
COUNTY LINE ROAD
SANITARY SEWER PROJECT

ACT 537
SEWAGE FACILITIES PLANNING - SPECIAL STUDY

WEST ROCKHILL & FRANCONIA TOWNSHIPS
BUCKS & MONTGOMERY COUNTIES,
PENNSYLVANIA

SEPTEMBER 26, 2023
REVISED: APRIL 4, 2024
ADOPTED:

Prepared by:

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REFERENCE: #C0004598.00

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1.0 PURPOSE OF SPECIAL STUDY

The purpose of this Special Study is to address the PADEP Act 537 sewage facilities planning required to extend public sewer service to portions of West Rockhill Township and Franconia Township located in the vicinity of County Line Road and north of Telford Borough. This includes the Hidden Valley residential neighborhood (Hidden Valley) located east of County Line Road within West Rockhill Township and the Hollow Road/Forrest Road neighborhood located west of County Line Road within Franconia Township.

In December 2011, an Act 537 Sewage Facilities Plan Update was adopted by West Rockhill Township. That update was finalized in June 2011 to incorporate PADEP's review/approval comments. The Plan Update addressed the Township's ability to provide adequate facilities for existing and future development and to support the Township Comprehensive Plan and Zoning Ordinance. The County Line Road area, including Hidden Valley, is not currently within a public sewer service area since it is currently served by On-lot Disposal Systems (OLDS). An Act 537 Sewage Facilities Plan Update was adopted by Franconia Township and finalized on April 25, 2012, to incorporate PADEP's review/approval comments. The Plan Update addressed the sewage facilities needs of Franconia Township but did not plan for the extension of public sewers into the County Line Road area. On November 16, 2022, a virtual meeting was held with PADEP to discuss the sewage facilities planning needed to extend public sewer service to the County Line Road area, including the Hidden Valley and Franconia Township properties. Based on this meeting, PADEP requested a "Special Study" be prepared which included a "needs" analysis and alternatives evaluation. The alternatives evaluation was to address the "do nothing" alternative compared to the extension of public sewer service. This Special Study has been prepared to comply with PADEP's Act 537 sewage facilities planning requirements.

2.0 PROJECT DESCRIPTION

The County Line Road Sanitary Sewer Project proposes the extension of Telford Borough Authority's public sewer system to serve the County Line Road area of West Rockhill and Franconia Townships. The project is located in the southwest corner of West Rockhill Township and includes a portion of Circle Drive, Hidden Lane, Cathill Road, and Valley Road. In addition, the project area includes a portion of Franconia Township located along County Line Road (SR 4027), Hollow Road, and Forrest Road (SR 2016). The project is also located in the vicinity of the East Branch of the Perkiomen Creek. The topography of the area slopes towards the creek and away from the nearest public sanitary sewers which are located south of the area. Due to the existing topography, a sewer extension cannot be constructed by gravity alone. For example, the elevation located along County Line Road is approximately 105 feet higher than the lowest point within the Hidden Valley neighborhood of West Rockhill Township. Therefore, sewage must either be pumped by means of a Sewage Pumping Station (SPS), or conveyance through

a Low Pressure Sanitary Sewer System (LPSS) which involves individual grinder pumps at each dwelling unit to connect to the nearest existing public sewer system. The area contains a total of 90 dwelling units to be potentially served throughout 89 parcels; this includes one parcel containing two existing residential buildings/homes. The area is currently served by individual On-Lot Disposal Systems (OLDS). The area consists of older homes and has poor drainage due to local soils. As a result, many of the OLDS are failing and/or require a high frequency of pumping. These failures threaten to pollute the individual private wells providing potable water to the homes in the area, as well as the nearby East Branch Perkiomen Creek. The County Line Road Sanitary Sewer Project proposes to provide public sewer service to the area to eliminate the OLDS failures and provide a more reliable alternative for sanitary sewer disposal.

Public sewer service to the County Line Road area will be extended through the construction of a Low-Pressure Sewer System (LPSS) consisting of 9,145 linear feet of high-density polyethylene (HDPE) force main pipe ranging in size from 2” to 4” and ninety (90) individual grinder pumping systems. The low-pressure force main will extend throughout the area and discharge directly into the TBA North Lift Station located along County Line Road (SR 4027). From there, sewage will be conveyed to the Telford Borough Authority’s (TBA) Wastewater Treatment Plant (WWTP) for treatment. Construction will also involve lateral connections to all homes, abandonment of on-lot disposal systems (OLDS), and lawn and road restoration. CKS Engineers completed a study entitled, “Hidden Valley Sanitary Sewer Feasibility Study” dated November 2022, evaluating public sewer alternatives to serve the area. This study evaluated the following four (4) options:

- Option 1 – Low Pressure Sanitary Sewer System (LPSS) and connection to TBA’s North Lift Station.
- Option 2 – Low Pressure Sanitary Sewer System (LPSS) and connection in Birch Circle.
- Option 3 – Gravity Sewer with Sewage Pumping Station (SPS) and Force Main connection in North Hamilton Street.
- Option 4 – Gravity Sewer with Sewage Pumping Station (SPS) and Force Main connection in Birch Circle.

As a result of this study, Option 1, including a LPSS and connection to TBA’s North Lift Station, was selected. Included as an Appendix to this Special Study is a copy of the Hidden Valley Feasibility Study. Section 4 of this Special Study further evaluates the “Do Nothing” alternative to the alternative selected to serve the area.

The Telford Borough Authority Wastewater Treatment Plant contains the following processes and has an annual average permitted capacity of 1,100,000 gpd and permitted hydraulic capacity of 1,230,000 gpd. The Plant processes include:

- Influent Comminutor
- Grit Removal
- Primary Settling Basins
- Oxidation Channels (Biological Treatment)
- Final Clarifiers
- Disinfection by Chlorine Addition
- Dechlorination
- Aerobic Digestion
- Sludge Dewatering by Centrifuge

The annual average influent flow to the plant in 2022 was 688,000 gpd and the past five-year (2018-2022) average influent to the Plant was 710,800 gpd. Therefore, for planning purposes, and to be conservative in evaluating Plant capacity, an average of the past five-year flows has been utilized in evaluating the Plant capacity. Based on the 2018-2022 average influent flow, the existing available annual average capacity in the Plant is 389,200 gpd. However, subtracting out the planned projected connections in the TBA service area and the Franconia Township service area, the net remaining annual average capacity in the TBA Plant equals 354,200 gpd. Based on a factor of 250 gallons per dwelling unit, the capacity needed to serve the County Line Road sanitary sewer project is 22,500 gpd ($250 \text{ gpd/EDU} \times 90 \text{ EDUs} = 22,500 \text{ gpd}$). As a result, the Plant has sufficient capacity to serve 90 dwelling units proposed for connection. Further, an analysis of the hydraulic capacity of the Plant (1,230,000 gpd required for Chapter 94 reporting) has also determined that there is sufficient capacity in the Plant to serve the County Line Road Sanitary Sewer Project. Included at the end of this section is a table, Table 1, detailing TBA's WWTP capacity analysis.

In addition, an analysis of the North Lift Station has been performed to confirm that there is sufficient capacity in the sewage pumping station to serve the 90 dwelling units proposed for connection. This analysis has determined that there is sufficient capacity in the North Lift Station to serve the Hidden Valley and County Line Road properties. Included at the end of this section is a table, Table 2, detailing the North Lift Station capacity analysis.

TABLE 1 TELFORD BOROUGH AUTHORITY WASTEWATER TREATMENT PLANT – CAPACITY ANALYSIS FOR COUNTY LINE ROAD SANITARY SEWER PROJECT		
	Annual Ave. (GPD)	Chapter 94 Hydraulic Capacity (GPD)
WWTP Permitted Capacity	1,100,000	1,230,000
Influent Flow	(679,200) ⁽¹⁾	(809,200) ⁽¹⁾
- Existing 2019-2023 Average Metered Influent Flow		
Subtotal - Available Capacity for Planned Development	420,800	420,800
TBA Planned Development – Remaining Connections		
- Infill – Commercial/Industrial (10 EDU)	(2,500) ⁽²⁾	(3,000) ⁽³⁾
- Infill - Residential (10 EDUs)	(2,500) ⁽²⁾	(3,000) ⁽³⁾
- Erie Avenue Subdivision (2 EDUs)	(500) ⁽²⁾	(600) ⁽³⁾
- Landis Supermarket Complex (8 EDUs)	(2,000) ⁽²⁾	(2,400) ⁽³⁾
Franconia Township Service Area		
- Total EDUs in Franconia Township (320 EDUs)	(80,000) ⁽²⁾	(95,200) ⁽³⁾
- Allentown Road SPS Diversion (200 EDUs)	+50,000 ⁽⁵⁾	+60,000 ⁽³⁾
Total Remaining Available Capacity – GPD	383,300	376,600
Capacity required for County Line Road Sanitary Sewer Project (based on 90 EDUs at 250 GPD/EDU)	22,500 ⁽²⁾	26,775 ⁽³⁾
<hr/>		
Notes:		
(1) Average Monthly and 3-Month Maximum Average Flow for 2019-2023 based on 2023 Chapter 94 Report.		
(2) Annual Average (AA) Flow Projections based on 250 GPD per EDU.		
(3) Based on the AA flow multiplied by the average of the 2019-2023 3-Month Max to AA Flow Ratios equaling 1.19.		
(4) Amounts in () = minus.		
(5) Allentown Road SPS Diversion <u>from</u> TBA WWTP (50,000 GPD ÷ 250 GPD/EDU = 200 EDU)		

TABLE 2 NORTH LIFT STATION - CAPACITY ANALYSIS FOR COUNTY LINE ROAD SANITARY SEWER PROJECT		
	Annual Ave. (GPD)	Peak Flow (GPD)
North Lift Station Design Capacity		
- Duty Pump(s)	259,200 ⁽¹⁾	259,200 ⁽¹⁾
- Permanent Diesel-Driven Backup Pump	576,000	576,000
Existing 2023 Flow	(41,000) ⁽²⁾	(59,600) ⁽²⁾
TBA Existing Planned Development Projection	(2,000) ⁽³⁾	(2,640) ⁽⁴⁾
Total Remaining Available Capacity		
- Duty Pump(s) Running	216,200	196,960
- Diesel-Driven Backup	533,000	513,760
Capacity Required for County Line Road Sanitary Sewer Project (Based on 90 EDUs at 250 GPD/EDU)	23,500	29,700 ⁽⁴⁾
<hr/>		
Notes:		
(1) Station contains two submersible pumps, each rated at 180 GPM. Pumping capacity equal to one of those pumps running.		
(2) Existing flow is as per 2023 Chapter 94 Report; peak flow is equal to the maximum month flow in 2023.		
(3) Based on 250 GPD per EDU with 8 EDU connections to North Lift Station expected during 2023.		
(4) Based on the AA flow multiplied by the SPS average of the 2019-2023 3-Month Max to AA Flow Ratios equaling 1.32.		

3.0 SEWAGE DISPOSAL “NEEDS” IDENTIFICATION

In compliance with PADEP Act 537 Sewage Facilities Planning requirements and the “Special Study” elements discussed with PADEP during our virtual meeting on November 16, 2022, a wastewater disposal “needs” analysis has been performed to present the reason for discontinuing the use of OLDS in the Hidden Valley and County Line Road area and serving the area through an extension of public sewers. This “needs” analysis considered the following:

- Size of lots in the area
- Age of OLDS in the area
- Soil suitability for OLDS
- Bucks County Health Department and West Rockhill Township’s data on OLDS pumping and failures

3.1 Size of Lots

Approximately 90 existing residential buildings/homes located on 89 properties are located in the County Line Road area. Of the 89 existing properties, approximately 65% are less than one acre. In addition, the Hidden Valley area is located along the south side of the East Branch of the Perkiomen Creek, with the entire development sloping towards the creek. Therefore, several of the lots are also impacted by floodplain areas and potentially wetlands which impacts their usable area. As a result, the area, due to lot size, has limitations impacting the use of OLDS for sewage disposal.

3.2 Age of OLDS

For the purpose of needs identification, OLDS permitting under Act 537 became effective on May 15, 1972. Based on historic aerial photograph data obtained from Bucks County GIS Data Portal & Interactive Maps website (<https://dataportal-bucksgis.opendata.arcgis.com>), a majority of the homes in the County Line Road area were constructed prior to 1972. Consequently, many of the OLDS in the area are pre-regulatory systems, meaning it is very unlikely they would have received permitting by current standards. As a result, the age of the OLDS in the area contribute to existing and potential malfunctions.

3.3 Soil Suitability for OLDS

Based on the Soil Survey of Bucks County, Pennsylvania published by the USDA Soil Conservation Service in 1936, revised in December 2003, and the Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov>), which is based on the Soil Survey and is continuously being updated, the County Line Road

area soils can mainly be classified into various associations of silt loam. The soil associations located within the Special Study area include:

AbB – Abbottstown silt loam, 3-8% slopes
Bo – Bowmansville-Knauers silt loams
CwB – Croton silt loam, occasionally ponded, 3-8% slopes
KIB – Klinesville channery silt loam, 3-8% slopes
PeB – Penn silt loam, 3-8% slopes
PKD – Penn-Klinesville channery silt loams, 15-25% slopes
ReA – Readington silt loam, 0-3% slopes
ReB – Readington silt loam - 3-8% slopes
RhB – Reaville silt loam, 3-8% slopes
RhC – Reaville silt loam, 8-15% slopes
RIB – Reaville channery silt loam - 3-8% slopes
RIC – Reaville channery silt loam - 8-15 % slopes
UdB – Udorthents, shale and sandstone
UdtB – Udorthents, shale and sandstone, 0-8% slopes
UgB – Urban land-Abbottstown complex, 0-8% slopes
UrcB – Urban land-Abbottstown complex, 0-8% slopes

The slopes of these soils vary greatly from nearly flat to steep slopes and poorly drained to well drained. Included in Appendix A is a Soils Map which illustrates the soils with the study area.

Soil suitability is very important in the use of on-lot sewage disposal systems. An on-lot sewage disposal system depends heavily upon soils for renovation or cleaning of sewage effluent before it enters the groundwater. Soil renovates sewage through a combination of physical filtration, absorption and retention, ion exchange, and bio-chemical breakdown of organic waste. Important to the process is the length of time it takes sewage to move through the soil. This time must be long enough to allow harmful microbes to live out their lives or be destroyed by other microbial predators and allow the bio-chemical breakdown of organics. In order to assure that this time and soil renovation is provided, PADEP has established percolation requirements and soil depth requirements. One requirement is that at least 48 inches of adequately textured, well aerated soil be provided before encountering or contacting a limiting zone. A limiting zone is any layer in the soil or underlying geology which does not renovate or which limits downward movement of the effluent. Limiting zones include, but are not limited to, the following:

- Layers which inhibit downward passage of effluent, such as fragipans, clay lenses, and impermeable rock formations.
- Layers which provide no renovation such as rock formations with insufficient fine materials between the rocks, gravel beds lacking

soils, creviced bedrock, rock outcrops, saturated soils, and perched, seasonal, and regional water tables.

The Soil Survey for Bucks County, Pennsylvania rates the degree and identifies the kind of limitation each soil series has for sewage effluent disposal by an on-site septic tank. The following table, Table 3, lists the soils within the study area and their suitability for septic tank effluent disposal. Included as Exhibit 2 is a Soils Map illustrating the soils contained within the study area based on the soil survey. As can be seen by the table below, with the exception of one unrated soil type, all of the study area has been rated to be “Very Limited” for on-site sewage disposal. From this we can assume the Urban land-Abbottstown complexes (UgB and UrcB), which are not currently rated by the Soil Survey, also have a limited on-site sewage disposal rating.

