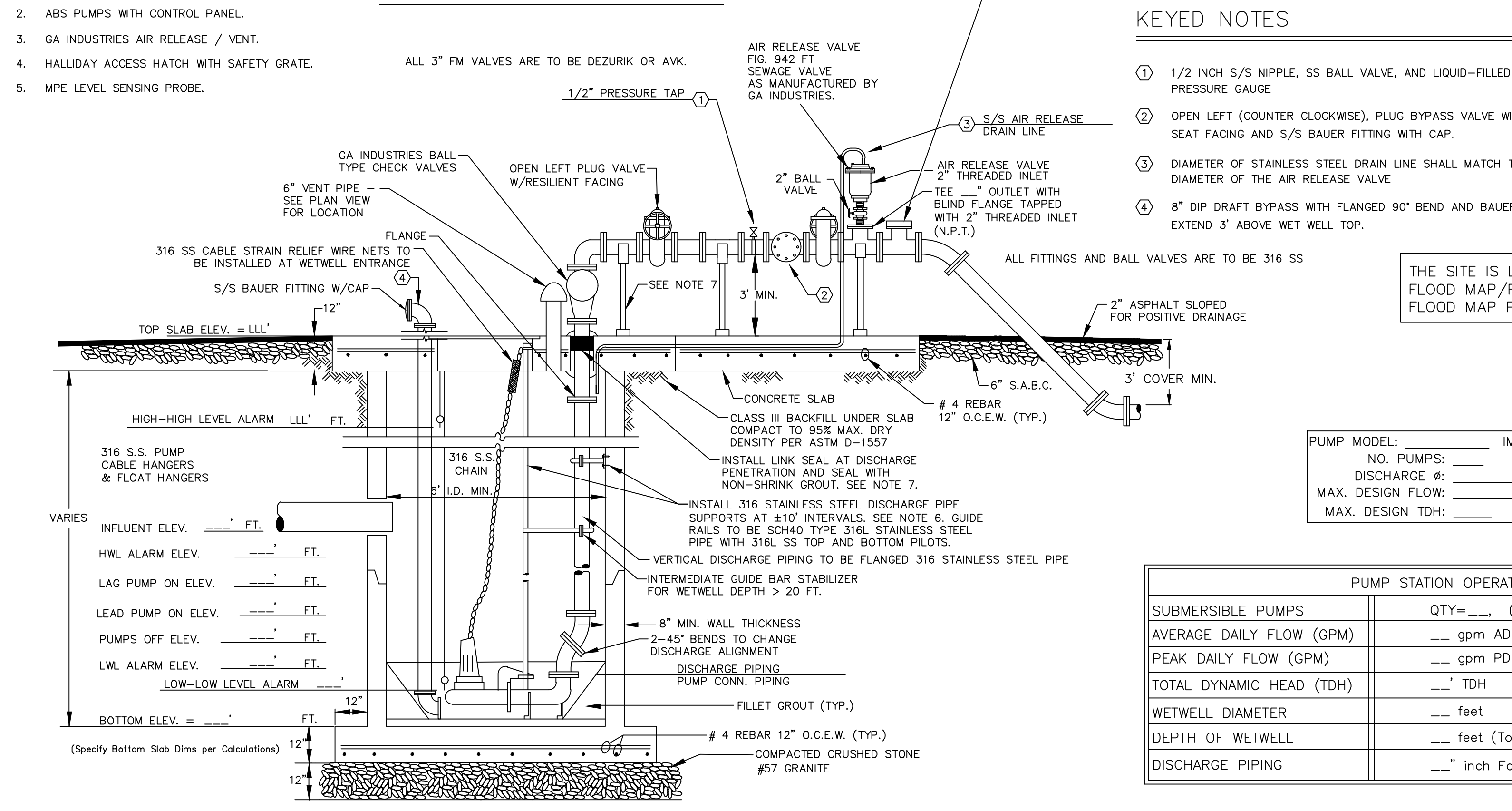


MODEL NOTES:

- ENDRESS-HAUSER FLOW METER.
- ABS PUMPS WITH CONTROL PANEL.
- GA INDUSTRIES AIR RELEASE / VENT.
- HALLIDAY ACCESS HATCH WITH SAFETY GRATE.
- MPE LEVEL SENSING PROBE.

TYPICAL SUBMERSIBLE PUMP STATION PLAN WITHOUT SLAB (N.T.S.)



TYPICAL SUBMERSIBLE PUMP STATION SECTION (N.T.S.)

