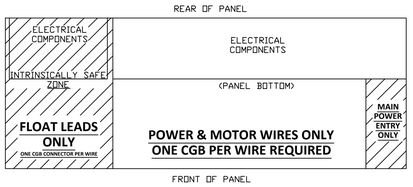
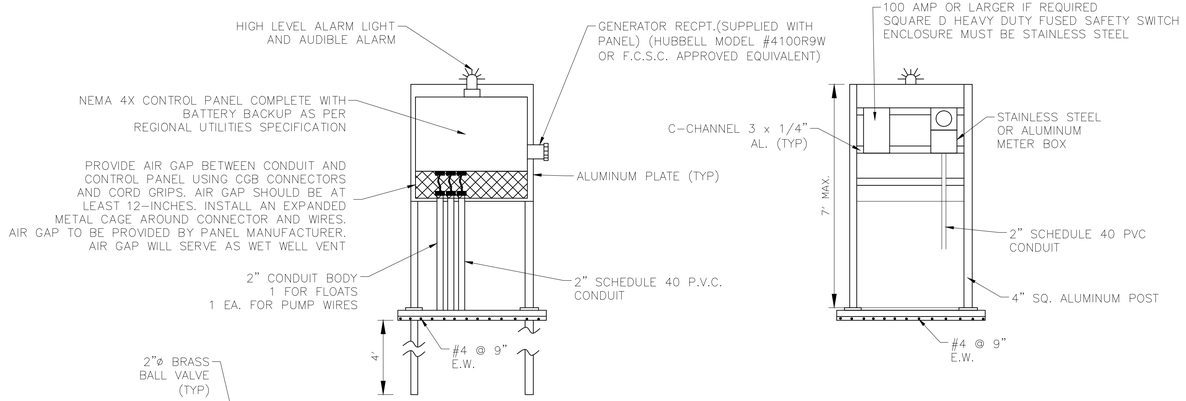


CGB CONNECTOR SCHEMATIC

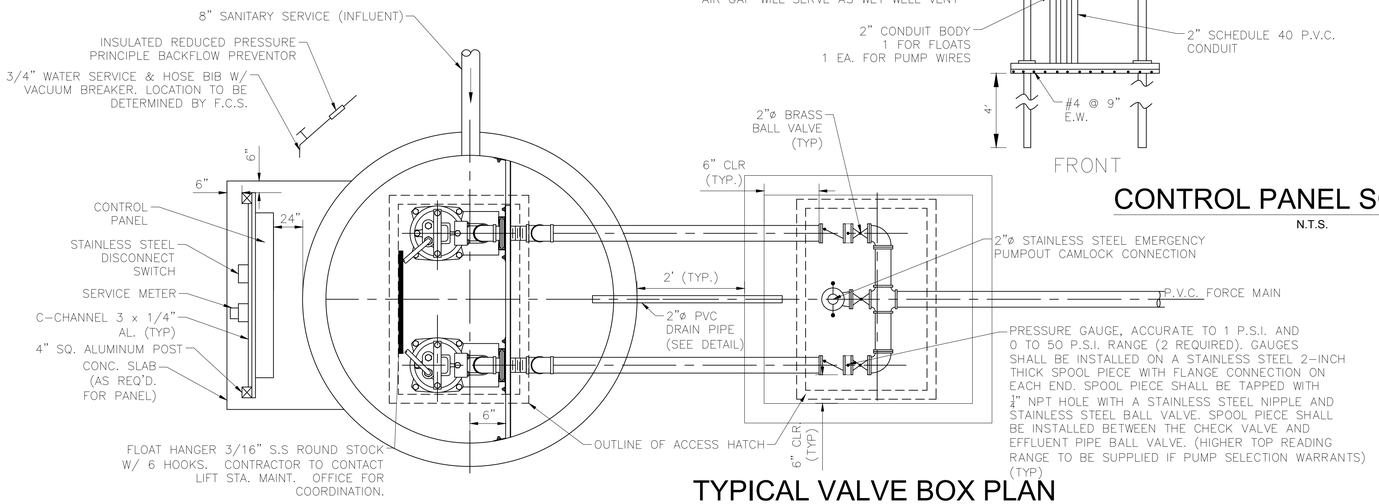
N.T.S.



CONTROL PANEL SCHEMATIC

N.T.S.

