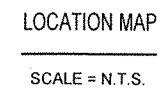


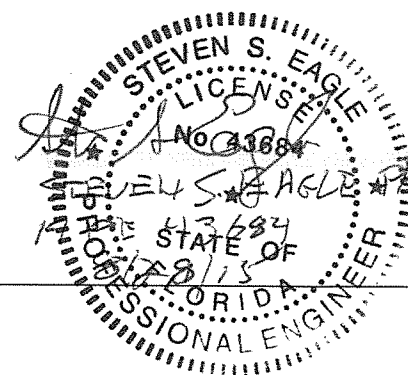
PUMP STATION 100 EMERGENCY REPAIRS (WS-0115)
7701 NW 74th Ave. Medley, Florida 33166

G-0	COVER PAGE
G-1	GENERAL NOTES
C-1	SITE PLAN
M-1	PS-100 PLAN AND SECTION
M-2	DETAILS



Mayor: Roberto Martell
Vice Mayor: Jack Morrow
Council: Edgar Ayala
Griselia DiGiacomo
Susana Guasch

Town Clerk: Herlina Taboada
Town Engineer: Jorge E. Corzo, PE
Utilities Director: Jorge C. Soto
Town Attorney: Stephen Helfman
Town Finance Director: Roy Danziger



DATE:	AUGUST 2015
DRAW BY:	I.B.
REVISED BY:	J.P.
CHECKED BY:	S.S.E
SCALE:	N.T.S.

G-0

GENERAL

1. ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE TECHNICAL SPECIFICATIONS AND APPLICABLE LOCAL AND NATIONAL CODES.
2. WHENEVER A MATERIAL, ARTICLE OR PIECE OF EQUIPMENT IS IDENTIFIED IN THE DRAWINGS (PLANS) AND SPECIFICATIONS BY REFERENCE TO MANUFACTURER'S OR VENDOR'S NAME, TRADE NAMES, CATALOG NUMBERS, OR OTHERWISE, IT IS INTENDED MERELY TO ESTABLISH A STANDARD, AND UNLESS IT IS FOLLOWED BY WORDS INDICATING THAT NO SUBSTITUTION IS PERMITTED, ANY MATERIAL, ARTICLE, OR EQUIPMENT OF OTHER MANUFACTURERS AND VENDORS WHICH WILL PERFORM OR SERVE THE REQUIREMENTS OF THE GENERAL DESIGN WILL BE CONSIDERED EQUALLY ACCEPTABLE, PROVIDED THE MATERIAL, ARTICLE OR EQUIPMENT SO PROPOSED IS, IN THE OPINION OF THE ENGINEER, EQUAL IN SUBSTANCE, QUALITY, AND FUNCTION.
3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO COMPLETE THE WORK AS SPECIFIED.
4. PS-100 IS CURRENTLY UNDER THE OPERATION OF AN EMERGENCY BYPASS PUMP, WHICH WILL BECOME THE RESPONSIBILITY OF THE CONTRACTOR. WITHIN 15 DAYS OF THE NTP, THE CONTRACTOR SHALL HAVE ENTERED INTO A NEW AGREEMENT WITH THE CURRENT BYPASS OPERATOR AND TAKEN CONTROL OF THE OPERATION / MAINTENANCE OF THE BYPASS PUMP.
5. CONTRACTOR SHALL COMPLY WITH THE U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATIONS STANDARDS OSHA 29 CFR 1910.146, PERMIT-REQUIRED CONFINED SPACES AND OSHA 29 CFR 1926, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION.
6. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY:

SUNSHINE STATE ONE CALL 811
TOWN OF MEDLEY (305)-887- 9541
7. ALL VALVES ARE TO BE TAGGED, STATING TYPE OF VALVE AND NUMBER OF TURNS TO OPERATE. IF THE VALVE IS LOCATED IN A PIT, THE TAG SHALL BE HUNG FROM THE VALVE WITH A PLASTIC STRAP.
8. DUCTILE IRON PIPE AND FITTINGS SHALL BE EPOXY LINED PROTECTO 401 OR APPROVED EQUAL.
9. COMPLETE "AS-BUILT" INFORMATION RELATIVE TO VALVES, FITTINGS, LENGTH OF PIPE AND THE LIKE, SHALL BE ACCURATELY RECORDED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE WORK. FINAL APPROVAL OF THE PROJECT IS SUBJECT TO THE FINAL REVIEW AND APPROVAL OF THE "AS-BUILT" INFORMATION FURNISHED TO THE REGULATORY AGENCIES AND TOWN OF MEDLEY'S UTILITY & STORMWATER DEPARTMENT.

SCOPE OF WORK

DRY PIT:

1. REMOVE TWO (2) EXISTING CENTRIFUGAL PUMPS, CONTRACTOR SHALL DELIVER EXISTING PUMP TO THE TOWN OF MEDLEY SERVICE YARD. INSTALL TWO (2) CENTRIFUGAL PUMPS WITH MOTORS TO BE PROVIDED BY TOWN OF MEDLEY.
2. REMOVE TWO (2) EXISTING CONCRETE PADS. INSTALL TWO (2) PUMP CONCRETE PADS.
3. REMOVE EXISTING VALVES, PIPING, FLANGES AND FITTINGS BETWEEN SUCTION SIDE GATE VALVES AND DISCHARGE SIDE GATE VALVES. INSTALL NEW PLUG VALVES, PIPING AND FITTINGS AS SHOWN.
4. DEMOLISH EXISTING PRESSURE TRANSDUCER. INSTALL NEW PRESSURE TRANSMITTER, MODEL 375 MANUFACTURED BY PMT PRESSURE SENSORS.
5. REMOVE EXISTING EXHAUST BLOWER AND REPLACE WITH A BLOWER OF EQUAL CAPACITY (CFS), AS PER SPEC 15860, SECTION 2.02B COMPLIANT FOR INSTALLATION IN HOSTILE ENVIRONMENTS.
6. REMOVE EXISTING SUMP PUMP. INSTALL NEW SUMP PUMP TO BE PROVIDED BY TOWN OF MEDLEY.
7. UPGRADE SUMP PUMP ELECTRICAL FEED WITH UNINTERRUPTED LINE TO 6P JUNCTION BOX MOUNTED IN DRY PIT, AND UNINTERRUPTED LINE FROM 6P JUNCTION BOX TO NEW, CONTRACTOR INSTALLED, GFI BREAKER IN CONTROL PANEL.
8. SANDBLAST AND TREAT DRY PIT WALLS WITH WATERPROOFING AND PAINT.
9. SANDBLAST DISCHARGE PIPING AND PAINT.

