

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT | S:\PVD_Engineering_Series\Util_Eng_Design\PROJ\San_Svr - US Upgrades\SLS R&R 2015 Group 2.dwg, Cover, 4/8/2016 7:11 AM Shep Shoun, 1:1, ANSI full bleed B (17.00 x 11.00 inches)



SATELLITE LIFT STATION R&R

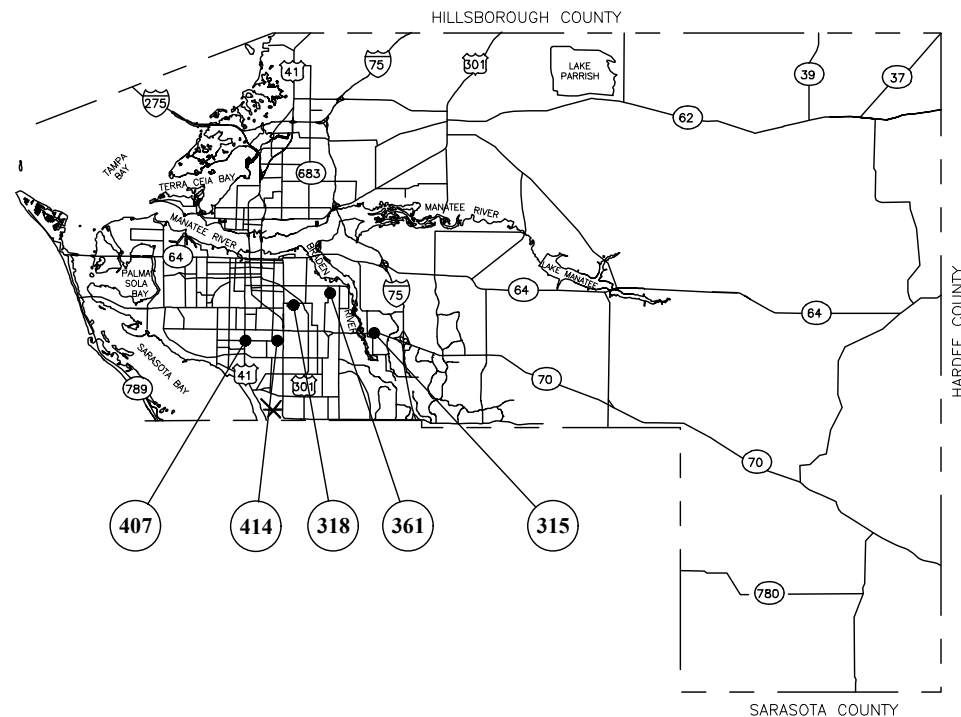
2015 GROUP 2

402-0019707 / 5001301

APRIL 2016

100% PLANS

L.S.NAME/NO.	RTU #	ADDRESS	PROJECT JL NO.
HORSESHOE COVE 1	315	5200 60TH ST E, BRADENTON	402-5135880
MANASOTA INDUSTRIAL PARK	318	4414 18TH ST E, BRADENTON	402-5135480
SUGAR RIDGE	361	3107 37TH TER E, SAMOSET	402-5135780
RED LOBSTER	407	5715 14TH ST E (US 41), BRADENTON	402-5135680
PALM LAKES	414	808 53RD AVE E, LOT 26, ST A, BRADENTON	402-5135580



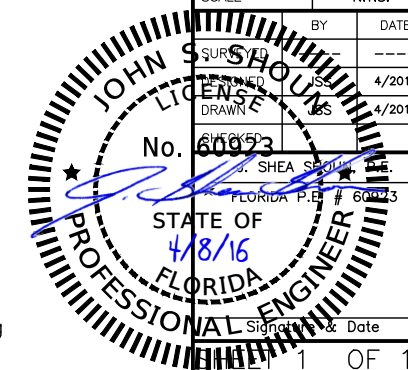
NO.	INDEX OF SHEETS
1.	COVER SHEET
2.	GENERAL NOTES & LEGEND
3.	VICINITY MAPS
4.-5.	HORSESHOE COVE 1
6.-7.	MANASOTA INDUSTRIAL PARK
8.-9.	SUGAR RIDGE
10.	RED LOBSTER
11.-12.	PALM LAKES
13.	REHABILITATION DETAILS
14.-15.	SEWER DETAILS
16.	EROSION CONTROL

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.



Know what's below
Call before you dig



THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2015 GROUP 2
COVER SHEET

NO.	DATE	BY	REVISION DESCRIPTION
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

PROJECT #	402-0019707 / 5001301
SURVEY #	-
SEC./TWN./RGE	-
SCALE	N.T.S.
BY	DATE
DESIGNED	4/2016
DRAWN	4/2016
CHECKED	
APPROVED	
STATE OF FLORIDA P.E. # 60953	
DATE	4/8/16
SIGNATURE	

SHEET 1 OF 16

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\PWD_Engineering_Share\Util Eng Design\PROJ\3-SAN SWR Proj\San Swr - L5 Upgrades\SLS R&R 2015 Group 2\DWG3--SLS R&R 2015 Grp 2.dwg.2 Notes, 4/8/2016 7:11 AM Shea Sheun, 1:1, ANSI full bleed B (17.00 x 11.00 Inches)

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\PWD_Engineering_Share\Util Eng Design\PROJ\3-SAN SWR Proj\San Swr - L5 Upgrades\SLS R&R 2015 Group 2\DWG3--SLS R&R 2015 Grp 2.dwg.2 Notes, 4/8/2016 7:11 AM Shea Sheun, 1:1, ANSI full bleed B (17.00 x 11.00 Inches)

- COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\PWD_Engineering_Share\Util Eng Design\PROJ\3-SAN SWR Proj\San Swr - L5 Upgrades\SLS R&R 2015 Group 2\DWG3--SLS R&R 2015 Grp 2.dwg.2 Notes, 4/8/2016 7:11 AM Shea Sheun, 1:1, ANSI full bleed B (17.00 x 11.00 Inches)

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\PWD_Engineering_Share\Util Eng Design\PROJ\3-SAN SWR Proj\San Swr - L5 Upgrades\SLS R&R 2015 Group 2\DWG3--SLS R&R 2015 Grp 2.dwg.2 Notes, 4/8/2016 7:11 AM Shea Sheun, 1:1, ANSI full bleed B (17.00 x 11.00 Inches)

- COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\PWD_Engineering_Share\Util Eng Design\PROJ\3-SAN SWR Proj\San Swr - L5 Upgrades\SLS R&R 2015 Group 2\DWG3--SLS R&R 2015 Grp 2.dwg.2 Notes, 4/8/2016 7:11 AM Shea Sheun, 1:1, ANSI full bleed B (17.00 x 11.00 Inches)

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\PWD_Engineering_Share\Util Eng Design\PROJ\3-SAN SWR Proj\San Swr - L5 Upgrades\SLS R&R 2015 Group 2\DWG3--SLS R&R 2015 Grp 2.dwg.2 Notes, 4/8/2016 7:11 AM Shea Sheun, 1:1, ANSI full bleed B (17.00 x 11.00 Inches)

- COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\PWD_Engineering_Share\Util Eng Design\PROJ\3-SAN SWR Proj\San Swr - L5 Upgrades\SLS R&R 2015 Group 2\DWG3--SLS R&R 2015 Grp 2.dwg.2 Notes, 4/8/2016 7:11 AM Shea Sheun, 1:1, ANSI full bleed B (17.00 x 11.00 Inches)

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\PWD_Engineering_Share\Util Eng Design\PROJ\3-SAN SWR Proj\San Swr - L5 Upgrades\SLS R&R 2015 Group 2\DWG3--SLS R&R 2015 Grp 2.dwg.2 Notes, 4/8/2016 7:11 AM Shea Sheun, 1:1, ANSI full bleed B (17.00 x 11.00 Inches)

- COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT S:\PWD_Engineering_Share\Util Eng Design\PROJ\3-SAN SWR Proj\San Swr - L5 Upgrades\SLS R&R 2015 Group 2\DWG3--SLS R&R 2015 Grp 2.dwg.2 Notes, 4/8/2016 7:11 AM Shea Sheun, 1:1, ANSI full bleed B (17.00 x 11.00 Inches)

34. ANY
CONS
UTILI
MAY
TO T

35. FOR
FLOW
CON

34. ANY
CONS
UTILI
MAY
TO T
35. FOR
FLOW
CON

34. ANY
CONS
UTILI
MAY
TO T

35. FOR
FLOW
CON

34. ANY
CONS
UTILI
MAY
TO T
35. FOR
FLOW
CON

34. ANY
CONS
UTILI
MAY
TO T

35. FOR
FLOW
CON

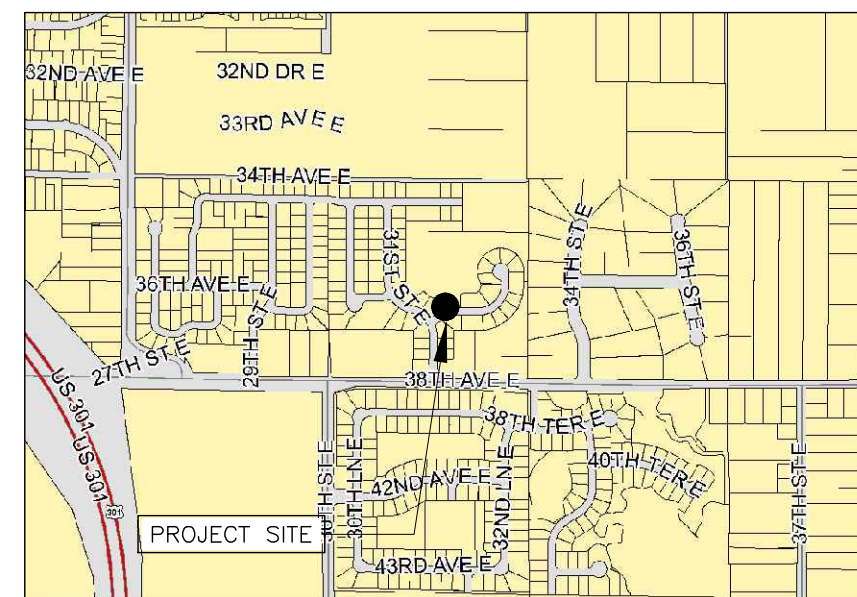
34. ANY
CONS
UTILI
MAY
TO T
35. FOR
FLOW
CON



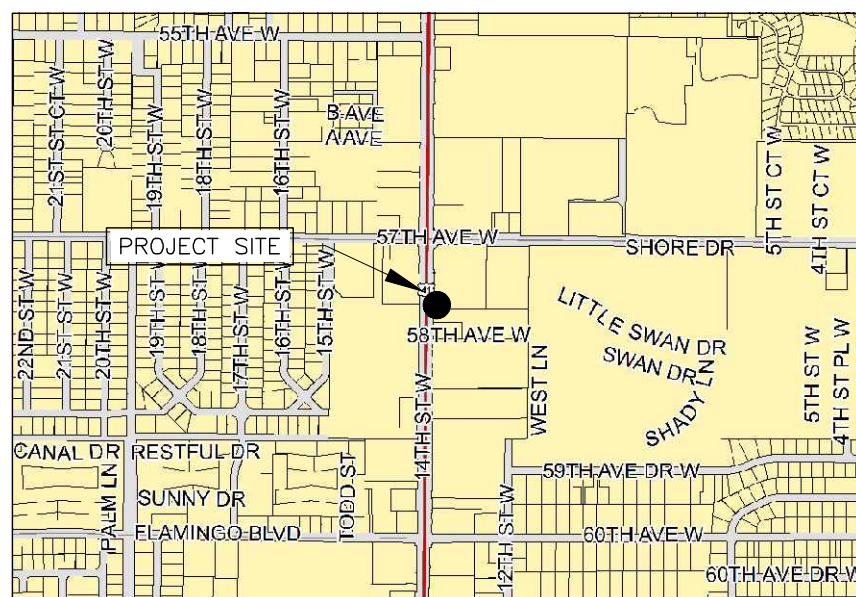
HORSESHOE COVE 1, RTU 315,
5200 60TH ST E, BRADENTON