TABLE 3 SOIL SUITABILITY FOR ON-LOT DISPOSAL SYSTEMS		
Map Symbol	Mapping Unit	Rating - Limitation for Sewage Effluent Disposal by On-Site Septic Tank
AbB	Abbottstown silt loam, 3-8% slopes	Very Limited
Bo	Bowmansville-Knauers silt loams	Very Limited
CwB	Croton silt loam, occasionally ponded, 3-8% slopes	Very Limited
KIB	Klinesville channery silt loam, 3-8% slopes	Very Limited
PeB	Penn silt loam, 3-8% slopes	Very Limited
PkD	Penn-Klinesville channery silt loams, 15-25% slopes	Very Limited
ReA	Readington silt loam, 0-3% slopes	Very Limited
ReB	Readington silt loam, 3-8% slopes	Very Limited
RhB	Reaville silt loam, 3-8% slopes	Very Limited
RhC	Reaville silt loam, 8-15% slopes	Very Limited
RIB	Reaville channery silt loam, 3-8% slopes	Very Limited
RIC	Reaville channery silt loam, 8-15 % slopes	Very Limited
UdB	Udorthents, shale and sandstone	Very Limited
UdtB	Udorthents, shale and sandstone, 0- 8% slopes	Very Limited
UgB	Urban land-Abbottstown complex, 0- 8% slopes	Not Rated
UrcB	Urban land-Abbottstown complex, 0- 8% slopes	Not Rated

3.4 Bucks County Health Department and West Rockhill Township Data on OLDS

The Bucks County Health Department (BCHD) is the “local agency” responsible for administering the on-lot sewage disposal program in West Rockhill and Franconia Township. Enforcement of the program is through permitting, inspection, and complaint response.

Many of the existing OLDS throughout the study area were constructed prior to current PADEP design criteria. Those system types likely include seepage pits, seepage trenches, cesspools, and seepage beds. The permitted systems within the study area include the following:

- 2635 County Line Road – Conventional System: Seepage Trench - Approved on 7/26/1999
- Z129484 – Conventional System: Elevated Sand Mound Bed – Approved on 11/16/2017
- 1520 Hidden Lane – Alternate System: At Grade Bed – Approved on 10/11/2016
- 1500 Hidden Lane – Conventional System: Seepage Trench - Approved on 2/01/2011
- 1470 Circle Drive – Alternate System: Seepage Trench – Approved 7/23/2015

The Bucks County Health Department maintains a Permit System database which contains information pertaining to permits for installation, repair, and modification of on-lot disposal systems. Repairs are mostly for two reasons: either a malfunction or an unsatisfactory certification. A malfunction is identified when sewage is leaking onto the surface of the ground or backing up into the house. Should the reason for the leakage be that the soils can no longer remediate the effluent being sent into the absorption area, the evidence for the need of a new system is then present. An unsatisfactory certification is a label given through an inspection of the system by a private septic certifier. It may not be evident that a system needs to be replaced. However, it is an indication that there may be a potential or existing problem. The BCHD pulled all permit data regarding on-lot disposal systems in the Hidden Valley and County Line Road properties. This information shows that over 50% of the on-lot systems in this area have not been replaced or repaired since their installation, which predominantly occurred in the mid to late 1960s.

Based on the BCHD, there appears to be areas within the study boundary having a high pumping frequency, system failure, certification failure, and on-lot systems over 50 years old that have had no repairs made. As a result, the data provided by the BCHD helps justify the need for extension of public sewer service to the County Line Road area.

4.0 ALTERNATIVES ANALYSIS

As previously indicated, CKS Engineers completed a study entitled, “Hidden Valley Sanitary Sewer Feasibility Study” dated November 2022 evaluating four (4) public sewer alternatives to serve the County Line Road area. A copy of the Feasibility Study is attached as Appendix G to this report detailing the public sewer alternatives analysis. However, this study did not evaluate a “No Action” alternative. In a pre-planning meeting with PADEP, the “No Action” alternative was requested to be included in the Special Study. As required, an evaluation of the “No Action” alternative is as follows. The “No Action” alternative would mean the County Line Road area would continue to be served by on-lot disposal systems. Consequently, the “No Action” alternative would result in the continuation of failing on-lot disposal systems and the chronic operation and maintenance associated with the systems in this area, including frequent pumping. This would also mean allowing the failing OLDS to threaten to pollute the individual private wells providing potable water to the homes in the area as well as the nearby East Branch of the Perkiomen Creek. Due to the operational, maintenance, and environmental benefits of extending public sewer service to the County Line Road area, the “No Action” alternative has not been selected.

The alternative selected to provide public sewer service to the County Line Road area is the construction of a Low-Pressure Sewer System (LPSS). The LPSS will consist of 9,145 linear feet of high-density polyethylene (HDPE) force main pipe ranging in size from 2” to 4” and ninety (90) individual grinder pumping systems. The low-pressure force main will extend throughout the area and discharge to an existing manhole (No. 84-1) located at the TBA North Lift Station located along County Line Road (SR 4027). From there, sewage will be conveyed to the Telford Borough Authority’s Wastewater Treatment Plant for treatment. Construction will also involve lateral connections to all homes, abandonment of on-lot disposal systems (OLDS), and lawn and road restoration.

The Hidden Valley Sanitary Sewer Feasibility Study previously completed by CKS Engineers compared four separate public sewer extension alternatives. The feasibility study highlighted key differences between each alternative and the factors that led to the selection of an LPSS with direct connection to TBA’s North Lift Station. The factors supporting the public sewer alternative selected are summarized below:

- Less expensive than a gravity sewer system due to system components and installation costs. Estimated to be \$21,000 or more cost savings per EDU compared to a gravity sewer system.
- No municipal sewage pumping station and force main pipe required for conveyance to connection with existing sanitary sewer system.
- Smaller size pipe system. 2” to 4” LPSS compared to 8” gravity sewers.

- An additional 25 EDU will be serviced with the LPSS when compared to gravity sewer alternatives.
- No easements were needed for the LPSS, whereas easements were needed for a municipal sewage pumping station and gravity service to some properties in the gravity sewer alternatives.

5.0 FINANCING

The cost to construct the County Line Road Sanitary Sewer Project is estimated to be approximately \$3,181,282. This cost includes construction, engineering, and permitting. Attached in Appendix B is a table detailing CKS's project cost estimate. Additionally, the cost of tapping fees for the project is calculated to be \$543,150. This is based on 90 EDUs at \$6,035 per EDU. Please note these tapping fees include both the capacity and collection portions of the Telford Borough Authority's tapping fees. As a result, the total cost for the County Line Road Sanitary Sewer Project, including construction, engineering, and tapping fees, is estimated to be \$3,724,432.

The Authority has been awarded a COVID-19 ARPA H2O PA Grant in the amount of \$268,025 to partially fund the construction of the project. The remaining balance of the project cost equaling \$2,913,257 will be paid by the respective property owners to be served by the sewer system through connection fees and assessments based upon their proportionate share of the project costs. This is in addition to the tapping fees. The Authority plans on funding all engineering, permitting, and construction costs and recouping a portion of the costs from the affected property owners. The primary and contingency funding sources for these costs will be paid for from the Authority's Capital Fund until recouped through reimbursement from the grant (\$268,025) and fees assessed to homeowners.

6.0 IMPLEMENTATION SCHEDULE

The schedule for the County Line Road Sanitary Sewer Project is as follows. Please note, each milestone indicated is as measured from the date of the Act 537 Sewage Facilities Planning Approval by PADEP:

- Act 537 Sewage Facilities Planning/WQM Part II Permit Approval – Time Zero
- Advertise and Bid Construction Project – 2 weeks
- Receive Construction Bids – 2 months
- Contract Award – 3 months
- Begin Construction – 4 months
- Construction Completion – 10 months

APPENDIX A
EXHIBITS 1 & 2

Legend

- Sanitary Gravity Line**
 - Penridge WWTP (Blue line)
 - Telford Borough (Green line)
 - Franconia Township (Yellow line)
- Manholes**
 - Penridge WWTP (Blue dot)
 - Telford Borough (Green dot)
 - Franconia Township (Yellow dot)
 - Lift Station (Green star)
- Contours**
 - Franconia Township (Light blue shading)
 - West Rockhill Township (Light yellow shading)
 - Telford Borough (Light orange shading)
- Low Pressure Forcemain**
 - 2" LPSS (2,731 L.F.) (Blue line)
 - 3" LPSS (3,136 L.F.) (Green line)
 - 4" LPSS (3,278 L.F.) (Pink line)

27 Property Proposed to be Served by Public Sewer Extension

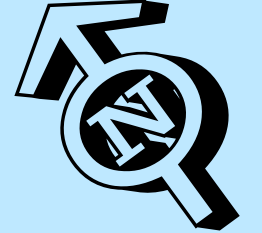
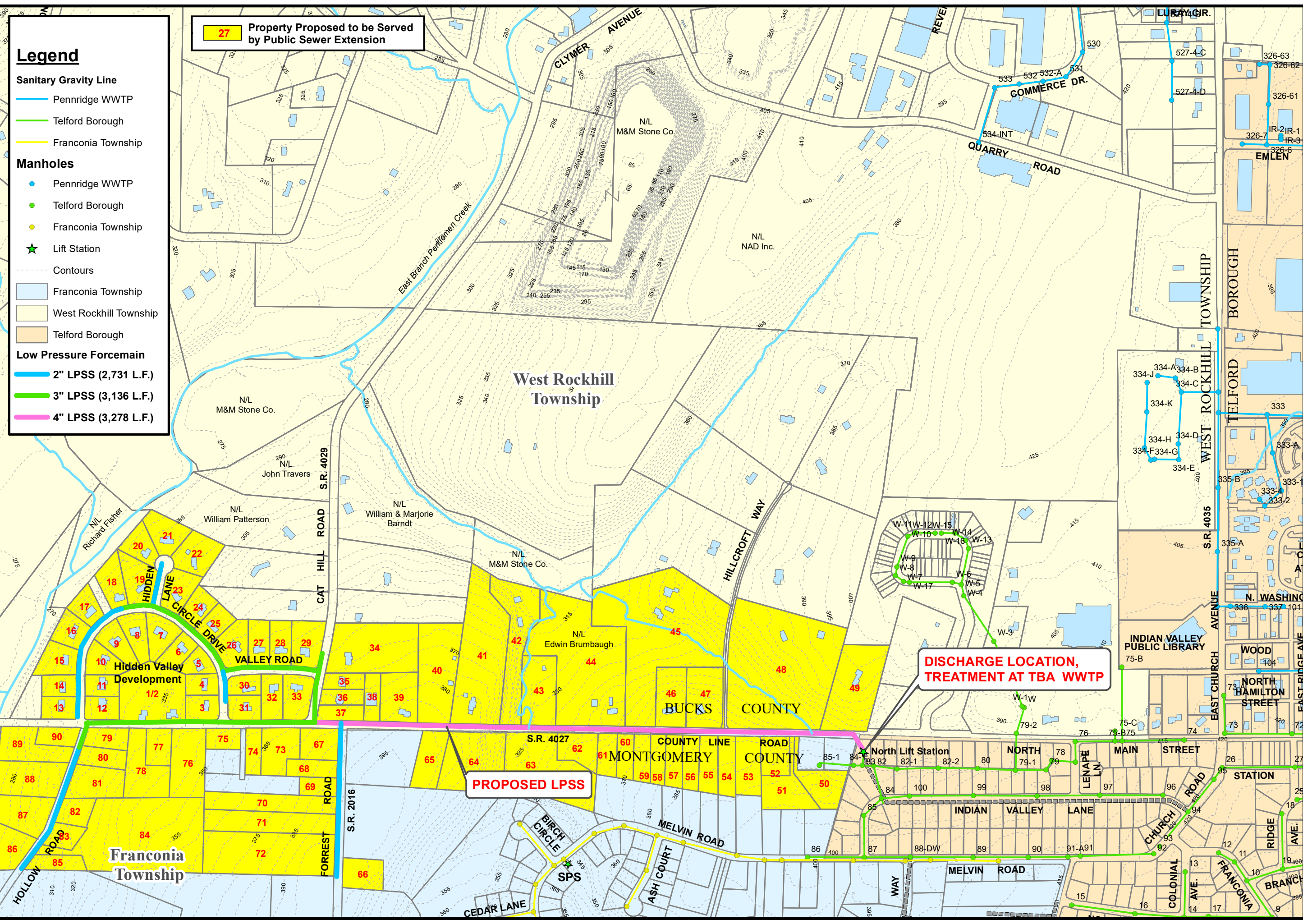
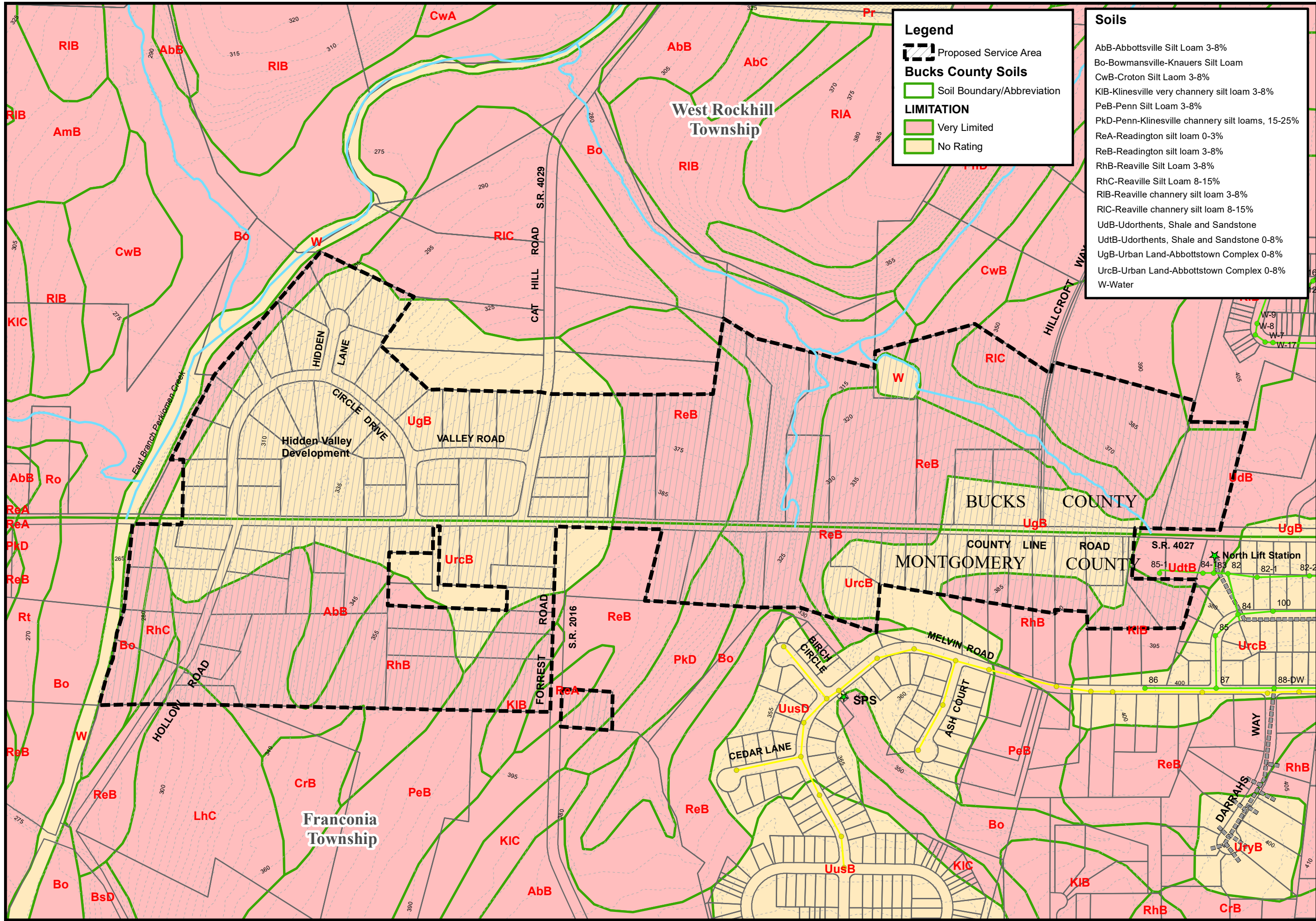


Exhibit 1 - Public Sewer Service Exhibit

County Line Road Sanitary Sewer Project
 West Rockhill and Franconia Townships, Bucks and Montgomery Counties, Pa.



