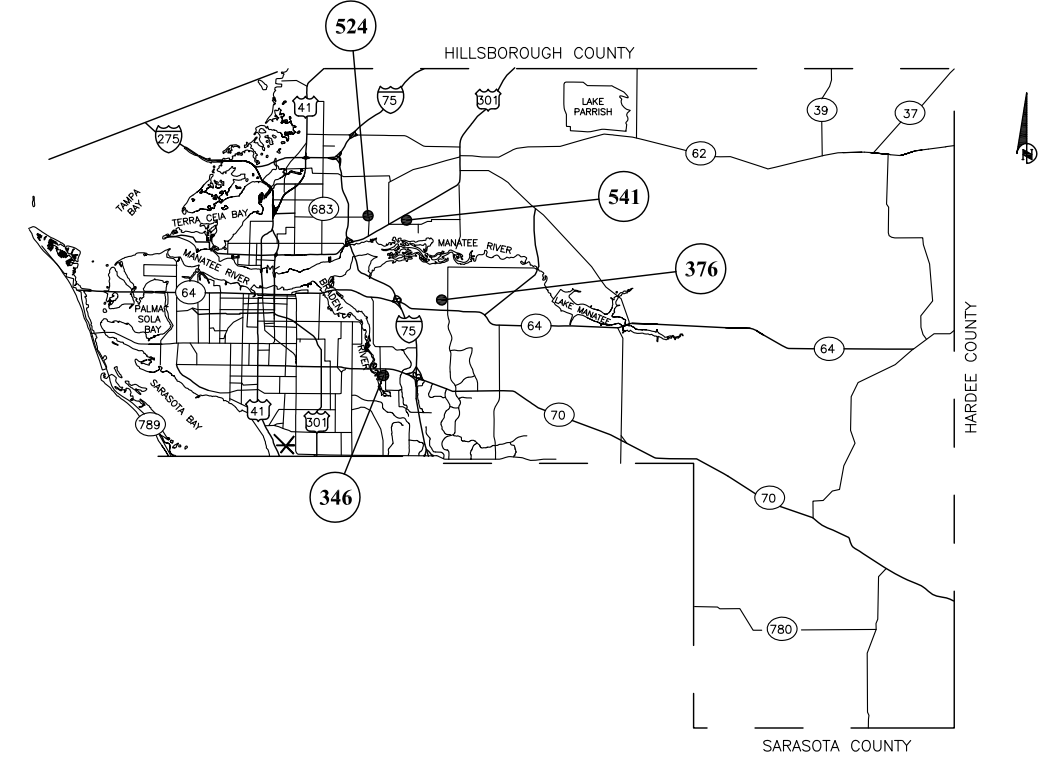
2014 GROUP 3

402-0019707 / 5001301

OCTOBER 2014

100% PLANS

L.S.NAME/NO.	RTU #	ADDRESS	PROJECT JL NO.
RIVER LANDINGS BLUFF	346	5509 61ST STREET E., BRADENTON	5005115
GREENFIELD PLANTATION 2	376	10749 OLD GROVE CIR, BRADENTON	5005114
COLONY COVE 8	524	7100 LAKESHORE DR, ELLENTON	5005113
VERANDA SPRINGS	541	3705 ASBURY DR, ELLENTON	5005116



NO.	INDEX OF SHEETS
1.	COVER SHEET
2.	GENERAL NOTES & LEGEND
3.	VICINITY MAPS
4.	RIVER LANDINGS BLUFF
5.	GREENFIELD PLANTATION 2
6.	COLONY COVE 8
7.	VERANDA SPRINGS
8.	DETAILS
9.	EROSION CONTROL

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.

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2014 GROUP 3
COVER SHEET

NO.	DATE	BY	REVISION DESCRIPTION

PROJECT #	402-0019707 / 5001301
SURVEY #	-
SEC./TWN./RGE	-
SCALE	N.T.S.

811

Know what's below
Call before you dig

JOHN S. SHOUN

PROFESSIONAL ENGINEER

NO. J06092401

FLORIDA P.E. # 42421

STATE OF
10/3/14
FLORIDA

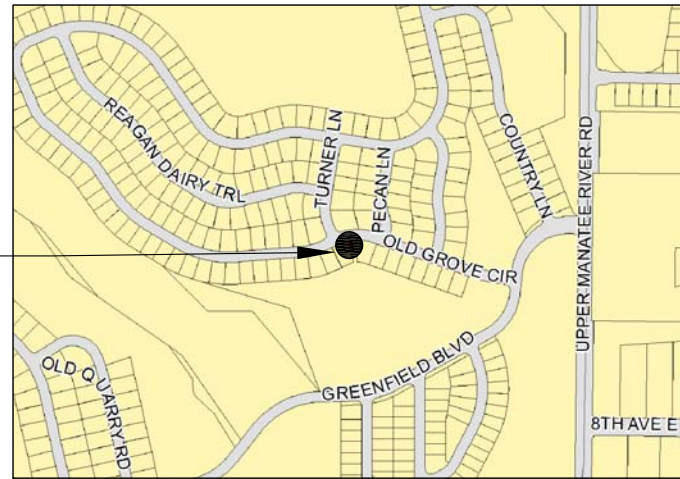
SIGNATURE OF JOHN S. SHOUN



RIVER LANDINGS BLUFF, RTU 346,
5509 61ST ST E, BRADENTON

PROJECT SITE

PROJECT SITE



GREENFIELD PLANTATION 2, RTU 376,
10749 OLD GROVE CIR, BRADENTON

PROJECT SITE



COLONY COVE 8, RTU 524,
7100 LAKESHORE DR, ELLENTON

PROJECT SITE



VERANDA SPRINGS, RTU 541,
3705 ASBURY DR, ELLENTON
(ACCESSED FROM 96TH AVE E.)

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
2014 GROUP 3
VICINITY MAPS

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT # 402-0019707 / 5001301
SURVEY # -
SEC./TWN./RGE -
SCALE N.T.S.

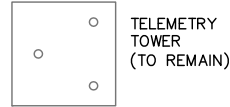
JOHN S. SHOUN
PROFESSIONAL ENGINEER
No. 60993
STATE OF FLORIDA
10/3/14

EXISTING

NOTES:

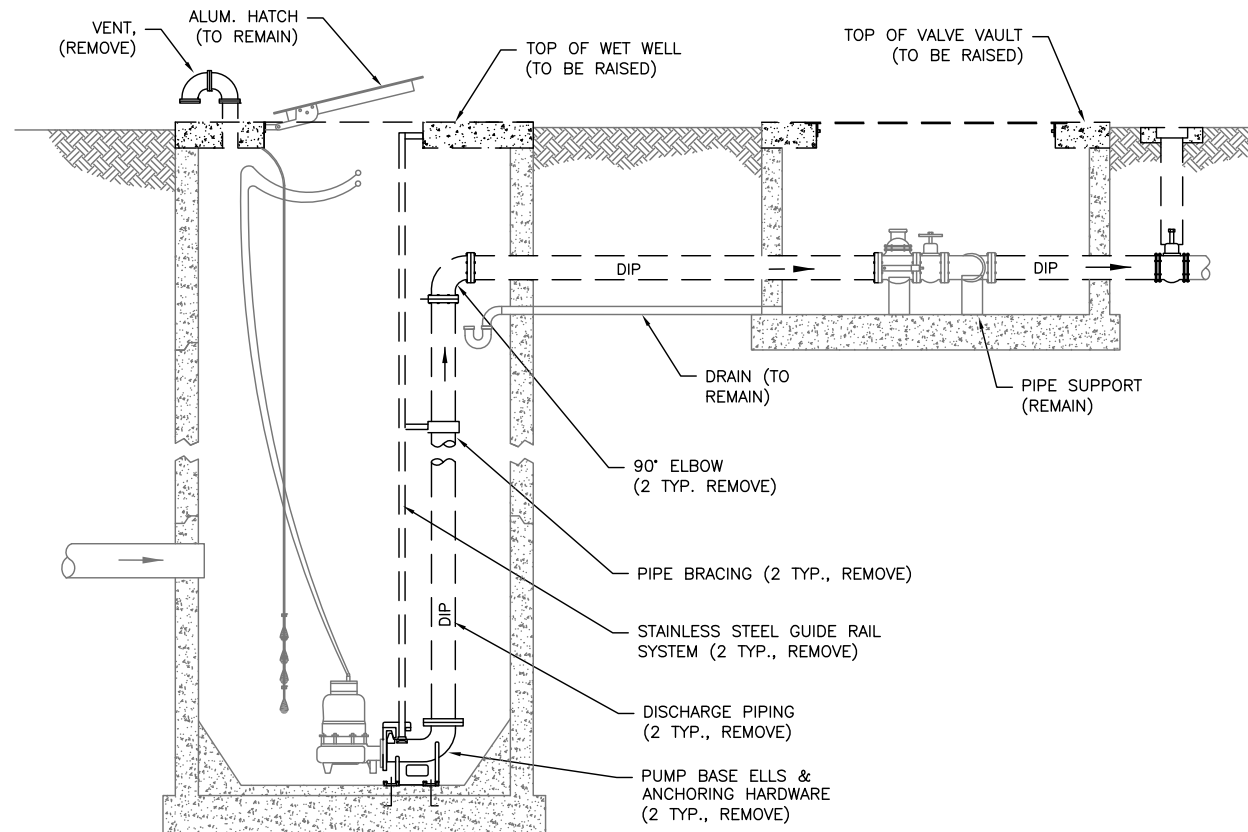
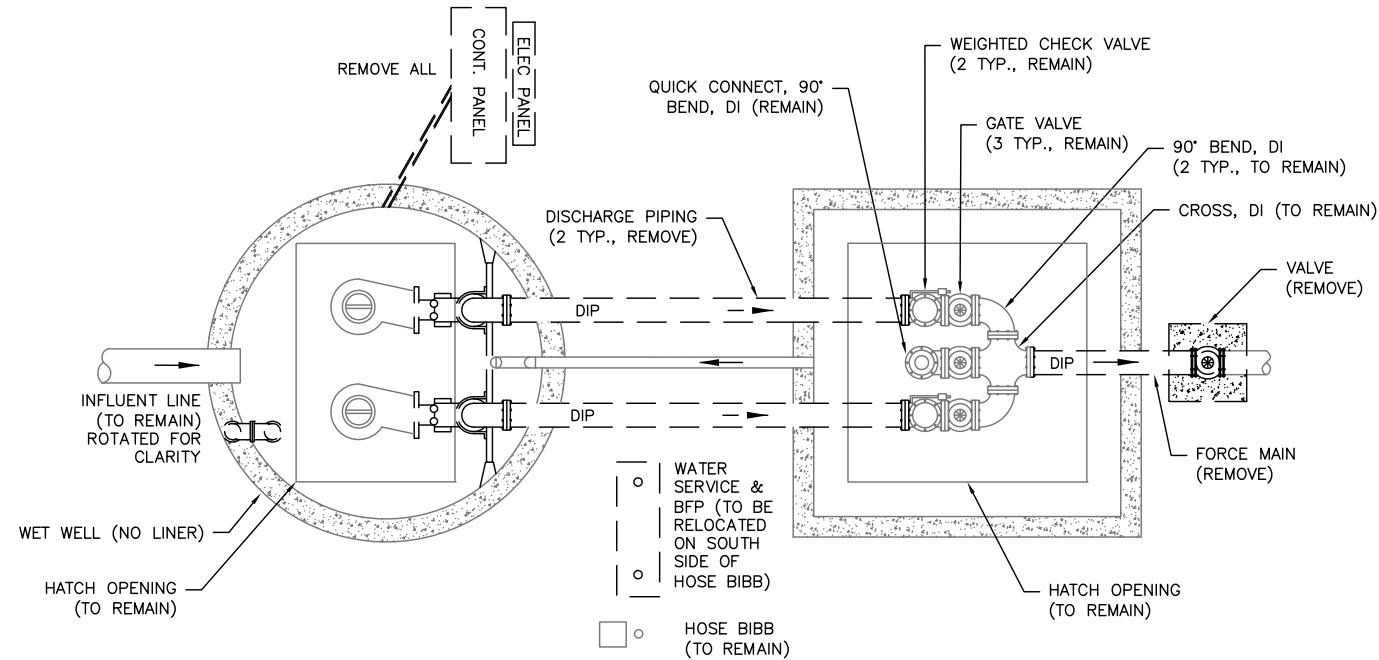
- THE WET WELL AND VALVE VAULT CONFIGURATION SHOWN ON THESE GRAPHICS IS FOR IDENTIFICATION OF COMPONENTS TO BE REMOVED. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, CONFIGURATION, ETC. FOR ACCURACY.
- THE CONTRACTOR/BIDDER SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.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