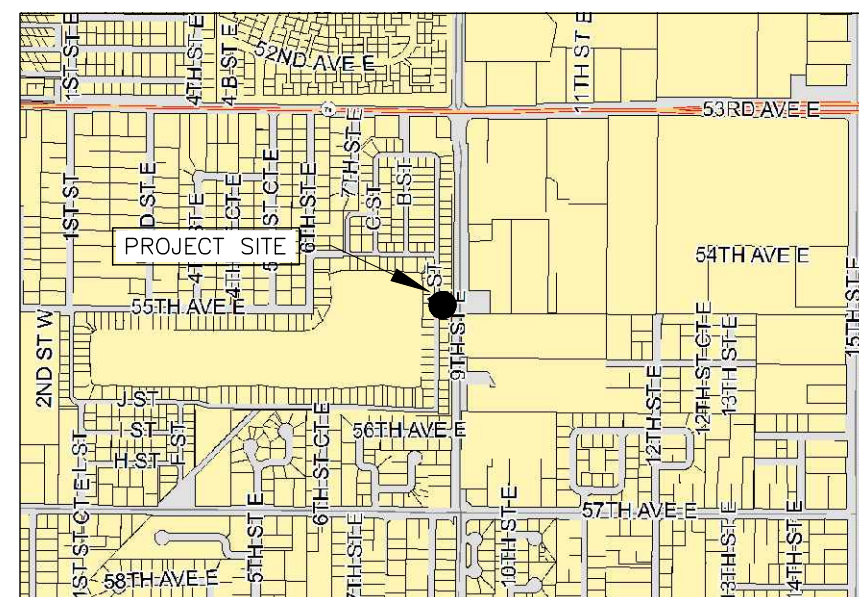
MANASOTA INDUSTRIAL PARK, RTU 318,
4414 18TH ST E, BRADENTON



SUGAR RIDGE, RTU 361,
3107 37TH TERR E, SAMOSET



RED LOBSTER, RTU 407,
715 14TH ST W (US 41), BRADENTON



PALM LAKES, RTU 414,
808 53RD AVE E; LOT 26, "A" ST, BRADENTON

NOTE(S):

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

[illegible]

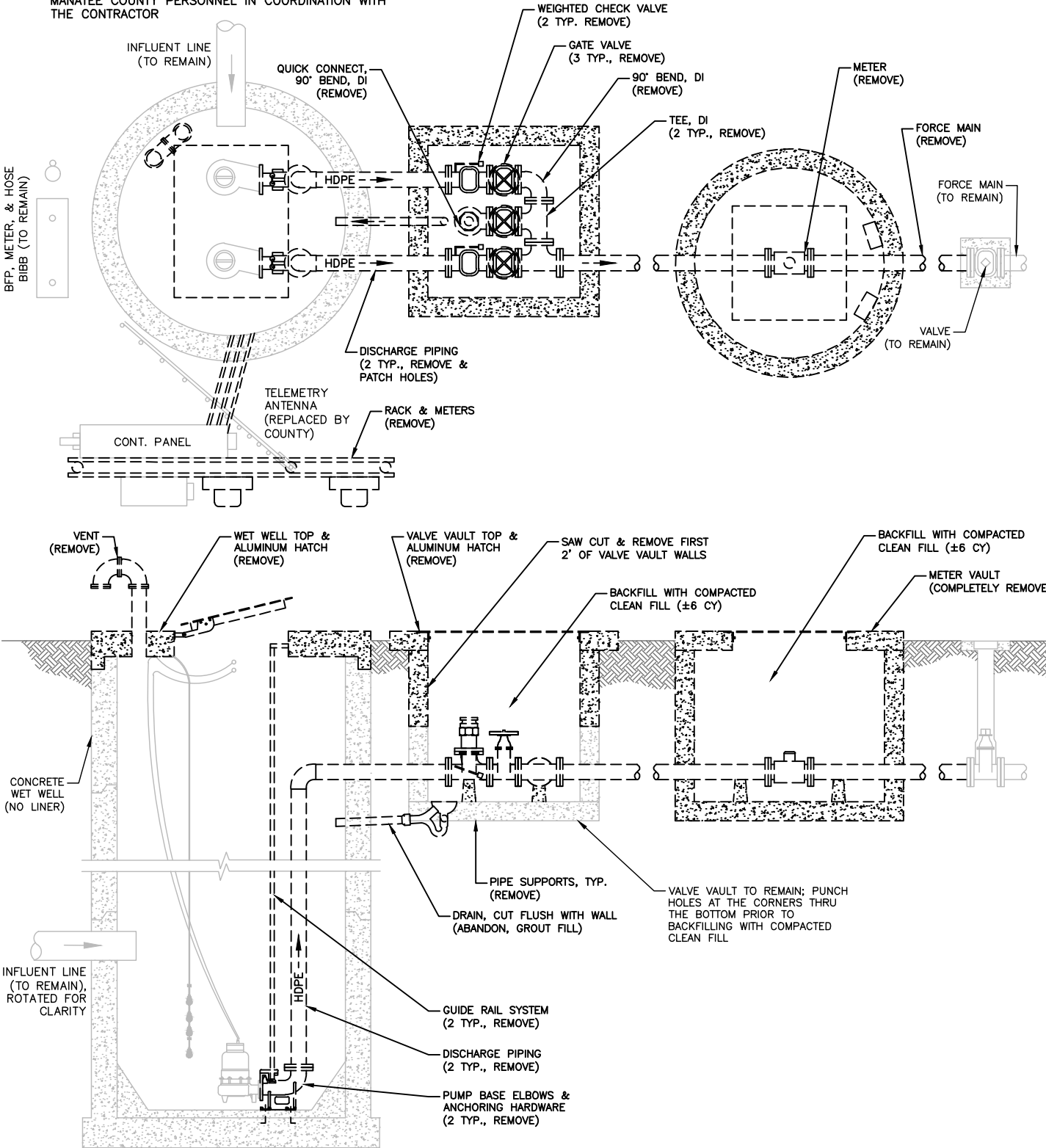
EXISTING

NOTES:

1. THE WET WELL, VALVE VAULT, AND METER 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)	315
L.S. DESIGN CAPACITY GPM/TDH	500/140
DISCHARGE PIPING DIAMETER	4"
WET WELL DIAMETER	6'
BOTTOM SLAB ELEVATION	-3.55
TOP ELEVATION	13.25
VALVE VAULT HATCH ELEVATION	13.16
INFLUENT INVERT ELEVATION	-0.05
INFLUENT PIPE SIZE	8"
FORCE MAIN DIAMETER	6"
WET WELL VENT PIPE	PVC
ELECT. SERVICE SIZE, AMPS/VOLT	200/480

* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO 2015 MASTER.XLS), RECORD DRAWINGS & SURVEY. DATUM FOR ELEVATIONS IS NAVD 88'.

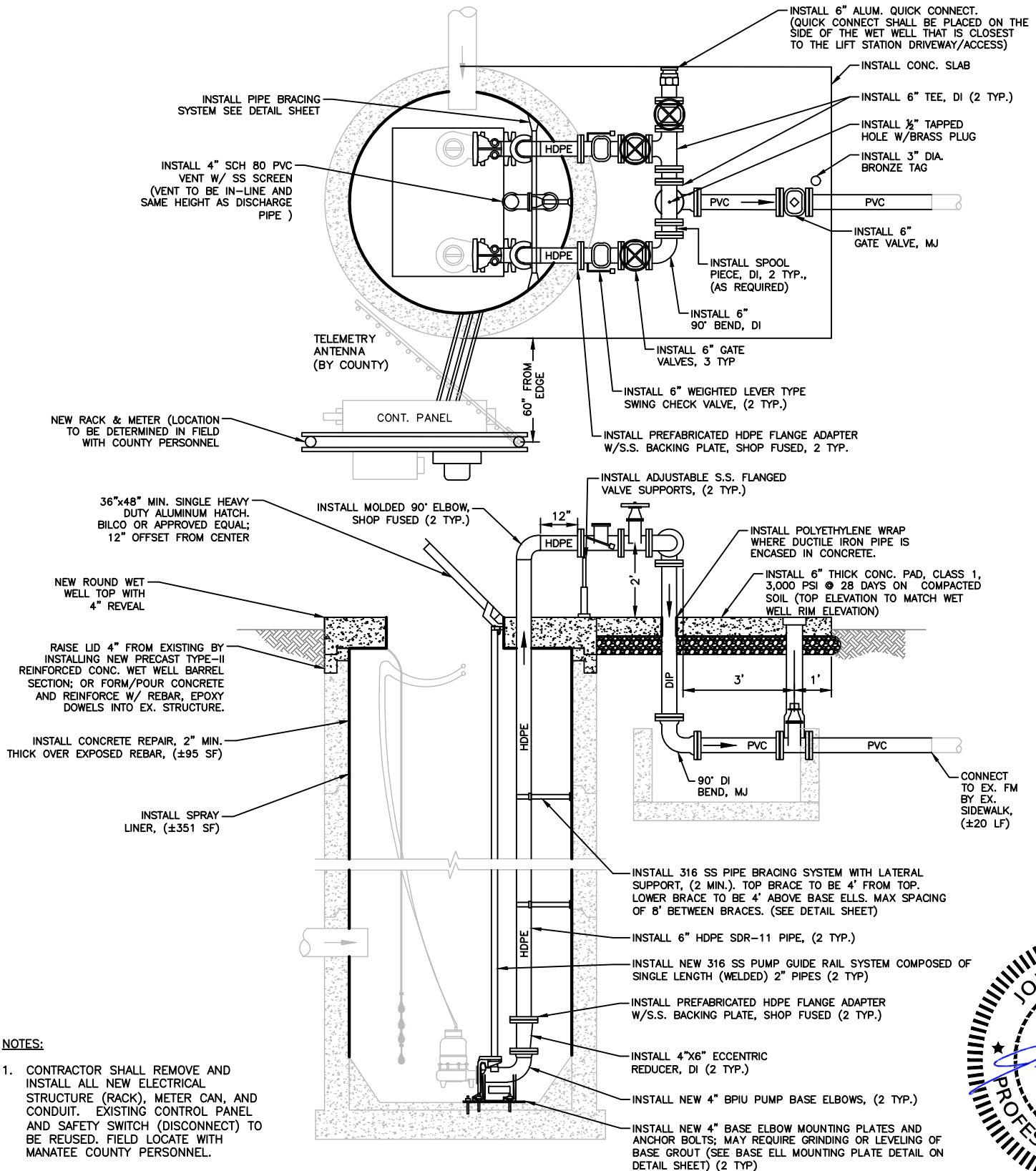


PROPOSED

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, 6"
NEW BASE ELL	4" BPIU-14
RAISE TOP OF WET WELL:	YES, 4"
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 THAT 1/4" UNDER A TEN FOOT (10') STRAIGHTEDGE, NOT MORE THAN 1/8" ON A FIVE FOOT (5') TRANSVERSE SECTION. THE EDGE OF THE CONCRETE PAD SHALL BE CAREFULLY FINISHED WITH 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 ALL NEW ELECTRICAL STRUCTURE (RACK), METER CAN, AND CONDUIT. EXISTING CONTROL PANEL AND SAFETY SWITCH (DISCONNECT) TO BE REUSED. FIELD LOCATE WITH MANATEE COUNTY PERSONNEL.