WET WELL:

10. PUMP STATION WET WELL TO BE CLEANED, AS PER SPECIFICATION 17010, USING HIGH VELOCITY HYDRO-CLEANING EQUIPMENT TO REMOVE ALL DEBRIS, SLUDGE, MUD, SAND, DIRT, ROCKS, SEDIMENT, GRIT, ROOTS, GREASE AND OTHER SOLID AND SEMI-SOLID MATERIALS. THE ENGINEER WILL DETERMINE IF THE SEWER WET WELL HAS BEEN CLEANED ADEQUATELY AND HIS DECISION SHALL BE FINAL.
11. THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO THOROUGHLY CLEAN THE INTERIOR SURFACE WALLS AND FLOOR OF THE PUMP STATION WET WELL AND FACILITATE VISUAL INSPECTION.
12. ALL WASTE MATERIAL REMOVED FROM THE WET WELL SHALL BE DEWATERED, TRANSPORTED AND DISPOSED OF IN ACCORDANCE WITH SPECIFICATION 17010 AND ALL APPLICABLE LOCAL, COUNTY, STATE AND NATIONAL LAWS, CODES AND REGULATIONS.
- EXTERIOR AESTHETIC MODIFICATIONS:
13. REMOVE HEDGES CAUSING DAMAGE TO THE FENCE WHICH MAY REQUIRE COORDINATION WITH ADJACENT PROPERTY OWNERS.
14. REPAIR FENCE/GATE AND REPLACE BARB WIRE.
15. PAINT FENCE/GATE.
16. PLANT NEW SOD AND ADD PLANTS ALONG THE FENCE LINE.
17. PAINT GENERATOR BUILDING AND LABEL WITH THE STATION NUMBER.
18. PRESSURE WASH ABOVE-GROUND CONCRETE STRUCTURES

CAST-IN-PLACE CONCRETE

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH FLORIDA BUILDING CODE (FBC), AMERICAN CONCRETE INSTITUTE (ACI) 318 AND THE CONTRACT SPECIFICATIONS.
2. COMPLETE ENGINEERING AND PRODUCT DATA SHALL BE SUBMITTED TO THE ENGINEER ON ALL ADMIXTURES, CURING COMPOUNDS, HARDENERS, SEALERS, REINFORCING STEEL AND WATER STOPS IN ACCORDANCE WITH THE SPECIFICATIONS.
3. REINFORCEMENT STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-615.
4. CONCRETE COVER FOR STEEL REINFORCEMENT SHALL BE AS SPECIFIED ON ACI 318.
5. PIPES, INSERTS, AND OTHER METAL OBJECTS SHOWN SHALL BE BUILT INTO, SET IN, OR ATTACHED TO THE CONCRETE. ALL REQUIRED HOLES SHALL BE CAST AT TIME OF CONSTRUCTION.
6. ALL CAST-IN-PLACE CONCRETE SHALL BE ACCURATELY FORMED AND PROPERLY PLACED AND FINISHED AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.
7. CONCRETE SHALL BE EITHER CLASS A OR CLASS B, AS INDICATED ON THE DRAWINGS OR SPECIFIED IN THESE SPECIFICATIONS. IN GENERAL CLASS A CONCRETE SHALL BE USED FOR REINFORCED CONCRETE CAST-IN-PLACE IN FORMS FOR SLABS, FOOTINGS, FOUNDATIONS, MAINTENANCE ACCESS STRUCTURES AND SIMILAR REINFORCED CONCRETE STRUCTURES COMING UNDER THE SCOPE OF ACI 318. CLASS B CONCRETE SHALL BE PLAIN CONCRETE AND SHALL BE USED FOR PIPE CRADLES, PIPE AND CONDUIT ENCASEMENT, BEDDING, GRADE CORRECTION, ANCHORS, COLLARS, THRUST BLOCKS, MASSIVE SECTIONS AND OTHER NON-REINFORCED CONCRETE.
8. CONCRETE INGREDIENTS SHALL BE SELECTED, PROPORTIONED, AND MIXED IN SUCH A MANNER AS WILL PRODUCE A WATERTIGHT DURABLE CONCRETE THAT WILL DEVELOP THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS AT AN AGE OF 28 DAYS WHEN SAMPLED, CURED AND TESTED IN ACCORDANCE WITH THE PROCEDURES SPECIFIED IN ASTM C 31 AND C 39:

CLASS OF CONCRETE	AGE	AVERAGE OF THREE CONSECUTIVE SPECIMENS	MINIMUM ANY ONE SPECIMEN
A	28 DAYS	4,000 PSI	3,500 PSI
B	28 DAYS	3,000 PSI	2,500 PSI

DRY PIT REHABILITATION

1. SURFACE PREPARATION

A. ANY LOOSE, UNSOUND, OR CRACKED BRICK OR CONCRETE SHALL BE CHISELED OR HAMMERED OUT.

B. ALL SURFACES TO BE SANDBLASTED WITH HYDRO-GRIT BLASTING AT 3,500 PSI MINIMUM OR OTHER MECHANICAL SCARIFICATION TECHNIQUES TO REMOVE ALL LAITANCE, GREASE, LOOSE MORTAR, PAINT OR OTHER SURFACE CONTAMINANTS.