RADIO TELEMETRY UNIT (RTU)	346
DESIGN CAPACITY GPM/TDH	111 / 45
DISCHARGE PIPING DIAMETER	4"
WET WELL DIAMETER	6'
BOTTOM SLAB ELEVATION	-4.85
TOP ELEVATION	13.25
VALVE VAULT HATCH ELEVATION	13.25
INFLUENT INVERT ELEVATION	-0.83
INFLUENT PIPE SIZE	8"
FORCE MAIN DIAMETER	4"
WET WELL VENT PIPE	DI
ELECT. SERVICE SIZE, AMPS	100

* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2014) & RECORD DRAWINGS. DATA OF ELEVATIONS IS UNKNOWN.

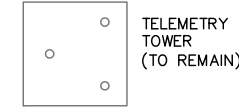


PROPOSED

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:	YES, 12"
RAISE TOP OF VALVE VAULT:	YES, 12"
INSTALL WET WELL VENT PIPE	YES
UPGRADE BFP TO STANDARD, US-15	NO
RELOCATE WATER SERVICE ASSEMBLY	YES

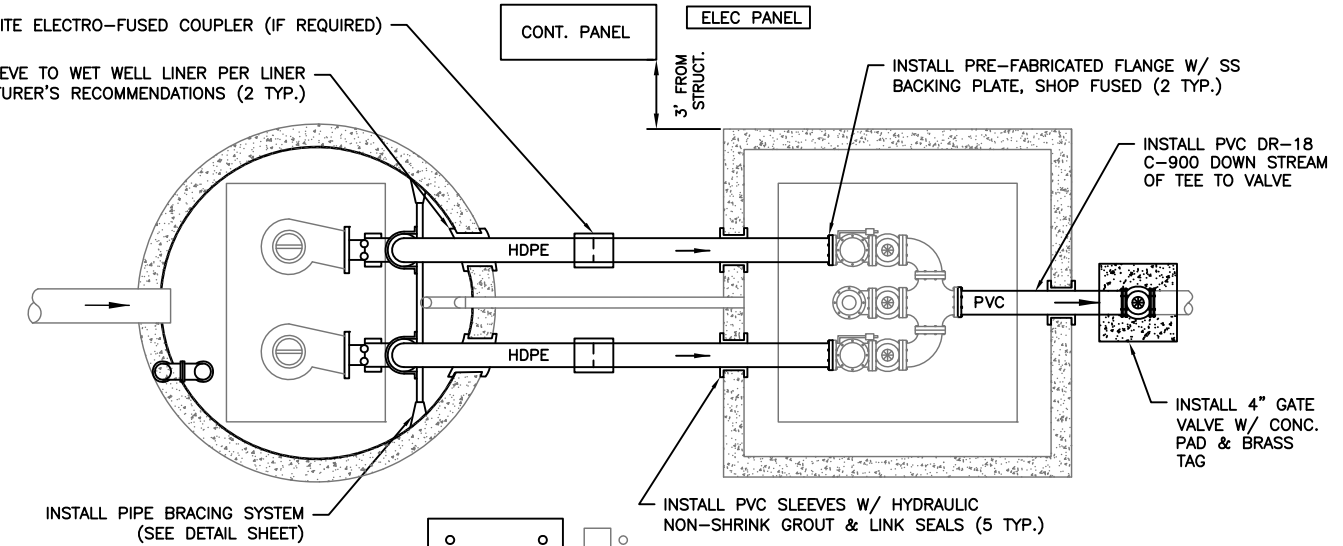
NOTES:

- CONTRACTOR SHALL NOT BACKFILL OVER ELECTROFUSED COUPLINGS UNTIL INSPECTOR HAS VISUALLY CHECKED IT FOR LEAKS DURING PUMP STARTUP OR PRESSURE TEST AS DIRECTED BY THE ENGINEER.
- ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.
- THE EXTERIOR SURFACES OF THE CONCRETE WET WELL AND VALVE VAULT EXPOSED ABOVE GRADE SHALL BE COATED WITH AT LEAST TWO COATS OF H & C SILICONE ACRYLIC CONCRETE STAIN, PATIO GREEN, MANUFACTURED BY FLR PAINTS, INC.
- ALL EXISTING DUCTILE IRON PIPE AND/OR FITTINGS LABELED TO REMAIN IN THE VALVE VAULT SHALL BE COATED WITH A BITUMINOUS COATING.
- ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM, MISCELLANEOUS WORK.



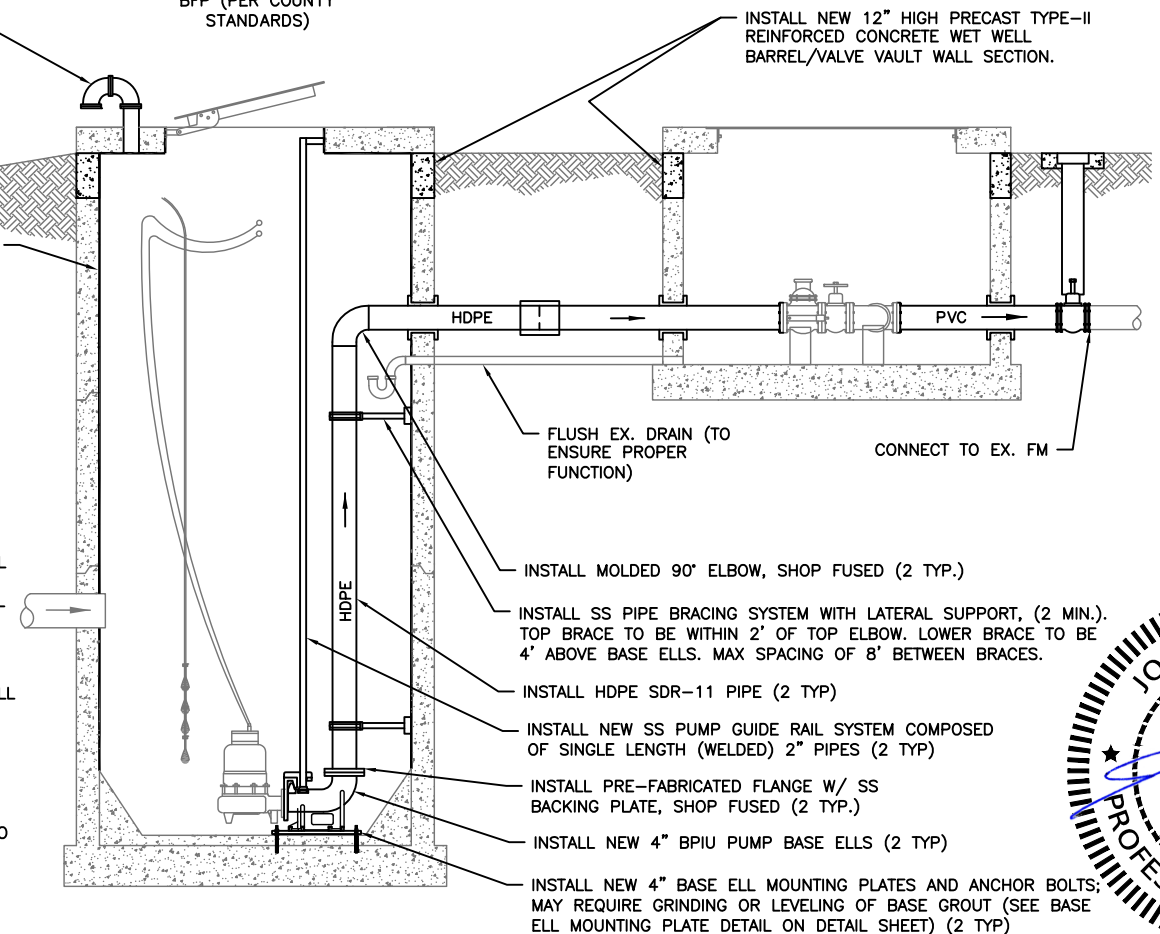
INSTALL SITE ELECTRO-FUSED COUPLER (IF REQUIRED)

SEAL SLEEVE TO WET WELL LINER PER LINER MANUFACTURER'S RECOMMENDATIONS (2 TYP.)



