## Wellington II Pump Station Rehabilitation

Project No. WW-000001-019 Mount Vernon District

> Department of Public Works and Environmental Services Working for You!





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#### Wellington II Pump Station Rehabilitation Project Project Details

#### **Project Description:**

The Wellington II Pump Station Rehabilitation included the replacement of two pneumatic ejector pumps with two submersible grinder pumps and rehabilitation of the existing 8-inch gravity sewer and manholes. Two 410-LF 2-inch parallel force mains and temporary bypass pumping system that were originally proposed with this project were installed in November 2020 as part of the Wellington II Force Main Emergency. This project was substantially complete on October 31, 2022.

#### **Project Overview:**

- Removed existing submersible grinder pumps and associated equipment, including demolition of existing electrical, concrete, and asphalt pavement at the pump station.
- Existing stand-by generator was removed and stored offsite until new concrete generator pad was constructed. The generator was then reinstalled on the new concrete pad.
- Converted existing dry well into a new wet well by removing the intermediate floor and installing new concrete grout fill and cast-in-place concrete wet well top slab with access hatch.
- Installed new cast-in-place concrete valve vault with access hatch.
- Installed new submersible grinder pumps, piping and fittings, valves, flow meters, electrical equipment enclosure, associated electrical equipment, pump controls, and scout dialer.
- Installed cured-in-place lining in existing 8-inch gravity sewer and epoxy lined existing manholes.
- Installed cured-in-place lining in the existing 4-inch DIP pipes between the pump station wet well and the upstream manhole.
- Removed temporary bypass pumping system following completion of the pump station rehabilitation work.
- In addition to new landscaping and fencing, site restoration included installation of stormwater drainage to direct excessive runoff away from the pump station.

#### **Project Team:**

- Natasha H. Schmidt, P.E., Wastewater Design and Construction Division
- Amy Linderman, P.E., Wastewater Collection Division
- A/E Consultant: Rummel, Klepper & Kahl, LLP
- Contractor: Flippo Construction Company, Inc.

#### Wellington II Pump Station Rehabilitation Map Mount Vernon District, Tax Map No. 102-2, 7615A Southdown Road





#### Wellington II Pump Station Rehabilitation Pre-Construction Pre-Construction Photo of Pump Station





### Wellington II Pump Station Rehabilitation Demolition Demolition of Old Pump Station







#### Wellington II Pump Station Rehabilitation Demolition Work Demolition of Old Pump Station







### Wellington II Pump Station Rehabilitation Construction Wet Well Top Slab Construction





#### Wellington II Pump Station Rehabilitation Construction Work Valve Vault Construction





### Wellington II Pump Station Rehabilitation Epoxy Work Epoxy Rehab of Wet Well





#### Wellington II Pump Station Rehabilitation Piping Installation Piping Installation Inside Wet Well and Valve Vault





#### Wellington II Pump Station Rehabilitation Cured-in-Place-Pipe 8-inch Cured-in-Place-Pipe Installation Inside Existing 8-inch Gravity Sewer







### Wellington II Pump Station Rehabilitation Equipment Installation Electrical Equipment Installation







#### Wellington II Pump Station Manhole Rehabilitation Manhole Rehabilitation







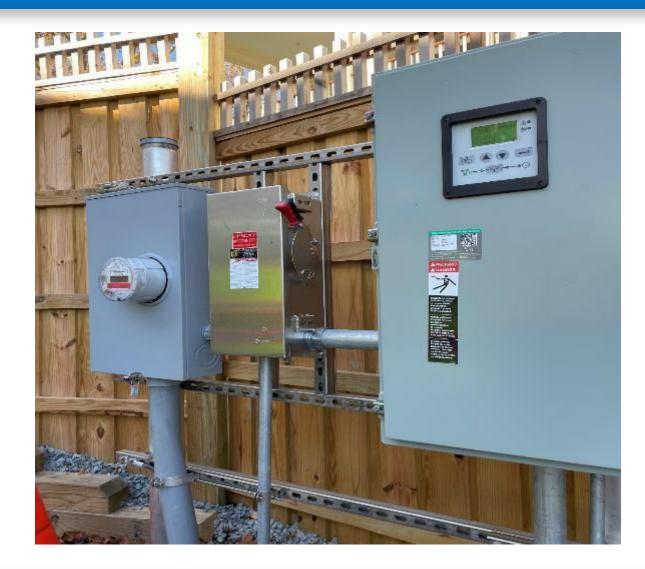
#### Wellington II Pump Station Rehabilitation Site Work Site Restoration

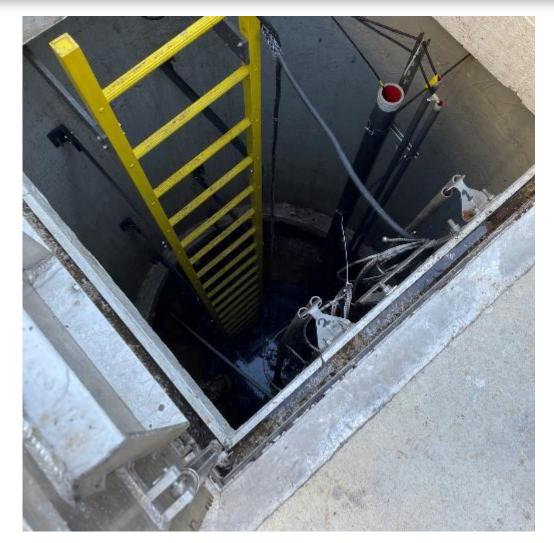






### Wellington II Pump Station Rehabilitation Completion Substantial Completion Photos







#### Wellington II Pump Station Rehabilitation of Valve Vault Substantial Completion Photos







Wellington II Pump Station Rehabilitation Comparison Photos Before and After Pictures

## Before



# After





## For additional information, please contact

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