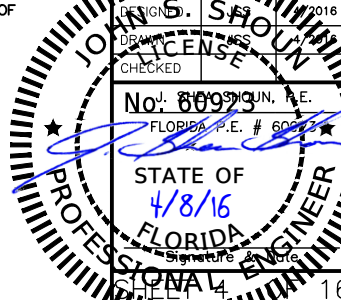
THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2015 GROUP 2
HORSESHOE COVE 1, RTU 315

NO.	REVISION	DESCRIPTION	BY	DATE

PROJECT #	402-5135880
SURVEY #	-
SEC./TWN./RGE	10/35/18
SCALE	N.T.S.

BY	DATE



INSTALL: 12' WIDE 6" THICK REINFORCED
CONC. DRWY. TOP ELEVATION SHALL
MATCH EXISTING GROUND. GRADE SITE
TO ALLOW FOR POSITIVE DRAINAGE TO
THE SOUTHERN DITCH/CANAL., (± 42 SY)

REMOVE & REPLACE GATE POST.
LOCATE OUTSIDE OF EDGE OF
PROPOSED DRIVEWAY, (2 TYP.)

CONTOUR PROPOSED
DRIVEWAY TO MINIMIZE
ANY SLOPE DIFFERENTIAL.

REMOVE & REPLACE EX. GATES W/
(2)-6' WIDE CHAIN-LINK GATES.

UTILITY EASEMENT
(O.R.B. 1022, PG. 1743)

WET WELL
TOP EL=13.25
W. INV. EL=-0.05
BOT. EL=-3.55

B.M. "A" N.E.
COR. OF METAL
DOOR EL=13.18

VAULT
(ABANDON,
SEE REHAB)

METER
(REMOVE,
SEE REHAB)

METER VAULT
TOP EL=12.88
(REMOVE)

METER, BFP, &
HOSE BIBB
(RELOCATE, TBD
IN FIELD, ± 10 LF)

INSTALL: NEW ELEC. RACK,
METER CAN & ALL CONDUIT.
REUSE EX. CONTROL PANEL &
SAFETY SWITCH (DISCONNECT).
ANTENNA TO BE INSTALLED BY
COUNTY.

- SMH
RIM EL=13.74
W. INV. EL=0.84
N. INV. EL=0.52
S. INV. EL=0.38
E. INV. EL=0.32
N.E. T.O.P. EL=8.29
PIPES UNDER WATER

MAINTAINED R/W LINE
R.P.B. 9, PG. 90

— R/W LINE (D)


(BM "B" ACTUAL LOCATION IS
24' TO THE EAST; COPIED
HERE FOR REFERENCE)

B.M. "B" -
IRS (LB 6982)
EL=14.51

REMOVE: SAW-CUT & REMOVE
PORTION OF EX. CONC.
SIDEWALK, (± 2 SY)

SWV TOP
EL=13.36
NUT EL=11.06

SWV TOP
EL=13.43
NUT EL=10.86


 SWV TOP |
 EL=13.17 |
 NUT EL=~~10.17~~

CONNECT
PROPOSED FM
TO EXISTING
VALVE.

SURVEYOR NOTES:

BEARINGS ARE BASED ON THE EAST LINE OF TRACT C OF RIVER FOREST, A SUBDIVISION AS PER PLAT THEREOF RECORDED IN PLAT BOOK 32, PAGE 18 OF THE PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA, HAVING A BEARING OF S 00°59'57" E, STATE PLANE COORDINATE SYSTEM, (WEST ZONE) NAD 83/2011 DERIVED FROM CONTROL MONUMENT "MANATEE G. STROOP CORS" (DL7628). THE PUBLISHED VALUES OF "SUGARMILL WOODS (PID BBCY85)" AND "GILCHRIST (PID BBCL87)" WERE USED TO VALIDATE THE PROJECT COORDINATES.

THE PROPERTY LIES WITHIN FLOOD ZONE "X" (OTHER AREAS) AS SHOWN ON MANATEE COUNTY FLOOD INSURANCE RATE MAP PANEL No. 12081C0328E, DATED MARCH 17, 2014.

ELEVATIONS ARE BASED ON N.A.V.D. 1988 DATUM, NGS BENCHMARK "M 7 M" (PID AG7701) ELEVATION OF 10.41'.

BENCH MARKS:

BM "A" N.E. CORNER OF METAL DOOR ON VAULT
EL. = 13.18' NAVD 1988 (EL. = 14.15' NGVD 1929)
BM "B" IRON ROD SET (CAP # LB6982) IN MEDIAN
EL. = 14.51' NAVD 1988 (EL. = 15.48' NGVD 1929)

38" x 24" RCP



**PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES**
226th Avenue East, Bradenton, FL 34208

THESE PLANS HAVE BEEN DESIGNED ON 11X17 SHEETS

**SATELLITE LIFT STATION R&R
2015 GROUP 2
HORSESHOE COVE 1, RTU 315**

[illegible]

PROJECT #	402-5135880
SURVEY #	-
SEC./TWN./RGE	10/35/18
SCALE	1" = 5'

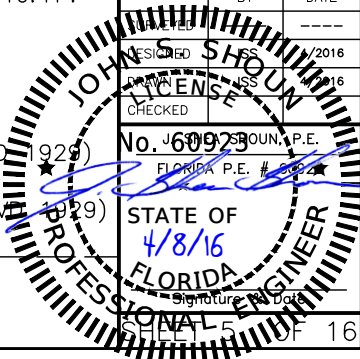
BY	DATE
---	---

DESIGNED ISSUED 11/2016
DRAWN ISSUED 11/2016
CHECKED
LICENSE

0. 60923
J. S. SHOUN, P.E.
FLORIDA P.E. # 0004

STATE OF
4/8/16

Signature & Date _____



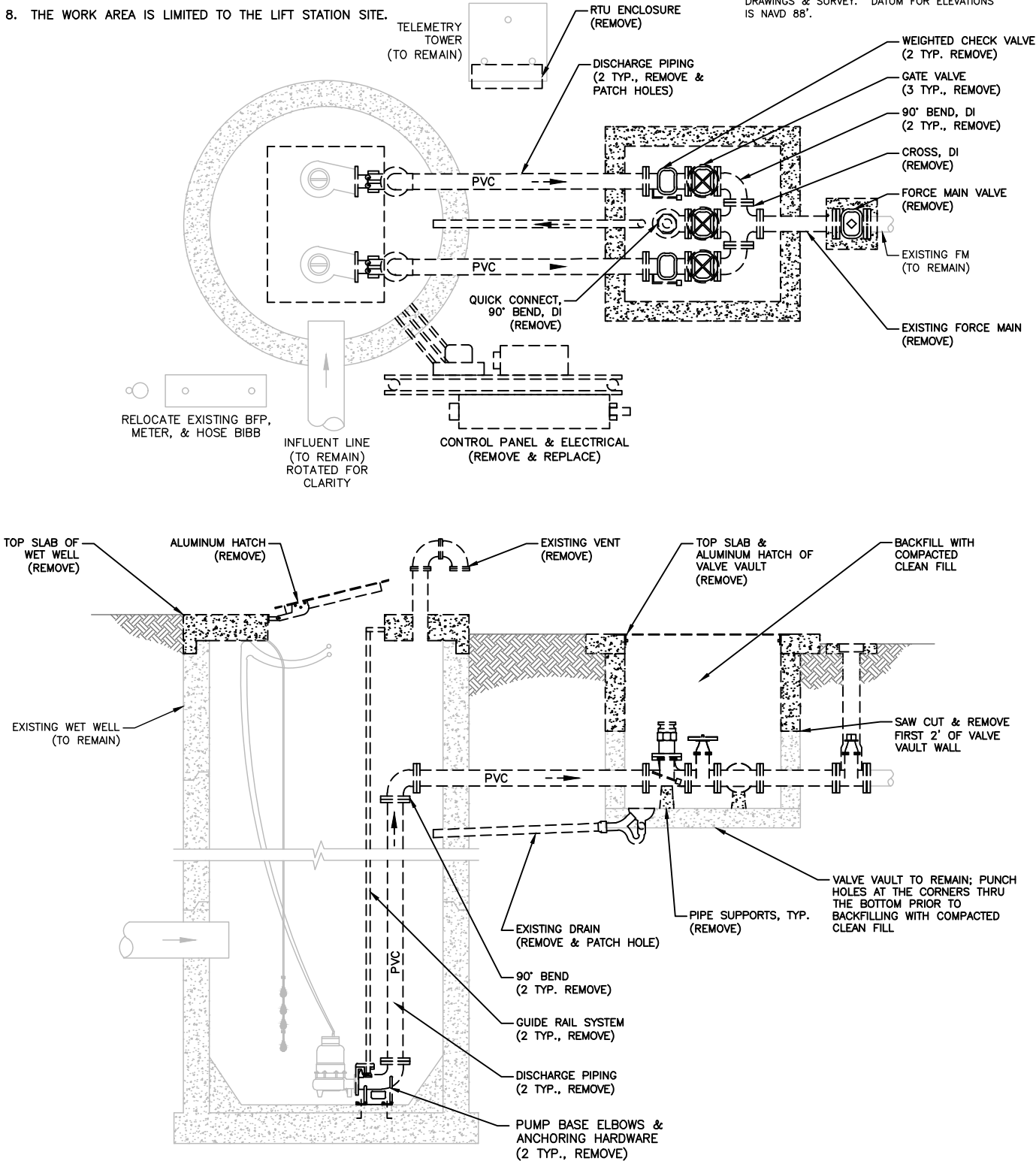
EXISTING

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)	318
DESIGN CAPACITY GPM/TDH	200/23
DISCHARGE PIPING DIAMETER	4"
WET WELL DIAMETER	6'
BOTTOM SLAB ELEVATION	10.56
TOP ELEVATION	31.61
VALVE VAULT HATCH ELEVATION	31.63
INFLUENT INVERT ELEVATION	15.70
INFLUENT PIPE SIZE	10"
FORCE MAIN DIAMETER	6"
WET WELL VENT PIPE	DI
ELECT. SERVICE SIZE, AMPS/VOLT	100/240

* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO 2015 MASTER.XLS), RECORD DRAWINGS & SURVEY. DATUM FOR ELEVATIONS IS NAVD 88'.

