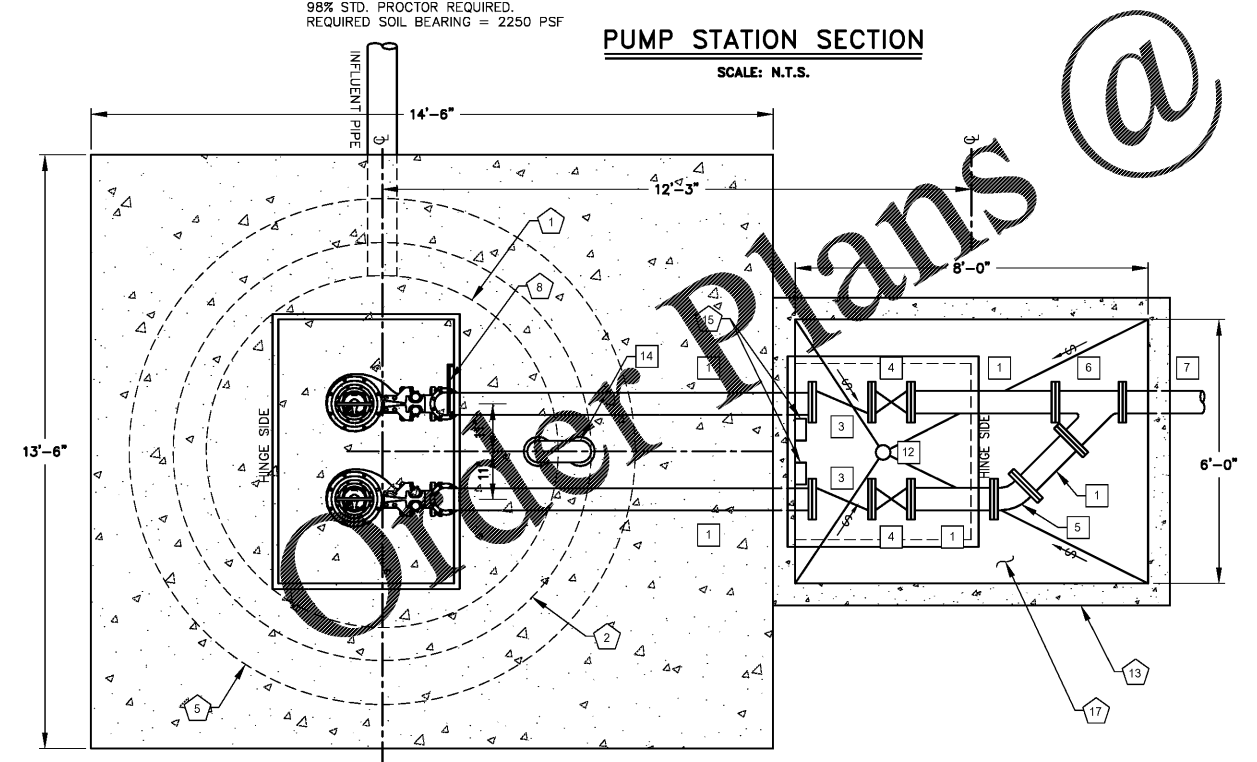