NOTES:

- CONTRACTOR SHALL REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), CONTROL PANEL, METER CAN, AND SAFETY SWITCH (DISCONNECT). NEW ELECTRICAL STRUCTURE SHALL BE INSTALLED ON THE WEST SIDE OF STRUCTURES W/ ALL ENCLOSURES FACING EAST. THE CONTROL PANEL SHALL BE THE MOST SOUTHERN ENCLOSURE AND THE GENERATOR RECEPTACLE SHALL BE ON THE SOUTH SIDE OF THE CONTROL PANEL. LOCATION SHALL BE VERIFIED WITH MANATEE COUNTY PERSONNEL.
- CONTRACTOR SHALL REGRADE AROUND LIFT STATION SITE TO PROMOTE POSITIVE DRAINAGE AWAY FROM STRUCTURES, TOWARDS DRIVEWAY AND OUT TO ROAD.



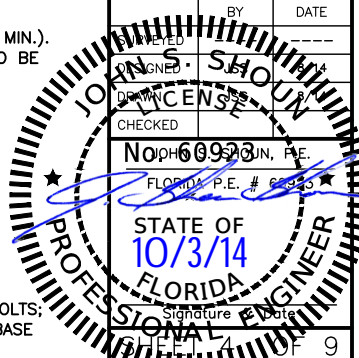
THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R

2014 GROUP 3

RIVER LANDINGS BLUFF, RTU 346

DATE	
BY	
REVISION DESCRIPTION	
NO.	
PROJECT #	402-0019707 / 5005115
SURVEY #	-
SEC./TWN./RGE	15/35/18
SCALE	N.T.S.
CHECKED	
DESIGNED	
DATE	
BY	
DATE	
PROJECT #	402-0019707 / 5005115
DESIGNED	
CHECKED	
DATE	
BY	
DATE	
PROJECT #	402-0019707 / 5005115
DESIGNED	
CHECKED	
DATE	
BY	
DATE	



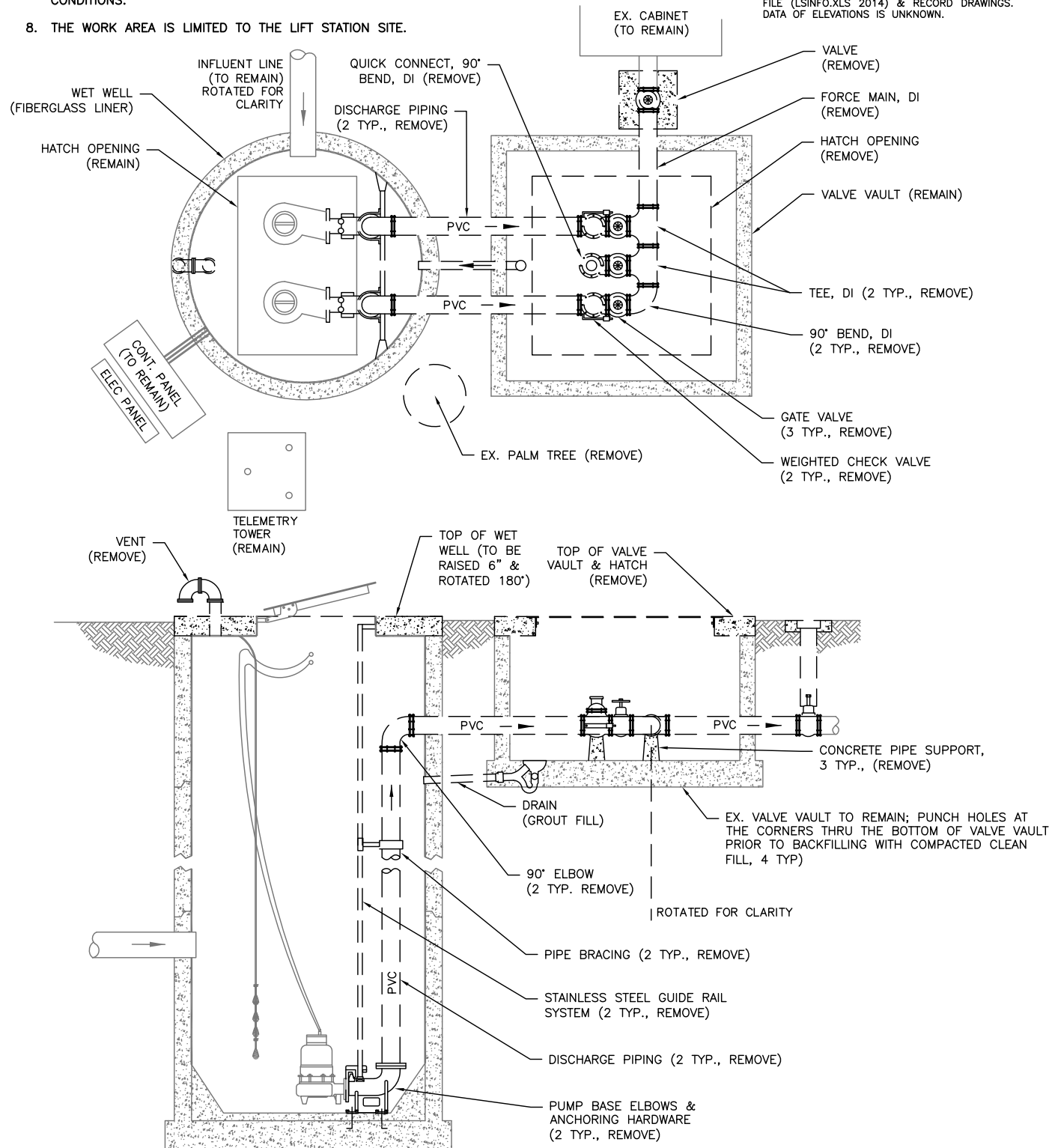
EXISTING

NOTES:

1. THE WET WELL AND VALVE VAULT CONFIGURATION SHOWN ON THESE GRAPHICS IS FOR IDENTIFICATION OF COMPONENTS TO BE REMOVED. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, CONFIGURATION, ETC. FOR ACCURACY.
2. 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)	376
DESIGN CAPACITY GPM/TDH	275/52.4
DISCHARGE PIPING DIAMETER	4"
WET WELL DIAMETER	6'
BOTTOM SLAB ELEVATION	-8.3
TOP ELEVATION	20.20
VALVE VAULT HATCH ELEVATION	20.20
INFLUENT INVERT ELEVATION	1.88
INFLUENT PIPE SIZE	8"
FORCE MAIN DIAMETER	6"
WET WELL VENT PIPE	PVC
ELECT. SERVICE SIZE, AMPS	100

* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2014) & RECORD DRAWINGS. DATA OF ELEVATIONS IS UNKNOWN.

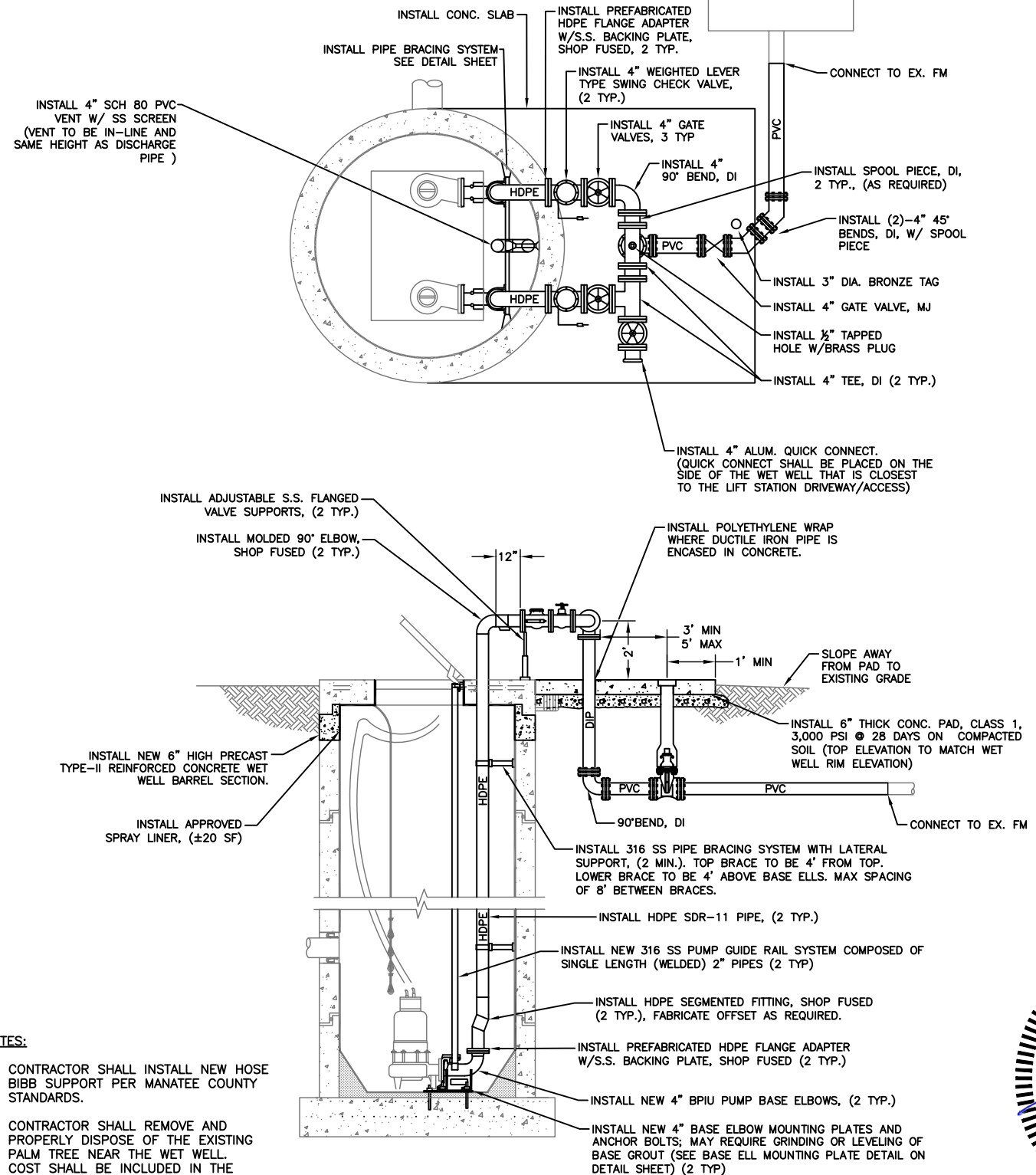


PROPOSED

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, 4"
NEW BASE ELL.	4" BPIU-14
RAISE TOP OF WET WELL:	YES, 8"
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:

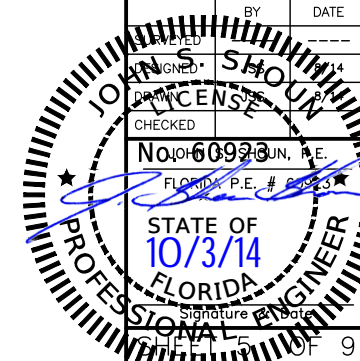
1. CONTRACTOR SHALL NOT BACKFILL OVER ELECTROFUSED COUPLINGS UNTIL INSPECTOR HAS VISUALLY CHECKED IT FOR LEAKS DURING PUMP STARTUP OR PRESSURE TEST AS DIRECTED BY THE COUNTY.
2. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.
3. THE 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".
4. 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.
5. 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.
6. ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM, MISCELLANEOUS WORK.



