

HRG

Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

AN EMPLOYEE-OWNED COMPANY

Halifax Township Sewer Extension Project

Public Meetings Nos. 3 & 4

HALIFAX AREA WATER AND SEWER AUTHORITY

**HALIFAX
TOWNSHIP**

December 7 & 13, 2022 at 6:00 PM

- > Herbert, Rowland & Grubic, Inc. (HRG) – Project Engineer
 - Justin Mendinsky, P.E. – Group Manager
 - Taylor Lebo, EIT – Staff Professional
 - Adam Gruzlewski – Resident Project Representative (RPR)

- > Halifax Area Water and Sewer Authority (HAWASA)
 - Jeffrey Enders – Chairman

- > Halifax Township Board of Supervisors

Agenda

- > Project Overview and Areas to be Served
- > Grinder Pump System Overview
- > System Installation Requirements & Party Responsibilities
- > Grinder Pump Operation Requirements
- > Lateral & Pump Location Selection Process
- > Costs & Available Funding Sources for Homeowners
- > Homeowner Grinder Pump Agreements
- > Questions



Project Overview & Areas to be Served

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Halifax Township Sewer Extension Project – Project Implementation

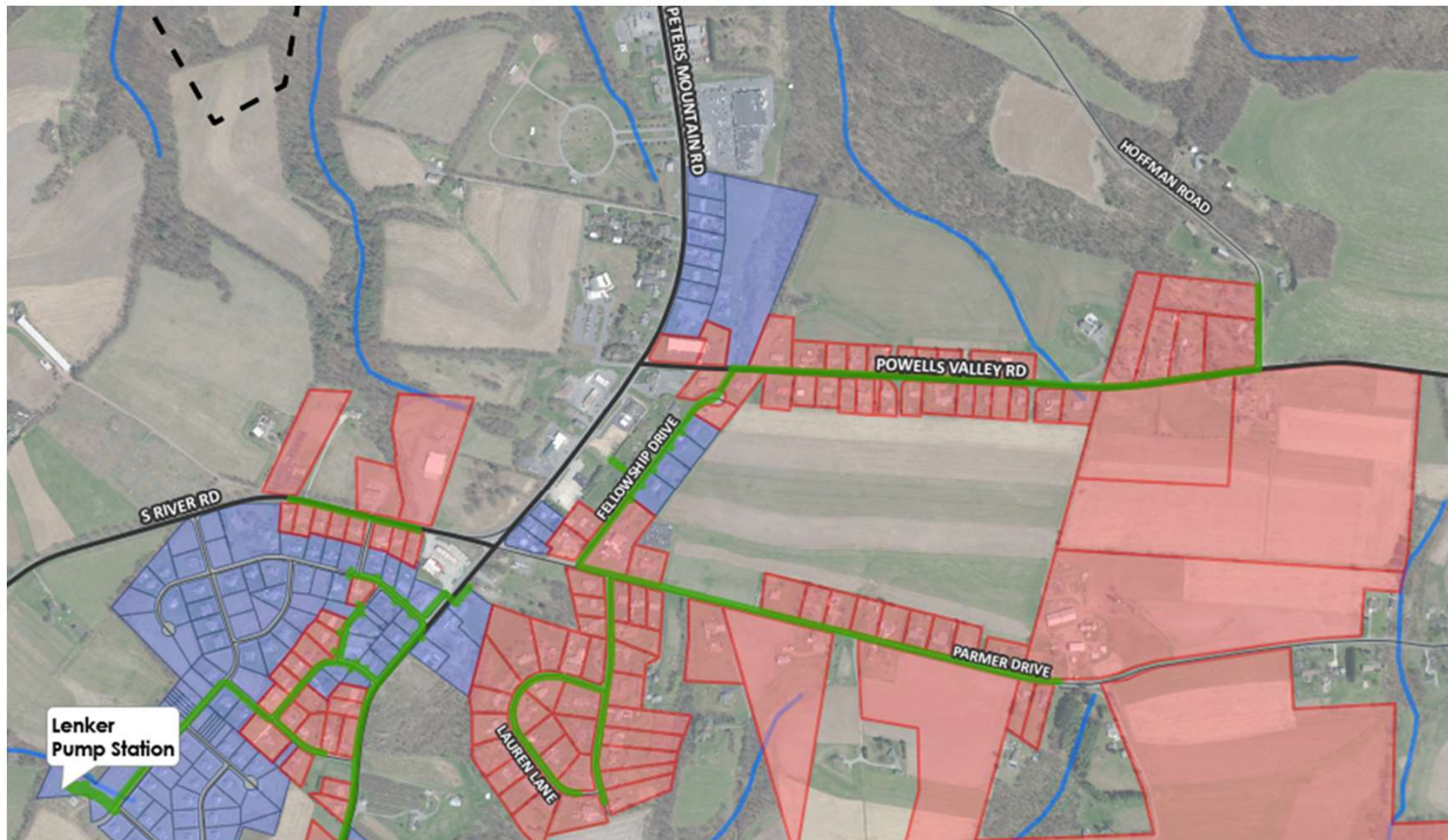
- > The Township's Act 537 Plan, approved by PA DEP in March 2019, identified "Needs Areas" where public sewer service was recommended to address failing on-lot systems
- > The Authority began project design and permitting activities in Spring 2019 to become funding eligible and meet 537 schedule
- > **The Authority was awarded a \$17,107,000 funding package comprised of PENNVEST grant funds (\$10.6M) and low-interest loan (\$6.5M) in January 2022**
- > The Project was publicly bid, with bids received in October 2022 below budget