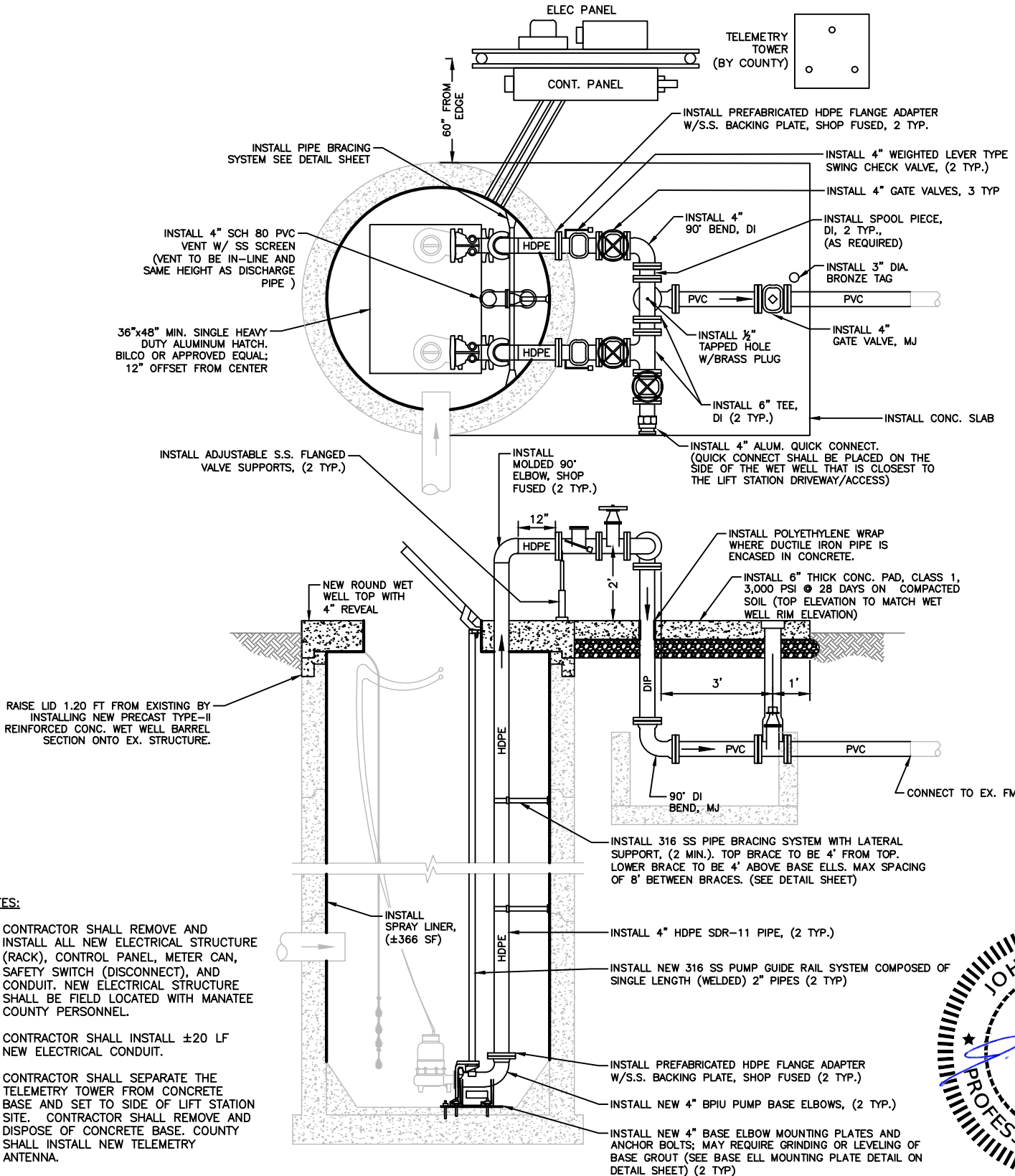


PROPOSED

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, 1.20'
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 THAT 1/4" UNDER A TEN FOOT (10') STRAIGHTEDGE, NOT MORE THAN 1/8" ON A FIVE FOOT (5') TRANSVERSE SECTION. THE EDGE OF THE CONCRETE PAD SHALL BE CAREFULLY FINISHED WITH 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 ALL NEW ELECTRICAL STRUCTURE (RACK), CONTROL PANEL, METER CAN, SAFETY SWITCH (DISCONNECT), AND CONDUIT. NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL.
2. CONTRACTOR SHALL INSTALL ±20 LF NEW ELECTRICAL CONDUIT.
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.



THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2015 GROUP 2
MANASOTA IND. PARK, RTU 318

NO.	REVISION	DESCRIPTION	BY	DATE

PROJECT #	402-5135480
SURVEY #	-
SEC./TWN./RGE	7/35/18
SCALE	N.T.S.

CHECKED	DATE
J. SHEA SHOWN	4/8/16
DESIGNED	DATE
J. SHEA SHOWN	4/8/16
STATE OF FLORIDA	PROFESSIONAL ENGINEER
NO. 60923	OF 16

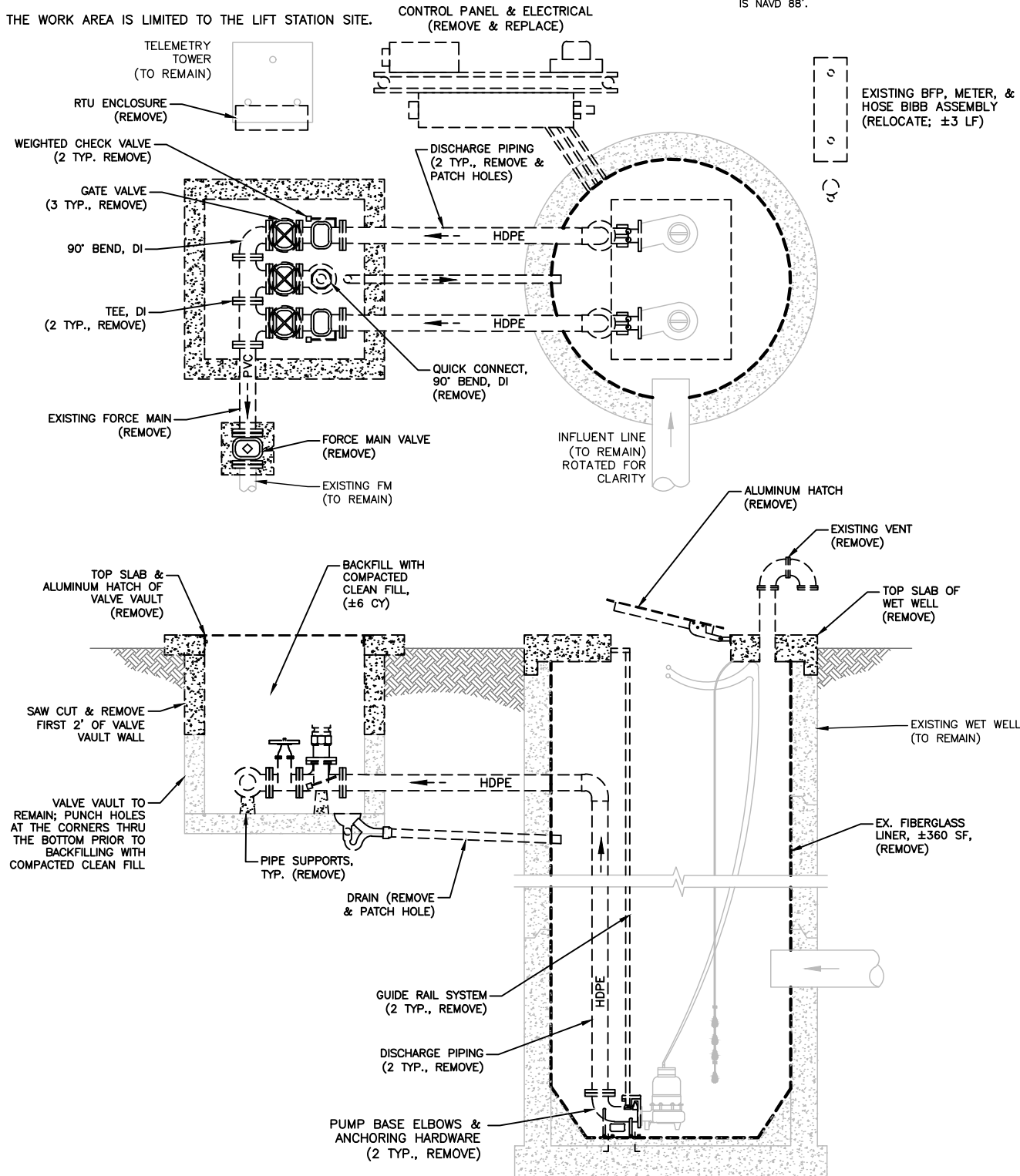
EXISTING

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)	361
DESIGN CAPACITY GPM/TDH	125/30.6
DISCHARGE PIPING DIAMETER	4"
WET WELL DIAMETER	6'
BOTTOM SLAB ELEVATION	-2.68
TOP ELEVATION	14.94
VALVE VAULT HATCH ELEVATION	14.80
INFLUENT INVERT ELEVATION	1.09
INFLUENT PIPE SIZE	10"
FORCE MAIN DIAMETER	4"
WET WELL VENT PIPE	PVC
ELECT. SERVICE SIZE, AMPS/VOLT	100/240

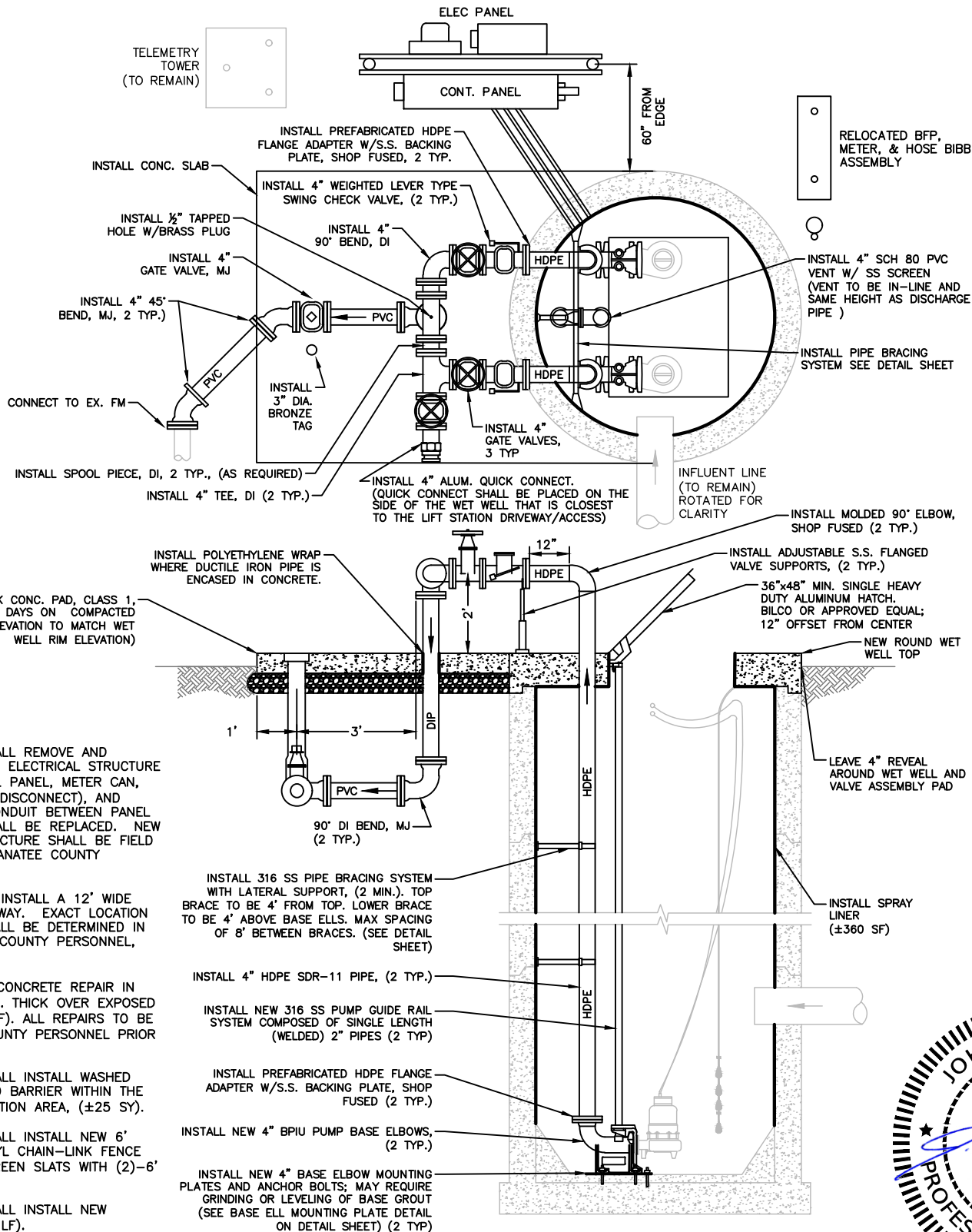
* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO 2015 MASTER.XLS), RECORD DRAWINGS & SURVEY. DATUM FOR ELEVATIONS IS NAVD 88'.



