
EAST VINCENT TOWNSHIP BROWN DRIVE / OLD SCHUYLKILL ROAD SANITARY SEWER PROJECT



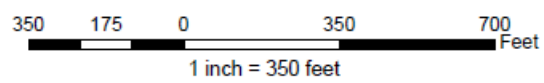
Presented by Patrick DiGangi, P.E.
CKS ENGINEERS, INC.

March 24, 2022

PROJECT SUMMARY



- The project proposes an extension of East Vincent Township's public sewer system to the Brown Drive / Old Schuylkill Road area through the construction of a Low Pressure Sewer System (LPSS) consisting of force main pipe and individual grinder pumps serving each property
- Project area encompasses:
 - Brown Drive from Pennhurst Road to Old Schuylkill Road
 - Old Schuylkill Road from Brown Drive to the Township border with East Coventry Township
 - Shady Lane
 - A portion of Schuylkill Road (Rt. 724) in the vicinity of Reitnour Road



Legend

- Exist. Sanitary Manhole (EVT)
- 2" LPSS Foremain
- 3" LPSS Foremain
- 4" LPSS Foremain
- Hydrology
- Exist. Gravity Sewer (EVT)
- Exist. Force Main
- Proposed Service Area
- 6 Ft. Contour
- Township Boundary
- Roads
- ▨ Improved Lots - Proposed to be Sewered
- Ⓧ Proposed Public Sewer Connection Number