EXPECTED CONSTRUCTION COST		TOTAL OF LOW BIDS	
\$	13,700,000	\$	12,794,988

New Sewer Facilities Included in the Project

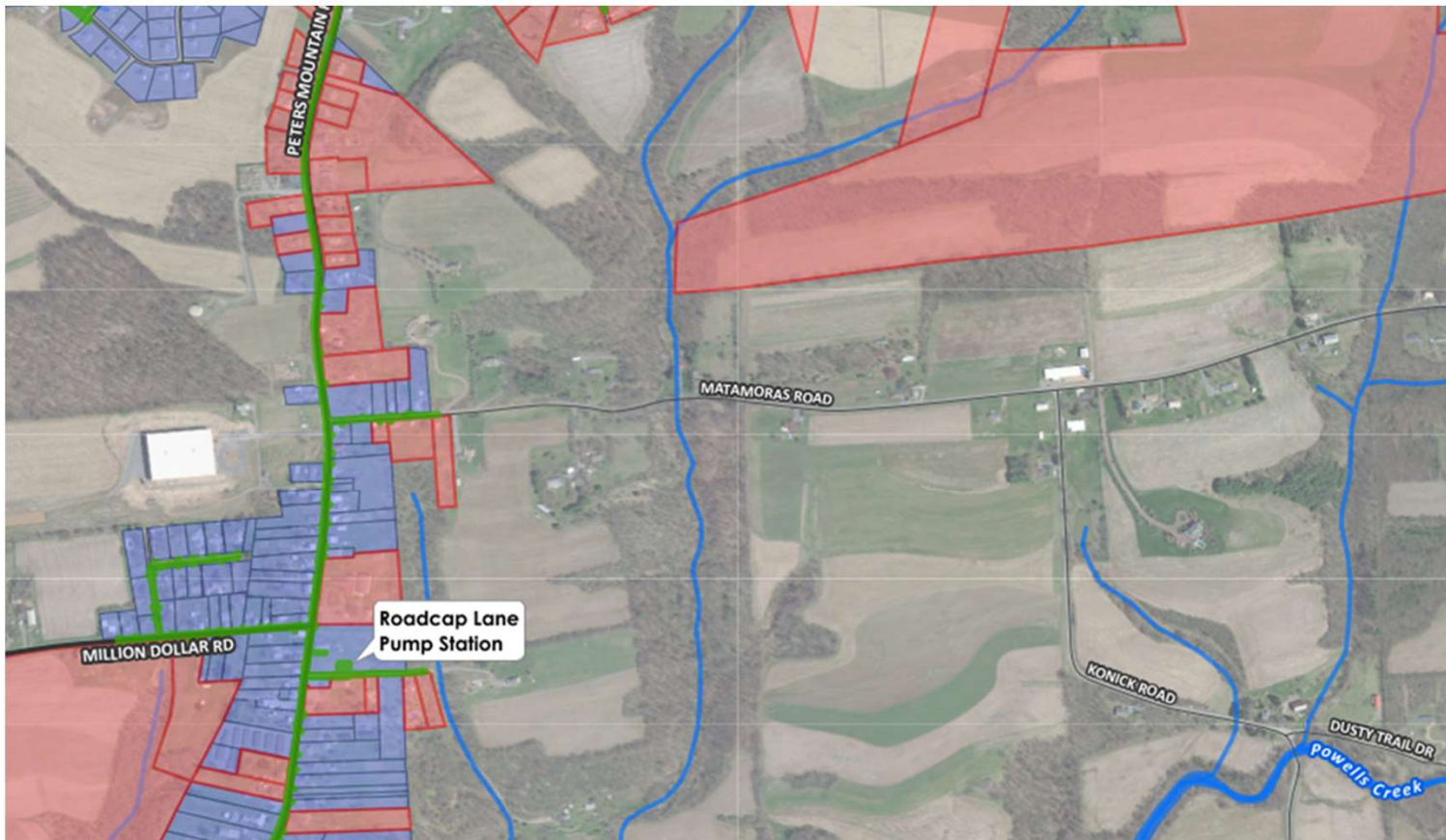
- > The proposed sewer extension will provide sanitary sewer service to the Needs Areas via:
 - 17,565 linear feet of Gravity Sanitary Sewer Main
 - 10,000 linear feet of Low-Pressure Sewer Main
 - 7,580 linear feet of Sanitary Sewer Force Main
- > Project includes the construction of three (3) pump stations
 - Creek Road Pump Station
 - Road Cap Lane Pump Station
 - Lenker Estates Pump Station (abandonment of existing Lenker Estates Wastewater Treatment Plant)

