



November 14, 2011

Addendum 1

ITB-12-06

The invitation to Bid – Replacement of Lift Station # 110, ITB-12-06, is hereby changed by addition of the following clarifications:

1. **Surge Arrestor/Protector:** The City does not supply the surge arrestor; it shall be furnished by the Contractor. The plans (Sheet 5) and the Specifications (Section 6.9.9.4) have been revised to show and specify a Square “D” type surge protector or approved equal instead of the Volt Guard Type VGX that was previously specified. The surge protector shall be connected to the load side of the main service breaker and located externally on the main disconnect box. Refer to the accompanying revised Sheet 5 of the plan set and page number 6-20 of the Specifications.
2. **Relocating an existing water spigot:** There is an existing water spigot outside the gate. As part of constructing and installing the new 12’ gate, this water spigot shall be relocated to a new location inside the fenced area. The cost of this work shall be factored in the bid price.
3. **Permits:** An electrical permit from the City’s Building Division shall be required by the Contractor for the electrical work. The City shall waive the permit fees.
4. **Electrical Work:** The Contractor shall be responsible for reconnecting the power from the Hospital building adjacent to the station and the wiring from the Control Panel to the equipment. The Contractor shall be installing all the electrical components and shall be responsible to supply and install any components that are not included with the pump and control panel. The existing telemetry shall be relocated and reconnected by the City.
5. **Wet Well Liner Joints:** All joints of the wet well liner shall be welded per the manufacturer’s specifications

6. **Ground Rod testing:** Per Section 6, subsection 6.13 of the City of Winter Haven Engineering Specifications: The CONTRACTOR shall be responsible for conducting the following field acceptance tests and start-up procedures in the presence of the CITY. The CONTRACTOR shall furnish all labor, piping, equipment, water and materials to perform the acceptance testing.

Continuing in subsection 6.14 paragraph 1.f the following test report is required:

A test report of ground electrode resistance test

All other terms and conditions remain the same.

to and be shown on electrical diagrams. All wiring shall be permanently shown on electrical schematic diagrams.

6.9.9.3 ENGRAVED NAMEPLATES

All circuit breakers, control switches, indicator pilot lights and other control devices shall be identified with permanently affixed legend plates and lamicoid-type engraved nameplates where applicable.

6.9.9.4 SURGE PROTECTOR

A Square "D" type surge protector or approved equal shall be included and wired to protect motors and control equipment from induced line surges. The surge protector shall be connected to the load side of the main service breaker and located externally on the main disconnect box. Revised 11/08/2011

6.9.9.5 ELAPSED TIME METERS

Elapsed time meters shall be 115 volt non-reset type and shall totalize pump running time in hours and tenths of hours to 99999.9 hours.

6.9.9.6 CONVENIENCE RECEPTACLES

On the face of the inner door unit, there shall be installed a 20 AMP 120 volt GFI, duplex convenience receptacle. It shall be provided with its own single pole, 20 AMP circuit breaker for protection.