Legend

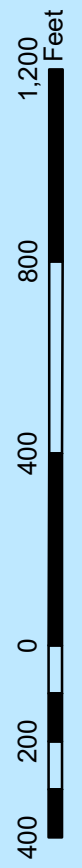
- Proposed Service Area
- Bucks County Soils**
- Soil Boundary/Abbreviation
- LIMITATION**
- Very Limited
- No Rating

Soils

- AbB-Abbotsville Silt Loam 3-8%
- Bo-Bowmansville-Knaurs Silt Loam
- CwB-Croton Silt Laom 3-8%
- KIB-Klivesville very channery silt loam 3-8%
- PeB-Penn Silt Loam 3-8%
- PkD-Penn-Klivesville channery silt loams, 15-25%
- ReA-Readington silt loam 0-3%
- ReB-Readington silt loam 3-8%
- RhB-Reaville Silt Loam 3-8%
- RhC-Reaville Silt Loam 8-15%
- RIB-Reaville channery silt loam 3-8%
- RIC-Reaville channery silt loam 8-15%
- UdB-Udorthents, Shale and Sandstone
- UdtB-Udorthents, Shale and Sandstone 0-8%
- UgB-Urban Land-Abbottstown Complex 0-8%
- UrcB-Urban Land-Abbottstown Complex 0-8%
- W-Water



Exhibit 2 - Soils Map
 Act 537 - Special Study for County Line Road Sanitary Sewer Project
 West Rockhill and Franconia Townships, Bucks and Montgomery Counties, Pa.



1 inch = 400 feet
 CKS Engineers
 REF. No.C0004598.00

APPENDIX B
PROJECT COST ESTIMATE

COUNTY LINE ROAD SANITARY SEWER PROJECT WEST ROCKHILL AND FRANCONIA TOWNSHIPS, PA ACT 537: SEWAGE FACILITIES PLANNING – SPECIAL STUDY CONSTRUCTION COST ESTIMATE				
CONSTRUCTION COST - PUBLIC				
ITEM NO.	DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
1	2" HDPE (SDR-11) Force Main (LPSS) within Township ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill of Launching and Receiving Pits	1,888 LF	\$47/LF	\$88,736
2	2" HDPE (SDR- 11) Force Main (LPSS) within State Highways ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill of Launching and Receiving Pits	843 LF	\$95/LF	\$80,085
3	3" HDPE (SDR-11) Force Main (LPSS) within State Highways ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill of Launching and Receiving Pits	1,718 LF	\$100/LF	\$171,800
4	3" HDPE (SDR-11) Force Main (LPSS) within Township ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill of Launching and Receiving Pits	1,418 LF	\$50/LF	\$70,900
5	4" HDPE (SDR-11) Force Main (LPSS) within State Highways ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill of Launching and Receiving Pits	3,278 LF	\$110/LF	\$360,580
6	1-1/4" HDPE (SDR-11) Force Main (LPSS) Lateral within Unimproved Township ROW, Including Excavation and Backfill	550 LF	\$50/LF	\$27,500
7	1-1/4" HDPE (SDR-11) Force Main (LPSS) Lateral within Paved Township Roadways, Including Excavation and Backfill	550 LF	\$70/LF	\$38,500
8	1-1/4" HDPE (SDR-11) Force Main (LPSS) Lateral within Paved State Highways, Including Excavation and Backfill	525 LF	\$75/LF	\$39,375
9	1-1/4" HDPE (SDR-11) Force Main (LPSS) Lateral within Unimproved State Highway Right-of-way, Including Excavation and Backfill	525 LF	\$55/LF	\$28,875
10	Force Main Pipe Connection and Alterations to Existing Manhole	1 EA	\$5,500/EA	\$5,500
11	LPSS Lateral Assembly Kit for Individual Force Main	90 EA	\$900/EA	\$81,000

ITEM NO.	DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
12	Lateral Connections to Force Main	90 EA	\$1,200/EA	\$108,000
13	Terminal Flushing Connection, Complete in Place	6 EA	\$7,000/EA	\$42,000
14	Intermediate Flushing Connection, Complete in Place	2 EA	\$10,000/EA	\$20,000
15	3-Way Flushing Connection, Complete in Place	5 EA	\$13,500/EA	\$67,500
16	Air Release Chamber, Complete in Place	2 EA	\$18,000/EA	\$36,000
17	Temporary Pavement Restoration	260 SY	\$20/SY	\$5,200
18	Permanent Pavement Restoration in Township Road	266 SY	\$90/SY	\$23,940
19	Permanent Pavement Restoration State Highway	165 SY	\$100/SY	\$16,500
20	Mill and Overlay State Highway	4,849 SY	\$15/SY	\$72,736
21	Unimproved Area Restoration	555 SY	\$20/SY	\$11,100
22	Traffic Control	LS	LS	\$20,000
23	Erosion and Sedimentation Controls	LS	LS	\$10,000
24	Unclassified Trench Excavation Below Subgrade	50 CY	\$100/CY	\$5,000
25	Excavations as Directed by Engineer	50 CY	\$100/CY	\$5,000
TOTAL CONSTRUCTION COST - PUBLIC				\$1,435,827
CONSTRUCTION COST - PRIVATE				
26	Individual Grinder Pump System, Including Installation and Modifications/ Connection to Existing Building Sewer	90 EA	\$9,600/EA	\$864,000
27	1-1/4" (Sch 40) PVC Individual Force Main Lateral – Grinder Pump to Lateral Connection	90 EA	\$1,500/EA	\$135,000
28	Abandonment of OLDS	90 EA	\$1,000/ EA	\$90,000
TOTAL CONSTRUCTION COST - PRIVATE				\$1,089,000
TOTAL PROJECT COSTS				
TOTAL PROJECT – CONSTRUCTION COST				\$2,524,827
5% CONTINGENCIES				\$126,241
TOTAL CONSTRUCTION COSTS				\$2,651,068
ENGINEERING DESIGN/PERMITTING/PREPARATION OF BID DOCUMENTS (10% OF CONSTRUCTION)				\$265,107
CONSTRUCTION MANAGEMENT AND INSPECTION (10% OF CONSTRUCTION)				\$265,107
TOTAL PROJECT COST				\$3,181,282

Note: The above is an ESTIMATE of costs and not actual project costs. Actual costs will not be known until project construction.

**APPENDIX C
PUBLIC NOTICES AND PUBLIC COMMENTS
(NO RESPONSES RECEIVED)**

NOTICE

NOTICE IS HEREBY GIVEN that the “Township of West Rockhill, Bucks County, Pennsylvania, Act 537 Sewage Facilities Planning – Special Study” is available for review and comment by the public on January 2nd, 2024, through February 2nd, 2024. This Special Study provides the planning necessary for the County Line Road Sanitary Sewer Project. The project proposes the extension of public sewers to serve portions of County Line Road (SR 4027), Circle Drive, Hidden Valley Lane, and Valley Road. In addition, the project area includes a portion of Franconia Township located along County Line Road (SR 4027), Hollow Road, and Forrest Road (SR 2016) within the Township. The extension will involve the construction of a Low Pressure Sewer System (LPSS) consisting of force main piping and individual gravity pumping systems. The Special Study is available for inspection at the West Rockhill Township Municipal Building located at 1028 Ridge Road, Sellersville, PA 18960. Written comments on the proposed Act 537 Sewage Facilities – Special Study will be accepted by the Township at the same address.

Greg Lippincott
Township Manager

PHILADELPHIA GROUP

AFFIDAVIT OF PUBLICATION
390 Eagleview Boulevard • Exton, PA 19341

WEST ROCKHILL TWP.
1028 RIDGE RD.
SELLERSVILLE, PA 18960
Attention:

STATE OF PENNSYLVANIA,

NOTICE

The undersigned Richard L. Crowe, being duly sworn the he/she is the principal clerk of News-Herald, Montgomery News Digital, published in Montgomery County for the dissemination of local or transmitted news and intelligence of a general character, which are duly qualified newspapers, and the annexed hereto is a copy of certain order, notice, publication or advertisement of:

NOTICE IS HEREBY GIVEN that the "Township of West Rockhill, Bucks County, Pennsylvania, Act 537 Sewage Facilities Planning - Special Study" is available for review and comment by the public on January 2nd, 2024, through February 2nd, 2024. This Special Study provides the planning necessary for the County Line Road Sanitary Sewer Project. The project proposes the extension of public sewers to serve portions of County Line Road (SR 4027), Circle Drive, Hidden Valley Lane, and Valley Road. In addition, the project area includes a portion of Franconia Township located along County Line Road (SR 4027), Hollow Road, and Forrest Road (SR 2016) within the Township. The extension will involve the construction of a Low Pressure Sewer System (LPSS) consisting of force main piping and individual gravity pumping systems. The Special Study is available for inspection at the West Rockhill Township Municipal Building located at 1028 Ridge Road, Sellersville, PA 18960. Written comments on the proposed Act 537 Sewage Facilities - Special Study will be accepted by the Township at the same address.

Greg Lippincott
Township Manager
NH - Dec 31 -1a

WEST ROCKHILL TWP.

Published in the following edition(s):

News-Herald, Montgomery News Digital
12/31/23

Sworn to the subscribed before me this 2/6/24.

Maureen Schward

Notary Public, State of Pennsylvania
Acting in County of Montgomery

Commonwealth of Pennsylvania - Notary Seal
MAUREEN SCHWARD, Notary Public
Montgomery County
My Commission Expires March 31, 2025
Commission Number 1248132

Advertisement Information

Client Id: 882859 Ad Id: 2552008 PO: Sales Person: 093301

NOTICE

NOTICE IS HEREBY GIVEN that the “Township of Franconia, Montgomery County, Pennsylvania, Act 537 Sewage Facilities Planning – Special Study” is available for review and comment by the public on December 8th, 2023, through January 10th, 2024. This Special Study provides the planning necessary for the County Line Road Sanitary Sewer Project. The project proposes the extension of public sewers to serve portions of County Line Road (SR 4027), Hollow Road, and Forrest Road (SR 2016). In addition, the project area includes a portion of West Rockhill Township located along County Line Road (SR 4027), Circle Drive, Hidden Valley Lane, and Valley Road within the Township. The extension will involve the construction of a Low Pressure Sewer System (LPSS) consisting of force main piping and individual gravity pumping systems. The Special Study is available for inspection at the Franconia Township Municipal Building located at 671 Allentown Road, Telford, PA 18969. Written comments on the proposed Act 537 Sewage Facilities – Special Study will be accepted by the Township at the same address.

Jon Hammer
Township Manager

PHILADELPHIA GROUP

AFFIDAVIT OF PUBLICATION
390 Eagleview Boulevard • Exton, PA 19341

FRANCONIA TWP LEGALS
671 ALLENTOWN ROAD
TELFORD, PA 18969-2205
Attention:

STATE OF PENNSYLVANIA,

NOTICE

The undersigned Richard L. Crowe, being duly sworn the he/she is the principal clerk of The Reporter, The Reporter Digital, published in Montgomery County for the dissemination of local or transmitted news and intelligence of a general character, which are duly qualified newspapers, and the annexed hereto is a copy of certain order, notice, publication or advertisement of:

NOTICE IS HEREBY GIVEN that the "Township of Franconia, Montgomery County, Pennsylvania, Act 537 Sewage Facilities Planning - Special Study" is available for review and comment by the public on --December 8th, 2023, through January 10th, 2024. This Special Study provides the planning necessary for the County Line Road Sanitary Sewer Project. The project proposes the extension of public sewers to serve portions of County Line Road (SR 4027), Hollow Road, and Forrest Road (SR 2016). In addition, the project area includes a portion of West Rockhill Township located along County Line Road (SR 4027), Circle Drive, Hidden Valley Lane, and Valley Road within the Township. The extension will involve the construction of a Low Pressure Sewer System (LPSS) consisting of force main piping and individual gravity pumping systems. The Special Study is available for inspection at the Franconia Township Municipal Building located at 671 Allentown Road, Telford, PA 18969. Written comments on the proposed Act 537 Sewage Facilities - Special Study will be accepted by the Township at the same address.

Jon Hammer
Township Manager
LAN: Dec. 5. a-1

FRANCONIA TWP LEGALS

Published in the following edition(s):

The Reporter, The Reporter Digital
12/05/23

Sworn to the subscribed before me this 12/5/23.

Maureen Schmid

Notary Public, State of Pennsylvania
Acting in County of Montgomery

Commonwealth of Pennsylvania - Notary Seal
MAUREEN SCHMID, Notary Public
Montgomery County
My Commission Expires March 31, 2025
Commission Number 1248132

Advertisement Information

Client Id: 881349 **Ad Id:** 2545441 **PO:** Act 537: Sewage **Sales Person:** 063308

APPENDIX D
MUNICIPAL ADOPTION RESOLUTIONS

RESOLUTION NO. _____

**TOWNSHIP OF WEST ROCKHILL
BUCKS COUNTY, PENNSYLVANIA**

(hereinafter referred to as “the Municipality”)

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the “Pennsylvania Sewage Facilities Act,” as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the Municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the Municipality, and

WHEREAS, the Township of West Rockhill has prepared an Act 537 Sewage Facilities Planning – Special Study which provides for the extension of public sewers to serve the Hidden Valley and County Line Road (S.R. 4027) areas of the Township. The project is located in the southwest corner of West Rockhill Township and includes a portion of Circle Drive, Hidden Lane, and Valley Road. In addition, the project area includes a portion of Franconia Township located along County Line Road (S.R. 4027), Hollow Road, and Forrest Road (S.R. 2016). The area contains a total of 90 dwelling units to be potentially served throughout 89 parcels. The area is currently served by On-Lot Disposal Systems (OLDS). Public sewer service to the area will be provided through a Low-Pressure Sewer System (LPSS) consisting of force main pipe and ninety (90) individual grinder pumping systems. The low-pressure force main will extend throughout the area and discharge to an existing manhole (No. 84-1) located at the North Lift Station located along County Line Road (S.R. 4027). From there, sewage will be conveyed to the Telford Borough Authority’s (TBA) Wastewater Treatment Plant for treatment. Construction will also involve lateral connections to all homes, abandonment of on-lot disposal systems (OLDS), and road restoration.

WHEREAS, the Township of West Rockhill finds that the Special Study described above conforms to applicable zoning, subdivision, other municipal ordinances and plans, and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of West Rockhill Township hereby adopt and submit to the Department of Environmental Protection for its approval as an update and revision to the “Official Plan” of the Municipality, the above-referenced Sewage Facilities Planning – Special Study. The Township hereby assures the Department of the complete and timely implementation of the said plan as required by law. (Section 5, Pennsylvania Sewage Facilities Act as amended.)

ADOPTED as a resolution by the Board of Supervisors of West Rockhill this ____ day of _____, 2024.

WEST ROCKHILL TOWNSHIP BOARD OF SUPERVISORS

RESOLUTION NO. _____

**TOWNSHIP OF FRANCONIA
MONTGOMERY COUNTY, PENNSYLVANIA**

(hereinafter referred to as “the Municipality”)

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the “Pennsylvania Sewage Facilities Act,” as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the Municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the Municipality, and

WHEREAS, the Township of Franconia has prepared an Act 537 Sewage Facilities Planning – Special Study which provides for the extension of public sewers to serve the County Line Road (S.R. 4027) area of the Township. The project is located on the northern border of the Township along County Line Road (S.R. 4027), Hollow Road, and Forrest Road (S.R. 2016). In addition, the project area includes a portion of West Rockhill Township located along Circle Drive, Hidden Lane, and Valley Road. The area contains a total of 90 dwelling units to be potentially served throughout 89 parcels. The area is currently served by On-Lot Disposal Systems (OLDS). Public sewer service to the area will be provided through a Low-Pressure Sewer System (LPSS) consisting of force main pipe and ninety (90) individual grinder pumping systems. The low-pressure force main will extend throughout the area and discharge to an existing manhole (No. 84-1) located at the North Lift Station located along County Line Road (S.R. 4027). From there, sewage will be conveyed to the Telford Borough Authority’s (TBA) Wastewater Treatment Plant for treatment. Construction will also involve lateral connections to all homes, abandonment of on-lot disposal systems (OLDS), and road restoration.

WHEREAS, the Township of Franconia find that the Special Study described above conforms to applicable zoning, subdivision, other municipal ordinances and plans, and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of Franconia Township hereby adopt and submit to the Department of Environmental Protection for its approval as an update and revision to the “Official Plan” of the Municipality, the above-referenced Sewage Facilities Planning – Special Study. The Township hereby assures the Department of the complete and timely implementation of the said plan as required by law. (Section 5, Pennsylvania Sewage Facilities Act as amended.)

ADOPTED as a resolution by the Board of Supervisors of Franconia this ____ day of _____, 2024.