Project Area and Overview



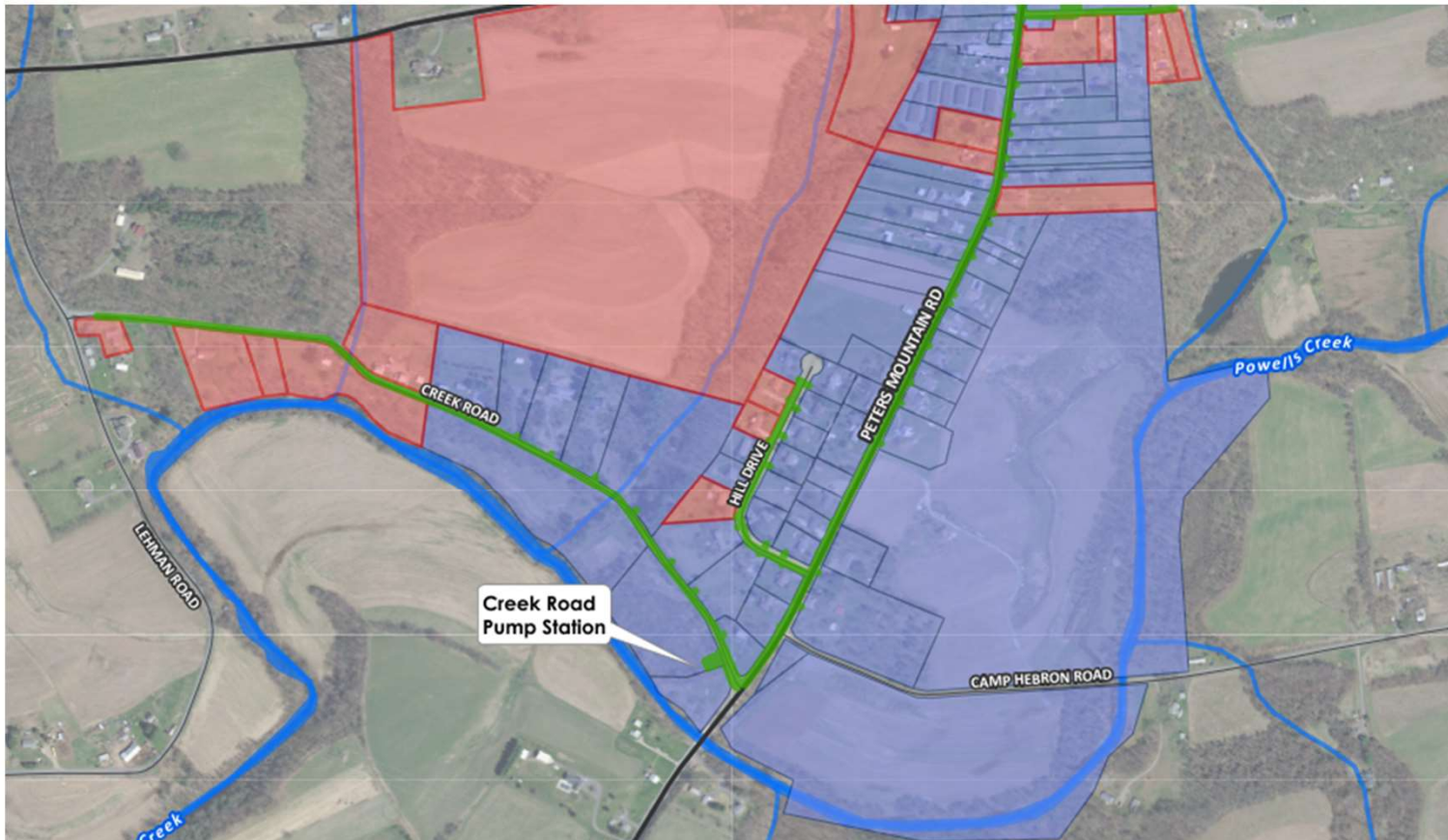
- Proposed Sewer Line & Pump Stations
- Parcels with Grinder Pumps
- Proposed Gravity Connection Parcels
- State Roads
- Local Roads
- Waterbody
- Municipal Boundary

Project Area and Overview



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Project Area and Overview



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New Sewer Facilities Included in the Project

- > Residential and commercial structures within 150-feet of sewer extensions will be provided with a gravity lateral connection to roadway ROW or grinder pump connection where necessary
 - Connection to public sewer must be made within 180 days after notice to the Owner from the Authority
- > Grinder pumps will be provided and installed for specified properties which:
 - Connect to low pressure sewer main or pump station force mains
 - Do not have necessary grade for gravity laterals for 1st floor service

