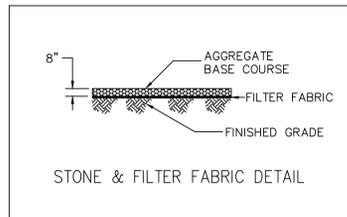
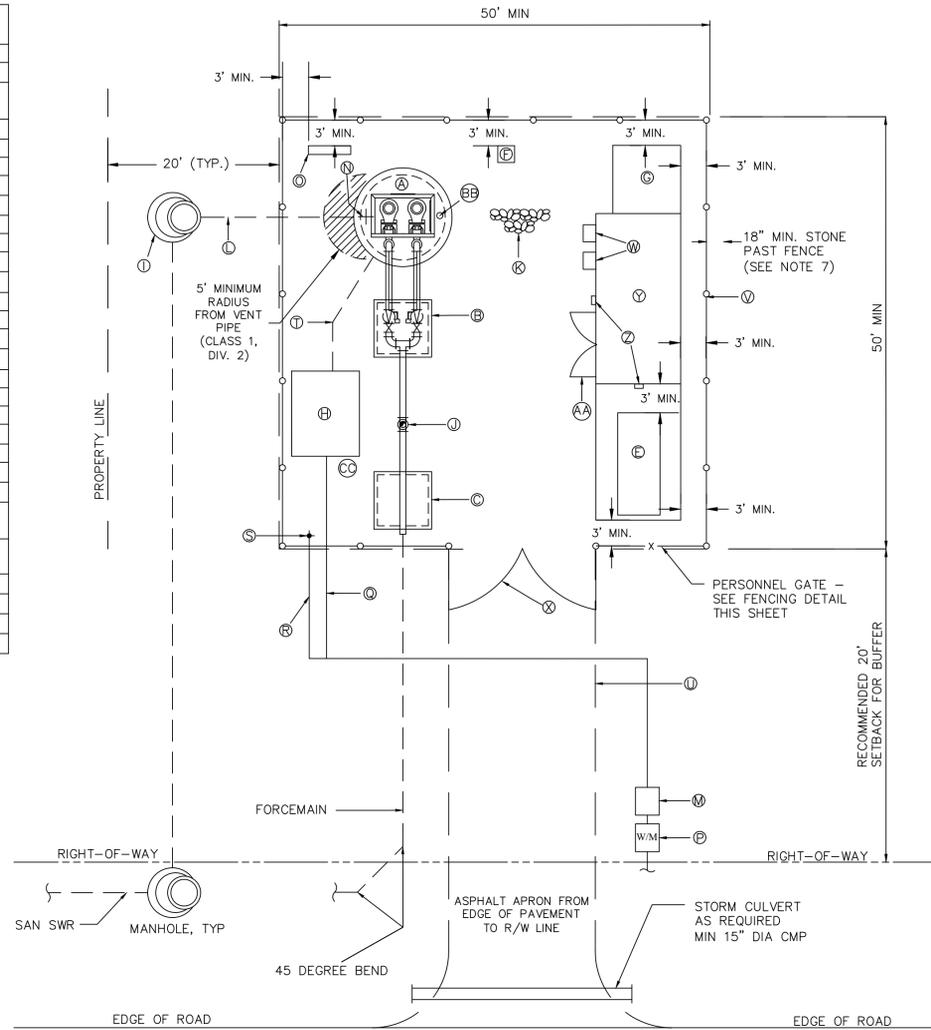


