



Knoll Ridge West Pump Station Replacement

Location: Central

Number: 26-2019-0077

GL Number: 407-000-189-00-01-62

Phase: Design

Project Manager: Jerry Barnett

GSP Basin: Knoll Ridge – 2-1001

Capital Improvement Project ☐

General Facilities ☐

District Installed Infrastructure ☐

Septic Elimination Program ☐

Developer Reimbursement Program ☐

Fleet & Facilities ☐

Restoration & Replacement Project ☒

Restoration & Replacement – Gravity ☐

Restoration & Replacement – PS & FM ☒

Restoration & Replacement – Fleet & Facilities ☐

Project Definition:

Background. The current pump station is silo station with pumps and valves in the same structure. This configuration requires confined space entry procedures for any maintenance or inspection of the mechanical components of the pump station.

As part of the General Sewer Plan, a pump station risk assessment was completed that assigned a risk profile score of 1.5, making it the 4th highest ranking pump station. An updated assessment was completed in 2022 that resulted in a risk score of 2.0, reflecting an increase in risk, making it the second highest ranking pump station. Based on the condition of the pump station, risk profile score, and safety concerns, the pump station is being replaced. The basin served by the pump station is already built out, so no capacity upgrade is required.

Objective. Replace the existing pump station to meet current District standards to increase safety and reliability, while decreasing maintenance risks/costs.

Scope of Work. Abandon existing silo pump station. Relocate new station with new wetwell, pumps, new valve vault, electrical and control panels, piping, and other appurtenances. Install electrical and control panel. Install gravity sewer and force main to connect to the existing system.

Project Statistics. Gravity Sewer – 100 feet of 8-inch gravity sewer. Force main – 103 feet of 4-inch force main.

Pump Station – 14.8 hp duplex submersible pumps for 220 gpm capacity; wetwell; single phase electrical service; control panel; valve vault.

Photos: (Map of area on the reverse side)

Budget Information:

Project Cost Estimate:

Total Project Cost:	\$1,315,000
Construction Cost:	\$1,090,000
Basis of Estimate:	Design
Date of Estimate:	Sept. 2022

Schedule Information:

<u>Activity</u>	<u>Year</u>
Predesign	2020
Permitting	2020-2022
Real Property/ROW	2020-2022
Design	2020-2022
Bid	2022
Construction	2023