New Sewer Facilities Included in the Project

- > **Low-pressure lateral installation and grinder pump purchase and installation is intended to be paid for by the Authority** through the PENNVEST funds, however the Homeowner will be responsible to connect to the grinder pump and may have additional installation responsibilities (electrical)

Preliminary Project Schedule

Activity	Date
Advertisement for Construction Bids	Aug. 2022 (Complete)
Receive Construction Bids	Oct. 2022 (Complete)
Award Construction Contracts	Dec. 2022
Funding Settlement	Mar. 30, 2022
Submittal Review, Material Acquisition, & Basin Placement Coordination	Jan. 2023 - Mar. 2023
Sewer Extension Construction	Mar. 2023 - Sept. 2024
Restoration	Fall 2024
Homeowner Connection	Fall 2024 - Spring 2025



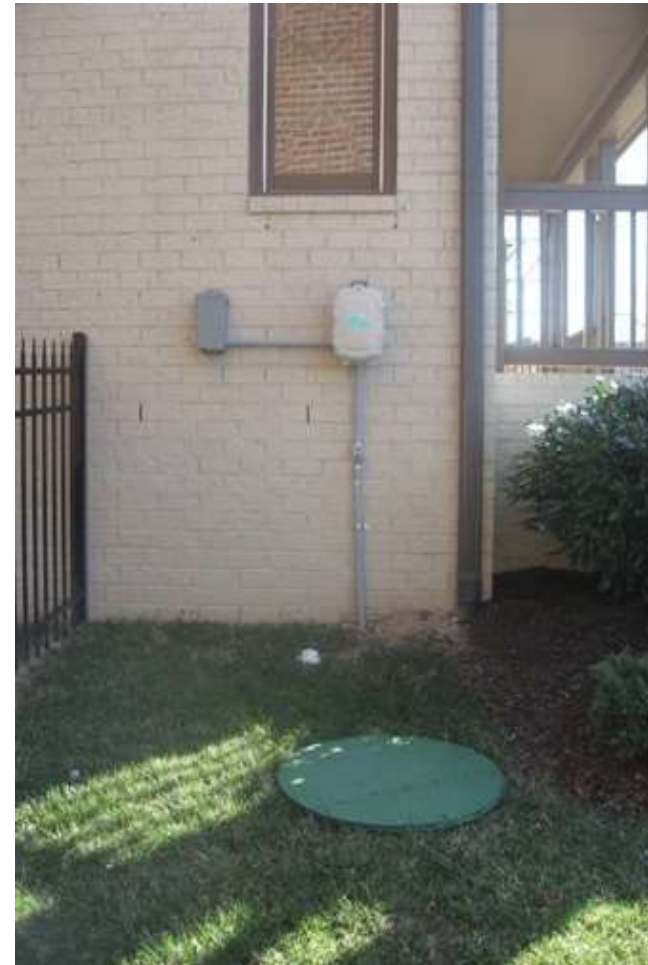
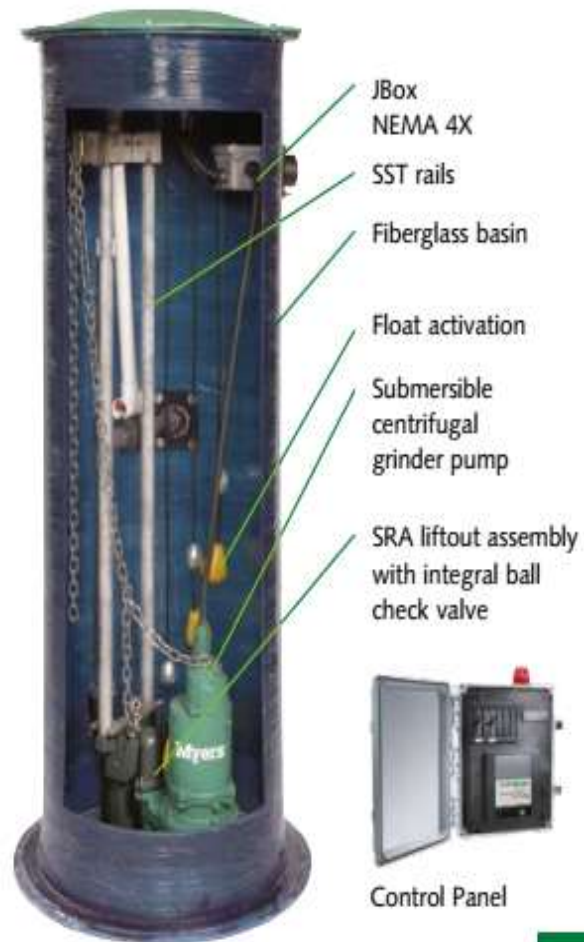
Grinder Pump System Overview

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Grinder Pump System Overview

- > A **Grinder Pump** system consists of a tank which collects raw sewage from the dwelling and a pump to periodically macerate and convey sewage to the public sewer
- > Generally used in situations where either:
 - The homeowner's private system connects to a low-pressure public sewer, or
 - The homeowner's private system does not have an adequate vertical drop to convey sewage by gravity to the gravity public sewer
- > Low pressure sewer systems are typically less cost than gravity collector sewers due to reduced depth and excavation costs (approximately ½ cost)