NOTES:

1. CONTRACTOR SHALL INSTALL NEW HOSE BIBB SUPPORT PER MANATEE COUNTY STANDARDS.
2. CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF THE EXISTING PALM TREE NEAR THE WET WELL. COST SHALL BE INCLUDED IN THE MISC. WORK & CLEAN UP BID ITEM.

DATE	
BY	
REVISION DESCRIPTION	
NO.	
PROJECT #	402-0019707 / 5005114
SURVEY #	-
SEC./TWN./RGE	30/34/19
SCALE	N.T.S.
BY	DATE
DESIGNED	
DRAWN	
CHECKED	
NO. 60923	JUN, P.E.
FLORIDA P.E. # 5225	
STATE OF	10/3/14
FLORIDA	
PROFESSIONAL ENGINEER	



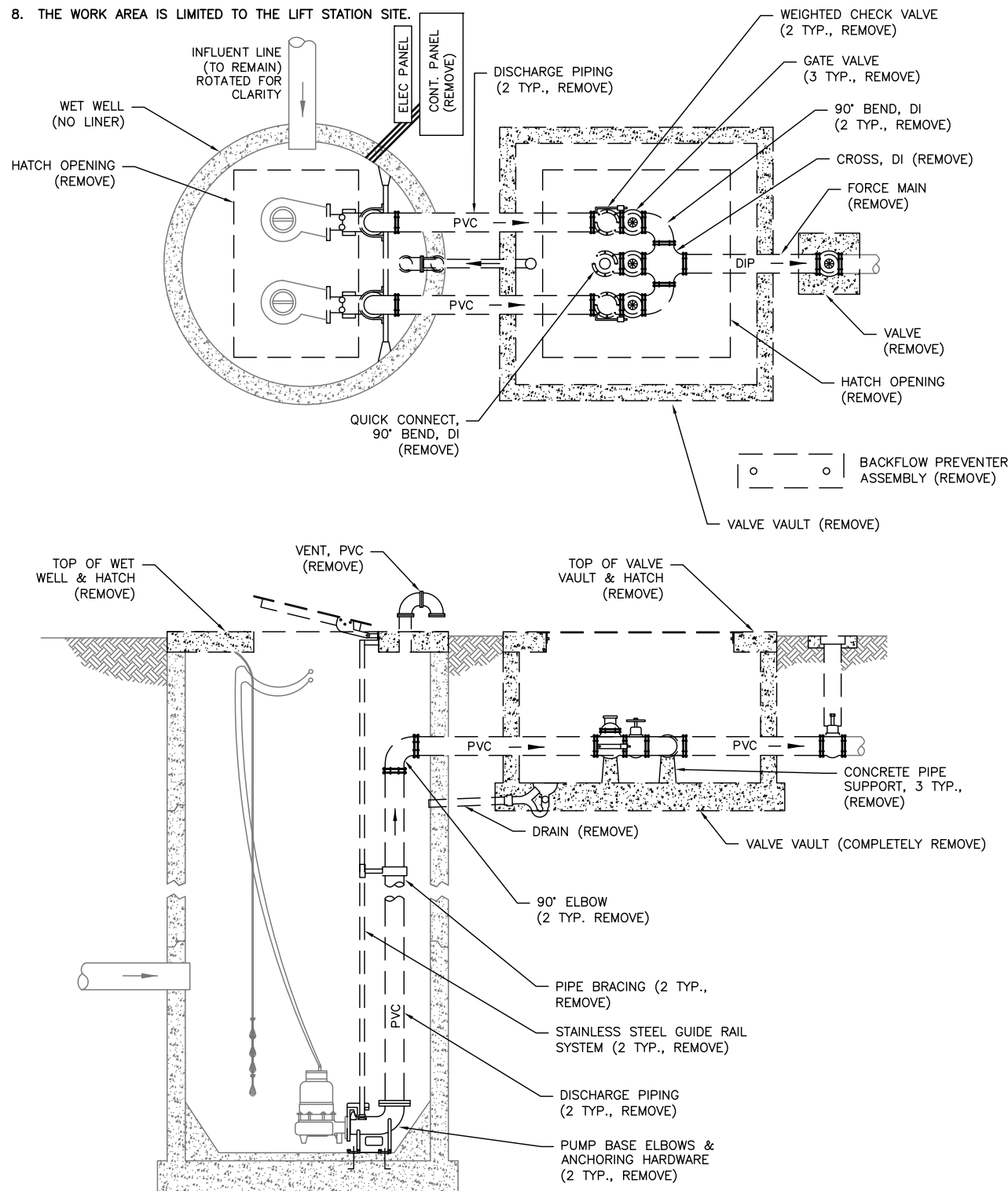
EXISTING

NOTES:

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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)	524
DESIGN CAPACITY GPM/TDH	250 / 22
DISCHARGE PIPING DIAMETER	4"
WET WELL DIAMETER	6'
BOTTOM SLAB ELEVATION	14.18
TOP ELEVATION	33.39
VALVE VAULT HATCH ELEVATION	33.39
INFLUENT INVERT ELEVATION	18.16
INFLUENT PIPE SIZE	12"
FORCE MAIN DIAMETER	6"
WET WELL VENT PIPE	PVC
ELECT. SERVICE SIZE, AMPS	100

* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2014) & RECORD DRAWINGS. DATA OF ELEVATIONS IS UNKNOWN.

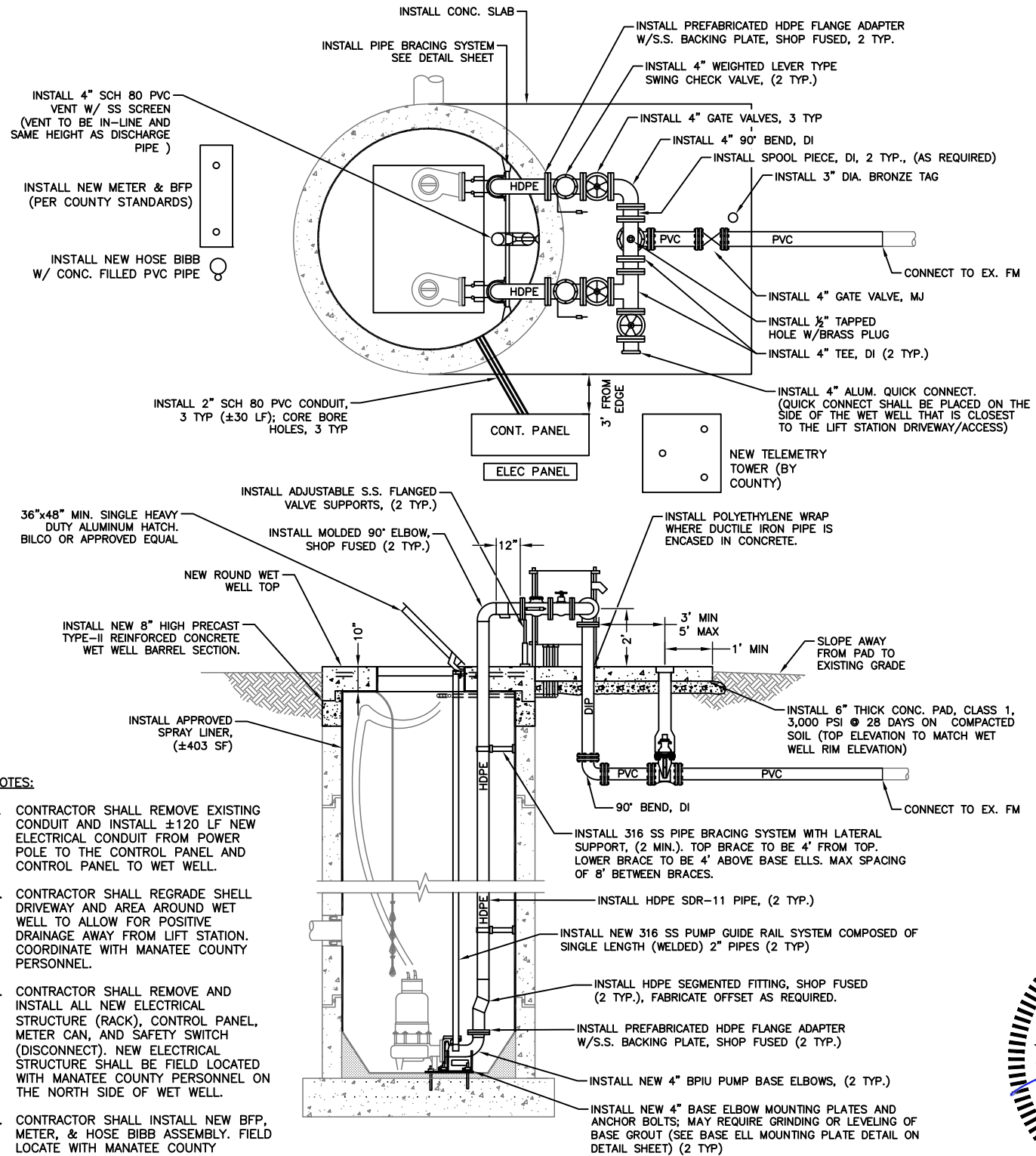


PROPOSED

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:	YES, 8"
RAISE TOP OF VALVE VAULT:	N/A
REPLACE WET WELL VENT PIPE	YES
UPGRADE BFP TO STANDARD, US-15	NO
RELOCATE WATER SERVICE ASSEMBLY	YES

GENERAL NOTES:

1. CONTRACTOR SHALL NOT BACKFILL OVER ELECTROFUSED COUPLINGS UNTIL INSPECTOR HAS VISUALLY CHECKED IT FOR LEAKS DURING PUMP STARTUP OR PRESSURE TEST AS DIRECTED BY THE COUNTY.
2. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.
3. 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".
4. 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.
5. 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.
6. ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM, MISCELLANEOUS WORK.