FRANCONIA TOWNSHIP BOARD OF SUPERVISORS

APPENDIX E
LOCAL AND COUNTY AGENCY REVIEWS

**West Rockhill Township
Planning Commission Minutes
December 12 2023**

CALL TO ORDER:

The West Rockhill Township Planning Commission (PC) Meeting was called to order by Chairman Chris Derstine at 7:00PM. This meeting is being recorded, and at its conclusion, Mr. Lippincott will post the recording on the Township's YouTube Channel; a link to the recording can be found on the Township's website at www.westrockhilltownship.org.

ROLL CALL OF TOWNSHIP OFFICIALS:

PC Members – Chris Derstine, Tim Ruth, Andrew Yench, John Sweriduk, and PC Alternate Member Tony Boegner. Alex Ulmer was not in attendance. Also present were Township Engineer Steve Baluh, and Township Bookkeeper Sheri Tempesta.

APPROVAL OF MINUTES – November 14, 2023 PLANNING COMMISSION MEETING:

Motion was made by Mr. Yench, seconded by Mr. Ruth, and carried unanimously to approve the minutes of the November 14, 2023 Planning Commission meeting, as written. There was no public comment.

1. COUNTY LINE RD. SANITARY SEWER PROJECT – ACT 537 SEWAGE FACILITIES PLANNING SPECIAL STUDY – TBA

– Mr. Kyle Detweiler, Telford Borough Manager/Telford Borough Authority Manager, presented a brief overview of the proposed County Line Road Sanitary Sewer Project, which is required to extend public sewer service to portions of WRT and Franconia Township in the vicinity of County Line Road and north of Telford Borough. This includes the Hidden Valley residential neighborhood on the east side of County Line Road within WRT, and the Hollow Road/Forrest Road neighborhood located west of County Line Road in Franconia Township. The project proposes the extension of TBA's public sewer system, however due to the existing topography of the area, a sewer extension cannot be constructed by gravity alone. Therefore, sewage must either be pumped by means of a sewage pumping station, or conveyance through a low pressure sanitary sewer system, which involves individual grinder pumps at each dwelling unit to connect to the nearest existing public sewer system. The area in question contains a total of 86 dwellings, and consists of older homes with poor drainage due to local soils. As a result, many of the existing on-lot disposal systems are failing and/or require a high frequency of pumping. These failures threaten to pollute the individual private wells in the area, as well as to the nearby Perkiomen Creek. The complete presentation document is available for public review at the Township office. Lengthy discussion took place.

***Please note that while Mr. Derstine called for Public Comment, individuals did not approach the podium to speak into the microphone, and therefore, their comments were inaudible and unable to be transcribed.**

Motion was made by Mr. Yench, seconded by Mr. Sweriduk, and carried unanimously to recommend approval of the Telford Borough Authority County Line Road Sanitary Sewer Project Act 537 Sewage Facilities Planning Special Study area, consistent with the Act 537 Plan, as noted above. There was no public comment.

2. WAWA (LD 635) – The applicant proposes a lot line adjustment subdivision to reconfigure two properties located along Meetinghouse Road, extending from State Road to Old State Road. The combined property area is 5.1 acres and is located within the Planned Industrial (PI) Zoning District. TMP #52-018-011 (Blum) contains a residences and outbuildings. TMP #52-011-012 (Detweiler) is vacant. Proposed Lot #1, 4.24 acres net in area, is located at State Road/Meetinghouse Road intersection and is proposed to be developed with a Wawa convenience store (6,049 SF) with fuel service (16 stations). Entrances are proposed on both State Road and Meetinghouse Road. Lot #2 is 0.87 acres net in area located at the intersection of Old State Road/Meetinghouse Road and contains an existing residences

and outbuildings. No development is proposed on Lot #2. Mr. Baluh's December 7, 2023 review was discussed. Ms. Julie Von Spreckelsen, the applicant's legal counsel, was in attendance to present the plan, along with Mr. Mike Cooley of Provco Pineville Acquisition, and others who were not identified.

Lengthy discussion took place regarding the sidewalks as noted in Item #8 of Mr. Baluh's review, which are currently proposed to be installed along Meetinghouse Road on the frontage of Lot #1 and along a portion of Old State Road to the intersection of Meetinghouse and Old State Roads. Mr. Ruth would prefer that the sidewalk be proposed along Meetinghouse Road and State Road, not necessarily along Old State Road. Mr. Derstine recalls that the applicant originally sought a waiver from sidewalk along State Road due to the grading issues, and rather than provide a fee in-lieu-of for that sidewalk, they offered a 'trade-off' with a walking path through the rear of the site out to Old State Road. The PC would prefer sidewalks along State Road, and eliminating the walking path out to Old State Road.

With respect to EV charging spaces, Mr. Cooley noted that the options for their location includes either on the Meetinghouse Road side of the property by the trash enclosure, or in the alternative, placing those spaces on either side of the landscape island. Mr. Ruth suggested they be placed in the rear of the site near where the trees are located.

The PC considered the revised Waiver Request letter dated December 11, 2023; a copy of which is available for public review. Following earlier discussion this evening, Ms. Von Spreckelsen commented that Waiver Request #3, will be revised to request waiver of sidewalks and/or pedestrian/bicycle paths along Old State Road only.

***Please note that while Mr. Derstine once again called for Public Comment, individuals did not approach the podium to speak into the microphone, and therefore, their comments were inaudible and unable to be transcribed.** From the audible responses from the applicant, it appears that much of the Public Comment focused on traffic issues, truck turning lanes, and Meetinghouse Road widening.

Motion was made by Mr. Ruth, seconded by Mr. Yench, and carried unanimously to recommend approval of the waivers as outlined in the December 11, 2023 revised Waiver Request letter for the Wawa (LD 635), subject to the change to Waiver Request #3 requesting waiver of sidewalks and/or pedestrian/bicycle paths along Old State Road only, as noted above. There was no public comment.

Motion was made by Mr. Yench, seconded by Mr. Derstine, and carried unanimously to recommend conditional Preliminary/Final Plan approval to the Wawa Land Development (LD 635), pending satisfactory completion of all outstanding items as noted in Mr. Baluh's December 7, 2023 review. There was no public comment.

BUTTER CREEK BUILDERS – TIM SNYDER (LD 505) – Mr. Tim Snyder, along with his engineer, Mr. Ken Justice, were in attendance to present the plan. The latest plan dated June 10, 2023 and received by the Township on November 6, 2023, revises the prior 13-lot subdivision for this property, which was granted conditional final approval via Resolution #2005-24. Subsequently, several sketch plans were submitted for review with various lot and street configurations. The current plan includes a 6 lot layout with no new street. The current plan set does not include complete subdivision plan design/detail requirements and is intended to solicit comment on the general lot configuration/design. The property is located in the RC Zoning District, and single-family dwellings (Use B-1) continues as the proposed use. No new street is proposed with this application. Each of the proposed lots maintain frontage along Camp Rockhill Road and/or Butter Creek Road; however all driveway access is proposed from Camp Rockhill Road. Lot sizes vary from 3.94 acres to 9.39 acres (net) in area. Lots are to be served by onsite sewage disposal systems and wells Mr. Baluh's most recent review dated December 5, 2023 was discussed.

Shared driveways are proposed to serve Lots #1/#2, Lots #3/#4, and Lots #5/#6, and the length of the shared driveways extend varying distances past the right-of-way. Mr. Baluh's review notes that shared driveways are generally not desired by the Township due to ownership and maintenance issues between property owners. The driveways could be separated onto the respective lot 'poles,' however certain

separation and other dimensional requirements may not be achieved in the 15 ft. wide ‘poles’ proposed for Lots #2, #3, and #4. Following lengthy discussion, the PC was not in favor of the use of shared driveways. Mr. Derstine would be less concerned if there was a way to mitigate at least some of the shared driveways, perhaps Lots #5 & #6. Mr. Baluh suggested Solicitor Eberle could provide better insight on any potential pitfalls or triggering mechanisms with a shared driveway agreement

Discussion took place regarding proposed street improvements, such as curb and sidewalk along the site frontage, and the other waiver requests. Mr. Ruth and Mr. Derstine did not see a need for curb and sidewalk along the site frontage. There being no further comments, the plan was tabled and no action was taken by the PC.

***Please note that since Mr. Snyder did not approach the podium to speak, his comments were inaudible and unable to be transcribed.**

OLD BUSINESS:

1. Mr. Baluh explained that the Select Properties Forrest Road/Tower Road projects have been separated by the applicant because they wish to address the lot line adjustment plan (now known as “LD 651 – Forrest Road Annexation”) first, prior to addressing the originally submitted Select Properties Tower/Forrest Roads sketch plan (LD 646).
2. In response to inaudible comments from the public, Mr. Baluh and the Planning Commission briefly discussed the recently submitted preliminary plan for Select Properties Lawn Ave. (LD 637). The neighbors were directed to contact the Township office to inquire about viewing the preliminary plan submission. Mr. Baluh explained the sketch plan, preliminary plan, final plan submission and review process.

NEW BUSINESS: None.

PUBLIC COMMENT: *Please note that none of the residents who wished to make Public Comment approached the podium to speak and therefore, their comments were inaudible and unable to be transcribed.

ADJOURNMENT: There being no further business, a motion for adjournment of the December 12, 2023 West Rockhill Township Planning Commission meeting was made by Mr. Sweriduk, seconded by Mr. Derstine, and carried unanimously at 9:35PM.

Respectfully submitted,

Lynda Seimes
Administrative Assistant/Recording Secretary



The Almshouse Neshaminy Manor Center 1260 Almshouse Road
Doylestown, Pennsylvania 18901 215.345.3400 FAX 215.345.3886
E-mail: planningcommission@buckscounty.org

PLANNING COMMISSION:

Edward J. Tokmajian, *Chairman*
James E. Miller Jr., *Vice Chairman*
James J. Keenan, *Secretary*

Eleanor M. Breslin
Richard Donovan
Thomas J. Jennings, Esq.
David R. Nyman
Judith J. Reiss
Tom Tosti

Evan J. Stone
Executive Director

MEMORANDUM

To: West Rockhill Township Board of Supervisors
West Rockhill Township Planning Commission

From: Bucks County Planning Commission

Date: February 7, 2024

Subject: BCPC #52-24-WS1
Proposal for an Update to the Official Act 537 Sewage Facilities Plan
Applicant: Board of Supervisors
Date Received: January 8, 2024
Hearing Date: Not indicated

In accordance with the provisions of the Pennsylvania Sewage Facilities Planning Act (Act 537) and Section 304 of the Pennsylvania Municipalities Planning Code, this proposal was sent to the Bucks County Planning Commission for review. The following review has been prepared by the staff and endorsed by the Bucks County Planning Commission at its meeting on February 7, 2024.

GENERAL INFORMATION

Proposed Action: Update the township's official sewage facilities plan (*Sewage Facilities Plan, West Rockhill Township, Bucks County, Pennsylvania (2011)*) to include a special study (*County Line Road Sanitary Sewer Project Act 537 Sewage Facilities Planning – Special Study*). The County Line Road Sanitary Sewer Project proposes the extension of Telford Borough Authority's (TBA) public sewer system to serve the County Line Road area of West Rockhill Township in Bucks County and Franconia Township in Montgomery County. The area consists of 86 dwelling units on 85 parcels, 40 of which are in West Rockhill Township, and includes the Hidden Valley residential neighborhood. The area is currently served by individual on-lot disposal systems (OLDS), which, due to the topography of the site, cannot utilize gravity alone. The existing OLDS utilize sewage pumping stations (SPS) or low-pressure sanitary sewer systems (LPSS), which involve individual grinder pumps at each dwelling unit to connect to the nearest existing public sewer system. The area consists of older homes and has poor drainage due to local soils, resulting in many of the OLDS requiring a high frequency of pumping, or failing, which threatens to pollute the wells in the area.

The project proposes to provide public sewer service to the County Line Road area through the construction of a low-pressure sewer system (LPSS), consisting of 9,251 linear feet of piping and 86 individual grinder pumping systems, eliminating OLDS failures and providing reliable public service. The system will discharge directly to the TBA's North Lift Station then convey flows to the TBA's wastewater treatment plant for treatment.



COMMENTS

We commend the township officials for undertaking this update of the township's official sewage facilities plan to provide a public sewage system to the County Line Road area of West Rockhill. The special study is intended to be supplemental to the township's existing sewage planning documents and proposes no changes to the evaluation or planning of existing or future sewage disposal capacity or infrastructure.

Once the plan is approved by the Pennsylvania Department of Environmental Protection, we request that the township send a final copy of the Act 537 plan update to the Bucks County Planning Commission in accordance with Section 306.(b) of the Pennsylvania Municipalities Planning Code.

DM:emh
24-0398

cc: Patrick P. DiGangi, PE, CKS Engineers (via email)
Genevie Kostick, BCDH (via email)
Elizabeth Mahoney, PaDEP (via email)
Mary Eberle, Esq., Grim, Biehn & Thatcher, Township Solicitor (via email)
Greg Lippincott, Township Manager (via email)
Jon Hammer, Manager, Franconia Township (via email)
Act 537 File (via email)



COUNTY OF BUCKS

DEPARTMENT OF HEALTH

Neshaminy Manor Center, 1282 Almshouse Road, Doylestown, PA 18901 - 215-345-3318

FIELD OFFICES

Bucks County Government Services Center, 7321 New Falls Road, Levittown, PA 19055 – 267-580-3510
Bucks County Government Services Center, 261 California Road, Suite #2, Quakertown, PA 18951 – 215-529-7000

County Commissioners

DIANE M. ELLIS-MARSEGLIA, LCSW, Chair
ROBERT J. HARVIE, JR., Vice-Chair
GENE DIGIROLAMO, COMMISSIONER

Director

DAVID C. DAMSKER, M.D., M.P.H.

January 31, 2024

Patrick P. DiGandi, P.E.
CKS Engineers
4259 W Swamp Road
Suite 410
Doylestown, PA 18901

RE: Act 537 Plan Special Study
Telford Borough Authority, Bucks County
County Line Road Sanitary Sewer Project

Dear Mr. DiGandi:

Please be advised that this Department has received the Telford Borough Authority Act 537 Sewage Facilities Planning - Special Study for the County Line Road Sanitary Sewer Project. The Special Study proposes the extension of public sewers into areas of West Rockhill Township that have had a history of failing on-lot septic systems.

This Department has reviewed the Act 537 Special Study and supports the Authority's extension of public sewer to 45 properties within West Rockhill Township. Delineating new septic systems area or maintaining existing septic systems on these lots are challenging due to lot sizes, age of existing septic systems and marginal soils.

If you have any questions or comments, feel free to contact me at (215)345-3333.

Sincerely,

Genevie A. Kostick, Supervisor
Sewage Program Coordinator
Bucks County Department of Health

cc: Dr. David C. Damsker (via email)

Mr. Keith Kneipp called the Regular Meeting of the Franconia Township Planning Commission to order at 7:00 pm on Monday, December 4th, 2023. Planning Commission Members present included Keith Kneipp, Doug Worley, Steve Barndt, Paul Nice, John Medendorp, George Balzer and Nancy Shelly. Director of Administration and Community Development Beth T. Gooch, and Township Engineer Tim Wallace were also present.

APPROVAL OF MINUTES

Chairman Kneipp asked if there were any comments or corrections to be made to the minutes from November 6, 2023. Hearing none, he asked for a motion to approve the minutes as submitted. The motion was made by Doug Worley and seconded by Steve Barndt. The motion carried, 7-0.

SUBDIVISION AND LAND DEVELOPMENT

OLD BUSINESS

(#01-23) Marcho Family, LP and R&J Marcho Family LP

Mr. Oliver Gingrich announced that revisions have been made to the proposed stormwater management and the remainder of the review letter is all minor plan changes. Mr. Scott McMackin stated that the new building in the center of the property is for storage and freezer space. It will be located on the paved area. The bottom right corner shows the small detention basin. The additional paved area from 10 years ago without permits is about 120,000 square feet. The plan shows enlarging the detention area and draining the entire building directly into the basin to make up for the additional paving that was installed. Paul Nice asked if it meets the required counts. Tim Wallace confirmed it meets the paving coverage counts and added that there is an additional waiver for the additional building proposed over that paving. Mr. McMackin went through the waivers including curbing for the parking lot, parking islands, property buffers and 20% on paved area to non-paved areas. There is a request for a deferral for road frontage improvements.