C. SURFACE SHALL BE TESTED BY THE CONTRACTOR, IN THE PRESENCE OF THE ENGINEER, USING A SURFACE pH TESTER EQUAL TO INSTA-CHECK SURFACE PH PENCIL AS MANUFACTURED BY PHYDRION. SURFACE SHALL INDICATE A pH= 7.0 OR GREATER.

D. ALL ACTIVE LEAKS IN THE STRUCTURE SHALL BE STOPPED USING XYPEX FCM 80 (FLEXIBLE CEMENTITIOUS MEMBRANE) OR APPROVED EQUAL.

E. ALL CRACKS, VOIDS AND REMOVED STEP HOLES SHALL BE FILLED USING A WATER RESISTANT FAST-SETTING CEMENT PATCH.
2. ONE COMPONENT REINFORCED WET MORTAR: THE ONE COMPONENT MORTAR SHALL BE MICROSILICA ENHANCED, FIBER REINFORCED AND BE DESIGNED FOR CORROSIVE ENVIRONMENTS WITH A pH=2.0 OR HIGHER.

PAINTING & COATINGS:

1. PAINTING AND COATINGS SHALL BE APPLIED IN ACCORDANCE WITH SPECIFICATION 09900 AND AS RECOMMENDED BY THE PAINT/COATING MANUFACTURER.
2. DRY PIT INTERIOR: THE INTERIOR OF THE REHABILITATED DRY PIT SHALL BE PAINTED WITH 3 COATS OF KOP-COAT POKKOTE 300 ENAMEL OR APPROVED EQUAL.
3. DUCTILE IRON PIPE AND FITTINGS: DIP EXTERIOR SURFACES SHALL BE PRIMED WITH 2 COATS OF RUSTBOND PENETRATED SEALER SG BY CARBOLINE OR APPROVED EQUAL. DIP EXTERIOR SURFACES SHALL BE COATED WITH SOMAY 237 ENAMEL, SHERWIN WILLIAMS INDUSTRIAL ENAMEL 354 SERIES, OR APPROVED EQUAL.
4. VALVES: SURFACE PREPARATION, PRIMING AND APPLICATION SHALL BE IN ACCORDANCE WITH THE MORE STRINGENT OF THE MANUFACTURER'S RECOMMENDATIONS OR THE SPECIFICATIONS. CERTIFICATION OF MANUFACTURER SHALL BE PROVIDED.
5. BUILDING EXTERIOR: BUILDING SHALL BE PAINTED TO COLOR MATCH THE EXISTING BUILDING WITH 2 COATS OF KOP-COAT 600 EXTERIOR OR APPROVED EQUAL.
6. FENCE: FENCE SHALL BE PREPARED, PRIMED, AND PAINTED IN ACCORDANCE WITH SPECIFICATION 02822.