PROPOSED

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 THAT 1/4" UNDER A TEN FOOT (10') STRAIGHTEDGE, NOT MORE THAN 1/8" ON A FIVE FOOT (5') TRANSVERSE SECTION. THE EDGE OF THE CONCRETE PAD SHALL BE CAREFULLY FINISHED WITH 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 ALL NEW ELECTRICAL STRUCTURE (RACK), CONTROL PANEL, METER CAN, SAFETY SWITCH (DISCONNECT), AND CONDUIT. ALL CONDUIT BETWEEN PANEL ENCLOSURES SHALL BE REPLACED. NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL.
2. CONTRACTOR TO INSTALL A 12' WIDE CONCRETE DRIVEWAY. EXACT LOCATION AND LAYOUT SHALL BE DETERMINED IN THE FIELD WITH COUNTY PERSONNEL, (±22 SY)
3. REPAIR/INSTALL CONCRETE REPAIR IN WETWELL, 2" MIN. THICK OVER EXPOSED REBAR, (±195 SF). ALL REPAIRS TO BE VERIFIED W/ COUNTY PERSONNEL PRIOR TO WORK.
4. CONTRACTOR SHALL INSTALL WASHED SHELL AND WEED BARRIER WITHIN THE FENCED LIFT STATION AREA, (±25 SY).
5. CONTRACTOR SHALL INSTALL NEW 6' HIGH GREEN VINYL CHAIN-LINK FENCE (±97 LF) W/ GREEN SLATS WITH (2)-6' WIDE GATE.
6. CONTRACTOR SHALL INSTALL NEW SIDEWALK, (±30 LF).



THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

SATELLITE LIFT STATION R&R
2015 GROUP 2
SUGAR RIDGE, RTU 361

DATE					
BY					
REVISION DESCRIPTION					
NO.					
PROJECT #	402-5135780				
SURVEY #	-				
SEC./TWN./RGE	5/35/18				
SCALE	N.T.S.				
BY		DATE			
SURVEYED					
DESIGNED		4/2018			
DRAWN					
CHECKED					
APPROVED					
J. SHEA SHOUNK, P.E.	No. 00923 # 60923				
STATE OF	4/8/16				
FLORIDA	18 ENCL 16				

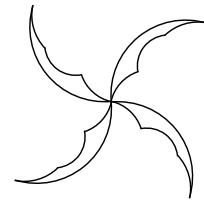
BEARINGS ARE BASED ON THE CENTER LINE OF 37th TERRACE EAST, SUGAR RIDGE SUBDIVISION, AS PER PLAT THEREOF RECORDED IN PLAT BOOK 29, PAGE 177 OF THE PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA, HAVING A BEARING OF N 60°10'00" E, STATE PLANE COORDINATE SYSTEM, (WEST ZONE) NAD 1983/2011 DERIVED FROM CITY OF BRADENTON MONUMENT "COB 1019 PID (BBCS67)" AND COB 1017 (BBCS11)" WERE USED TO VALIDATE THE PROJECT COORDINATES.

ELEVATIONS ARE BASED ON N.A.V.D. 1988 DATUM,
CITY OF BRADENTON BENCH MARK MARK "COB
1019 (PID D06903)" ELEVATION OF 13.317'.

BM "A" SQUARE CUT WEST SIDE WET WELL
EL. = 14.84' NAVD 1988 (EL. = 15.82' NGVD 1929)

1. CONTRACTOR SHALL HAVE A SURVEYOR STAKE OUT THE FOUR (4) CORNERS OF THE UTILITY EASEMENT PRIOR TO FENCE INSTALLATION.

(C&F)
 $\Delta = 18^{\circ}02'00''$
 $R = 135.00'$
 $L = 28.98'$
 $CB = N 66^{\circ}18'58'' E$



4-4"DATEPALMS

INSTALL: ±97 LF 6'
HIGH CHAIN-LINK FENCE,
GREEN VINYL W/ SLATES

VAULT
TOP EL=14.85
VALVE EL=11.82
BOTTOM EL=9.20
T.O.P EL=10.68
(ABANDON)

INSTALL: ± 8 LF 4" PVC
FM; (2)-4" DI FITTING
(RESTRAINED); AND
CONNECT TO EX.
FORCE MAIN

VALVE EL=14.57
NUT EL=10.75
(REMOVE)

TYP.

INSTALL: ABOVE
GROUND VALVE
ASSEMBLY
CONCRETE PAD

CONCRETE SIDEWALK

STORM J.B.
RIM EL=14.09
S.W. INV. EL=10.34
E. INV. EL=10.29

INSTALL: ± 82 SY OF
WASHED SHELL & WEED
BARRIER WITH FENCES
AREA.

✓ UTILITY EASEMENT (P)

INSTALL: NEW
CONTROL PANEL

3/4" HOSE BIB
W/METER
(RELOCATE)

INSTALL: NEW TOP,
HATCH, & VENT
(ELEV. AS INDICATED
ON REHAB SHEET)

RELOCATED: METER, BFP,
HOSE BIBB ASSEMBLY W/
CONCRETE PAD; 6' FROM
CONTROL PANEL, ±3 LF

INSTALL: 6" THICK
REINFORCED CONC.
DRIVEWAY; (± 29 SY)

INSTALL: 6" THICK
S/W THRU LIMITS
OF DRIVEWAY

INSTALL: (2)-6
CHAIN-LINK
SWING GATES

37th TERRACE EAST
(50' PUBLIC R/W)

ASPHALT PAVEMENT



THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

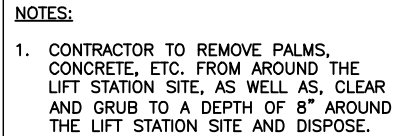
**SATELLITE LIFT STATION R&R
2015 GROUP 2
SUGAR RIDGE, RTU 361 - SITE PLAN**

[illegible]

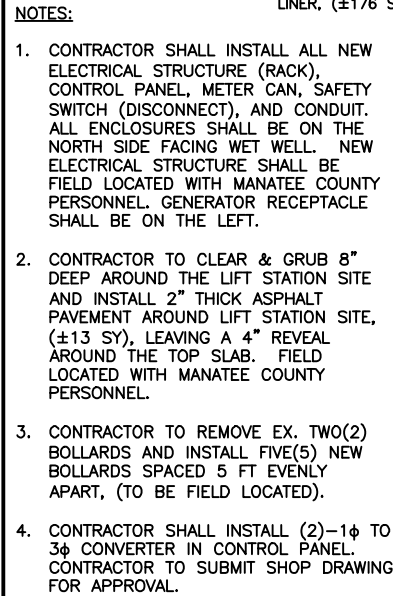
9 OF 16

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 2015 MASTER.XLS), RECORD
DRAWINGS & SURVEY. DATUM FOR ELEVATIONS
IS NAVD 88'.



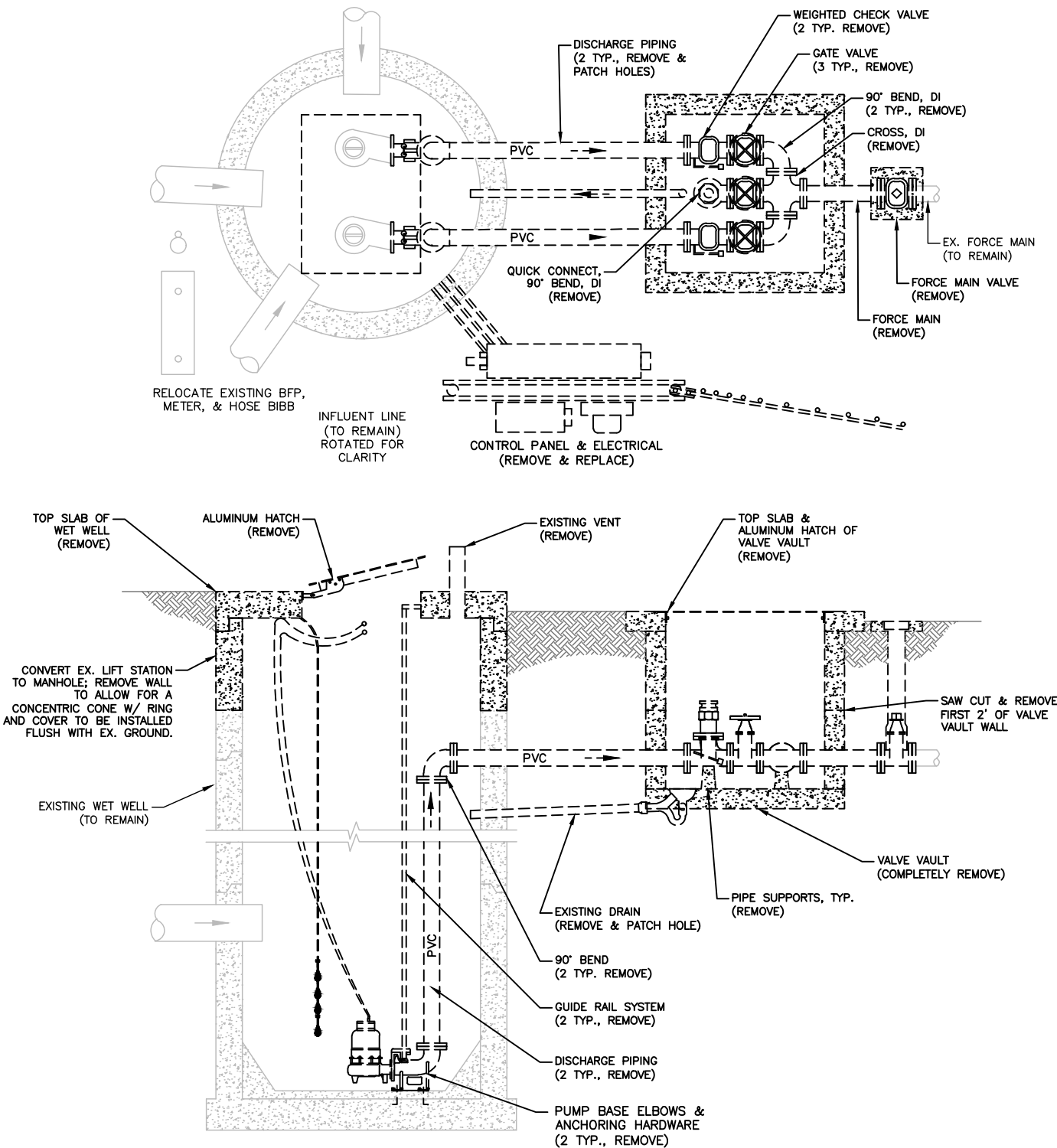
1. CONTRACTOR SHALL NOT BACKFILL OVER ELECTROFUSED COUPLINGS UNTIL INSPECTOR HAS VISUALLY CHECKED IT FOR LEAKS DURING PUMP STARTUP OR PRESSURE TEST AS DIRECTED BY THE COUNTY.
2. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.
3. THE CONCRETE SHALL BE GIVEN A BROOM FINISH. THE SURFACE VARIATIONS SHALL BE NOT MORE THAT 1/4" UNDER A TEN FOOT (10') STRAIGHTEDGE, NOT MORE THAN 1/8" ON A FIVE FOOT (5') TRANSVERSE SECTION. THE EDGE OF THE CONCRETE PAD SHALL BE CAREFULLY FINISHED WITH AN EDGING TOOL HAVING A RADIUS OF 1/2".
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.