Mr. Gingrich stated that an agreement between Marcho, the school and Bergey's has been recorded to maintain the existing basin. Mr. Kneipp asked about the 20% waiver requirement. Mr. Wallace explained the offset for the paving and the water being captured in the new basin. The ordinance requires 20% over and above what is being installed. Mr. Medendorp asked if this has historically been granted. Mr. Wallace responded not to his knowledge the purpose is to try and improve beyond what is installed to capture some of what was installed prior to stormwater

management regulations. Mr. Medendorp questioned the hardship for the waiver request, concerned about setting a precedence moving forward. Mr. Gingrich responded that it keeps the project under the NPDES recruitment. Discussion took place concerning granting the waiver and how it would affect future neighboring projects. Since no calculations for the existing basin at the school could be located the plan handles additional stormwater management. The consensus of the Planning Commission is to recommend approval with the exception of this waiver request and let the Board of Supervisor's make that decision. Mr. Barndt made a motion to recommend conditional preliminary/final approval for all but the wavier from Section 122-26A(2)b. Mr. Worley seconded such motion and all voted in favor.

NEW BUSINESS

None

ZONING HEARING BOARD APPLICATIONS

Ms. Gooch informed the board that the application for 411 Cowpath Road is to construct a single-family dwelling on a non-conforming lot. Side yard variances and a building coverage variance are requested. A second application for 668 Harleysville Pike is for a grain storage bin that exceeds the 14-foot maximum height permitted. The third application is for the Souderton Area High School for synthetic fields and lights that will encroach into the setback requirements along Lower Road. The hearings are scheduled for Thursday December 7th at 7pm.

OTHER BUSINESS

ACT 537 Plan for County Line Road – Mr. Barndt made the motion to recommend approval. Mr. Nice seconded the motion and the motion carried.

2024 Meeting Dates – Ms. Gooch presented the proposed meeting dates and times for 2024 prior to advertisement.

NEXT SCHEDULED MEETING

The next scheduled meeting is Tuesday, January 2, 2024, at 7 p.m.

Mr. Worley made a motion to adjourn the meeting at 7:57 p.m. It was seconded by Mr. Nice, and all voted in favor.

Respectfully submitted,

Beth T. Gooch,

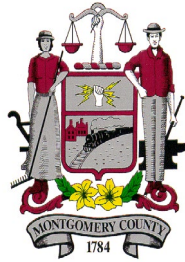
Director of Administration

and Community Development

**MONTGOMERY COUNTY
BOARD OF COMMISSIONERS**

JAMILA H. WINDER, CHAIR
NEIL K. MAKHIJA, VICE CHAIR
THOMAS DIBELLO, COMMISSIONER

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**MONTGOMERY COUNTY
PLANNING COMMISSION**

MONTGOMERY COUNTY COURTHOUSE • PO Box 311
NORRISTOWN, PA 19404-0311
610-278-3722

WWW.MONTGOMERYCOUNTYPA.GOV
SCOTT FRANCE, AICP
EXECUTIVE DIRECTOR

March 19, 2024

County Land Use Letter
County Line Road Sanitary Sewer Project
Telford Borough, Montgomery County

Patrick P. DiGangi, P.E.
CKS Engineers
4259 W. Swamp Road
Suite 410
Doylestown, PA 18902

Dear Mr. DiGangi:

We have received your letter regarding your intent to construct a sanitary force main system along County Line Road in Telford Borough. Our office has determined that your project is generally consistent with the recommendations of the Montgomery County Comprehensive Plan (adopted January 15, 2015) as long as all necessary steps are taken to ensure the environmental protection of the area.

The Montgomery County Planning Commission has participated in the completion of plans for 10 of its fourteen watersheds. The proposed project occurs within the Perkiomen Creek watershed which has an adopted Act 167 Plan (2009). That plan contained standards and criteria for stormwater control. The municipalities within the watershed were required by PADEP to incorporate these standards and criteria into their existing code. While there is not enough information accompanying this submission for us to comment on consistency with the Act 167 plan, we defer to the municipal engineer to ensure compliance with the plan.

In an effort to be more sustainable and respond more efficiently, we have moved this process to an electronic format. In case any issues may arise, we will be storing all correspondence electronically for at least a month after sending our response.

This letter serves as an official response in place of the Chapter 102 County Notification Form. Please contact me if you have any questions on the content of this letter.

Sincerely,

A handwritten signature in black ink that reads 'Ryan Lamberti'.

Ryan Lamberti
Environmental Planner II
Montgomery County Planning Commission
Ryan.Lamberti@montgomerycountypa.gov | www.montgomerycountypa.gov/planning
P: 610.278.3729 F: 610.278.3941

Patrick DiGangi

From: Pat DiGangi
Sent: Monday, February 5, 2024 5:32 PM
To: montcohhs@montgomerycountypa.gov
Cc: Kyle Detweiler (manager@telfordborough.org)
Subject: FW: Act 537 Sewage Facilities Planning – Special Study for the County Line Road Sanitary Sewer Project
Attachments: C0004598.00 CKS to MCHD-Miller 1-4-24.pdf; C0004598 Special Study Complete Sept 2023r1.pdf

Any update on this review? See below.

From: Pat DiGangi
Sent: Thursday, January 4, 2024 2:44 PM
To: montcohhs@montgomerycountypa.gov
Cc: Kyle Detweiler (manager@telfordborough.org) <manager@telfordborough.org>; Greg Lippincott <glippincott@westrockhilltownship.org>; Jon Hammer <jhammer@franconia-township.org>; George Witmayer <gwitmayer@franconia-township.org>
Subject: Act 537 Sewage Facilities Planning – Special Study for the County Line Road Sanitary Sewer Project

Ms. Miller,

On behalf of Telford Borough Authority and the Townships of West Rockhill and Franconia, CKS Engineers has prepared the above referenced Act 537 Sewage Facilities Planning – Special Study. This study plans for the extension of public sewer service along County Line Road into an area of the Townships currently served by OLDS that are failing. We request the Health Department review the study in accordance with PADEP requirements. If you have any questions during your review, please feel free to contact me.

Thank you,

Pat

Patrick P. DiGangi, P.E.
Vice President
pdigangi@cksengineers.com



4259 W. Swamp Road
Suite 410
Doylestown, PA 18902
www.cksengineers.com
215.340.0600

APPENDIX F CONSISTENCY DETERMINATION

APPENDIX F

CONSISTENCY DETERMINATION OF SELECTED ALTERNATIVE

A Consistency determination between the County Line Road Sanitary Sewer Project (selected alternative) and other programs has been performed and is outlined in Table 3 below. Consistency with other programs assures the selected alternative is appropriate and can be implemented. As indicated in the table, a review request has been submitted to the Pennsylvania Natural Diversity Inventory.

TABLE 3 CONSISTENCY DETERMINATION FOR SELECTED ALTERNATIVE			
POLICY	CONSISTENCY		COMMENTS
	YES	NO	
1. Comprehensive Water Quality Management Plans (COWAMP/208)	X		The County Line Road Sanitary Sewer Project meets the overall management plan goals of this area of the region.
2. Municipal Wasteload Management Plans (PA Code, Title 25, Chapter 94)	X		Capacity availability in sewage treatment plant, pumping stations, collection and conveyance lines proposed to handle additional wasteload as a result of this plan have been evaluated and addressed.
3. Title II Act 201 Plans	X		The County Line Road Sanitary Sewer Project meets the overall management study goals of this area of the region. Increases in flows to treatment facility from planning area will not affect treatment technologies.
4. Municipal Comprehensive Plans	X		This Special Study was prepared in accordance with the West Rockhill and Franconia Township Comprehensive Plan; and the land use objectives established by those plans.
5. Chapters 93, 95 and 102 Antidegradation Requirements	X		No discharge to special protection waters is proposed. Appropriate erosion and sedimentation control measures will be enforced during any construction activities. It is also important to note that implementation of this project will help protect the water quality of the Perkiomen Creek.

POLICY	CONSISTENCY		COMMENTS
	YES	NO	
6. State Water Plan	X		No significant water quantity or quality problems have been identified within the planning area. Potential well contamination incidents influenced by on-lot sewerage disposal system problems will be mitigated through public sewer service to the study area.
7. Prime Agricultural Land	X		The Soils Map contained in Appendix A identifies soil types within the study area. The County Line Road Sanitary Sewer Project will not impact existing Prime Agricultural Land.
8. Stormwater Management Plans	X		All construction activity associated with The County Line Road Sanitary Sewer Project will comply with West Rockhill and Franconia Township's Stormwater Management Ordinance and the requirements of Act 167 Watershed Stormwater Management Plans.
9. Wetland Protection	X		Wetland areas within the project area will be identified prior to construction. Encroachment permits will be obtained, if necessary, prior to construction of any new sewerage facilities.
10. PA Natural Diversity Inventory	X		See attached Exhibit. Any potential impacts will be addressed prior to construction.
11. Archaeological Protection	N/A		The Project is exempt from Pennsylvania Historical and Museum Commission notification according to "Appendix A 'DEP/PHMC List of Exemptions.'" The Project satisfies Activities 1 and 2 as well as meets their conditions.

1. PROJECT INFORMATION

Project Name: **County Line Sanitary Sewer Project**

Date of Review: **5/5/2023 11:39:18 AM**

Project Category: **Waste Transfer, Treatment, and Disposal, Liquid waste/Effluent, Sewer line (new - construction in new location)**

Project Area: **6.46 acres**

County(s): **Bucks; Montgomery**

Township/Municipality(s): **FRANCONIA TOWNSHIP; TELFORD; WEST ROCKHILL TOWNSHIP**

ZIP Code:

Quadrangle Name(s): **TELFORD**

Watersheds HUC 8: **Schuylkill**

Watersheds HUC 12: **East Branch Perkiomen Creek**

Decimal Degrees: **40.338418, -75.350290**

Degrees Minutes Seconds: **40° 20' 18.3044" N, 75° 21' 1.435" W**



2. SEARCH RESULTS

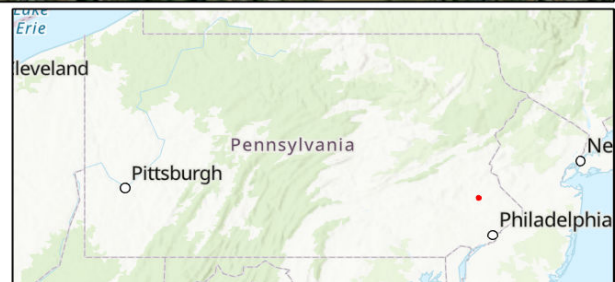
Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

County Line Sanitary Sewer Project

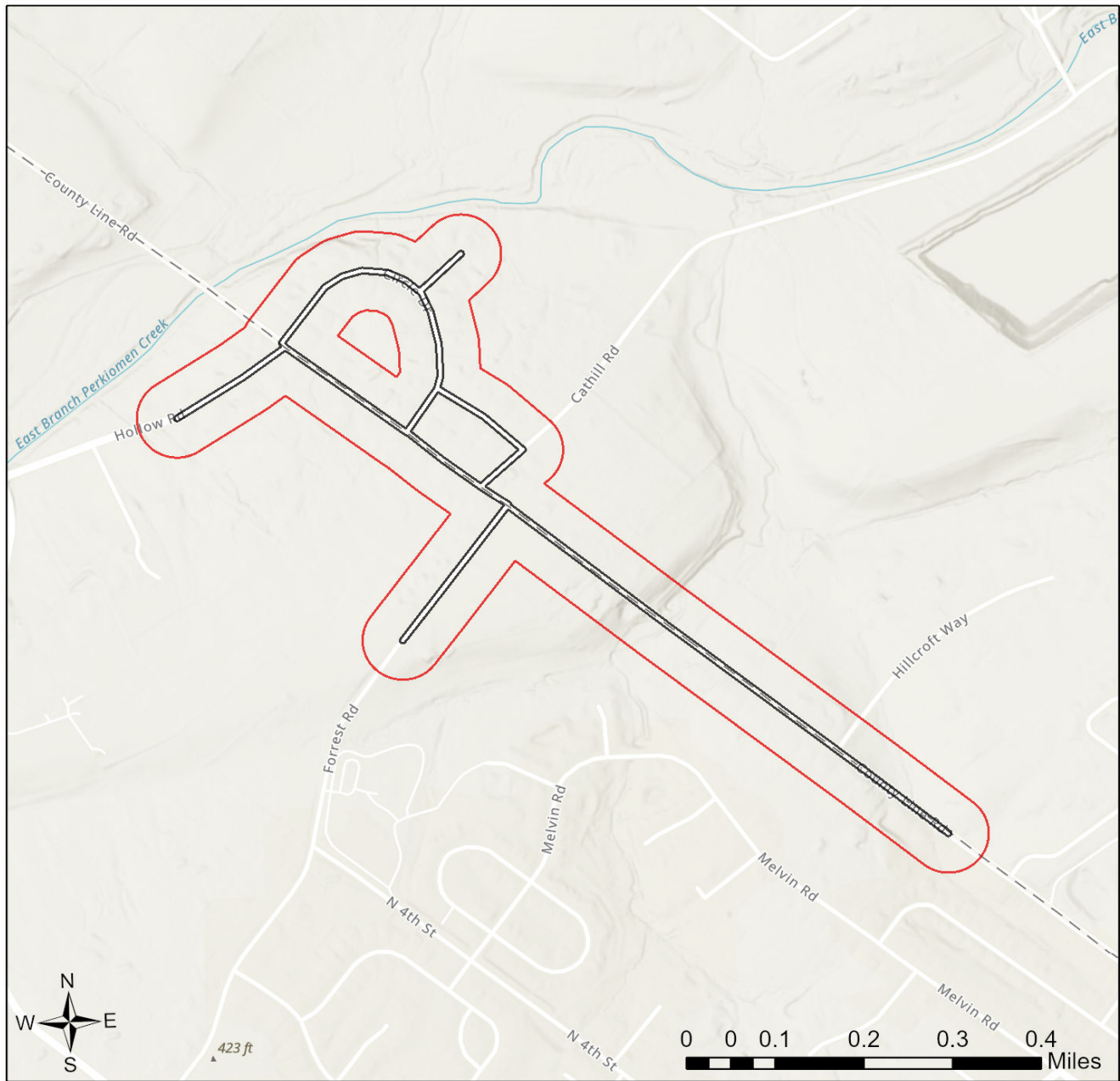




-  Buffered Project Boundary
-  Project Boundary



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

County Line Sanitary Sewer Project



-  Buffered Project Boundary
-  Project Boundary



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

RESPONSE TO QUESTION(S) ASKED

Q1: Accurately describe what is known about wetland presence in the project area or on the land parcel. "Project" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected -- either directly or indirectly -- by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.

Your answer is: The entire project will occur in or on an existing building, parking lot, driveway, road, road shoulder, street, runway, paved area, or railroad bed.

Q2: Accurately describe what is known about wetland presence in the project area or on the land parcel by selecting ONE of the following. "Project" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected -- either directly or indirectly -- by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.

Your answer is: Someone qualified to identify and delineate wetlands (holding a natural resource degree or equivalent work experience) has investigated the site, and determined that NO wetlands are located in or within 300 feet of the project area. (A written report from the wetland specialist, and detailed project maps should document this.)

Q3: Aquatic habitat (stream, river, lake, pond, etc.) is located on or adjacent to the subject property and project activities (including discharge) may occur within 300 feet of these habitats?

Your answer is: Yes

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

PFBC Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name	Common Name	Current Status
Sensitive Species**		Threatened

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email the following information to the agency(s) (see AGENCY CONTACT INFORMATION). Instructions for uploading project materials can be found [here](#). This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies (but not USFWS).

*If information was requested by USFWS, applicants must email, or mail, project information to IR1_ESPenn@fws.gov to initiate a review. USFWS will not accept uploaded project materials.