PUMP STATION COMPONENTS	
A	WET WELL
B	VALVE VAULT - 6'x6'x6' MIN. (SEE NOTE 12)
C	METERING VAULT - 6'x6'x6' MIN. (SEE NOTE 14 & 18)
D	NOT USED
E	GENERATOR PAD AND STANDBY GENERATOR
F	AREA LIGHT ON POLE
G	ANTENNA PAD (SEE NOTE 11)
H	ODOR CONTROL UNIT AND PAD (SEE NOTE 16 & 17)
I	5" DIAMETER RECEIVING MANHOLE
J	EMERGENCY PUMP OUT
K	8" ABC (SEE DETAIL THIS SHEET)
L	INFLUENT SANITARY SEWER LINE
M	APPROVED BACKFLOW PREVENTION DEVICE
N	6" VENT
O	JUNCTION BOX RACK ASSEMBLY (SEE DETAIL)
P	1/2" IRRIGATION METER
Q	1" WATER SERVICE TO ODOR CONTROL UNIT
R	1" WATER SERVICE TO YARD HYDRANT
S	1" FREEZE-PROOF YARD HYDRANT
T	VENT PIPE TO ODOR CONTROL UNIT (SEE NOTE 16)
U	16" ALL-WEATHER GRAVEL DRIVE
V	CHAIN LINK FENCE (SEE DETAIL)
W	PUMP DISCONNECTS
X	DOUBLE SWING GATES 2 @ 7', TOTAL 14' (SEE DETAIL)
Y	ELECTRICAL BUILDING 220 SF MIN (BUILDING PERMIT REQ.)
Z	WALL MOUNTED LIGHTS
AA	3" DOUBLE DOORS (OPEN OUTWARD)
BB	ULTRASONIC LEVEL TRANSDUCER WELL
CC	ODOR CONTROL ELECTRICAL CONDUITS



	REQUIRED	NOT REQUIRED
ODOR CONTROL UNIT		
METERING VAULT		

**NOTE FOR ALL PUMP STATIONS:**  
THE ODOR CONTROL SLAB, WETWELL VENT PIPING, WATER SERVICE LINE, 2" DIAMETER DRAIN LINE TO THE WETWELL, AND (2) - 1" DIAMETER CONDUITS FROM PUMP PANEL/CIRCUIT PANEL IN BUILDING AND RTU PANEL ARE ALL REQUIRED EVEN IF THE ODOR CONTROL UNIT IS NOT INITIALLY INSTALLED.