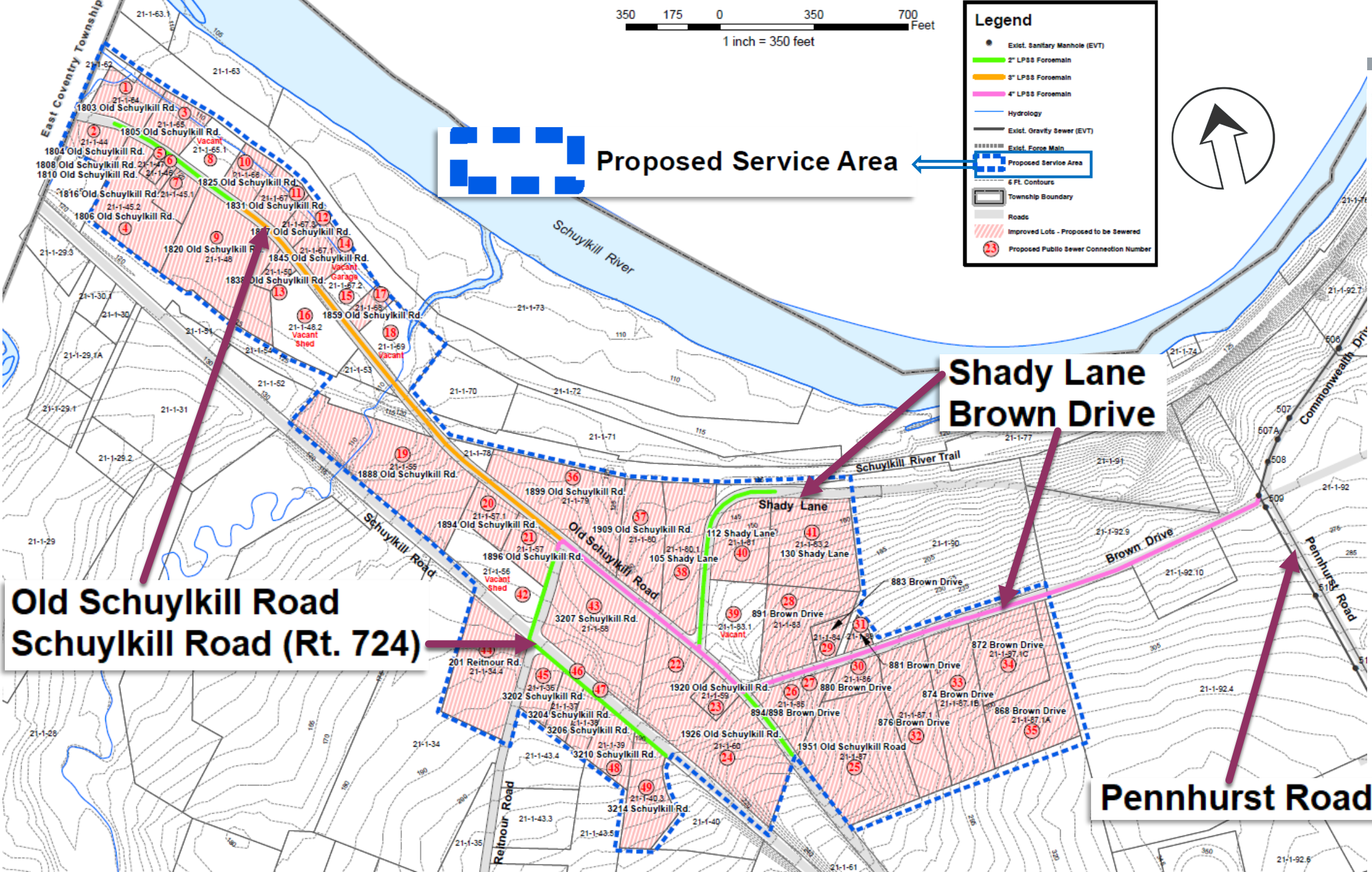


Proposed Service Area

**Old Schuylkill Road
Schuylkill Road (Rt. 724)**

**Shady Lane
Brown Drive**

Pennhurst Road



PROJECT SUMMARY



- The project area is currently served by On-Lot Disposal Systems (OLDS) which will need to be abandoned
- A total of 49 connections are proposed. This includes 42 existing buildings/homes; 6 vacant properties; and one lot having the potential for a second home/dwelling.
- The new Low Pressure Sewer System (LPSS) will extend to an existing manhole at the intersection of Brown Drive and Pennhurst Road; sewage will be conveyed to the existing interceptor in Commonwealth Drive to the Township's Veterans Center Wastewater Treatment Plant for treatment

PROJECT CONSTRUCTION



The project will have two phases:

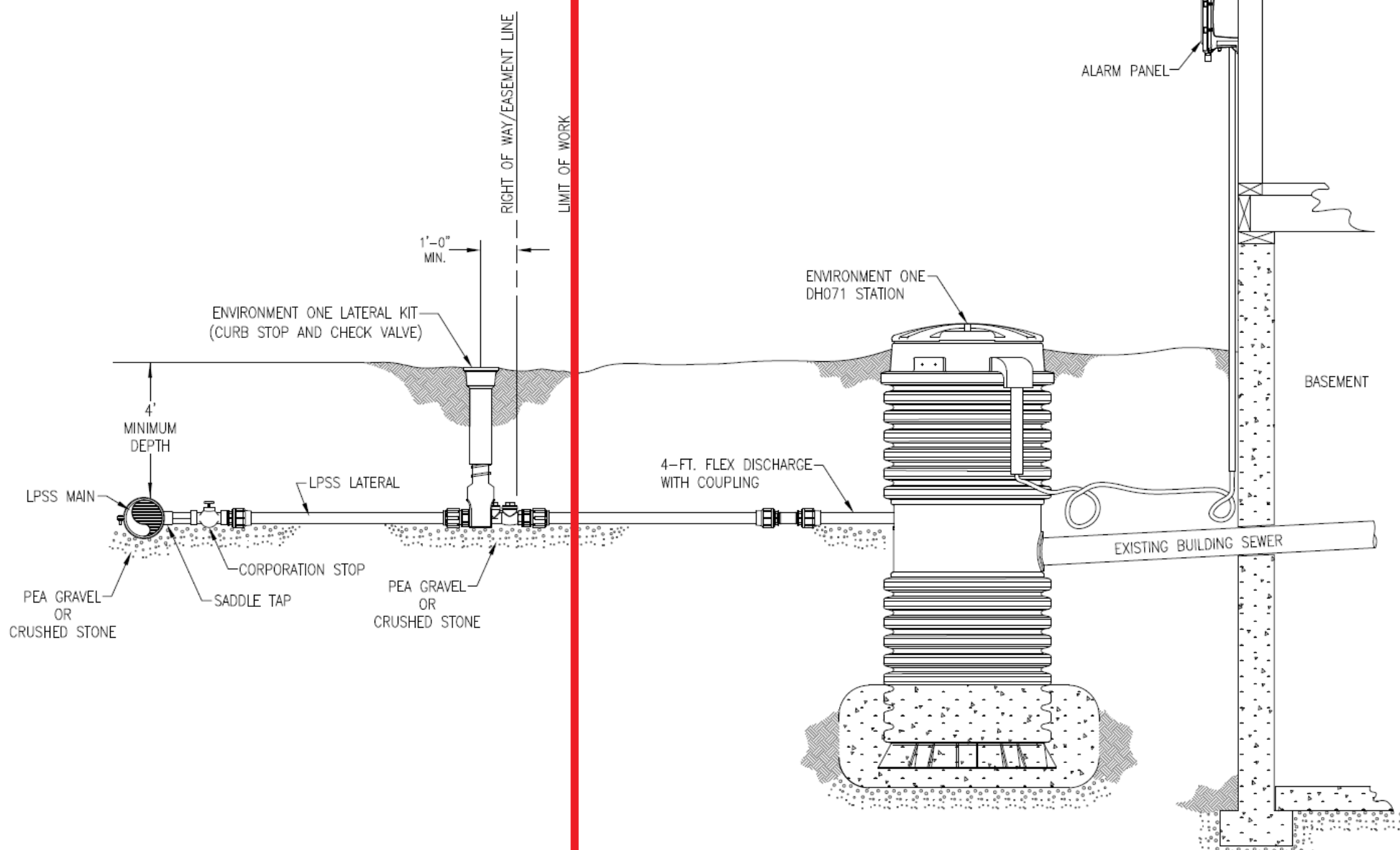
- **I. Public Bid** – Installation of 7,520 LF of high density polyethylene pipe (HDPE) within roadways and easements. Pipe will range in size from 2” to 4” and installation will include excavation, backfill and restoration.
 - Includes 1-1/4” laterals installed to the edge of road for connection by property owner
 - To be completed by the Township’s contractor