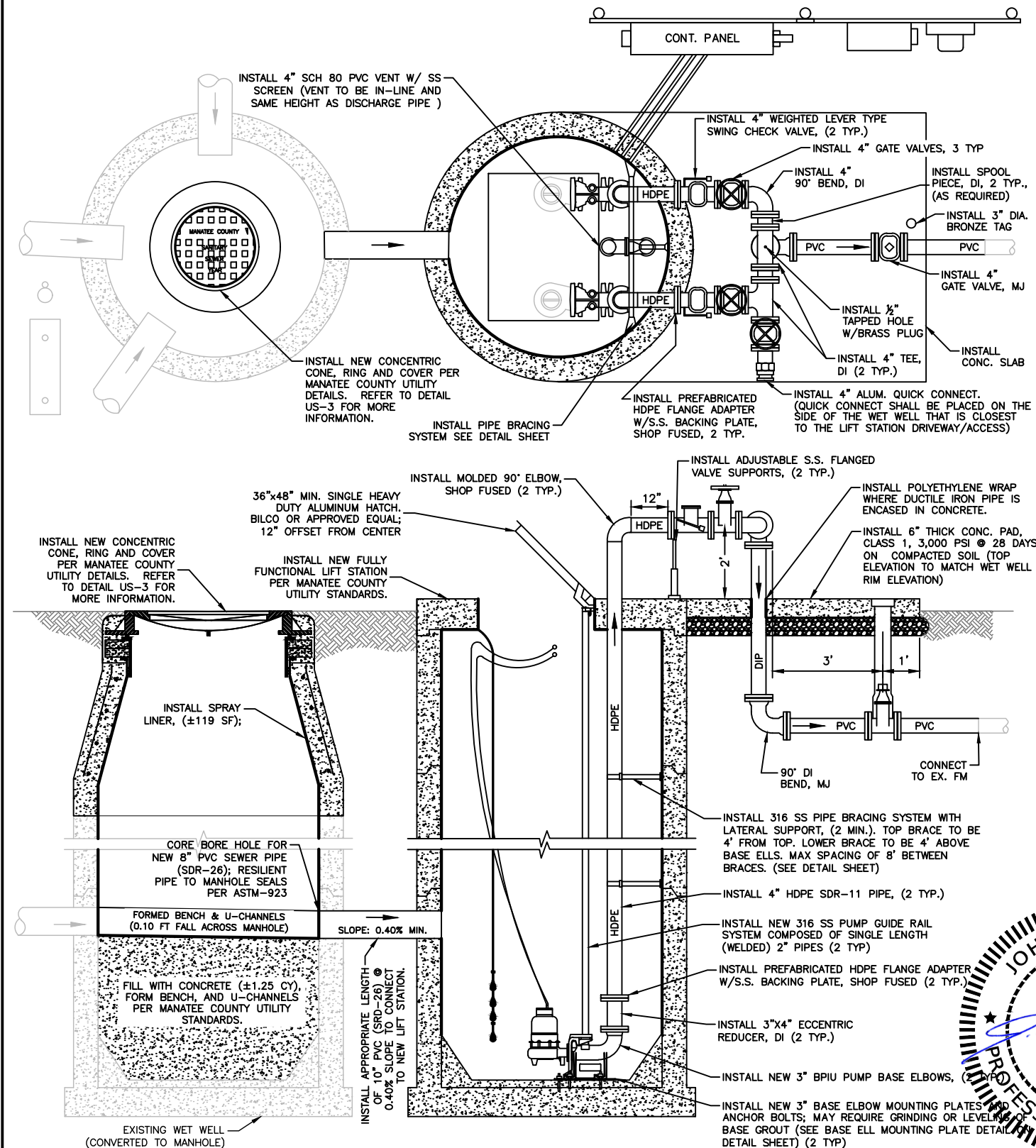
MANATEE COUNTY GOVERNMENT
COPYRIGHT 2010
S:\P\WD\Engineering\Share\Util\Eng Design\PROJ\~SAN SWR - LS Upgrades\LS R&R 2015 Group 2\DWGS\~SLS R&R 2015 Grp 2.dwg,11 PALM LAKES, 4/8/2016 7:11 AM Sheg Shoun, 1:1, ANSI full bleed B (17.00 x 11.00 inches)

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 2015 MASTER.XLS), RECORD
DRAWINGS & SURVEY. DATUM FOR ELEVATIONS
IS NAVD 88'.



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 THAT 1/4" UNDER A TEN FOOT (10') STRAIGHTEDGE, NOT MORE THAN 1/8" ON A FIVE FOOT (5') TRANSVERSE SECTION. THE EDGE OF THE CONCRETE PAD SHALL BE CAREFULLY FINISHED WITH AN EDGING TOOL HAVING A RADIUS OF 1/2".
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.



**SATELLITE LIFT STATION R&R
2015 GROUP 2
PALM LAKES, RTU 414**

[illegible]

BEARINGS ARE BASED ON THE EAST LINE OF N.W. 1/4 OF SECTION 13, HAVING A BEARING OF N 00°11'42" E (R/W MAP COUNTY PROJECT No. 6040460, AND ARE RELATED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, (WEST ZONE) NAD 83/2011 DERIVED FROM CONTROL MONUMENT "MANATEE G. STROOP CORs" (DL7628). THE PUBLISHED VALUES OF "SWEET GUM (PID DM6225)" AND "WHITE AS (PID DM6624) WERE USED TO VALIDATE THE PROJECT COORDINATES.

ELEVATIONS ARE BASED ON N.A.V.D. 1988 DATUM, NGS BENCH MARK "E B CAMP (PID DP7124)" PUBLISHED ELEVATION OF 19.35'.

RIM EL.=18.40
N. INV.=11.18
W. INV.=11.55
S. INV.=11.53
SE. INV.=11.05

CONTRACTOR TO
LOCATE AND REMOVE
UNUSED PORTION OF
EX. 4" FORCE MAIN

INSTALL: NEW
CONTROL
PANEL

VALVE VAULT
TOP EL.=18.26
4" PVC FM
T.O.P EL=16.89
BOT. EL=15.86
(REMOVE
COMPLETELY)

- 4" SWV
TOP EL=17.91
NUT EL=16.81
(REMOVE)

WET WELL
TOP EL.=18.30
N. INV. EL=11.18
S.W. INV. EL=11.53
W. INV. EL.=11.55
BOT. EL.=8.30
(CONVERT TO MH)

HIBISCUS
(REMOVE)

3/4" HOSE BIB!
W/METER
(RELOCATE)

CONTROL
PANEL
(REMOVE)

U-ALARM BOX
ANT

M. "A" NDS
B6982) SOUTH
ATCH EL=18.30

INSTALL: ± 13 LF 8" PVC
(SDR-26) 0.42%

INSTALL:
CONCRETE PAD

INSTALL: ± 15 LF 4" PVC FM; (2)-4" DI FITTING (RESTRAINED); AND CONNECT TO EX. FORCE MAIN

RELOCATED: METER, BFP,
HOSE BIBB ASSEMBLY
W/ CONCRETE PAD

INSTALL: 25' WIDE 2" THICK ASPHALT DRWY OVER COMPACTED SOIL. TOP ELEVATION SHALL MATCH EXISTING GROUND ELEVATIONS. GRADE SITE TO MAINTAIN EXISTING DRAINAGE PATTERN., (± 104 SY)

BM "A" NAIL & DISC SET # LB6982 SOUTH WET WELL HATCH
EL. = 18.30' NAVD 1988 (EL. = 19.29' NGVD 1929)

BM "B" NAIL & DISC SET # LB6982 MIDDLE OF HEADWALL
EL. = 16.40' NAVD 1988 (EL. = 17.39' NGVD 1929)

INSTALL NEW FULLY
FUNCTIONAL LIFT STATION PER
MANATEE COUNTY STANDARDS.
SEE DETAILS FOR DATA.

	RIM	EL.=18.50
	INV.	EL.=10.90
HIGH WATER ALARM	EL.=10.40	
LAG PUMP 2	EL.=9.90	
LEAD PUMP 1	EL.=9.40	
ALL PUMPS OFF	EL.=6.90	
	BOT.	EL.=4.90



**Manatee
County
FLORIDA**

**PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES**
1022 26th Avenue East, Bradenton, FL 34205

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

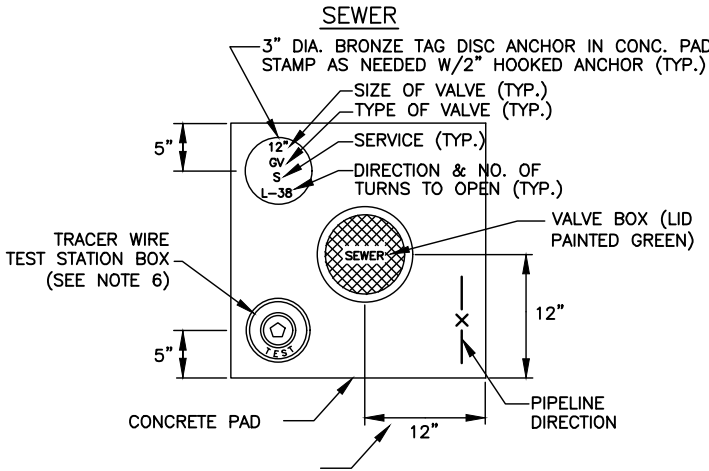
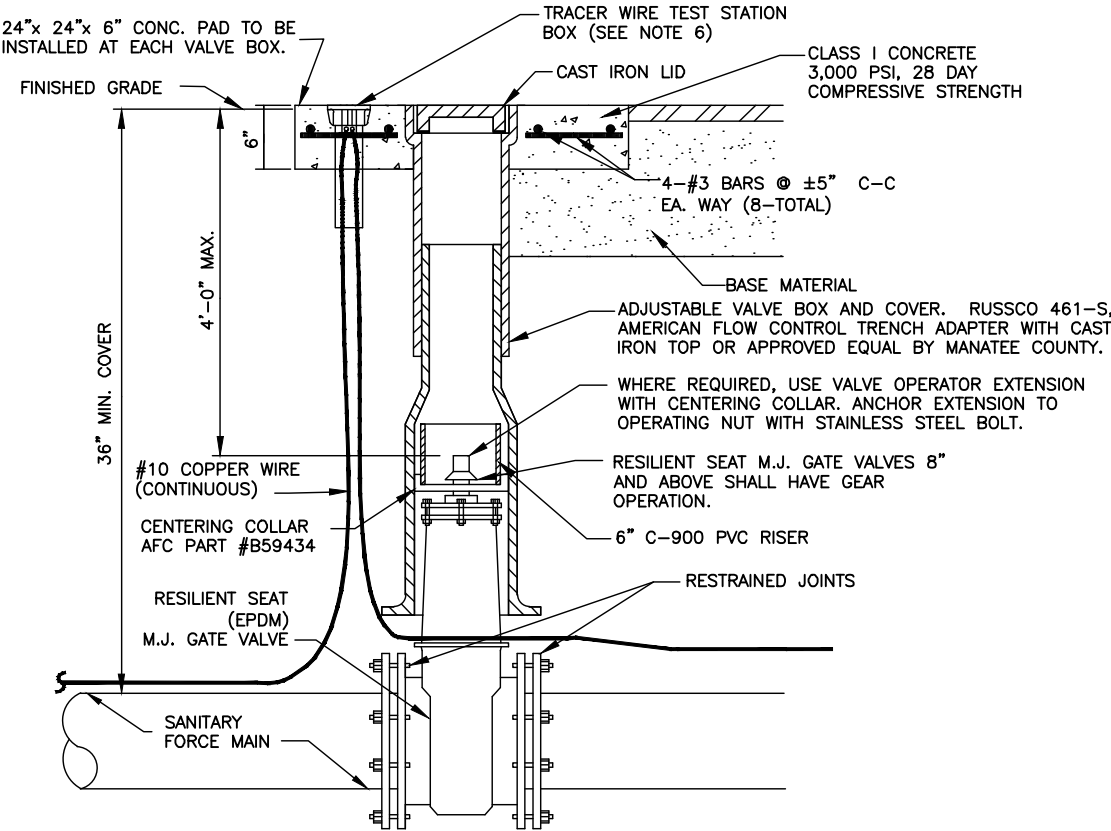
**SATELLITE LIFT STATION R&R
2015 GROUP 2
PALM LAKES, RTU 414 - SITE PLAN**