NOTES:

1. CONTRACTOR SHALL REMOVE EXISTING CONDUIT AND INSTALL ±120 LF NEW ELECTRICAL CONDUIT FROM POWER POLE TO THE CONTROL PANEL AND CONTROL PANEL TO WET WELL.
2. CONTRACTOR SHALL REGRADE SHELL DRIVEWAY AND AREA AROUND WET WELL TO ALLOW FOR POSITIVE DRAINAGE AWAY FROM LIFT STATION. COORDINATE WITH MANATEE COUNTY PERSONNEL.
3. CONTRACTOR SHALL REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), CONTROL PANEL, METER CAN, AND SAFETY SWITCH (DISCONNECT). NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL ON THE NORTH SIDE OF WET WELL.
4. CONTRACTOR SHALL INSTALL NEW BFP, METER, & HOSE BIBB ASSEMBLY. FIELD LOCATE WITH MANATEE COUNTY PERSONNEL.

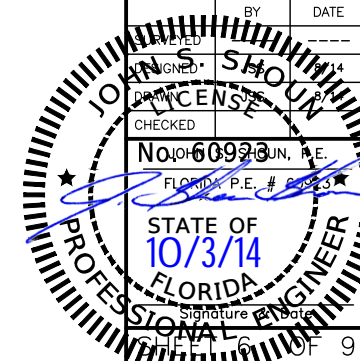


PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1022 26th Avenue East, Bradenton, FL 34208

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2014 GROUP 3
COLONY COVE 8, RTU 524

DATE	
BY	
REVISION DESCRIPTION	
NO.	
PROJECT #	402-0019707 / 5005113
SURVEY #	-
SEC./TWN./RGE	3/34/18
SCALE	N.T.S.
BY	DATE
DESIGNED BY	
DRAWN BY	
CHECKED	
NO.	60923
FLORIDA P.E. #	5225
STATE OF	10/3/14
FLORIDA	
PROFESSIONAL ENGINEER	



COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT L:\N\PD\Engineering\Share\Util\Eng Design\PROJ\SSAN SWR Proj\SSW Swr - LS Upgrade\SLS R&R 2014 Grp 3\DWG\Vehicle\SLS R&R 2014 Grp 3.dwg, 6 COLONY COVE 8, 10/3/2014, 2:44 PM Shea Shoun, 1:1, Ledger

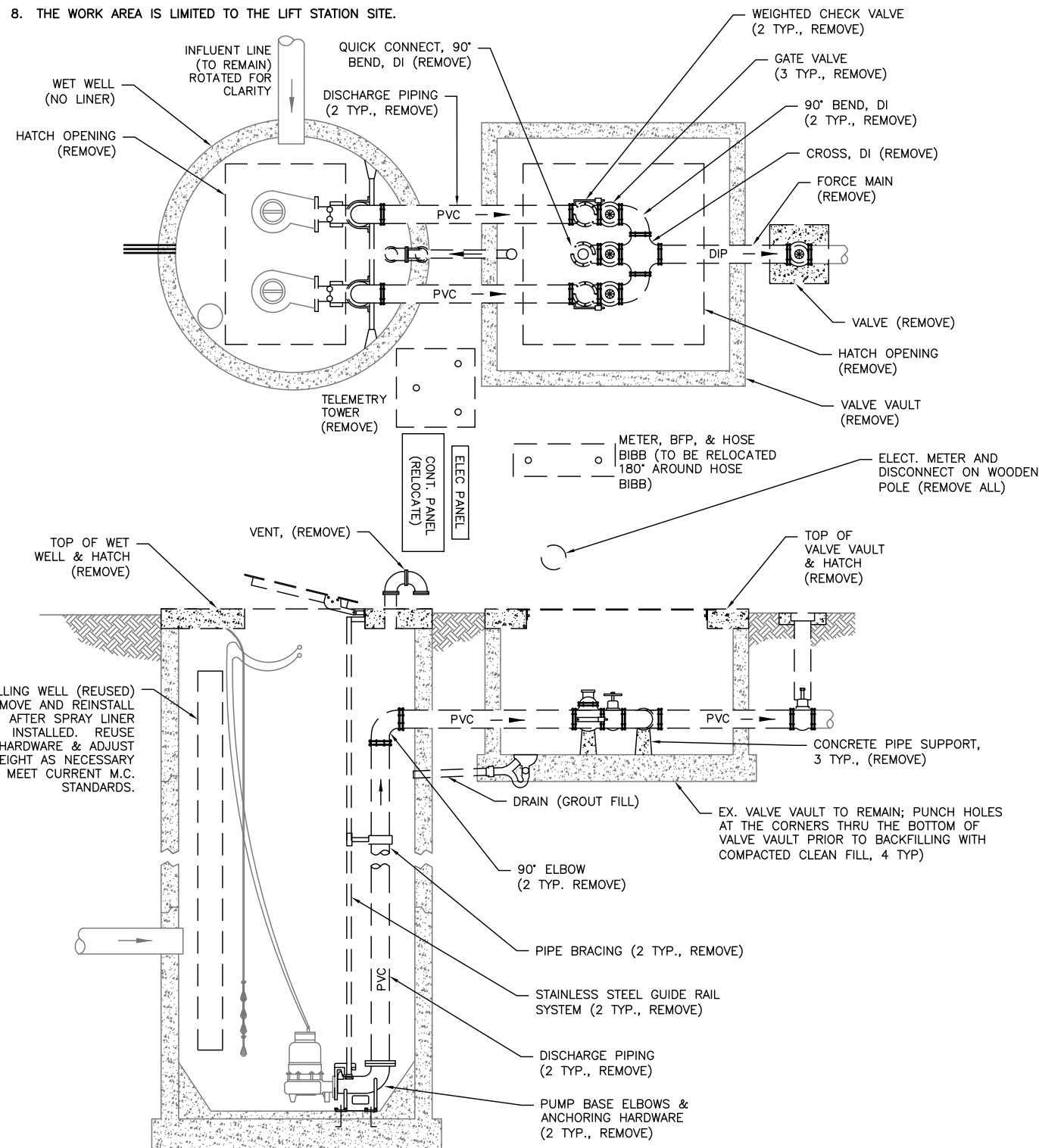
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6. MANATEE COUNTY GOVERNMENT WILL PROVIDE ONE (1) LIFT STATION SHUT-DOWN AT NO COST TO THE CONTRACTOR. ADDITIONAL SHUT-DOWNS WILL COST THE CONTRACTOR \$3,500 EACH, IF NEEDED.
7. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ANY DAMAGED LANDSCAPING TO EXISTING OR DESIGN CONDITIONS.
8. THE WORK AREA IS LIMITED TO THE LIFT STATION SITE.

RADIO TELEMETRY UNIT (RTU)	541
DESIGN CAPACITY GPM/TDH	125 / 95
DISCHARGE PIPING DIAMETER	4"
WET WELL DIAMETER	6'
BOTTOM SLAB ELEVATION	12.99
TOP ELEVATION	36.66
VALVE VAULT HATCH ELEVATION	36.66
INFLUENT INVERT ELEVATION	18.66
INFLUENT PIPE SIZE	8"
FORCE MAIN DIAMETER	6"
WET WELL VENT PIPE	PVC
ELECT. SERVICE SIZE, AMPS	200

* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2014) & RECORD DRAWINGS. DATA OF ELEVATIONS IS UNKNOWN.