Check-list of Minimum Materials to be submitted:

___ Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

___ A map with the project boundary and/or a basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

In addition to the materials listed above, USFWS REQUIRES the following

___ **SIGNED** copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.

___ Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

___ Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.



5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
Email: IR1_ESPenn@fws.gov
NO Faxes Please

PA Game Commission

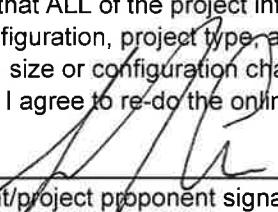
Bureau of Wildlife Management
Division of Environmental Review
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: John EVARTS
Company/Business Name: CKS ENGINEERS
Address: 4259 W. Swamp Road, Suite 410
City, State, Zip: Doylestown PA 18902
Phone: (215) 340-0600 Fax: ()
Email: JEVARTS@cksengineers.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.


applicant/project proponent signature

9/15/2023
date



May 15, 2023

IN REPLY REFER TO

SIR# 57993

CKS Engineers
Scott Heffelfinger
4259 W. Swamp Road
Doylestown, Pennsylvania 18902

**RE: Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species
PNDI Search No. 784524_1
County Line Sanitary Sewer Project
West Rockhill Township: BUCKS County - Franconia Township, Telford Borough:
MONTGOMERY County**

Dear Scott Heffelfinger:

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search “potential conflict” or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish and Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish and Boat Code (Chapter 75), or the Wildlife Code.

An element occurrence of a rare, candidate, threatened, or endangered species under our jurisdiction is known from the vicinity of the proposed project. However, given the nature of the proposed project, the immediate location, or the current status of the nearby element occurrence(s), no adverse impacts are expected to the species of special concern.

This response represents the most up-to-date summary of the PNDI data and our files and is valid for two (2) years from the date of this letter. An absence of recorded species information does not necessarily imply species absence. Our data files and the PNDI system are continuously being updated with species occurrence information. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered, and consultation shall be re-initiated.

If you have any questions regarding this review, please contact Kathy Gipe at 814-359-5186 or kgipe@pa.gov and refer to the SIR # 57993. Thank you for your cooperation and attention to this important matter of species conservation and habitat protection.

Sincerely,

A handwritten signature in black ink that reads "Christopher A. Urban". The signature is written in a cursive style with a large, prominent initial "C".

Christopher A. Urban, Chief
Natural Diversity Section

CAU//KDG/dn

**APPENDIX G
HIDDEN VALLEY SANITARY SEWER
FEASIBILITY STUDY**

**HIDDEN VALLEY
SANITARY SEWER FEASIBILITY STUDY**

**TELFORD BOROUGH AUTHORITY
50 PENN AVENUE
TELFORD, PA 18969**

**BUCKS AND MONTGOMERY COUNTIES
PENNSYLVANIA**

REFERENCE NO. 5700-145

NOVEMBER 15, 2022

Prepared by:

**CKS ENGINEERS, INC.
4259 W. SWAMP ROAD, SUITE 410
DOYLESTOWN, PA 18902
REF NO. 5700-145**

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SECTION II – OVERVIEW OF SANITARY SERVICE OPTIONS

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APPENDIX

PROJECT COST ESTIMATES

SANITARY SEWER SERVICE EXHIBITS

SECTION I – INTRODUCTION, PURPOSE, AND SCOPE

At the request of Telford Borough Authority, CKS Engineers has prepared a Sanitary Sewer Feasibility Study for the Hidden Valley residential neighborhood. The purpose of this study is to evaluate the feasibility of providing public sewer service to the existing Hidden Valley neighborhood and the surrounding area within West Rockhill Township. The study presents several options to service the area. These options include both Low Pressure Sanitary Sewer Systems (LPSS) and Gravity Sewer Systems. Basic design concepts and general cost estimates are offered. Probable costs are intended for budgetary purposes and are not based on preliminary design work.

The existing Hidden Valley residential neighborhood is located off of County Line Road within West Rockhill Township. Homes within the neighborhood are located along Circle Drive, Hidden Valley Lane, and Valley Road. The area is currently served by On-Lot Disposal Systems (OLDS) and includes thirty-three (33) single-family homes situated on thirty-two (32) properties. This area has been identified by the Township as needing public sewer service for many years. In addition, the Township has pointed out that they desire this area be served by public sewer in accordance with the 1977 intermunicipal agreement between the Township and Telford Borough Authority (TBA). The Hidden Valley neighborhood is located in TBA's service region 1 within the Township. As per the 1977 agreement, service into region 2 of the Township "shall not be established until it is the opinion of the (Township) Board of Supervisors that region 1 has been adequately serviced for both public water and sanitary sewer." This includes the Hidden Valley neighborhood. As a result, service into region 2, including the Almont area, is dependent on region 1, including the Hidden Valley neighborhood, being adequately served. In addition, Franconia Township has also expressed a desire for properties in the vicinity of the Hidden Valley neighborhood to be served by public sewers. These properties were identified by Franconia Township and are located along County Line Road (SR 4027), Hollow Road, and Forrest Road (SR 2016) within the Township. Further, CKS has also identified several additional properties that may potentially be served, depending on the service option selected. These include properties within both West Rockhill Township and the adjacent Franconia Township.

The Hidden Valley neighborhood is located along the south side of the East branch of the Perkiomen Creek. The grade of the entire neighborhood slopes toward the creek and away from the nearest public sanitary sewers which are located south of the neighborhood. Due to the existing topography, a sewer extension cannot be constructed by gravity alone. For example, the elevation located along County Line Road is approximately 105 feet higher than the lowest point within the Hidden Valley neighborhood. Therefore, sewage must either be pumped by means of a Sewage Pumping Station (SPS) or conveyed through a Low Pressure Sanitary Sewer System (LPSS) which involves individual grinder pumps at each dwelling unit to connect with the nearest existing public sewer system. Connection points evaluated for the two LPSS options include collection/conveyance systems discharging to the Telford WWTP. Connection to the collection/conveyance system discharging to the Penridge WWTP by a LPSS was also considered. However, due to the difference in elevation with connecting to that system and the "head" condition created, those options were determined to not be feasible. Connection points evaluated for the gravity sewer options include collection/conveyance systems discharging to either the Telford Wastewater Treatment Plant (WWTP) or the Penridge WWTP.

The following is a list of each of the sanitary sewer service options evaluated. These options include:

- Option 1 – Low Pressure Sanitary Sewer System (LPSS) and connection to TBA's North Lift Station.
- Option 2 – Low Pressure Sanitary Sewer System (LPSS) and connection in Birch Circle.
- Option 3 – Gravity Sewer with SPS and Force Main connection in North Hamilton Street.
- Option 4 – Gravity Sewer with SPS and Force Main connection in Birch Circle.

SECTION II – DESCRIPTION OF SANITARY SEWER SERVICE OPTIONS

A. LOW PRESSURE SEWER SYSTEM (LPSS) OPTIONS

1. Option No.1 - LPSS and Connection to TBA's North Lift Station

This option proposes servicing the Hidden Valley neighborhood through a Low Pressure Sewer System (LPSS) connecting to Telford Borough Authority's North Lift Station located along County Line Road. The proposed system includes approximately 9,251 linear feet of low pressure force main located within local and state road rights-of-way. Installation would be by directional drilling. The roadways include Circle Drive, Hidden Lane, Valley Road, Cat Hill Road (SR 4029), and County Line Road (SR 4027) within West Rockhill Township. The LPSS would also extend along Hollow Road and Forrest Road (SR2016) to serve properties within Franconia Township. Force mains have been preliminarily sized from 2 to 4 inch. The preliminary pipe sizes have been selected to maintain a minimum flow velocity of 2 fps within the pipe and a head pressure acceptable to the LPSS. This head pressure includes a static head of 105 feet due to the elevation difference throughout the area. The LPSS would discharge directly to TBA's existing North Lift Station and ultimately be conveyed to the TBA WWTP for treatment. CKS has preliminarily evaluated the capacity within the North Lift Station to handle the proposed additional flow and the station appears to have sufficient capacity. This option will serve the entire Hidden Valley neighborhood and allow for numerous additional connections in Franconia Township, plus some adjacent properties within West Rockhill Township located along County Line Road (SR 4027). This study has identified 86 potential connections. Individual grinder pumping stations and force main service laterals would be required at each individual property to connect. Included in the Appendix of this study is a Project Cost Estimate for this sanitary sewer option. Also included in the Appendix is an Exhibit Plan illustrating the concept of this sanitary sewer option.

2. Option No. 2 – LPSS and Connection in Birch Circle

This option proposes servicing the Hidden Valley neighborhood through a Low Pressure Sewer System (LPSS) connecting to the existing gravity sewer system in Birch Circle owned by Franconia Sewer Authority (FSA). The proposed system includes approximately 7,667 LF of 2 to 4 inch force main within local and state road rights-of-way. Installation would be by directional drilling. The roadways include Circle Drive, Hidden Lane, Valley Road, Cat Hill Road (SR 4029), and County Line Road (SR 4027) within West Rockhill Township and Hollow Road, and Forrest Road (SR2016) within Franconia Township. Further, the LPSS will extend through an unimproved property owned by Franconia Township (Tax Map ID No. 340001642016). Easement and associated agreements with Franconia Township and Franconia Sewer Authority (FSA) would be required. Both agencies are aware of the project and are agreeable to the connection location. This would allow the system to discharge into FSA's existing gravity system at Manhole No. 1135. Sewerage from the system then flows to FSA's sewage pump station located along Melvin Road and is pumped to the collection/conveyance system discharging to the Telford WWTP for treatment. An evaluation of the FSA SPS must be performed to determine if capacity is available for the conveyance of the proposed flows before implementing this option. This option will serve the entire Hidden Valley neighborhood and allow for numerous additional connections in Franconia Township, plus adjacent West Rockhill Township properties. This study has identified 66 potential connections. Individual grinder pumping stations and force main service laterals would be required at each individual property to connect. Included in the Appendix of this study is a Project Cost Estimate for this sanitary sewer option. Also included in the Appendix is an Exhibit Plan illustrating the concept of this sanitary sewer option.

B. GRAVITY SEWER OPTIONS

1. Option No. 3 – Gravity Sewer with SPS and Force Main Connection in North Hamilton Street

This option proposes servicing the Hidden Valley neighborhood through a gravity sewer system and sewage pumping station. Due to the topography of the area, a sewage pumping station and force main are required for gravity sewers to serve the neighborhood. The system will serve the Hidden Valley neighborhood and adjacent properties within Franconia Township and West Rockhill Township. However, the properties served are limited due to the topography of the area. The gravity sewer system includes approximately 6,138 linear feet of 8-inch main extending throughout Circle Drive, Hidden Lane, Valley Road, County Line Road (SR 4027), and Cat Hill Road (SR 4029) within West Rockhill Township, and Hollow Road and Forrest Road (SR 2016) within Franconia Township. This study has identified 61 properties that could potentially connect into the system. Sewage collected by the proposed gravity main would discharge to a proposed sewage pump station. A potential SPS location has been identified as Tax Parcel TMP No. 52-024-008 located along the East Branch Perkiomen Creek to the north of the Hidden Valley

development. Sewage discharged to the SPS will then be pumped through a proposed force main to connection with TBA's collection sewer in North Hamilton Street. The proposed force main is approximately 7,723 linear feet in length. The force main would be located within local and state road rights-of-way. These roadways include County Line Road (SR 4027), E Church Road (SR 4035), and North Hamilton Street. The force main has been preliminarily sized at 4 inch. Discharge would occur at TBA's existing manhole located in North Hamilton Street and sewage would then be conveyed to the Penridge WWTP for treatment. Included in the Appendix of this study is a Project Cost Estimate for this sanitary sewer option. Also included in the Appendix is an Exhibit Plan illustrating the concept of this sanitary sewer option.

2. Option No. 4 – Gravity Sewer with SPS and Force Main Connection in Birch Circle

This option proposes servicing the Hidden Valley neighborhood through a gravity sewer system and a sewage pumping station. Due to the topography of the area, a sewage pumping station and force main are required for gravity sewers to serve the neighborhood. The system will serve the Hidden Valley neighborhood and adjacent properties within Franconia Township and West Rockhill Township. However, the properties served are limited due to the topography of the area. The gravity sewer system includes approximately 6,138 linear feet of 8-inch main extending throughout Circle Drive, Hidden Lane, Valley Road, County Line Road (SR 4027), and Cat Hill Road (SR 4029) within West Rockhill Township, and Hollow Road and Forrest Road (SR 2016) within Franconia Township. This study has identified 61 properties that could potentially connect into the system. Sewage collected by the proposed gravity main would discharge to a proposed sewage pumping station. A potential SPS location has been identified as Tax Parcel TMP No. 52-024-008 located along the East Branch Perkiomen Creek and to the north of the Hidden Valley development. Sewage discharged to the proposed SPS will then be pumped through a proposed force main to connection with FSA's collection sewer in Birch Circle. The proposed force main is approximately 3,639 linear feet in length. The force main would be located in local and state road rights-of-way. Additionally, the force main will extend through unimproved property owned by Franconia Township (Tax Map ID No. 340001642016). Easement and associated agreements with Franconia Township and Franconia Sewer Authority (FSA) would be required. This would allow the system to discharge into FSA's existing gravity system at manhole No. 1135. Sewerage from the system then flows to FSA's sewage pump station located along Melvin Road and is pumped to the collection/conveyance system discharging to the Telford WWTP for treatment. An evaluation of the FSA SPS must be performed to determine if capacity is available for the conveyance of the proposed flows before implementing this option. Included in the Appendix of this study is a Project Cost Estimate for this sanitary sewer option. Also included in the Appendix is an Exhibit Plan illustrating the concept of this sanitary sewer option.

SECTION III – SANITARY SERVICE OPTIONS ANALYSIS

A total of four options have been evaluated for providing sanitary sewer service to the Hidden Valley neighborhood and surrounding area. These options included two low pressure sewer systems and two gravity sewer systems. All will address the sanitary sewer needs of the Hidden Valley neighborhood as well as the properties within Franconia Township identified as having a need for public sewer service by the Township. Three of the options evaluated included wastewater treatment at the Telford Borough Wastewater Treatment Plant. One option, Option 3, involved treatment at the Penridge Wastewater Treatment Authority Plant. Both plants have sufficient capacity to handle the additional flow proposed.

As can be seen from the cost estimates prepared for each option, the options involving the installation of a LPSS by directional drilling are less costly than the gravity sewer system options. However, a LPSS will require homeowners to own, operate, and maintain individual sewage grinder pumping units. The gravity system options, although requiring a larger capital cost, will not require homeowners to own and operate individual grinder pumps. However, both the gravity sewer options will require a sewage pumping station for the conveyance of sewer flows.

The following table presents a summary of the cost for each option. This summary also presents the cost per unit for each option.

HIDDEN VALLEY SANITARY SEWER FEASIBILITY STUDY PROJECT COST ESTIMATE SUMMARY TABLE			
Service Area	Units Served	Total Project Cost Estimate	Average Cost Per Unit
<i>LOW PRESSURE SANITARY SEWER OPTIONS</i>			
1. LPSS and connection to TBA's North Lift Station	86	\$3,116,206	\$36,235
2. LPSS and connection in Birch Circle	66	\$2,380,648	\$36,070
<i>GRAVITY SEWER OPTIONS</i>			
3. Gravity Sewer with SPS and FM connection in North Hamilton Street	61	\$4,405,075	\$72,214
4. Gravity Sewer with SPS and FM connection in Birch Circle	61	\$3,480,183	\$57,052

Please note, the above costs do not include Tapping Fees. TBA's total sanitary sewer tapping fee is \$6,035 per EDU. The Capacity Component of this tapping fee is calculated to be \$2,704 per EDU and the Collection Component is calculated to be \$3,331 per EDU.