6.9.9.7 CONTROL TERMINAL BLOCKS

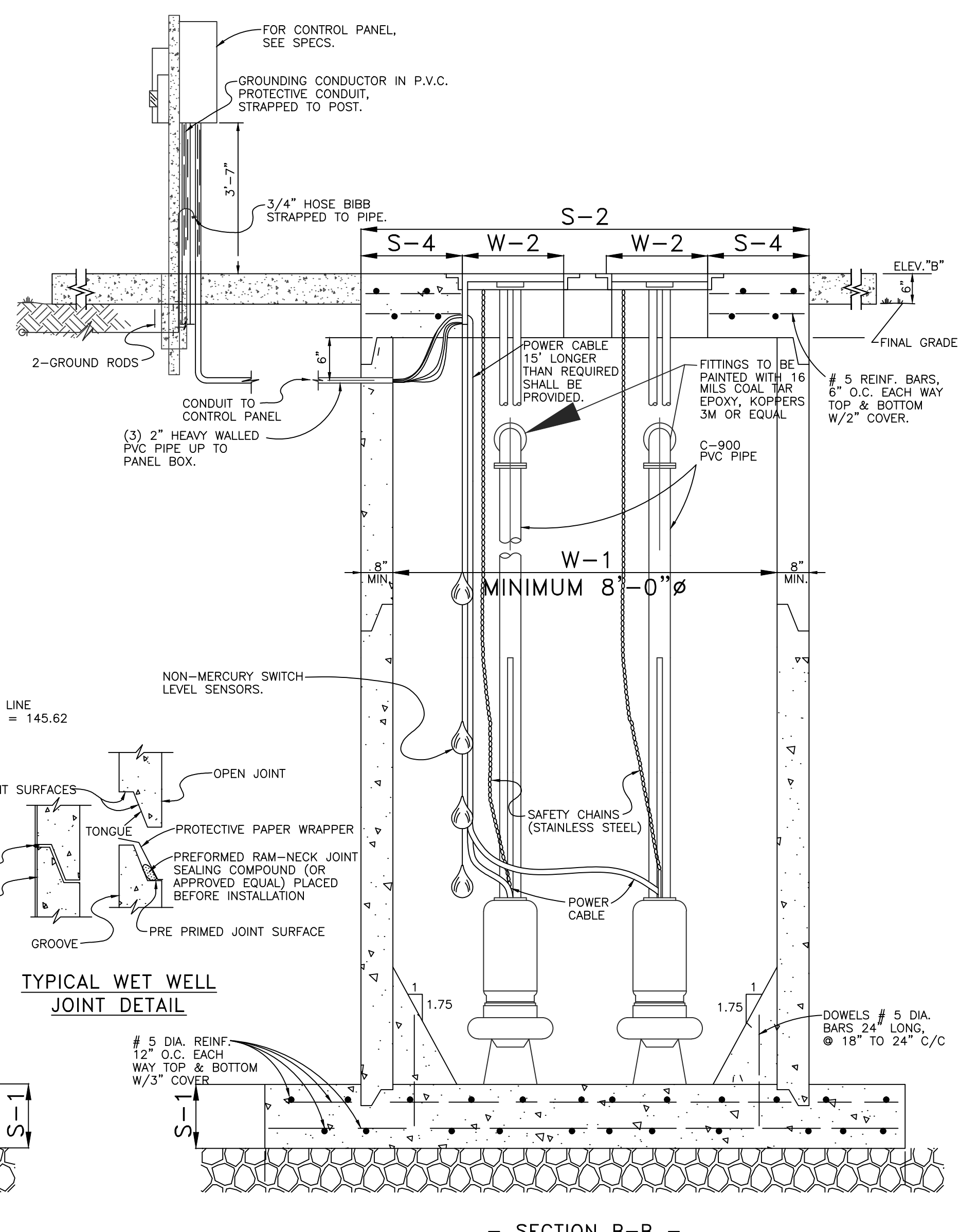
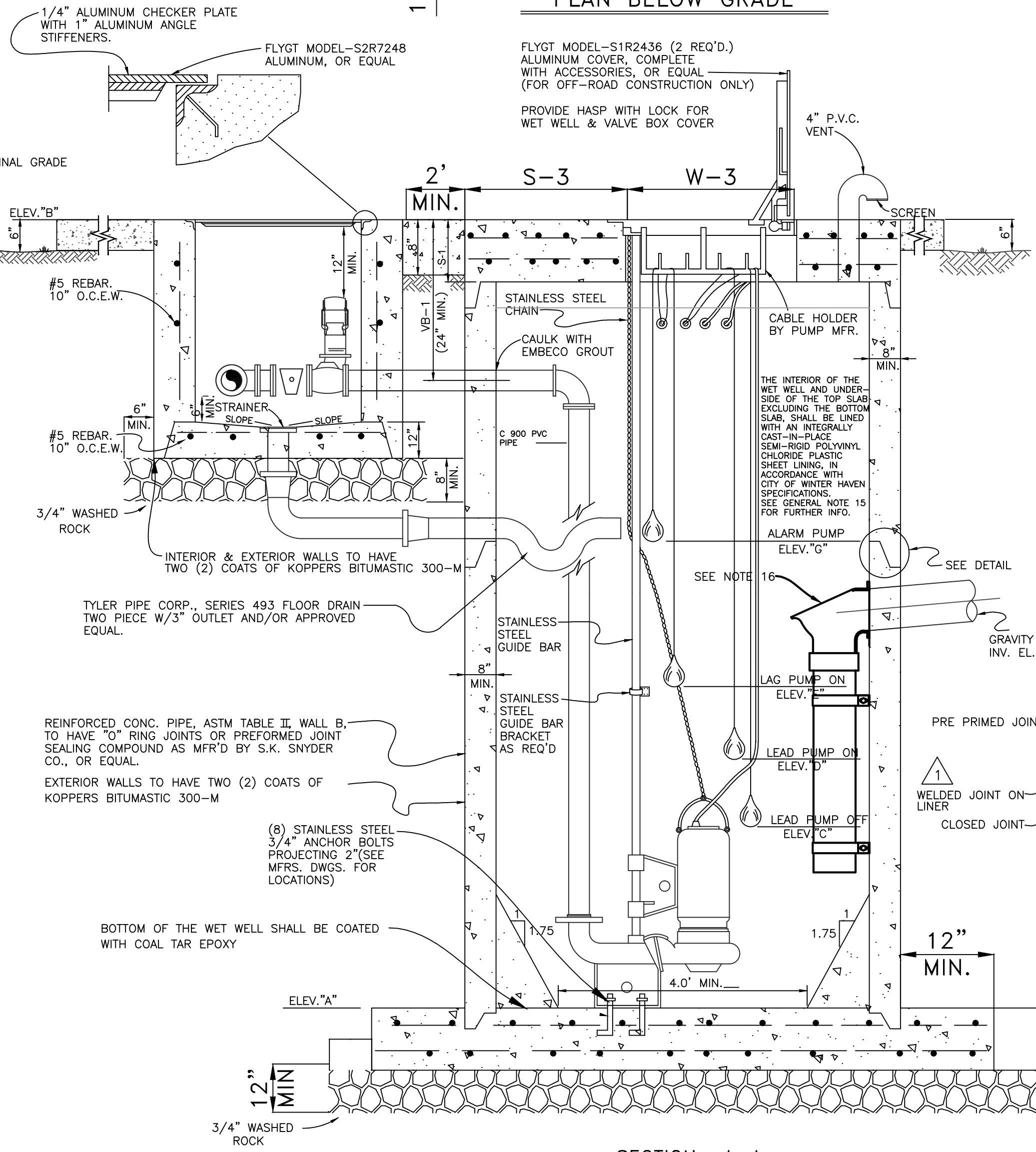