- **II. Private Property** – Purchase and installation of grinder pump system; installation of a low pressure force main lateral for connection to the lateral provided by the Township during public phase; extension/connection to existing building sewer; abandonment of on-lot disposal system
 - To be completed by property owner / plumbing contractor hired by property owner



1ST PHASE - PUBLIC BID

2ND PHASE - PRIVATE PROPERTY



ESTIMATED PROJECT COSTS



- CKS Engineers, Inc. performed an analysis of two types of sewer systems as options to service the project area
 - Gravity
 - Low Pressure Sewer System (LPSS)
- Cost estimates for a gravity system were significantly higher due to:
 - Larger pipe diameter
 - Greater burial depths to achieve gravity service
 - Greater disturbance
 - Additional easements
 - The need for a sewage pumping station and force main
- A \$926,000 H2O Grant from the Pennsylvania DCED was awarded to the Township and will partially fund the project

ESTIMATED PROJECT COST COMPARISON



Cost Description:	Gravity	Low Pressure
Public Bid Portion w/ 5% Contingency and Engineering	\$2,948,065	\$1,843,720
Private Property Portion	\$385,000	\$536,900
Total	\$3,333,065	\$2,380,620

COST PER HOUSEHOLD - LPSS



PUBLIC BID – ESTIMATED PROJECT COST

Construction Cost:	\$ 1,378,050
Contingencies (5% of Construction Cost)	\$ 68,900
Engineer Design and Permitting (Estimated)	\$ 198,385
Construction Management/Inspection (Estimated)	\$ 198,385
Subtotal	<u>\$1,843,720</u>
H2O PA Grant	<u>(\$ 926,000)</u>
Total	<u>\$ 917,720</u>

Total Assessed Cost per Property: \$917,720/49 EDUs = \$18,729 per EDU

PRIVATE PROPERTY – ESTIMATED PROJECT COST

Furnish and Install Grinder Pump System, including Connection to Building Sewer	\$ 8,600
Install Force Main Lateral	\$ 1,500
Abandonment of OLDS	\$ 1,000
Subtotal	<u>\$ 11,100</u>
Capacity Tapping Fee	<u>\$ 4,650</u>
Total	<u>\$ 15,750</u>

TOTAL ESTIMATED COST PER HOUSEHOLD

Public Bid (Assessed) Portion:	\$ 18,729
Private Property (Non-Assessed) Portion:	<u>\$ 15,750</u>
Total Estimated Cost:	\$ 34,479

*Note: Township is investigating possible financing options.

PROJECT SCHEDULE



- **Act 537 Sewage Facilities Planning – Special Study**
 - March/April 2022 – 30-day public comment period
 - April 19, 2022 – Consideration by the East Vincent Planning Commission
 - May 4, 2022 – Approval/adoption by the East Vincent Board of Supervisors
 - May 5, 2022 – Submission to PADEP

- **Permit Applications**
 - March/April – PADEP Water Quality Management Permit
 - March/April – PennDOT HOP

- **Project Bidding and Construction**
 - Public Bid Portion
 - May 2022 – Advertise and Bid Construction Project
 - June 2022 – Receive Construction Bids
 - June 2022 – Contract Award
 - July 2022 – Begin Construction
 - January 2023 – Construction Completion

 - Private Property Portion
 - January – April 2023 – Installation of grinder pump system; connection to LPSS; and abandonment of OLDS

THANK YOU