[illegible]

SHEET 21 OF 1

NOTES:

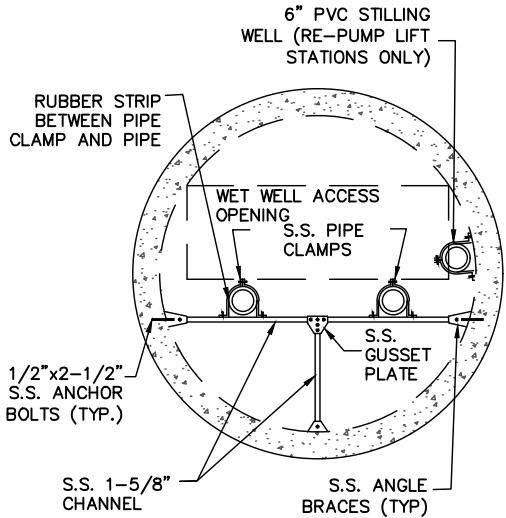
- ALL ACCESS COVERS SHALL BE ALUMINUM, WITH STAINLESS STEEL HARDWARE AND RATED FOR 300 P.S.F. LOADING. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL HAVE 2 COATS BITUMASTIC EPOXY, TOTAL 16 MILS DFT. ALL ACCESS COVERS SHALL BE EQUIPPED WITH A LOCKING STAPLE OR BAR FOR USE WITH A PADLOCK. PADLOCKS 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 DR-11 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 VALVE ASSEMBLY TO ISOLATION VALVE SHALL BE DUCTILE IRON PIPE (CL-53).
- ALL PIPING SHALL BE COLOR CODED IN ACCORDANCE WITH THESE STANDARDS. GREEN-RAW SEWAGE; PURPLE (PANTONE 522C)-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 (316) 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 EDGE OF THE STRUCTURES/CONCRETE, 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.
- EXISTING VALVE VAULTS 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 COUNTY.



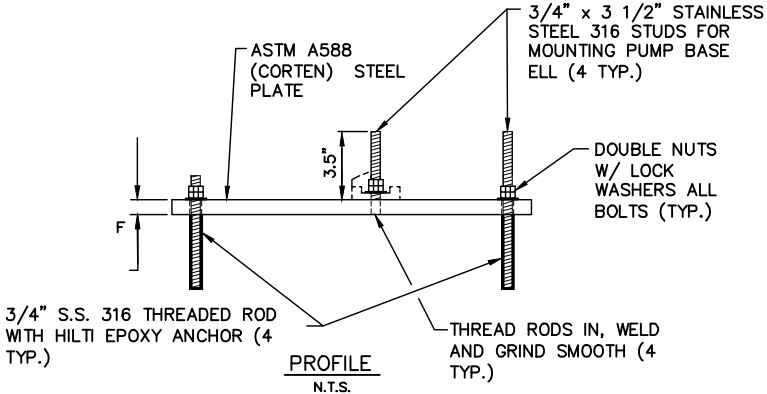
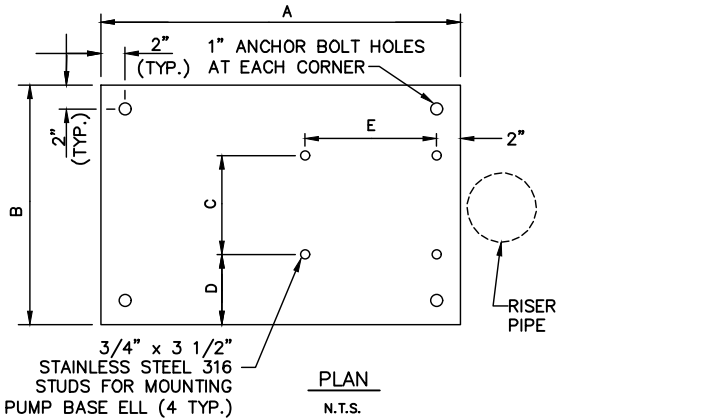
NOTES:

- "SV" 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 "SV" 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".
- TEST BOX TO BE BINGHAM & TAYLOR P200NFG OR EQUAL FOR NORMAL YARD SERVICE. WHERE VALVE WILL BE IN STREET OR UNDER VEHICLE TRAFFIC, USE P525RD CENTERED IN SEPARATE CONCRETE PAD SIMILAR TO STANDARD VALVE BOX PAD.

GATE VALVE, BOX COVER AND TAG
NTS



WET WELL PIPE BRACING DETAIL
NTS



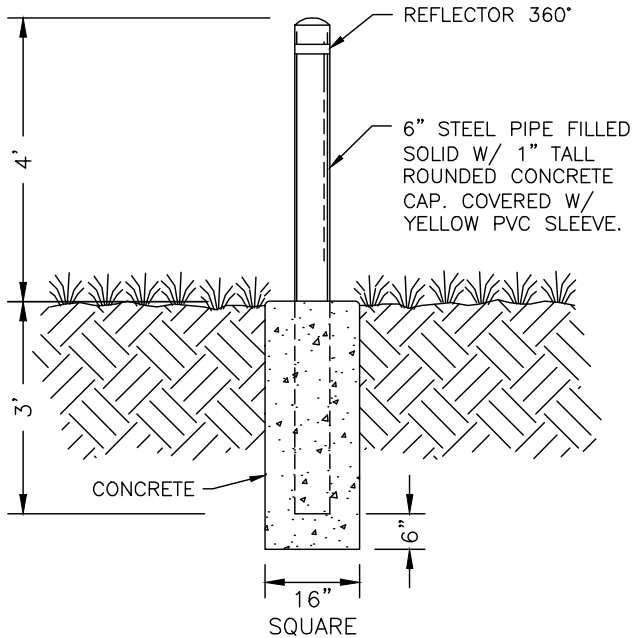
PUMP BASE ELL MOUNTING PLATE DIMENSIONS

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 GROUND SMOOTH TO REMOVE ALL BURRS.
- DIMENSIONS "C" & "E" ARE FOR BARNEY'S PUMPS, INC. BASE ELLS.