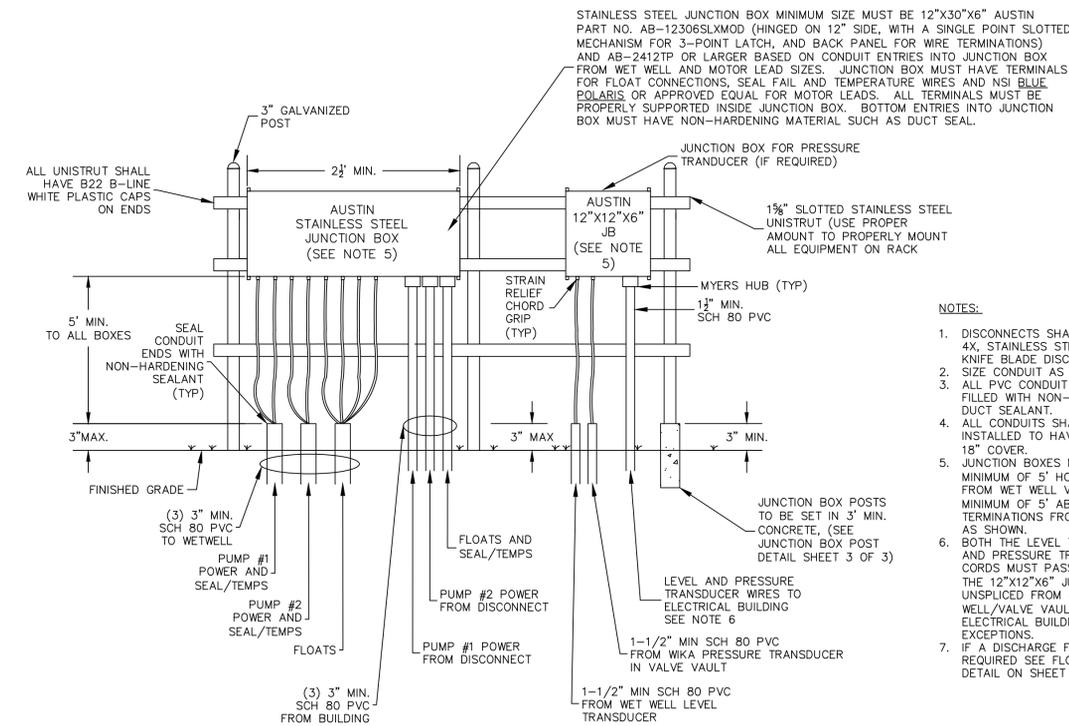


**PUMP STATION SITE DETAIL**  
LARGER THAN 50 HP PUMP STATION

**NOTES:**

- NEW WET WELLS AND NEW RECEIVING MANHOLES ARE TO BE POLYCRETE PER TECHNICAL SPECIFICATION 023.01. EXISTING WET WELLS INTERIOR TO RECEIVE MIN 120 MILS RAVEN 405 HIGH SOLIDS EPOXY OR APPROVED EQUAL.
- WET WELL VENT OUTLET TO HAVE ODORHOG CHARCOAL FILTER OR APPROVED EQUAL.
- THE PUMP STATION SITE SHALL BE A MINIMUM OF 50 FEET BY 50 FEET. THE PLAN HEREIN SHOWS A RECOMMENDED 20 FOOT BUFFER FROM THE PROPERTY LINE TO THE FENCED AREA - SEE APPLICABLE JURISDICTION'S ZONING ORDINANCE FOR REQUIRED BUFFERS.
- THE PUMP STATION SITE SHALL BE GRADED TO PROMOTE POSITIVE DRAINAGE AWAY FROM THE WET WELL. NO STORM DRAINAGE SHALL ENTER PUMP STATION SITE.
- THE ACCESS ROAD SHALL BE ABC STONE AT A MINIMUM 8" THICK. THE ROAD SHALL BE A MINIMUM OF 12' WIDE.
- THE ACCESS ROAD AND ENTIRE AREA WITHIN PUMP STATION FENCE SHALL BE A MINIMUM OF 2 FEET ABOVE THE 100 YEAR WATER SURFACE ELEVATION.
- THE PUMP STATION SHALL HAVE STONE EXTENDING 18" PAST THE FENCE LINE IN ALL DIRECTIONS.
- WET WELL LEVEL AND ALARMS SHALL BE PRIMARILY CONTROLLED BY AN ULTRASONIC LEVEL TRANSMITTER SYSTEM PER BRUNSWICK COUNTY STANDARD SPECIFICATIONS. IN THE EVENT OF FAILURE OF THE ULTRASONIC LEVEL TRANSMITTER SYSTEM THE WET WELL FLOATS WILL CONTROL THE PUMP STATION. REFER TO BRUNSWICK COUNTY PUMP STATION TECHNICAL SPECIFICATIONS AND SCADA SPECIFICATIONS.
- LOCAL PUMP DISCONNECTS ARE REQUIRED ON THE BUILDING AS SHOWN.
- BUILDING PLANS TO BE SUBMITTED TO BRUNSWICK COUNTY ENGINEERING DEPARTMENT AND BUILDING INSPECTIONS DEPARTMENT FOR REVIEW AND PERMITTING.
- SEE ROHN ANTENNA DETAIL SHEET FOR ANTENNA DETAILS.
- VALVE VAULT MINIMUM SIZE IS 6'x6'x6'. ACTUAL REQUIRED MINIMUM SIZE DEPENDS UPON ACTUAL DISCHARGE PIPING SIZES. ALL PIPING CONNECTIONS INSIDE VALVE VAULT SHALL BE EASILY ACCESSIBLE FOR MAINTENANCE AND REPAIR.
- NUT OPERATED PLUG VALVES IN VAULT MUST BE POSITIONED SO THAT THEY CAN BE OPERATED FROM ABOVE THE VAULT THROUGH THE HATCH WITH A STANDARD VALVE WRENCH.
- IF REQUIRED, METERING VAULT MINIMUM SIZE IS 6'x6'x6'. ACTUAL REQUIRED MINIMUM SIZE DEPENDS UPON ACTUAL DISCHARGE PIPING SIZES. ALL PIPING CONNECTIONS INSIDE VALVE VAULT SHALL BE EASILY ACCESSIBLE FOR MAINTENANCE AND REPAIR. A 4" DRAIN LINE WITH BACK FLOW TO WET WELL SHALL BE REQUIRED.
- PROVIDE A MINIMUM OF 3 (THREE), 10' LONG, 3" DIAMETER, COPPER CLAD GROUND RODS SPACED A MINIMUM OF 20' APART, BONDED TOGETHER WITH INSPECTION WELLS AT EACH CONNECTION PER COUNTY DETAIL. ONE GROUND ROD AT:  
A) ANTENNA TOWER  
B) ELECTRIC METER  
C) GENERATOR