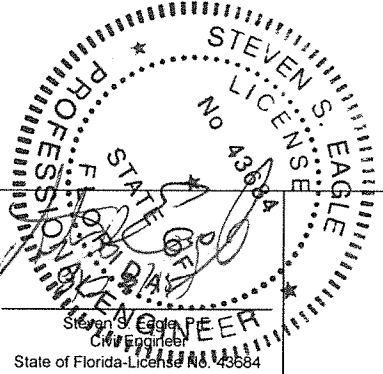


10486 NW 31 Terrace, Miami, Florida, 33172
Florida Certification No. 7256

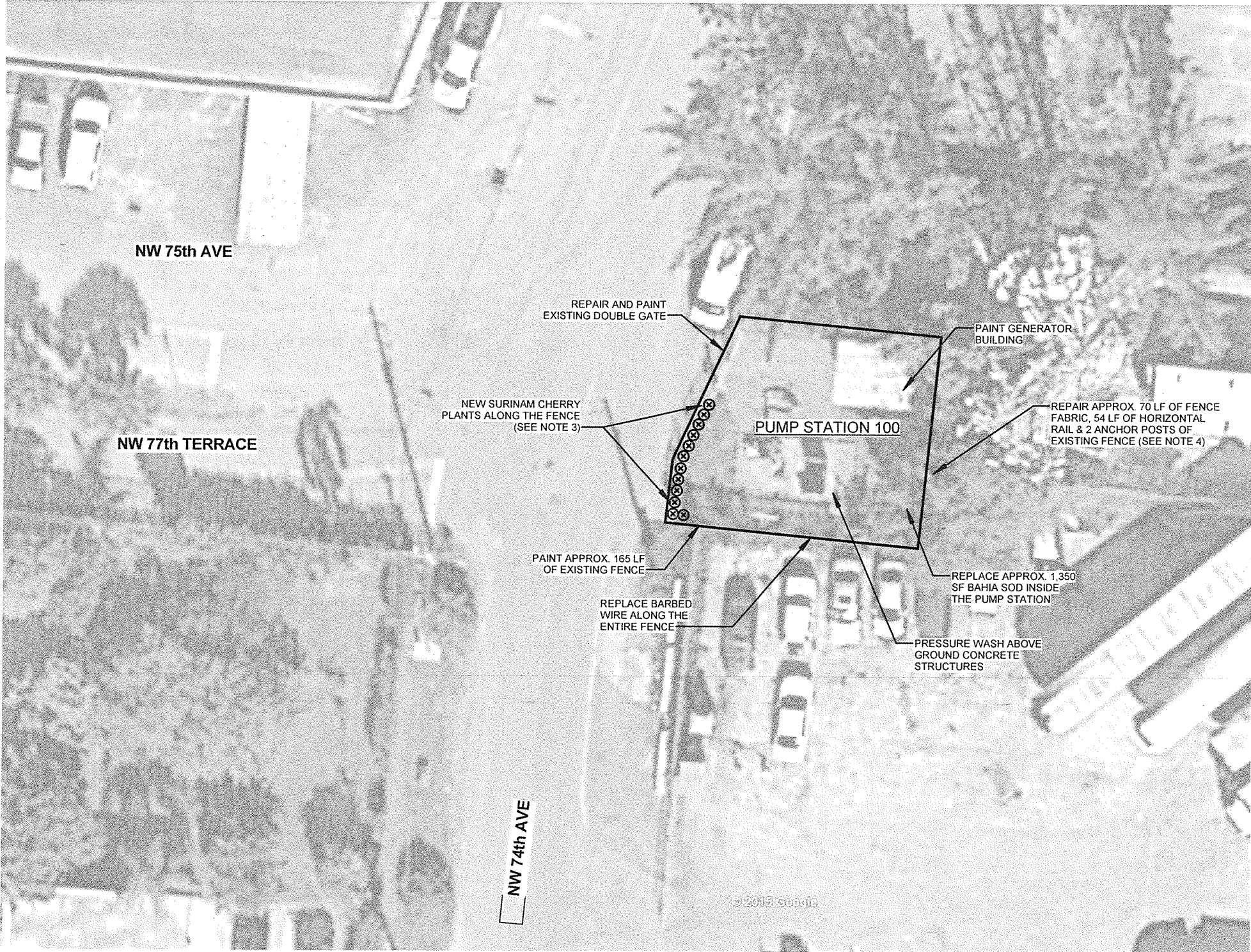


REVISION NO.	DATE:	BY:	DESCRIPTION

DATE: AUGUST 2015
DRAW BY: I.B.
REVISED BY: J.P.
CHECKED BY: S.S.E.
SCALE: N.T.S.



GENERAL NOTES



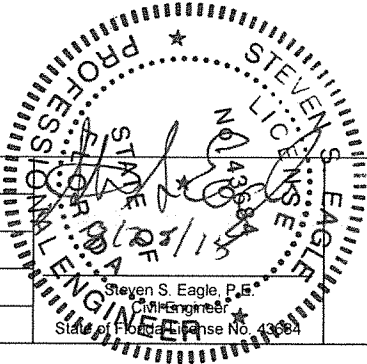
SITE PLAN

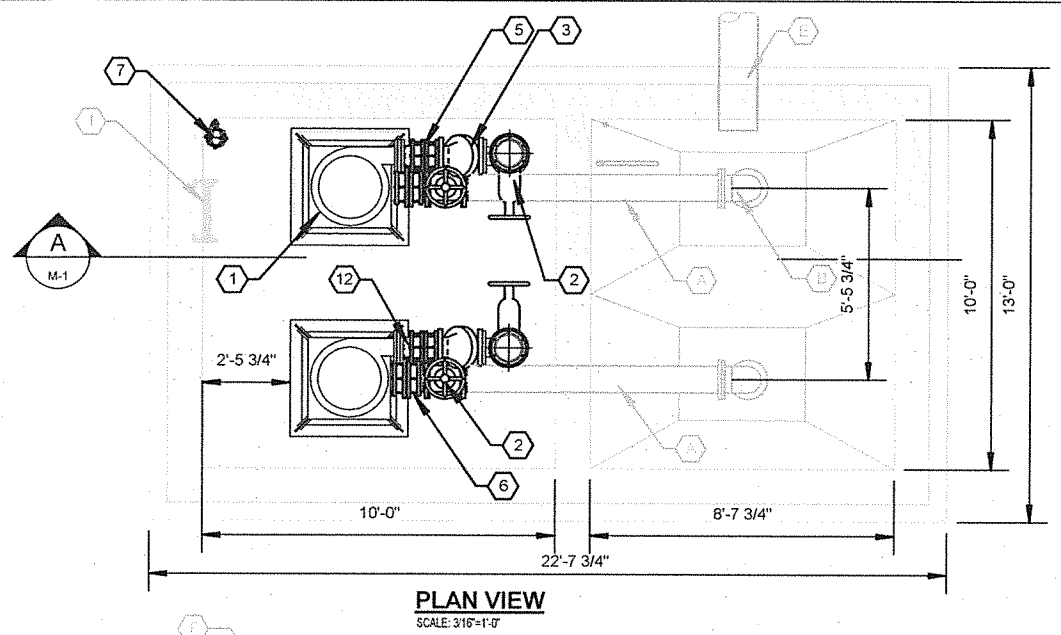
- NOTES:**
- 1- FOR PLANTING PROCEDURES AND REQUIREMENTS SEE TECHNICAL SPECIFICATION SECTION 2900.
 - 2- PRIOR TO DIGGING ANY HOLE/TRENCH, CONTRACTOR SHALL CALL 811 AND OBTAIN LOCATIONS OF UNDERGROUND UTILITIES.
 - 3- SURINAM CHERRY PLANTS MUST BE SPACED AT 2 FEET TO ENSURE 100 PERCENT SCREENING.
 - 4- CONTRACTOR TO VERIFY IF ADDITIONAL FENCE REPAIR IS REQUIRED.
 - 5- CONTRACTOR TO FIELD VERIFY FENCE LOCATION PRIOR TO REPLACEMENT THROUGH A SURVEY.
 - 6- FENCE SHALL BE REPAIRED, PREPARED, PRIMED, AND PAINTED IN ACCORDANCE WITH SPECIFICATION 02822.