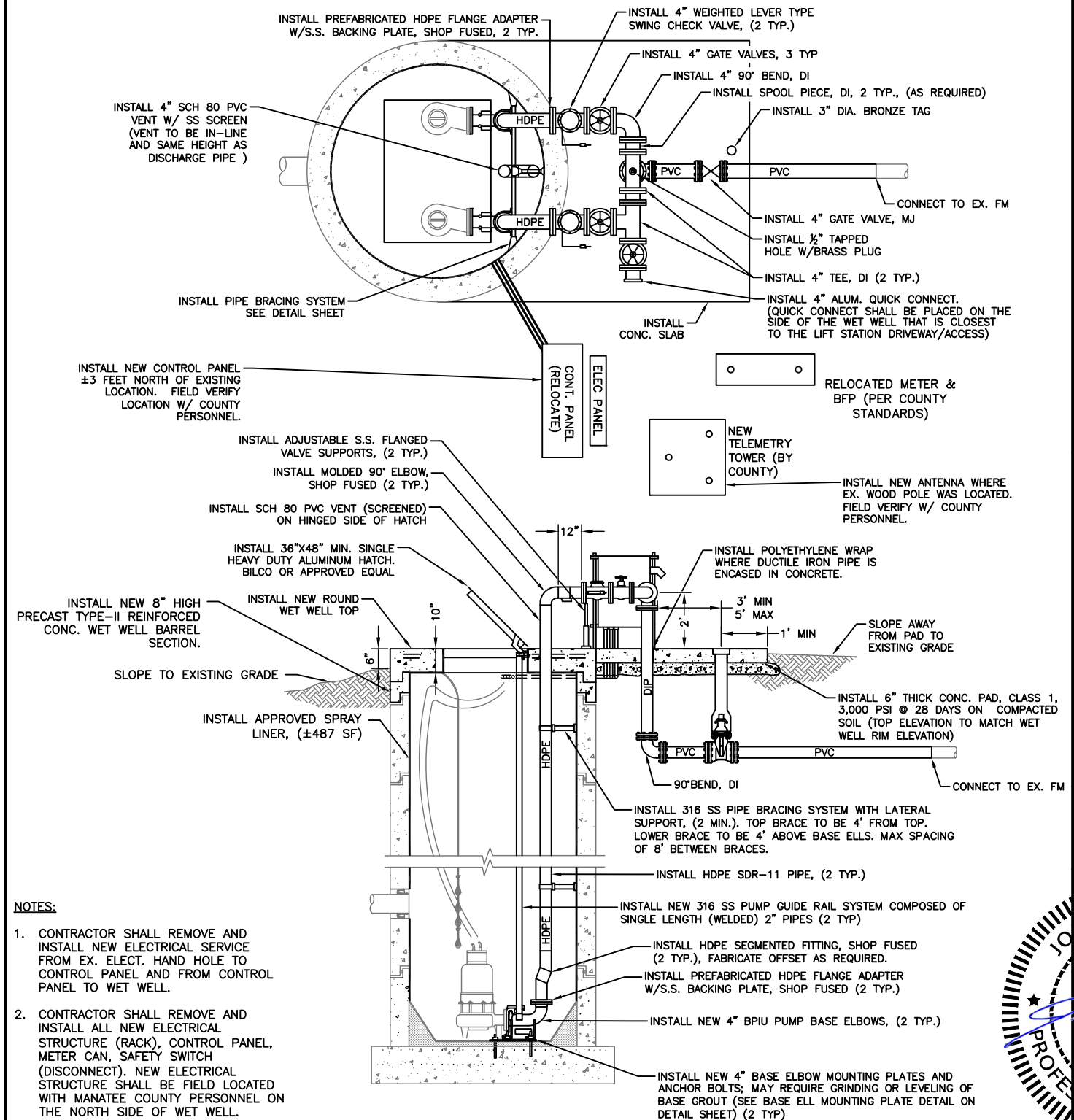


PROPOSED

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:	YES, 8"
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. CONTRACTOR SHALL NOT BACKFILL OVER ELECTROFUSED COUPLINGS UNTIL INSPECTOR HAS VISUALLY CHECKED IT FOR LEAKS DURING PUMP STARTUP OR PRESSURE TEST AS DIRECTED BY THE COUNTY.
2. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.
3. 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".
4. 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.
5. 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.
6. ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM, MISCELLANEOUS WORK.



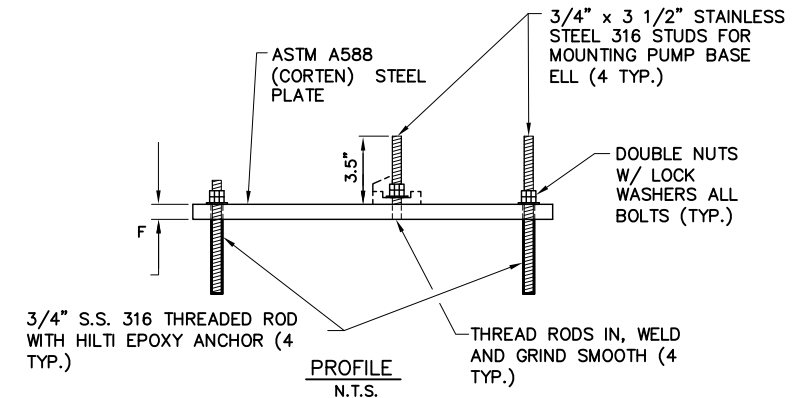
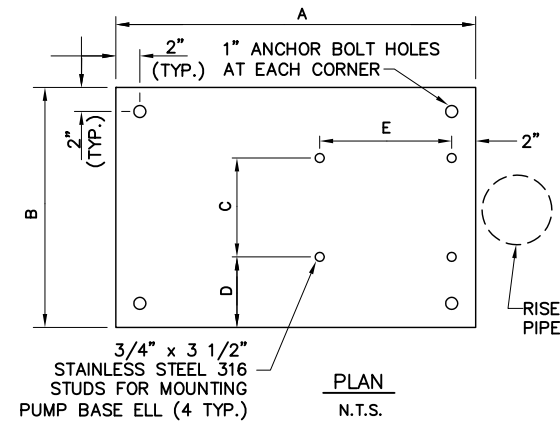
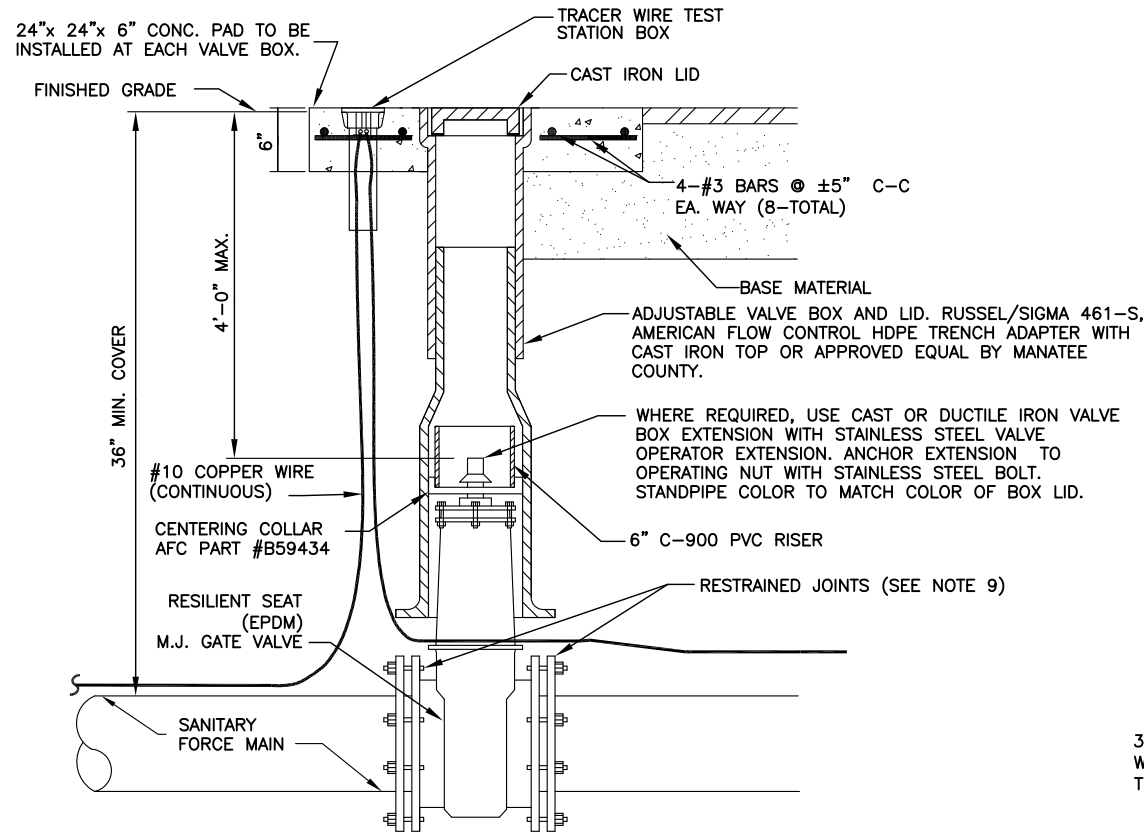
NOTES:

1. CONTRACTOR SHALL REMOVE AND INSTALL NEW ELECTRICAL SERVICE FROM EX. ELECT. HAND HOLE TO CONTROL PANEL AND FROM CONTROL PANEL TO WET WELL.
2. CONTRACTOR SHALL REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), CONTROL PANEL, METER CAN, SAFETY SWITCH (DISCONNECT). NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL ON THE NORTH SIDE OF WET WELL.

NO.	DATE	BY	REVISION DESCRIPTION
PROJECT #	402-0019707		
SURVEY #	7 5005116		
SEC./TWN./RGE	2/34/18		
SCALE	N.T.S.		
BY	DATE		
CHECKED			
DESIGNED			
DRAWN			
DATE	10/3/14		
STATE OF FLORIDA			
PROFESSIONAL ENGINEER			

NOTES:

- ALL ACCESS COVERS SHALL BE ALUMINUM, WITH 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, VALVE VAULT, FENCE GATE AND CONTROL PANELS OF PUBLICLY OWNED & MAINTAINED LIFT STATIONS SHALL BE FURNISHED BY THE MANATEE COUNTY UTILITIES DEPARTMENT.
- INSTALL WET WELL VENT ON THE HINGED SIDE OF THE WET WELL HATCH COVER.
- GROUND SHALL BE SLOPED AWAY FROM SLAB TO NATURAL GROUND ELEVATION IN ALL DIRECTIONS. WHERE CALLED OUT ON THE PLANS, SITE SHALL INCLUDE A WEED BARRIER FABRIC THAT IS COVERED WITH WASHED SHELL OR ROCK WITHIN LIFT STATION FENCING, 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.
- DUCTILE IRON OR CAST IRON VALVES AND FITTINGS SHALL HAVE A FACTORY APPLIED FUSION BONDED EPOXY EXTERIOR AND INTERIOR COATING.
- ALL FORCE MAIN PIPING AND FITTINGS WITHIN THE WETWELL AND/OR THE VALVE VAULT, FROM THE PUMP BASE ELBOW TO THE CHECK VALVE, SHALL BE DR11 HDPE. ALL CONNECTIONS TO IRON BODIED FLANGE FITTINGS IN THE WETWELL (PUMP BASE ELLS) AND TO THE VALVE VAULT CHECK VALVES SHALL BE MADE USING HDPE FLANGE ADAPTERS WITH 316 STAINLESS STEEL BACKUP RINGS. ALL HDPE CONNECTIONS SHALL BE THERMAL FUSED OR ELECTRO-FUSED. ALL PIPING DOWNSTREAM OF THE CROSS/90° BEND IN THE VALVE VAULT TO THE GATE VALVE SHALL BE PVC DR 18 C-900.
- ALL PIPING 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 METAL APPURTENANCES INCLUDING BOLTS, NUTS AND WASHERS INSIDE THE WET WELL AND VALVE VAULT SHALL BE STAINLESS STEEL UNLESS OTHERWISE NOTED (TYPE 316). ALL STAINLESS STEEL BOLTS SHALL BE TREATED WITH NEVER-SEIZE PRIOR TO ASSEMBLY.
- VERTICAL HDPE PUMP DISCHARGE PIPE IN THE WET WELL SHALL HAVE A TOP BRACE TO BE WITHIN 4' OF THE BOTTOM OF WET WELL TOP, A BOTTOM BRACE TO BE 4' ABOVE BASE ELLS, AND BE BRACED EVERY EIGHT (8) LINEAR FEET TO PREVENT EXCESSIVE BOWING, MAX SPACING OF 8' BTW BRACES. THE PIPE SHALL BE CLAMPED TO A SINGLE LENGTH OF 1-5/8" STAINLESS STEEL CHANNEL INSTALLED HORIZONTALLY AND ANCHORED TO THE WET WELL WALL AT EACH END WITH A CENTER BRACE OF 1-5/8" CHANNEL ATTACHED TO THE BACK OF THE WET WELL. THE PIPE CLAMPS SHALL BE A MINIMUM OF 1-1/2" WIDE, 12 GA. STAINLESS STEEL. WET WELLS LARGER THAN 8 FEET OR PIPING LARGER THAN 6 INCHES SHALL HAVE BRACING CONSTRUCTED FROM 1/4 INCH X 4 INCH STAINLESS STEEL ANGLE. IF A VALVE VAULT IS IN USE, THE TOP BRACE TO BE WITHIN 2' OF TOP ELBOW.
- ALL STRUCTURES MODIFIED/RAISED SHALL BE PRECAST TYPE II REINFORCED CONCRETE.
- FOR 5/8" WATER METER, PROVIDE POTABLE WATER SERVICE CONNECTION WITH 3/4" BRASS LOCKSHIELD AND LOOSE KEY HOSE BIB. PROVIDE WATTS 909 BACKFLOW PREVENTER (OR APPROVED EQUAL). ALL WATER SERVICE PIPING FROM WATER METER TO BE TYPE "K" COPPER OR BRASS, 3/4" MIN. DIAMETER FOR 5/8" METER AND 2" MIN. DIAMETER PIPING FOR 2" METER, SEE DETAIL US-15.
- HOSE BIB TO BE A MAXIMUM OF 2 FEET FROM THE VALVE VAULT, A MINIMUM OF 6 FEET FROM THE ELECTRICAL CONTROL PANEL, 24" ABOVE THE SURROUNDING FINISH GRADE, AND ANCHORED TO A 4" PVC CONCRETE FILLED PIPE.
- EVERY EFFORT SHALL BE MADE BY THE CONTRACTOR TO CONSTRUCT WATERTIGHT STRUCTURES WITH NO VISIBLE LEAKS. COMPLETED STRUCTURES THAT ARE NOT WATERTIGHT AND/OR DO NOT MEET THE REQUIREMENTS OF ASTM C-443 WILL BE REJECTED.
- FLEXIBLE GASKET CONNECTORS SHALL MEET THE REQUIREMENTS OF ASTM C-923 LATEST REVISION AND ARE REQUIRED IN ALL MANHOLES.
- ALL GATE VALVES SHALL BE RESILIENT SEAT IN ACCORDANCE WITH THESE STANDARDS.
- ELECTRICAL CONDUIT SHALL BE RUN BY THE SHORTEST ROUTE POSSIBLE FROM THE ELECTRICAL SOURCE TO THE CONTROL PANEL AND FROM THE CONTROL PANEL TO THE LIFT STATION WET WELL. NO ELECTRICAL SHALL BE INSTALLED BETWEEN THE WET WELL AND VALVE VAULT STRUCTURES.
- THE VALVE VAULT SHALL HAVE A MINIMUM CLEARANCE OF 12" FROM FLANGES TO THE VALVE VAULT WALL, 18" FROM FLANGES TO THE VALVE VAULT FLOOR AND 12" FROM THE CROSS TO THE VALVE VAULT WALL AT THE FORCE MAIN EXIT POINT.
- PVC RESTRAINTS SHALL BE EBAA IRON MEGA FLANGE. MEGA LUG OR APPROVED EQUAL.
- ALL BURIED FITTINGS SHALL BE RESTRAINED MECHANICAL JOINT, DUCTILE IRON.
- MANATEE COUNTY UTILITY OPERATIONS DEPT. SHALL HAVE THE OPTION TO PICK-UP AT THE SITE ANY REMOVED ITEM SUCH AS VALVES FOR POSSIBLE REUSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL REMOVED ITEMS NOT PICKED UP BY THE UTILITY OPERATIONS DEPT.



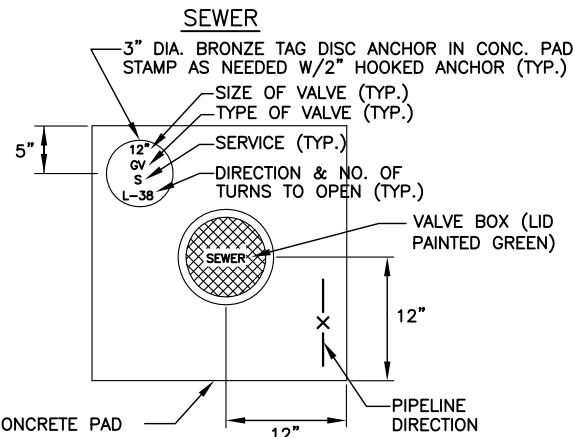
PUMP BASE ELL MOUNTING PLATE DIMENSIONS

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

NOTES:

- INSTALL DOUBLE NUTS ON ALL EIGHT (8) THREADED RODS.
- THE PLATE EDGES AND ALL HOLES SHALL BE GRIND 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.

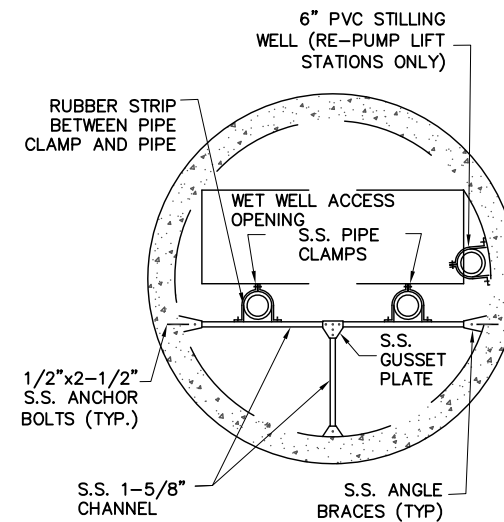
PUMP BASE ELL MOUNTING PLATE N.T.S.



NOTES:

- "S" TO BE IMPRESSED INTO THE NEWLY-POURED CONCRETE CURB, ALONG WITH DISTANCE IN FEET TO THE VALVE. IF NO CURB, INSTALL A GREEN DISC WITH "S" AND A 1/8"x1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE FOOTAGE FROM THE DISC TO THE VALVE.
- ALL EXISTING AND PROPOSED VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADES AS DETERMINED IN THE FIELD.
- SANITARY VALVES SHALL NOT BE PLACED IN HANDICAPPED RAMPS.
- PRECAST CONCRETE PADS & THRUST BLOCKS SHALL NOT BE USED.
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
- PIPELINE DIRECTION TO BE IMPRESSED INTO NEWLY POURED CONCRETE PAD.