STEEL PAINTING SCHEDULE (IMMERSION):

SURFACE PREPARATION: REMOVE ALL OIL AND GREASE FROM METAL SURFACE PRIOR TO BLAST CLEANING. THE ENTIRE SURFACE SHALL BE BLAST CLEANED TO NEAR WHITE METAL, REMOVING ALL EXISTING PAINT, RUST, DIRT, MILL SCALE, OR FOREIGN MATTER BY RECOMMENDED METHODS OUTLINED IN THE STEEL STRUCTURES PAINTING COUNCIL'S SPECIFICATION SP10.

1ST COAT: TNEMEC SERIES 1 OMNITHANE APPLIED AT 2.5 - 3.5 DRY MILS.

2ND COAT: TNEMEC SERIES 66 HI-BUILD EPOXOLINE APPLIED AT 4.0 - 6.0 DRY MILS.

3RD COAT: TNEMEC SERIES 104 H.S. EPOXY APPLIED AT 3.0 - 5.0 DRY MILS.

PAINTING CONTRACTOR SHALL PERMIT OWNER'S REPRESENTATIVE AND/OR PAINT & COATING MANUFACTURER TO INSPECT HIS WORK FOR CONFORMANCE TO THIS SPECIFICATION. OWNER RESERVES THE RIGHT TO REJECT ALL WORK THAT DOES NOT COMPLY WITH THIS SPECIFICATION.

TNEMEC CONTACT INFORMATION: TNEMEC, INC.
NICK VAUSE
PO BOX 23559
COLUMBIA, SC 29224
OFFICE: (803) 736-1553 CELL: (803) 422-3650
EMAIL: NVAUSE@TNEMEC.COM

STEEL PAINTING SCHEDULE (NON-IMMERSION):

SURFACE PREPARATION: REMOVE ALL OIL AND GREASE FROM METAL SURFACE PRIOR TO BLAST CLEANING. THE ENTIRE SURFACE SHALL BE BLAST CLEANED TO A COMMERCIAL FINISH, REMOVING ALL EXISTING PAINT, RUST, DIRT, MILL SCALE, OR FOREIGN MATTER BY RECOMMENDED METHODS OUTLINED IN THE STEEL STRUCTURES PAINTING COUNCIL'S SPECIFICATION SP6-63.

1ST COAT: TNEMEC SERIES 1 OMNITHANE APPLIED AT 2.5 - 3.5 DRY MILS.

2ND COAT: TNEMEC SERIES 66 HI-BUILD EPOXOLINE APPLIED AT 4.0 - 6.0 DRY MILS.

3RD COAT: TNEMEC SERIES 73 COLOR ENDURA-SHIELD APPLIED AT 3.0 - 5.0 DRY MILS.

4TH COAT: TNEMEC SERIES 76 ENDURA-CLEAR APPLIED AT 1.0 - 2.0 DRY MILS.

PAINTING CONTRACTOR SHALL PERMIT OWNER'S REPRESENTATIVE AND/OR PAINT & COATING MANUFACTURER TO INSPECT HIS WORK FOR CONFORMANCE TO THIS SPECIFICATION. OWNER RESERVES THE RIGHT TO REJECT ALL WORK THAT DOES NOT COMPLY WITH THIS SPECIFICATION.