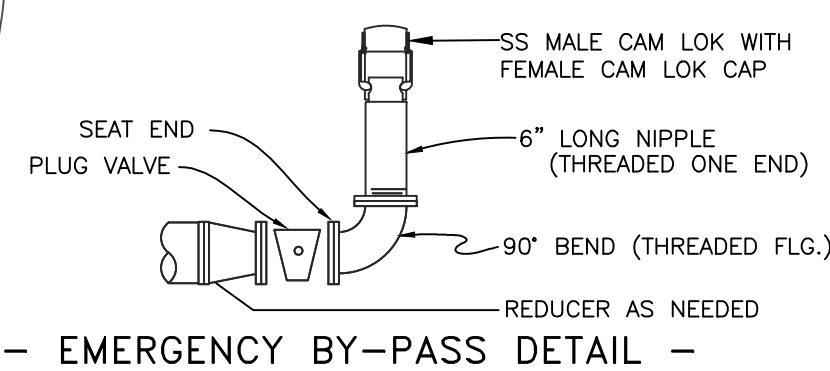
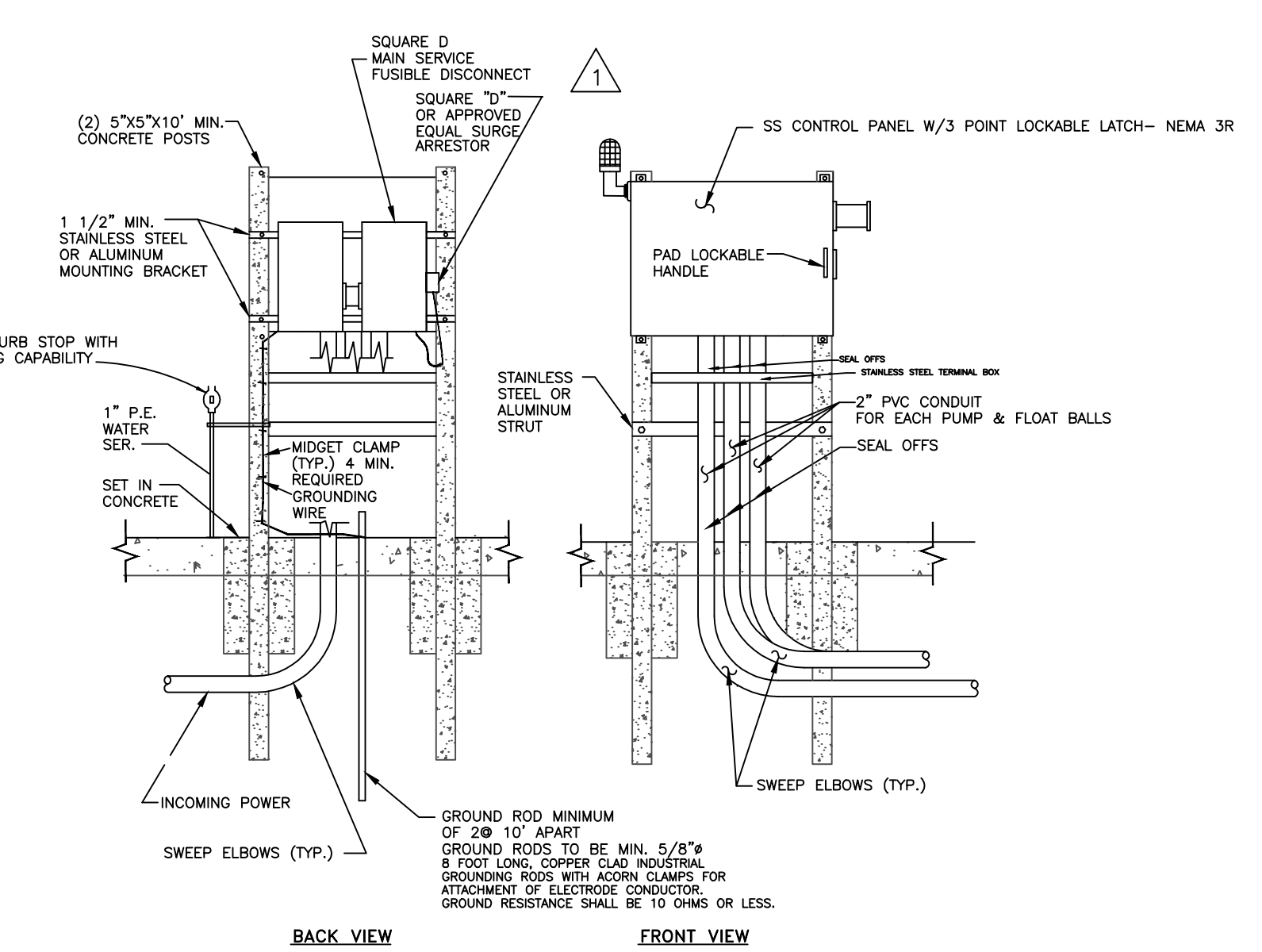
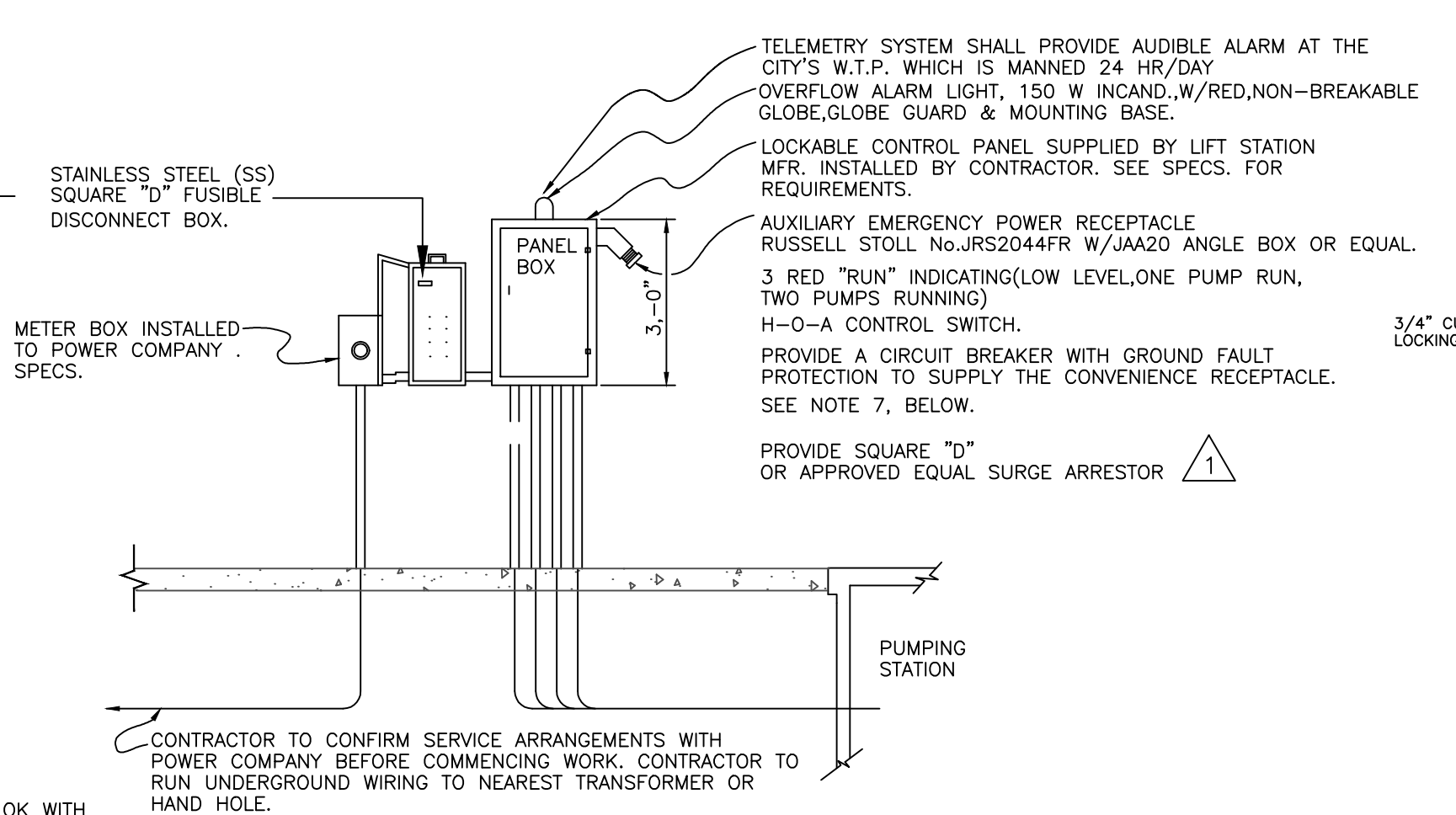