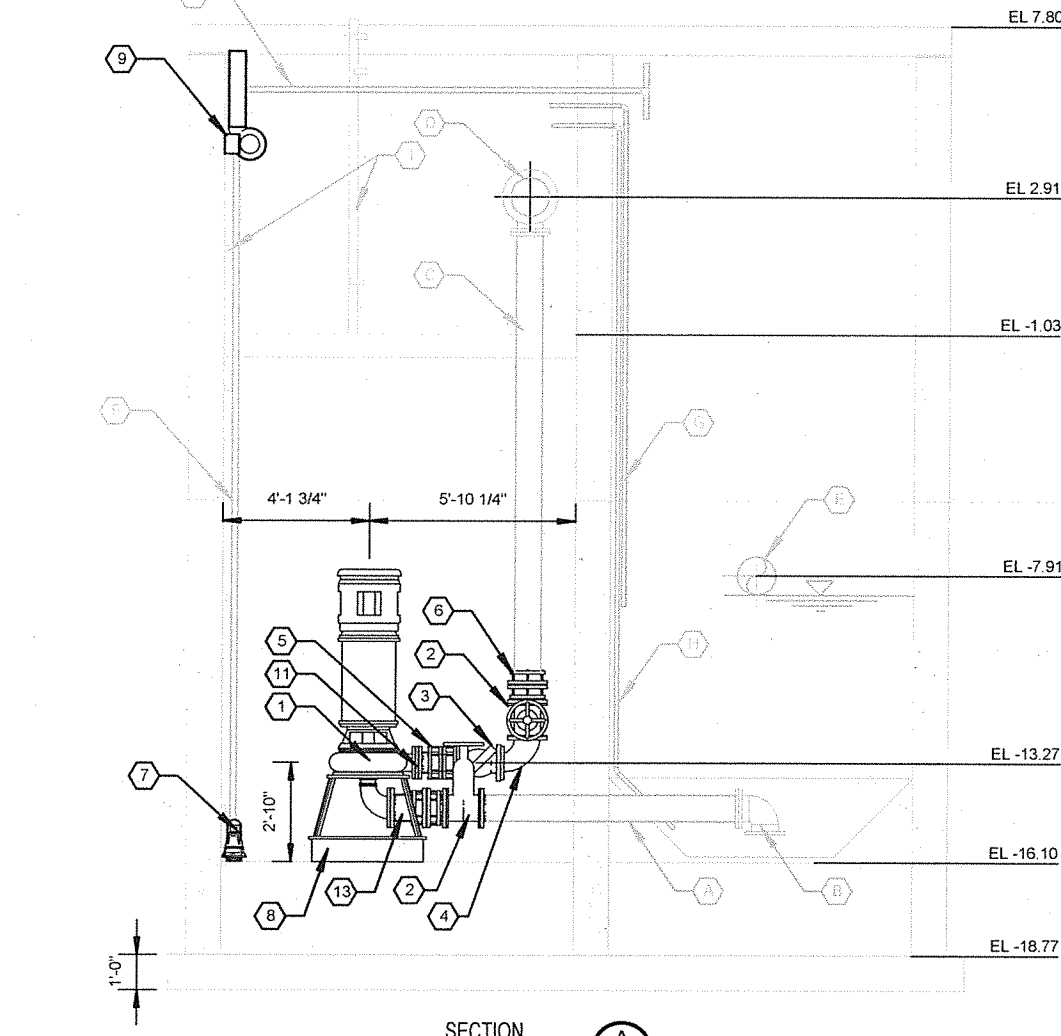
REVISION NO:	DATE:	BY:	DESCRIPTION

DATE: AUGUST 2015
DRAW BY: I.B.
REVISED BY: J.P.
CHECKED BY: S.S.E
SCALE: N.T.S.

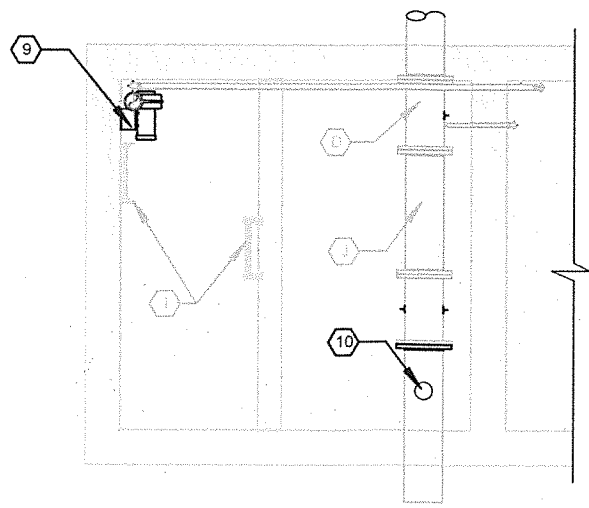




PLAN VIEW
SCALE: 3/16"=1'-0"