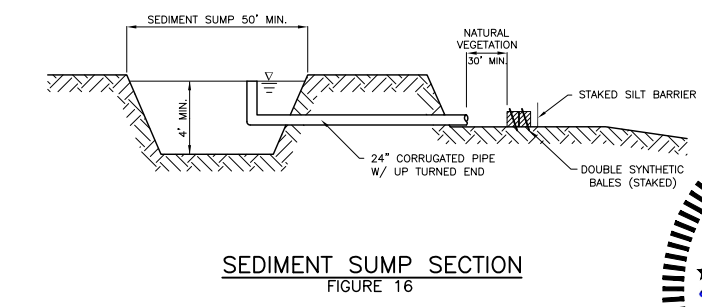
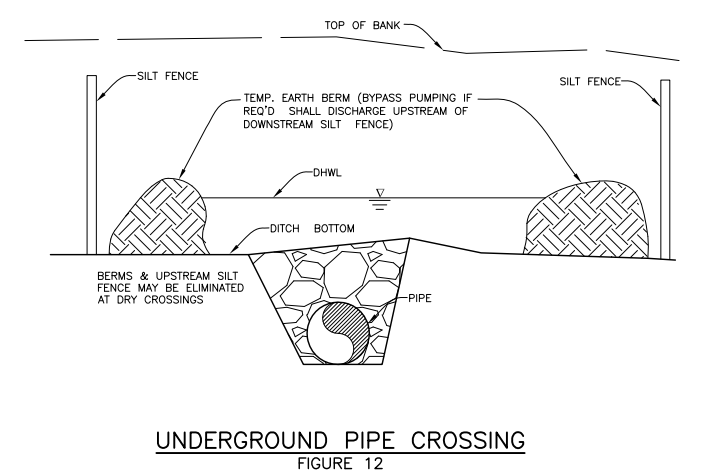
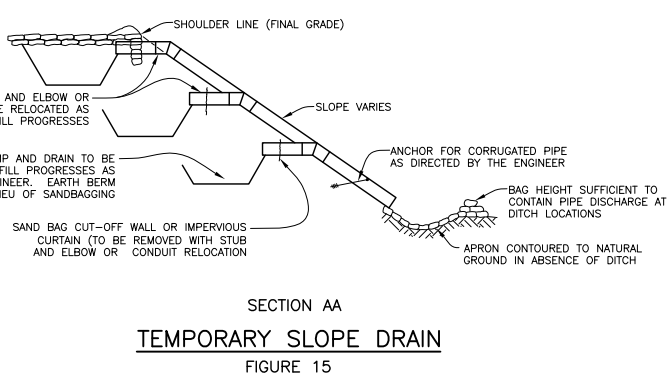
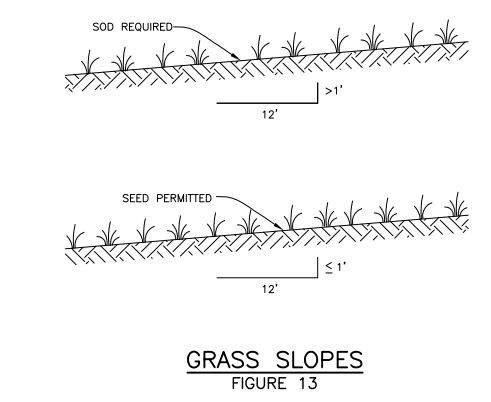
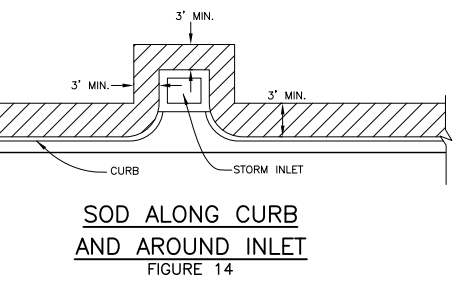
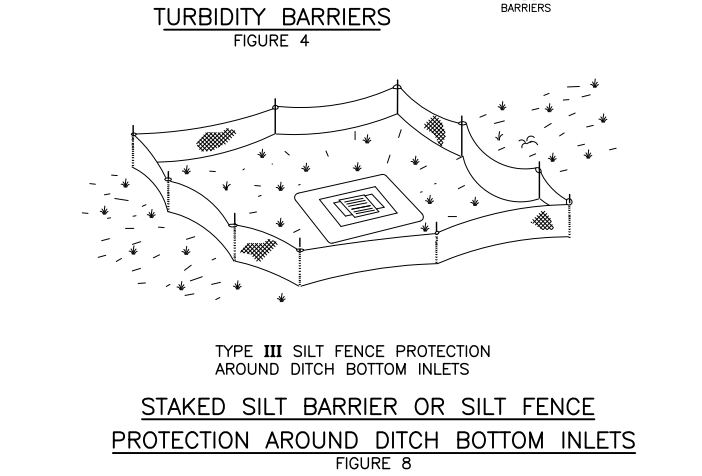
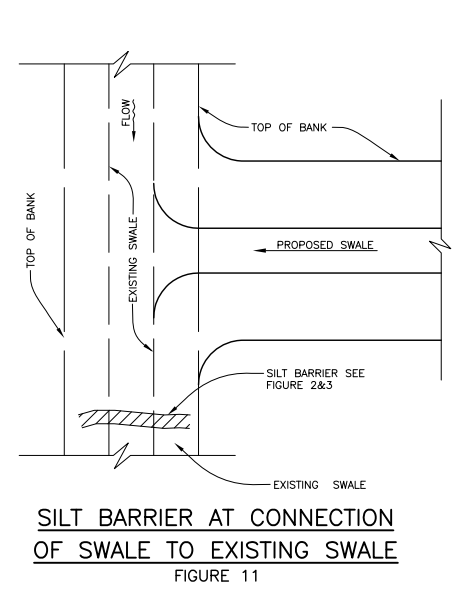
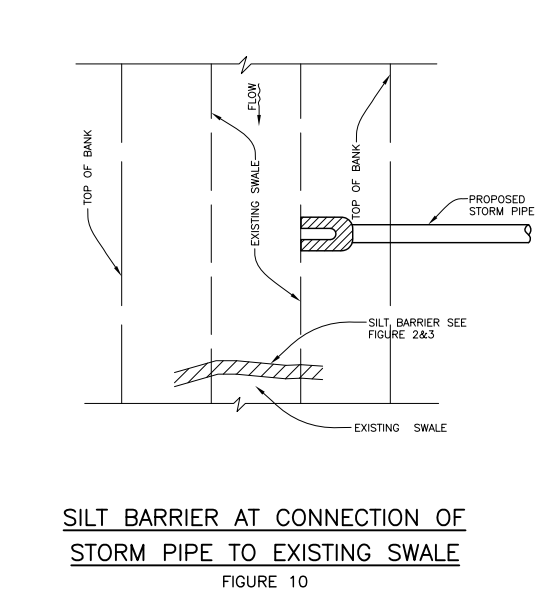
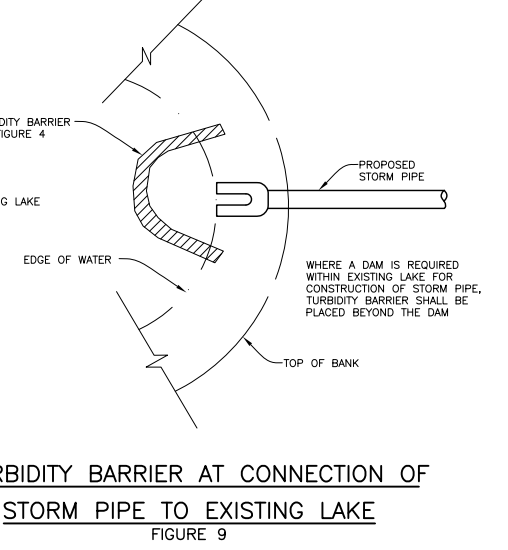
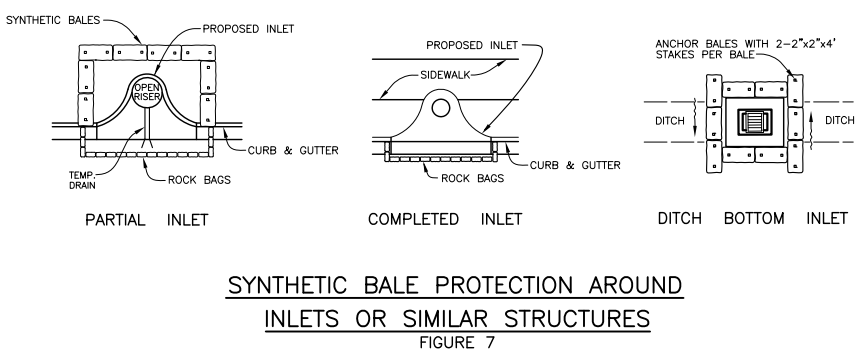
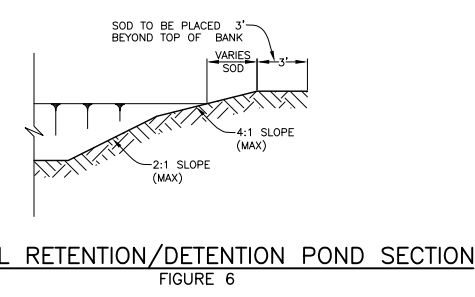
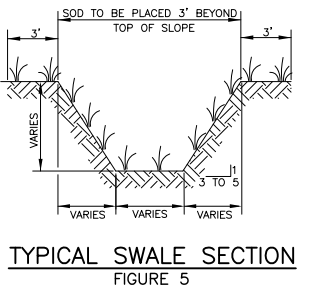
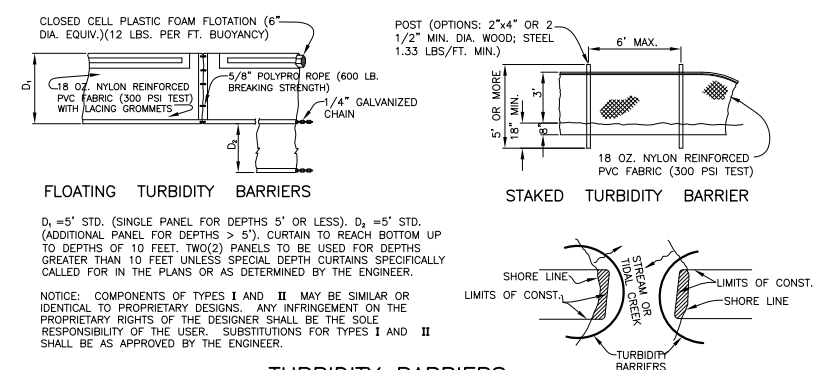
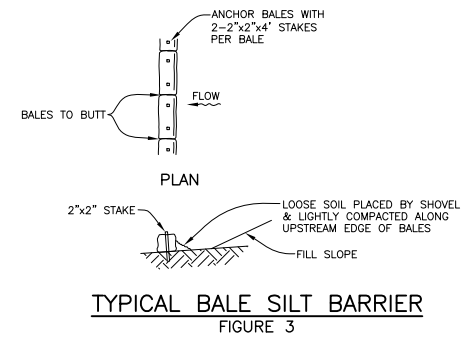
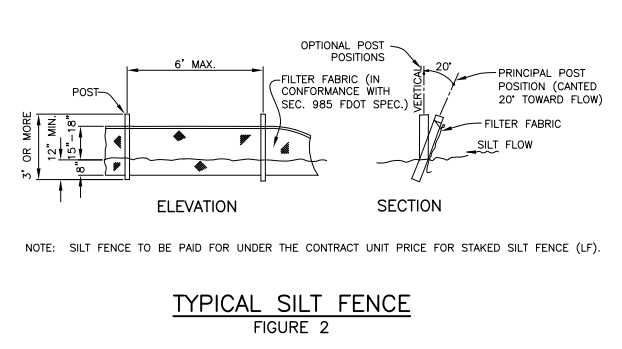
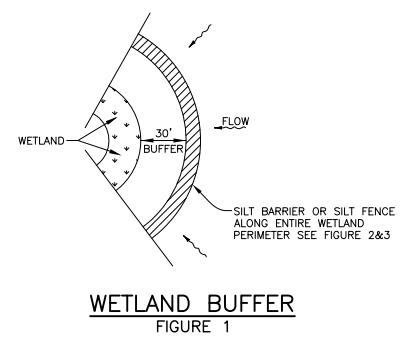
GATE VALVE, BOX COVER AND TAG N.T.S.



WET WELL PIPE BRACING DETAIL N.T.S.

DATE				
BY				
REVISION DESCRIPTION				
NO.				
PROJECT #	402-0019707 / 5001301			
SURVEY #	-			
SEC./TWN./RGE	-			
SCALE	N.T.S.			
BY	DATE			
DESIGNED	10/3/14			
CHECKED				
NO.	60923			
	JUN, P.E.			
	FLORIDA P.E. # 55223			
	STATE OF			
	10/3/14			
	FLORIDA			
	PROFESSIONAL ENGINEER			

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

NO.	DATE
BY	
REVISION DESCRIPTION	
PROJECT #	402-0019707 / 5001301
SURVEY #	-
SEC./TWN./RGE	-
SCALE	N.T.S.
DESIGNED BY	JOHN S. SHOUEN
CHECKED	
DATE	10/3/14
STATE OF	FLORIDA
PROFESSIONAL ENGINEER	