PUMPING STATION DATA	
Designation	
Pump model	BARNES SGV
Impeller	
voltage (3 PHASE)	120/208/240 Volt
h.p.	
r.p.m.	
delivery, gpm (High System Head)	
delivery, gpm (Low System Head)	
TDH, feet (High System Head)	
TDH, feet (Low System Head)	
Top elev.	
Influent Size	
Inv. Influent	
High level alarm elev.	
Lag pump on elev.	
Lead pump on elev.	
Both pumps off elev.	
Bottom elev.	
Force main	



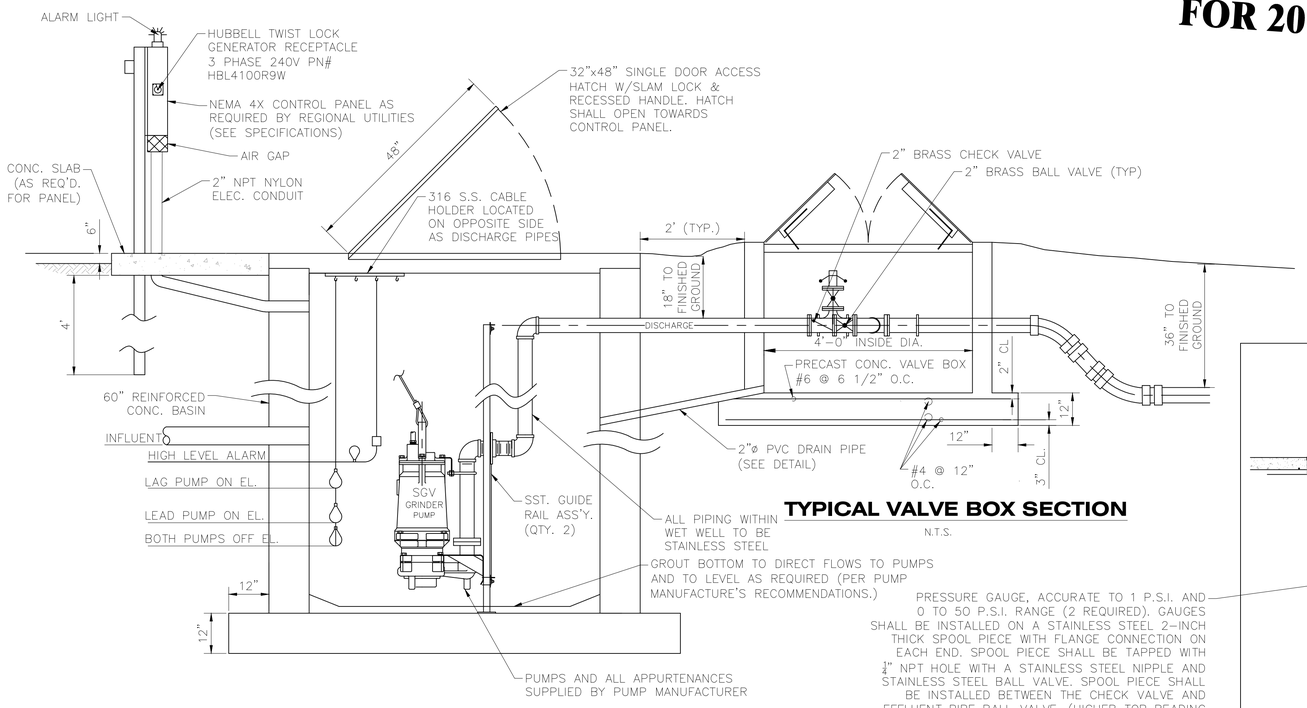
TYPICAL VALVE BOX PLAN

N.T.S.

TYPICAL WET WELL PLAN

N.T.S.

APPROVED FOR 2018



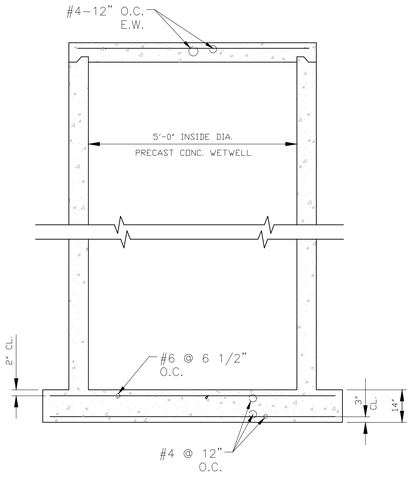
GRINDER LIFT STATION SECTION

N.T.S.

TYPICAL VALVE BOX SECTION

N.T.S.