APPENDIX

**TELFORD BOROUGH AUTHORITY
 HIDDEN VALLEY SANITARY SEWER FEASIBILITY STUDY
 OPTION 1 - LPSS WITH CONNECTION TO TBA NORTH LIFT STATION
 PROJECT COST ESTIMATE**

CONSTRUCTION COST

ITEM NO.	DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
1	2" HDPE (SDR-11) Force Main (LPSS) within Township ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill of Launching and Receiving Pits	1787 LF	\$47/LF	\$83,989
2	2" HDPE (SDR-11) Force Main (LPSS) within State Highways ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill of Launching and Receiving Pits	875 LF	\$95/LF	\$83,125
3	3" HDPE (SDR-11) Force Main (LPSS) within State Highways ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill of Launching and Receiving Pits	1745 LF	\$100/LF	\$174,500
4	3" HDPE (SDR-11) Force Main (LPSS) within Township ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill of Launching and Receiving Pits	1620 LF	\$50/LF	\$81,000
5	4" HDPE (SDR-11) Force Main (LPSS) within State Highways ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill of Launching and Receiving Pits	3224 LF	\$110/LF	\$354,640
6	1-1/4" HDPE (SDR-11) Force Main (LPSS) Lateral within Unimproved Township ROW, Including Excavation and Backfill	550 LF	\$50/LF	\$27,500
7	1-1/4" HDPE (SDR-11) Force Main (LPSS) Lateral within Paved Township Roadways, Including Excavation and Backfill	550 LF	\$70/LF	\$38,500
8	1-1/4" HDPE (SDR-11) Force Main (LPSS) Lateral within Paved State Highways, Including Excavation and Backfill	525 LF	\$75/LF	\$39,375
9	1-1/4" HDPE (SDR-11) Force Main (LPSS) Lateral within Unimproved State Highway Right-of-way, Including Excavation and Backfill	525 LF	\$55/LF	\$28,875
10	Force Main Pipe Connection and Alterations to Existing Manhole	1 EA	\$5,500/EA	\$5,500
11	LPSS Lateral Assembly Kit for Individual Force Main	86 EA	\$900/EA	\$77,400
12	Lateral Connections to Forcemain	86 EA	\$1200/EA	\$103,200
13	Terminal Flushing Connection, Complete in Place	6 EA	\$7,000/EA	\$42,000
14	Intermediate Flushing Connection, Complete in Place	2 EA	\$10,000/EA	\$20,000
15	3-Way Flushing Connection, Complete in Place	5 EA	\$13,500/EA	\$67,500
16	Air Release Chamber, Complete in Place	2 EA	\$18,000/EA	\$36,000
17	Temporary Pavement Restoration	260 SY	\$20/SY	\$5,200
18	Permanent Pavement Restoration in Township Road	266 SY	\$90/SY	\$23,940
19	Permanent Pavement Restoration State Highway	165 SY	\$100/SY	\$16,500
20	Mill and Overlay State Highway	4849 SY	\$15/SY	\$72,735
21	Unimproved Area Restoration	555 SY	\$20/SY	\$11,100
22	Traffic Control	LS	LS	\$20,000
23	Erosion and Sedimentation Controls	LS	LS	\$10,000
24	Unclassified Trench Excavation Below Subgrade	50 CY	\$100/CY	\$5,000
25	Excavations as Directed by Engineer	50 CY	\$100/CY	\$5,000
26	Individual Grinder Pump System, including Installation and Modifications/Connection to Existing Building Sewer	86 EA	\$9,600/EA	\$825,600
27	1 1/4" (Sch 40) PVC Individual Force Main Lateral - Grinder Pump to Lateral Connection	86 EA	\$1,500/EA	\$129,000
28	Abandonment of OLDS	86 EA	\$1000/EA	\$86,000
CONSTRUCTION SUBTOTAL				\$2,473,179
5% CONTINGENCIES				\$123,659
TOTAL CONSTRUCTION COSTS				\$2,596,838
ENGINEERING DESIGN/PERMITTING/PREPARATION OF BID DOCUMENTS (10% OF CONSTRUCTION)				\$259,684
CONSTRUCTION MANAGEMENT AND INSPECTION (10% OF CONSTRUCTION)				\$259,684
TOTAL PROJECT COST				\$3,116,206

TELFORD BOROUGH AUTHORITY HIDDEN VALLEY SANITARY SEWER FEASIBILITY STUDY OPTION 2 - LPSS WITH CONNECTION IN BIRCH CIRCLE PROJECT COST ESTIMATE				
CONSTRUCTION COST				
ITEM NO.	DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
1	2" HDPE (SDR-11) Force Main (LPSS) within Township ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill	1787 LF	\$47/LF	\$83,989
2	3" HDPE (SDR-11) Force Main (LPSS) within Township ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill	1620 LF	\$50/LF	\$81,000
3	3" HDPE (SDR-11) Force Main (LPSS) within State Highways ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill	812 LF	\$95/LF	\$77,140
4	3" HDPE (SDR-11) Force Main (LPSS) within State Highways ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill	1947 LF	\$100/LF	\$194,700
5	4" HDPE (SDR-11) Force Main (LPSS) within State Highways ROW Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill	451 LF	\$110/LF	\$49,610
6	4" HDPE (SDR-11) Force Main (LPSS) within Unimproved Easements Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill	1050 LF	\$55/LF	\$57,750
7	1-1/4" HDPE (SDR-11) Force Main (LPSS) Lateral within Unimproved Township ROW, Including Excavation and Backfill	550 LF	\$50/LF	\$27,500
8	1-1/4" HDPE (SDR-11) Force Main (LPSS) Lateral within Paved Township Roadways, Including Excavation and Backfill	550 LF	\$70/LF	\$38,500
9	1-1/4" HDPE (SDR-11) Force Main (LPSS) Lateral within Paved State Highways, Including Excavation and Backfill	275 LF	\$75/LF	\$20,625
10	1-1/4" HDPE (SDR-11) Force Main (LPSS) Lateral within Unimproved Easement Areas, Including Excavation and Backfill	20 LF	\$40/LF	\$800
11	1-1/4" HDPE (SDR-11) Force Main (LPSS) Lateral within Unimproved State Highway Right-of-Way, Including Excavation and Backfill	275 LF	\$55/LF	\$15,125
12	Force Main Pipe Connection and Alterations to Existing Manhole	1 EA	\$5,500/EA	\$5,500
13	LPSS Lateral Assembly Kit for Individual Force Main	66 EA	\$900/EA	\$59,400
14	Lateral Connections to Forcemain	66 EA	\$1200/EA	\$79,200
15	Terminal Flushing Connection, Complete in Place	7 EA	\$7,000/EA	\$21,000
16	Intermediate Flushing Connection, Complete in Place	2 EA	\$10,000/EA	\$20,000
17	3-Way Flushing Connection, Complete in Place	6 EA	\$13,500/EA	\$81,000
18	Air Release Chamber, Complete in Place	1 EA	\$18,000/EA	\$18,000
19	Temporary Pavement Restoration	227 SY	\$20/SY	\$4,540
20	Permanent Pavement Restoration in Township Road	267 SY	\$90/SY	\$24,030
21	Permanent Pavement Restoration State Highway	144 SY	\$100/SY	\$14,400
22	Mill and Overlay State Highway	3133 SY	\$15/SY	\$46,995
23	Unimproved Area Restoration	1750 SY	\$20/SY	\$35,000
24	Traffic Control	LS	LS	\$15,000
25	Erosion and Sedimentation Controls	LS	LS	\$10,000
26	Unclassified Trench Excavation Below Subgrade	50 CY	\$100/CY	\$5,000
27	Excavations as Directed by Engineer	50 CY	\$100/CY	\$5,000
28	Individual Grinder Pump System, including Installation and Modifications/Connection to Existing Building Sewer	66 EA	\$9,600/EA	\$633,600
29	1 1/4" (Sch 40) PVC Individual Force Main Lateral - Grinder Pump to Lateral Connection	66 EA	\$1,500/EA	\$99,000
30	Abandonment of OLDS	66 EA	\$1000/EA	\$66,000
CONSTRUCTION SUBTOTAL				\$1,889,404
5% CONTINGENCIES				\$94,470
TOTAL CONSTRUCTION COSTS				\$1,983,874
ENGINEERING DESIGN/PERMITTING/PREPARATION OF BID DOCUMENTS (10% OF CONSTRUCTION)				\$198,387
CONSTRUCTION MANAGEMENT AND INSPECTION (10% OF CONSTRUCTION)				\$198,387
TOTAL PROJECT COST				\$2,380,648

**TELFORD BOROUGH AUTHORITY
 HIDDEN VALLEY SANITARY SEWER FEASIBILITY STUDY
 OPTION 3 - GRAVITY SEWER WITH SPS AND FM CONNECTION IN NORTH HAMILTON STREET
 PROJECT COST ESTIMATE**

CONSTRUCTION COST

ITEM NO.	DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
1	8" PVC Gravity Sanitary Sewer Main within Paved Township Roadways, including Excavation and Backfill	3719 LF	\$120/LF	\$446,280
2	8" PVC Gravity Sanitary Sewer Main within Paved State Highways, including Excavation and Backfill	2288 LF	\$125/LF	\$286,000
3	4" PVC Force Main within Paved Township ROW, Complete in Place, Including Excavation and Backfill	1877 LF	\$75/LF	\$140,775
4	4 " PVC Force Main within State Highway Right-of-Way Installed by Directional Drilling Method, Complete in Place, Including Excavation and Backfill	5846 LF	\$110/LF	\$643,060
5	Force Main Pipe Connection and Alterations to Existing Manhole	1 EA	\$5,500 EA	\$5,500
6	Sanitary Sewer Manhole	21 EA	\$4,500 EA	\$94,500
7	Lateral Including Tee-Wye and Cleanout for Connection to Building Sewer	61 EA	\$3,500 EA	\$213,500
8	Sewage Pumping Station and Controls, Complete	LS	LS	\$350,000
9	Temporary Pavement Replacement	3500 SY	\$20/SY	\$70,000
10	Permanent Pavement Trench Restoration in Township Road	3730 SY	\$90/SY	\$335,700
11	Permanent Pavement Trench Restoration State Highway	1540 SY	\$100/SY	\$154,000
12	1/2 Width Pavement Mill and Overlay State Highways	9530 SY	\$15/SY	\$142,950
13	1/2 Width Pavement Mill and Overlay Township Roadways	4355 SY	\$15/SY	\$65,325
14	Unimproved Area Restoration	525 SY	\$20/SY	\$10,500
15	Pavement Markings	LS	LS	\$10,000
16	Traffic Control	LS	LS	\$20,000
17	Erosion and Sedimentation Controls	LS	LS	\$10,000
18	Unclassified Trench Excavation Below Subgrade	50 CY	\$100/CY	\$5,000
19	Excavations as Directed by Engineer	50 CY	\$100/CY	\$5,000
20	Building Lateral/Sewer	61 EA	\$7,000/EA	\$427,000
21	Abandonment of OLDS	61 EA	\$1000/EA	\$61,000
CONSTRUCTION SUBTOTAL				\$3,496,090
5% CONTINGENCIES				\$174,805
TOTAL CONSTRUCTION COST				\$3,670,895
ENGINEERING DESIGN/PERMITTING/PREPARATION OF BID DOCUMENTS (10% OF CONSTRUCTION)				\$367,090
CONSTRUCTION MANAGEMENT AND INSPECTION (10% OF CONSTRUCTION)				\$367,090
TOTAL PROJECT COST				\$4,405,075

**TELFORD BOROUGH AUTHORITY
 HIDDEN VALLEY SANITARY SEWER FEASIBILITY STUDY
 OPTION 4 - GRAVITY SEWER WITH SPS AND FM CONNECTION IN BIRCH CIRCLE
 PROJECT COST ESTIMATE**

CONSTRUCTION COST

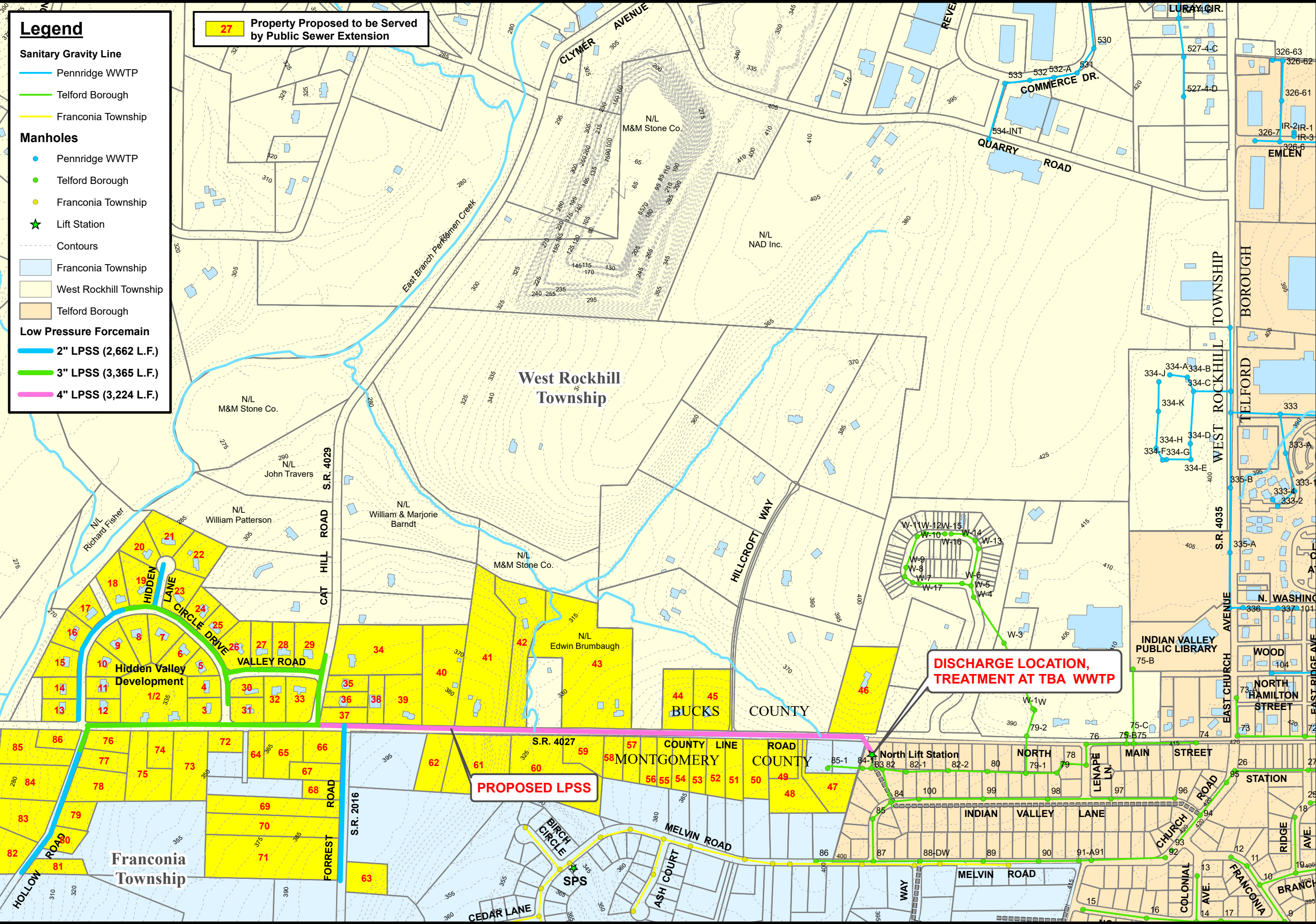
ITEM NO.	DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
1	8" PVC Gravity Sanitary Sewer Main within Paved Township Roadways, including Excavation and Backfill	3719 LF	\$120/LF	\$446,280
2	8" PVC Gravity Sanitary Sewer Main within Paved State Highways, including Excavation and Backfill	2288 LF	\$125/LF	\$286,000
3	4" PVC Force Main within Paved Township Roadways, including Excavation and Backfill	2083 LF	\$75/LF	\$156,225
4	4 " PVC Force Main within Paved State Highways, Complete in Place, including Excavation and Backfill	513 LF	\$110/LF	\$56,430
5	4 " PVC Force Main within Unimproved Easements Area, Complete in Place, including Excavation and Backfill	1043 LF	\$65/LF	\$67,795
6	Force Main Pipe Connection and Alterations to Existing Manhole	1 EA	\$5,500 EA	\$5,500
7	Sanitary Sewer Manhole	21 EA	\$4,500 EA	\$94,500
8	Lateral Including Tee-Wye and Cleanout for Connection to Building Sewer	61 EA	\$3,500 EA	\$213,500
9	Sewage Pumping Station and Controls, Complete	LS	LS	\$350,000
10	Temporary Pavement Replacement	2868 SY	\$20/SY	\$57,360
11	Permanent Pavement Trench Restoration in Township Road	2480 SY	\$90/SY	\$223,200
12	Permanent Pavement Trench Restoration State Highway Restoration	1525 SY	\$100/SY	\$152,500
13	1/2 Width Pavement Mill and Overlay State Highways	3385 SY	\$15/SY	\$50,775
14	1/2 Width Pavement Mill and Overlay Township Roadways	4135 SY	\$15/SY	\$62,025
15	Unimproved Area Restoration	348 SY	\$20/SY	\$6,960
16	Pavement Markings	LS	LS	\$10,000
17	Traffic Control	LS	LS	\$15,000
18	Erosion and Sedimentation Controls	LS	LS	\$10,000
19	Unclassified Trench Excavation Below Subgrade	50 CY	\$100/CY	\$5,000
20	Excavations as Directed by Engineer	50 CY	\$100/CY	\$5,000
21	Building Lateral/Sewer	61 EA	\$7,000/EA	\$427,000
22	Abandonment of OLDS	61 EA	\$1,000/EA	\$61,000
CONSTRUCTION SUBTOTAL				\$2,762,050
5% CONTINGENCIES				\$138,103
TOTAL CONSTRUCTION COST				\$2,900,153
ENGINEERING DESIGN/PERMITTING/PREPARATION OF BID DOCUMENTS (10% OF CONSTRUCTION)				\$290,015
CONSTRUCTION MANAGEMENT AND INSPECTION (10% OF CONSTRUCTION)				\$290,015
TOTAL PROJECT COST				\$3,480,183



OPTION No. 1 EXHIBIT - LPSS
HIDDEN VALLEY - SANITARY SEWER FEASIBILITY STUDY

500 250 0 500 1,000 Feet

1 inch = 500 feet
CKS Engineers
REF. No.5700-145



27 Property Proposed to be Served by Public Sewer Extension

- Legend**
- Sanitary Gravity Line**
 - Penridge WWTP
 - Telford Borough
 - Franconia Township
 - Manholes**
 - Penridge WWTP
 - Telford Borough
 - Franconia Township
 - Lift Station
 - Contours**
 - Low Pressure Forcemain**
 - 2" LPSS (2,662 L.F.)
 - 3" LPSS (3,365 L.F.)
 - 4" LPSS (3,224 L.F.)