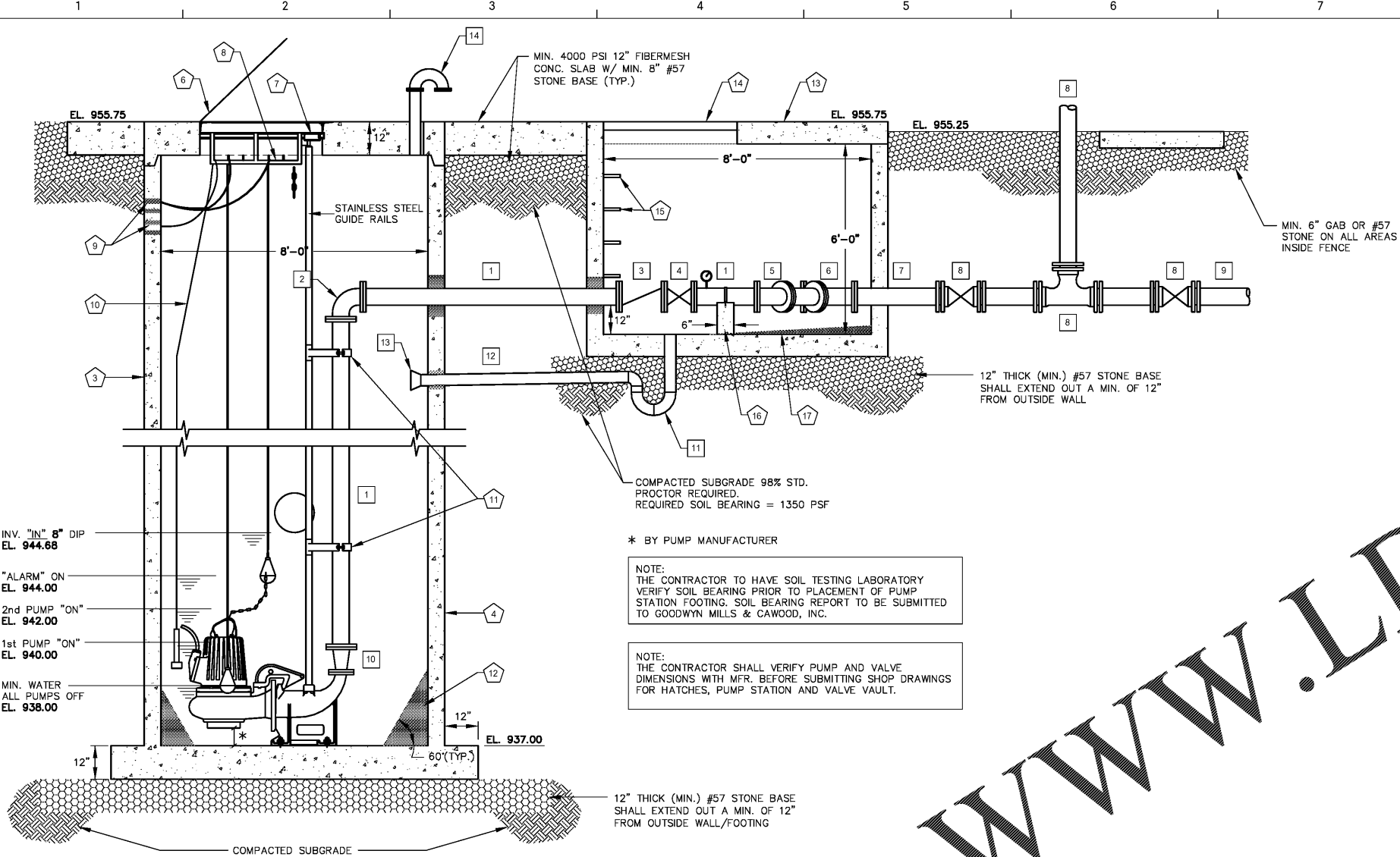