- ODOR CONTROL UNIT REQUIREMENTS:  
A) CONCRETE SLAB - 10'x8'x2'. TO BE INSTALLED SO THAT 12" OF SLAB ARE ABOVE FINISHED GRADE.  
B) INLET PIPE FROM WET WELL - 8" PVC MINIMUM  
C) CORE AND BOOT WET WELL FOR 8" PVC VENT PIPE AND 2" DRAIN LINE TO ODOR CONTROL UNIT  
D) SIEMENS WATER TECHNOLOGIES, ZABOCS MODEL 5000/6000 - CONTACT BRUNSWICK COUNTY PUBLIC UTILITIES FOR DETAILS  
E) ELECTRICAL POWER TO UNIT IS REQUIRED FROM BUILDING BREAKER PANEL.  
F) WET WELL VENT IS CAPPED AT ODOR CONTROL SLAB IF ODOR CONTROL UNIT IS UTILIZED  
G) 1" CONDUIT FROM RTU PANEL IN BUILDING  
H) ODOR CONTROL - SEE 'NOTE FOR ALL PUMP STATIONS' THIS SHEET.
- IF BRUNSWICK COUNTY REQUIRES A FLOW METER (METER VAULT IS SHOWN), A METERING ENCLOSURE WILL BE REQUIRED. A 1.5" MIN. SCH. 80 PVC CONDUIT FROM THE METER VAULT TO THE METERING ENCLOSURE WILL ALSO BE REQUIRED.
- MINIMUM ELECTRICAL BUILDING SIZE SHALL BE 10'x22' OR 220 SQ. FT.
- VARIABLE FREQUENCY DRIVES SHALL BE MOUNTED ON INNER WALL OF BUILDING BACK-TO-BACK OF OUTSIDE-MOUNTED PUMP DISCONNECTS.
- GENERATOR TO HAVE ENGINE EXHAUST SILENCER, WEATHER PROTECTIVE ENCLOSURE AND SOUND ATTENUATION. REFER TO STANDBY EMERGENCY GENERATOR TECHNICAL SPECIFICATIONS FOR FURTHER DETAILS.
- CONTRACTOR RESPONSIBLE FOR ALL BUILDING AND ELECTRICAL PERMITS NEEDED, INCLUDING SITE SPECIFIC ENGINEERED PLANS FOR GENERATOR PAD FOUNDATION.



**NOTES:**

- DISCONNECTS SHALL BE NEMA 4X, STAINLESS STEEL, MANUAL KNIFE BLADE DISCONNECTS.
- SIZE CONDUIT AS REQUIRED.
- ALL PVC CONDUIT STUBS TO BE FILLED WITH NON-HARDENING DUCT SEALANT.
- ALL CONDUITS SHALL BE INSTALLED TO HAVE A MINIMUM 18" COVER.
- JUNCTION BOXES MUST BE A MINIMUM OF 5" HORIZONTAL FROM WET WELL VENT AND A MINIMUM OF 5' ABOVE CONDUIT TERMINATIONS FROM WET WELL AS SHOWN.
- BOTH THE LEVEL TRANSDUCER AND PRESSURE TRANSDUCER CORDS MUST PASS THROUGH THE 12"x12"x6" JUNCTION BOX UNSPliced FROM WET WELL/VALVE VAULT TO ELECTRICAL BUILDING - NO EXCEPTIONS.
- IF A DISCHARGE FLOW METER IS REQUIRED SEE FLOW MEER DETAIL ON SHEET 3.