PUMP BASE ELL MOUNTING PLATE
NTS



BOLLARD DETAIL
NTS

THESE PLANS HAVE BEEN DESIGNED ON 11x17 SHEETS

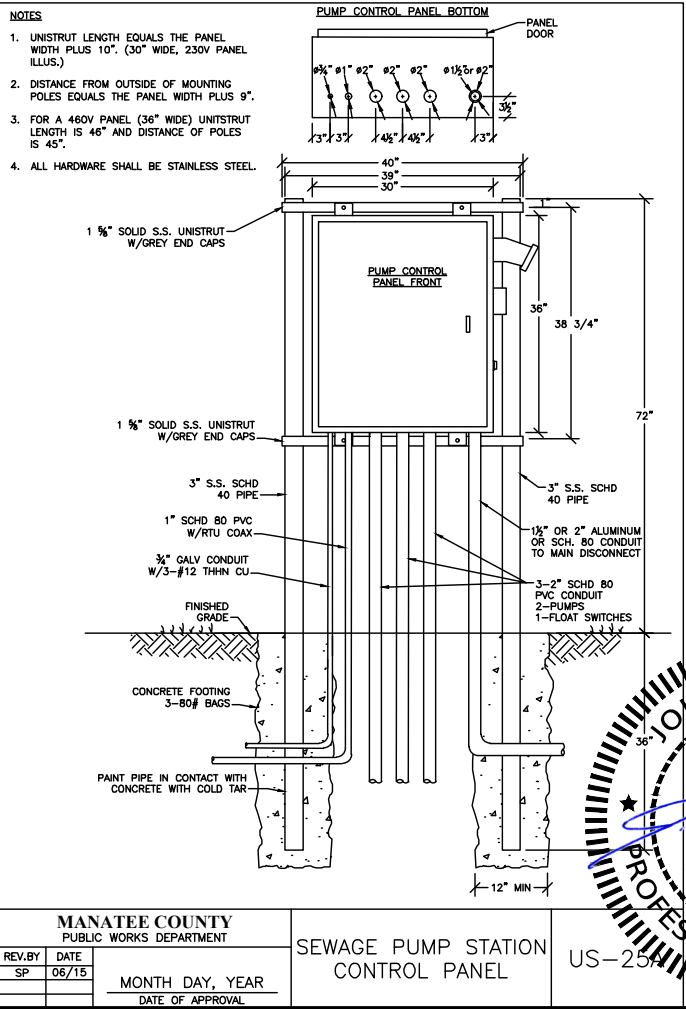
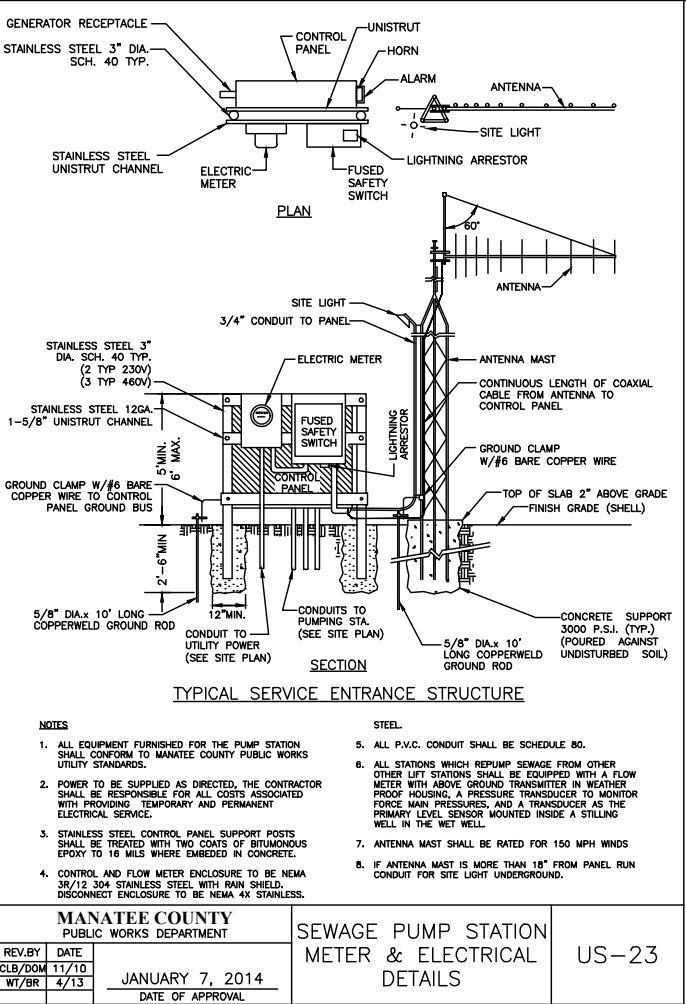
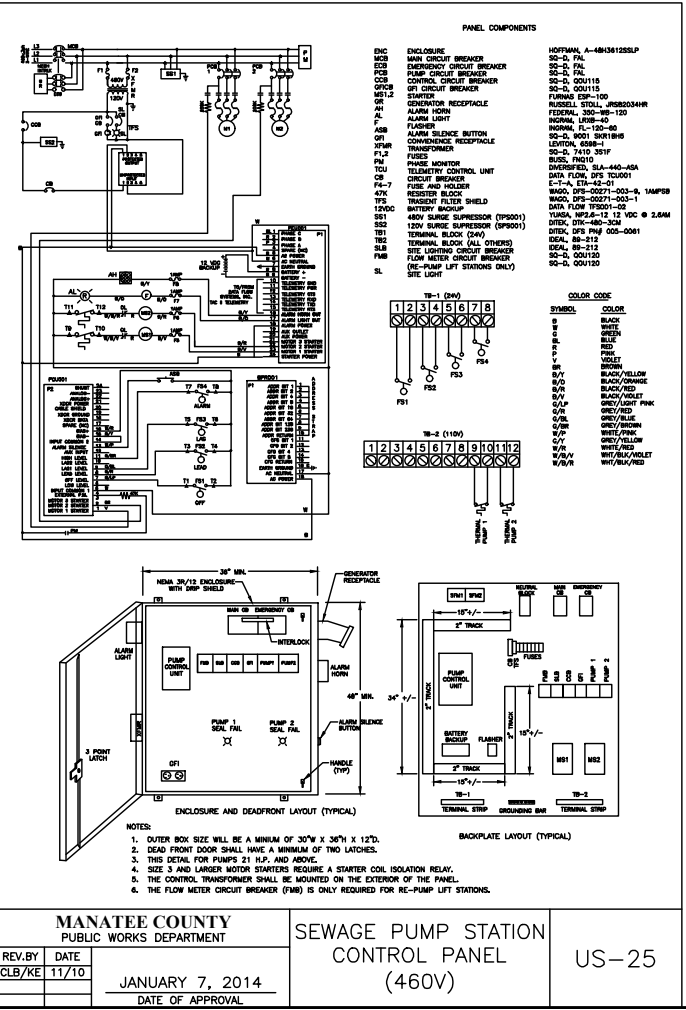
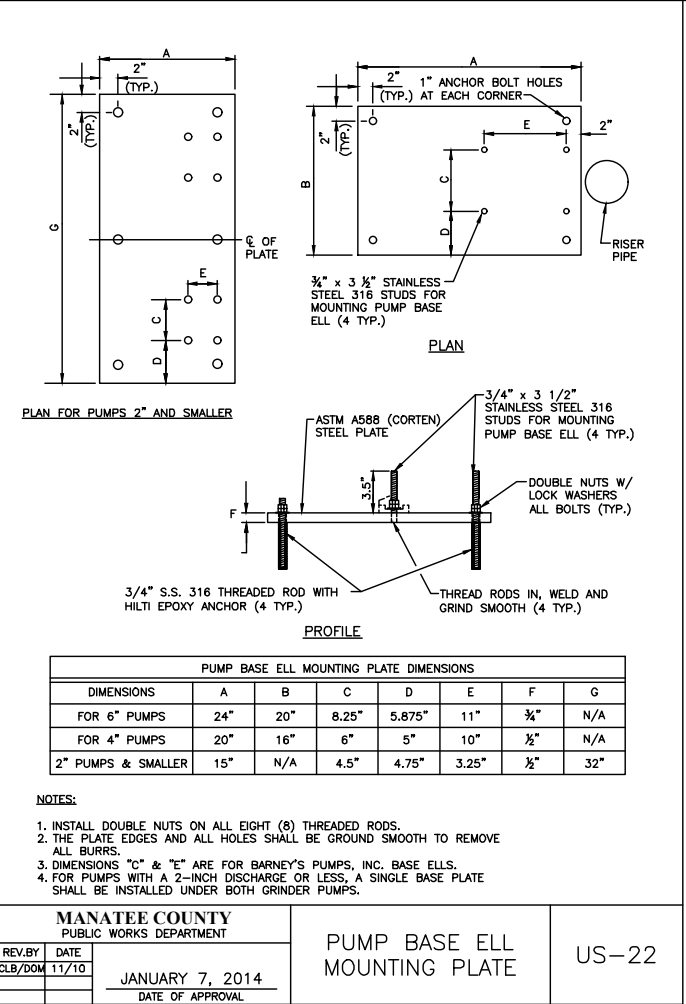
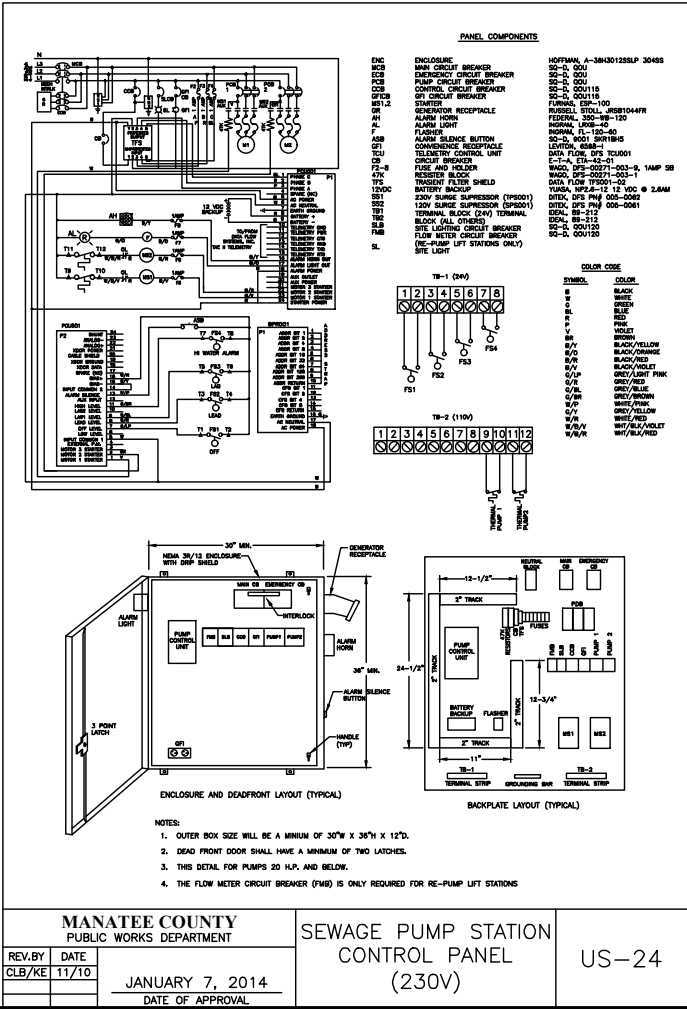
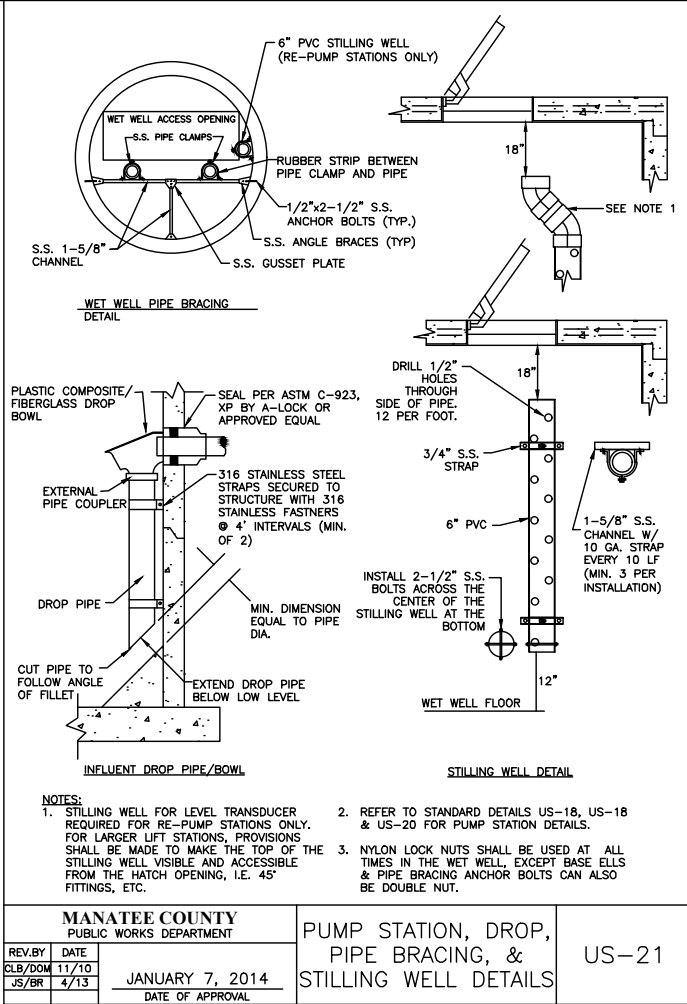
SATELLITE LIFT STATION R&R
2015 GROUP 2
REHABILITATION DETAILS

NO.	DATE	BY	REVISION DESCRIPTION

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

DESIGNED BY	DATE
CHECKED BY	DATE
NO. J. G. SHAW, P.E.	4/8/16
FLORIDA P.E. # 56423	
STATE OF FLORIDA	
PROFESSIONAL ENGINEER	
SIGNATURE	
DATE	

COPYRIGHT 2010 MANATEE COUNTY GOVERNMENT | S:\P\W\Engineering_Shera\Util Eng Design\PROJ\San SWR Proj\San Swr - US Upgrades\SLS R&R 2015 Group 2\dwg\15 US Details_4/8/2016 7:11 AM Shear Shoun, L.L. ANSI full bleed B (17.00 x 11.00 inches)



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

2015 GROUP 2

SEWER DETAILS

NO.	REVISION DESCRIPTION	DATE

PROJECT # 402-0019707 / 5001301

SURVEY # -

SEC./TWN./RGE -

SCALE N.T.S.

DATE -

SUPPLIED BY: J. SHEA SHOUN

DRAWN BY: J. SHEA SHOUN

CHECKED BY: J. SHEA SHOUN

DATE: 4/8/16

STATE OF FLORIDA

PROFESSIONAL ENGINEER

NO. 60923

J. SHEA SHOUN

4/8/16

FLORIDA P.E. # 60923