Grinder Pump System Overview

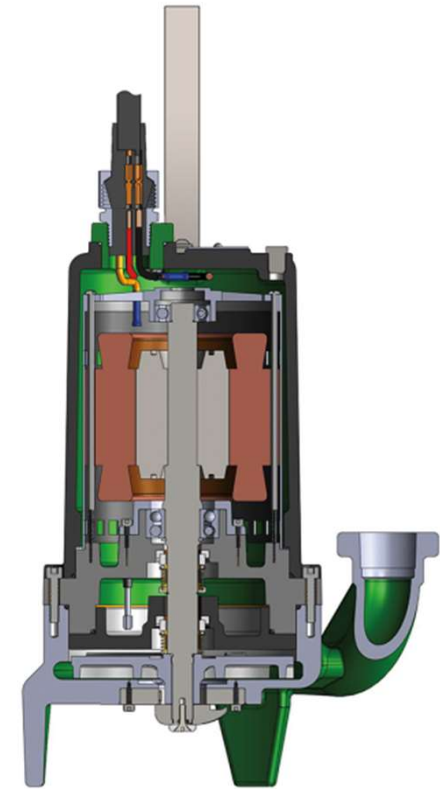


Grinder Pump System Overview

Watch the video at www.Femyers.com



Please note that specific pump model will be determined following execution of Contracts and Engineer approval of Contractor Shop Drawings



Myers V2 Grinder Pump

Grinder Pump System Overview



Interior of Pump Basin



Grinder Pump Basins in Storage



Control Panels



Grinder Pump Installation





Grinder Pump Installation Responsibilities

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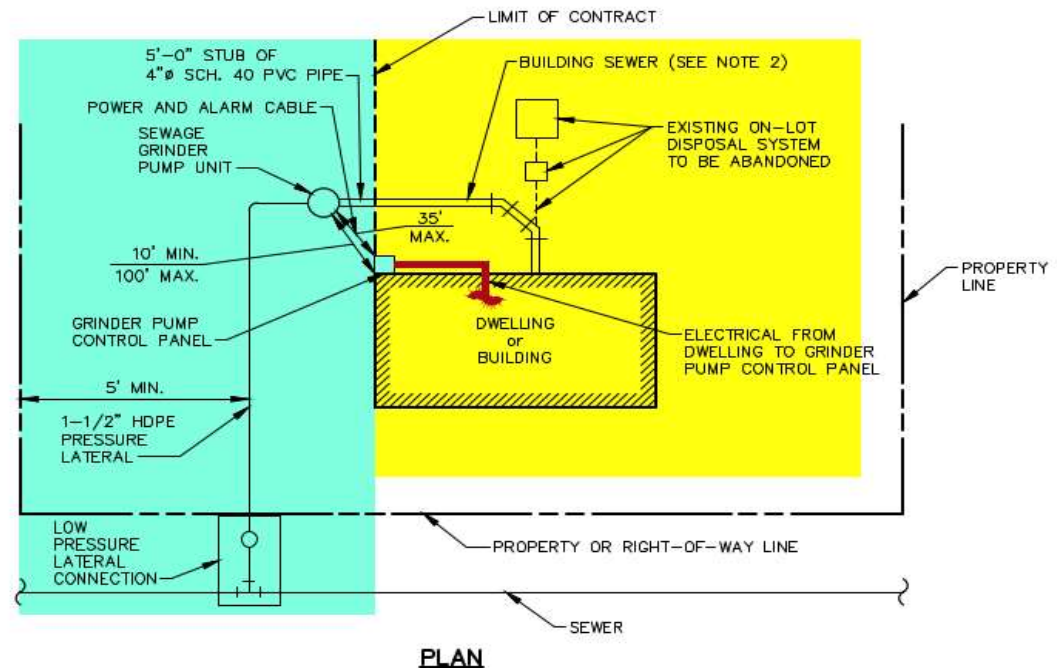
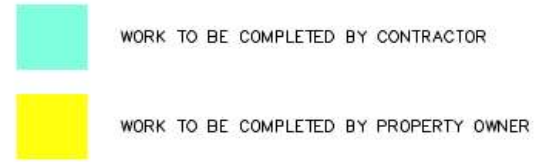
Grinder Pump Installation Requirements

- > The installation of a grinder pump system generally involves the following:
 - Installation of 1-1/2-inch low-pressure sewer lateral from public sewer to grinder pump basin
 - Installation of grinder pump, basin, and control panel
 - Connection of Homeowner effluent to basin and electrical to control panel (240 VAC/1 Phase)
 - Additional work may be necessary to reroute Homeowner private sewer to grinder pump basin

21 Typical Grinder Pump System

NOTES:

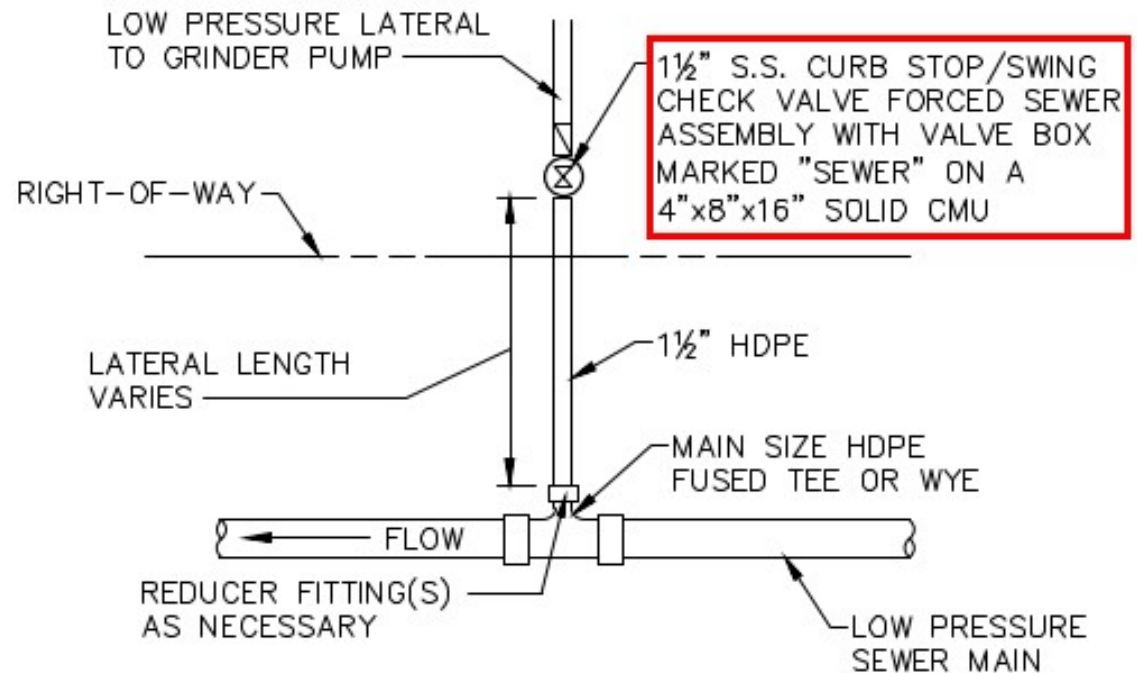
1. GRINDER PUMP MUST BE LOCATED A MINIMUM OF 10 FT. FROM STRUCTURE.
2. BUILDING SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH DEP GUIDELINES, AUTHORITY RULES AND REGS., AND INTERNATIONAL PLUMBING CODES.
3. CONTRACTOR TO COORDINATE LOCATION OF GRINDER PUMP UNIT AND CONTROL PANEL WITH PROPERTY OWNER.
4. DISTANCE BETWEEN DWELLING AND PRESSURE LATERAL SHALL BE 5' MINIMUM, OR AS REQUIRED BY LOCAL CODES, ORDINANCES, RULES AND REGULATIONS OF GOVERNING SERVICE AUTHORITY.



PLAN

Low-Pressure Lateral Connection

- > Check valves are provided to prevent backflow to homeowner systems
- > Facilities in this schematic will be installed by Authority's Contractor