PROPOSED LPSS

DISCHARGE LOCATION, TREATMENT AT TBA WWTP

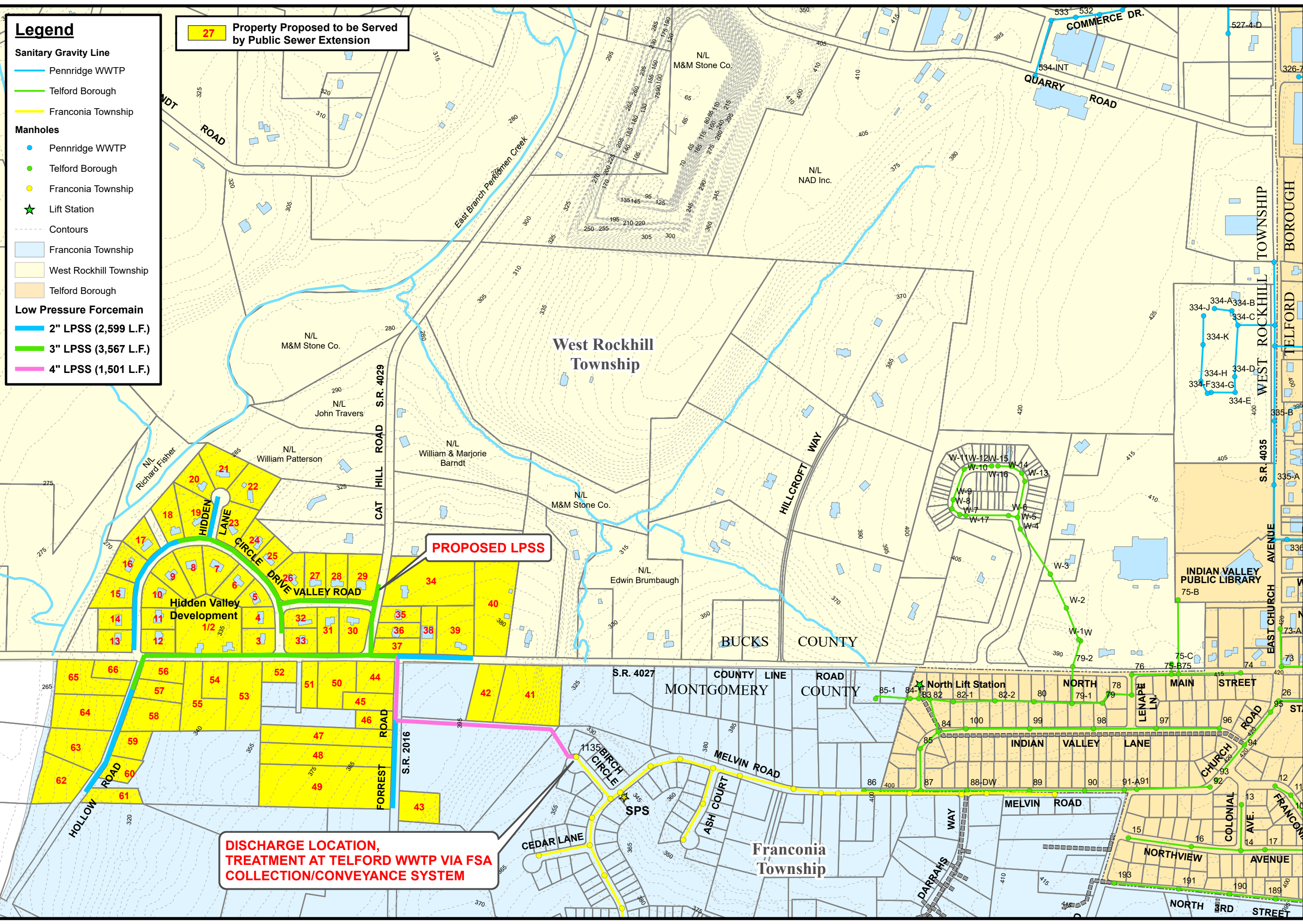
North Lift Station

SPS

Legend

- Sanitary Gravity Line**
- Pennridge WWTP
 - Telford Borough
 - Franconia Township
- Manholes**
- Pennridge WWTP
 - Telford Borough
 - Franconia Township
 - Lift Station
- Contours**
- Franconia Township
 - West Rockhill Township
 - Telford Borough
- Low Pressure Forcemain**
- 2" LPSS (2,599 L.F.)
 - 3" LPSS (3,567 L.F.)
 - 4" LPSS (1,501 L.F.)

27 Property Proposed to be Served by Public Sewer Extension



PROPOSED LPSS

DISCHARGE LOCATION, TREATMENT AT TELFORD WWTP VIA FSA COLLECTION/CONVEYANCE SYSTEM



**OPTION No. 2 EXHIBIT - LPSS
HIDDEN VALLEY - SANITARY SEWER FEASIBILITY STUDY**

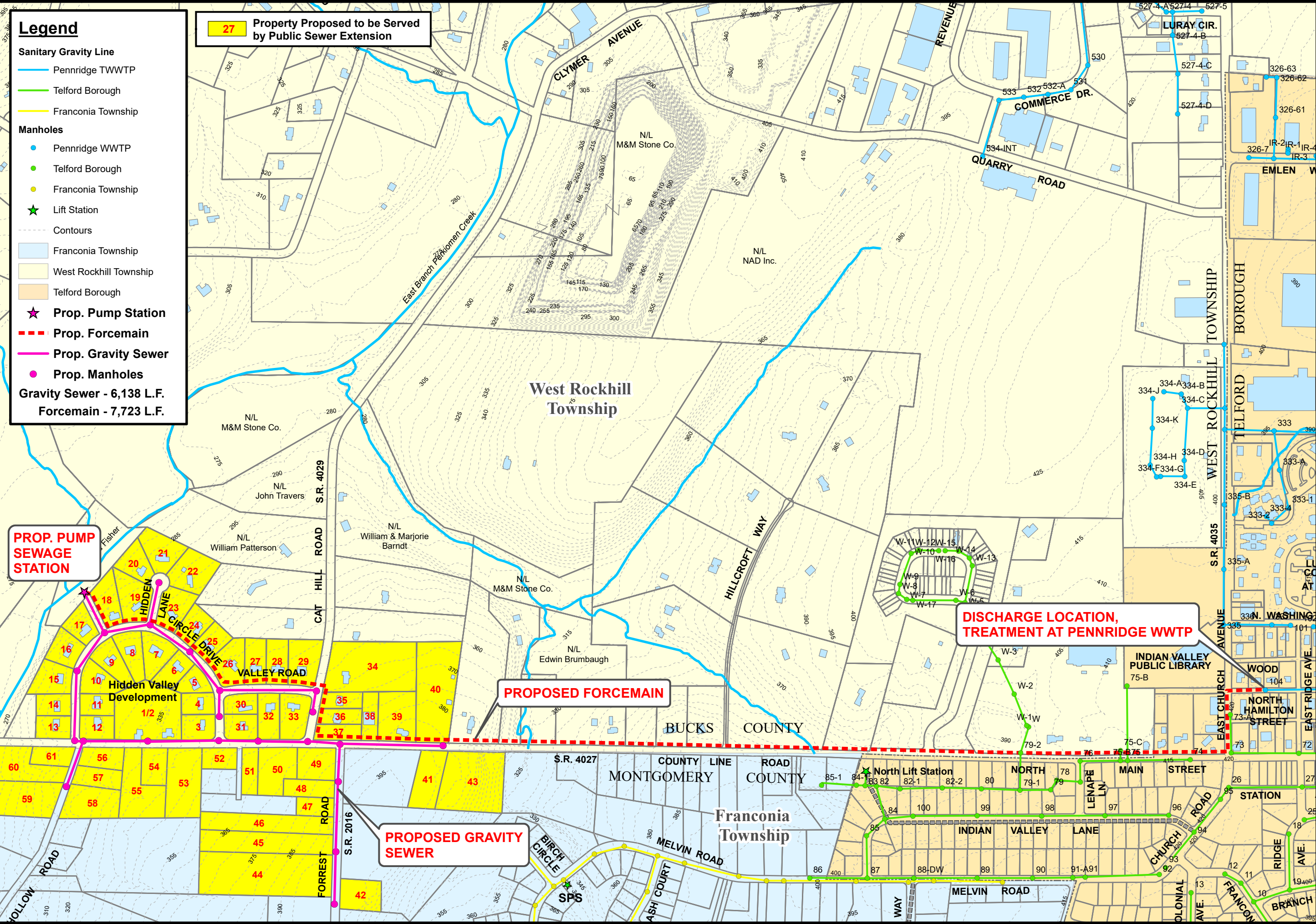
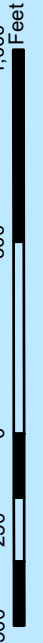


1 inch = 500 feet
CKS Engineers
REF. No.5700-145



OPTION No. 3 EXHIBIT - GRAVITY SEWER AND SPS HIDDEN VALLEY - SANITARY SEWER FEASIBILITY STUDY

1 inch = 500 feet
CKS Engineers
REF. No.5700-145



Legend

Sanitary Gravity Line

- Penridge TWWTP
- Telford Borough
- Franconia Township

Manholes

- Penridge WWTP
- Telford Borough
- Franconia Township
- Lift Station

Contours

- Franconia Township
- West Rockhill Township
- Telford Borough

- ★ Prop. Pump Station
- - - Prop. Forcemain
- Prop. Gravity Sewer
- Prop. Manholes

Gravity Sewer - 6,138 L.F.
Forcemain - 7,723 L.F.

27 Property Proposed to be Served by Public Sewer Extension

PROP. PUMP SEWAGE STATION

DISCHARGE LOCATION, TREATMENT AT PENNRIDGE WWTP

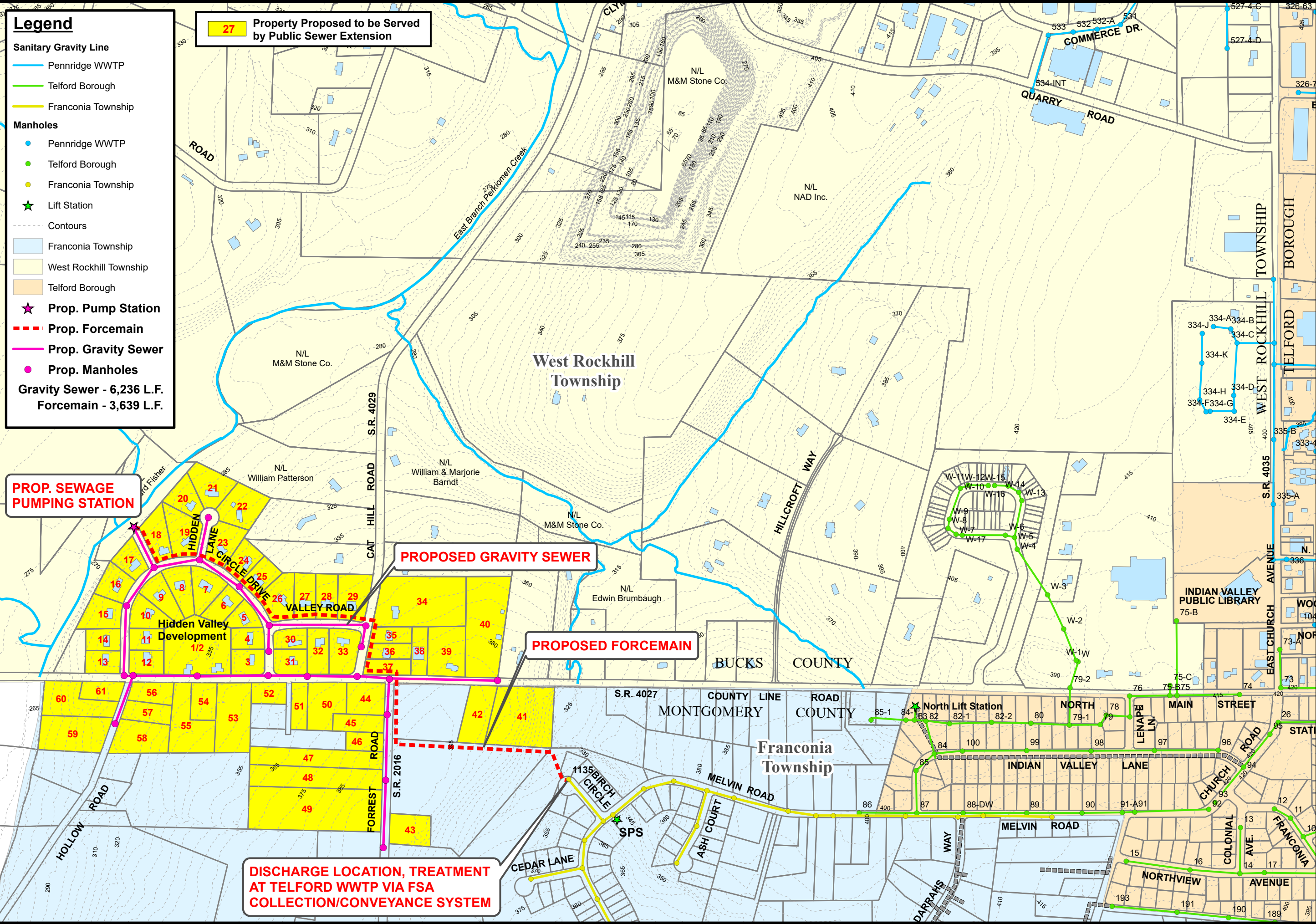
PROPOSED FORCEMAIN

PROPOSED GRAVITY SEWER



OPTION No. 4 EXHIBIT - GRAVITY SEWER AND SPS
HIDDEN VALLEY - SANITARY SEWER FEASIBILITY STUDY

1 inch = 500 feet
CKS Engineers
REF. No.5700-145



Legend

Sanitary Gravity Line

- Penridge WWTP
- Telford Borough
- Franconia Township

Manholes

- Penridge WWTP
- Telford Borough
- Franconia Township
- Lift Station

--- Contours

■ Franconia Township

■ West Rockhill Township

■ Telford Borough

★ **Prop. Pump Station**

--- **Prop. Forcemain**

— **Prop. Gravity Sewer**

● **Prop. Manholes**

Gravity Sewer - 6,236 L.F.
Forcemain - 3,639 L.F.

PROP. SEWAGE PUMPING STATION

PROPOSED GRAVITY SEWER

PROPOSED FORCEMAIN

DISCHARGE LOCATION, TREATMENT AT TELFORD WWTP VIA FSA COLLECTION/CONVEYANCE SYSTEM

27 Property Proposed to be Served by Public Sewer Extension