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 PLOTTED: Oct 17, 2019 - 2:36am



PUMP STATION SECTION
 SCALE: N.T.S.

TOP VIEW PUMP STATION
 SCALE: N.T.S.

- GENERAL NOTES:**
1. THE CONTRACTOR SHALL FURNISH THREE (3) SPARE FUSES FOR EACH FUSE SIZE.
 2. THE CONTRACTOR SHALL PROVIDE ONE (1) SPARE PRESSURE TRANSDUCER LEVEL SENSOR & CABLE AS SPECIFIED.
 3. UPON INSTALLATION, ALL PUMPS SHALL BE CHECKED BY A MANUFACTURER'S REPRESENTATIVE FOR PROPER ROTATION, PUMPING CAPACITY, AMPERAGE DRAW, LACK OF VIBRATION, AND OTHER CHECKS AS MAY BE DEEMED NECESSARY TO ASSURE PROPER OPERATION. ALL SUBMERSIBLE PUMPS SHALL BE PULLED OUT OF, AND REINSTALLED IN THE PUMP STATION IN THE PRESENCE OF A REPRESENTATIVE OF THE OWNER TO ASSURE PROPER CLEARANCES FOR EASY REMOVAL OF THE PUMPS FOR MAINTENANCE.
 4. PUMP STATIONS SHALL BE PROVIDED WITH A HIGH LEVEL ALARM BELL, BUZZER, OR HORN, RED ALARM LIGHT, ETC. SEE SECTION 11310 FOR A COMPLETE LIST OF REQUIRED ACCESSORIES. ALL METAL ACCESSORIES SHALL BE STAINLESS STEEL.
 5. THE PUMP STATION SHALL BE PROVIDED WITH SECURITY LIGHTING.
 6. THE AREA SURROUNDING THE PUMP STATION SHALL BE GRADED TO PROVIDE A MINIMUM OF 0.5% SLOPE AWAY FROM THE STATION IN ALL DIRECTIONS.
 7. WATER METER SHALL BE SUPPLIED BY THE OWNER AND PAID FOR BY THE CONTRACTOR.
 8. UNPAVED AREAS INSIDE THE FENCED PUMP STATION AREA AND ONE FOOT OUTSIDE FENCED AREA SHALL BE COVERED WITH A MINIMUM OF SIX INCHES (6") OF GAB OR GDOT #57 STONE.
 9. THE CONTRACTOR SHALL FURNISH TO THE OWNER A ONE YEAR WARRANTY ON THE PUMP STATION.
 10. THE CONTRACTOR SHALL FURNISH TO THE OWNER, FIVE (5) SETS OF OPERATION AND MAINTENANCE MANUALS AND "AS-BUILT" DRAWINGS TO INCLUDE, AS A MINIMUM, THE FORCE MAIN LAYOUT, VACUUM RELIEF VALVES, FITTINGS LOCATION & DETAILS, DETAILED WIRING SCHEMATICS, AND A LIST OF NAMES, ADDRESSES AND TELEPHONE NUMBERS OF THE CONTRACTOR, EACH EQUIPMENT REPRESENTATIVE AND THE DESIGN ENGINEER, BEFORE FINAL INSPECTION.

- PUMP STATION NOTES:**
1. THE DESIGN AND LAYOUT OF THIS SUBMERSIBLE PUMP STATION IS BASED ON SUBMERSIBLE PUMPS MANUFACTURED BY FLYGT A XYLEM BRAND. (NOTE: If other submersible pumps are listed as acceptable to the OWNER and/or if an alternate submersible pumps proposed, the Contractor shall bear the cost of redesign and resubmittal required by an alternate pump selection.)
 2. FLYGT MODEL: NP 3153 SH 3-276; 23 HP; IMP. DIA. 158mm SUBMERSIBLE PUMPS (2 REQ'D) DESIGN PUMPING RATE = 374 GPM @ 90.4 ft. TDH (HAZEN-WILLIAMS C-140).
 3. THESE SUBMERSIBLE PUMPS ARE DESIGNED FOR SIMPLEX OPERATION. (I.E. ONE PUMP OPERATING ALONE SHALL BE CAPABLE OF HANDLING THE DESIGN FLOW(S)). THE PUMP STATION CONTROLS WILL ALLOW DUPLEX OPERATION OF THE STATION (I.E. LEAD PUMP "ON", LAG PUMP "ON", HIGH WATER ALARM LEVEL AND ALTERNATING OF THE LEAD PUMP).
 4. ALL PIPING AND FITTINGS 4"Ø AND GREATER ARE TO BE DUCTILE IRON PIPE. ALL PIPING AND FITTINGS LESS THAN 4"Ø ARE TO BE STAINLESS STEEL.
 5. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PIPING, SS GUIDE RAILS, VALVES, FITTINGS AND EQUIPMENT FOR A COMPLETELY OPERABLE PUMP STATION AS REQUIRED BY THESE PLANS AND REFERENCED SPECIFICATIONS.
 6. ANCHOR VALVES AND FITTINGS IN THE VALVE VAULT TO CONCRETE SUPPORTS WITH STAINLESS STEEL STRAPS (1/8" THICK MIN.).
 7. PROVIDE 1 MIX-FLUSH VALVE.