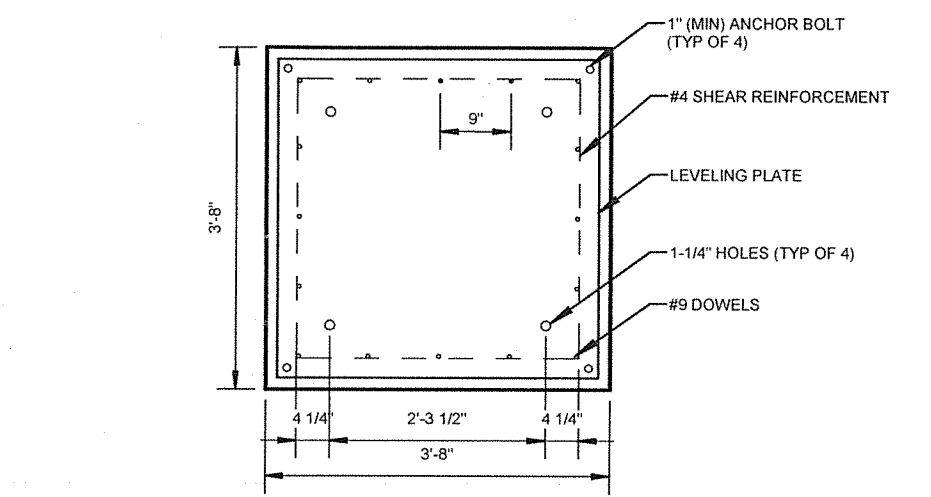


SECTION
SCALE: 3/16"=1'-0"
A
M-1

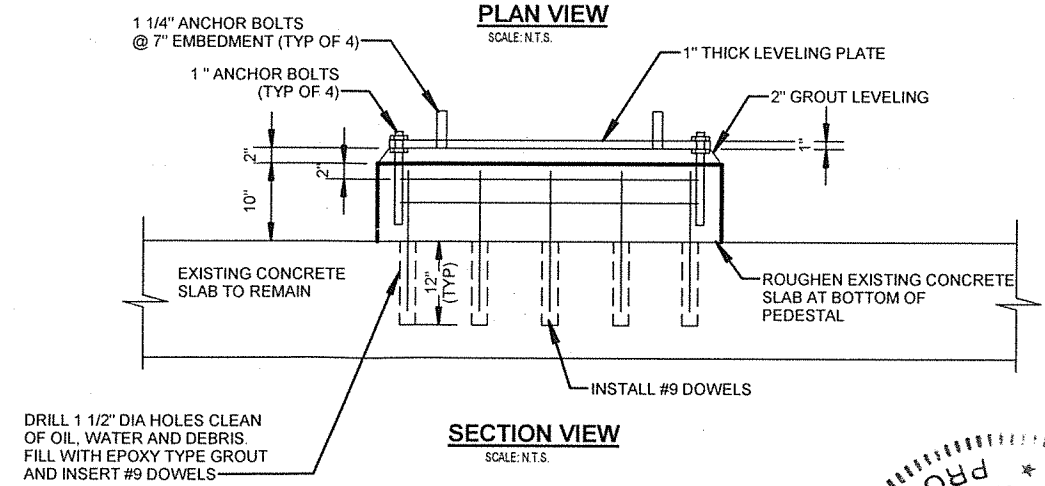


PLAN VIEW
SCALE: 3/16"=1'-0"

- NOTES:**
- 1.- SEE MANUFACTURER'S SHOP DRAWINGS FOR ANCHOR BOLT LOCATION AND ANCHORING DETAILS.
 - 2.- ALL PROPOSED WORK IS SHOWN IN DARK.
 - 3.- CONTRACTOR TO OBTAIN ALL PERMITS REQUIRED TO COMPLETE ALL WORK SPECIFIED.
 - 4.- IF STRUCTURAL CRACKS ARE FOUND IN DRY PIT NOTIFY THE ENGINEER TO DETERMINE THE METHOD OF REPAIR.
 - 5.- THE DIMENSIONS PROVIDED ARE APPROXIMATE AND ARE FOR GENERAL PURPOSES ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM ALL DIMENSIONS OF EXISTING AND PROPOSED FEATURES AND EQUIPMENT.



PLAN VIEW
SCALE: N.T.S.



SECTION VIEW
SCALE: N.T.S.

PUMP PEDESTAL DETAIL

DRILL 1 1/2" DIA HOLES CLEAN OF OIL, WATER AND DEBRIS. FILL WITH EPOXY TYPE GROUT AND INSERT #9 DOWELS

SHEET KEYNOTES	
1.-	NEW PUMP AND MOTOR (TYP OF 2)
2.-	NEW 8" PLUG VALVE (TYP OF 4)
3.-	NEW 6" CHECK VALVE (TYP OF 2)
4.-	NEW 8" x 6" REDUCING 90° ELBOW (TYP OF 2)
5.-	NEW 6" SLIP SLEEVE FLANGE ADAPTOR (TYP OF 2)
6.-	NEW 8" SLIP SLEEVE FLANGE ADAPTOR (TYP OF 4)
7.-	NEW SUMP PUMP
8.-	NEW PUMP PEDESTALS (TYP OF 2)
9.-	NEW BLOWER
10.-	NEW PRESSURE TRANSMITTER
11.-	NEW 6" x 5" SPACE SAVER FLANGE (TYP. OF 2)
12.-	NEW 6" FLANGED D.I.P. WITH PLAIN END (TYP OF 2)
13.-	NEW 8" FLANGED D.I.P. WITH PLAIN END
A.-	8" D.I.P. TO REMAIN
B.-	8" 90° ELBOW FLARE TO REMAIN (TYP OF 2)
C.-	8" DISCHARGE D.I.P. TO REMAIN (TYP OF 2)
D.-	12" x 8" TEE TO REMAIN (TYP OF 2)
E.-	12" GRAVITY SEWER INFLUENT TO REMAIN
F.-	SUMP PUMP DISCHARGE TO REMAIN
G.-	HIGH WATER LEVEL ALARM SWITCH TO REMAIN
H.-	BUBBLER TUBE TO REMAIN
I.-	ALUMINUM LADDER TO REMAIN
J.-	12" D.I.P. TO REMAIN

PUMP STATION ITEMS TO BE REPLACED		
ITEM	DESCRIPTION	AMOUNT
1.	8" GATE VALVE	4
2.	6" CHECK VALVE	2
3.	PUMP PEDESTAL / CONCRETE PADS	2
4.	8" x 6" ELBOW REDUCER	2
5.	PRESSURE TRANSDUCER	1
6.	EXHAUST BLOWER	1
7.	SUMP PUMP	1