LOW PRESSURE LATERAL CONNECTION

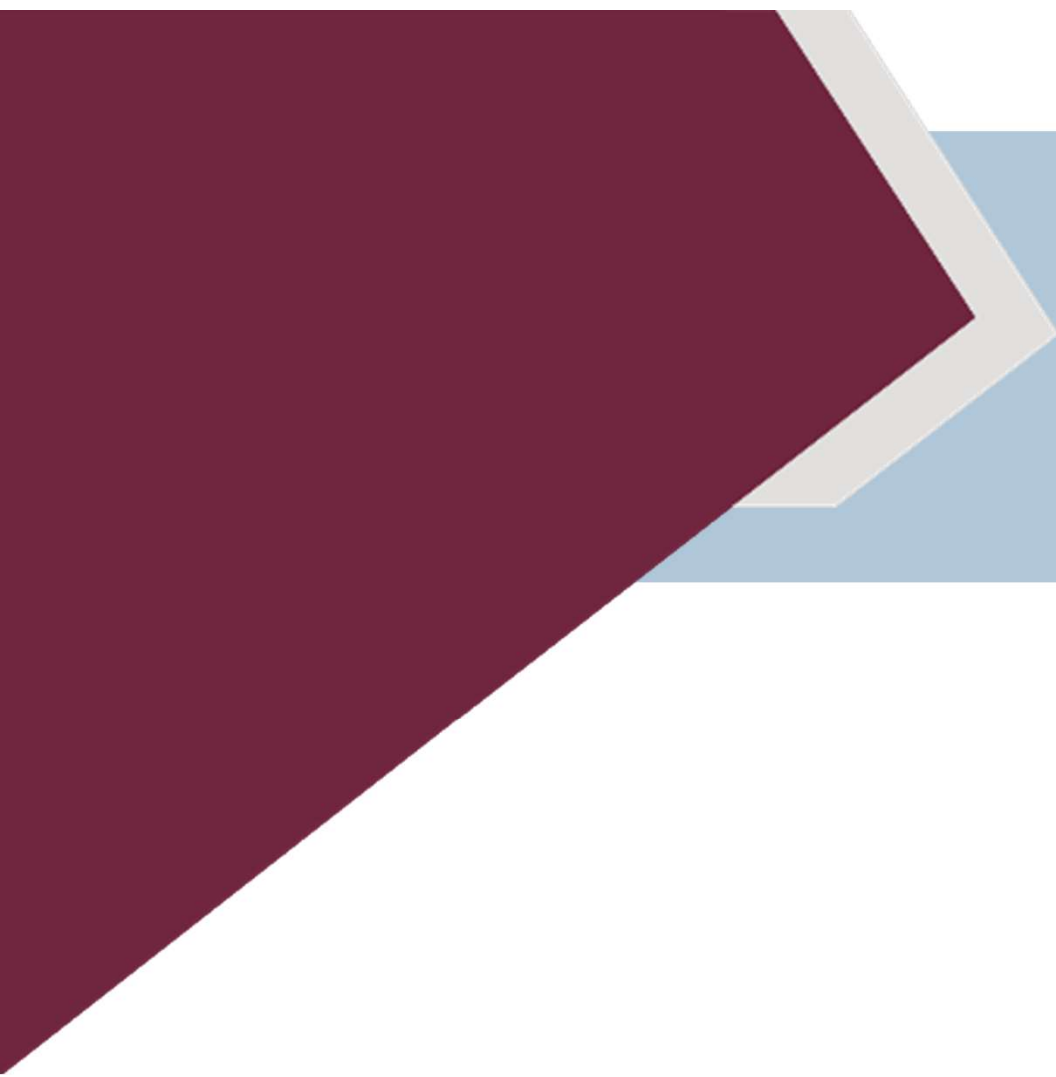
NOT TO SCALE

Authority Responsibilities

- > The following items are the responsibility of the **Authority**:
 - Construction of low-pressure sewer laterals from sewer main to grinder pump system
 - Purchase, supply, excavation, and installation of grinder pump system, including pump, wet well/sump, and control panel
 - Electrical connections from panel to pump basin
 - Maintenance of grinder pumps through life of PENNVEST loan (*excluding cases of misuse)

Homeowner Responsibilities

- > The following items are the responsibility of the **Homeowner**:
 - Connection of Homeowner's existing system to the grinder pump system and control panel, including any plumbing, electrical, or excavation work necessary
 - Normal operation of grinder pump and the entire lateral from the Homeowner's system to the main
 - Execute Grinder Pump Agreements with Authority
- > At the end of the PENNVEST loan period (up to maximum of 20 years), ownership & maintenance responsibilities revert to the Homeowner



Grinder Pump Operation Requirements

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Grinder Pump Maintenance & Operation

> In order to ensure optimum performance and lifespan:

DO	DON'T
Regularly inspect system for any malfunctions	Flush or drain solids, grease, or strong chemicals
Ensure ease of access in case of necessary maintenance	Block access to the grinder pump system
Notify the Authority of Pump Failure	Ignore any alarm or sign of failure

> Power Failure

- Your grinder pump cannot dispose of wastewater without electric power. If electric power is interrupted, keep water usage to a minimum. You may have a high-water alarm upon power restoration, but this will end once the grinder pump is able to pump out the tank.

> Periodic Maintenance

- It is recommended to remove the cover twice a year and hose down the inside of the basin to remove any grease and debris from the walls and level controls. Open the control panel door 3 or 4 times a year to check that there are no alarm lights on.

- > Pump Failure Alarm
 - The control Panel is provided with an alarm that will signal in the event of high water in the basin. This provides a warning to the user that service is required. Water usage must be limited until the grinder pump is serviced.
- > Manufacturer's specific information will be provided during project construction upon Contractor selection and Engineer of approval of shop drawings



Lateral & Pump Location Selection Process

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Lateral & Pump Location Selection Process

- > Lateral & pump locations have been identified for each lot based on sewer facilities available (gravity or low-pressure), lot layout, and topography
- > In accordance with PENNVEST guidelines, the Project has been designed to provide 1st floor service; Residents with basement facilities may need to install an up-flow toilet or internal grinder pump to meet sewer elevations
- > During construction period, HRG's Resident Project Representative (RPR) will work with homeowners to confirm the desired location of all laterals/grinder pump systems

Lateral & Pump Location Selection Process – Cont.