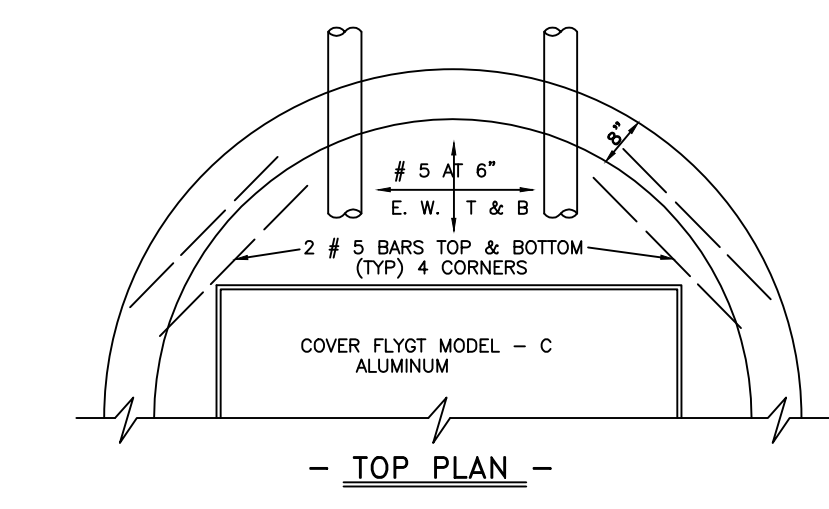
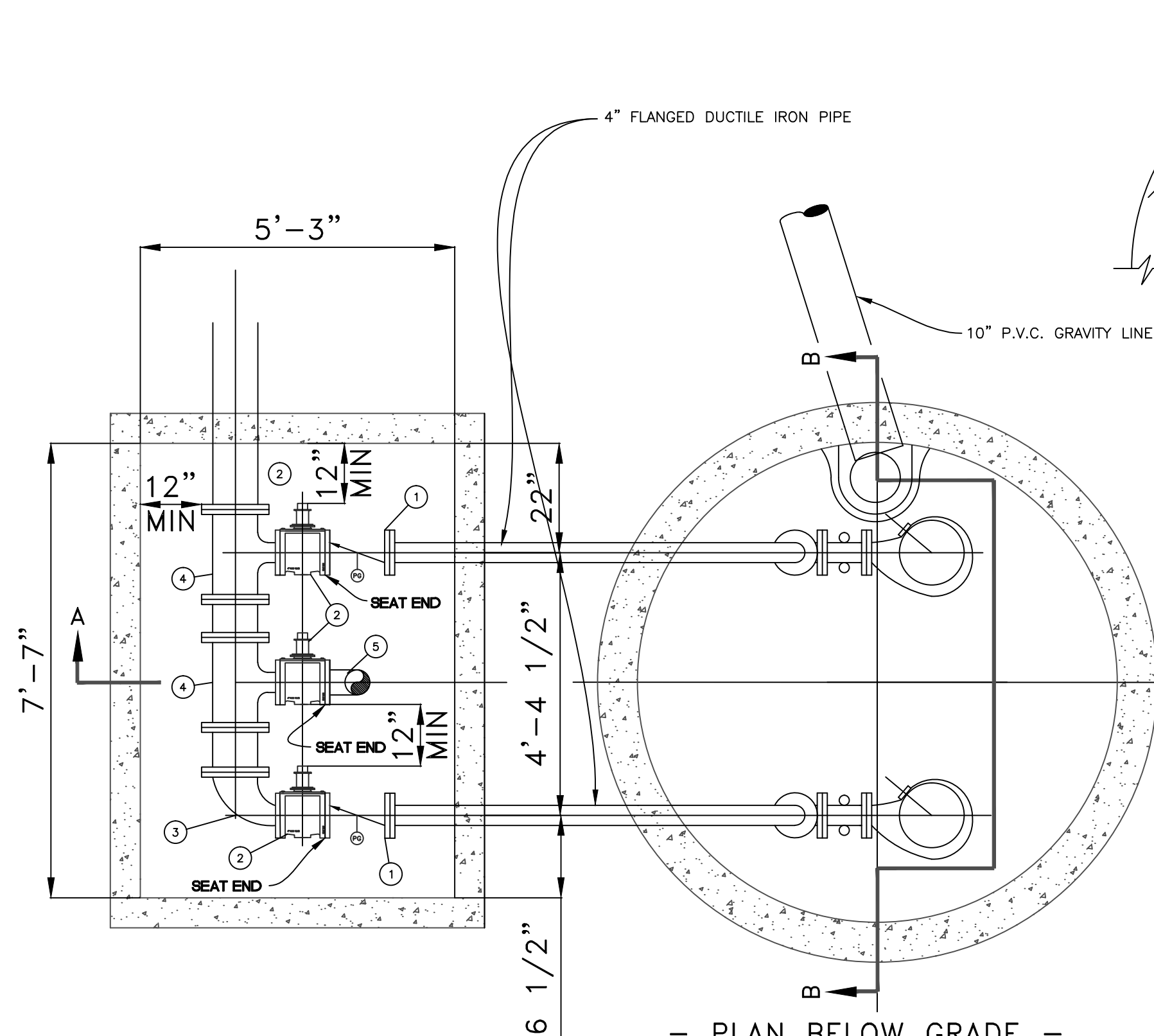
Control terminal blocks shall be of the clamp screw type, rated for 600 volts. Amperage rating shall accommodate the control circuit amperage. An additional 4 space terminal strip shall be installed in the cabinet for future use, with RTU equipment.