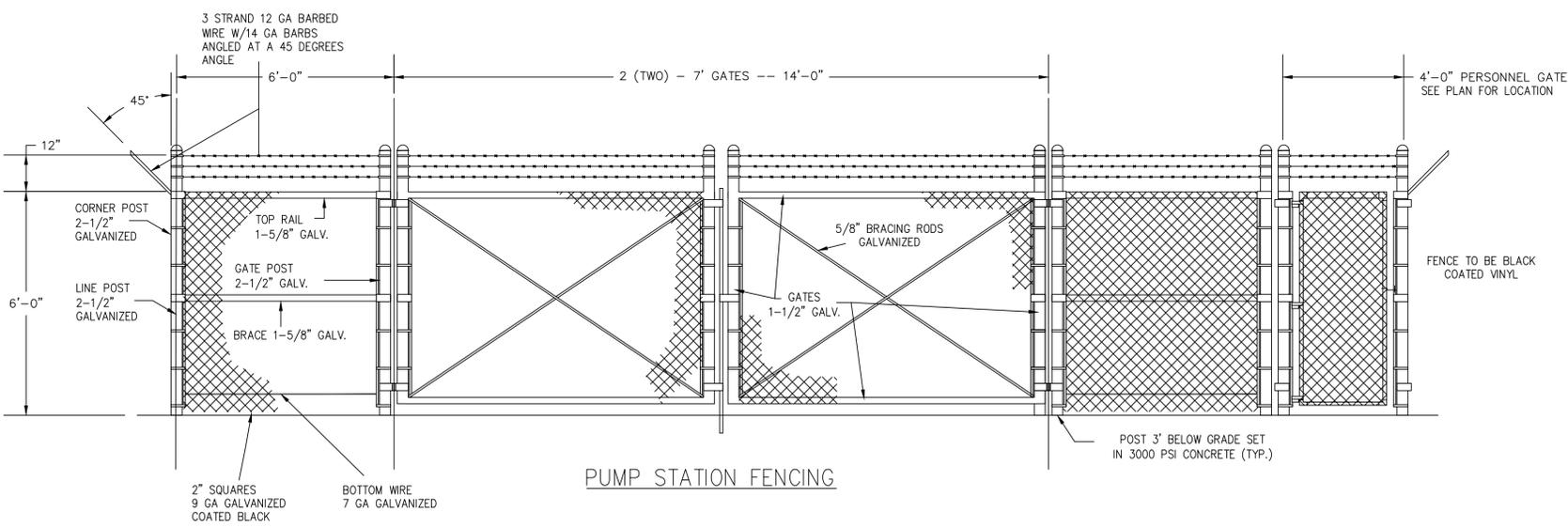
**ELECTRICAL JUNCTION BOX DETAIL**

**BCPU PUMP STATION SIGN SPECIFICATIONS**

MATERIAL: ANODIZED ALUMINUM, #5052, .080 THICK  
SIZE: 18" WIDE X 24" HIGH WITH 1.5" RADIUS ON ALL CORNERS  
BACKGROUND: 3-M ENGINEER GRADE SCOTCHLITE REFLECTIVE FILM  
ALL COPY AND BORDER IS 3-M SCOTCHCAL VINYL FILM, SAPPHIRE BLUE WITH THE EXCEPTION OF THE PHONE NUMBER AND "AUTHORIZED PERSONNEL ONLY" WHICH ARE 3-M SCOTCHCAL, CARDINAL RED. THE ENTIRE SIGN IS OVERLAIN WITH ELEVON EYL 400 VINYL #V-29, LAMINATED AT 40 PSI. ALL LETTERING IS STANDARD BOLD CONDENSED.



- 1 PUMP STATION SIGN
- 2 STREET ADDRESS WITH 6" HIGH NUMBERS
- 3 DIESEL/NO SMOKING PLACARD(S)
- CONTACT BRUNSWICK COUNTY PUBLIC UTILITIES FOR SEWAGE LIFT STATION NAME AND ADDRESS



**PUMP STATION FENCING**

Revisions

1.01 - DATED 5/29/2013
1.02 - DATED 10/15/2013
1.03 - DATED 10/28/2015
1.04 - DATED 5/02/2016
1.05 - DATED 3/28/2017
1.06 - DATED 8/9/2017
1.07 - DATED 5/22/2019
1.08 - DATED 12/5/2019
1.09 - DATED 4/13/2020
1.10 - DATED 5/5/2023
1.11 - DATED 3/1/2024
1.12 - DATED 5/3/2024
various detail revisions

COUNTY OF BRUNSWICK

PUMP STATION DETAILS  
PUMP STATION LARGER THAN 50HP  
FOR  
**BRUNSWICK COUNTY**  
NORTH CAROLINA

Date: 05-30-12  
Scale: NTS  
Drawn By: JDM  
Checked By: WLP

(3) PUMP STATION SIGNS