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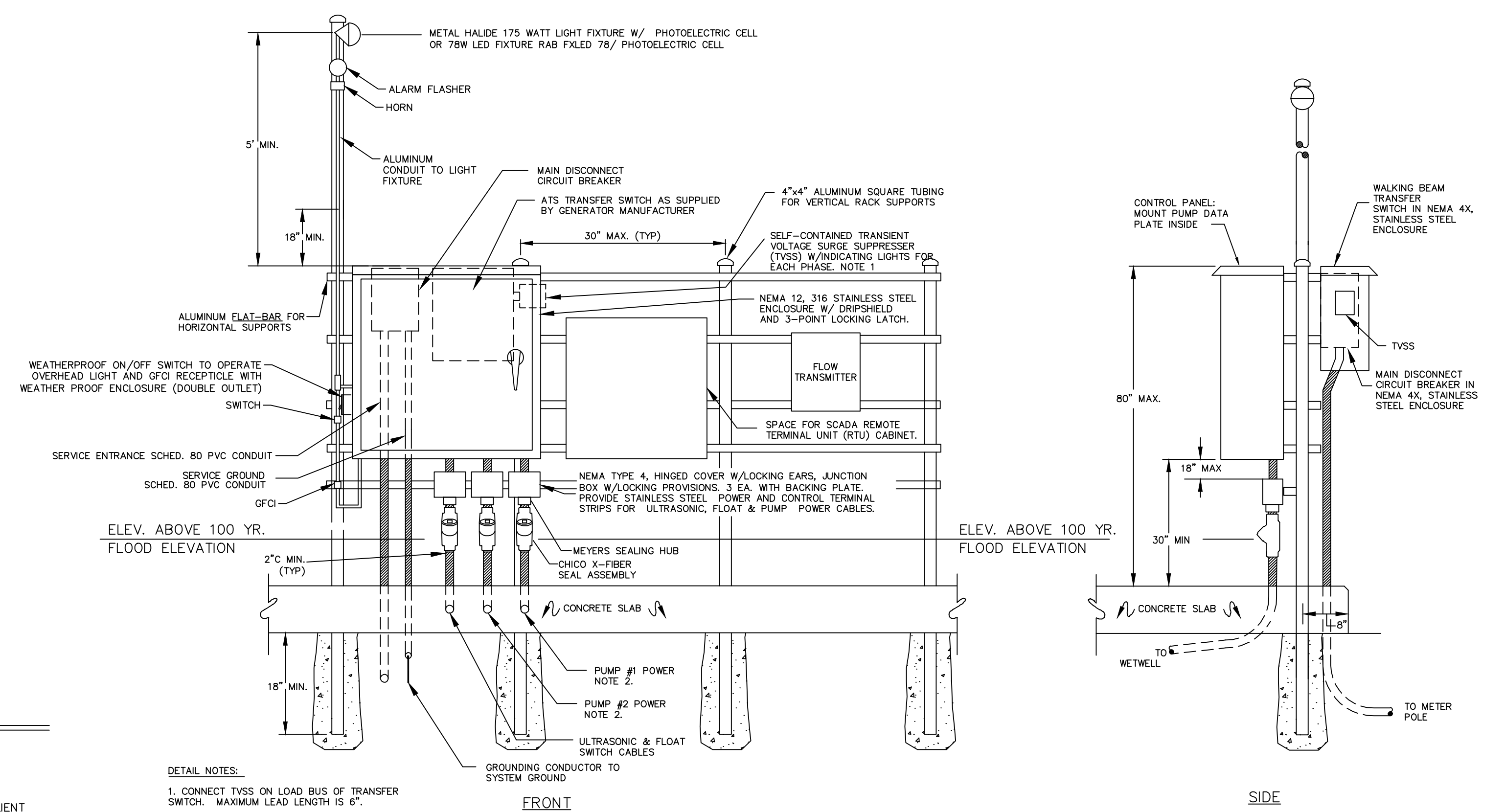
- KEYED NOTES**
- 1/2 INCH S/S NIPPLE, SS BALL VALVE, AND LIQUID-FILLED PRESSURE GAUGE
 - OPEN LEFT (COUNTER CLOCKWISE), PLUG BYPASS VALVE WITH RESILIENT SEAT FACING AND S/S BAUER FITTING WITH CAP.
 - DIAMETER OF STAINLESS STEEL DRAIN LINE SHALL MATCH THE OUTLET DIAMETER OF THE AIR RELEASE VALVE
 - 8" DIP DRAFT BYPASS WITH FLANGED 90° BEND AND BAUER CONNECTION. EXTEND 3' ABOVE WET WELL TOP.

THE SITE IS LOCATED WITHIN FLOOD ZONE _____ FLOOD MAP/FLOOD PLAIN INFORMATION FLOOD MAP PANEL: _____

PUMP MODEL:	IMPELLER DIA.:
NO. PUMPS:	MOTOR HP:
DISCHARGE Ø:	RPM:
MAX. DESIGN FLOW:	VOLTAGE:
MAX. DESIGN TDH:	PHASE:

PUMP STATION OPERATING PARAMETERS	
SUBMERSIBLE PUMPS	QTY= _____ (MODEL)
AVERAGE DAILY FLOW (GPM)	_____ gpm ADF
PEAK DAILY FLOW (GPM)	_____ gpm PDF
TOTAL DYNAMIC HEAD (TDH)	_____ TDH
WETWELL DIAMETER	_____ feet
DEPTH OF WETWELL	_____ feet (Top of slab to inside bottom)
DISCHARGE PIPING	_____ inch Forcemain (L.L.L'Ø Pump Discharge)

- MAGNETIC FLOW METER NOTES:**
- CONTRACTOR TO INSTALL 2 SEPARATE 3/4 IN S/S CONDUIT RUNS UNDERGROUND ONE FOR POWER. THE SECOND FOR SENSOR WIRE.
 - PROVIDE MIN. LENGTH OF STRAIGHT PIPE EQUAL TO 5 PIPE DIAMETERS UPSTREAM OF CENTER OF METER AND EQUAL TO 2 PIPE DIAMETERS DOWNSTREAM OF CENTER OF METER.