6.9.9.8 CONTROL POWER TRANSFORMERS

There shall be a control power transformer with a minimum size of 750VA to provide 120VAC power for: coils for starters, indicator pilot lights, alarm horn, alarm light, pump alternator, elapsed time meters etc. The secondary side shall have one leg fused and the other grounded. There shall be a separate 2KVA power transformer for the 20A duplex convenience 120VAC receptacle. These power transformers are required only on 480 volt control panels. The center leg shall be the "Hot Leg". (Do not connect the transformer(s) primaries to this leg.)

The signal required by the float switches and relays shall be 24VAC. This shall be provided by a 24VAC control power transformer properly sized with a fused secondary.

VALVE BOX NOTES:
 1.) ANY INCREASE IN PIPE SIZE TO MATCH FORCE MAIN SIZE SHALL BE DONE INSIDE ON THE VALVE BOX.



WET WELL DIMENSIONS			SLAB DIMENSIONS				VALVE PIT DIMENSIONS		
DIA. W-1	DIM. W-2	DIM. W-3	DEPTH "S-1"	WIDTH "S-2"		DIM. S-3	DIM. S-4	DIM. S-5	WALL THICKNESS
TOP	BOTT.	TOP	BOTT.	TOP	BOTT.	TOP	BOTT.	TOP	6"
8'-0"	2'-0"	3'-0"	8"	12"	9'-4"	3'-10"	18"	3'-0"	INSIDE DIMENSIONS 7'-7" x 5'-3"

ELECTRICAL EQUIPMENT										
STATION NO.	PUMP H.P.	NO. OF PUMPS	VOLTS	PUMP AMPS	TOTAL AMPS.	SERVICE DATA			SERVICE SWITCH	
						CABLE SIZE	NO. OF W/3 PUMPS	CONDUIT SIZE	MAIN BRKR. FRAME	MAIN BRKR. TRIP
110	20	2	460	26	52	#6	3	2"	100	100

* INCLUDES ONE BARE CONDUCTOR GROUND WIRE.

STATION ELEVATIONS (FROM U.S.G.A. DATUM)						
ELEV. "A"	ELEV. "B"	ELEV. "C"	ELEV. "D"	ELEV. "E"	ELEV. "F"	ELEV. "G"
139.00	150.00	141.00	143.00	144.50	N/A	145.50