- > To identify lateral & pump location:
 - HRG will provide information for each property identifying the original assumed lateral location
 - Meet with your plumber to review existing system configuration and depths and confirm location of pump
 - Position a stake near the preferred pump location and the preferred lateral location at the property/right-of-way line
- > Additional coordination with property owners to occur during construction



Costs & Available Funding Sources for Homeowners

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Current Authority Fees

Fee/Rate	Cost
Tapping Fee	\$4,504.44 or \$4,948.02 per EDU*
Inspection Fee	\$100
Service Rates: Residential	\$220/EDU per quarter
Service Rates: Commercial	\$245/EDU per quarter

- > Additional costs for private property connections not included above:
- Building sewer connections to capped laterals or to grinder pumps
 - Internal plumbing modifications (if required)
 - Electrical connection to grinder pump system
 - On-Lot Disposal System (OLDS) abandonment
 - Private restoration

*Equivalent Dwelling Unit (EDU), generally estimated at 221 gallons/day. Each individual residence is assumed to be 1 EDU. For connections to the system south of the Sheetz store, the tapping fee is currently \$4,948.02 per EDU.

Available Funding Sources

- > Residents may be eligible for private funding to pay for costs associated with connection to public sewer
- > Potential Programs
 - PENNVEST Homeowner Septic Program
 - United States Department of Agriculture (USDA) Section 504 Home Repair Program
 - Additional alternatives

Available Funding Sources – PENNVEST

- > PENNVEST Homeowner Septic Program
 - Eligible Costs: New building sewer construction and connection to capped laterals (including grinder pump installation, if required), electrical construction and on-lot system abandonment
 - Max loan of \$25,000 at 1.75% for 20 years
 - No income restrictions

Contact for Questions

Roberta Schwalm

(717) 780-3838

Brian Stine (American Bank)

(610) 973-8117

- > United States Department of Agriculture (USDA) Section 504 Home Repair Program
 - Eligible Costs: New building sewer construction and connection to capped laterals (including grinder pump installation, if required), electrical construction and on-lot system abandonment
 - Max grant of \$10,000 for homeowners over 62 years of age
 - Max loan of \$40,000 at 1% for 20 years for homeowners under 62 years of age
 - Applicants must meet USDA income limits to be eligible for funding

- > In addition to the previous programs, other funding may be available at banks and credit unions in the form of:
 - Personal loans
 - Mortgage refinancing
 - Home equity loans
- > HAWASA has also made request to Dauphin County regarding additional funding that may be available to offset Homeowner costs



Homeowner Grinder Pump Agreements

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Homeowner Grinder Pump Agreements

- > Grinder Pump Agreements between the Authority and Homeowner will need to be completed for the Authority to settle the PENNVEST loan and prior to the installation of grinder pump systems
- > Without a signed Agreement, the **Homeowner waives the ability to have the grinder pump system installed by the Authority, but will still be required to connect to the public system** in accordance with Section 2 of the Township Public Sewer Ordinance

Homeowner Grinder Pump Agreements

- Homeowner agrees to:
 - Grant the Authority a 15-foot wide Temporary Construction Easement for construction purposes
 - Grant the Authority a 10-foot wide Perpetual Maintenance Easement for grinder pump system maintenance
 - Pay the one-time tapping fee in accordance with the Authority Rules and Regulations
 - Meet grinder pump installation requirements (plumbing electrical, excavation, etc.)
 - Perform general periodic inspection and maintenance of the grinder pump and shall notify the Authority of any prolonged pump failure
 - Be responsible for electrical energy costs for grinder

Homeowner Grinder Pump Agreements

- Authority agrees to:
 - Purchase and install the grinder pump and low-pressure service lateral
 - Attempt to locate the grinder pump to minimize new plumbing construction by Owner
 - Restore surfaces to previous conditions following installation
 - Maintenance, repair and replacement of the grinder pump and low-pressure service lateral, if required. Authority will give reasonable advance notice to Owner.

Homeowner Grinder Pump Agreements

- > Grinder Pump Agreements to be executed by all property owners on the deed
- > Notary services are available at tonight's meeting for those who execute Agreement
- > For those who do not execute Agreement, arrangements must be made to sign the Agreements
- > The Authority desires to receive executed Agreements no later than January 31, 2023 to achieve PENNVEST settlement and proceed with project construction



Reference Documents

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- > **HAWASA (Authority) Website:**
 - <https://www.hawasaonline.com/home.html>
- > **Meeting PowerPoint**
 - To be posted on Authority and Township Website
- > **PENNVEST Homeowner Septic Program:**
 - https://www.phfa.org/forms/brochures/homeownership_programs/pennvest_brochure.pdf
- > **United States Department of Agriculture (USDA) Section 504 Home Repair Program:**
 - <https://www.rd.usda.gov/programs-services/single-family-housing-programs/single-family-housing-repair-loans-grants/pa>

Future Coordination

- > Future public meetings will be scheduled by the Authority to provide project updates and opportunities for community questions and concerns
- > Homeowners shall be notified via mail of upcoming meetings dates and locations
- > All public meetings PowerPoints and reference documents shall be made available on the Authority's and Township's website for residents' use



QUESTIONS

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