- DETAIL NOTES:**
- CONNECT TVSS ON LOAD BUS OF TRANSFER SWITCH. MAXIMUM LEAD LENGTH IS 6'.
 - DIAMETER OF WET WELL SHALL BE 2' SCH. 80 PVC UP TO 25 HP AND 2" RIGID GALVANIZED STEEL ABOVE 25 HP.

- GENERAL NOTES:**
- WETWELL LEVEL AND ALARMS TO BE CONTROLLED BY MPE LEVEL PROBE CONTROLLER WITH LEVEL SENSING PROBE. THE MPE CONVERTER SHALL BE HOUSED IN THE CONTROL PANEL AND SHALL HAVE THE FRONT/BACK LIGHTED DISPLAY. NOT SUPPLIED BY NORTH CHARLESTON SEWER DISTRICT (NCSD).
 - ALL POWER TO THE PUMP STATION SHALL BE 3 PHASE POWER.
 - THE SIZE OF CONCRETE PAD SUPPORTING VALVES AND PIPING SHALL BE CONTING ON THE SIZE OF PIPE AND THE LENGTH OF FITTINGS, COMPONENTS, VALVES, ETC. THE PAD SHALL EXTEND A MINIMUM OF TWO FEET PAST THE LAST COMPONENT IN THE VALVE ASSEMBLY. PAD SHALL BE FIELD VERIFIED WITH THE CONTRACTOR AND THE NCSD FIELD REPRESENTATIVE.
 - CONTRACTOR SHALL INSTALL A HATCHWAY AND SAFETY GRATE BY HALLIDAY.
 - INSTALL SS JUNCTION BOXES ABOVE 100 YEAR FLOOD LEVEL.
 - PIPE STANCHIONS SHALL BE GRINNELL PIPE STANCHION SADDLE, FIG.259 WITH STEEL YOKE AND NUTS. THE STANCHION SHALL BE SECURED USING 4 EA. HILTI KWIK BOLT II 316 SS ANCHOR BOLTS. THE ENGINEER SHALL SIZE THE SUPPORT, BASE PLATE AND ANCHOR BOLTS TO SUPPORT THE WEIGHT OF THE COMPONENTS WITHIN THE WETWELL AND VALVE ASSEMBLY. VERTICAL SUPPORT, BASE PLATES, SADDLES, HARDWARE (ALL THREAD, STUDS, ETC.) ARE TO BE 304 SS AT A MINIMUM.
 - CONTRACTOR TO INSTALL LINK SEAL AT DISCHARGE LINE PENETRATIONS OF TOP SLAB. THE LINK SEAL SHALL BE SUPPLIED WITH 316 STAINLESS STEEL HARDWARE. APPLY NON-SHRINK GROUT TO SEAL AROUND PIPE AT TOP AND BOTTOM OF SLAB PENETRATION.
 - ALL PUMP STATION CONTROL PANELS SHALL BE EQUIPPED WITH A TERMINAL BLOCK WITH DRY CONTACTS TO ALLOW CONNECTION TO SCADA CONTROL PANEL. SEE ATTACHED SCHEMATIC.
 - THE CONTRACTOR SHALL PROVIDE AND INSTALL SCADA ENCLOSURE IN NEMA 4X STAINLESS STEEL BOX THAT IS HINGED AND LATCHABLE. CONTACT AND COORDINATE WITH MR SYSTEMS.
 - THE PUMP STATION CONTROLS SHALL BE EQUIPPED WITH MPE LEVEL SENSING PROBE.
 - INSTALL OUTSIDE WEATHERPROOF GFCI, 120VAC OUTLET.
 - MOUNT A LIQUID-FILLED PRESSURE GAUGE ON THE FORCE MAIN. DWYER IR EQUIVALENT 4" MINIMUM FACE DIAMETER. IT SHALL BE LOCATED AS PER MANUFACTURER'S RECOMMENDATIONS.
 - PUMPS SHALL HAVE LIFTING HANDLES.
 - ENGINEER SHALL VERIFY AND PROVIDE FOR 3-PHASE POWER TO PUMP STATION.

PUMP STATION AND SITE DETAILS
N.T.S.

7255 STALL ROAD, NORTH CHARLESTON, SC 29406
PH: (843) 764-3072 FAX: (843) 764-2655

NC.S.D. STANDARD DETAILS

REV. DATE: JUNE 2019 DWG#: PS-001