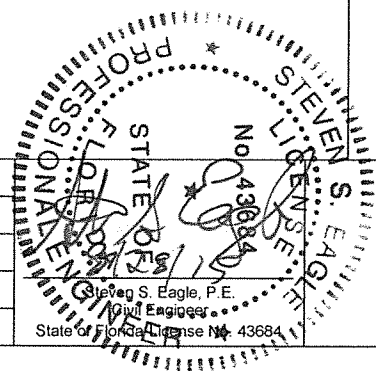
PUMP DATA TABLE		
PUMP CAPACITY	G P M	1000
T.D. HEAD	FEET	100
ALLIS CHALMERS PUMP (OR EQUAL)		
MODEL No.	N S W V	300
SIZE		5 x 5 x 17
IMPELLER	DIAM.	15"
HORSE POWER	HP	50
SPEED	R P M	1170
VOLTAGE	3 dim 60 CYCLE	240/480

Nova Consulting, Inc.
Engineering & Environmental Services
10486 NW 31 Terrace, Miami, Florida, 33172
Florida Certification No. 7256



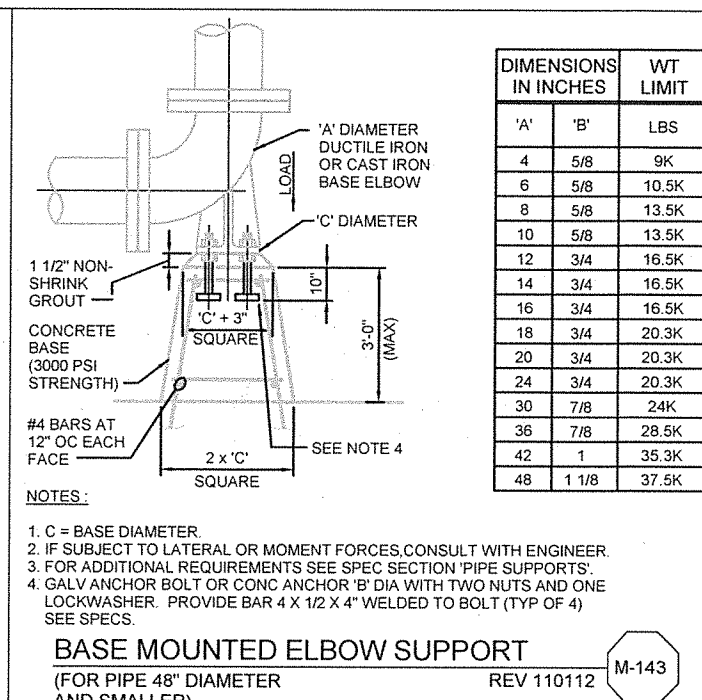
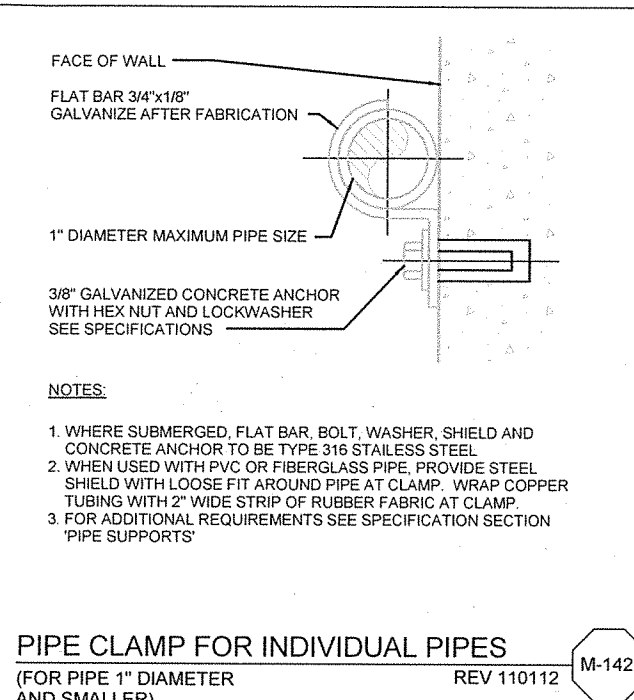
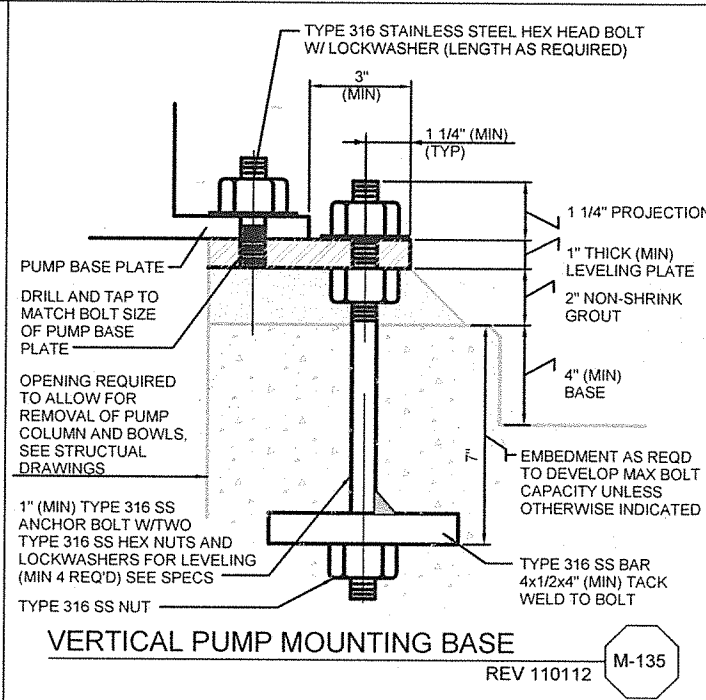
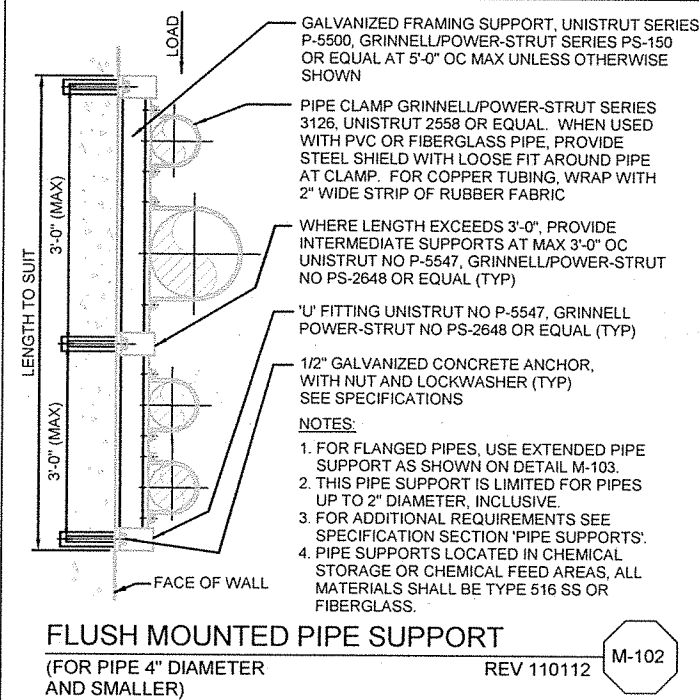
REVISION NO.	DATE	BY	DESCRIPTION