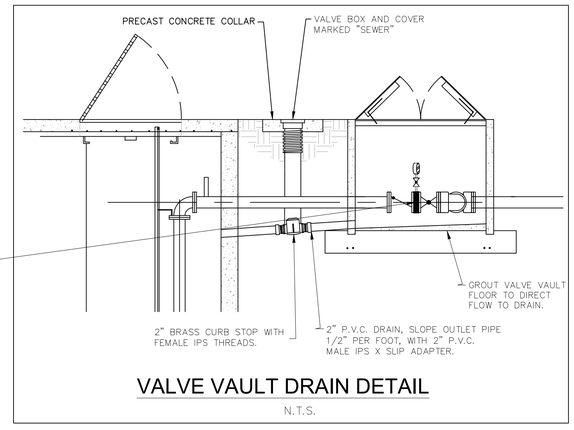
PRESSURE GAUGE, ACCURATE TO 1 P.S.I. AND 0 TO 50 P.S.I. RANGE (2 REQUIRED). GAUGES SHALL BE INSTALLED ON A STAINLESS STEEL 2-INCH THICK SPOOL PIECE WITH FLANGE CONNECTION ON EACH END. SPOOL PIECE SHALL BE TAPPED WITH ¼" NPT HOLE WITH A STAINLESS STEEL NIPPLE AND STAINLESS STEEL BALL VALVE. SPOOL PIECE SHALL BE INSTALLED BETWEEN THE CHECK VALVE AND EFFLUENT PIPE BALL VALVE. (HIGHER TOP READING RANGE TO BE SUPPLIED IF PUMP SELECTION WARRANTS) (TYP)



TOP AND BOTTOM SLAB REINFORCING

GRINDER LIFT STATION

N.T.S.



VALVE VAULT DRAIN DETAIL

N.T.S.

GENERAL NOTES:

1. WET WELL AND VALVE VAULT SHALL BE COATED WITH KOP-COAT COAL TAR EPOXY 300-M INSIDE AND OUT. (TWO COATS, 9 MILS EACH)
2. BASE AND FIRST RISER UNIT TO BE CAST MONOLITHIC.
3. VALVE VAULT SHALL BE SIZED TO PERMIT EASY REMOVAL OF CHECK VALVE
4. ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE WET WELL OR VALVE VAULT SHALL BE MADE WATERTIGHT WITH WALL SLEEVE OR NON-SHRINK GROUT.
5. THERE SHALL BE NO VALVES OR ELECTRICAL JUNCTION BOXES IN WET WELL.
6. WET WELL AND VALVE VAULT COVERS SHALL BE ALUMINUM WITH 316 S.S. HARDWARE SIZE AS REQUIRED BY PUMP MANUFACTURER AND APPROVED BY FLORIDA COMMUNITY SERVICES.
7. FLEXIBLE COUPLING IF USED SHALL BE SLEEVE TYPE.
8. ALL HARDWARE IN WET WELL AND VALVE BOX TO BE STAINLESS STEEL.
9. ALL ENCLOSURES SHALL BE NEMA 3R OR BETTER EXCEPT CONTROL PANEL WHICH SHALL BE NEMA 4X.
10. ALL MECHANICAL JOINT FITTINGS ON PRESSURE PIPE SHALL HAVE BOTH "MEGALUG" TYPE JOINT RESTRAINING GLANDS AND THRUST BLOCKS.
11. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND MEETING THE REQUIREMENTS OF REGIONAL UTILITIES STANDARD DETAILS AND SPECIFICATIONS LATEST EDITION.
12. ANY LOCATION WHERE PRESSURE PIPELINES CURVATURE EXCEEDS MANUFACTURES' SPECIFICATIONS; APPROPRIATE MECHANICAL JOINT FITTINGS SHALL BE USED.
13. ALL 2-INCH VALVES SHALL BE BALL TYPE – 2-INCH GATE VALVES SHALL NOT BE USED.
14. ALL TIE IN TO EXISTING PRESSURIZED PIPELINES SHALL BE BY TAPPING SLEEVE (3 INCH TAP AND LARGER) (OR TAPPING SADDLE, 2 INCH TAP AND SMALLER) AND VALVE W/ VALVE BOX.
15. DEVELOPERS OF PRIVATE PROJECTS SHALL PROVIDE ALL WETLANDS PERMITS NECESSARY FOR UTILITY CONSTRUCTION.
16. ALL GRINDER LIFT STATIONS LOCATED IN A PUBLIC RIGHT-OF-WAY MUST BE DESIGNED AND CONSTRUCTED OF REINFORCED CONCRETE AS PER THE SECTION TITLED "STRUCTURAL AND OTHER NOTES" DETAILED BELOW.