- PUMP STATION & VALVE VAULT DETAILS: #**
1. 8" Ø WETWELL
 2. PUMP STATION WITH 12" TOP SLAB DESIGNED FOR H-20 LOADING
 3. 8" Ø PRECAST RISER SECTION WITH 9" THICK WALLS
 4. STANDARD PRECAST BASE SECTION. CONTRACTOR TO SUBMIT REBAR DESIGN AND LAYOUT IF A PRECAST BASE WILL NOT BE USED.
 5. PUMP STATION FOOTING OUTLINE
 6. 48" X 72" ALUMINUM ACCESS HATCHES WITH SAFE-HATCH ACCESS COVERS DESIGNED FOR H-20 LOADING
 7. UPPER GUIDE BAR BRACKET
 8. CABLE HOLDER
 9. CONTROL & POWER CABLES FROM CONTROL PANEL
 10. PRESSURE TRANSDUCER LEVEL SENSOR & CABLE
 11. INTERMEDIATE STAINLESS STEEL GUIDE BAR BRACKETS (USE FOR STAINLESS STEEL GUIDE BARS OVER 20 FT. LONG)
 12. GROUT FILL (SEE PUMP REQUIREMENTS)
 13. 6' x 8' PRECAST CONCRETE VALVE VAULT & TOP DESIGNED FOR H-20 LOADING
 14. 48" x 48" ALUMINUM ACCESS HATCH DESIGNED FOR H-20 LOADING
 15. STANDARD MANHOLE STEPS @ 15" O.C. STAGGERED
 16. 6" T x 1' W x 1' H CONC. PIER (2 REQ'D.) STAINLESS STEEL STRAP PIPE TO PIER
 17. GROUT VALVE VAULT FLOOR TO DRAIN TO 4"Ø DRAIN (AS REQUIRED)

- VALVE NOTES:**
1. CHECK VALVES SHALL BE XYLEM FLYGT HDL BALL CHECK VALVE OR APPROVED EQUAL.
 2. PLUG VALVES SHALL BE DRESSER X-CENTRIC, DEZURIK, ACF OR APPROVED EQUAL.

- PIPING AND FITTING SCHEDULE: #**
1. 8" Ø PC 350 DIP (FL x FL) w/ 0-160 PSI PRESSURE GAUGE
 2. 8" Ø FL 90° BEND
 3. 8" Ø FL CHECK VALVE
 4. 8" Ø FL HANDWHEEL OPERATED PLUG VALVE
 5. 8" Ø 45° FL BEND
 6. 8" x 8" WYE (FL x FL)
 7. 8" Ø PC 350 DIP (FL x MJ)
 8. SEE EMERGENCY QUICK CONNECT DETAIL S-0024
 9. 8" Ø PC 350 DIP FORCE
 10. 8" x 4" FL REDUCER
 11. 4" Ø VALVE VAULT DRAIN WITH P-TRAP
 12. 4" PC 350 DIP
 13. 4" RED VALVE TIDFLEX CHECK VALVE
 14. 4" Ø (MIN.) PC 350 DIP VENT PIPE W/STL VENT SCREEN

- NOTE:**
1. ALL PIPE CONNECTIONS IN THE PUMP STATION AND THE VALVE VAULT ARE TO BE FLANGE TO FLANGE. NO UNIFLANGE CONNECTIONS ARE ALLOWED.
 2. ALL FLANGE-FLANGE CONNECTIONS ARE TO USE STAINLESS STEEL BOLTS.
 3. ALL PIPE & FITTINGS SHALL BE PROTECTO 401 LINED OR APPROVED EQUAL.
 4. ALL OF THE AFOREMENTIONED INFORMATION SHALL BE CONSIDERED THE BASIS OF THE DESIGN OF THIS PUMP STATION. ANY DEVIATIONS FROM THIS BASIS OF DESIGN MUST FIRST BE APPROVED BY THE OWNER.

PUMP STATION AND PUMP SIZING
 BASED ON XYLEM INC. FLYGT
 SUBMERSIBLE PUMPS. SEE FLYGT
 STANDARD DETAIL SHEET FOR
 ADDITIONAL PUMP DETAILS.

FLYGT
 a xylem brand

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CATL190025

**NORTHGATE HIGH SCHOOL
 SANITARY SEWER
 COWETA COUNTY WATER AND
 SEWERAGE AUTHORITY**

**NORTHGATE PUMP STATION
 SECTION & DETAILS**

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