PUMP DATA					
FLYGT MODEL NO.	G.P.M.	T.D.H.	H.P.	R.P.M.	IMPELLER NO.
4"NP3153.181 HT	753	51.5	20	1755	464

SEE PUMP CURVE #63-464-00-6050

- GENERAL NOTE
- THE EQUIPMENT DESCRIBED HEREIN IS THAT DEEMED BEST SUITED FOR THE SERVICE ANTICIPATED ANY OTHER EQUIPMENT TO BE CONSIDERED MUST BE APPROVED BY THE CITY OF WINTER HAVEN.
 - ANY WORDING OR DETAIL HEREUPON SHALL BE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTICE BY THE CITY OF WINTER HAVEN.
 - THE DEVELOPER SHALL PROVIDE EACH LIFT STATION WITH THREE (3) PHASE ELECTRIC SERVICE FOR PUMPS.
 - USE EMPIRE SEWAGE AIR RELEASE VALVE OR EQUAL.
 - WHERE DEPTH OF LIFT STATION EXCEEDS 14' A STRUCTURAL REVIEW IS REQUIRED.
 - CITY STANDARD REQUIRES THE PUMPS TO REMAIN COVERED. STORAGE CALCULATIONS MUST BE BASED FROM THE TOP OF THE PUMPS, NOT THE BOTTOM OF THE LIFT STATION
 - THE DEVELOPER WILL PROVIDE AND INSTALL TELEMETRY SYSTEM. (DATA FLOW SYSTEMS INC./TAC PAC)
 - CONTRACTOR SHALL CONSTRUCT A HARD SURFACE ALL-WEATHER PAVEMENT (CONCRETE OR ASPHALT) ACCESS TO THE LIFT STATION. APRON WITHIN RIGHT-OF-WAY AND INSIDE OF FENCED AREA SHALL BE 6" THICK 3000 P.S.I. REINFORCED OR FIBERMESH CONCRETE. (USE OF ASPHALT MUST BE APPROVED BY THE CITY ENGINEER.)
 - PROVIDE PUMP SHAFT SEAL FAILURE PROTECTION.
 - CONTROL PANEL SHALL HAVE ALTERNATOR FOR AUTOMATIC PUMP SWITCHING.
 - 100 YEAR FLOOD ELEV. APPROX. 144.00'
 - SEASONAL HIGH GROUND WATER ELEVATION = 142.50'
 - CONTRACTOR SHALL APPLY AN EXTERNALLY APPLIED WATER TIGHT SEAL, SUGGESTED MANUFACTURER "WRAPIDSEAL" OR CITY APPROVED EQUAL, AROUND THE OUTSIDE OF EACH JOINT THAT FALLS BELOW THE SEASONAL HIGH GROUND WATER TABLE.
 - PUMPS SHALL BE NEW FLYGT CORP. EQUIP.
 - PLASTIC LINING SHALL BE INSTALLED, SEALED AND SPARK TESTED IN ACCORDANCE WITH THE LINING MANUFACTURER'S RECOMMENDATION SO THAT THE FINAL ASSEMBLY OF THE WET WELL WILL HAVE A TIGHTLY ADHERING LINING WITHOUT PIN HOLES OR OTHER AREAS NOT COVERING THE CONCRETE SURFACE. PLASTIC LINING SHALL BE "T-LOK" MANUFACTURED BY AMERON PROTECTIVE LINING DIVISION, "DURA PLATE 100" MANUFACTURED BY A-LOK PRODUCTS, OR "AGRU SURE-GRIP HDPE" BY TAYLOR PRECAST. PROVIDE A GROUT FILLET AROUND THE BOTTOM OF THE WET WELL. GROUT SHALL BE 4000 PSI CONCRETE, EXCEPT THE MAXIMUM AGGREGATE SIZE SHALL BE 3/8" INCH.
 - CONTRACTOR SHALL INSTALL DOWN BOWL AND PIPE ON END OF THE GRAVITY PIPE PER MANUFACTURER'S RECOMMENDATIONS.
- * SEE TECHNICAL SPEC'S. FOR PRESSURE GAUGE

DESIGNED DCK
 DRAWN DCK
 CHECKED JM
 APPROVED AAH
 PROJECT NO. 10-111-1H
 DATE: MAY 2011

WINTER HAVEN
 The Chain of Lakes City

ENGINEERING SERVICES DIVISION
 490 THIRD STREET, N.W. WINTER HAVEN, FLA. 33881 (863) 291-5850

CITY OF WINTER HAVEN
 REPLACEMENT OF LIFT STATION 110

LS-110
 LIFT STATION DETAILS

AMIN A HANHAN
 FL. P.E. NO. 68410

SHEET NO. 5