DATE: AUGUST 2015
DRAW BY: I.B.
REVISED BY: J.P.
CHECKED BY: S.S.E
SCALE: AS SHOWN



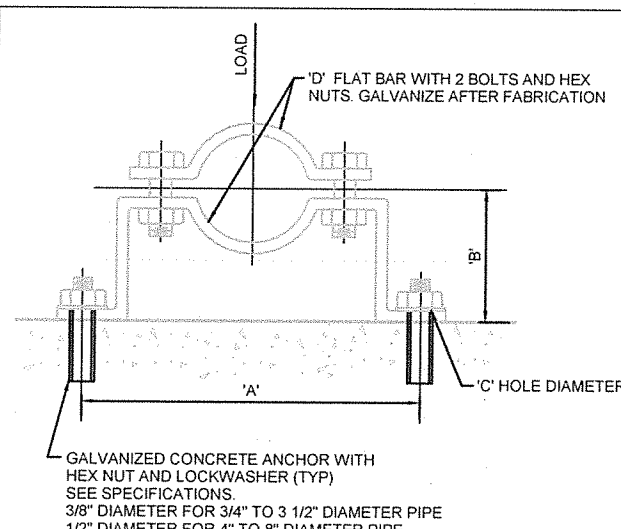
PS-100 PLAN AND SECTION

M-1



M-142 NOTES TO DESIGNER:
A. FOR PIPES LARGER THAN 1" DIA, SEE STANDARD DETAIL M-103

M-143 NOTES TO DESIGNER:
A. NO LATERAL OR MOMENT FORCE IS CONSIDERED IN DESIGN OF THIS SUPPORT. IF SUCH FORCES EXIST, CONSULT WITH A STRUCTURAL ENGINEER.



PIPE DIAMETER	DIMENSIONS IN INCHES				LOAD RATING LBS
	'A'	'B' SEE NOTE 3 BELOW	'C' HOLE DIAMETER	'D' FLAT BAR SIZE	
3/4	5 15/16	2 1/2	7/16	3/16 x 1 1/4	190
1	6 1/4	2 5/8	7/16	3/16 x 1 1/4	190
1 1/4	6 11/16	2 3/4	7/16	3/16 x 1 1/4	190
1 1/2	6 15/16	3	7/16	3/16 x 1 1/4	190
2	8 5/16	3 3/16	7/16	1/4 x 1 1/4	420
2 1/2	8 7/8	3 7/16	7/16	1/4 x 1 1/4	420
3	9 1/8	3 3/4	7/16	1/4 x 1 1/4	420
3 1/2	10 1/16	4	7/16	1/4 x 1 1/4	420
4	10 9/16	4 1/4	9/16	1/4 x 1 1/2	610
5	11 3/4	4 3/4	9/16	1/4 x 1 1/2	610
6	14 3/8	5 5/16	9/16	3/8 x 1 1/2	870
8	16 5/8	6 5/16	9/16	3/8 x 1 1/2	870

- NOTES:**
- WHERE SUBMERGED, PIPE CLAMP, ANCHORS, SHIELD, NUTS AND LOCKWASHER TO BE TYPE 316 STAINLESS STEEL.
 - WHEN USED WITH PVC OR FIBERGLASS PIPE, PROVIDE STEEL SHIELD WITH LOOSE FIT AROUND PIPE AT CLAMP. WRAP COPPER TUBING WITH 2" WIDE STRIP OF RUBBER AT CLAMP.
 - FOR FLANGED PIPING, INCREASE 'B' DIMENSION AS REQUIRED.
 - FOR PIPES SMALLER THAN 3/4" SEE STANDARD M-142.

PIPE CLAMP FOR INDIVIDUAL PIPES
(FOR PIPE 8" DIAMETER AND SMALLER)
REV 110112

M-131 NOTES TO DESIGNER:
A. FOR PIPES SMALLER THAN 3/4" SEE STANDARD DETAIL M-142



REVISION NO.	DATE	BY	DESCRIPTION

DATE: AUGUST 2015
DRAWN BY: I.B.
REVISED BY: J.P.
CHECKED BY: S.S.E.
SCALE: N.T.S.