STRUCTURAL AND OTHER NOTES:

1. CONCRETE: DESIGN PER CURRENT EDITION OF A.C.I. (318-83).

   CONCRETE STRENGTH @ 28 DAYS IS:

   F'c'= 3500 PSI

   CONCRETE MIX SHOULD NOT CONTAIN MORE THAN 5 GALLONS OF WATER PER SACK OF CEMENT. AGGREGATES SHOULD HAVE LOW ABSORPTION AND SHOULD BE CLEAN, SOUND AND WELL GRADED FORM FINE TO COARSE. SAND MUST HAVE 10 TO 20 PERCENT OF PARTICLES PASSING A 50 MESH SIEVE. COARSE AGGREGATE MUST BE GRADED FROM 1/4" UP TO A MAXIMUM OF 2". KEEPING THE CONCRETE CURED FOR AT LEAST 7 DAYS IS ADVISABLE. REINFORCING ASTM A-615, GRADE 60.
2. CLEAR COVER FOR BASE SLAB – 3" FOR BOTTOM BARS AND – 2" FOR TOP BARS.
3. CLEAR COVER FOR TOP SLAB – 2" FOR TOP & BOTTOM BARS.
4. CLEAN SAND BACKFILL WITH A FRICTION FACTOR OF 30° ROUND AND WEIGHING 120 PCF TO 130 PCF IS ASSUMED. THE DESIGN IS BASED ON A SUBMERGED CONDITION.
5. ALL REINFORCING SHALL BE SECURELY HELD IN POSITION WITH STANDARD ACCESSORIES DURING THE PLACING OF THE CONCRETE.
6. SPLICES IN REINFORCEMENT ARE NOT PERMITTED.
7. IF FOOTING ELEVATIONS SHOWN OCCUR IN A DISTURBED, UNSTABLE OR UNSUITABLE SOIL, THE ENGINEER SHALL BE NOTIFIED.
9. MAXIMUM DESIGN SOIL PRESSURE ASSUMED = 2000 PSF.
10. ALL GRAVITY SEWER AND SEWER SERVICES SHALL HAVE CONCRETE ENCASEMENT WHERE COVER IS LESS THAN 30 INCHES UNDER PAVEMENT OR LESS THAN 18 INCHES IN GREEN AREAS.
11. AT ALL HIGH POINTS CREATED DURING FORCE MAIN CONSTRUCTION, AIR RELEASE VALVES SHALL BE CONSTRUCTED.
12. EXTERNAL DROP TYPE MANHOLES ARE REQUIRED WHERE MANHOLE INVERT ELEVATIONS VARY BY OVER TWO FEET.
13. MANHOLE TOPS IN GREEN AREAS SHALL BE ELEVATED TO PROHIBIT STORMWATER ENTRY.
14. SEWER SERVICES SHALL BE CONSTRUCTED AT THE LOWER SIDE OF LOTS AS MAY BE APPLICABLE.

NO.	DATE	APPR.	REVISION
1	3/02/10	NOC	UPDATE CONSTRUCTION DETAILS
2	1/25/11	NOC	ADD STAINLESS NOTE TO SAFETY SWITCH
3	5/02/11	NOC	ADD AIR GAP BETWEEN CONTROL PANEL & CONDUIT
4	2/27/14	RAD	CHANGE SCADA REQUIREMENTS
5	2/11/15	RAD	CHANGE VALVE VAULT DRAIN DETAIL
6	1/23/17	RAD	REMOVED 2-INCH WET WELL VENT
7	1/01/18	RAD	CHANGED PRESSURE GAUGE SETUP

REGIONAL UTILITIES
OPERATED BY FLORIDA COMMUNITY SERVICES
CORPORATION OF WALTON COUNTY INC.
4432 HWY 98 EAST
SANTA ROSA BEACH, FL 32459
Phone: (850) 231-5114
Fax: (850) 231-4924

PROJECT NAME:

SHEET TITLE: LIFT STATION (GRINDER PUMP) STANDARD DETAIL

SEAL:

DRAWN BY:	CHECKED BY:
RT	RAD

PROJECT NO.: 000-000

DRAWING SCALE: N.T.S

PLOT DATE:

SHEET NO. 1 OF 1

SHEET. GS-1