

CLAYTON RD PUMP STATION STANDPIPE REPLACEMENT

SCOPE OF WORK

Overall

- The Contractor will be responsible for obtaining and maintaining insurance as required under MSD General Conditions, Article 5 as shown in attachment.
- A preliminary planning meeting will be held prior to the start of the project. This meeting will be held to establish a schedule and timeline for the project.
- The contractor will be responsible for providing all labor, materials, and equipment to safely clean, remove, replace, and/or dispose of the standpipe and other items within the pump station. This includes trucks, trailers, hoists, tools, etc.
- The contractor will be responsible for setting up and maintaining all bypass pumping efforts.
- The contractor shall be responsible for maintaining and following all safety practices throughout the entire project.
- The wet well shall be clean and clear of any miscellaneous item/parts prior to allowing flow to enter.
- The contractor shall follow all of the MSD standards.
- Project duration is estimated to be approximately one week.

Removal and Replacement

- MSD's pump station on Clayton Road has two existing 6" ductile iron standpipes that are severely blistered on the exterior and shall be replaced with two new 6" 316 stainless steel pipes. Approximate lengths are shown on the plans but it is the contractors responsibility to ensure an accurate measurement is taken.
- The limits of replacement are shown as bold in the "wet well profile view" on the plans. The limits of replacing the standpipe shall be assumed to be above the flange of the 90 degree near the pump discharge and extending vertical to include the 90 degree bend leading to the horizontal section entering through the wet well wall. The two existing flanged ends of DIP on either side of the proposed replacement area are anticipated to remain.
- Standpipe support brackets shall be protected during removal of 6" DIP standpipe and reused with for the new 6" stainless steel standpipe.
- The contractor shall clean the existing 6" 90 degree bend near the pump discharge and the 6" DIP horizontal pipe entering through the top of the wet well wall and verify both portions are in satisfactory condition. Upon satisfactory condition, the contractor shall coat the pipe per MSD standards. In the case of unsatisfactory condition, the contractor shall replacement the pipe with 6" 316 stainless steel.
- The contractor shall supply and install a coated 6" Romac restrained flange coupling adapter, or pre-approved equal, coupling at the top of the vertical section of each new standpipe.
- All existing anchors that are corroded shall be replaced by the contractor with stainless steel all thread and bass nuts/washers. New anchors shall be epoxied into the wet well walls per industry

standards. Existing anchors to be replaced include but are not limited to pump rail anchors, cable hooks, wet well cover, etc.

- The contractor is responsible for the safe disposal of the removed materials. All debris, trash, etc. shall be cleaned from the site prior to final payment.
- If the contractor chooses to remove the pump rail system, or other systems not otherwise listed within this scope, to allow more working room, it shall be the contractor's responsibility to remove, store, and reinstall the system(s).
- All cleaned pipe in satisfactory condition or any newly installed metal surfaces that are not manufactured coated or 316 stainless steel, shall have a three-part coating system supplied and applied by the contractor to protect against future corrosion. The three-part coating system shall be incidental to pipe replacement and consisting of; the first part of application shall be a rust penetrating epoxy pre-primer (Sherwin Williams Macropoxy 920 Pre-prime). After cure, the intermediate coat or base coat (Sherwin Williams Macropoxy HS high solid epoxy). Lastly, the finish or topcoat (High Gloss Sherwin Williams Acrolon 218 HS acrylic polyurethane). Or approved equal. Color for pump station piping shall be Sherwin Williams Item Number SW4001 Bolt Brown.

Bypass Pumping

- The contractor shall furnish all materials, labor, equipment, power, maintenance, etc. to implement a temporary pumping system for the purpose of diverting the existing flow around the work area for the duration of the project. Under no circumstances will the contractor be permitted to stop or impede the mainline or any sideline flows.
- Bypass pump size shall match the existing Clayton Rd Pump Station pumps which are operating at approximately 1,000 gallons per minute (gpm) with 54 feet of total dynamic head (TDH).
- The temporary pumping system shall be redundant with backup pump(s) of equal capacity to that of the primary pump system. The backup pump(s) shall start automatically in the event that the primary pump system fails
- Approximate depth of MSD existing manhole 2-432696 is 19 feet.
- The bypass pumping shall be from MSD existing manhole 2-432696 to MSD existing bypass connection located beside the wet well.
- While bypassing, the contractor shall monitor the upstream (suction) manhole to ensure that a sanitary sewer overflow does not occur.
- The pumping system shall be manned at all times during operation. When the contractor chooses to divert flow into the wet well at the project completion, all equipment must be removed from the wet well prior to removing the sewer plug.
- MSD will be responsible for lock out/tag out of all energized equipment at the pump station. MSD will remove the existing pumps and all control equipment (floats/hydro ranger, etc.) within the wet well immediately following an operating bypass installation.

- MSD will be responsible for reinstalling the pumps and all control equipment following satisfactory installation of the new standpipes and associated features stated within this project scope.
- MSD will be responsible for starting up the pump station prior to the contractor demobilizing from the project.
- The contractor is hereby notified that bypass pumping is critical and must be maintained at all times. If any spills of raw wastewater occur due to the failure of the contractor to maintain the temporary pumping system, the contractor shall be responsible for any fines levied on the District by the State of North Carolina or any other applicable agency.